Supplemental Soil Investigation Report
Historical Operational Areas A, B, C, D, F, G, and H
Lockheed Martin Corporation, Beaumont Site 1
Beaumont, California



Prepared for:

LOCKHEED MARTIN

TETRA TECH

348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408

TC# 19967-05 / February 2009

Lockheed Martin Corporation, Shared Services
Energy, Environment, Safety and Health
2950 North Hollywood Way, Suite 125 Burbank, CA 91505
Telephone: 818.847.0197 Facsimile: 818.847.0256

LOCKHEED MARTIN

February 24, 2009

Dan Zogaib
Southern California Cleanup Operations
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Subject: *"Supplemental Soil Investigation Report, Historical Operational Areas A through H, Lockheed Martin, Beaumont Site 1, Beaumont, California"*

Dear Mr. Zogaib:

Please find enclosed two hard copies and two Adobe pdf files of the final "*Supplemental Soil Investigation Report, Historical Operational Areas A through H"* for Beaumont Site 1. The bound report includes hard copy of all the text, figures, and tables; the remaining appendices are included in their entirety electronically on the compact disk in the back of the report.

If you have any questions regarding this submittal, please contact me at 408.756.9595 or denise.kato@lmco.com.

Sincerely,

Denise Kato
Remediation Analyst Senior Staff

Enclosures

Copy with Enc:
Beaumont Library (1 pdf)
Gene Matsushita, LMC (1 pdf and 1 hard copy)
John Eisenbeis, Camp, Dresser, McKee (1 pdf)
Thomas J. Villeneuve, Tetra Tech, Inc. (1 pdf and 1 hard copy)

RESPONSES TO COMMENTS ON SUPPLEMENTAL SOIL INVESTIGATION REPORT, HISTORICAL OPERATIONAL AREAS A THROUGH H, LOCKHEED MARTIN, BEAUMONT SITE 1, BEAUMONT, CALIFORNIA
TETRA TECH, INC
SEPTEMBER 2008

General Comments		
Comment	**Response**	**Proposed Action**
1. This report should be stamped, signed, and dated by a California licensed professional (geologist or civil engineer). An appropriate sized Professional Geologist stamp (no less than 1-1/2 inches), for example, should be included in the report according to page 17 of the Geologist and Geophysical Act with Rules and Regulations dated 2007 http://www.geology.ca.gov/laws/act.pdf.	The requested correction will be made.	The final report will be stamped by a licensed professional geologist according to the Geologist and Geophysical Act requirements.
2. Figures: All figures should be printed with usable, common engineering scales .The page scaling on the print preferences may need adjustment. Additionally, all cross-sections should depict cross-section intersections and these intersections should be identical on both figures (e.g. Figures 4-11/4-12 and Figures 4-65/4-66: intersections at B11-HSAS25 and H40-HSAS10 are not identical, respectively).	The figures in the Supplemental Soil Investigation Report were scaled individually to maximize the areas and data being presented and reduce white space. Tetra Tech is aware that common engineering scales can be helpful to the reader. ,However, due to the number of figures and the level of effort required to make these changes to this report and since the data presented in this report is currently being revised as part of the Dynamic Work Plan Investigation, no changes are recommended at this time. For future documents, Tetra Tech will standardize scales to common engineering scales where possible, as requested.	No change to the document is proposed. Tetra Tech will standardize the scales and labels on figures submitted to DTSC on future documents.
3. Areas such as burn pits (Area C) and landfills (Area H) on site should be tested for NDMA and formaldehyde as they are potential indicators of hydrazine being used during former operations at the Site. These areas should also be investigated for dioxins and furans.	Hydrazine has never been reported used at the Site. The burn pits (Area C) were located, excavated and removed in 1993. Based on the RI report from Radian and the subsequent reports by Tetra Tech, no samples have been	No change to the document is proposed. Tetra Tech will incorporate testing for NDMA and formaldehyde in the sampling of the Sanitary (H-49) or Burn Pit (C-22) landfills

General Comments		
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	analyzed for NDMA, formaldehyde, dioxins or furans at the Sanitary or Burn Pit landfills. If burned material is encountered during the drilling and sampling of the Sanitary (H-49) or Burn Pit (C-22) landfills during the Dynamic Investigation, samples will be collected and analyzed for dioxins and furans to evaluate the presence or absence of these compounds. NDMA, formaldehyde, and ammonia will not be analyzed for since there is no history of liquid propellant (hydrazine) being used at Site 1, only solid rocket propellant, which does not contain hydrazine.	proposed during the dynamic site investigation. In addition, if burned material is encountered during the drilling and sampling of the Sanitary (H-49) or Burn Pit (C-22) landfills, samples will be collected and analyzed for dioxins and furans.
4. Low level radiation waste was buried and subsequently excavated at Area E. The type of radio isotopes and their use location should be identified and explained. Then, screening and subsequent investigation should take place in those specified areas including potential migration pathways such as groundwater. Areas C and H should not be excluded from radiation waste screening.	According to historical documents, a small amount of low-level radioactive material in glass containers was buried in one of the canyons southeast of the Betatron building. The material was reportedly water or solvents used to wipe down the counters during the cleanup of the Lockheed Propulsion Company (LPC) Redlands chemistry lab, where small quantities of weak beta radiation emitters (carbon-14, sulfur-35, and tritium) were used as tracer compounds in the solid rocket propellant (Radian, 1990). When the laboratory was dismantled, this tracer	No change to the document is proposed.

General Comments		
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	material was collected and sent to a proper radioactive waste disposal site. The cleaning liquids used to wipe down the laboratory counters were placed in glass jars and buried at the Beaumont facility (Radian, 1990). The location of the buried waste was identified and excavated in 1989 along with approximately one-half cubic yard of soil surrounding the buried material. The excavation was widened and deepened until native material was encountered on all sides (Radian, 1990.) All of the waste reportedly buried at the site was accounted for and was removed for analysis. Soil samples collected at the burial site did not indicate measurable concentrations of radioactivity above naturally occurring levels. No further soil sampling is proposed for this area. However, groundwater samples collected from a monitoring well downgradient of the burial site has been analyzed for radioisotopes to determine if they are above background concentrations. Results from this sampling effort will be documented in the 1st and 2nd Quarter 1008 Site 1 Semi Annual Groundwater Monitoring	

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	Report. No radiation screening is currently planned for Areas C and H since there is no indication that radioactive materials were used on site or were disposed of in these Areas.	
5. Drainages on site typically collect and capture site contaminants. Sufficient sediment samples should be collected far enough downstream to ensure contaminants are not migrating offsite.	Sediment sampling in the major drainages was conducted in 2007. Samples were collected far enough downstream towards the property boundary to ensure contaminants are not migrating offsite. Routine surface water sample collection is also conducted on a semiannual basis and once a year during a heavy rain event as part of the ongoing groundwater monitoring program.	No change to the document is proposed.
6. Standard Operating Procedures (SOPs) for sampling activities should be provided as appendices or referenced from another document.	Standard Operating Procedures (SOPs) for sampling activities are normally included in work plans and not included in investigation reports which document sampling results. Approved SOPs are documented in the Quality Assurance Project Plan in Appendix A of the Lockheed Martin Beaumont Site 1 and 2 Soil Investigation Work Plan (dated October 31, 2003), the Groundwater Sampling and Analysis Plan, Lockheed Martin Corporation, Beaumont Site 2, (dated May 2007),	No change to the document is proposed.

General Comments		
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	and in the Groundwater Monitoring Well Installation Work Plan, Lockheed Martin Corporation, Beaumont Site 2 (dated April 2006). Please refer to these documents for the standard sampling procedures which were used for this for soil investigation.	

Specific Comments		
Comment	**Response**	**Proposed Action**
1. Page 1-9: It should be specified what types of VOCs were at concentrations of 72 micrograms per liter (µg/L) and 170 µg/L.	TCE was detected at a concentration of 72 µg/L in the upper pond and 170 µg/L in well OW 2 located 500 feet east of the upper pond.	This section will be revised to include the specific VOCs referred to in this section which summarizes the 1990 Radian report.

Specific Comments		
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2. Page 1-11: It should be specified what types of VOCs and SVOCs were detected at concentrations ranging up to 700 micrograms per kilogram (µg/kg) and 4.5 mg/kg, respectively	The purpose of this section (1.2 Previous Investigations) is to summarize the previous investigations which took place at the Site but not to provide the specific details and results of each investigation. Please refer to the referenced document for specific results from this investigation including a list of the VOCs and SVOCs detected. Over 595 soil, soil gas, and groundwater samples were collected during this investigation. Fourteen VOCs and seven SVOCs were detected in soil. Ethanol (VOC) was detected at 700 µg/kg and bis-2-ethyl hexyl phthalate (SVOC) was detected at 4.5 mg/kg.	No change to the document is proposed.

Specific Comments		
Comment	**Response**	**Proposed Action**
3. Page 1-12: It should be specified what type of VOC ranged up to 958 mg/kg.	The purpose of this section (1.2 Previous Investigations) is to summarize the previous investigations which took place at the Site but not to provide the specific details and results of each investigation. Please refer to the referenced document for specific results from this investigation including a list of the VOCs and SVOCs detected. Over 595 soil, soil gas, and groundwater samples were collected during this investigation. Fourteen VOCs and seven SVOCs were detected in soil. Acetone (VOC) was detected at 920 **µg/kg**.	No change to the document is proposed.

Specific Comments		
Comment	**Response**	**Proposed Action**
4. Table 1-1, Historical Operational Area F-33: GSU does not agree that "acetone, benzene, and toluene concentrations are associated with laboratory cross-contamination," These VOCs are also possible chemicals related to site activities. Proof of laboratory cross-contamination should be provided.	Acetone, benzene, and toluene concentrations detected in samples collected in the past may be associated with field or laboratory cross contamination. The random distribution of trace levels of these compounds in past samples does not suggest a source of these compounds at the site. The levels at which they are detected and the discontinuous nature of the hits that are observed in any single borehole suggest a source of contamination associated with running a gasoline or diesel engine with exhaust over the sample preparation area. The concentrations of these analytes (1 to 24 µg/mg) are too low to be indicative of a spill or release. Proof of either field or cross contamination is not available but the frequency and randomness of the analytes detected indicates that these analytes are most likely not site COPCs.	No change to the document is proposed.
5. Section 3.1.3, Page 3-4: DTSC recommends the use of Teflon tubing, not polyethylene because the latter has the propensity to adsorb VOCs and impregnate the tubing wells giving a false low result concentration. If Teflon was used instead of polyethylene, this section and Figure 3-2 should be revised accordingly.	The soil gas points were constructed in accordance with the 2003 DTSC Guidance and the approved work plan. Teflon tubing was not used for the soil gas sampling probes.	No change to the document is proposed.

Specific Comments		
Comment	**Response**	**Proposed Action**
6. Table 3-2: If survey results are available, they should be included on this table.	Survey coordinates are available and will be added to Table 3-2.	Table 3-2 will be updated to include survey coordinates for the wells.
7. Section 3.4: The section should include the purpose for percolation testing.	The purpose of the percolation testing was to evaluate possible remedial alternatives for the Burn Pit Landfill Area which may include the application of donor through direct infiltration from the surface, trenches, or injection wells. Percolation testing will help to evaluate the feasibility of this remedial alternative and specifically the most appropriate application method.	Section 3.4 will be revised to include the purpose for the percolation test.
8. Figures 4-3, 4-4, 4-11, 4-12, 4-20, and 4-26: The Mt. Eden Formation should be excluded from the legend as it is not depicted in the figure.	The requested correction will be made.	The Mt. Eden Formation will be excluded from the legends in Figures 4-3, 4-4, 4-11, 4-12, 4-20, and 4-26.
9. Table 4-4: The acronyms MCL and DWNL should be defined in the notes at the bottom of the page.	The requested correction will be made.	The acronyms MCL and DWNL will be defined in the notes at the bottom of the page for Table 4-4.
10. Table 4-6: The acronym CHHSL should be defined in the notes at the bottom of the page.	The requested correction will be made.	The acronym CHHSL will be defined in the notes at the bottom of the page for Table 4-6.
11. Figures 4-18 and 4-19: The features on the figures should be better defined with either a boundary (Pad with Dry Well) or an arrow leader (55-gallon drum).	The requested correction will be made.	The features on Figures 4-18 and 4-19 will be defined with either a boundary (Pad with Dry Well) or an arrow leader (55-gallon drum).

Specific Comments		
Comment	**Response**	**Proposed Action**
12. Figure 4-41: The monitoring well screen should be defined in the legend.	The requested correction will be made.	The monitoring well screen will be defined in the legend.
13. Figure 4-54: F-39-HSAS3 should be included in this figure and should match the intersection on Figure 4-55.	The requested correction will be made.	F-39-HSAS3 will be included in Figure 4-54 and will match the intersection on Figure 4-55

TETRA TECH

Supplemental Soil Investigation Report
Historical Operational Areas A, B, C, D, F, G and H
Lockheed Martin Corporation, Beaumont Site 1
Beaumont, California

February 2009
TC 19967-05

Prepared for
Lockheed Martin Corporation
Burbank, California

Prepared by
Tetra Tech, Inc.

PROFESSIONAL GEOLOGIST
BENJAMIN MICHAEL WEINK
No. 8037
Exp. 3.31.09
STATE OF CALIFORNIA

Benjamin M. Weink, P.G.
Project Geologist

Thomas J. Villeneuve, P.E.
Program Manager

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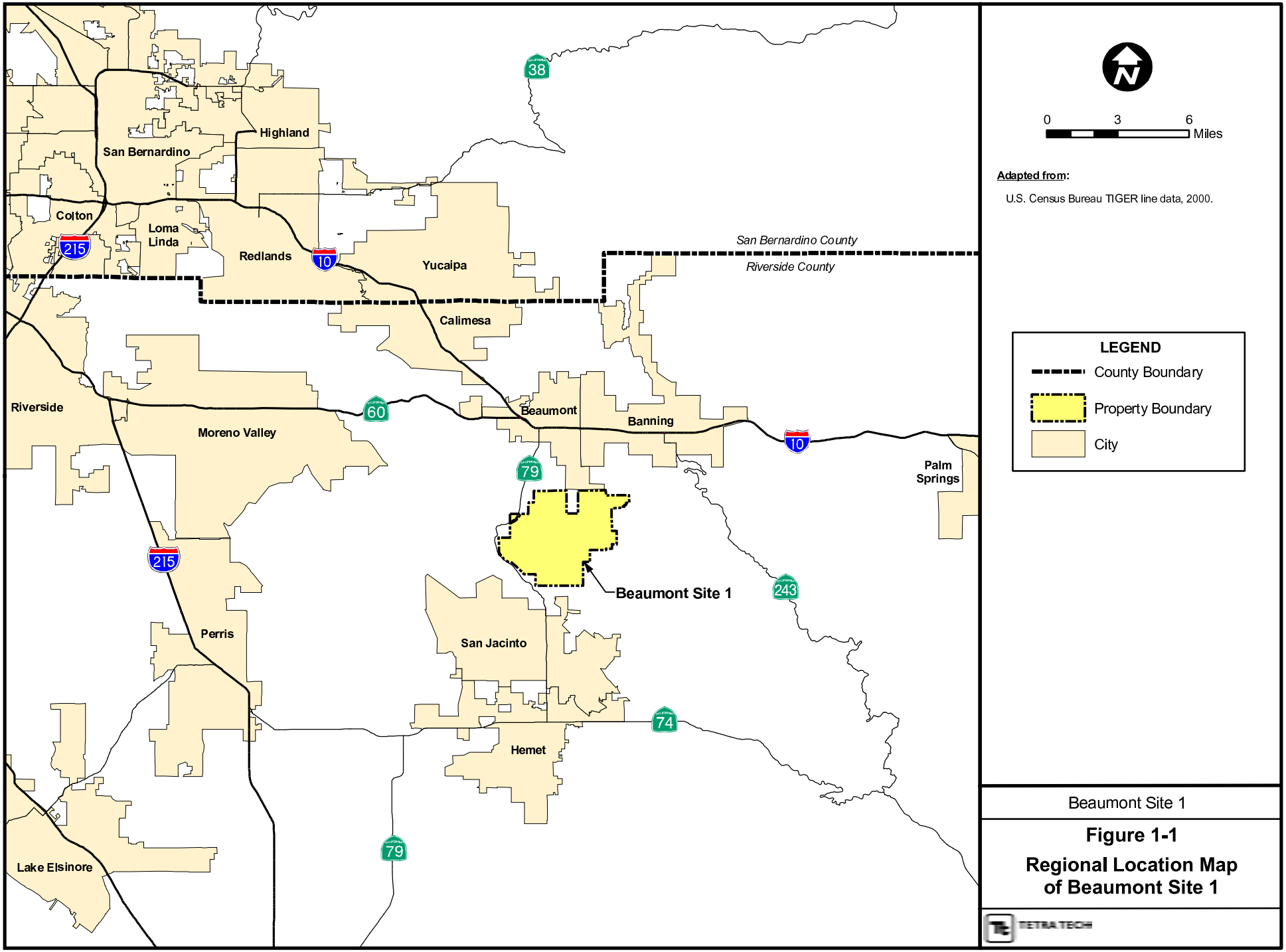
1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) has prepared this *Supplemental Site Investigation Report* (Report) on behalf of Lockheed Martin Corporation (LMC) for Areas A, B, C, D, F, G, and H of the Beaumont Potrero Creek facility (hereafter referred to as the "Site"). The Site is located approximately 85 miles east of Los Angeles in the City of Beaumont, within Riverside County, California, as shown on Figure 1-1. The subsurface investigation was performed in accordance with the Consent Order issued to LMC in June 1989 by the California Department of Toxic Substances Control (DTSC). The Consent Order required that LMC investigate and appropriately remediate any releases or threatened releases of hazardous substances to the air, soil, surface water, and groundwater at or from the Site. The State of California owns 8,552 acres of the Site and LMC has retained an easement for the remaining 565 acres referred to as the conservation easement.

The subsurface soil investigation in Historical Operational Areas A, B, C, D, F, G, and H at the Site are follow-up activities to investigations conducted between September and November 2004 (Tetra Tech; 2005a, 2005b). No further investigation of Historical Operational Area E or features 50 and 51 in Historical Operational I were proposed (Tetra Tech, 2006a) and therefore this supplemental investigation only addresses areas A, B, C, D, F, G, and H. This phase of the investigation was conducted utilizing surface and subsurface soil sampling, soil gas probe installation and sampling, well installation and groundwater sampling, geophysical surveying, and percolation testing.

The objectives of this Report are to:

- Summarize the results of the previous investigations;
- Present the current conceptual site model (CSM);
- Describe the surface and subsurface soil borings, soil gas probe installations, and soil and soil gas sampling activities conducted as part of this supplemental investigation;
- Describe the well installation, development, and groundwater sampling activities conducted as part of this supplemental investigation;
- Analyze and evaluate the supplemental soil, soil-gas, groundwater, and geophysical data collected with respect to each feature investigated along with the previous results; and
- Assess the nature, magnitude, and extent of affected soil or groundwater at each feature investigated.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San Bernardino
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Loma Linda
215
Redlands
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Yucaipa
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Moreno Valley
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Banning
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Palm Springs
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Beaumont Site 1
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Perris
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74
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Adapted from:
U.S. Census Bureau TIGER line data, 2000.
LEGEND
County Boundary
Property Boundary
City
Beaumont Site 1
Figure 1-1
Regional Location Map of Beaumont Site 1
TETRA TECH

The information from this supplemental subsurface soil investigation will serve as a guide to determine if any further work is needed in Historical Operational Areas A, B, C, D, F, G, and H at the Site.

This section of the Report provides a brief overview of the document and a summary of historical operations, chemical usage, and the previous environmental investigations conducted at Historical Operational Areas A, B, C, D, E, F, G, H, and I. The remainder of this Report is organized as follows.

- Section 2 – Conceptual Site Model: This section provides a description of the physical, geologic, and hydrogeologic setting along with the distribution of affected groundwater based on historical information and data collected during previous investigations.

- Section 3 – Technical Approach: This section provides a description of the activities conducted as part of the supplemental site investigation. The information presented includes a list of each feature assessed, the rationale for assessment, and the soil boring and soil gas (and groundwater, if applicable) sampling locations, and analytical scheme.

- Section 4 –Investigation Results: This section provides a description of the results of supplemental site investigation by individual feature within the seven historical operational areas (A, B, C, D, F, G, and H). The information presented includes a brief summary of the previous of investigations of each feature assessed, recent analytical results, description of the nature, magnitude, and extent of impacts; and deviations from the work plans (if applicable).

- Section 5 – Summary and Conclusions: This section summarizes the results of the site investigation and conclusions regarding each of the features assessed.

- Section 6 – References: This section provides a list of documents referenced in this Report

- Section 7 - Acronyms: This section provides a list of acronyms used in this Report.

1.1 SITE BACKGROUND

The Site is a 9,117-acre parcel located south of the City of Banning, California (Figure 1-1). The Site was primarily used for ranching prior to 1960. From 1960 to 1974, the Site was used by Lockheed Propulsion Company (LPC) for solid rocket motor and ballistics testing (Tetra Tech, 2003a). Activities at the Site also included burning of process chemicals and waste rocket propellants in an area commonly referred to as the burn pit area (BPA).

Nine primary former operational areas have been identified at the Site. A Site historical operational areas and features map is presented as Figure 1-2. Each historical operational area was responsible for various activities associated with rocket motor assembly, testing, and propellant incineration. A brief description of each historical operational area follows.

Historical Operational Area A – Eastern Aerojet Range

Between 1970 and 1972, Aerojet leased an area along the eastern (referred to as the Eastern Aerojet Range) portion of the Site. The Eastern Aerojet Range was used periodically for research and development experimentation on several types of rounds for long-range 30 millimeter (mm) gauge weapons. Avanti, a highly classified project, utilized the land directly east of the Eastern Aerojet Range including several U-shaped revetments for the storage of explosive materials and motors. Due to its highly classified status, the purpose of the Avanti project and its operational procedures are unknown [Radian Corporation (Radian), 1986a].

Historical Operational Area B – Rocket Motor Production Area

The Rocket Motor Production Area (RMPA), also known as the Propellant Mixing Area, was used for the processing and mixing of rocket motor solid propellants. The rocket motor production process consisted of: 1) fuel slurry station, 2) mixing station, and 3) cast and curing station.

If a defect was found in the solid propellant mix, the rocket motor was scrapped. The solid propellant was removed from the casings by water jetting at the motor washout located south of the mixing station (Radian, 1986a).

In 1973, an area east of the mixing station, known as the blue motor burn pit, was utilized for the destruction of four motors, which included a motor with "Maloy blue" solid propellant (Radian, 1986a).

Historical Operational Area C – Burn Pit Area

The BPA consisted of three primary features: 1) chemical storage area, 2) burn pits, and 3) the beryllium test stand. Hazardous waste materials generated at the Site were stored in 55-gallon drums on a concrete pad east of the burn pits at the chemical storage area until enough material was generated for a burning event. The hazardous materials incinerated in the pits included: ammonium perchlorate, wet propellant from motor washout, dry propellant, batches of out-of-specification propellant, various kinds of adhesives, resin curatives such as polybutadiene acrylonitrile/acrylic acid copolymer, burn rate modifiers such as ferrocene, pyrotechnic and ignition components, packaging materials (e.g., metal drums, plastic bags, and paper drums), and solvents (Radian, 1986a).

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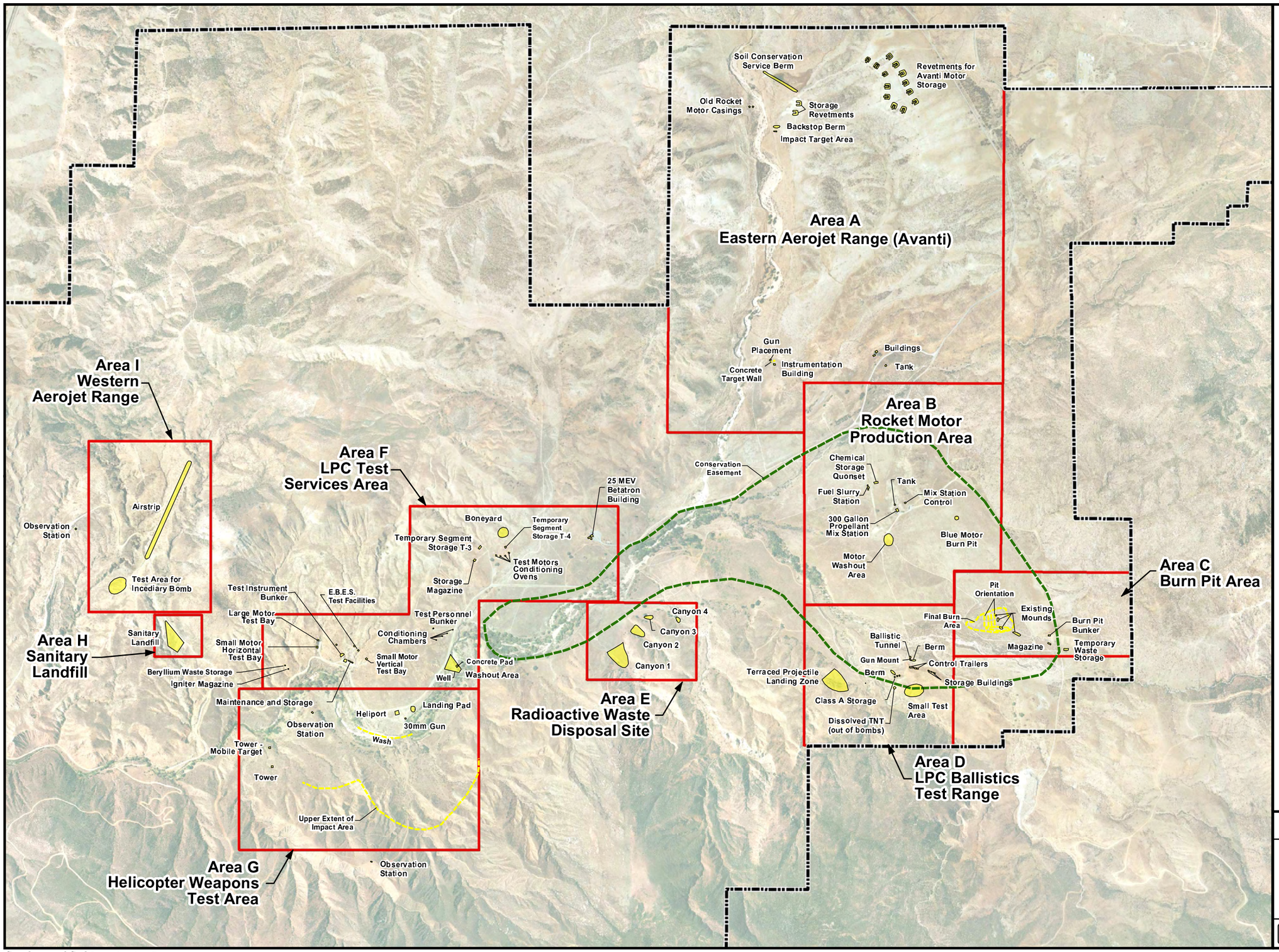

0 1,000 2,000 3,000 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Beaumont Site 1 Property Boundary
- Historical Operational Area Boundary
- Conservation Easement

Notes: Beaumont Site 1 property boundary is approximate.

Beaumont Site 1

Figure 1-2
Historical Operational Areas, Site Features, and Conservation Easement

TETRA TECH

On the south side of the spur, where the burn pit instrumentation bunker was located, there was a one-time firing of small beryllium research motors (Radian, 1986a).

Historical Operational Area D – LPC Ballistics Test Range

The LPC Ballistics Test Range facilities included gun mounts, a ballistic tunnel, and storage buildings and trailers. Guns were tested by firing through the tunnel toward a terraced hill. Live rounds were not used although projectiles were often specially shaped and weighted to simulate actual live rounds. Another major project conducted in this area was experimentation on a rocket-assisted projectile to test penetration capability. Additional experiments included impact testing of various motors and pieces of equipment (Radian, 1986a).

Class A explosives were reportedly stored in two or three10-foot by 10-foot buildings located behind a berm. A small canyon behind the hill to the south of the former storage buildings was used as a small test area for incendiary bombs. An incendiary bomb was detonated in the center of drums containing various types of fuel (e.g., jet fuel, gasoline, and diesel) set in circles of different radii to observe shrapnel and penetration patterns. At a small area near the bend in the road, acetone was used to dissolve 2,4,6-trinitrotoluene (TNT) out of projectiles before they were fired (Radian, 1986a).

Historical Operational Area E – Radioactive Waste Disposal Site

During 1971, low-level radioactive waste was buried in one of four canyons southeast of the LPC test services area as reported by former Site employees. In 1990, the radioactive waste was located and removed. The analytical results included detected concentrations that were within the range of naturally occurring concentrations (Radian, 1990).

Historical Operational Area F – LPC Test Services Area

The LPC Test Services Area included the following features: 1) three bays for structural load tests, 2) a 13 foot-diameter spherical pressure vessel, 3) six temperature conditioning chambers, 4) five environmental chambers, 5) a 25 million electron volt (MeV) Betatron for emitting X-rays into large structures, 6) personnel and instrumentation protection bunkers, and 7) supporting work shops and storage areas (Radian, 1986a).

If defects were identified during the integrity and environmental testing activities, the rocket motors were taken to a secondary washout area located south of the conditioning chambers adjacent to Potrero Creek (Radian, 1986a).

Rocket motor structural load testing under static and captive firing conditions occurred at the LPC test bays. During several of the initial tests conducted at Bay 309, the readied motor exploded instead of firing (Radian, 1986a).

Historical Operational Area G – Helicopter Weapons Test Area

The helicopter weapons test area was used to develop equipment for handling helicopter weapons systems. The facilities within this area included a hangar (Building 302), a helicopter landing pad, stationary ground mounted gun platforms, and a mobile target suspended between towers. The primary purpose of this test area was to test both stationary guns and guns mounted on helicopters. Experimentation also was performed on the solid propellant portion of an armor-piercing round. The majority of rounds were fired into the side of the creek wash, about 100 yards to the south of the hanger. A longer impact area labeled with distance markers was located in the canyon to the south of the wash. Reportedly, projectiles were steel only; warheads were not used during tests at this facility (Tetra Tech, 2003a).

Historical Operational Area H – Sanitary Landfill

A permitted sanitary landfill was located along the western side of the Site. The permit for the landfill allowed LPC to dispose of trash such as paper, scrap metal, concrete, and wood generated during routine daily operations. Lockheed policy strictly dictated that hazardous materials were not to be disposed of at this landfill. The trenches were later covered and leveled, with only an occasional tire, metal scrap, or piece of wood remaining on the surface (Tetra Tech, 2003a).

Historical Operational Area I – Western Aerojet Range

Between 1970 and 1972, Aerojet leased an area along the western (referred to as the Western Aerojet Range) portion of the Site. LPC conducted an incendiary test with a 500-pound bomb at the southwest end of the Western Aerojet Range. This test was reportedly similar to testing performed at the LPC Ballistics Test Area. The Western Aerojet Range was originally leveled to be used as an airstrip (Radian, 1986a). Based on employee interviews, the airstrip may have been used only on one occasion (Tetra Tech, 2003a).

Post LPC and Aerojet Facility Usage

LMC leased portions of the Site to several outside parties for use in various activities (Radian, 1986a; Tetra Tech, 2003a). The International Union of Operating Engineers (IUOE) utilized the Site from 1971 through 1991 for surveying and heavy equipment training. The main office of the IUOE was formerly

located within Bunker 304 of Historical Operational Area F (LPC Test Services Area). The IUOE earth-moving activities involved maintaining roads and reshaping various parts of the Site, primarily within Historical Operational Areas F and G.

On several occasions, General Dynamics utilized Historical Operational Area B (RMPA) for testing activities. In 1983 and 1984, General Dynamics conducted weapons testing of a Viper Bazooka and Phalanx Gatling gun (Radian, 1986a).

Structural Composites used the steep terrain of the Site for vehicle rollover tests on a number of occasions. Structural composites also conducted heat and puncture tests on pressurized fiberglass and plastic reinforced cylinders. The tests involved shooting a single 30-caliber round at the cylinders and recording the result (Radian, 1986a).

1.2 PREVIOUS INVESTIGATIONS

The following section provides a brief discussion of previous investigations that have been conducted and a brief regulatory history of the Site.

In September 1986, Radian performed a detailed review of the Site history. This investigation described the historical industrial activity at the Site and proposed a method of scientific investigation to allow the nature and extent of environmental impacts to be defined. Much of the Site history was obtained through interviews of employees of LMC, who had formerly conducted work at the Site (Radian, 1986a).

In December 1986, Radian released the *Preliminary Remedial Investigation Report* of the Site, which included the sampling of nine groundwater wells in October 1986. Chlorinated hydrocarbons, including 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), 1,1,1-trichloroethane (1,1,1-TCA), and trichloroethene (TCE) had been detected in the groundwater, and comprised the major portion of the analytes found at the Site. It was determined at this time that the affected groundwater extended northwest of the former BPA and former RMPA. The results of this preliminary groundwater study confirmed the conclusions of the Site history investigation that identified these two areas as the primary potential sources of affected groundwater. The report recommended further characterization. During this investigation, a geophysical investigation was conducted to better define the extent of the former BPA trenches (Radian, 1986b).

In June 1989, the California Department of Public Health (DPH, formerly California Department of Health Services) issued a Consent Order directing a Remedial Investigation and Feasibility Study of the Site.

Radian conducted a field investigation and produced a report titled *Lockheed Propulsion Company, Beaumont Test Facilities, Source and Hydrogeologic Investigation* in February 1990. This report summarized the field investigation performed in late 1989. Radian conducted a hydrogeologic investigation consisting of a soil vapor investigation and installation of 19 monitoring wells in order to identify the magnitude and extent of surface and subsurface impacts. This analysis indicated that there was a narrow, well-defined groundwater plume of volatile organic compounds (VOCs) limited to the upper alluvial aquifer, originating in the former BPA and former RMPA and extending approximately 2 miles downgradient. Trenching activities in the former BPA were conducted in order to determine the location and alignments of the burn pits, characterize the burn pit waste, and collect samples of waste and surrounding soils for chemical analysis. This investigation resulted in the confirmation of 14 burn pit locations, and chemical analysis indicated that burn pit wastes contain VOCs and semi-volatile organic compounds (SVOCs). Approximately 60 soil vapor samples were collected in and around the former BPA and the former RMPA. Interpretation of soil vapor data indicated that there was a well-defined soil vapor plume originating from the former BPA and the former RMPA, and that the primary source for soil vapor and affected groundwater was derived from the former BPA with the former RMPA as a secondary source of analytes (Radian, 1990).

Surface water was also investigated by Radian, and it was reported that a body of surface water referred to as the "upper pond" had TCE concentrations of 72 micrograms per liter (µg/L) in the upper pond. During the same time period, well OW 2, located 500 feet east of the upper pond, had TCE concentrations of 170 µg/L. Also, during the same time period a "lower pond" was sampled and analyzed for VOCs. No VOCs were reported in the samples collected from the lower pond (Radian, 1990).

Radian submitted a Treatability Study to LMC in February 1992, which presented the test results of the investigation conducted from March to May 1991 at the Site. During this study, the hydrogeologic parameters of the aquifers were investigated, and five pilot-scale treatment technologies were tested to determine their ability to extract and treat the soil vapor and affected groundwater at the Site. It was concluded that the clean up strategy would comprise a dual phase VOC extraction within the BPA, and included a catalytic oxidation unit with liquid phase granular activated carbon. Within the RMPA a groundwater pump and treat system was constructed, and included two groundwater extraction wells connected to an air stripping column with vapor phase granular activated carbon (Radian, 1992a).

In August 1992, Radian submitted a *Burn Pit Remediation Work Plan* to LMC summarizing the results of the remedial investigations at the Site. This plan also describes the remedial action strategy to mitigate and control soil and groundwater impacts at the Site. This document provided an overview of the

recommended burn pit removal action, and proposed soil and groundwater extraction and treatment systems (Radian, 1992b).

In June 1993, Radian submitted the *Burn Pit Area Removal Action Report*, which provides details of the removal action performed from November 1992 through February 1993 at the BPA. Using excavation equipment the soil and waste debris was removed from the burn pits and transported to an appropriate approved off-site disposal facility. During the three-month removal action, 21 burn pits were excavated. Sixteen of these burn pits were known to exist from previous historical reports and previous trenching activities, and five additional burn pits were discovered during these excavation activities. At the completion of excavation and waste disposal activities, the site was restored to its near original condition (Radian, 1993).

In June of 1994, LMC and DTSC entered into a Final Operation and Maintenance (O&M) Agreement. This agreement implemented the remediation and O&M Plan, and allowed LMC to operate and maintain the water and soil vapor treatment systems at the Site.

In September 1998, Radian submitted a report titled *Final Lockheed Martin Beaumont Burn Pit Area Remediation System Evaluation* which discussed the feasibility of shutting down the soil vapor extraction (SVE) system located in the former BPA. This report concluded that each of the Regional Water Quality Control Board's performance criteria had been met, and soil vapor concentrations have been reduced by more than 99.6 percent (%), so continued vapor extraction was not considered efficient or necessary (Radian, 1998).

In March 2000, Earth Tech prepared the *Five Year Review Report*. This report presented an evaluation of analytical and operational data collected during the previous five years of remedial activities at the Site, particularly the former RMPA and the former BPA (Earth Tech, 2000). The report concluded that the SVE system at the former BPA had gone asymptotic and had been effective in remediating VOC-affected soil in the vadose zone; and that concentrations of VOCs in groundwater at the former BPA remained elevated. The groundwater extraction system installed and operated in the former RMPA had been effective in reducing the concentrations of VOCs in the area and appeared to have reduced the migration of VOCs downgradient of the source areas as well (Earth Tech, 2000).

After comments to the *Five Year Review Report* were received from DTSC in July 2001, it was determined that additional analyses needed to be conducted at the Site. LMC reviewed the comments from DTSC, and responded in September 2001. LMC's response included implementation of the Sampling and Analysis Plan (SAP) (Earth Tech, 2002). Among others, one of the main objectives of the 2002 SAP was to evaluate the extent and magnitude of the affected groundwater beneath the Site.

In 2002 soil, soil vapor and groundwater sampling was performed to further evaluate potential source areas and monitor groundwater (Tetra Tech, 2002). A total of 52 groundwater monitoring wells were installed, sampled, and analyzed for VOCs, 1,4-dioxane, perchlorate, and Title 22 metals. Overall, temporal trend analysis indicated decreases in VOC concentrations in areas immediately downgradient of the former BPA and former RMPA. The concentration change was attributed to the remedial actions conducted between 1992 and 1999, as well as plume migration over time (Tetra Tech 2002). Three surface water samples were collected from three locations believed to be fed by groundwater and analyzed for VOCs, 1,4-dioxane, and perchlorate. Perchlorate, 1,4-dioxane, TCE, and 1,1-DCE were detected at concentrations above the California DPH or United States Environmental Protection Agency (EPA) maximum contaminant levels (MCLs) or California drinking water notification levels (DWNLs, formerly known as action levels through 2004) in two of the three surface water locations. Analysis of the data indicated that 1,4-dioxane in groundwater extended beyond the furthest downgradient well sampled during the investigation. A total of 40 soil and soil gas samples were collected and analyzed from 20 locations in the former BPA and former RMPA at depth of 5 and 15 feet below ground surface (bgs). Soil gas samples were also collected from three extraction wells and 10 groundwater monitoring wells. None of the detected soil concentrations were greater then the EPA Region IX Preliminary Remediation Goals (PRGs) for residential soils, and soil gas concentrations had decreased from levels detected in the 1990s (Tetra Tech, 2002).

In 2004, soil characterization was continued over two general areal divisions of the Site: Historical Operational Areas A, B, and C (Tetra Tech, 2005a); and Historical Operational Areas D, E, F, G, H, and I (Tetra Tech, 2005b). In Historical Operational Areas A, B, and C, a total of 293 samples were collected and analyzed from 64 borings at depths ranging from 0.5 to 60 feet bgs (Tetra Tech, 2005a). Soil samples were analyzed for one or more of the following constituents: VOCs, SVOCs, 1,4-dioxane, perchlorate, Title 22 metals, polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH) , and explosive residues. PCBs, 1,4-dioxane, and explosive residues were not detected at concentrations above their respective laboratory reporting limits (RLs). VOCs were detected at concentrations ranging up to 700 microgram per kilogram (µg/kg). SVOCs were detected at concentrations ranging up to 4.5 milligrams per kilogram (mg/kg). Perchlorate was detected at concentrations ranging up to 171,000 µg/kg. Metals were detected and concentrations of arsenic were reported up to 60.8 mg/kg. In addition, soil gas concentrations of TCE, tetrachloroethene (PCE), 1,1-DCE, 1,1,2-trichlorotrifluoroethane (Freon-113), and 1,1,1-TCA were detected above RLs. In general, limited affected soil was detected in Area A. Perchlorate and VOC affected soil was further delineated in Areas B and C (Tetra Tech, 2005a).

A total of 302 samples were collected and analyzed from 78 borings at depths ranging from 0.5 to 60 feet below ground surface in Historical Operational Areas D, E, F, G, H, and I (Tetra Tech, 2005b). Soil samples were analyzed for one or more of the following constituents: VOCs, SVOCs, 1,4-dioxane, perchlorate, Title 22 metals, PCBs, TPH, and explosive residues. SVOCs, 1,4-dioxane, and explosive residues were not detected at concentrations above their respective RLs. VOCs were detected at concentrations ranging up to 958 µg/kg. PCBs were detected at concentrations up to 910 ug/kg. Perchlorate was detected at concentrations ranging up to 57,100 µg/kg. Arsenic was detected at concentrations up to 19 mg/kg. Vanadium was detected at concentrations up to 2.2 mg/kg. In general, limited affected soil was detected in Area D, G, and I. Perchlorate and VOC affected soil was further delineated in Areas F and H (Tetra Tech, 2005b).

A total of 51 historical features have been identified as potential recognized environmental concerns (RECs) (25 within Historical Operational Areas A, B, and C and 26 within Historical Operational Areas D, F, G, H and I [Tetra Tech, 2003a]). A summary of the 51 historical features identified is presented in Table 1-1 on the following page and their locations are shown on Figure 1-2.

No features were identified as potential RECs within Historical Operational Area E. According to the historical report (Radian, 1986a), former employees at the Site reported a one-time burial of low-level radioactive waste. The radioactive waste disposal site was present in Historical Operational Area E when assessed in 1986 and subsequently remediated during 1990.

Geophysical surveys were performed to assist with the refinement of the CSM in November and December 2005. Downhole seismic velocity surveying was performed at the Site to (1) aid in differentiating boundaries between unconsolidated alluvium and the weathered and unweathered portions of the Mt. Eden Formation, and (2) help refine the CSM and aid in future groundwater monitoring well placement. Geophysical reflection surveying was performed at the Site to more accurately locate published alluvium-concealed faults along the southwestern edge of the Site. The following subsections summarize the recent geophysical activities performed at the Site. The surveys and the associated data reduction and interpretation were performed by Terra Physics.

1.3 PREVIOUS GROUNDWATER MONITORING

Water level measurements have been collected at the Site since 1983 (Tetra Tech, 2003b). Monthly water level measurements were collected between 1991 and 1992. Between 1993 and 1994, water level measurements from wells at the Site were collected periodically. During 1995, water level measurements from wells at the Site were collected on a monthly basis. Quarterly water level measurements were

Table 1-1 Summary of Previous Investigations Within Historical Operational Areas

Historical Operational Area	Feature Number	Feature Name	Feature Description and Investigation Summary
A	1	Avanti Storage Revet-ments	The revetments were utilized for storage of explosive materials and motors. Chemicals stored and/or used at this feature are unknown. Two soil borings were drilled and sampled to 10 feet bgs at this feature. Soil samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, PCBs, TPH, 1,4-dioxane, and explosive residue. Perchlorate, PCBs, TPH, 1,4-dioxane, and explosive residues were not detected at concentrations above their respective reporting limits. VOCs (i.e., acetone, ethylbenzene, n-propylbenzene, and toluene) were detected at concentrations ranging from 0.95 to 34 µg/kg and are compounds associated with laboratory cross-contamination. One SVOC (bis[2-ethylhexyl]phthalate) was detected at a concentration of 0.59 mg/kg. Metals were detected with arsenic detected at concentrations up to 38.6 mg/kg. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	2	Test Firing Area	The test firing area was utilized for research and development of experimentation on several types of rounds for long-range 30-mm weapons and possibly explosives. One soil boring was drilled and sampled to 10 feet bgs at this feature. Soil samples were analyzed for Title 22 metals and explosive residue. Explosive residues were not detected at concentrations above reporting limits. Metals were detected with arsenic detected at concentrations up to 2.38 mg/kg. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	3	Unknown Structure	The structure consists of a concrete pad with hinged I-beams and gravel pad. The historical activities at this structure are unknown. Chemicals stored and/or used at this feature are unknown. Two soil borings were drilled and sampled to 10 feet bgs at this feature. Soil samples were analyzed for VOCs, SVOCs, 1,4-dioxane, and Title 22 metals. SVOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. VOCs (i.e., 1,1-DCE, acetone, and toluene) were detected in samples at concentrations ranging from 1.0 to 38 µg/kg. Detected concentrations of acetone and toluene are associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 60.8 mg/kg. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	4	Storage Revet-ments	The revetments were utilized for storage of explosive materials. Chemicals stored and/or used at this feature are unknown. Two soil borings were drilled and sampled to 10 feet bgs at this feature. Soil samples were analyzed for VOCs, PCBs, Title 22 metals, TPH, 1,4-dioxane, and explosive residues. VOCs, PCBs, TPH, 1,4-dioxane, and explosive residues were not detected at concentrations above their respective reporting limits. Metals were detected with arsenic detected at concentrations up to 26.8 mg/kg. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	5	Gate House Area	The area consisted of an entrance gate with supporting guardhouse. An electric gate may have been used at this feature. PCBs in mineral oil and fuels may have been used at this feature. One soil boring was drilled and sampled to 5 feet bgs at this feature. Soil samples were analyzed for VOCs, PCBs, TPH, and 1,4-dioxane. VOCs, PCBs, TPH, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	6	Old Rocket Motor Casing	This area consisted of what appeared to be an old rocket motor casing. Upon further inspection it was determined to be a tank. The interior wall of the tank was coated with a tar-like substance. The former content and use of the tank are unknown. Due to a technical oversight, samples were collected one-third of a mile south of this feature. One soil boring was drilled and sampled to 5 feet bgs at one-third of a mile south of this feature. Soil samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, and 1,4-dioxane. SVOCs, perchlorate, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. VOCs (i.e., acetone and benzene) were detected at concentrations ranging from 1.3 to 26 µg/kg and are from compounds associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 2.27 mg/kg. No further investigations are proposed for the location sampled. However, additional investigation at this feature is discussed in this report. (Tetra Tech, 2005a)
	7	55-Gallon Drum	This empty, rusted, 55-gallon drum was found approximately 200 feet east of Feature No. 1. The former content and use of the drum are unknown. One soil boring was drilled and sampled to 5 feet bgs at this feature. Soil samples were analyzed for VOCs, SVOCs, perchlorate, PCBs, Title 22 metals, and 1,4-dioxane. Perchlorate, PCBs, 1,4-dioxane, and SVOCs were not detected at concentrations above their respective reporting limits. VOCs (i.e., ethylbenzene, n-propylbenzene, and toluene) were detected at concentrations ranging from 1.3 to 4.7 µg/kg. Detected concentrations of acetone and toluene are associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 28.5 mg/kg. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
B	8	Blue Motor Burn Pit	Four short-range attack missile (SRAM) motors with Maloy Blue propellant were reported to have been burned and disposed of at this location. Solvents, ammonium perchlorate, ferrocene, and diesel fuels were reported to have been used at the feature. Two soil borings were drilled and sampled to 20 feet bgs. Soil samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, PCBs, TPH, and 1,4-dioxane. SVOCs, perchlorate and 1,4-dioxane were not detected at concentrations above their respective reporting limits. TPH was detected at a concentration of 6.8 mg/kg. VOC (i.e., acetone and ethanol) concentrations ranged from 23 to 700 µg/kg. Detected concentrations of acetone are associated with laboratory cross-contamination. Metals were detected at low concentrations. A limited soil gas survey for VOCs and fuel hydrocarbons was also performed. No VOCs or fuel hydrocarbons were detected in soil gas. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	9	Motor Washout Area	Defective solid rocket propellant was washed out of the motor casings with a high-pressure water jet in this area. The water slurry produced from the washout activities was collected in a lined catch basin and later brought to the burn pit landfill for incineration. Additionally, a flamethrower was applied to the ground surface of the washout area to burn off any residual propellant. Solvents, ammonium perchlorate, ferrocene, and diesel fuels were reported to have been used at the feature. Two soil borings and soil gas locations were drilled to approximately 15 feet bgs in the vicinity of the motor washout area. Samples were analyzed for VOCs, 1,4-dioxane, and perchlorate. Perchlorate was reported with a maximum concentration of 178 µg/kg in soil. VOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. VOCs were not detected above their reporting limits in soil gas. (Tetra Tech, 2002) Two soil borings were drilled and sampled to 20 feet bgs. Soil samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, PCBs, TPH, and 1,4-dioxane. SVOCs, perchlorate and 1,4-dioxane were not detected at concentrations above their respective reporting limits. TPH was detected at a concentration of 6.8 mg/kg. VOC (i.e., acetone and ethanol) concentrations ranged from 23 to 700 µg/kg. Detected concentrations of acetone are associated with laboratory cross-contamination. Metals were detected at low concentrations. A limited soil gas survey for VOCs and fuel hydrocarbons was also performed. No VOCs or fuel hydrocarbons were detected in soil gas. Additional investigation is discussed in this report. (Tetra Tech, 2005a)
	10	Propellant Mixing Station (Bldg 315)	This feature consisted of a 300-gallon mixer. At the mix station, dry oxidizer, primarily ammonium perchlorate, was blended in the mixer with liquid ingredients consisting of butadiene derivatives and a burn rate modifier (primarily ferrocene). Solvents, ammonium perchlorate, ferrocene, and other fuels were reported to have been used at the feature. Two soil and soil gas borings were drilled to approximately 15 feet bgs in the vicinity of the former propellant mixing station. Samples were collected and analyzed for VOCs, perchlorate, and 1,4-dioxane. Perchlorate was detected to a maximum concentration of 1,260 µg/kg. VOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. VOCs were not detected above their reporting limits in soil gas. (Tetra Tech, 2002) Four soil borings were drilled and sampled to 40 feet bgs at this feature. The soil samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, TPH, and 1,4-dioxane. 1,4-dioxane was not detected at concentrations above the reporting limit. Low levels of TPH, perchlorate, Title 22 metals, SVOCs and VOCs (i.e., acetone and toluene) were detected in samples from this feature. The TPH concentrations ranged from 27 to 620 mg/kg. Perchlorate concentrations ranged from 29 to 4,610 µg/kg. VOC concentrations were 1.1 and 26 µg/kg. Detected concentrations of acetone and toluene are associated with laboratory cross-contamination. Detected concentrations of SVOCs (polyaromatic hydrocarbons, phthalates, and phenols) ranged from 0.66 to 4.5 mg/kg. Metals were detected with arsenic detected at concentrations up to 18.1 mg/kg. Further investigation is discussed in this report. (Source – Tetra Tech, 2005a)
	11	Fuel Slurry Station (Bldg 317)	The Fuel Slurry Station was used primarily to weigh and premix liquid fuel prior to propellant mixing activities. Perchlorate and solvents (primarily butadiene) were used at this feature.

Table 1-1 Summary of Previous Investigations within Historical Operational Areas (continued)

Historical Operational Area	Feature Number	Feature Name	Feature Description and Investigation Summary
B	11	Fuel Slurry Station (Bldg 317)	Two soil and soil gas borings were drilled and sampled to approximately 15 feet bgs in the vicinity of the fuel slurry station. Samples were analyzed for VOCs, perchlorate and 1,4-dioxane. 1,4-dioxane was not detected at concentrations above its reporting limit in soil. Perchlorate was reported with a maximum concentration of 88.4 µg/kg in soil. VOCs were reported above their reporting limits. Methyl-tert butyl ether (MTBE) was reported at a maximum concentration of 1.5 µg/L in soil gas. (Tetra Tech, 2002) Four soil borings were drilled and sampled to 40 feet bgs at this location. Soil samples were analyzed for VOCs, SVOCs, and perchlorate. A limited soil gas survey was performed for VOCs. VOCs (i.e., 1,1-dichloroethane, acetone, benzene, toluene, and trichloroethane) were detected at concentrations ranging 0.93 to 50 µg/kg. Detected concentrations of acetone, benzene, and toluene are associated with laboratory cross-contamination. Perchlorate was detected at concentrations ranging from 29.2 to 328 µg/kg. TCE and 1,1-DCE were detected in the soil gas. Further investigation is discussed in this report. (Tetra Tech, 2005a)
	12	Chemical Storage Quonset Hut	This 40- by 80-foot storage building was possibly used to store perchlorate, solvents, ferrocene, and other chemicals. Two soil and soil gas borings were drilled and sampled to approximately 15 feet bgs in the vicinity of the chemical storage Quonset hut. The samples were analyzed for VOCs, perchlorate, and 1,4-dioxane. VOCs, perchlorate, and 1,4-dioxane were not detected at concentrations above their respective reporting limits in soil. Benzene, toluene and xylenes were detected in the soil gas samples at concentrations of 0.5 µg/L, 0.8 µg/L and 1.5 µg/L, respectively. (Tetra Tech, 2002) Two soil borings were drilled and sampled to 20 feet bgs at this location. Soil samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, PCBs, and TPH. VOCs, SVOCs, 1,4, dioxane, TPH, and PCBs were not detected at concentrations above their respective reporting limit. Perchlorate concentrations were detected at concentrations ranging from 23.6 to 95.8 µg/kg. Metals were detected with arsenic detected at concentrations up to 9.51 mg/kg. A limited soil gas survey was performed for this feature. TCE was detected in the soil gas at 20 feet bgs. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	13	Vault - Proposed	This concrete vault structure was possibly used for utilities or an electrical transformer. PCBs may have been used at this feature One soil boring was drilled and sampled to 5 feet bgs at this location. Samples collected were analyzed for PCBs and VOCs. PCBs were not detected at this feature. One VOC (i.e., acetone) was detected at a concentration of 35 µg/kg. The detected concentration of acetone is associated with laboratory cross-contamination. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	14	Pad with Dry Well	This feature consists of a concrete pad with an adjacent dry well. Historical use of the pad and dry well is unknown. Two soil borings were drilled and sampled to 5 feet (dry well) and 10 feet bgs at this location. Samples collected were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, PCBs and TPH. SVOCs, PCBs, 1,4-dioxane, and TPH were not detected at concentrations above their respective reporting limits. Perchlorate was detected at concentrations ranging from 312 to 20,400 µg/kg. One VOC (i.e., acetone) was detected at a concentration of 62 µg/kg. Metals were detected with arsenic detected at concentrations up to 3.39 mg/kg. A soil gas survey was also performed for this feature. VOCs were not detected in the soil gas. Further investigation is discussed in this report. (Tetra Tech, 2005a)
	15	Electrical Enclosure – Bldg 315A	This structure possibly housed an electrical transformer. PCBs may have been used at this feature. One soil boring was drilled and sampled to 5 feet bgs at this location. Samples were analyzed for PCBs and VOCs. PCBs were not detected at concentrations above the reporting limits. VOCS (i.e., acetone and benzene) were detected at concentrations ranging from 1.6 to 130 µg/kg. The detected concentrations of acetone and benzene are associated with laboratory cross-contamination. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	16	Electrical Enclosure	This structure south of the Motor Washout Area possibly housed an electrical transformer. PCBs may have been used at this feature. One soil boring was drilled and sampled to 5 feet bgs at this location. Samples were analyzed for PCBs and VOCs. PCBs were not detected at concentrations above the reporting limits. One VOC (i.e., acetone) was detected at a concentration of 32 µg/kg. The detected concentration of acetone is associated with laboratory cross-contamination. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	17	Electrical Enclosure	This structure at the main service substation possibly housed an electrical transformer. PCBs may have been used at this feature. One soil boring was drilled and sampled to 5 feet bgs at this location. Samples collected were analyzed for PCBs and VOCs. PCBs and VOCs were not detected above their respective reporting limits. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	18	Cast and Cure Station	After the propellant mixing process, the mix was brought to the Cast and Cure Station for casting and curing by heating the propellant cast to 140˚ F for several days. Perchlorate and possibly solvents (primarily butadiene) were used at this feature. Two soil and soil gas borings were drilled and sampled to approximately 15 feet bgs in the vicinity of the fuel slurry station. The samples were analyzed for VOCs, perchlorate and 1,4-dioxane. VOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. Perchlorate was detected with a maximum concentration of 47.1 µg/kg. VOCs were not detected above their reporting limits in soil gas. (Tetra Tech, 2002) Two soil borings were drilled and sampled to 20 feet bgs at this location. Samples collected were analyzed for VOCs, 1,4-dioxane, SVOCs, perchlorate, and Title 22 metals. VOCs, 1,4-dioxane, and SVOCs were not detected at concentrations above their respective reporting limits. Perchlorate concentrations in soil samples ranged from 62.3 to 9,976 µg/kg. One VOC (i.e., acetone) was detected at a concentration of 62 µg/kg. The detected concentration of acetone is associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 2.99 mg/kg. A limited soil gas survey was also performed for this feature. TCE was detected in the soil gas at 20 feet bgs. Further investigation is discussed in this report. (Tetra Tech, 2005a)
	19	Pad on Berm	This feature appears to have been used as a test stand. Chemicals stored and/or used at this feature are unknown. One soil boring was drilled and sampled to 5 feet bgs at this location. Samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, and PCBs. VOCs, SVOCs, PCBs, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. Perchlorate concentrations ranged from 85.3 to 90.6 µg/kg. Metals were detected with arsenic detected at concentrations up to 7.48 mg/kg. Further investigation is discussed in this report. (Tetra Tech, 2005a)
	20	Pad South of Mix Station Bunker	This concrete pad south of Building 315A appears to have been used as a utility pad. One soil boring was drilled and sampled to 5 feet bgs at this location. Samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, and PCBs. SVOCs, perchlorate, 1,4-dioxane, and PCBs were not detected at concentrations above their respective reporting limits. Perchlorate concentrations ranged from 310 to 402 µg/kg. One VOC (i.e., acetone) was detected at a concentration of 49 µg/kg. The detected concentration of acetone is associated with laboratory cross-contamination. Metals were detected at low concentrations. Further investigation is discussed in this report. (Tetra Tech, 2005a)
	21	55-Gallon Drum	This empty, rusted, 55-gallon drum is partially buried. The former content and use of the drum is unknown. PCBs and other chemicals may have been used at this feature. One soil boring was drilled and sampled to 5 feet bgs at this location. Samples collected were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, and PCBs. SVOCs, perchlorate, 1,4-dioxane, and PCBs were not detected at concentrations above their respective reporting limits. One VOC (i.e., acetone) was detected at concentrations ranging from 28 to 49 µg/kg. The detected concentration of acetone is associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 1.72 mg/kg. No further investigations are proposed for this feature. (Tetra Tech, 2002)
C	22	Burn Pit Landfill	Waste material from both Beaumont Sites was placed in trenches, incinerated, and buried in the burn pit landfill area. Materials burned in the trenches included: ammonium perchlorate, diesel fuel, wet propellant, dry propellant, out-of-specification propellant, adhesives, resin, metal drums, plastic bags, paper, and solvents. Burn pits were approximately 6 to 8 feet wide by 50 to 100 feet long and 4 to 6 feet deep. A total of 20 to 40 burn pits were previously reported to be within the burn pit landfill area. In 1990, a total of eight (8) shallow exploratory trenches approximately 3 feet wide and 5 to 6 feet deep were excavated to determine the lateral extent of the burn pit area. Samples were collected from the waste material excavated from the trenches and analyzed for VOCs, SVOCs, metals and nitrates. VOCs, SVOCs and metals were detected above their respective reporting limits from the waste material samples. Four composite soil samples were collected from beneath the burn material layer and analyzed for VOCs, SVOCs, metals and nitrates. Due to quality control issues (i.e., sample handling, blank contamination) with the samples, the VOC and SVOC analytical results were deemed

Table 1-1 Summary of Previous Investigations within Historical Operational Areas (continued)

Historical Operational Area	Feature Number	Feature Name	Feature Description and Investigation Summary
C	22	Burn Pit Landfill	to be invalid. In addition to the trenching activities, five soil borings were drilled within the burn pit trenches and samples were collected from beneath the burn waste. The samples were analyzed for VOCs. Only 1,1,1-TCA was detected above the reporting limit at a concentration of 35 µg/kg. (Radian, 1990) Soil gas probes were drilled and installed within the Burn Pit Area at depths ranging from 4 inches to 78 feet bgs. Analytical results from the surface probes (4 inches bgs) reported low total VOC concentrations ranging from 1 to 23 parts per billion (ppb). The results from the shallow probes (3.5 to 7 feet bgs) reported total VOC concentrations ranging from 50 to approximately 6,400 ppb. The analytical results from the deeper probes reported a maximum total soil gas VOC concentration of 1,000,000 ppbv. (Radian, 1992a) In 1992, Radian Corporation performed a burn pit remedial action program within the burn pit landfill. During the removal activities, a total of nine (9) trenches were identified and 21 former burn pits were excavated. Approximately 18.6 tons of specific wastes (i.e., drums, unburned rocket propellant, and blue burn rate modifier) were excavated from the trenches. Overall, 48,600 cubic yards of soil was removed and later backfilled into the excavation trenches. Confirmation soil samples were collected from below the excavated materials and analyzed for Title 22 metals, VOCs, and SVOCs. Analytical results from the confirmation soil samples detected metal concentrations below their respective total threshold limit concentrations and below ten times soluble threshold limit concentrations. Additionally, no VOCs or SVOCs were reported above their respective method detection limits. None of the confirmation soil samples were analyzed for perchlorate and 1,4-dioxane. (Radian, 1992a) A total of 10 soil and soil gas borings were drilled to an approximate depth of 15 feet bgs within the burn pit area. A total of 10 soil and soil gas samples were collected and analyzed for VOCs, 1,4-dioxane, and perchlorate. Perchlorate was reported at a maximum concentration of 259 µg/kg in soil. Neither VOCs nor 1,4-dioxane was reported above their respective reporting limits in soil. The maximum concentration of VOCs (1,1-dichloroethane) was 152 µg/L in soil gas. (Tetra Tech, 2002) Fifteen soil borings were drilled and sampled from 10 to 40 feet and 5 to 60 feet bgs at this location. The soil samples collected were analyzed for VOCs, SVOCs, 1-4-dioxane, perchlorate, Title 22 metals, and TPH. SVOCs, TPH, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. Perchlorate was detected at concentrations ranging from 22.6 to 171,000 µg/kg. VOCs (i.e., acetone, benzene, chloroethane, and toluene) were detected at concentrations ranging from 1.1 to 40 µg/kg. The detected concentrations of acetone, benzene, and toluene are associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 1.20 mg/kg. A limited soil gas survey for VOCs will be performed for this feature. TCE, PCE, 1,1-DCE, 1,1,1-TCA and Freon-113 were detected in the soil gas. Further investigation is discussed in this report. (Tetra Tech, 2005a)
	23	Temporary Storage Area	This concrete pad area was used to temporarily store 55-gallon waste storage drums prior to incinerating activities. The contents of the drums are unknown. Two soil borings were drilled to 20 feet bgs at this location. Samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, and 1,4-dioxane. SVOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. Perchlorate was detected at concentrations ranging from 43.6 to 505 µg/kg. One VOC (i.e., acetone) was detected at concentrations ranging from 26 to 45 µg/kg. The detected concentration of acetone is associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 1.31 mg/kg. No VOCs were detected in soil gas samples. Further investigations are proposed to provide additional soil contamination delineation. (Tetra Tech, 2005a)
	24	Beryllium Motor Test Stand	This concrete pad with test mount was reported to have been used to test an experimental beryllium motor. Beryllium sampling was conducted in the area. The beryllium analytical results were reported at low concentrations over a wide area and concluded to be representative of background levels. (Radian, 1986b) Two soil borings were drilled to 5 feet bgs at this location. Samples collected were analyzed for VOCs and PCBs. PCBs were not detected above the reporting limits. VOCs (i.e., acetone and benzene) were detected at concentrations ranging from 2 to 85 µg/kg. The detected concentrations of acetone and benzene are associated with laboratory cross-contamination. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
	25	Burn Pit Magazine	This feature consists of a concrete pad that was used as an equipment storage area. The type of chemicals stored at this feature are unknown. Three soil borings were drilled to 5 feet bgs at this location. Samples were analyzed for VOCs, SVOCs, 1,4-dioxane, and TPH. SVOCs, 1,4-dioxane, and TPH were not detected at concentrations above their respective reporting limits. VOCs (i.e., acetone and benzene) were detected at concentrations ranging from 39 to 46 µg/kg. The detected concentrations of acetone and benzene are associated with laboratory cross-contamination. No further investigations are proposed for this feature. (Tetra Tech, 2005a)
D	26	Small Test Area for Incen-diary Bombs	This location was used for testing 500-pound bombs. Drums containing various fuels were placed within the test area to observe if shrapnel would penetrate the drums and ignite the fuel. Two soil borings were drilled to 5 and 10 feet bgs. Soil samples were analyzed for explosive residue, VOCs, TPH, and Title 22 metals. Explosive residue was not detected at concentrations above its reporting limit. One VOC (i.e., acetone) was detected at concentrations ranging from 25 to 190 µg/kg. Detected concentrations of acetone are associated with laboratory cross-contamination. TPH was detected in one sample at a concentration of 32 mg/kg. Metals were detected at low concentrations. A limited soil gas survey was also performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. (Tetra Tech, 2005b)
	27	Former Class A Storage Area	This area consisted of three 10-foot by 10-foot buildings that were used for storage of Class A explosives. Three soil borings were drilled to 5 feet bgs. Soil samples were analyzed for explosive residue. Explosive residue was not detected at concentrations above its reporting limit. No further investigations were proposed for Historical Feature 27. (Tetra Tech, 2005b)
	28	Former Dissolved TNT Disposal Area	Acetone was used to dissolve TNT and remove it from the interior of the incendiary bombshells. One soil boring was drilled to 20 bgs at this feature. Soil samples were analyzed for VOCs, 1,4-dioxane, and explosive residue. Explosive residue, VOCs, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. A limited soil gas survey was also performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. No further investigations were proposed for Historical Feature 28. (Tetra Tech, 2005b)
	29	Ballistics Tunnel and Support Facilities	This area was used for ballistics testing of various weapons. Three soil borings were drilled to 5 feet bgs. Soil samples were analyzed for explosive residue and VOCs. Explosive residue was not detected at concentrations above its reporting limit. VOCs (i.e., 2-butanone, acetone, and p-isopropyltoluene) were detected at concentrations ranging from 1.8 to 920 µg/kg. Detected concentrations of acetone are associated with laboratory cross-contamination. A limited soil gas survey was also performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. (Tetra Tech, 2005)
	30	Machine Gun Testing Area	This area was used for impact testing. A 50-caliber machine gun was fired at rocket motor casings. Ammonium perchlorate and explosives have been reported to have been used. One soil boring was drilled to 20 bgs at this feature. Soil samples were analyzed for Title 22 metals, perchlorate, and explosive residue. Explosive residue and perchlorate were not detected at concentrations above their respective reporting limits. Metals were detected with arsenic detected at concentrations up to 0.925 mg/kg. No further investigations were proposed for Historical Feature 30. (Tetra Tech, 2005)
	31	Projectile Landing Zone	Various weapons were fired at the base of the terraced hill. The projectile landing area was terraced to prevent rounds from ricocheting to higher areas. Live warheads were not reported to have been used. Two soil borings were drilled to 5 feet bgs. Soil samples were analyzed for explosive residue and Title 22 metals. Explosive residue was not detected at concentrations above its reporting limit. Metals were detected with arsenic detected at concentrations up to 2.15 mg/kg and vanadium to 86.7 mg/kg. No further investigations were proposed for Historical Feature 31. (Tetra Tech, 2005)
	32	Drums	Three drums were observed. The former contents of the drums are unknown. Two soil borings were drilled to 5 feet bgs. Soil samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, and TPH. VOCs, SVOCs, perchlorate, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. TPH

Table 1-1 Summary of Previous Investigations within Historical Operational Areas (continued)

Historical Operational Area	Feature Number	Feature Name	Feature Description and Investigation Summary
D	32	Drums	was detected in one sample at a concentration of 6.4 mg/kg. Metals were detected with arsenic detected at concentrations up to 2.0 mg/kg. A limited soil gas survey was also performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. No further investigations were proposed for Historical Feature 32. (Tetra Tech, 2005b)
E	NA	Radio-active Waste Burial Site	According to a historical report (Radian, 1986c), a one-time burial of low-level radioactive waste occurred in Historical Operational Area E. Assessed in 1986 the waste disposal site was remediated during 1990. No historical features have been identified as potential recognized environmental concerns (RECs) in this area.
F	33	Washout Area	Defective solid rocket propellant was washed out of the motor casings with groundwater supplied by a former groundwater production well. A high-pressure water jet was used to flush propellant. The solid propellant pieces produced from the washout activities were collected in a sieve and later packed into drums and brought to the burn pit area for incineration. Additionally, a long trench, leading to an unlined catch basin, caught the over spray. After the water percolated into the soil, the remaining solid pieces of propellant were burned directly in the catch basin. Fuel, ammonium perchlorate, and ferrocene were reported to have been in the propellant products. Nine boring locations were drilled to depths extending up to 30 feet bgs. Samples were analyzed for TPH, perchlorate, 1,4-dioxane, Title 22 metals, VOCs, and SVOCs. SVOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. TPH was detected at concentrations ranging from 6.3 to 45 mg/kg. Perchlorate was detected at concentrations ranging from 0.02 to 57.1 mg/kg. VOCs (i.e., acetone, benzene, toluene, 1,2,4-trichlorobenzene, and bis(2-ethylhexyl)phthalate were detected at concentrations ranging from 0.52 to 124 µg/kg. Acetone, benzene, and toluene concentrations are associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 19 mg/kg. Further investigation is discussed in this report. (Tetra Tech, 2005b)
	34	Mainte-nance Shop (Bldg. 306) and Storage Warehouse (Bldg. 314)	The shops were used for general equipment/material storage and possible instrument repairs and maintenance. Oils, fuels, solvents, and paints were reported to have been used in this area. Four soil borings were drilled to depths extending up to 20 feet bgs. Samples were analyzed for VOCs, 1,4-dioxane, TPH, and Title 22 metals. VOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. A limited soil gas survey was also performed for VOCs. One soil gas sample had a VOC with a concentration (1,1-DCE at 2.9 µg/L) above its reporting limits. Further investigation is discussed in this report. (Tetra Tech, 2005b)
	35	Betatron Building (Bldg. 303)	The building was used for nondestructive testing, housing a 25 Mega-electron volt Betatron radiographic unit. The primary use of the Betatron unit was to X-ray rocket motors for voids or foreign materialin the solid propellant. A large transformer was also located outside the building. Solvents, PCB (polychlorinated biphenyl) oil, and penetrants were likely to have been used in this area. In 1984, an investigation was performed on vandalized transformers. Asphalt and soil contaminated with PCBs were removed at both Beaumont Site 1 and Site 2. Based on the investigation, the vandalized transformers were moved and stored inside the Betatron Building. Soil was excavated adjacent to the transformer pad at the Betatron Building and soil samples were collected; however, the concentrations are not available. (General Electric, 1984) Two soil borings were drilled to depths extending up to 5 feet bgs. Samples were analyzed for VOCs, SVOCs, 1,4-dioxane, TPH and PCBs. SVOCs and 1,4-dioxane were not detected at concentrations above their respective reporting limits. One VOC (i.e., acetone) was detected at concentrations ranging from 22 to 39 µg/kg. Acetone concentrations are associated with laboratory cross-contamination. TPH was detected at concentrations ranging from 16 to 18 mg/kg. One PCB (Aroclor-1260) was detected at a concentration of 72 µg/kg. A limited soil gas survey was performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. Further investigation is discussed in this report. (Tetra Tech, 2005b)
	36	EBES Testing (Facility 313)	The building contained a pressure vessel, pumps, and environmental chambers. Transformers, hydraulic systems, and mercury gauges/switches may have been present at this feature. Five soil borings were drilled to depths extending up to 10 feet bgs. Samples were analyzed for VOCs, PCBs, TPH, and perchlorate. One PCB (Aroclor-1254) was detected at a concentration of 130 µg/kg. Perchlorate was detected at a concentration of 45.2 µg/kg and TPH was detected at concentrations ranging from 2.2 to 200 mg/kg. One VOC (acetone) was detected at a concentrations ranging from 28 to 51 µg/kg. Acetone concentrations are associated with laboratory cross-contamination. A limited soil gas survey was also performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. Further investigation is discussed in this report. (Tetra Tech, 2005b)
	37	Beryllium Waste Storage Area	Beryllium scrap was placed in 55-gallon drums at this location. Reportedly the beryllium was disposed of offsite. One soil boring was drilled to 5 feet bgs. Soil samples were analyzed for Title 22 metals. Metals were detected at low concentrations. No further investigations were proposed for Historical Feature 37. (Tetra Tech, 2005b)
	38	Environmen tal Chambers	This feature formerly consisted of environmental chambers designed to simulate conditions of humidity, rain, immersion, infrared radiation, salt spray, dust, and altitude. Four soil borings were drilled to 5 feet bgs. Soil samples were analyzed for VOCs, SVOCs, TPH, 1,4-dioxane, perchlorate, and Title 22 metals. Perchlorate and 1,4-dioxane were not detected at concentrations above their respective reporting limits. One SVOC (i.e., bis[2-ethylhexyl]phthalate) was detected at concentrations ranging from 0.53 to 1.0 mg/kg. TPH (as diesel) was detected at concentrations ranging from 31 to 43 mg/kg. VOCs (i.e., acetone, benzene, ethylbenzene, and toluene) were detected at concentrations ranging from 1.4 to 150 µg/kg. Acetone, benzene, ethylbenzene, and toluene concentrations are associated with laboratory cross-contamination. Metals were detected with arsenic detected at concentrations up to 5.55 mg/kg. A limited soil gas survey was performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. No further investigations were proposed for Historical Feature 38. (Tetra Tech, 2005b)
	39	Test Bays (Buildings. 308, 309, and 310)	These structures were used for the firing of large and small rocket motors. Solvents may have been utilized to clean equipment or walls. Eight soil borings were drilled to depths extending to 10 feet bgs. Soil samples were analyzed for VOCs, SVOCs, TPH, 1,4-dioxane, and perchlorate. Perchlorate and 1,4-dioxane were not detected at concentrations above their respective reporting limits. One SVOC (bis[2-ethylhexyl]phthalate) was detected at concentrations ranging from 0.57 to 1.6 mg/kg. TPH was detected at concentrations ranging from 1.2 to 270 mg/kg. VOCs (i.e., acetone, benzene, ethylbenzene, toluene, trichloroethene) were detected at concentrations ranging from 1.5 to 38 µg/kg. Acetone, benzene, ethylbenzene, and toluene concentrations are associated with laboratory cross-contamination. A limited soil gas survey was performed for VOCs. Soil gas concentrations were detected at concentrations above reporting limits in two soil borings. TCE was detected at concentrations of 44 and 47 µg/L and Freon-113 was detected at a concentration of 10 µg/L. Further investigation is discussed in this report. (Tetra Tech, 2005)
	40	Electrical Enclosure	This structure possibly housed an electrical transformer. PCBs may have been used at this feature. One soil sample was collected at a depth of 0.5 feet bgs and analyzed for PCBs. Aroclor-1248 was detected at a concentration of 250 µg/kg. Further investigation is discussed in this report. (Tetra Tech, 2005)
	41	Temporary Storage of Rocket Motor Segments (Facilities T-3 and T-4)	The two structures were used to temporarily store rocket motor segments. Two borings were drilled to depths extending up to 10 feet bgs. Soil samples were analyzed for VOCs, SVOCs, 1,4-dioxane, perchlorate, and Title 22 metals. SVOCs, 1,4-dioxane, and perchlorate were not detected at concentrations above their respective reporting limits. One VOC (i.e., acetone) was detected at concentrations ranging from 36 to 86 µg/kg. Acetone concentrations are associated with laboratory cross-contamination. Metals were detected at low concentrations. No further investigations were proposed for Historical Feature 41. (Tetra Tech, 2005)
	42	Storage Bunkers (Buildings. 311 and 325)	These features were used to store explosives and rocket motors behind earthen revetments. Three soil borings were drilled to depths extending up to 10 feet bgs. Soil samples were analyzed for VOCs, 1,4-dioxane, perchlorate, explosive residue, and Title 22 metals. VOCs, 1,4-dioxane, perchlorate, and explosive residue were not detected at concentrations above their respective reporting limits. Metals were detected at low concentrations. A limited soil gas survey was performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. No further investigations were proposed for Historical Feature 42. (Tetra Tech, 2005)

Table 1-1 Summary of Previous Investigations within Historical Operational Areas (continued)

Historical Operational Area	Feature Number	Feature Name	Feature Description and Investigation Summary
F	43	Small Rocket Motor Assembly Building (Bldg. 312)	The building was used for assembly of small rocket motors and later used for storage of vehicles, equipment, and for vehicle maintenance. Potential contaminants include solvents, fuels, and oils. One soil boring was drilled to a depth of 5 feet bgs. Soil samples were analyzed for TPH, perchlorate, 1,4-dioxane, and VOCs. TPH, perchlorate, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. VOCs (i.e., benzene, ethylbenzene, and toluene) were detected at concentrations ranging from 1.1 to 2.2 µg/kg. Benzene, ethylbenzene, and toluene concentrations are associated with laboratory cross-contamination. No further investigations were proposed for Historical Feature 43. (Tetra Tech, 2005b)
	44	Electrical Enclosure, Boneyard, Test Motors Conditionin g Oven Complex (Bldg. 307)	The electrical enclosure is located west of Building 307 and contained electrical transformers. Building 307 is located with six former conditioning ovens. PCBs and other unknown chemicals may have been used at this feature. In addition, a former boneyard existed north of the facility where heavy equipment and steel were formerly located. Seven soil borings were drilled to 5 feet bgs. Soil samples were analyzed for VOCs, SVOCs, TPH, PCBs, perchlorate, 1,4-dioxane, and Title 22 metals. SVOCs, TPH, PCBs, perchlorate, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. One VOC (i.e., acetone) was detected at concentrations ranging from 29 to 47 µg/kg. Acetone concentrations are associated with laboratory cross-contamination. Metals were detected at low concentrations. A limited soil gas survey was performed for VOCs within the oven and boneyard areas. There were no detected VOCs in soil gas above their respective reporting limits. No further investigations were proposed for Historical Feature 44. (Tetra Tech, 2005b)
	45	Testing and Instru-mentation / Personnel Bunker (Bldgs. 304 &305)	These bunkers provided protection for personnel during site testing operations. Building 304 was used strictly for protection and had no historical chemical usage, therefore no investigations were conducted. Building 305 was the main personnel and instrumentation bunker for testing. Fuels, solvents, and lubricants may have been stored in a smaller attached structure. Seven borings were drilled to 5 feet bgs. Soil samples were analyzed for VOCs and TPH. VOCs and TPH were not detected at concentrations above their respective reporting limits. A limited soil gas survey was performed for VOCs. There were no detected VOCs in soil gas above their respective reporting limits. No further investigations were proposed for Historical Feature 45. (Source – Tetra Tech, 2005b)
G	46	Helicopter Landing Pad and Hanger (Building 302)	It is unknown if helicopters were fueled and serviced in this area. Two soil borings were drill to depths extending up to 5 feet below ground surface. Soil samples were analyzed for VOCs and TPH. VOCs (i.e., acetone, benzene, and toluene) were detected at concentrations ranging from 1.0 to 27 µg/kg. Acetone, benzene, and toluene concentrations are associated with laboratory cross-contamination. Further investigation is discussed in this report. (Tetra Tech, 2005b)
	47	Asphalt Pads	The asphalt pads are approximately 15 feet by 15 feet and are of unknown function. Two soil borings were drilled to 5 feet bgs. Soil samples were analyzed for VOCs, TPH, and Title 22 metals. TPH was not detected at concentrations above it reporting limit. One VOC (i.e., acetone) was detected at a concentration of 33 µg/kg. The acetone concentration is associated with laboratory cross-contamination. Metals were detected at low concentrations. No further investigations were proposed for Historical Feature 47. (Tetra Tech, 2005b)
	48	Gun Mount Test Area	This feature consists of two concrete pads that were used as bases for stationary ground-mounted guns. One soil boring was drilled to 5 feet bgs. Soil samples were analyzed for explosive residue. Explosive residue was not detected at concentrations above its reporting limit. No further investigations were proposed for Historical Feature 48. (Tetra Tech, 2005b)
H	49	Sanitary Landfill	The landfill has historically been used as a general refuse area, where paper, scrap metal, concrete, and wood generated during routine daily operations were deposited. The landfill is permitted by the California Department of Forestry. Visable debris fragments are exposed on the gound surface along with empty 55-gallon drums. In 1990, Radian performed a preliminary remedial investigation at Site 1. During the investigation, exploratory trenching activities were conducted to determine the contents and extents of the sanitary landfill area. The waste was identified as general trash such as wood debris, paper, plastic bags, and rubber. Additionally, a total of four (4) soil samples were collected from beneath the waste and analyzed for VOCs, SVOCs, heavy metals, and nitrates. Both VOCs and SVOCs were detected in the soil samples; however, upon further evaluation they were assumed to be due to either laboratory or field cross contamination. (Radian, 1990) Ten borings were drilled to depths up to 40 feet bgs. Soil samples were analyzed for VOCs, TPH, SVOCs, perchlorate, 1,4-dioxane, polyaromatic hydrocarbons (PAHs), dioxins/furans, PCBs, and Title 22 metals. SVOCs, 1,4-dioxane, and PAHs were not detected above their respective reporting limits. TPH was detected at concentrations ranging from 6.8 to 10 mg/kg. Perchlorate was detected at concentrations ranging from 42.1 to 1,520 µg/kg. VOCs (i.e., acetone, benzene, p-isopropyltoluene, and toluene) were detected at concentrations ranging from 0.97 to 72 µg/kg. Detected concentrations of acetone, benzene, and toluene are associated with laboratory cross-contamination. One PCB (i.e., Aroclor-1248) was detected at concentrations of 86, 210, and 910 µg/kg. Detected dioxin/furan concentrations were converted to their 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) equivalent using toxicity equivalent factors (TEFs); TEF values ranged from 0.131 to 0.474 pg/g. Metals were detected with arsenic detected at concentrations up to 1.90 mg/kg. Further investigation is discussed in this report. (Tetra Tech, 2005b)
I	50	Incen-diary Bomb Test Area	The area was used to detonate large bombs. Drums of fuel were placed in a circle and a bomb or explosive device was activated to determine blast effectiveness. Soil samples were analyzed for VOCs, TPH, 1,4-dioxane, perchlorate, and explosive residue. Perchlorate, 1,4-dioxane, and explosive residue were not detected at concentrations above their respective reporting limits. TPH was detected at concentrations ranging from 9.4 to 24 mg/kg. One VOC (i.e., acetone) was detected at concentrations ranging from 22 to 96 µg/kg. Acetone concentrations are associated with laboratory cross-contamination. No further investigations were proposed for Historical Feature 50. (Tetra Tech, 2005b)
	51	Airstrip Area	The area consists of a 2,000-foot long runway. Debris such as tires, fencing, and brake drums are scattered about the airstrip. Historical site use included agricultural grazing. Soil samples were analyzed for herbicides and pesticides. Herbicides and pesticides were not detected at concentrations above their respective reporting limits. No further investigations were proposed for Historical Feature 51. (Tetra Tech, 2005b)

collected between 1996 and 1998, and semiannual water level measurements were collected between 1999 and 2002. From 2003 onward, quarterly water level measurements have been collected. Water quality monitoring has been conducted at the Site since 1986. A summary of remedial investigations, including associated well installation and monitoring activities, is provided in the *Revised Groundwater Sampling and Analysis Plan* (Tetra Tech, 2003b). Baseline groundwater sampling was performed on 111 wells between February 1993 and March 1993. Since 1993 various subsets of the well network have been sampled at a minimum, semiannually.

2.0 CONCEPTUAL SITE MODEL

The following section describes the current CSM. This discussion is divided into four subsections: physical setting, geology, hydrogeology, and distribution of affected groundwater.

2.1 PHYSICAL SETTING

The Site is located south of the City of Banning, in a semi-arid region, at the northern end of the Peninsular Ranges Geomorphic Province (Harden, 1998). The Peninsular Ranges Province is dominated by a series of northwest oriented mountain ranges extending from the Baja California Peninsula north to the Transverse Ranges, near the San Jacinto and San Bernardino Mountains. Locally, the Site is located in a small valley (known as San Jacinto Nuevo y Potrero) in the northeastern foothills of the San Jacinto Mountains (Figure 2-1) (Radian, 1990). The San Jacinto Nuevo y Potrero valley extends from the San Gorgonio Pass to the San Jacinto Valley and decreases approximately 1,000 feet in elevation from north to south. Southwest of San Jacinto Nuevo y Potrero valley, the topographic gradient of the valley steepens toward Massacre Canyon and flattens out when it reaches the San Jacinto Valley.

2.1.1 Precipitation

Southern California has a Mediterranean climate which is characterized by mild wet-winters and warm dry-summers. The wettest months at the Site are December through March. The Riverside County Flood Control District has two weather stations in the general area of the Site, the Beaumont National Weather Service (NWS) station and the San Jacinto NWS station. The locations of the stations are included in Figure 1-1 and Table 2-1 presents a monthly and annual summary of the precipitation data.

2.1.2 Surface Water

The San Jacinto Nuevo y Potrero valley watershed drains approximately 35 square miles (Tetra Tech, 2002). The valley is roughly triangular in shape, and the valley floor covers approximately 800 acres. The valley is primarily drained by Potrero Creek, an ephemeral stream which follows the valley from north to south before turning southwest to pass through Massacre Canyon toward its convergence with the San Jacinto River. Potrero Creek is fed by local tributary drainage and storm water runoff from the city of Beaumont as well as other ephemeral streams in the southern and eastern portions of the Site. The largest of the tributary drainages is Bedsprings Creek, which is located southwest of the former RMPA and former BPA. In general, creeks are dry except during and immediately after periods of heavy rainfall. However, small springs and seeps occur in Potrero Creek, in the western portion of the Site, west of Massacre Canyon (Figure 2-1).

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R1W R1E

T3S T4S

T4S T3S

R1W R1E

Unnamed Fault #1

Lawrence Fault

Unnamed Fault #2

Unnamed Fault #3

Bedsprings Fault

Unnamed Fault #5

Former Rocket Motor Production Area

Ponds

Unnamed Fault #6

Former Burn Pit Area

Goetz Fault

Potrero Fault

Unnamed Fault #4

San Jacinto Fault

Gilman Hot Springs

Lamb Canyon

Massacre Canyon

Bedsprings Drainage

Potrero Creek

Nuevo y Potrero

San Jacinto

Colorado River

Aqueduct

0 2,000 4,000 Feet

Adapted from:

USGS 7.5' Topographic Quadrangles, El Casco, Lakeview, San Jacinto, and Beaumont.

Faults from Hydrogeologic Investigations for Water Resources Development, Leighton and Associates, 1983.

LEGEND

- Beaumont Site 1 Property Boundary
- Fault
- Intermittent Creek/Drainage
- Mt. Eden/Alluvium Surface Contact

Note: Beaumont Site 1 property boundary is approximate.

Beaumont Site 1

Figure 2-1
Physical Setting

TETRA TECH

Table 2-1
Summary of Precipitation – Beaumont and San Jacinto NWS Monitoring Stations

Beaumont NWS Monitoring Station (for the years 1888 - 2005)

Precipitation (inches)	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Mean Monthly	Annual Total
Mean	0.09	0.23	0.29	0.62	1.17	2.00	2.86	2.91	2.53	1.02	0.53	0.09	1.19	14.18
Median	0.00	0.00	0.00	0.08	0.77	1.40	1.82	2.31	1.61	0.52	0.10	0.00	1.16	13.79
Maximum	2.10	2.80	4.41	6.82	4.99	14.43	18.80	12.81	11.20	9.10	4.83	1.70	3.30	39.60
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

San Jacinto NWS Monitoring Station (for the years 1886 - 2005)

Precipitation (inches)	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Mean Monthly	Annual Total
Mean	0.10	0.20	0.29	0.54	0.95	1.49	2.18	2.14	1.92	0.86	0.36	0.06	0.93	11.03
Median	0.00	0.00	0.00	0.15	0.68	1.09	1.55	1.52	1.40	0.47	0.10	0.00	0.85	10.10
Maximum	1.50	2.32	4.73	5.64	6.47	11.29	13.70	10.30	7.80	6.89	3.40	1.00	2.33	28.00
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:
NWS - National Weather Service.

Numerous springs (as many as 50) were located in the valley prior to construction of the San Jacinto tunnel (located approximately 4,000 feet southeast and 500 feet lower in elevation than the former BPA) [Ransome, 1932; Leighton and Associates, 1983]. It was reported that the number of springs in the valley was significantly reduced following completion of the tunnel in the 1930s.

Currently, there are two man-made ponds at the Site (Figure 2-1). The ponds were constructed in an area of shallow groundwater east of the Potrero Fault and appear to be sustained by a localized upward flow of groundwater within the pond excavations (Radian, 1992c; Tetra Tech, 2002).

2.2 GEOLOGY

The following subsections describe the regional and local geology in the area of the Site based on previous investigations and reports.

2.2.1 Regional Geology

Regional geology and stratigraphy in the Site vicinity, as shown on Figure 2-2, was mapped by Dibblee (1981). Geologic units present in the area, from oldest to youngest, include: the Mesozoic granitic/Paleozoic to middle Mesozoic age metasedimentary (Granitic/Metasedimentary) basement complex rocks; sedimentary deposits of the Pliocene to Pleistocene age Mt. Eden Formation; unconformably overlain by the sedimentary San Timoteo Formation; and Quaternary alluvium (Radian, 1990).

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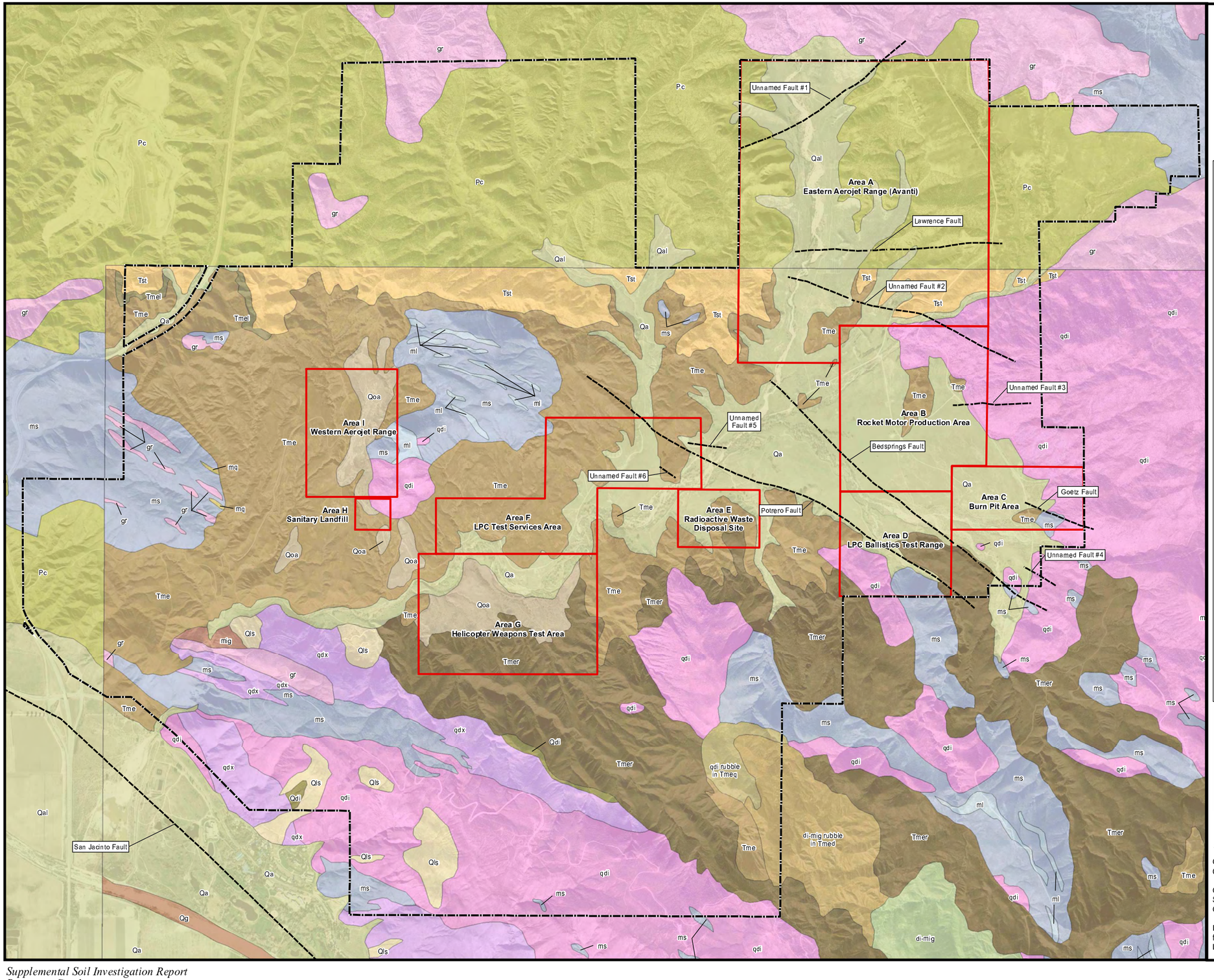

0 1,000 2,000 3,000 Feet

LEGEND

- Beaumont Site 1 Property Boundary
- Fault
- Historical Operational Unit Boundary

Geology from Dibblee, 2003

SURFICIAL SEDIMENTS

Alluvial sediments, unconsolidated, undissected

- Qa — Alluvial sand and clay of valley areas, covered by gray soil, includes stream channel gravel and sand in mountain area

LANDSLIDE DEBRIS

- Qls — Landslide of rock rubble

OLDER SURFICIAL SEDIMENTS

Dissected older alluvial deposits, slightly indurated, undeformed, late Pleistocene age

- Qoa — Alluvial gravel and sand of low terrace remnants Qog Alluvial gravel and sand of high terrace remnants

SAN TIMOTEO FORMATION

(of Frick, 1921), only lowest part exposed at north border in this quadrangle, weakly lithified; age, Pliocene

- Tst — Sandstone, light gray to tan, arkosic, includes thin layers and interbeds of gray cobble - pebbled conglomerate of mostly granitic detritus

MOUNT EDEN FORMATION

(of Fraser, 1931), moderately lithified, derived from basement rocks of San Jacinto Mountains; age upper Miocene

- Tme — Sandstone, light orange - red, bedded, arkosic, includes thin layers of reddish claystone and lenses of pebble - cobble conglomerate, gray, of unsorted boulders and cobbles of granitic rocks (qdi), lower part west of Massacre Canyon includes much pebble-cobble conglomerate
- Tmer — Conglomerate - fanglomerate, reddish gray-brown of poorly to unsorted sub-granitic (qdi and qdx) detritus in sandy matrix, vaguely bedded

PLUTONIC ROCKS

Medium grained holocrystalline granitic rocks of San Jacinto Mountains, part of Peninsular Range batholith, of Cretaceous age

- gr — Granite of Mount Eden (of Morton and Matti, 2001, granite to quartz monzonite, eucocratic, graywhite, hard, massive, of quartz, potassic feldspar and sadie plagioclase feldspar in nearly equal amounts, and less than 5% mica, mostly muscovite; intrusive as large pod into unit xqd at Massacre Canyon and as small pods in ms to northwest
- qdi — Quartz diorite, ranges to granodiorite, leucocratic light gray, composed of about 1/3 quartz, 1/2 sadie plagioclase feldspar, less than 1/4 potassic feldspar, and 5-10% biotite, minor hornblende, massive to faintly gneissoid, contains few small dark gray discoid inclusions (xenoliths); most widespread rock of San Jacinto Mountains
- qdx — Quartz diorite, gray, massive to gneissoid, composed of about 1/4 quartz, 1/2 sadie plagioclase feldspar, less than 1/4 potassic feldspar, 5-15% biotite and hornblende; contains few to abundant dark gray discoid inclusions (xenoliths) oriented parallel to gneissoid structure of rock; includes migmatized remnants of schist-gneiss (ms) in many places

METASEDIMENTARY ROCKS

Rocks crystallized at depth from deformed sedimentary rocks, mostly argillaceous, of Paleozoic? of Mesozoic? age

- ml — Marble, white to light gray, fine-grained crystallized from limestone or dolomite
- ms — Schist, dark gray, fine-grained, foliated, of mica (mostly biotite), feldspar and quartz, in some areas in part crystallized to fine grained gneiss

Geology from California Division of Mines and Geology, 1966

- Qal — Alluvium
- Pc — Undivided Pliocene nonmarine
- gr — Mesozoic granitic rocks
- ms — Pre-Cretaceous metasedimentary rocks

Note: Beaumont Site 1 property boundary is approximate.

Adapted from:

Geologic Map of the San Jacinto Quadrangle, Thomas W. Dibblee, Jr. 2003

Geologic Map of California - Santa Ana Sheet, California Division of Mines and Geology, 1966.

Faults from Hydrogeologic Investigations for Water Resources Development, Leighton and Associates, 1983.

Beaumont Site 1

Figure 2-2

Regional Geology

TETRA TECH

2.2.2 Local Geology

Findings from geologic studies conducted at the Site are consistent with the regional geologic mapping performed by Dibblee (1981). In general, there are three stratigraphic units that exist beneath the Site: Quaternary alluvium, the Mt. Eden Formation (weathered and unweathered portions), and the Granitic/Metasedimentary basement complex. The granitic basement complex is not discussed further since it appears at depths greater than 200 feet bgs in the former BPA, and is estimated to be below the base of affected groundwater. A geologic cross section location map is presented in Figure 2-3. Figure 2-4 presents a cross section of the geologic contact of the Mt. Eden Formation and overlying alluvium, local faulting (Potrero and Bedsprings faults), the slope of the valley along the longitudinal axis, and concentrations of specific chemicals of potential concern (COPCs) overlain. Figures 2-5 through 2-9 present cross sections of the geologic contact of the Mt. Eden Formation and the overlying alluvium along lines approximately perpendicular to the longitudinal axis of the valley (i.e. Figure 2-4). Included in the cross sections are the analytical results for the four primary site-specific COPCs from the most recent groundwater monitoring event (see Section 2.4).

Quaternary Alluvium

Quaternary alluvium was deposited as a result of erosion and subsequent infilling of channels in older underlying rocks, predominantly the Mt. Eden Formation (Radian, 1992c). The present day surface of the alluvium within the valley slopes gently towards existing stream channels and is then incised about 5 to 15 feet along Bedsprings Creek and its tributaries and up to 30 feet or more in the northern portion of Potrero Creek. The alluvium extends laterally to the edges of valley and up stream channels to the north and a short distance up the stream channels on the south and east sides of the valley. To the southwest, alluvium becomes narrower along Potrero Creek towards the entrance of Massacre Canyon and is not present in lower reaches of the canyon where the stream course is less than 50 feet wide (Radian, 1992c).

At the Site, alluvium is predominantly sand and silty sand with interbedded gravels, sands, silts, and clays, with the predominant lithologies being sand and silty sand (Radian, 1992c). In general, the base of the alluvium is predominately coarser grained intermixed with silt and/or clay and finer grained material at shallower depths. In northern and western portions of the valley, the alluvium is finer grained where source material is the finer grained San Timoteo Formation (a very fine-grained siltstone to medium-grained silty sand). In the northeastern portion of the valley where the source material is the Mt. Eden Formation or granitic rocks, the alluvium is generally fine to coarse grained.

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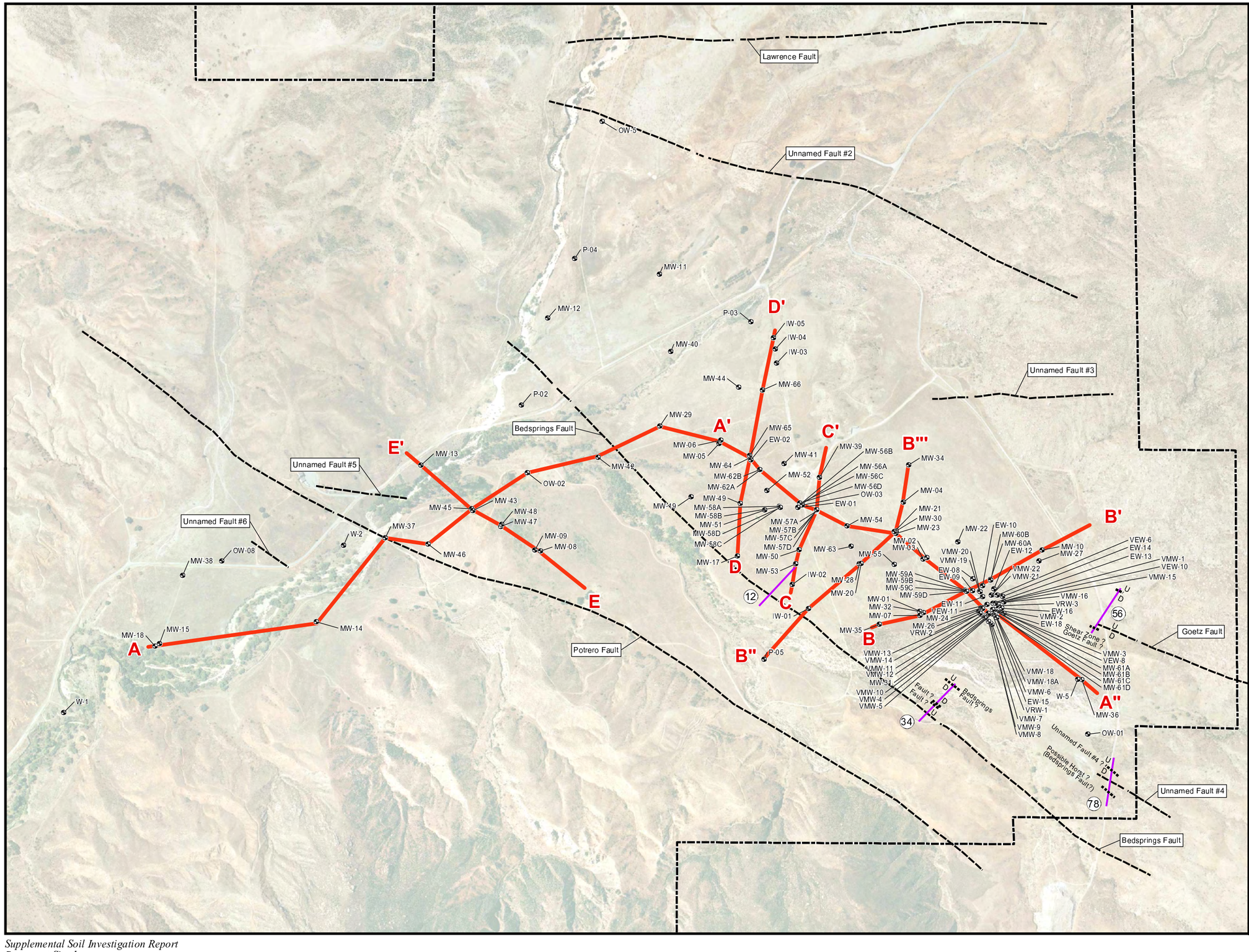


N

0 500 1,000 1,500 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Well Location
- Cross Section Location
- Fault
- 12 Seismic Reflection Line (Terraphysics)
- Interpreted Fault Location (Terraphysics)
- Beaumont Site 1 Property Boundary

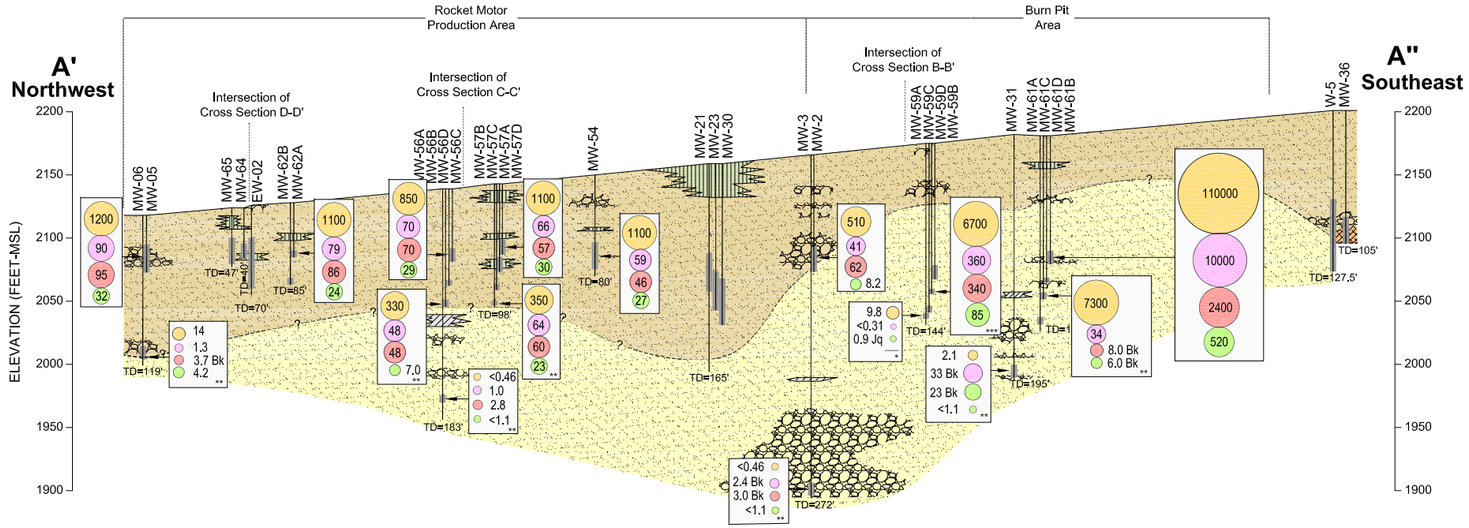
Notes: Beaumont Site 1 property boundary is approximate.

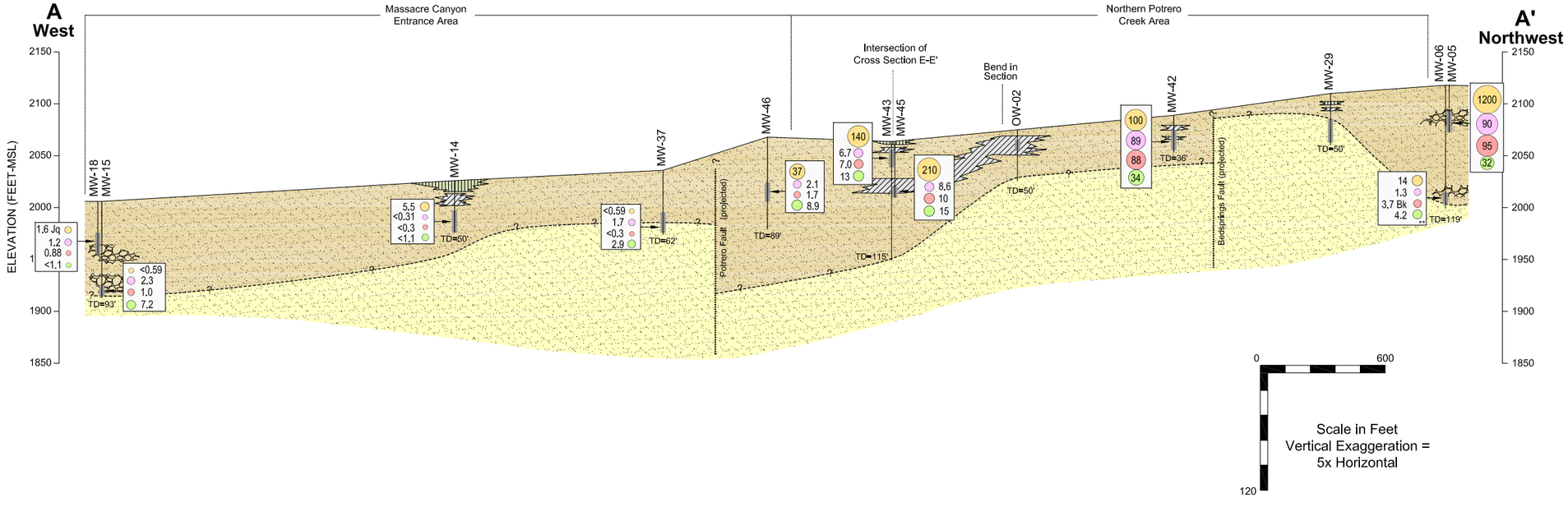
Beaumont Site 1

Figure 2-3
Cross Section Location Map

TETRA TECH

X:\GIS\LOCKHEED 19967-05\X-SEC A CSM.DWG





Adapted from:

Faults from Hydrogeologic Investigations for Water Resources Development, Leighton and Associates, 1983.

LEGEND

Concentrations in µg/L

- 500 Perchlorate
- 200 1,1-DCE
- 200 TCE
- 50 1,4-Dioxane
- —— No Analysis

- Clay
- Silt
- Sand and Gravel
- Sandstone with some gravelly layering
- Weathered Granite or Granitic Boulder
- ---?--- Inferred Contact
- Well
- Screened Interval
- TD=60' Total Boring Depth (feet)

Notes: COPC concentrations shown from 2nd Quarter 2005 Groundwater Monitoring Event, unless noted.

* 2Q02 Groundwater Monitoring Event.

** 2Q04 Groundwater Monitoring Event.

*** 4Q05 Groundwater Monitoring Event.

B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result qualified for blank contamination is considered not to have originated from the environmental sample, since cross-contamination is suspected.

k - The analyte was found in the field blank.

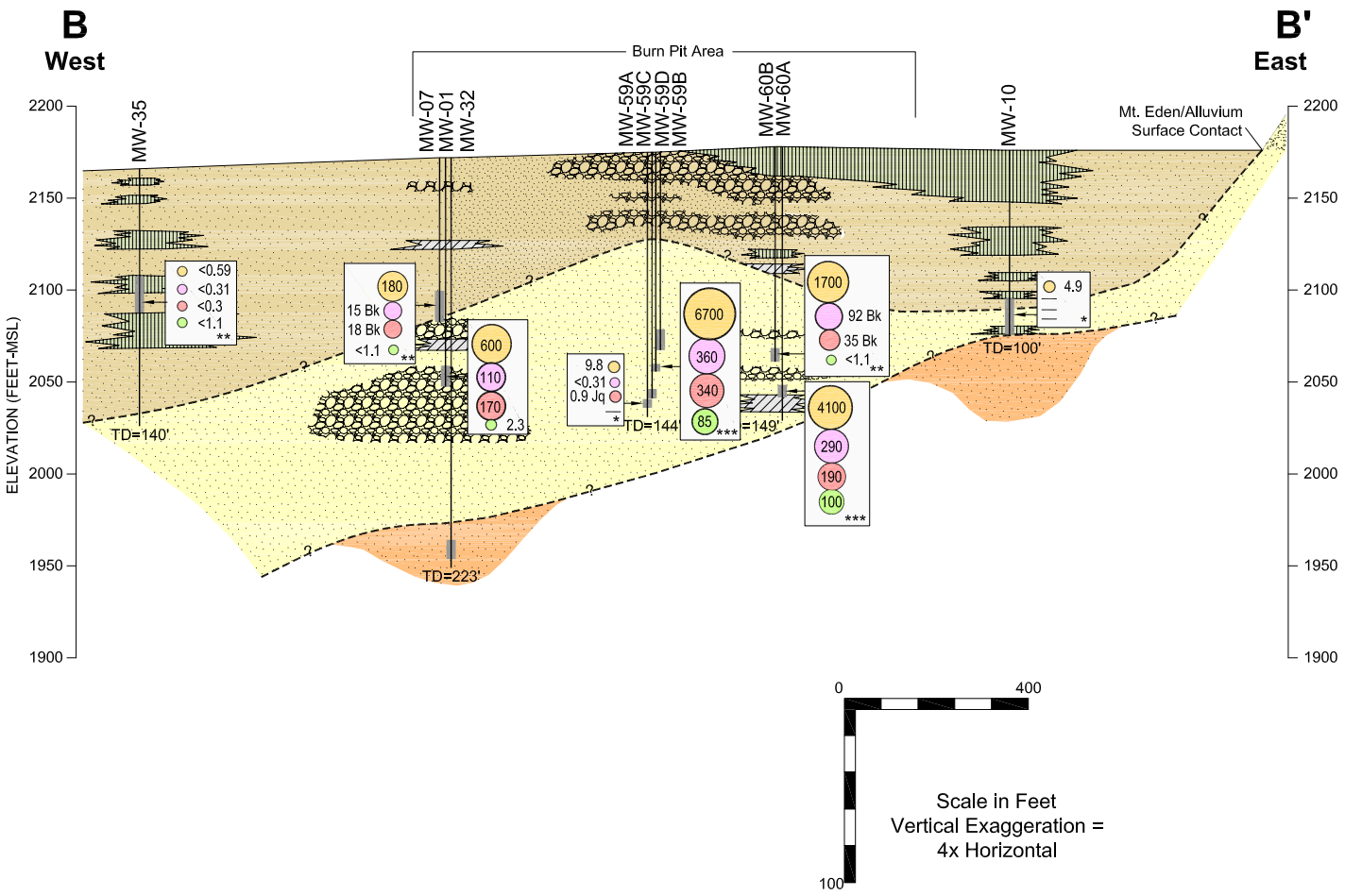
Beaumont Site 1

Figure 2-4

Geologic Cross Section A-A'-A" with COPC Overlay

TETRA TECH

X:\GIS\LOCKHEED 19967-05\X-SEC B_CSM.DWG



LEGEND

Concentrations in µg/L

500	Perchlorate
200	1,1-DCE
200	TCE
50	1,4-Dioxane
—	No Analysis

- Clay
- Silt
- Sand and Gravel
- Sandstone with some gravelly layering
- Weathered Granite or Granitic Boulder
- ---?--- Inferred Contact
- Well
- Screened Interval
- TD=60' Total Boring Depth (feet)

Notes: COPC concentrations shown from 2nd Quarter 2005 Groundwater Monitoring Event, unless noted.

* 2Q02 Groundwater Monitoring Event.

** 2Q04 Groundwater Monitoring Event.

*** 4Q05 Groundwater Monitoring Event.

B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result qualified for blank contamination is considered not to have originated from the environmental sample, since cross-contamination is suspected.

k - The analyte was found in the field blank.

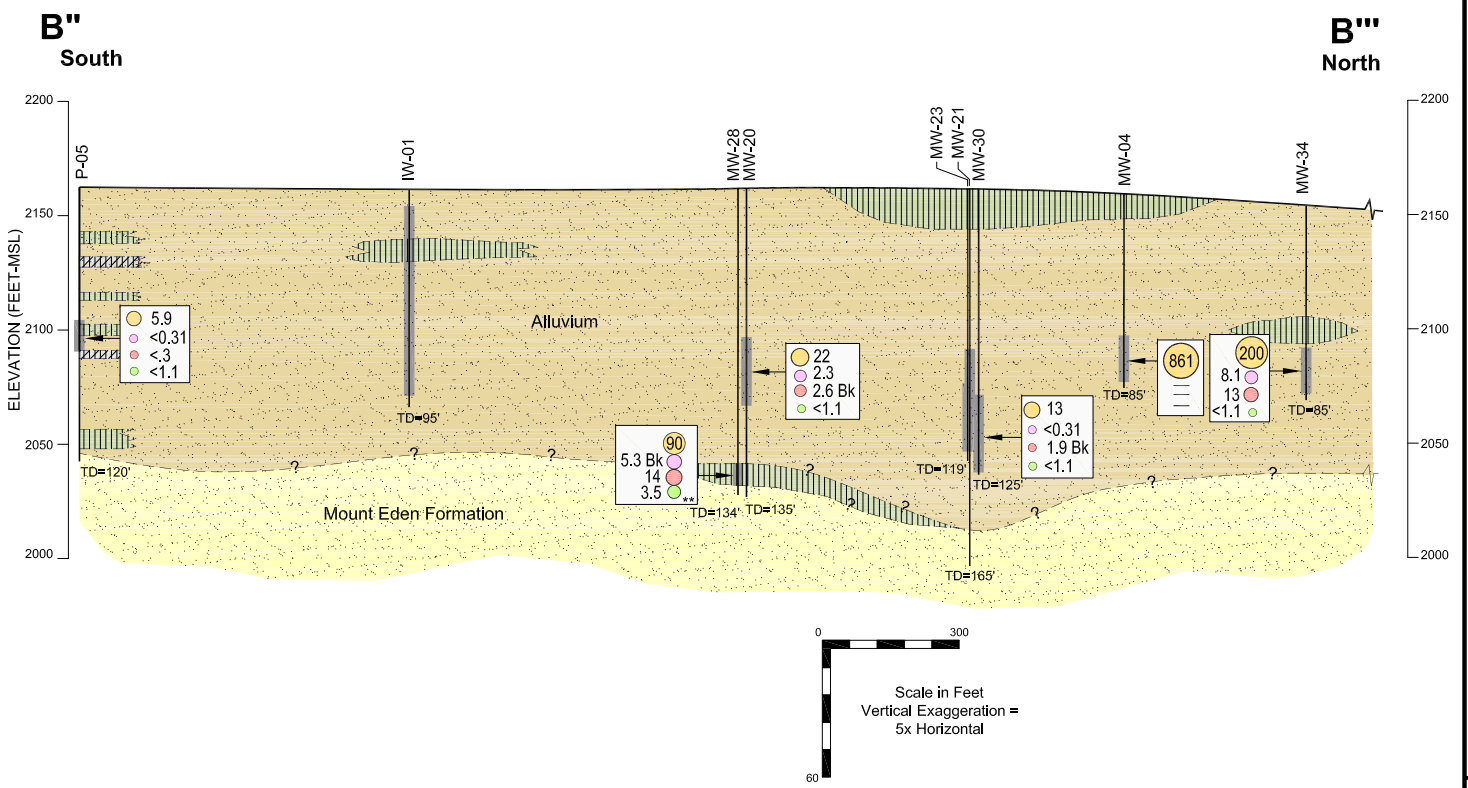
Beaumont Site 1

Figure 2-5

Geologic Cross Section B-B' with COPC Overlay

TETRA TECH

X:\GIS\LOCKHEED 1996\7-06\X-SEC B"-B"' CSM.DWG



LEGEND

- Clay
- Silt
- Sand and Gravel
- Sandstone with some gravelly layering
- Inferred Contact
- Well
- Screened Interval
- TD=60' Total Boring Depth (feet)

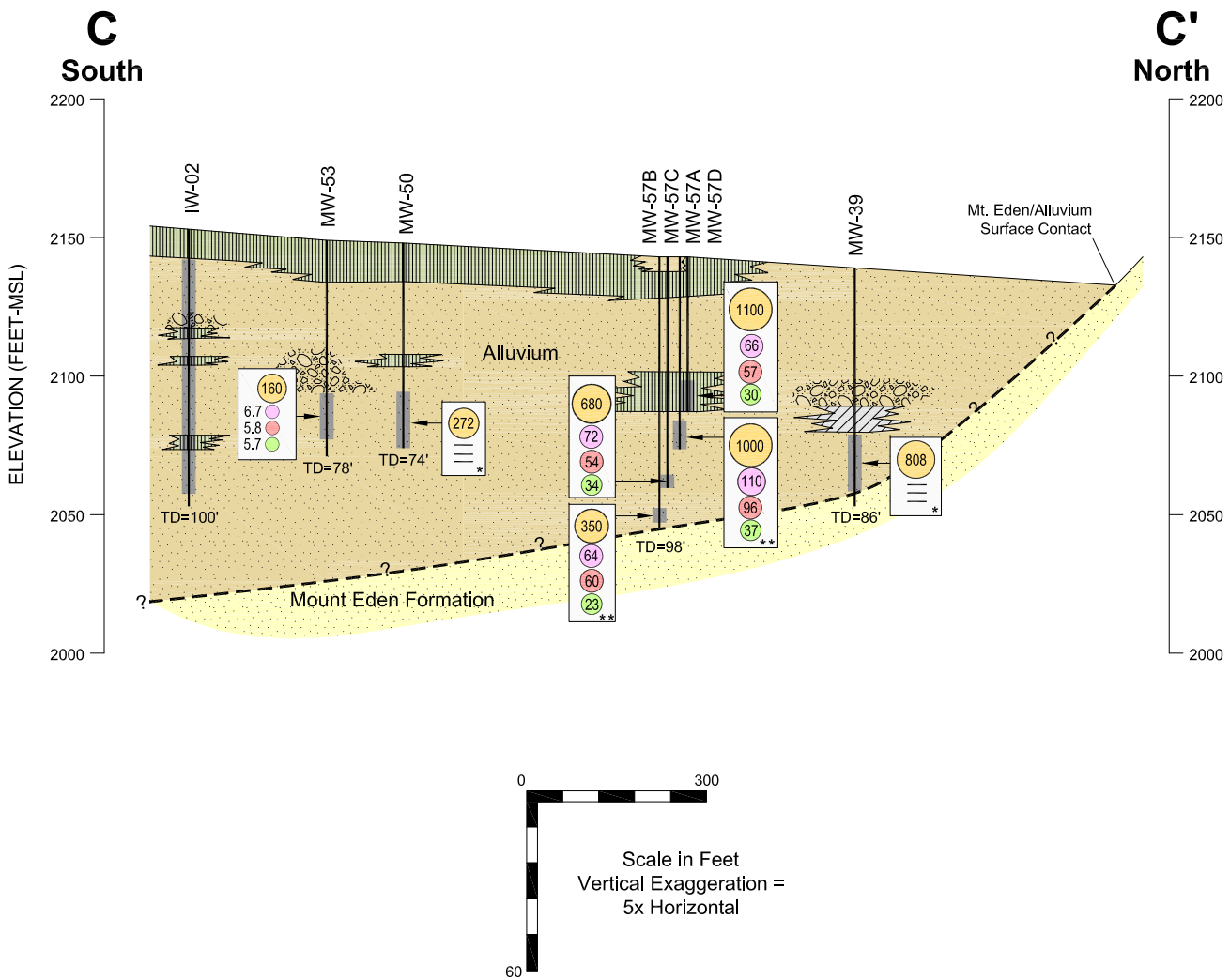
Beaumont Site 1

Figure 2-6

Geologic Cross Section B"-B"' with COPC Overlay

TETRA TECH

X:\GIS\LOCKHEED 1996\7-06\X-SEC C-C' CSM.DWG



LEGEND

Concentrations in µg/L

500	Perchlorate
200	1,1-DCE
200	TCE
50	1,4-Dioxane
——	No Analysis

- Clay
- Silt
- Sand and Gravel
- Sandstone with some gravelly layering
- – –?– – Inferred Contact
- Well
- Screened Interval
- TD=60' Total Boring Depth (feet)

Notes: COPC concentrations shown from 2nd Quarter 2005 Groundwater Monitoring Event, unless noted.

* 2Q02 Groundwater Monitoring Event.

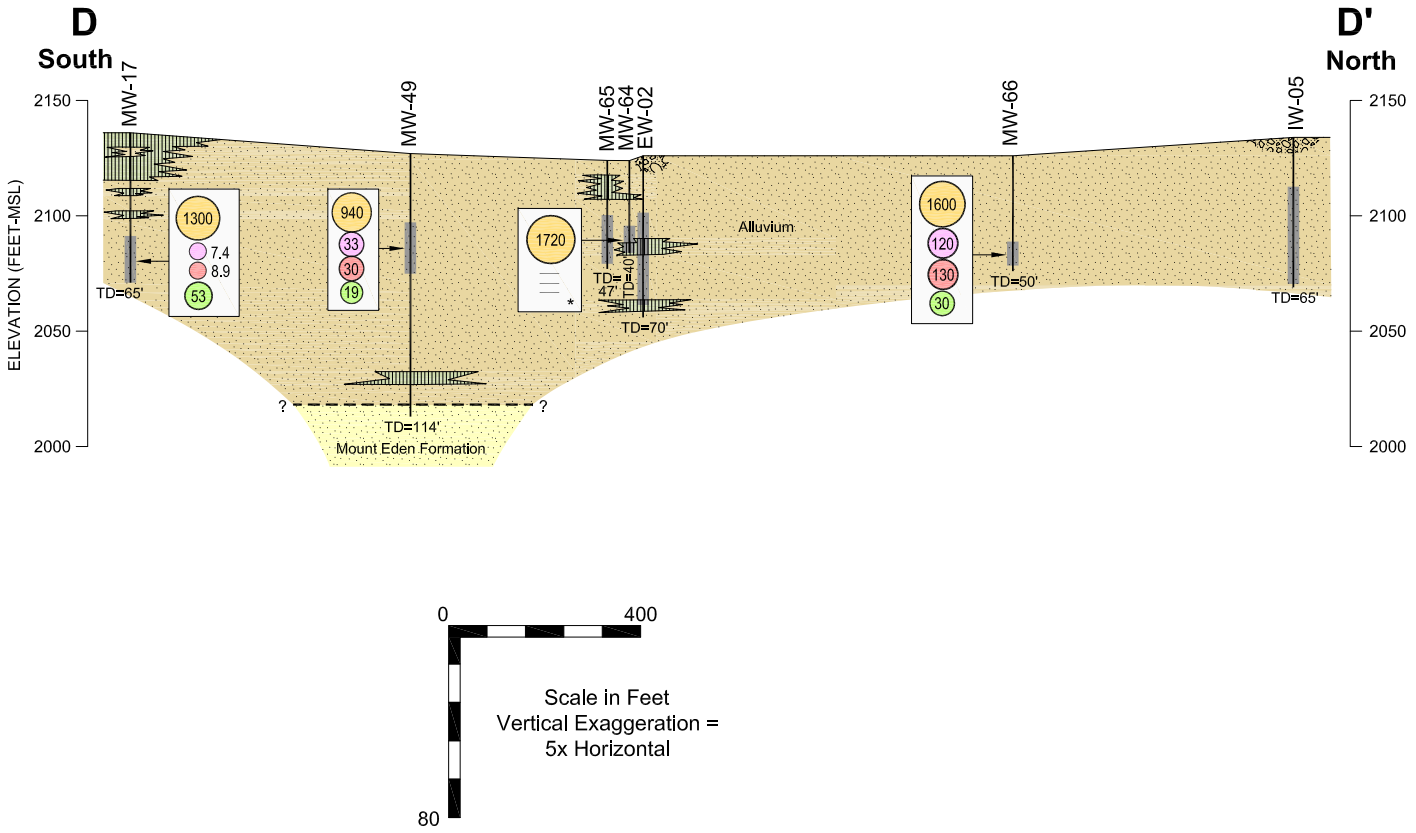
** 2Q04 Groundwater Monitoring Event.

Beaumont Site 1

Figure 2-7
Geologic Cross Section C-C' with COPC Overlay

TETRA TECH

X:\GIS\LOCKHEED 19967-05\X-SEC D_CSM.DWG



LEGEND

Concentrations in µg/L

- 500 Perchlorate
- 200 1,1-DCE
- 200 TCE
- 50 1,4-Dioxane
- No Analysis
- Clay
- Silt
- Sand and Gravel
- Sandstone with some gravelly layering
- Inferred Contact
- Well
- Screened Interval
- TD=60' Total Boring Depth (feet)

Notes: COPC concentrations shown from 2nd Quarter 2005 Groundwater Monitoring Event, unless noted.

* 2Q02 Groundwater Monitoring Event.

** 2Q04 Groundwater Monitoring Event.

*** 4Q05 Groundwater Monitoring Event.

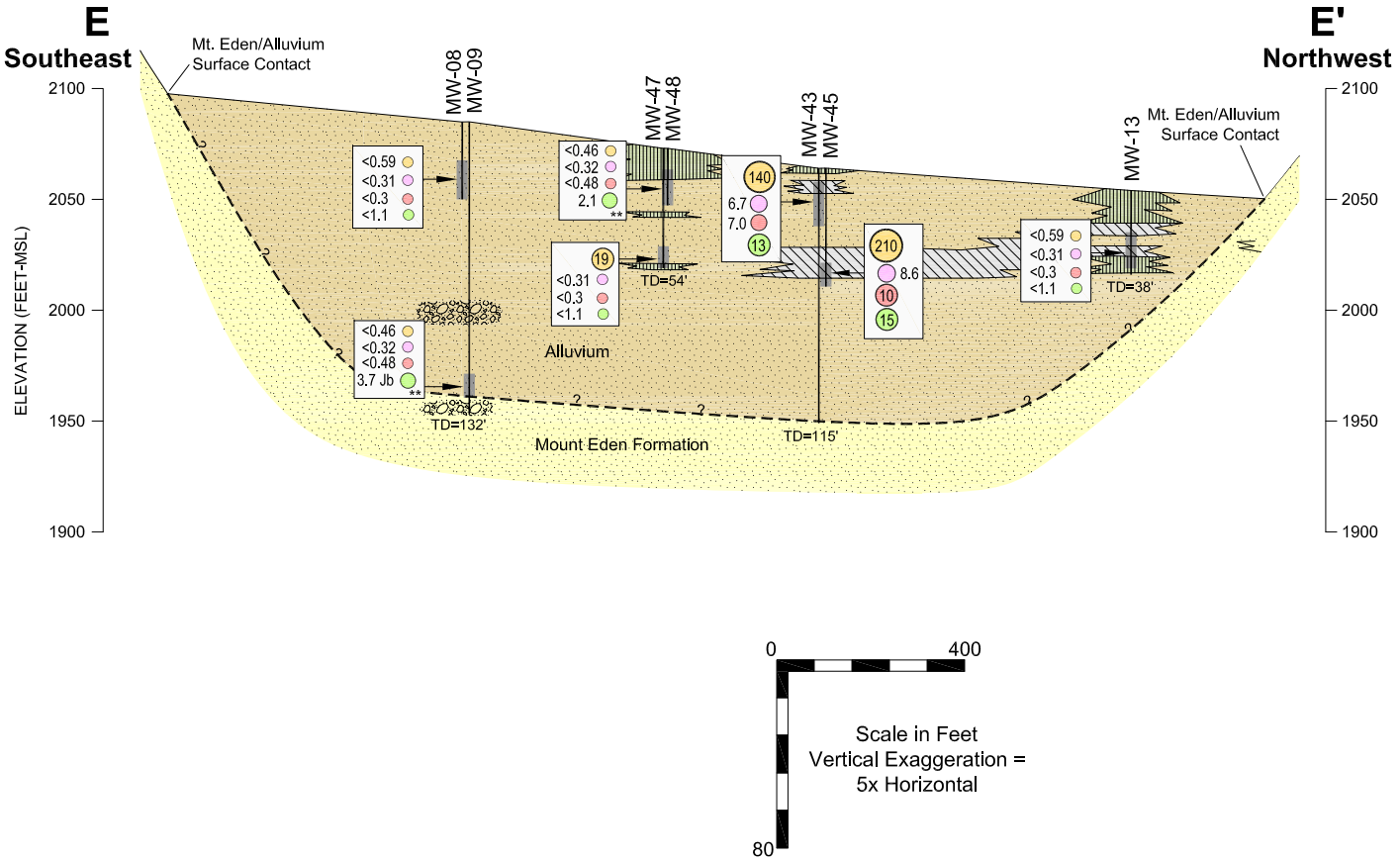
Beaumont Site 1

Figure 2-8

Geologic Cross Section D-D' with COPC Overlay

TETRA TECH

X:\GIS\LOCKHEED 1996\7-05\X-SEC E CSM.DWG



LEGEND

Concentrations in µg/L

500	Perchlorate
200	1,1-DCE
200	TCE
50	1,4-Dioxane
——	No Analysis

Clay

Silt

Sand and Gravel

Sandstone with some gravelly layering

— —?— — Inferred Contact

Well

Screened Interval

TD=60' Total Boring Depth (feet)

Notes: COPC concentrations shown from 2nd Quarter 2005 Groundwater Monitoring Event, unless noted.

* 2Q02 Groundwater Monitoring Event.

** 2Q04 Groundwater Monitoring Event.

*** 4Q05 Groundwater Monitoring Event.

J - The analyte was positively identified, but the analyte concentration is an estimated value.

b - The surrogate spike recovery was outside the control limits.

Beaumont Site 1

Figure 2-9
Geologic Cross Section E-E' with COPC Overlay

TETRA TECH

As expected with alluvial deposits, the lithology is laterally heterogeneous and inferred lenses occur which usually cannot be correlated between borings. Coarse grained materials including pebbles and gravels are present at various depths and tend to be more prominent towards the center of the valley than on the fringes. In the eastern portion of the Site, near the former RMPA and former BPA, fine grained sediments including silts and sandy silts, ranging in thickness from 10 to 25 feet, were observed in shallow alluvium. In addition, a 10 to 15 foot clay layer was observed in the central portion of the valley near the convergence of Potrero Creek and Bedsprings Creeks.

Mt. Eden Formation

The varying thickness of the Mt. Eden Formation at the Site is the result of faulting and erosional topography of the pre Pliocene bedrock surface (Radian, 1992c). Similarly, the irregular Mt. Eden Formation/alluvium contact is a result of erosional features combined with displacement and/or offset from faulting in the area.

Stratigraphic information for the Mt. Eden Formation is primarily limited to the former BPA and former RMPA since only a few borings west of the former RMPA (topographically and hydro-geologically down gradient) have penetrated the unit. Where exposed, the Mt. Eden Formation forms steep sided ridges around the perimeter of the valley. Where encountered in boreholes, the Mt. Eden Formation varies from consolidated to loose and is similar to the overlying alluvium. Locally, the Mt. Eden Formation is primarily fine- to coarse-grained sandstone with isolated gravelly lenses. Beneath the former BPA and near the former RMPA, similar rounded or flat topped steep sided ridges extend into the valley in the subsurface.

Faulting

Based on previous geologic studies, the Site is situated between the San Andreas Fault System (located to the north) and the San Jacinto Fault System (located to the south). Several faults near the Site have been mapped by Dibblee (1981) and Leighton and Associates (1983a). Numerous smaller faults, assumed to be associated with movement along these two major fault systems, are found within the Site (Leighton and Associates, 1983a). Within the immediate vicinity of the former RMPA and former BPA, three faults have been identified by name (Bedsprings, Goetz, and Potrero) and six others have been identified, but as yet remain unnamed (Ransome, 1932; Leighton and Associates, 1983a; Tetra Tech, 2003a). Figures 2-2 and 2-3 display the locations of identified faults in the immediate vicinity of the former RMPA and former BPA.

Reportedly, a northwesterly trending graben bounded by the Potrero Fault and Bedsprings Fault (Figure 2-2) is situated southwest of the former RMPA and former BPA (Leighton and Associates, 1983). Although faulting was reported to offset the Mt. Eden Formation, no conclusive evidence of displacement of recent alluvial material was found. However, alluvial thickness decreases from about 160 feet at the southeast end to about 40 feet at the northwest end of the Potrero Fault.

Seismic reflection surveys completed between 07 December and 14 December 2005 were oriented southwest-northeast and approximately perpendicular to published locations of the Goetz and Bedsprings faults and Unnamed Fault #4 (Figure 2-4) near the former BPA. Along the published location of the Bedsprings Fault reflection analysis showed a 5,650 feet per second (ft/sec) layer at approximately 75 feet bgs which may represent saturated alluvium or weathered bedrock and two faults were interpreted, the shallowest of which comes within 60 feet of the surface. Along the published location of the Goetz Fault reflection analysis showed a 7,900 ft/sec layer at approximately 88 feet bgs that may represent bedrock, and two faults were interpreted along this profile, the shallowest of which comes within 70 feet of the surface. Along the published location of Unnamed Fault #4, reflection analysis showed a 11,300 ft/sec layer at approximately 45 feet bgs that likely represents bedrock and two faults were interpreted along this profile, the shallowest of which comes within 20 feet of the surface.

2.3 HYDROGEOLOGY

Several previous reports discuss in detail the occurrence and movement of groundwater at the Site (Leighton and Associates, 1983b; Radian, 1990; Radian, 1992c). A summary of general findings from these reports is provided in this subsection along with an update of current conditions based on recent investigations and data collected (Tetra Tech; 2005a, 2005b).

As previously discussed, a geophysical survey was performed at the Site to help assess the possible influence of faulting on groundwater flow in and around the BPA.

Groundwater occurs in each of the major geologic units beneath the Site; Quaternary alluvium, Mt. Eden Formation, and the Granitic/Metasedimentary basement complex. Groundwater is present in the alluvium in the majority of the valley except in areas where the underlying Mt. Eden Formation rises above the surrounding water table. In general, groundwater is present in weathered and unweathered portions of the Mt. Eden Formation, either where alluvium is not present at the water table or at depth below saturated alluvium.

Reportedly, during the drilling of deep borings into the Granitic/Metasedimentary basement complex, the groundwater encountered occurred only in fractures and joints at great depth (Radian, 1992c). Based on

one well screened in the Granitic/Metasedimentary basement complex rock (MW-32), the water level is generally 10 to 20 feet lower than water levels in nearby wells screened within the Mt. Eden Formation. Previous studies indicated that portions of the Mt. Eden Formation can act as a confining layer separating shallow unconfined groundwater from deep groundwater in the Granitic/Metasedimentary basement complex rocks (Radian, 1992c).

In general, the Groundwater Monitoring Program (GMP) focuses on monitoring groundwater within the alluvium and the shallow/weathered Mt. Eden Formation where affected groundwater is present. The highest concentrations of affected groundwater appears limited to these units and does not extend into the deeper Mt. Eden Formation or Granitic/Metasedimentary basement complex.

Groundwater Flow

Shallow groundwater flow at the Site occurs mainly through alluvium and the shallow/weathered portion of the Mt. Eden Formation. As previously indicated, alluvium and the shallow/weathered portion of the Mt. Eden Formation consist of alluvial deposits from former streambeds, floodplains, lakes, and alluvial fans. Although the alluvium and the shallow/weathered portion of the Mt. Eden Formation are two different geologic units, potentiometric heads, water level responses to seasonal recharge, and water quality data indicate that the two units are in hydraulic communication and may be considered a single hydrostratigraphic unit (HSU). A HSU is a formation, part of a formation, or a group of formations in which there are similar hydrologic characteristics that allow for grouping into aquifers and associated confining layers (Domenico, et. al, 1990).

Generally, groundwater flows northwest from the former BPA, beneath the former RMPA and towards Potrero Creek. Groundwater flow then trends southwest and generally parallel to the flow direction of Potrero Creek (into Massacre Canyon). However, the groundwater flow direction from the former BPA downgradient through the former RMPA appears to change between periods of low precipitation (dry periods) and periods of high precipitation (wet periods). Figures 2-10 and 2-11 show representative groundwater contour maps for a wet period (March 2005) and a dry period (September 2006). As seen in Figure 2-10, during wet periods, groundwater flow from the former BPA has both westerly and north-northwesterly components. However, during dry periods the groundwater flow direction from the former BPA is more westerly (Figure 2-11). This seasonal change in flow direction likely is caused by increased recharge in the Bedsprings Creek area during wet periods and subsequent decrease in recharge during dry periods.

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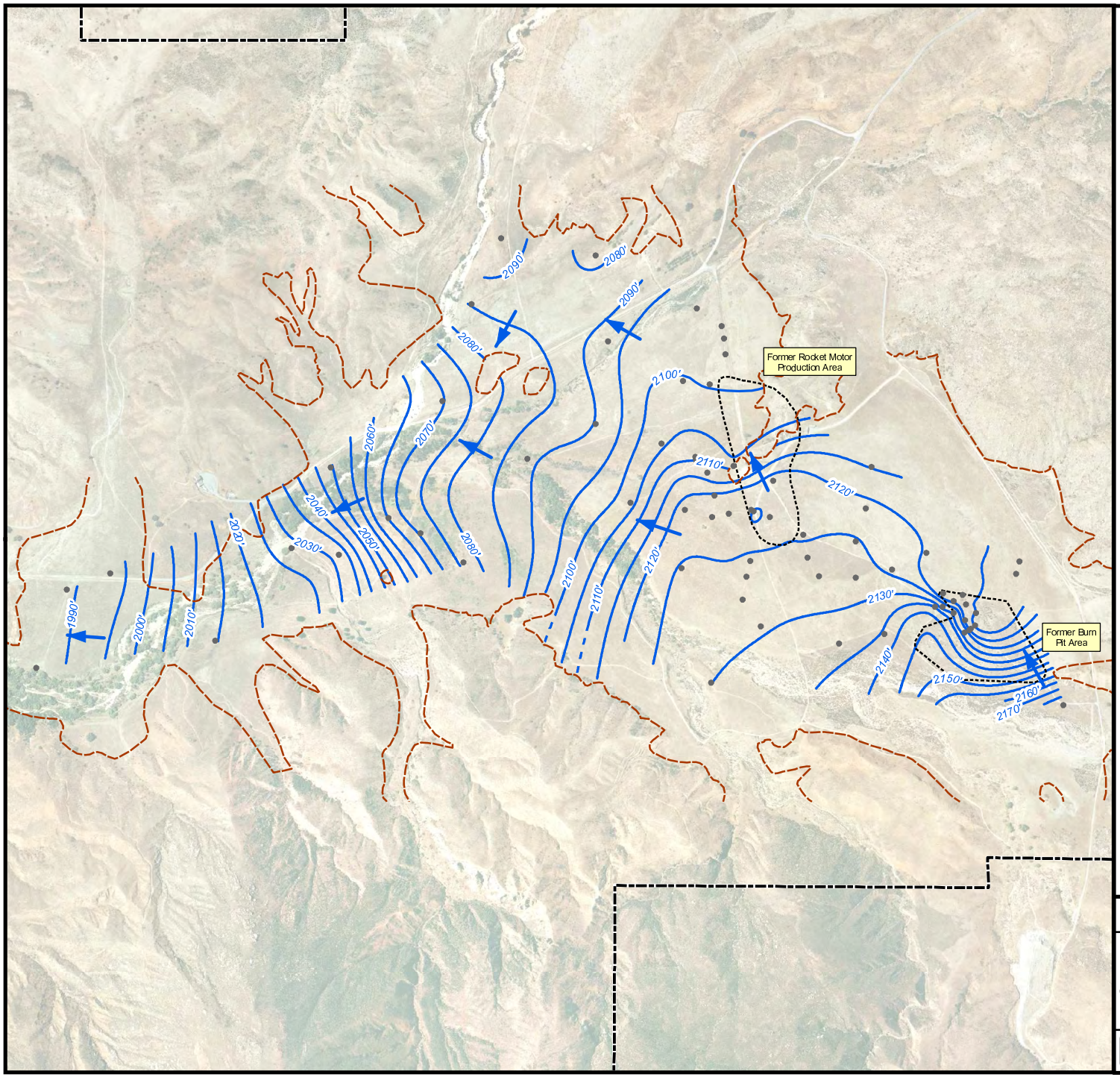

N

0 500 1,000 1,500
Feet

Adapted from:
Semiannual Groundwater Monitoring Report, First and Second Quarter 2005. Lockheed Martin Corp., Beaumont Site 1. Tetra Tech, Inc.

LEGEND

- Well Location
- Groundwater Flow Direction
- Beaumont Site 1 Property Boundary
- 2050' Groundwater Elevation Contour (mean sea level, dashed where inferred)
- Mt. Eden/Alluvium Surface Contact

Beaumont Site 1

Figure 2-10
Wet Period (March 2005)
Groundwater Contour for Shallow and Intermediate Depth Wells

TETRA TECH

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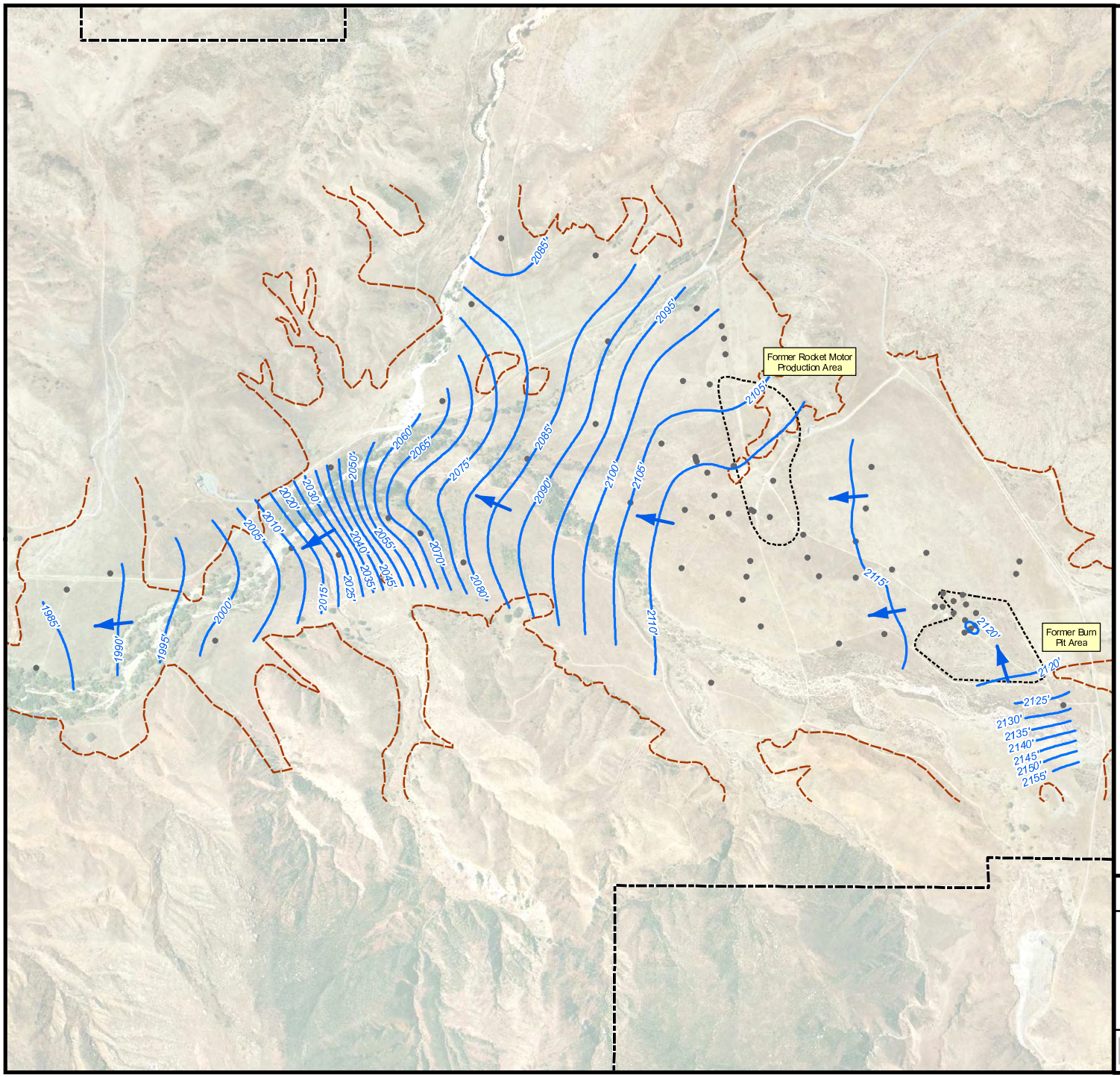

N

0 500 1,000 1,500 Feet

Adapted from:
Semiannual Groundwater Monitoring Report, Third and Fourth Quarter 2006. Lockheed Martin Corp., Beaumont Site 1. Tetra Tech, Inc.

LEGEND

- Well Location
- Groundwater Flow Direction
- Beaumont Site 1 Property Boundary
- 2050' Groundwater Elevation Contour (mean sea level, dashed where inferred)
- Mt. Eden/Alluvium Surface Contact

Beaumont Site 1

Figure 2-11
Dry Period (September 2006) Groundwater Contour for Alluvium and Shallow Mount Eden Formation Wells

TETRA TECH

Previously, the saturated zone had been divided into shallow, intermediate and deep intervals, and due to the large elevation change over the Site [400 feet of change between the farthest upgradient (MW-36) and downgradient (MW-67) wells], adjusted for the four general areas of the Site (Tetra Tech, 2004).

Since Second Quarter 2004, an additional eight groundwater monitoring and four groundwater sampling events have been performed. Summarizing, subsequent groundwater monitoring and sampling results show:

- The highest concentrations of COPC-affected groundwater appear in groundwater samples collected from the former BPA, in the shallow Mt. Eden Formation;
- Relatively low concentrations of COPCs have been reported in groundwater samples collected from wells screened in the deeper Mt. Eden Formation, located downgradient and below wells screened in the shallow Mt. Eden Formation;
- Generally, vertical groundwater gradients appear downward in the former BPA, fluctuate in the former RMPA, and upward in the Northern Potrero Creek Area and Massacre Canyon Entrance Area (MCEA); and
- Generally, COPC concentrations appear to decrease with depth in the alluvium and the shallow Mt. Eden Formation.

Based on the additional groundwater monitoring and sampling results, the recent geophysical surveys and a reevaluation of borehole logs, it appears that portions of the intermediate interval can be grouped with the shallow interval, resulting in an alluvium/shallow Mt. Eden Formation HSU representing the zone of the shallowest groundwater. A second HSU (deeper Mt. Eden Formation/bedrock) can then be described by grouping the remaining portions of the intermediate and deep intervals. Figure 2-12 depicts the alluvium/shallow Mt. Eden Formation and deeper Mt. Eden Formation/bedrock HSUs.

Hydraulic Conductivity

Hydraulic conductivity (K) values calculated for selected wells at the Site range from 0.08 to 318 feet per day (ft/day) (Tetra Tech, 2002). Table 2-2 presents a summary of the K values. The K values for wells screened within the alluvium range from 0.24 to 318 ft/day and the average is 24 ft/day. The K values for wells screened within the Mt. Eden Formation range from 0.31 to 19.6 ft/day and the average is 4 ft/day. The K value for well MW-32 screened in the Granitic/Metasedimentary basement complex rocks is 0.08

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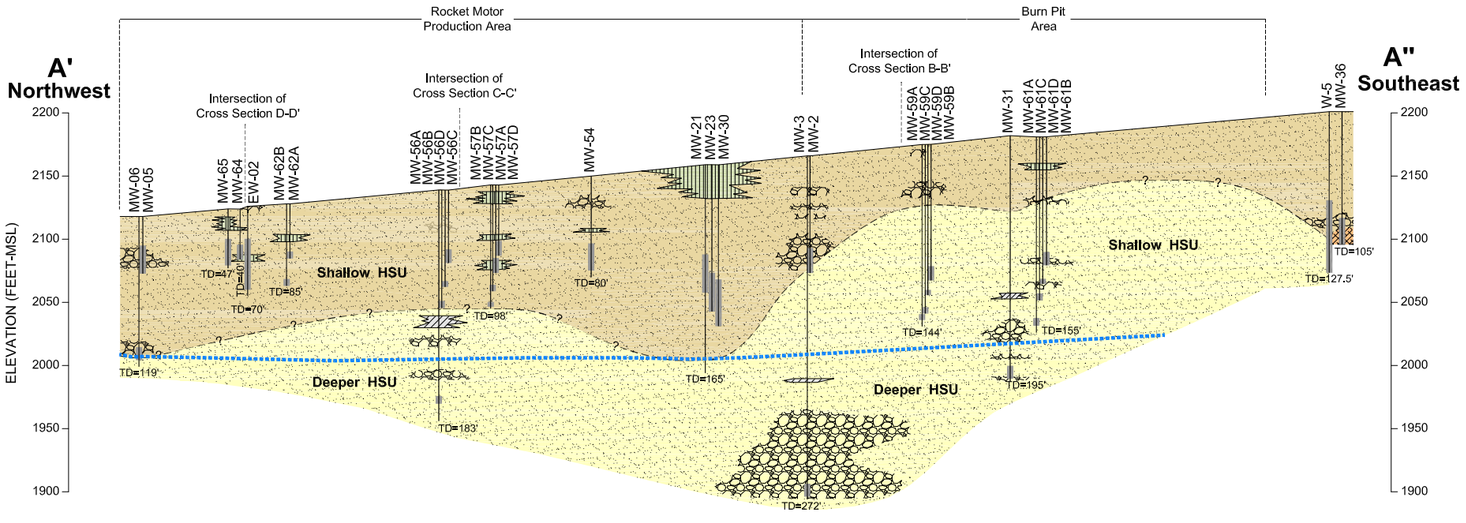
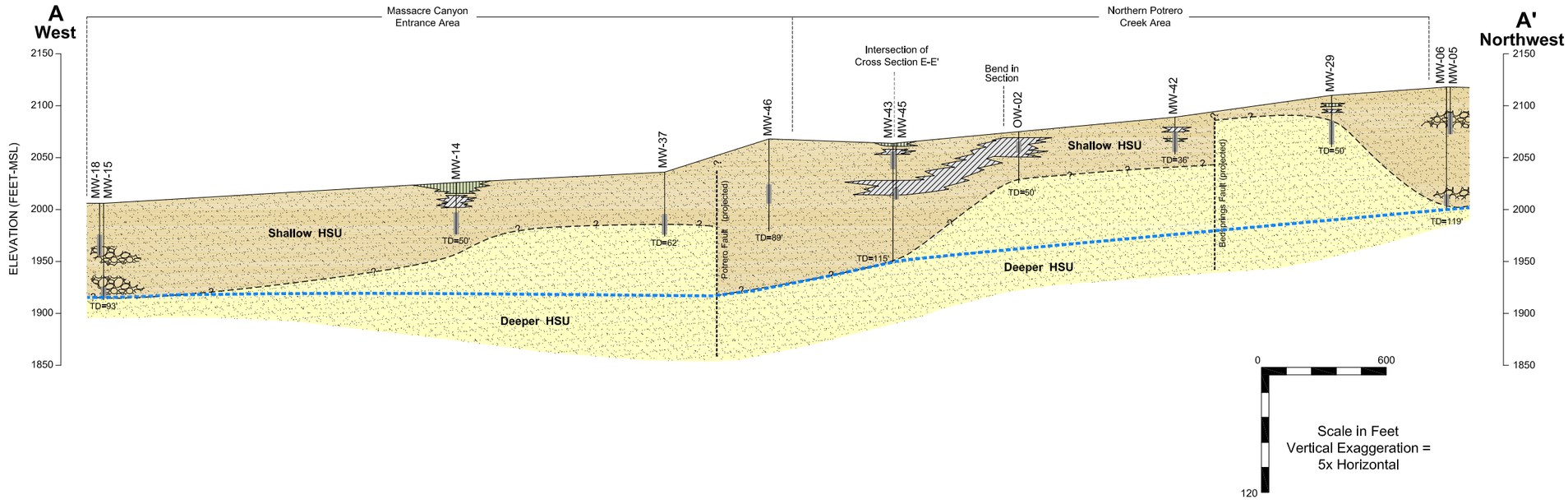




Adapted from:
Faults from Hydrogeologic Investigations for Water Resources Development, Leighton and Associates, 1983.

LEGEND

- Clay
- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Weathered Granitic Bedrock/Boulder
- Inferred Contact
- Groundwater Hydrostratigraphic Unit (HSU)
- Well
- Screened Interval
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 2-12
Shallow and Deeper HSUs

TETRA TECH

Table 2-2 Hydraulic Conductivity (K) Values
Beaumont Site 1

Well ID	Site Area	Formation Screened	HSU	K (feet/day)	Well ID	Site Area	Formation Screened	HSU	K (feet/day)	Well ID	Site Area	Formation Screened	HSU	K (feet/day)
EW-15	BPA	ME	QA / SMEF	0.38	MW-19	NPCA	QA	QA / SMEF	0.88	MW-51	RMPA	QA	QA / SMEF	2.11
MW-01	RMPA	ME	QA / SMEF	1.00	MW-22	RMPA	QA	QA / SMEF	1.01	MW-55	RMPA	QA	QA / SMEF	44.4
MW-02	RMPA	QA	QA / SMEF	67.8	MW-26	BPA	ME	QA / SMEF	0.31	MW-56A	RMPA	ME	DMEF	6.01
MW-03	RMPA	ME	DMEF	0.69	MW-30	RMPA	QA	QA / SMEF	28.3	MW-56B	RMPA	QA	QA / SMEF	19.1
MW-04	RMPA	QA	QA / SMEF	6.01	MW-31	BPA	ME	QA / SMEF	0.11	MW-57A	RMPA	QA	QA / SMEF	45.5
MW-05	RMPA	QA	QA / SMEF	2.12	MW-32	RMPA	GR	DMEF	0.08	MW-57B	RMPA	QA	QA / SMEF	2.45
MW-06	RMPA	QA	QA / SMEF	14.5	MW-34	RMPA	QA	QA / SMEF	6.99	MW-58D	RMPA	QA	QA / SMEF	1.97
MW-07	BPA	QA	QA / SMEF	319	MW-35	RMPA	QA	QA / SMEF	10.2	MW-59A	BPA	ME	QA / SMEF	0.80
MW-08	NPCA	QA	QA / SMEF	21.2	MW-36	UG	QA	QA / SMEF	1.94	MW-59B	BPA	ME	QA / SMEF	0.33
MW-09	NPCA	QA	QA / SMEF	2.14	MW-37	ME	QA	QA / SMEF	0.24	MW-60A	BPA	ME	QA / SMEF	1.03
MW-10	RMPA	ME	QA / SMEF	19.6	MW-38	ME	ME	DMEF	0.79	MW-60B	BPA	ME	QA / SMEF	9.63
MW-11	NPCA	QA	QA / SMEF	6.67	MW-39	RMPA	QA	QA / SMEF	2.38	MW-62A	RMPA	QA	QA / SMEF	5.85
MW-12	NPCA	QA	QA / SMEF	4.75	MW-40	NPCA	QA	QA / SMEF	7.60	MW-63	RMPA	QA	QA / SMEF	1.32
MW-13	NPCA	QA	QA / SMEF	23.6	MW-42	NPCA	QA	QA / SMEF	2.31	MW-64	RMPA	QA	QA / SMEF	2.07
MW-14	ME	QA	QA / SMEF	46.4	MW-43	NPCA	QA	QA / SMEF	1.15	MW-66	RMPA	QA	QA / SMEF	1.81
MW-15	ME	QA	QA / SMEF	103	MW-44	NPCA	QA	QA / SMEF	6.17	OW-02	NPCA	QA	QA / SMEF	0.76
MW-17	RMPA	QA	QA / SMEF	0.77	MW-46	ME	QA	QA / SMEF	3.14	OW-03	RMPA	QA	QA / SMEF	0.66
MW-18	ME	QA	QA / SMEF	18.5	MW-50	RMPA	QA	QA / SMEF	125	P-05	RMPA	QA	QA / SMEF	2.00

Notes:

BPA - Burn Pit Area.
GR - Weathered Granite / Boulder.
DMEF - Deep Mount Eden Formation.
HSU - Hydrostartigraphic unit.
K - Hydraulic conductivity.
ME - Mount Eden Formation.
MCEA - Massacre Canyon Entrance Area.
NPCA - Northern Potrero Creek Area.
QA - Quaternary alluvium.
RMPA - Rocket Motor Production Area.
SMEF - Shallow Mount Eden Formation.
UG - Upgradient.

ft/day. The average K value for alluvium/shallow Mt. Eden Formation screened wells is 20 ft/day and the average K value for deeper Mt. Eden Formation/bedrock screened wells is 3 ft/day. In general, higher K values were obtained from wells screened within the alluvium in the upper (eastern) and lower (western) portions of the valley and K values decrease with depth, with the exception of areas around well groups MW 05/MW-06, MW 15/MW-18 and MW-43/MW-45, which may be a result of coarser grained heterogeneities associated with stream deposits (Figure 2-4). Beneath the former BPA to the southeast terminus of the former RMPA, the Mt. Eden Formation has lower K values. Beneath and immediately down gradient of the former RMPA, Mt. Eden Formation K values increase and then decrease again towards the MCEA.

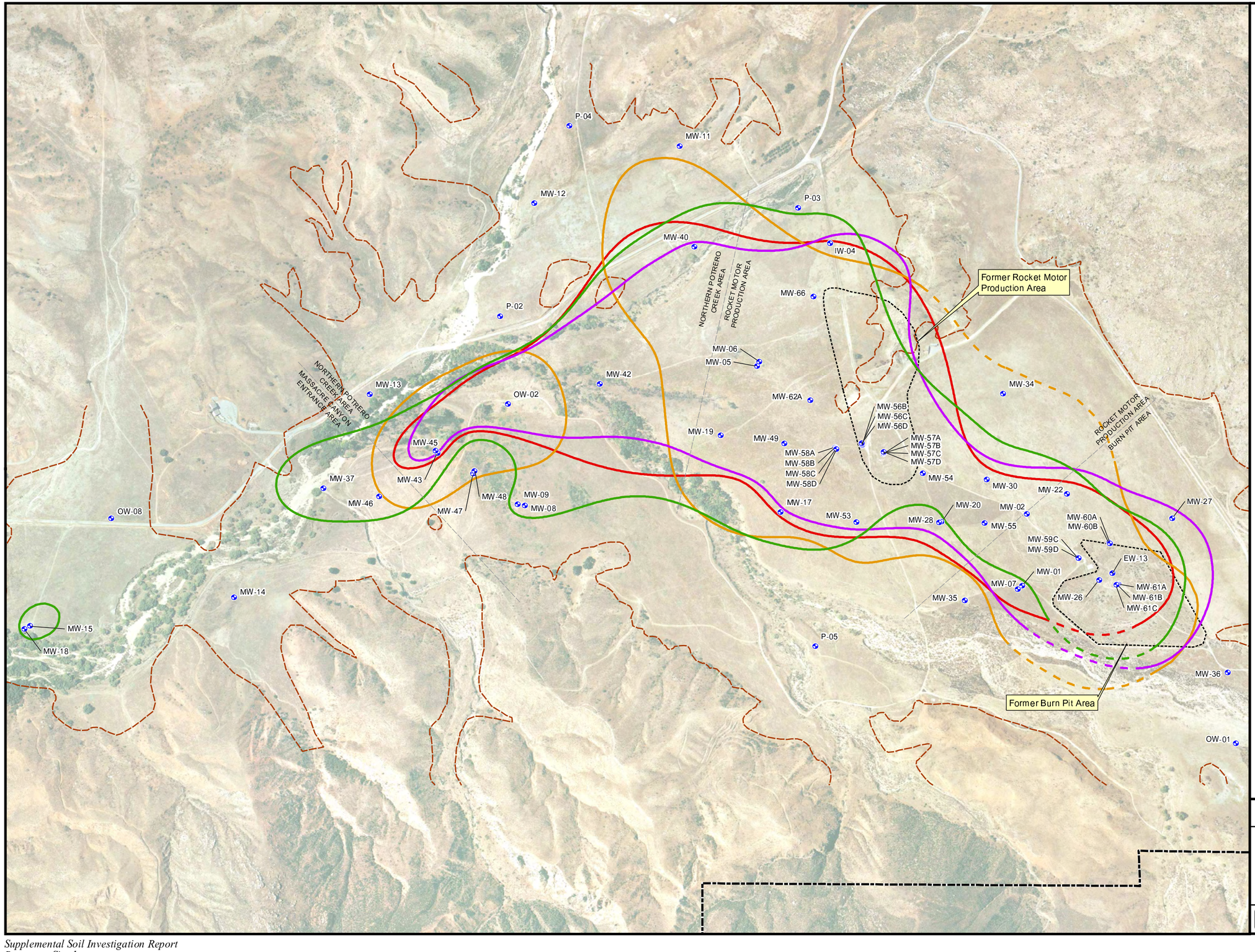
2.4 DISTRIBUTION OF AFFECTED GROUNDWATER

Identification of COPCs is an ongoing process that will be conducted routinely to determine if the list of previously identified COPCs still meets the objectives of the GMP and regulatory requirements. The purpose for identifying COPCs is to establish a list of analytes that best represent the extent and magnitude of the affected groundwater and to focus more detailed analysis on those analytes. Every analytical method has a standard list of tested target compounds and by reducing the number of target compounds for a given analytical method, the volume of data generated can also be reduced. If sufficient historical analytical data are available, analytes that have not been detected, common laboratory and field contaminants, spurious or randomly detected analytes, and analytes associated with chlorinated potable water, can be removed from the list of target compounds.

Based on Site history and the results of the groundwater monitoring performed at the Site, a list of COPCs was identified. Additional chlorinated compounds, which have also been routinely detected in groundwater samples are considered secondary COPCs (Tetra Tech, 2005a). Table 2-3 on page 2-23 presents a list of those analytes detected in groundwater at the Site that are considered primary and secondary COPCs. The primary COPCs are considered representative of the overall Site, therefore this section is limited to describing the distribution of primary COPC-affected groundwater at the Site.

The extent of the primary COPCs based on the results prior to the collection of data presented in this Report are described in the following subsections and shown on Figure 2-13.

X:\GIS\LOCKHEED 19967-05\COPC EXTENT.MXD



0 500 1,000 Feet

Adapted from: March 2007 aerial photograph.

Well locations from Hillwig and Goodrow survey, 2003.

LEGEND

- Groundwater Monitoring Well
- Perchlorate (6.0 µg/L MCL)-Dashed Where Inferred
- 1,1 DCE (6.0 µg/L MCL)-Dashed Where Inferred
- Trichloroethene (5.0 µg/L MCL)-Dashed Where Inferred
- 1,4-Dioxane (3.0 µg/L DWNL)-Dashed Where Inferred
- Mt. Eden/Alluvium Surface Contact
- Beaumont Site 1 Property Boundary

Notes:

Beaumont Site 1 property boundary is approximate.

Contours adapted from *Semiannual Groundwater Monitoring Report First Quarter and Second Quarter 2006, Tetra Tech, 2007a)*

DWNL - California Department of Health Services drinking water notification level.

MCL - Maximum Contaminant Level.

µg/L - Micrograms per liter.

Beaumont Site 1

Figure 2-13
Primary COPC Extents for Alluvium and Shallow Mount Eden Formation

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Table 2-3
Chemicals of Potential Concern

Analyte	Classification
Perchlorate	Primary
1,1-Dichloroethene (1,1-DCE)	Primary
Trichloroethene (TCE)	Primary
1,4-Dioxane	Primary
1,1-Dichloroethane (1,1-DCA)	Secondary
1,2-Dichloroethane (1,2-DCA)	Secondary
cis-1,2-Dichloroethene (cis-1,2-DCE)	Secondary
1,1,1-Trichloroethane (1,1,1-TCA)	Secondary

2.4.1 Perchlorate

The highest concentrations of perchlorate have consistently been reported in groundwater samples collected from shallow screened wells located in the former BPA and concentrations appear to rapidly decrease outside, and downgradient, of the footprint of the former BPA. Perchlorate was reported in groundwater samples collected from wells screened in the alluvium and shallow Mt. Eden Formation. The concentration of perchlorate decreases with depth. Low level concentrations of perchlorate have been detected in groundwater samples collected from one deeper Mt. Eden Formation well in the BPA. The source of perchlorate affected groundwater appears to primarily be the former BPA, a secondary source may also be the former RMPA.

2.4.2 1,1-Dichloroethane

The highest concentrations of 1,1-DCE have consistently been reported in groundwater samples collected from shallow screened wells located in the western portion of the former BPA and have also been the highest VOC concentrations reported in groundwater samples collected. Groundwater concentrations appear to rapidly decrease outside, and downgradient, of the footprint of the former BPA. 1,1-DCE was reported in groundwater samples collected from wells screened in the alluvium, shallow Mt. Eden Formation and deeper Mt. Eden Formation. The concentration of 1,1-DCE decreases with depth. Low level concentrations of 1,1-DCE have been detected in groundwater samples collected from all four of the deeper Mt. Eden Formation wells with the highest concentrations detected in the BPA. The source of 1,1-DCE affected groundwater appears to be the former BPA.

2.4.3 Trichloroethene

The highest concentrations of TCE have consistently been reported in groundwater samples collected from shallow screened wells located in the former BPA. Groundwater concentrations appear to rapidly

decrease outside, and downgradient, of the footprint of the former BPA. TCE was reported in groundwater samples collected from wells screened in the alluvium, shallow Mt. Eden Formation and deeper Mt. Eden Formation. The concentration of TCE decreases with depth. Low level concentrations of TCE have been detected in groundwater samples collected from all four of the deeper Mt. Eden Formation wells with the highest concentrations detected in the BPA. The source of TCE affected groundwater appears to be the former BPA.

2.4.4 1,4-Dioxane

The highest concentrations of 1,4-dioxane have consistently been reported in groundwater samples collected from shallow screened wells located in the former BPA. Groundwater concentrations appear to rapidly decrease outside, and downgradient, of the footprint of the former BPA. 1,4-Dioxane was reported in groundwater samples collected from wells screened in the alluvium, shallow Mt. Eden Formation and deeper Mt. Eden Formation. The concentration of 1,4-dioxane decreases with depth. Low-level concentrations of 1,4-dioxane have been detected in groundwater samples collected from two of the deep wells with the highest concentrations detected in the RMPA. The source of 1,4-dioxane affected groundwater appears to be the former BPA.

3.0 TECHNICAL APPROACH

Supplemental soil investigation activities included a variety of sampling techniques, including hand auger soil sampling, and hollow-stem auger (HSA) drilling with soil sampling, soil gas probe installation and sampling; and groundwater monitoring well installation and sampling. Field activities were conducted in accordance with procedures described in the SAPs (Tetra Tech; 2006a, 2006b) and are briefly described below. Figure 3-1 shows the 21 features investigated during this supplemental soil investigation along with the nine primary operational areas.

3.1 SOIL BORING, SOIL GAS PROBE, AND MONITORING WELL INSTALLATIONS

This section describes the field procedures for installation of the soil borings, soil gas probes, and monitoring wells installed as part of this supplemental soil investigation.

3.1.1 Pre-Drilling Activities

This section describes the following pre-drilling activities: well installation permitting, underground utility clearance, biological monitoring, and health and safety.

Well Installation Permits

Prior to commencing field activities, well permit applications for each groundwater monitoring well were submitted to the Riverside County Department of Environmental Health Services. Copies of the approved permits are provided in Appendix A.

Underground Utility Clearance

Prior to commencement of intrusive activities, drilling locations were marked for subsurface utility clearance. Underground Service Alert was contacted prior to the commencement of drilling activities in order to identify potential underground utility or service lines near the proposed drilling locations. Prior to drilling, all borings were hand-augered to 5 feet bgs to ensure clearance of subsurface utilities or obstructions. No underground utility or service lines were encountered during the drilling activities.

Biological Monitoring

Prior to initiating field sampling activities, biological surveys of proposed soil boring, soil gas probe, and groundwater monitoring well locations were performed by a Section 10A permitted or sub-permitted biologist to evaluate the potential for impacts to sensitive species and habitats (i.e., Stephen's Kangaroo Rat [SKR]). As part of the biological survey, the biologist identified and marked potential or suspected

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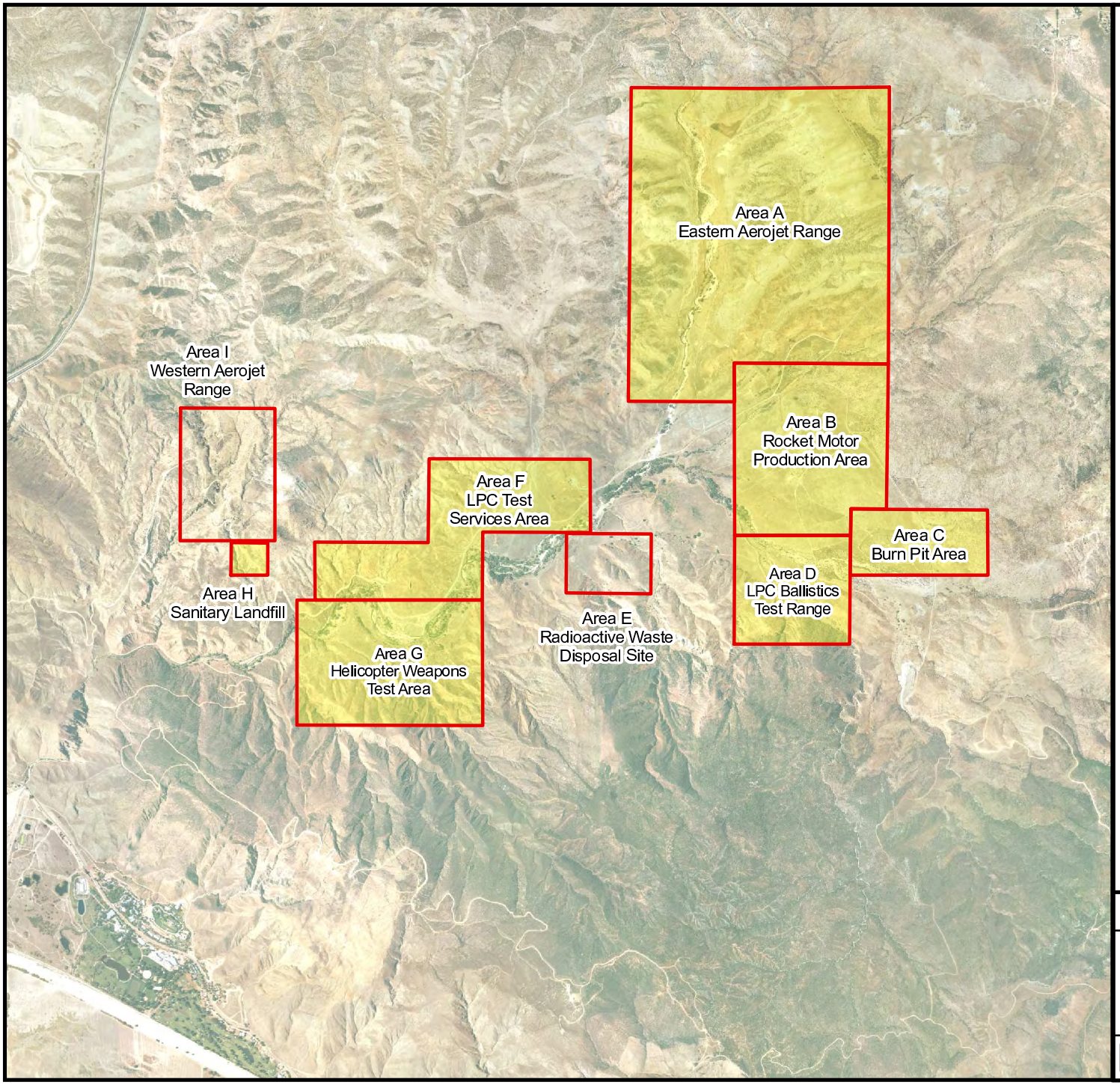

0 2,000 4,000 6,000 Feet

Adapted from:

March 2007 aerial photograph.

LEGEND

- Beaumont Site 1 Property Boundary
- Historical Operational Area Boundary
- Investigation Area

Beaumont Site 1

Figure 3-1

Features and Historical Operational Areas - Supplemental Soil Investigation

TETRA TECH

SKR burrows that were located within the vicinity of each drilling location to avoid the potential "take" of SKR and sensitive habitat. The biologist also clearly marked the access and egress routes at each drilling location in an effort to minimize the overall footprint of the field activities and to prevent potential "take" (see Section 3.6).

Furthermore, field activities were performed under the direct supervision of a biologist who monitored the work locations, including access and egress pathways, to track daily changes in SKR habitat/burrow activity within the drilling location areas. As a result, no impacts to SKR or habitats occurred during the performance of the drilling activities.

Health and Safety

Selection of personal protective equipment (PPE) was made prior to the commencement of field work. Based on previous field activities at the Site and the site-specific Health and Safety Plan (HASP), modified Level D was utilized at the start of field activities. As site conditions and field activities changed, the PPE level was reevaluated. Based on the site conditions and field activities encountered, the PPE level was unchanged throughout field activities.

3.1.2 Soil Boring and Hand Augering

A total of 53 soil borings were drilled at the Site between 11 and 23 April, 2007. Between 1 and 2 August 2007, an additional three borings were drilled to relocate three soil gas sampling probe locations. As previously mentioned, all boreholes were initiated by hand-augering and/or manually digging a pilot borehole to a depth of approximately 5 feet bgs or until refusal occurred, prior to drilling with a truck-mounted CME-95 HSA drill rig. HSA drilling activities were performed by WDC Exploration, Inc. (WDC), a California-licensed drilling contractor.

Drilling activities commenced where no obstructions were encountered during the hand-augering process. Obstructions did occur at locations F-39-HSAS-1 (steel – rebar) and H-49-HSAS-6 (trash), these boring locations were moved approximately 7 feet east and 28 feet south, respectively.

Hand-augering was utilized in sample locations where surface samples (0 – 0.5-feet bgs) were being collected. At all other drilling locations, an 8 inch diameter borehole was advanced using a HSA drill rig to the target depth. At the depth that first groundwater was encountered, drilling was paused temporarily to allow water to equilibrate to static levels, and depth to groundwater was measured. Groundwater monitoring well construction was based upon occurrence of first water and static conditions.

Lithological Logging

Core samples from boreholes were logged for lithology using the Unified Soil Classification System (USCS) (United States Bureau of Reclamation, 1986) including mineralogical composition, color, angularity, grain size and distribution, moisture, density, and sorting. Additional information recorded on the boring log also includes drilling subcontractor, geologist, method of drilling, bit size, total depth drilled, depth to first encountered groundwater, sample interval, organic vapor analyzer (photo-ionization detector) readings, observed odors and discolorations, location, and coordinates and elevation (if known). Copies of boring logs are provided in Appendix B.

Borehole Destruction

When borings were not converted into soil gas probes or groundwater monitoring wells, the boreholes were properly destroyed using the following methodologies. Backfilling of boreholes less than 20 feet bgs was conducted by emplacement of bentonite chips and hydrating. Backfilling of boreholes greater than 20 feet bgs was done by emplacement of a slurry consisting of Portland Type II/V cement and bentonite grout from the bottom of the borehole using the tremie method. All backfilled borehole locations using cement bentonite grout emplacement were checked between 24 to 48 hours after emplacement to ensure that curing had occurred properly.

3.1.3 Soil Gas Probe Installation

A total of 68 soil gas probes were installed in a total of 24 borings from 3 to 23 April, 2007 and 1 to 2 August 2007, under the direction of the on-site geologist and supervising Professional Geologist and/or Professional Engineer.

The soil borings for soil gas probes were installed using HSA drilling methods. The probes were constructed using 6 inch stainless steel mesh vapor inlets connected to ¼ inch-outer diameter (O.D.) polyethylene tubing. One inch O.D. polyvinyl chloride (PVC) casing supported the polyethylene tubing during construction of each soil vapor probe. A sand filter pack, consisting of clean, reagent-free coarse aquarium sand was placed adjacent to the vapor inlet and extending 1 foot above each vapor inlet (screened interval). Dry granular bentonite was placed 1 foot directly above the sand filter pack. Hydrated bentonite chips were placed atop the granular bentonite. A cement/bentonite grout seal was applied above the shallowest hydrated bentonite chips to ground surface. A petcock 2-way gas-tight valve was installed at the surface. Probe installation included combinations of dual, triple, quadruple, and quintuple probe construction. Figure 3-2 shows a typical soil gas probe construction for a dual probe

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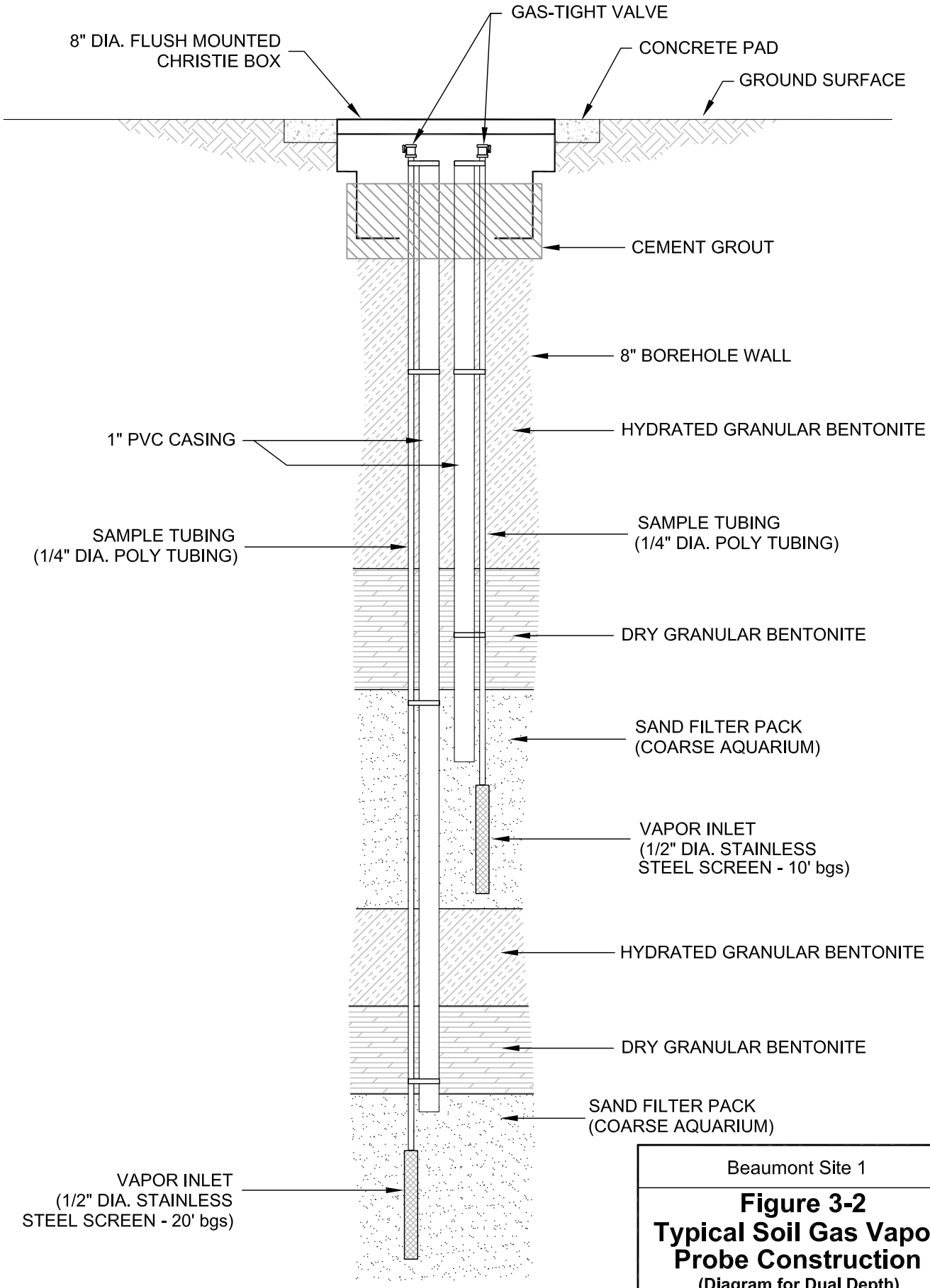

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

Figure 3-2
Typical Soil Gas Vapor Probe Construction
(Diagram for Dual Depth)

TETRA TECH

installation. A summary of soil gas probe construction details is presented in Table 3-1 and soil gas probe construction logs are attached as Appendix C.

3.1.4 Monitoring Well Installation

A total of three groundwater monitoring wells were drilled and installed at the Site between 24 and 27 April 2007. All drilling and installation services were performed by WDC under the direction of the on-site geologist and supervising Professional Geologist and/or Professional Engineer. A summary of the drilling and well installation activities is presented below.

Groundwater monitoring wells MW-68, MW-69, and MW-70 were constructed after evaluation of lithology and groundwater conditions at each location. Each monitoring well was constructed with a 4 inch diameter PVC casing and a 0.020 inch factory slotted screened section. A summary of monitoring well construction is presented in Table 3-2 and monitoring well construction logs are attached as Appendix D.

Based on previous investigations at the Site and the fine-grained nature of the sediments encountered during drilling, the #2/12 sand adequately provides a zone of higher permeability around the screened section, relative to the surrounding formation material, while still being small enough in size to reduce the amount of suspended fines entering the well. In addition, 0.020 inch perforations were selected for the monitoring wells as this allows for sufficient open area for the screens while the #2/12 sand is used to retain the fine-grained materials.

Once the total depth at each location was reached, the screen and casing were assembled and placed within the borehole. The annular space around the screen was then backfilled with clean, reagent free #2/12 silica sand to serve as a filter pack, and the well was surged to ensure settling of the filter pack and prevent bridging. At each location, filter pack materials were installed to a minimum 1.5 feet above the top of the screened interval. Above the filter pack, a 2 foot minimum thick layer of ⅜ inch bentonite chips were installed and hydrated to form the transition seal. The bentonite chips were allowed to hydrate for approximately 1 hour prior to installing additional backfill materials. The remaining annular space above the well seal was backfilled with a Portland Type II/V cement and bentonite grout slurry that extended to approximately 1 foot bgs using the tremie method. All backfill materials were added in lifts and measured periodically to minimize the potential for bridging within the annular space.

At the surface, each well was completed with a steel outer monument casing that extends approximately 3 feet above grade. Each monument casing contains a locking well cap to provide protection against

Table 3-1
Soil Gas Probe Construction Summary

Borehole	Date Completed	Probe Depth (in feet)	Total Depth of Borehole
B11-HSAS9	4/4/2007	10, 25	26.5
B11-HSAS10	4/4/2007	10, 25	31.5
B11-HSAS8	4/4/2007	10, 25	31
F39-HSAS1	4/6/2007	10, 20	29
F39-HSAS2	4/5/2007	10, 20	26.5
F39-HSAS3	4/6/2007	10, 20	30
F39-HSAS4	4/6/2007	10, 20	31.5
F34-HSAS2	4/9/2007	15, 25	31.5
F34-HSAS5	4/9/2007	15, 25	31.5
G46-HSAS2	4/9/2007	10, 20	29
F34-HSAS6	4/10/2007	15, 25	31.5
G46-HSAS1	4/10/2007	10, 20	24
C22-HSAS22	4/12/2007	10, 20, 30, 40, 50	61.5
C22-HSAS25	4/13/2007	10, 20, 30, 40	51.5
C22-HSAS26	4/16/2007	10, 20, 30, 40	51.5
C22-HSAS21	4/17/2007	10, 20, 30, 40, 50	61.5
C22-HSAS23	4/17/2007	10, 20, 30, 40, 50	61.5
C22-HSAS24	4/19/2007	10, 20, 30, 40, 50	61.5
D26-HSAS1	4/20/2007	10, 20, 30	31.5
D26-HSAS2	4/20/2007	10, 20, 30	31.5
D26-HSAS3	4/23/2007	10, 20, 30	31.5

Table 3-2
Monitoring Well Construction Data
Supplemental Soil Investigation
Beaumont Site 1

Well ID	Date Installed	Formation Screened	HSU	Elevation (TOS, feet)	Depth to TOS (feet)	Depth to BOS (feet)	Screen Length (feet)	Reported Borehole Depth (feet)	Borehole Diameter (inches)	Casing Diamter (inches) & Material	Screen Slot Size (inches) & Material	Drilling Method	Filter Pack	Northing Coordinate	Easting Coordinate
MW-68	4/25/2007	QA	QA	Pending	24.4	39.4	15	35	10	4 PVC	0.02	Hollow Stem	2/12 sand	Pending	Pending
MW-69	4/24/2007	QA	QA	Pending	24.6	50	25	50.5	10	4 PVC	0.02	Hollow Stem	2/12 sand	Pending	Pending
MW-70	4/27/2007	QA	QA	Pending	20	35	15	35.9	10	4 PVC	0.02	Hollow Stem	2/12 sand	Pending	Pending

Notes:

BOS - Bottom of screen.
HSU - Hydrostratigraphic unit screened.
ME - Mount Eden Formation.
NA - Not available.
PVC - Polyvinylchloride.
QA - Quaternary alluvium.
SMEF Shallow Mt. Eden Formation
TOS - Top of screen.

tampering or unauthorized access. The base of each monument is secured by a 2 foot by 2 foot by 4 inch concrete surface pad.

Four concrete-filled steel guard posts were installed around monitoring well MW-69. Well MW-69 is the only well that required the installation of guard posts installed due to its location just off the main road through the Site. The guard posts are 5 feet in length and are installed radially from the wellhead. The posts are recessed approximately 2 feet bgs and set in concrete. Each well is marked using paint and secured with a lock keyed for opening with one master key. Figure 3-3 shows a typical single-completion groundwater monitoring well construction diagram for the Site.

3.1.5 Monitoring Well Development

The groundwater monitoring wells were developed approximately 2 weeks following well completion. Well development was performed in a step-wise process as described below.

The monitoring wells were developed using a combination of bailing, surging, and pumping. The wells were initially bailed until most of the settleable solids were removed, and the total depth of the well was measured. The wells were then swabbed using a large surge block to flush fine-grained materials from the filter pack. After surging, the fine-grained materials that accumulated inside the well casings were bailed with a suction bailer until nearly all the settleable solids were removed and the bottom of the well probed. After two or more bailing periods, a submersible pump was placed in the well. During pumping, the pump was turned on and off several times after the purge water was relatively clear and free of suspended solids. The purpose of this action was to surge the filter pack and mobilize fine-grained sediments still trapped in the filter pack.

During pumping, water quality parameters consisting of pH, temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity were monitored and recorded on Groundwater Monitoring Well Development Field Data Sheets, which are attached as Appendix E. Water level measurements and pumping rates were also recorded on the forms. Pumping rates were measured using the bucket/stopwatch method. The bucket/stopwatch method consists of pumping the well discharge into a known volume container (usually a calibrated 5-gallon bucket). A stopwatch is started when flow begins entering the container and is stopped when the container is full. This will give the time in minutes and seconds needed to discharge the known volume of water from the well. This number was converted to gallons per minute (gpm) and recorded on the field logging sheets.

This procedure was repeated several times to establish an average pumping rate. The volume pumped

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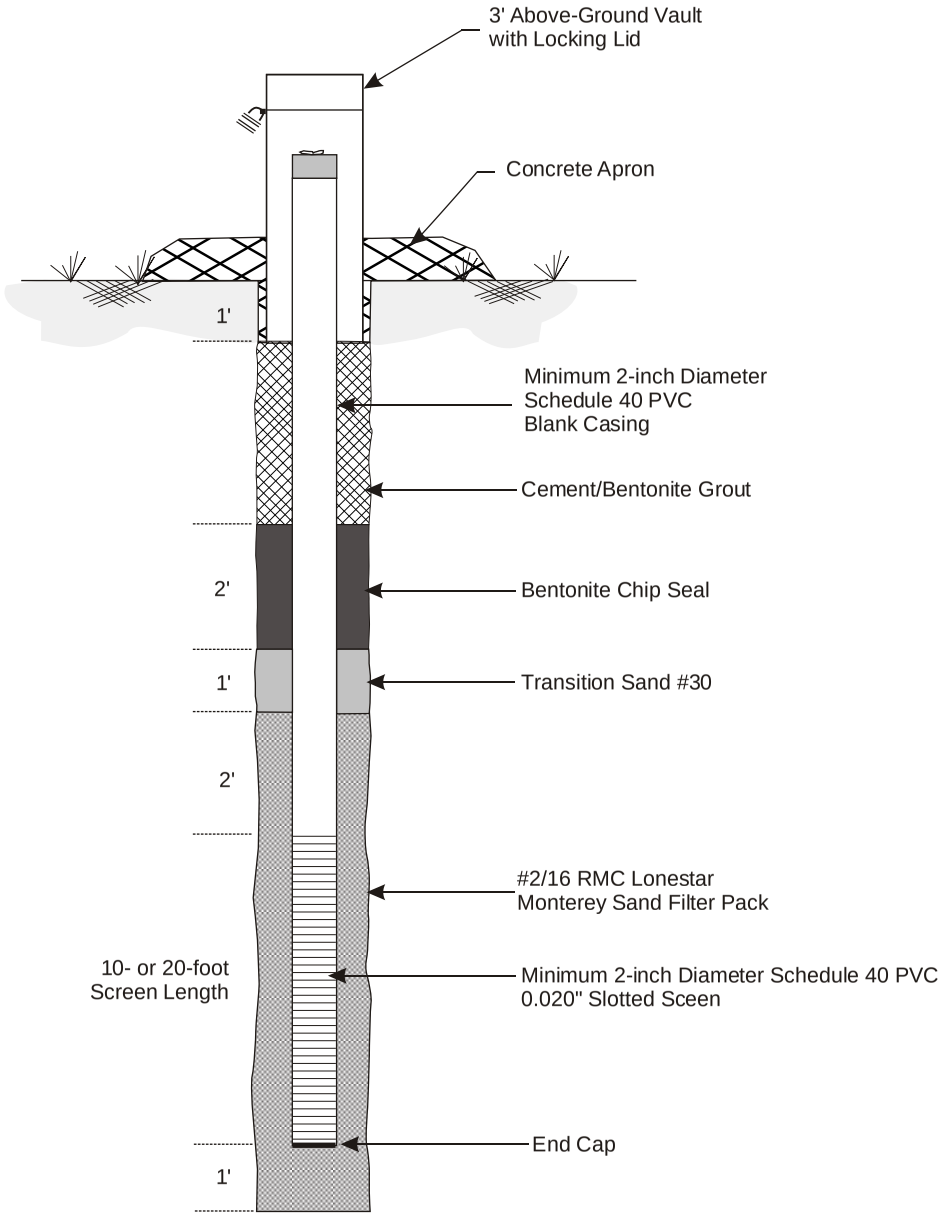

Beaumont Site 1

Figure 3-3

Typical Groundwater Monitoring Well Construction

TETRA TECH

May 2008

during development was calculated based on the average pumping rate and the total time the well was pumped. The water level drawdown was recorded on the logging sheet. Water level drawdown and pumping rates were measured during well development to calculate the specific capacity of the well. In cases where the permeability of the formation was too low to allow for sustained pumping, slug tests were performed as part of the initial groundwater sampling activities of the newly installed wells.

After water quality parameters stabilized [i.e., pH ± 0.1 units, EC ± 5%, temperature ± 1 degree Celsius (°C), DO ± 0.3 milligrams per liter (mg/L), and turbidity ≤10 nephleometric turbidity units (NTUs) or within 10% of three consecutive measurements], development was considered complete.

Decontamination procedures were completed after each monitoring well had been developed. Purge equipment including pumps and discharge lines, were decontaminated by flushing/pumping a phosphate-free detergent (i.e. Liquinox) and water solution and potable water rinse through the components. All measuring equipment, such as water level meters and water quality probes, was thoroughly rinsed with deionized water prior to each use and between wells.

3.2 ENVIRONMENTAL SAMPLING

Soil, soil gas, and groundwater samples were collected as part of this supplemental soil investigation. A summary of the environmental sampling conducted for Operational Areas A, B, C, D, F, G, and H during this investigation is shown in Table 3-3. The table summarizes, by operational area and feature, the sample locations and dates, analytical methods, and quality assurance/quality control (QA/QC) samples collected for each media.

3.2.1 Soil Sampling

Soil samples were collected by hand-auger and split-spoon methods. Using the hand-auger, soil was placed directly from the hand-auger into designated sample containers. Using split-spoons, soil samples were collected from the relatively undisturbed formation by advancing the split-spoon sampler ahead of the auger bit and placing the recovered soil into designated containers. Soil samples were labeled and stored in a chilled cooler, in accordance with the SAP, and delivered to the laboratory via courier under Chain-of-Custody (CoC) protocols. All soil sampling for VOC analysis was performed using EnCore® sample containers following EPA Method 5035A. Soil samples were analyzed by EMAX Laboratories (EMAX), a State of California-certified laboratory located in Torrance, California.

3.2.2 Soil Gas Sampling

Soil gas sampling activities occurred between 02 and 16 May, 2007 and on 21 August 2007. A total of 55

Table 3-3 Sampling and Analysis Summary by Feature
Beaumont Site 1

Feature No.	Sample Location	Sample Date	Matrix (S, SG, W)	Perchlorate (EPA 314.1)	VOCs (EPA 8260B)	SVOCs (EPA 8270C)	1,4-Dioxane (EPA 8270M)	CAM 17 Metals (6010B, 7471A)	Explosives (EPA 8330)	PCBs (EPA 8082)	VOCs (TO-15)	Comments
A-6	A6-HAS1@0.5	4/10/2007	S	X	X	X	X	X				
	A6-HAS1@5	4/10/2007	S	X	X	X	X	X				
B-9	B9-HSAS1-5-6.5	4/18/2007	S	X								
	B9-HSAS1-10-11.5	4/18/2007	S	X								
	B9-HSAS1-20-21.5	4/18/2007	S	X								
	B9-HSAS2-5-6.5	4/18/2007	S	X								
	B9-HSAS2-10-11.5	4/18/2007	S	X								
	B9-HSAS2-20-21.5	4/18/2007	S	X								
	B9-HSAS3-15-6.5	4/18/2007	S	X								
	B9-HSAS3-10-11.5	4/18/2007	S	X								
	B9-HSAS3-20-21.5	4/18/2007	S	X								
B-10	B10-HSAS4-5-6.5	4/18/2007	S	X								
	B10-HSAS4-15-16.5	4/18/2007	S	X								
	B10-HSAS4-30-31.5	4/18/2007	S	X								
	B10-HSAS5-15-16.5	4/24/2007	S	X								
	B10-HSAS5-20-21.5	4/24/2007	S	X								
	B10-HSAS5-25-26.5	4/24/2007	S	X								
	B10-HSAS6-10-11.5	4/24/2007	S	X								
	B10-HSAS6-20-21.5	4/24/2007	S	X								
	B10-HSAS6-30-31.5	4/24/2007	S	X								
	B10-HSAS7-5-6.5	4/23/2007	S	X								
	B10-HSAS7-15-16.5	4/23/2007	S	X								
	B10-HSAS7-30-31.5	4/23/2007	S	X								
B-11	B11-HSAS8-5-6.5	4/3/2007	S	X								
	B11-HSAS8-20-21.5	4/3/2007	S	X								
	B11-HSAS8-25-26.5	4/3/2007	S	X								
	B11-HSAS9-15-16.5	4/4/2007	S	X								
	B11-HSAS9-20-21.5	4/4/2007	S	X								
	B11-HSAS9-25-26.5	4/4/2007	S	X								
	B11-HSAS10-10-11.5	4/4/2007	S	X								
	B11-HSAS10-25-26.5	4/4/2007	S	X								
	B11-HSAS10-30-31.5	4/4/2007	S	X								
	B11-GW01	4/4/2007	W	X	X							Sample collected at B11-HSAS8
	B11-HSAS8-SVP-10'	05/02/07	SG								X	
	B11-HSAS8-SVP-25'	05/02/07	SG								X	
	B11-HSAS9-SVP-10'	05/02/07	SG								X	
	B11-HSAS9-SVP-25'	05/02/07	SG								X	
	B11-HSAS10-SVP-10'	05/02/07	SG								X	
	B11-HSAS10-SVP-25'	05/02/07	SG								X	
B-14	B14-HSAS11-10-11.5	04/25/07	S	X								
	B14-HSAS11-20-21.5	04/25/07	S	X								
	B14-HSAS11-30-31.5	04/25/07	S	X								

EPA - Environmenatl Protection Agency
PCB - polychlorinated biphenyl
QA/QC - quality assurance/quality control
S - soil
SG - soil gas
SVOC - semi-volatile organic compound
VOC - volatile oragnic compound
W - water

Table 3-3 Sampling and Analysis Summary by Feature
Beaumont Site 1

Feature No.	Sample Location	Sample Date	Matrix (S, SG, W)	Perchlorate (EPA 314.1)	VOCs (EPA 8260B)	SVOCs (EPA 8270C)	1,4-Dioxane (EPA 8270M)	CAM 17 Metals (6010B, 7471A)	Explosives (EPA 8330)	PCBs (EPA 8082)	VOCs (TO-15)	Comments
B-14	B14-HSAS12-5-6.5	04/18/07	S	X								
	B14-HSAS12-10-11.5	04/18/07	S	X								
	B14-HSAS12-25-26.5	04/18/07	S	X								
	B14-HSAS13-5-6.5	04/18/07	S	X								
	B14-HSAS13-10-11.5	04/18/07	S	X								
	B14-HSAS13-25-26.5	04/18/07	S	X								
B-18	B18-HSAS14-5-6.5	04/25/07	S	X								
	B18-HSAS14-15-16.5	04/25/07	S	X								
	B18-HSAS14-20-21.5	04/25/07	S	X								
	B18-HSAS15-5-6.5	04/25/07	S	X								
	B18-HSAS15-15-16.5	04/25/07	S	X								
	B18-HSAS15-20-21.5	04/25/07	S	X								
	B18-HSAS16-5-6.5	04/25/07	S	X								
	B18-HSAS16-10-11.5	04/25/07	S	X								
	B18-HSAS16-20-21.5	04/25/07	S	X								
B-19	B19-HSAS17-5-6.5'	04/16/07	S	X								
	B19-HSAS17-10-11.5'	04/16/07	S	X								
	B19-HSAS17-20-21.5'	04/16/07	S	X								
	B19-HSAS18-5-6.5	04/18/07	S	X								
	B19-HSAS18-10-11.5	04/16/07	S	X								
	B19-HSAS18-20-21.5	04/16/07	S	X								
B-20	B20-HSAS19-10-11.5	04/23/07	S	X								
	B20-HSAS19-15-16.5	04/23/07	S	X								
	B20-HSAS19-25-26.5	04/23/07	S	X								
	B20-HSAS19-30-31.5	04/23/07	S	X								
	B20-HSAS20-10-11.5	04/24/07	S	X								
	B20-HSAS20-20-21.5	04/24/07	S	X								
	B20-HSAS20-25-26.5	04/24/07	S	X								
	B20-HSAS20-30-31.5	04/24/07	S	X								
C-22	C22-HSAS21-9.5-11	4/17/2007	S	X	X							
	C22-HSAS21-12-15.5	4/17/2007	S	X	X							
	C22-HSAS21-30-31.5	4/17/2007	S	X	X							
	C22-HSAS21-60-61.5	4/17/2007	S	X	X							
	C22-HSAS22-11-12.5	4/12/2007	S	X	X							
	C22-HSAS22-12.5-14	4/12/2007	S	X	X							
	C22-HSAS22-30-31.5	4/12/2007	S	X	X							
	C22-HSAS22-60-61.5	4/12/2007	S	X	X							
	C22-HSAS23-10-11.5	4/17/2007	S	X	X							
	C22-HSAS23-30-31.5	4/17/2007	S	X	X							
	C22-HSAS23-60-61.5	4/17/2007	S	X	X							
	C22-HSAS24-5-6.5	4/19/2007	S	X	X							
	C22-HSAS24-20-21.5	4/19/2007	S	X	X							

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SVOC - semi-volatile organic compound
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W - water

Table 3-3 Sampling and Analysis Summary by Feature
Beaumont Site 1

Feature No.	Sample Location	Sample Date	Matrix (S, SG, W)	Perchlorate (EPA 314.1)	VOCs (EPA 8260B)	SVOCs (EPA 8270C)	1,4-Dioxane (EPA 8270M)	CAM 17 Metals (6010B, 7471A)	Explosives (EPA 8330)	PCBs (EPA 8082)	VOCs (TO-15)	Comments
C-22	C22-HSAS24-55-56.5	4/19/2007	S	X	X							
	C22-HSAS25-13-14.5	4/13/2007	S	X	X							
	C22-HSAS25-25-26.5	4/13/2007	S	X	X							
	C22-HSAS25-46-46.5	4/13/2007	S	X	X							
	C22-HSAS26-15-16.5'	4/16/2007	S	X	X							
	C22-HSAS26-20-21.5'	4/16/2007	S	X	X							
	C22-HSAS26-35-36.5'	4/16/2007	S	X	X							
	C22-HSAS21-SVP-10'	5/10/2007	SG								X	
	C22-HSAS21-SVP-20'	5/10/2007	SG								X	
	C22-HSAS21-SVP-30'	5/10/2007	SG								X	
	C22-HSAS21-SVP-40'	5/10/2007	SG								X	
	C22-HSAS21-SVP-50'	5/9/2007	SG								X	
	C22-HSAS22-SVP-10'	5/9/2007	SG								X	
	C22-HSAS22-SVP-20'	5/8/2007	SG								X	
	C22-HSAS22-SVP-30'	5/8/2007	SG								X	
	C22-HSAS22-SVP-40'	5/8/2007	SG								X	
	C22-HSAS22-SVP-50'	5/8/2007	SG								X	
	C22-HSAS23-SVP-10'	5/9/2007	SG								X	
	C22-HSAS23-SVP-20'	5/9/2007	SG								X	
	C22-HSAS23-SVP-30'	5/9/2007	SG								X	
	C22-HSAS23-SVP-40'	5/9/2007	SG								X	
	C22-HSAS23-SVP-50'	5/9/2007	SG								X	
	C22-HSAS24-SVP-10'	5/11/2007	SG								X	
	C22-HSAS24-SVP-20'	5/11/2007	SG								X	
	C22-HSAS24-SVP-30'	5/11/2007	SG								X	
	C22-HSAS24-SVP-40'	5/11/2007	SG								X	
	C22-HSAS24-SVP-50'	5/11/2007	SG								X	
	C22-HSAS25-SVP-10'	5/8/2007	SG								X	
	C22-HSAS25-SVP-20'	5/7/2007	SG								X	
	C22-HSAS25-SVP-30'	5/7/2007	SG								X	
	C22-HSAS25-SVP-40'	5/7/2007	SG								X	
	C22-HSAS26-SVP-10'	5/10/2007	SG								X	
	C22-HSAS26-SVP-20'	5/10/2007	SG								X	
	C22-HSAS26-SVP-30'	5/10/2007	SG								X	
	C22-HSAS26-SVP-40'	5/10/2007	SG								X	
C-23	C23-SS1	4/11/2007	S					X				
	C23-SS2	4/11/2007	S					X				
	C23-SS3	4/11/2007	S					X				
	C23-SS4	4/11/2007	S					X				
	C23-SS5	4/11/2007	S					X				
	C23-SS6	4/11/2007	S					X				
	C23-SS7	4/11/2007	S					X				
	C23-SS8	4/11/2007	S					X				
	C23-HSAS27-5-6.5	4/19/2007	S	X								

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C-23	C23-HSAS27-20-21.5	4/19/2007	S	X								
	C23-HSAS27-30-31.5	4/19/2007	S	X								
	C23-HSAS28-5-6.5	4/19/2007	S	X								
	C23-HSAS28-20-21.5	4/19/2007	S	X								
	C23-HSAS28-40-41.5	4/19/2007	S	X								
D-26	D26-HSAS1-SVP-10'	8/1/2007	SG								X	
	D26-HSAS1-SVP-20'	8/1/2007	SG								X	
	D26-HSAS1-SVP-30'	8/1/2007	SG								X	
	D26-HSAS2-SVP-10'	8/1/2007	SG								X	
	D26-HSAS2-SVP-20'	8/1/2007	SG								X	
	D26-HSAS2-SVP-30'	8/1/2007	SG								X	
	D26-HSAS3-SVP-10'	8/1/2007	SG								X	
	D26-HSAS3-SVP-20'	8/1/2007	SG								X	
	D26-HSAS3-SVP-30'	8/1/2007	SG								X	
D-29	D29-HAS11@0.5'	04/11/07	S						X			
	D29-HAS11@5'	04/11/07	S						X			
	D29-HAS12@0.5'	4/11/2007	S						X			
	D29-HAS12@5'	4/11/2007	S						X			
	D29-HAS13@0.5'	4/11/2007	S						X			
	D29-HAS13@5'	4/11/2007	S						X			
	D29-HAS-14-0.5	7/26/2007	S	X	X				X			
	D29-HAS-14-5	7/26/2007	S	X	X				X			
	D29-HAS-15-0.5	7/26/2007	S	X	X				X			
	D29-HAS-15-5	7/26/2007	S	X	X				X			
	D29-HAS-16-0.5	7/26/2007	S	X	X				X			
	D29-HAS-16-5	7/26/2007	S	X	X				X			
F-33	F33-HAS11@.5	4/27/2007	S	X								
	F33-HAS11@5	4/27/2007	S	X								
	F33-HAS12@.5	4/27/2007	S	X								
	F33-HAS12@5.0	4/27/2007	S	X								
	F33-HAS13@.5	4/27/2007	S	X								
	F33-HAS13@5.0	4/27/2007	S	X								
	F33-HAS16@.5	4/27/2007	S	X								
	F33-HAS16@5	4/27/2007	S	X								
	F33-HSAS10-10-11.5	4/27/2007	S	X								
	F33-HSAS10-15-16.5	4/27/2007	S	X								
	F33-HSAS10-20-21.5	4/27/2007	S	X								
	F33-HSAS10GW	4/27/2007	S	X								
	F33-HSAS14-5-6.5	4/27/2007	S	X								
	F33-HSAS14-10-11.5	4/27/2007	S	X								
	F33-HSAS14-15-16.5	4/27/2007	S	X								
	F33-HSAS14-20-21.5	4/27/2007	S	X								
	F33-HSAS15-10-11.5	4/27/2007	S	X								

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Beaumont Site 1

Feature No.	Sample Location	Sample Date	Matrix (S, SG, W)	Perchlorate (EPA 314.1)	VOCs (EPA 8260B)	SVOCs (EPA 8270C)	1,4-Dioxane (EPA 8270M)	CAM 17 Metals (6010B, 7471A)	Explosives (EPA 8330)	PCBs (EPA 8082)	VOCs (TO-15)	Comments
F-33	F33-HSAS15-15-16.5	4/27/2007	S	X								
	F33-HSAS15-20-21.5	4/27/2007	S	X								
F-34	F34-HSAS2-SVP-15'	5/4/2007	SG								X	
	F34-HSAS2-SVP-25'	5/4/2007	SG								X	
	F34-HSAS5-SVP-15'	5/4/2007	SG								X	
	F34-HSAS5-SVP-25'	5/4/2007	SG								X	
	F34-HSAS6-SVP-15'	5/4/2007	SG								X	
	F34-HSAS6-SVP-25'	5/4/2007	SG								X	
F-35	F35-HAS1@0.5'	4/9/2007	S							X		
	F35-HAS1@1.5'	4/9/2007	S							X		
	F35-HAS2@0.5'	4/6/2007	S							X		
	F35-HAS2@5'	4/6/2007	S							X		
	F35-HAS3@0.5'	4/6/2007	S							X		
	F35-HAS3@5'	4/6/2007	S							X		
	F35-HAS4@0.5'	4/9/2007	S							X		
	F35-HAS4@5'	4/9/2007	S							X		
F-36	F36-HSAS1@5'	4/11/2007	S							X		
	F36-HSAS1@10'	4/11/2007	S							X		
	F36-HSAS1@15'	4/11/2007	S							X		
	F36-HSAS2@5'	4/11/2007	S							X		
	F36-HSAS2@10'	4/11/2007	S							X		
	F36-HSAS2@15'	4/11/2007	S							X		
	F36-HSAS3@5'	4/11/2007	S							X		
	F36-HSAS3@10'	4/11/2007	S							X		
	F36-HSAS3@15'	4/11/2007	S							X		
	F36-HSAS4@5'	4/11/2007	S							X		
	F36-HSAS4@10'	4/11/2007	S							X		
	F36-HSAS4@15'	4/11/2007	S							X		
F-39	F39-HSAS-GW-01	4/6/2007	W	X	X							Sampled from F39-HSAS1
	F39-HSAS2-10	5/11/2007	S		X							
	F39-HSAS2-20	5/11/2007	S		X							
	F39-HSAS3-20	5/11/2007	S		X							
	F39-HSAS4-20	5/11/2007	S		X							
	F39-HSAS1-SVP-20'	5/15/2007	SG								X	
	F39-HSAS3-SVP-10'	5/15/2007	SG								X	
	F39-HSAS4-SVP-10'	5/15/2007	SG								X	
F-40	F40-HAS10@0.5'	4/6/2007	S							X		
	F40-HAS10@5'	4/6/2007	S							X		
	F40-HAS7@0.5'	4/6/2007	S							X		

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Beaumont Site 1

Feature No.	Sample Location	Sample Date	Matrix (S, SG, W)	Perchlorate (EPA 314.1)	VOCs (EPA 8260B)	SVOCs (EPA 8270C)	1,4-Dioxane (EPA 8270M)	CAM 17 Metals (6010B, 7471A)	Explosives (EPA 8330)	PCBs (EPA 8082)	VOCs (TO-15)	Comments
F-40	F40-HAS7@5'	4/6/2007	S							X		
	F40-HAS8@0.5'	4/6/2007	S							X		
	F40-HAS8@5'	4/6/2007	S							X		
	F40-HAS9@0.5'	4/6/2007	S							X		
	F40-HAS9@5'	4/6/2007	S							X		
G-46	G46-HSAS1-SVP-10'	5/7/2007	SG								X	
	G46-HSAS1-SVP-20'	5/7/2007	SG								X	
	G46-HSAS2-SVP-10'	5/7/2007	SG								X	
	G46-HSAS2-SVP-20'	5/7/2007	SG								X	
H-49	H49-HSAS10-10-11.5	4/26/2007	S							X		
	H49-HSAS10-15-16.5	4/26/2007	S							X		
	H49-HSAS10-20-21.5	4/26/2007	S							X		
	H49-HSAS11-10-11.5	4/26/2007	S							X		
	H49-HSAS11-25-26.5	4/26/2007	S							X		
	H49-HSAS11-35-36.5	4/26/2007	S							X		
	H49-HSAS12-10-11.5	4/30/2007	S							X		
	H49-HSAS12-15-16.5	4/30/2007	S							X		
	H49-HSAS12-20-21.5	4/30/2007	S							X		
	H49-HSAS13-15-16.5	4/27/2007	S	X						X		
	H49-HSAS13-20-21.5	4/27/2007	S	X						X		
	H49-HSAS13-25-26.5	4/27/2007	S	X						X		
	H49-HSAS6-10-11.5	4/30/2007	S	X								
	H49-HSAS6-20-21.5	4/30/2007	S	X								
	H49-HSAS6-40-41.5	4/30/2007	S	X								
	H49-HSAS7-5-6.5	4/27/2007	S	X								
	H49-HSAS7-15-16.5	4/27/2007	S	X								
	H49-HSAS7-30-31.5	4/27/2007	S	X								
	H49-HSAS7-45-46.5	4/27/2007	S	X								
	H49-HSAS8-10-11.5	4/27/2007	S	X								
	H49-HSAS8-25-26.5	4/27/2007	S	X								
	H49-HSAS8-40-41.5	4/27/2007	S	X								
	H49-HSAS9-10-11.5	4/27/2007	S							X		
	H49-HSAS9-20-21.5	4/27/2007	S							X		
	H49-HSAS9-35-36.5	4/27/2007	S							X		
BLDG. 309	BLDG309-HAS1@0.5'	4/9/2007	S							X		
	BLDG309-HAS1@2'	4/9/2007	S							X		
	BLDG309-HAS2@0.5'	4/9/2007	S							X		
	BLDG309-HAS2@2'	4/9/2007	S							X		
	BLDG309-HAS3@0.5'	4/9/2007	S							X		
	BLDG309-HAS3@2'	4/9/2007	S							X		
	BLDG309-HAS4@0.5'	4/9/2007	S							X		
	BLDG309-HAS4@2'	4/9/2007	S							X		

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samples were collected using Summa™ or equivalent canisters. The soil gas samples were transported by courier under CoC protocols on each day of sampling to American Environmental Testing Laboratory (AETL), a State of California-certified laboratory.

Soil gas samples were collected from the sample probes approximately three weeks after installation. Prior to sampling, the initial canister vacuum was measured and recorded. The sample tubing was then attached to the canister manifold and the probe was purged. Based on the depth of the probe and internal volume of the tubing, a purge volume was calculated for each probe. Three purge volumes were removed prior to sample collection at a rate of 150-200 milliliters per minute (ml/min). The following information was recorded during soil gas sampling activities: 1) Summa™ Canister Serial No.; 2) well ID and probe depth; 3) soil gas purge rate; 4) volume purged; and 5) beginning and ending times, and pressures during purging.

3.2.3 Groundwater Sampling

Groundwater Grab Sampling

Groundwater grab samples were collected in borings where first groundwater was encountered with enough recharge to enable adequate sample collection. A disposable bailer was lowered into the borehole through the augers and groundwater was placed into the appropriate sample containers. All samples were placed in a chilled cooler and delivered under CoC via courier to EMAX on each day of sampling..

Monitoring Well Sampling

Initial groundwater sampling followed well development and well purging activities by a minimum of 72 hours, to allow for the monitoring wells to stabilize after the agitation and aeration caused by development activities. Well purging and sampling activities followed procedures discussed below and described in *RCRA Ground-Water Monitoring: Draft Technical Guidance* (EPA, 1992).

Groundwater samples were collected from monitoring wells by low-flow purging and sampling methods using a submersible purge pump. Field instruments and equipment were properly maintained, calibrated daily, and operated based on the manufactures guidelines and recommendations. Daily field calibration logs were maintained as part of the groundwater monitoring and sampling activities. Copies of the field data sheets are included in Appendix E.

On each day of sampling, an equipment blank was collected prior to sampling. After decontaminating the pump and discharge line, deionized water was pumped through the system. The equipment blank samples were collected after approximately two hose volumes passed through the lines.

After collection of each equipment blank, groundwater sampling activities began. Monitoring wells were sampled in order of (suspected) increasing contamination. The submersible purge pump was placed at the wetted midpoint of the well screen or at depth of maximum draw down. An indication of expected well performance was obtained from the well development field sheets (Appendix E). Purging and sampling activities were performed in a manner that minimized the agitation of sediment in the monitoring well and formation. Pumping began at a rate no great that 0.5 gpm. After pumping at least one sampling system volume, the first set of water quality readings and water level measurements were taken.

After compiling the initial set of water quality parameters and water level measurements, readings were recorded at 5 minute intervals. Groundwater samples were collected after a minimum of six readings and water quality parameters had stabilized. Stabilization parameters are as follows: pH ± 0.1, EC ± 3%, turbidity <10 NTUs or within 10%, DO ± 0.3 mg/L, ORP ± 10 millivolts (mV), and water level drawdown 0.1 feet, for a minimum of three consecutive readings. Attempts were made to minimize the total water level drawdown in the well to less than 0.33 feet. Purging continued until stabilization was achieved or until the monitoring well was pumped dry. If the well was pumped dry, the well was sampled with a disposable bailer after sufficient recharge had occurred to allow sampling.

Groundwater samples were placed into appropriate containers prepared for the specified analysis. Groundwater samples were collected and delivered under CoC via courier to EMAX and analyzed for VOCs by EPA Method SW8260B, 1,4-dioxane by EPA Method SW8270 selective ion monitoring (SIM), and perchlorate by EPA Method 314.0. Sample containers were filled in order of decreasing volatilization as follows:

- VOCs;
- SVOCs; and
- Inorganics (e.g., perchlorate).

Sample containers were labeled, bubble-wrapped, and stored on ice in a thermally insulated shipping container until delivery to the analytical laboratory. Each sample within a shipping container was listed on a CoC form for that container.

Decontamination procedures were completed after each monitoring well had been sampled. Purge equipment including pumps and discharge lines, were decontaminated by flushing/pumping a phosphate-free detergent (i.e. Liquinox) and water solution, potable water and deionized water through the components. Lifting lines were washed with Liquinox/water or equivalent solution and rinsed with both

potable and deionized water. Measuring equipment were thoroughly rinsed with deionized water prior to each use and between sampling points.

3.3 QUALITY ASSURANCE/QUALITY CONTROL

The environmental samples collected were analyzed by state certified analytical laboratories in accordance with EPA specified protocols and were validated in accordance with EPA validation guidance to ensure that the data is of a know quality and useable for its intended purpose. Field samples that environmental laboratories analyze follow QC procedures specified in these protocols. By following these QA/QC protocols the laboratory can assure that the sample results are valid and usable for their intended purpose. The QC procedures that accompany environmental sample analysis are listed below.

1. Instrument tuning and calibration;
2. Method blank analysis;
3. Calibration check analysis;
4. Laboratory control sample analysis;
5. Field sample analysis;
6. Matrix spike/matrix spike duplicate (MS/MSD) analysis;
7. Field duplicate analysis; and
8. Equipment blank analysis.

By ensuring that the associated QC samples meet established control limits as published in the *EPA Contract Laboratory Program National Functional Guidelines* documents (EPA; 1999, 2004), the field samples analysis is considered to be in control and of known accuracy and precision.

A complete list of analytical and QA/QC data is included in Appendix F. The data for the Site soil and water sampling activities were contained in the EMAX data packages 07D051, 07D105, 07D106, 07D107, 07D134, 07D164, 07D165, 07D166, 07D181, 07D207, 07D244, 07D245, 07D266, 07D314, 07D315, 07D316, 07E016, 07E017, 07E018, 07E184, and 07G343. The data for the Site soil gas analyses consisted of AETL data packages 41945, 42014, 42031, 42073, 42100, 42127, 42166, 42196, 42234, and 43663. The results for soil and soil gas samples collected for analytical testing were reviewed using the latest versions of the National Functional Guidelines for Organic and Inorganic Data Review documents from the EPA (EPA; 1999, 2004).

The QC samples were collected in accordance with the SAP (Tetra Tech; 2006a, 2006b). Within each environmental sample the sample specific QC spike recoveries were examined. These data examinations include comparing statically calculated control limits to percent recoveries of all spiked analytes and duplicate spiked analytes results as compared to Relative Percent Difference control limits. Surrogate recoveries were examined for all VOC and SVOC analyses and compared to their control limits. Environmental samples were analyzed by the following methods: Method 314.0 for perchlorate, Method TO-15 for soil gas, Method SW8015B for extractable TPH, Method SW8082 for PCBs, Method SW8260B for VOCs, Method SW8270C for SVOCs, Method SW8270SIM for 1,4-Dioxane, Method SW8330 for explosives, Method SW6010B for metals, and Method SW7471A for mercury.

3.4 PERCOLATION TESTING

Percolation test wells were drilled to predetermined depths in Historical Operational Areas B and C (Table 3-4) on May 1, 2007 using the HSA method with 8-inch diameter augers. Four-inch diameter Schedule 40 PVC pipe was used for the test well casing. A cap was placed on the bottom of a 5 foot section of 4 inch diameter Schedule 40 PVC pipe which was then manually slotted. Sufficient PVC riser casing to reach ground surface was then attached to the slotted pipe. Approximately 2 feet of coarse aquarium sand was placed at the base of each borehole through the augers. The filter pack was placed around the bottom 6 feet of the slotted PVC casing while the augers were being withdrawn.

Table 3-4
Percolation Test Locations

Feature No.	Historical Operational Area	Feature	Percolation Test Number	Test Depths (feet bgs)
9	B	Motor Washout Area	B9-PERCA	10
22	C	Burn Pit Landfill	C22-PERCB	10, 20, 30, and 40
22	C	Burn Pit Landfill	C22-PERCC	10, 20, 30, and 40

The percolation testing was conducted between 07 and 09 May 2007. The purpose of the percolation testing was to evaluate possible remedial alternatives for the Burn Pit Landfill Area, which may include the application of donor through direct infiltration from the surface, trenches, or injection wells. Percolation testing will help to evaluate the feasibility of this remedial alternative and specifically the most appropriate application method. The start the test, pre-soaking was initiated, but due to the relatively high percolation rate of the soil, a soak period was not feasible. Testing consisted of pouring a minimum

of 150 gallons of potable water into the percolation piping while attempting to maintain a water level at approximately 5 to 6 feet from the bottom of the pipe. The rate of water addition ranged from a minimum rate of approximately 0.8 gpm at location B9-PERCA@10 feet, to a maximum of approximately 19 gpm at location C22-PERCB@40 feet with the flow rate based rate required to maintain the water level at the base of the percolation piping. The water level was measured with a water level meter every 3 to 5 minutes as water was being added. At the end of the water addition period, the rate of water level drop was monitored every 1 to 3 minutes with a water level meter. The water level continued to be monitored until the water level had dropped below the base of the piping

At the completion of the test, the piping was pulled from the borehole and the borehole backfilled with bentonite hydrated with potable water.

3.5 GEOPHYSICAL SURVEY FOR SUBSURFACE SOURCES - OPERATIONAL AREAS B AND C

The technical approach for the geophysical survey was designed to provide identification of significant subsurface features that might represent buried burn pits or waste disposal locations in Area B and C. The investigation included a geophysical survey of the area using a Geonics EM31-Mark I (EM31) detector coupled with a Leica differential global positioning system (DGPS). The EM31 was selected not only because of its effectiveness for delineating large concentrations of metal-containing buried materials, but because it is also capable of detecting the subtle contrast in ground conductivity that may exist between non-metallic buried material and the adjacent undisturbed earth, or changes in ground conductivity that may commonly occur as a result of disturbing the earth to create disposal areas. The DGPS was used to achieve the location control necessary for the survey. The Leica DGPS system is capable of delivering location data with sub-meter accuracy.

The EM31 uses frequency domain electromagnetic induction (EMI) to detect metallic and non-metallic debris using current from a transmitter coil to generate a primary magnetic field beneath the ground surface. This primary magnetic field induces current to flow within the ground (i.e., eddy currents), which produce a secondary magnetic field that is detected along with the primary field at the receiver coil. The ratio of the secondary field to the primary field is linearly related to terrain conductivity under certain constraints. Two components of the secondary magnetic field are digitally measured: the quadrature phase component (terrain conductivity) as millimhos per meter, and the in-phase component expressed in parts per thousand of the primary signal (a measure of signal amplitude). The in-phase component of the signal is particularly sensitive to ferrous and non ferrous metallic material. The EM31 was carried with the boom oriented perpendicular to the direction of travel. The digital data were recorded using a Juniper Allegro data logger set to record data at a rate of 15-readings/second.

Positioning of the EM31 instrument was accomplished using the high-resolution DGPS. The DGPS base station unit was erected over a known survey control point. The rover unit transmitter was mounted at the mid point of the EM31 detector and the electronics package was carried by the EM31 operator in the instrument daypack. The DGPS system was configured to record at a rate of 2-readings/second. At the completion of acquisition, the rover global positioning system (GPS) data were post-processed with respect to the base data and the resulting data were output in California State Plane Zone 6, North American Datum of 1983 (NAD83).

Following the completion of the survey, the EM31 and DGPS positioning data were uploaded to a laptop computer at the Site, and backed up on storage media. The EM31 and position data were merged and track maps were reviewed to ensure that the required transect spacing was accomplished. The geophysical survey grid for the area is shown on Figure 3-4. The EM31 and DGPS data were processed and uploaded into Geosoft Oasis Montaj, and color-coded images of the sensor intensity were generated. These color-coded images can be used to define areas that are representative of subsurface debris. A complete copy of the geophysical report is attached as Appendix G.

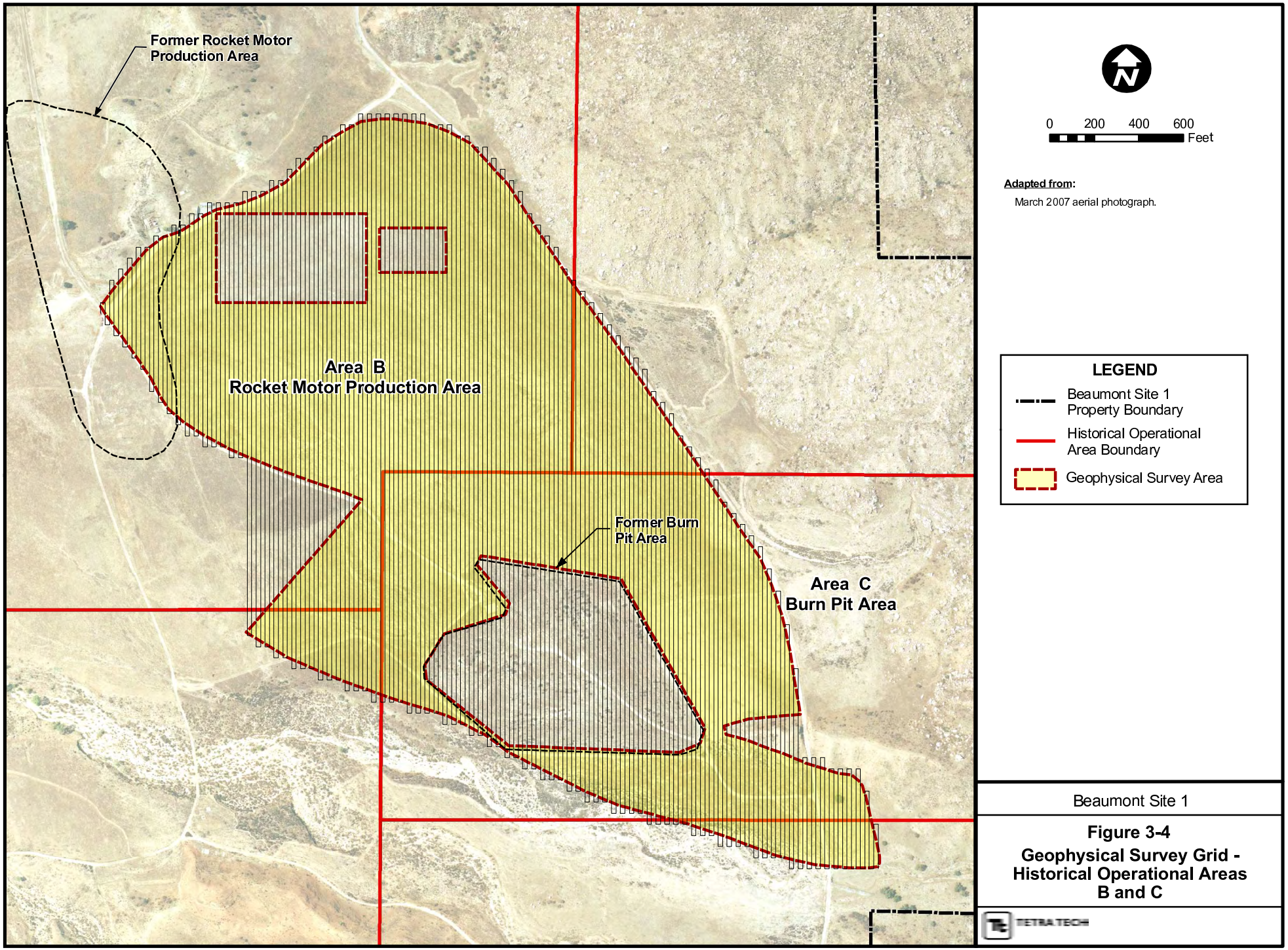
3.6 HABITAT CONSERVATION

Consistent with the United States Fish and Wildlife Service (USFWS) approved *Low-Effect Habitat Conservation Plan* (Tetra Tech, 2005c) describing "Low Affect" activities for environmental remediation at the Site, prior to initiating groundwater monitoring field activities, a biological survey of the surrounding area of each proposed groundwater monitoring well location was performed by a Section 10A permitted or sub-permitted biologist to evaluate the potential for impacts during field activities to sensitive species/habitats (i.e., SKR).

As part of the biological survey, the biologist identified and marked potential or suspected SKR burrows that were located in the vicinity of proposed well locations to avoid the "take" (i.e., harm, harassment, death, and/or disturbance of habitat) of SKRs. The biologist clearly marked the ingress and egress routes to each proposed well location in an effort to minimize the overall footprint of field activities and impacts to SKR habitat. Further, as specified, and surveying the work areas, the biologist remained on-Site during field activities to implement requirements of the "Low Affect" agreement.

3.7 INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW) generated from the field activities included soil cuttings from drilling, decontamination water, and purge water from well development and sampling activities. Excess soil from sampling activities was temporarily stored on-site in three 20-cubic yard covered roll-off containers prior to disposal, pending characterization. Discarded materials, including towels and decontamination fluids,


X:\GIS\LOCKHEED 19967-05\GEO SURVEY GRID.MXD
Former Rocket Motor Production Area
Area B
Rocket Motor Production Area
Former Burn Pit Area
Area C
Burn Pit Area
0 200 400 600
Feet
Adapted from:
March 2007 aerial photograph.
LEGEND
Beaumont Site 1 Property Boundary
Historical Operational Area Boundary
Geophysical Survey Area
Beaumont Site 1
Figure 3-4
Geophysical Survey Grid - Historical Operational Areas B and C
TETRA TECH

were stored in 55-gallon drums for disposal in accordance with applicable regulations, following chemical characterization and evaluation of disposal options. Purge water from monitoring wells was temporarily stored an on-site poly tank. All IDW was characterized prior to final transportation and disposal to an approved waste recycling/disposal facility. Copies of the analytical data are provided in Appendix F, and copies of IDW manifests are included in Appendix H.

4.0 INVESTIGATION RESULTS

This section presents the results of the supplemental soil investigations conducted at Operational Areas A through H from April through August 2007. This section includes tabulated data summaries, geologic cross sections, sample location maps, and COPC concentration contours when applicable. The section is organized by operational area and feature and briefly summarizes the previous investigation results along with the results from the current investigation. Boring logs can be found in Appendix B for all operational areas summarized herein. All applicable soil gas probe construction diagrams are included in Appendix C, all applicable well construction diagrams are included in Appendix D, and copies of development data and groundwater monitoring field data sheets are provided in Appendix E. Note that results presented herein only show the analytes positively detected. A complete list of analytes tested for is included in the laboratory data packages in Appendix F.

4.1 HISTORICAL OPERATIONAL AREA A INVESTIGATION

Historical Operational Area A is one of two areas previously leased by Aerojet for limited munitions testing and is referred to as the Eastern Aerojet Range. Avanti, a highly classified project, utilized the land directly east of the Eastern Aerojet Range including several U-shaped revetments for the storage of explosive materials and motors. Due to its highly classified status, the purpose of the Avanti project and its operational procedures are unknown (Radian, 1986a).

4.1.1 Feature A-6 – Small Storage Tank

During previous investigations, a vessel, thought to be an old rocket motor casing, was discovered in the wash in Historical Operational Area A at Feature 6 (Figure 4-1). It was later realized that this vessel was a small storage tank. The tank was discovered empty, in a vertical position with the threads down. The interior wall of the tank was coated with what appeared to be a tar-like substance but the contents of the tank were unknown.

Previous Results

It was determined that the area previously sampled (Tetra Tech, 2005a) was not the exact location where the tank was actually discovered. One soil boring was installed to a depth of 5 feet bgs with soil samples collected at 0.5 and 5 feet bgs and analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, and Title 22 metals. SVOCs, perchlorate, and 1,4-dioxane were not detected at concentrations above their respective reporting limits. Low-level concentrations of acetone and benzene were detected at concentrations

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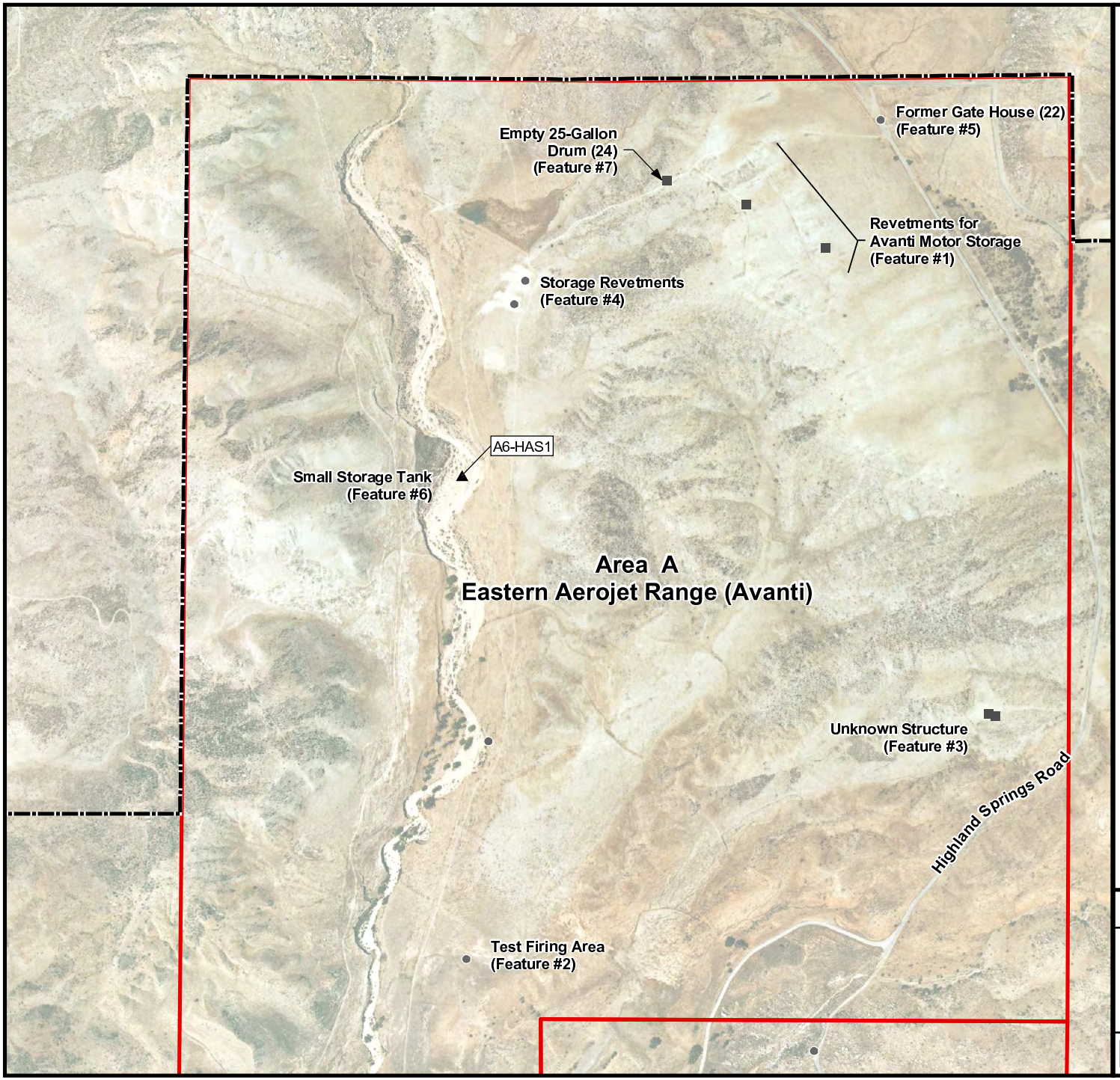
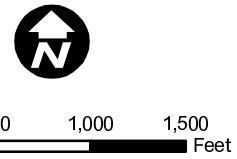


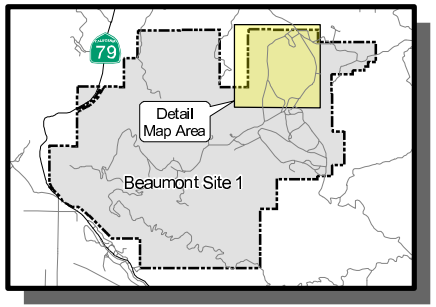


Adapted from:

March 2007 aerial photograph.

LEGEND

- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- Beaumont Site 1 Property Boundary
- Historical Operational Area Boundary



Beaumont Site 1

Figure 4-1
Sample Locations -
Small Storage Tank
(Feature A-6)

TETRA TECH

ranging from 1.3 to 26 µg/kg and were associated with laboratory or field cross-contamination. Metals were detected with arsenic detected at concentrations up to 2.27 mg/kg.

Investigation Activities

Supplemental investigation activities were conducted at the Small Storage Tank (Feature A-6) to assess possible affected soil from a small storage tank-like vessel (previously and incorrectly referred to as an Old Rocket Motor Casing). The small storage tank is in a north-south trending wash located in the northern portion of the Site. During this supplemental soil investigation, the sampling location was adjusted accordingly and sampled for the same analytes, as described in the work plan (Tetra Tech, 2006b). At the small storage tank, one hand auger boring (A6-HAS1) was installed to a depth of 5 feet bgs (Figure 4-1). Soils encountered at this location were sandy with increasing silt content with depth. The soils observed are consistent with that expected in a wash area. Contents of the tank are unknown, therefore, soil samples collected at 0.5 and 5 feet bgs were tested for VOCs, SVOCs, perchlorate, 1,4-dioxane, and Title 22 metals.

Soil Sampling Results

Perchlorate, 1,4-dioxane, VOCs, and SVOCs were not detected above their respective method detection limits (MDLs) in either of the soil samples collected (Table 4-1). Metals including arsenic, barium, beryllium, cobalt, chromium, copper, lead, nickel, selenium, thallium, vanadium and zinc were detected above their respective MDLs (Table 4-2).

Table 4-1
Soil Sampling Results for Perchlorate and Organics – Small Storage Tank (Feature A-6)

Sample Location@ Depth (feet bgs)	Sample Date	Perchlorate	1,4-Dioxane	VOCs	SVOCs
		Laboratory Results (µg/kg)			
MDL (µg/kg)(1)		10.5-11.1	21-22	1.7-5.3	180-210
A6-HAS1@0.5	4/10/2007	ND	ND	ND	ND
A6-HAS1@5	4/10/2007	ND	ND	ND	ND

Notes: (1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot.
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above method detection limit.
VOC: volatile organic compound
SVOC: semi-volatile organic compound

Table 4-2 Soil Sampling Results for Metals - Feature A-6
Beaumont Site 1

Sample Name @ Depth (feet bgs)	Sample Date	Arsenic	Antimony	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Silver	Selenium	Thallium	Vanadium	Zinc
		Laboratory Results (mg/kg)																
MDL (mg/kg)[1]		0.445-0.459	2.23-2.29	0.223-0.229	0.223-0.229	0.557-0.573	1.11-1.15	1.11-1.15	0.557-0.573	0.223-0.229	0.347-0.378	0.573-0.557	1.11-1.15	0.573-0.557	0.573-0.557	0.573-0.557	0.573-0.557	0.573-0.557
Background Range (mg/kg)[2]		0.6-11.0	0.15-1.95	133-1400	0.25-2.70	0.05-1.70	2.7-46.9	23-1579	9.1-96.4	12.4-97.1	0.10-0.90	5580-73400	9.0-509.0	0.10-8.30	0.8-24.0	0.17-1.10	39.0-288.0	88.0-236.0
A6-HAS1@0.5	4/10/2007	3.04 Jf	ND	52.8 Jf	ND	ND	4.84 Jf	7.57 Jf	5.42 Jf	2.76 Jf	ND	ND	5.67 Jf	ND	ND	ND	20.1 Jf	26.3 Jf
A6-HAS1@5	4/10/2007	5.87	ND	123	0.587 Jq	ND	10.5	25.8	14.4	5.59	ND	ND	16.1	ND	1.04 Jq	0.767 Jq	52.3	58.9

Notes:

(1) - Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aloquot.

(2) - *Background Concentrations of Trace and Major Elements in California Soils* , Kearney Foundation of Soil Science, University of California Riverside, Bradford et al, 1996.

bgs - below ground surface

J - The analyte was positively identified, but the analyte concentration is an estimated value.

f - The duplicate/replicate precision was outside control limits.

q - The analyte detection was below the Practial Quantitation Limit (PQL).

mg/kg - milligrams per kilogram

ND - Not detected at or above method detection limit.

Metals are naturally occurring and therefore the detection of metals in soil samples collected from the Site is expected. It should be noted that the concentrations of metals, including arsenic detected at concentrations up to 5.87 mg/kg, are within the normal range of values of elemental concentrations in soil for California (Bradford et al, 1996). However, a site-wide background metals survey is currently planned and therefore a more detailed analysis of the metals concentrations detected at the Site will be conducted in a future study.

4.2 HISTORICAL OPERATIONAL AREA B INVESTIGATION

Historical Operational Area B, the Rocket Motor Production Area (formerly known as the Propellant Mixing Area), was used for the processing and mixing of rocket motor solid propellants. The rocket motor production process consisted of: 1) fuel slurry station, 2) mixing station, and 3) cast and curing station. The fuel slurry station and mix station were utilized to generate the solid propellants.

4.2.1 Feature B-9 – Motor Washout Area

The Motor Washout Area is located in the eastern central portion of the Historical Operational Area B (Figure 4-2). Defective solid rocket propellant was washed out of the motor casings with a high-pressure water jet in this area. The water slurry produced from the washout activities was collected in a lined catch basin and later brought to the burn pit landfill for incineration (Tetra Tech, 2002).

Previous Results

Eleven soil borings and two soil gas probes were installed between 15 and 40 feet bgs at the Motor Washout Area during previous investigations (Tetra Tech; 2002, 2005a). Soils samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, 1,4-dioxane, and TPH. SVOCs, TPH, and 1,4-dioxane were not detected above RLs in any of the samples collected. TCE was detected in four samples at concentrations up to 3 µg/kg and acetone, methylene chloride, and chloroform were detected at concentrations ranging from 1.2 to 64 µg/kg. Perchlorate was detected at concentrations ranging from 26.7 to 1,250 µg/kg. TCE and 1,1-DCE were detected in soil gas at concentrations up to 1.2 µg/L and 0.9 µg/L, respectively. Metals were detected with arsenic detected at concentrations up to 2.27 mg/kg.

Investigation Activities

Three HSA soil borings (B9-HSAS1, B9-HSAS2 and B9-HSAS3) were drilled to approximately 21.5 feet bgs at the Motor Washout Area during this investigation (Figure 4-2). Three soil samples were collected from each boring, at depths of 5, 10 and 20 feet bgs, and analyzed for perchlorate. Soils encountered at the Motor Washout Area were generally fine to medium grain sand with minor amounts of silt. Idealized

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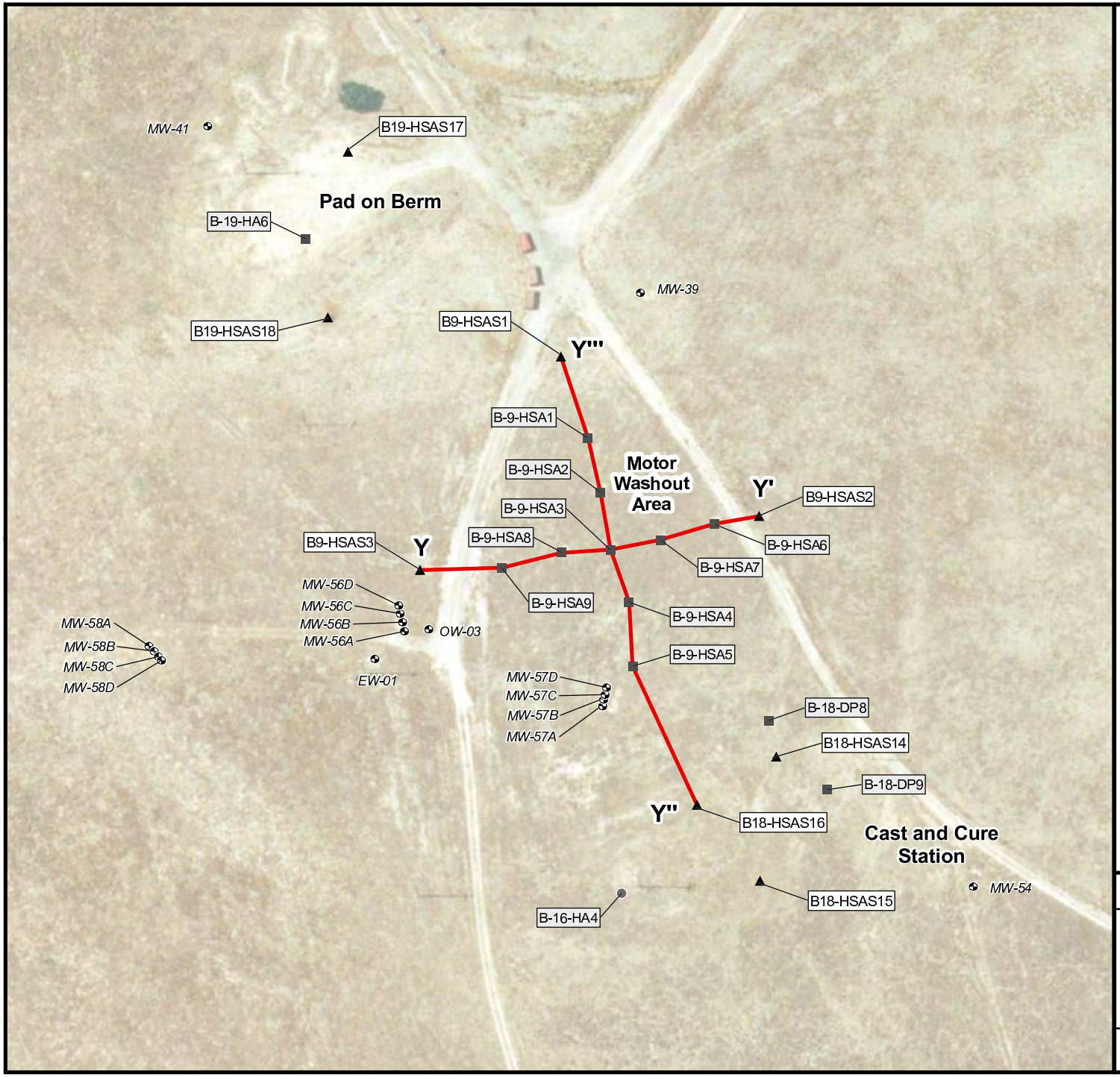
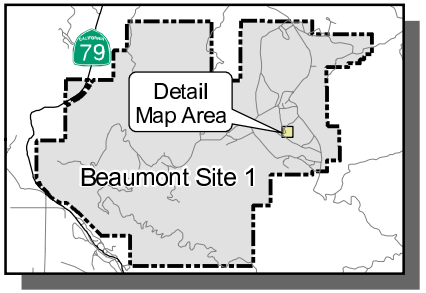


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-2

Sample and Cross Section Locations - Motor Washout Area (Feature B-9)

TETRA TECH

geologic cross sections through this feature are shown in Figures 4-3 and 4-4. Groundwater was not encountered in any of the soil borings installed at the Motor Washout Area during this investigation.

Soil Sampling Results

Perchlorate was detected above the MDL in all nine soil samples collected, ranging from 45.7 to 5,480 µg/kg with an average concentration of 885 µg/kg (Table 4-3). Perchlorate concentrations appear relatively consistent at most sampling locations except for the lower concentrations detected at 20 feet bgs in B9-HSA2 and 10 feet bgs in B9-HSA3 and the notably higher concentration detected at 10 feet bgs in B9-HSAS2. Figure 4-5 shows the horizontal and vertical extent of perchlorate affected soil at the Motor Washout Area utilizing sample results from the previous investigations in addition to the recent results. Samples collected from the Cast and Cure Station (Feature B-18) and the Pad on Berm (Feature B-19) were also included on this figure due to their proximity. Based on the concentration contours, it appears that the highest concentrations were detected at 10 feet bgs in the eastern portion of the Motor Washout Area (B9-HSA-S2) and in the northwestern area just south of the Pad on Berm (B19-HSAS18). It is possible that the elevated levels of perchlorate detected in B19-HSAS18 originated from the Pad on Berm (Feature B-19). However, elevated concentrations were not detected in the other two borings at Feature B-19 to support this area as a potential source. Based on the concentration contours, the higher concentrations of perchlorate appear to be focused around the Motor Washout Area. The area of affected soil appears to be undefined towards the east and west but is defined to the north and south by samples collected from the Cast and Cure Station (Feature B-18) and the Pad on Berm (Feature B-19).

Historical shallow groundwater in the area encompassing the Motor Washout Area complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in the shallow wells have been as high as 1,250 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 51 feet bgs since 1992. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions occur. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils.

4.2.2 Feature B-10 - Propellant Mixing Station

The Propellant Mixing Station (Building 315) is located in the central portion of Historical Operational Area B (Figure 4-6). This feature consisted of a 300 gallon mixer. At the mixing station, dry oxidizer,

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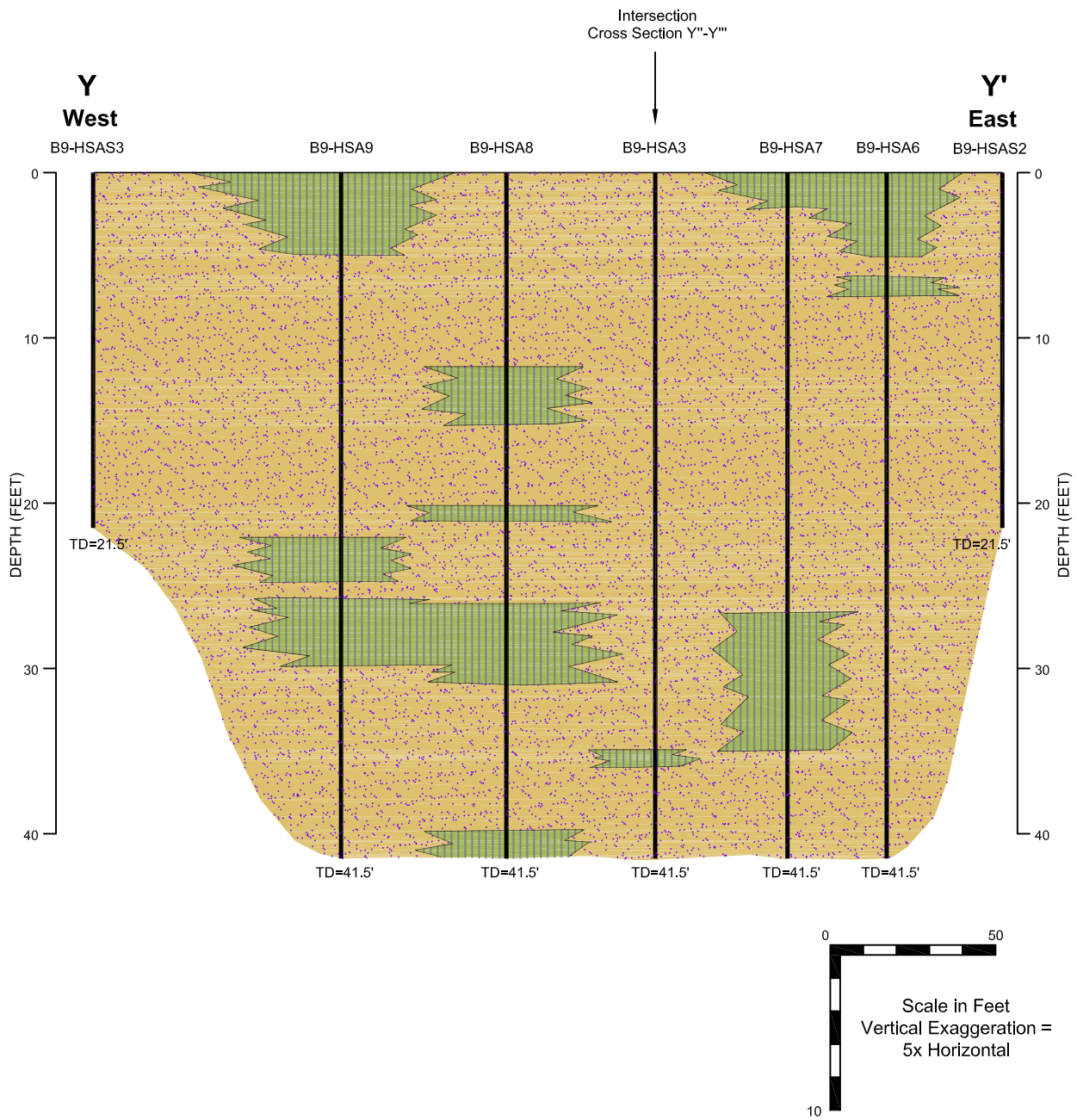


LEGEND

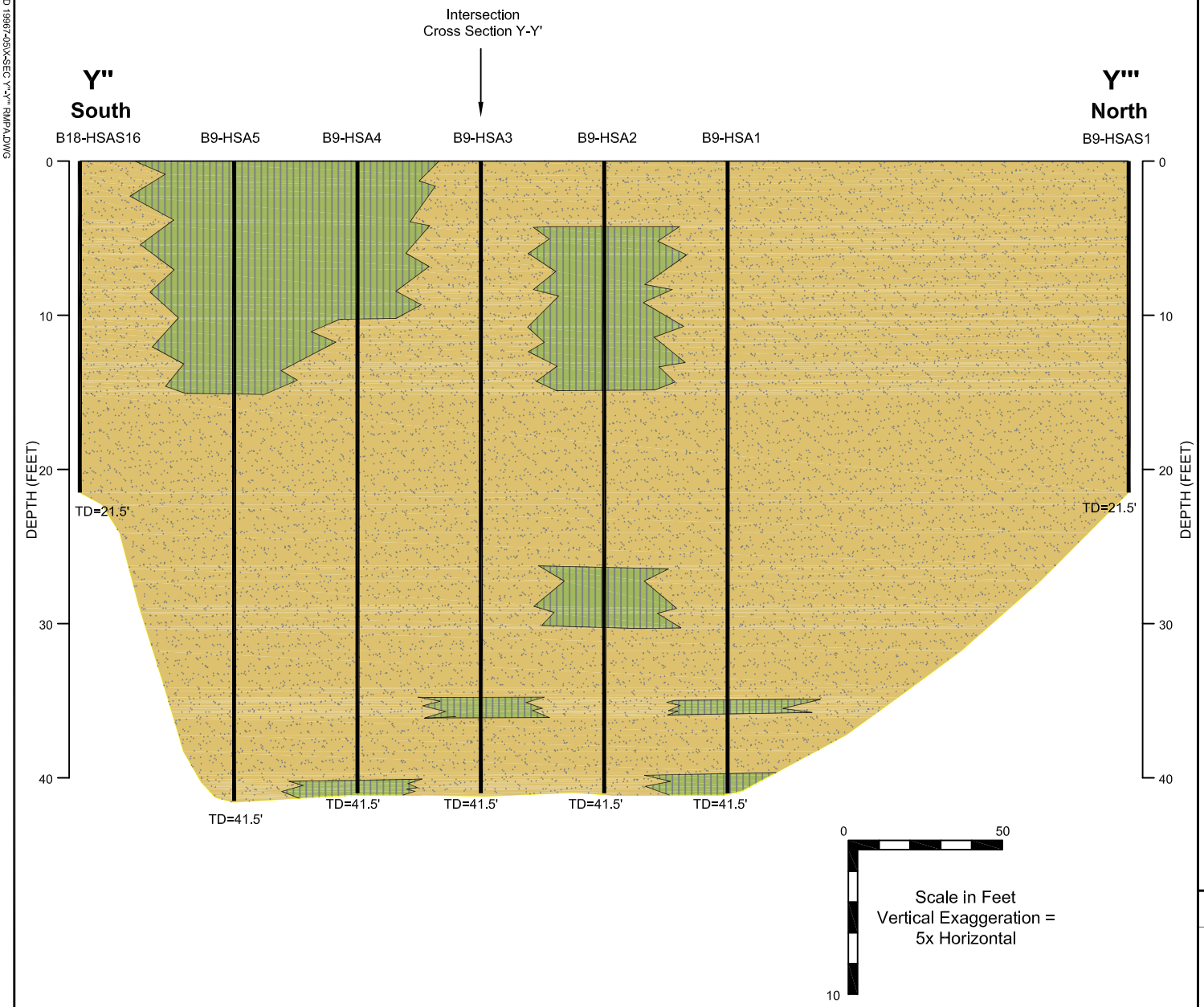
- Silt
- Sand and Gravel
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-3
Geologic Cross Section Y-Y'
Motor Washout Area
(Feature B-9)

TETRA TECH

X:\GIS\LOCKHEED 1996\7405\X-SEC Y"-Y"' RMP.AJD.WG



LEGEND

- Silt
- Sand and Gravel
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-4
Geologic Cross Section Y"-Y'''
Motor Washout ARea
(Feature B-9)

TETRA TECH

Table 4-3
Soil Sampling Results for Perchlorate - Motor Washout Area (Feature B-9)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate
		Laboratory Results (µg/kg)
MDL (µg/kg)(1)		10.5-11.1
B9-HSAS1-5-6.5	4/18/2007	292
B9-HSAS1-10-11.5	4/18/2007	470
B9-HSAS1-20-21.5	4/18/2007	267
B9-HSAS2-5-6.5	4/18/2007	193
B9-HSAS2-10-11.5	4/18/2007	5480
B9-HSAS2-20-21.5	4/18/2007	45.7
B9-HSAS3-5-6.5	4/18/2007	208
B9-HSAS3-10-11.5	4/18/2007	46.4
B9-HSAS3-20-21.5	4/18/2007	960

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram

primarily ammonium perchlorate, was blended in the mixer with the liquid ingredients consisting of butadiene derivatives and a burn rate modifier (primarily ferrocene). Solvents, ammonium perchlorate, ferrocene, and other fuels were reported to have been used at the Propellant Mixing Station.

Previous Results

Six soil borings and two soil gas probes were installed between 15 and 40 feet bgs at the Propellant Mixing Station during previous investigations (Tetra Tech; 2002, 2005a). Soils samples were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, 1,4-dioxane, and TPH. 1,4-dioxane was not detected above RLs in any of the soil samples collected. VOCs were not detected above RLs in soil gas. Low levels of TPH, perchlorate, Title 22 metals, SVOCs, and VOCs (i.e., acetone and toluene) were detected in soil samples from this feature. The TPH concentrations ranged from 27 to 620 mg/kg and perchlorate concentrations ranged from 29 to 4,610 µg/kg. VOC concentrations detected in soil were 1.1 and 26 µg/kg (acetone and toluene, respectively) and were possibly associated with laboratory cross-contamination. Detected concentrations of SVOCs [polyaromatic hydrocarbons (PAHs), phthalates, and phenols] ranged from 0.66 to 4.5 mg/kg. Metals were detected with arsenic at concentrations up to 18.1 mg/kg.

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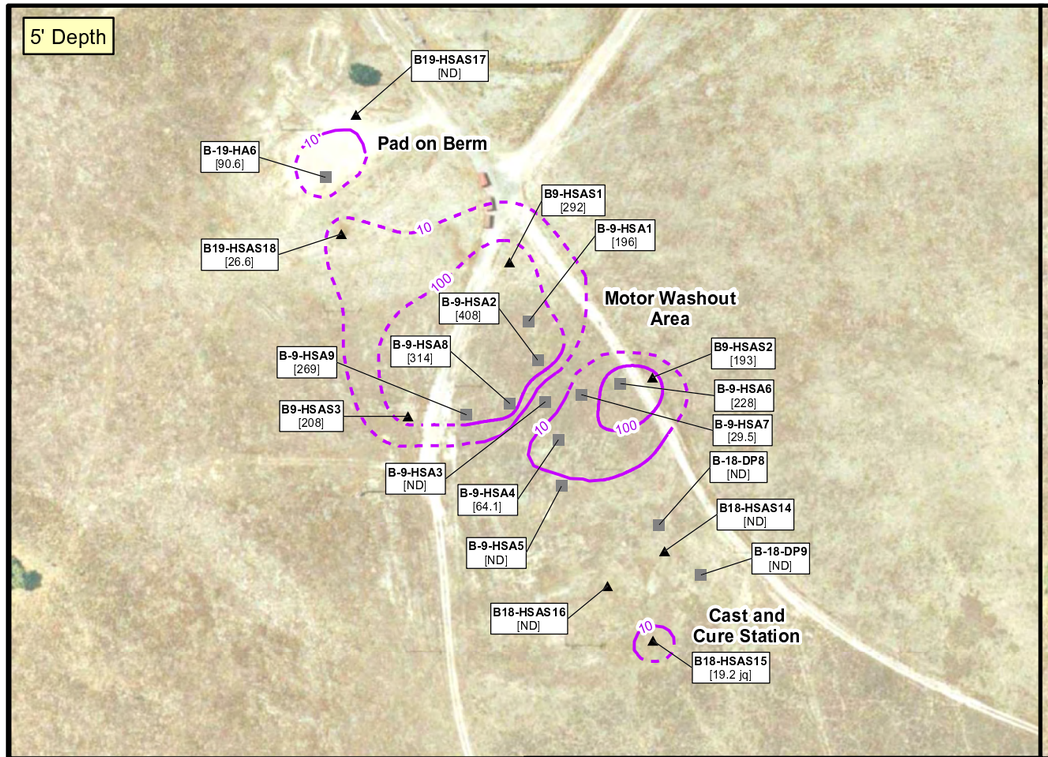
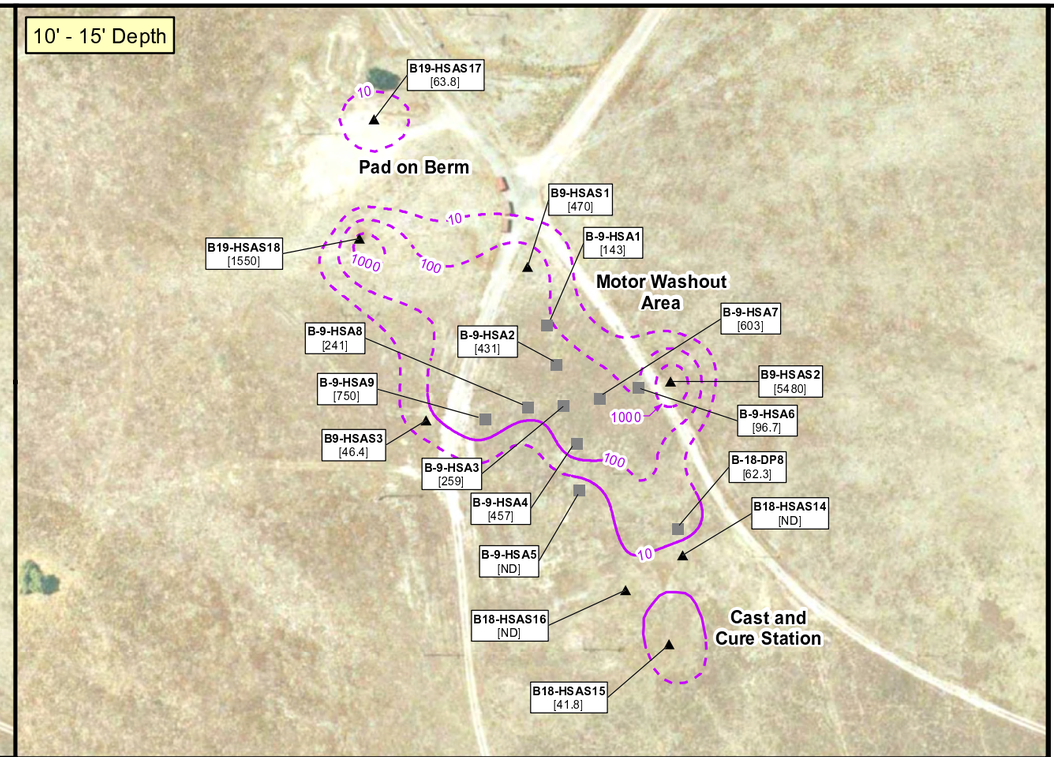
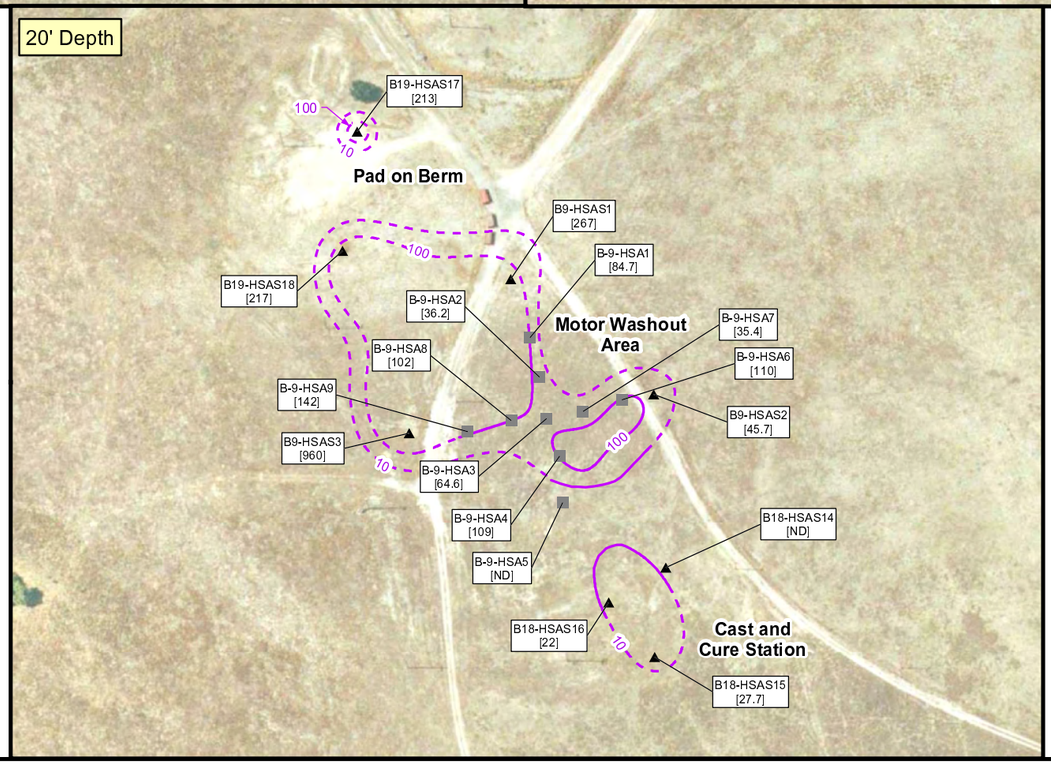






0 100 200 Feet

Adapted from: March 2007 aerial photograph.

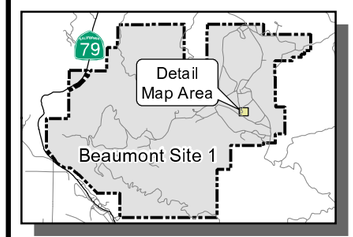
LEGEND

- ▲ 2007 Soil Boring Location
- ● 2004 Soil Boring Location
- ■ 2004 Soil Boring and Soil Gas Sample Location
- 10 Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-5
Perchlorate Concentrations in Soil - Motor Washout Area (Feature B-9)

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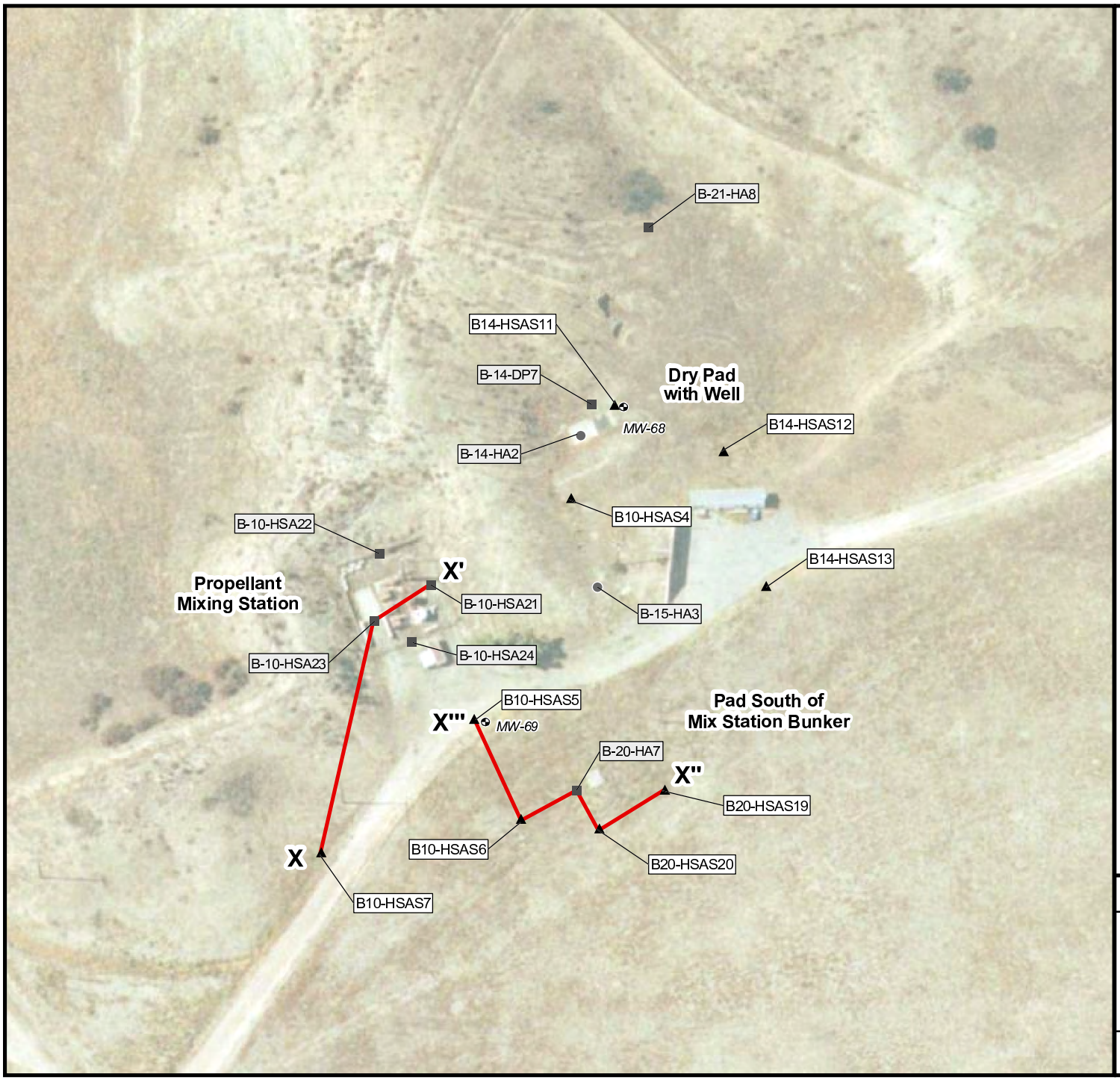
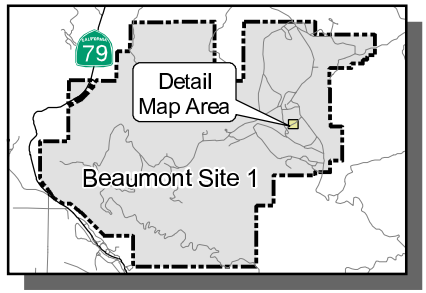


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-6
Sample and Cross Section Locations - Propellant Mixing Station (Feature B-10)

TETRA TECH

Investigation Activities

Four HSA soil borings (B10-HSAS4, B10-HSAS5, B10-HSAS6 and B10-HSAS7) were drilled to between 31.5 and 51.5 feet bgs during this investigation (Figure 4-6). Four soil samples were collected from each boring at various depths and analyzed for perchlorate. Idealized geologic cross sections through this feature are shown in Figures 4-7 and 4-8. Soils encountered at Feature B-10 were generally very fine grained silts and sands with clay interspersed. Groundwater was encountered at approximately 46.25 feet bgs at location B10-HSAS5.

Boring B10-HSAS5 was converted to monitoring well MW-69 and screened from 25 to 50 feet bgs. Monitoring well MW-69 was developed on 18 May 2007 and sampled on 19 June 2007. After completion of the well construction and development activities, depth to groundwater in MW-69 was measured at 32.77 feet below top of casing (TOC). Groundwater samples collected from monitoring well MW-69 were analyzed for perchlorate, VOCs, and 1,4-dioxane.

Soil Sampling Results

As shown in Table 4-4, concentrations of perchlorate were detected above the MDL in each of the 13 soil samples collected from the Propellant Mixing Station, ranging from 17 to 1,080 µg/kg (B10-HSAS6-10-11.5) with an average concentration of 234 µg/kg. Perchlorate concentrations did not appear to have a clear trend with depth. At some locations (B10-HSAS4 and B10-HSAS7) perchlorate concentrations increased in the deeper samples but at B10-HSAS6 they decreased. Figure 4-9 shows the horizontal and vertical extent of perchlorate affected soil at the Propellant Mixing Station utilizing sample results from the previous investigations in addition to the recent results. Samples collected from the Pad South of Mix Station Bunker (Feature B-20) were also shown in this figure due to their proximity.

Based on the concentration contours, it appears that the highest concentrations were detected from near surface (0.5 feet bgs) down to approximately 10 feet bgs in previous borings installed beneath the central portion of the Propellant Mixing Station (Figure 4-9). The Propellant Mixing Station is located in a very small box canyon surrounded by steep hillsides of the Mt. Eden formation from the southwest to the northeast and open only to the southeast. Perchlorate concentrations decrease fairly rapidly to the southeast at B10-HSAS5 where concentrations are less than 500 µg/kg. Three of the four recent soil borings were installed to delineate the extent of perchlorate affected soil to the south-southeast between the Propellant Mixing Station and the Pad South of Mix Station Bunker (Feature B-20). Except for the 10-foot sample collected from B10-HSAS6 near Feature B-20, which had a perchlorate concentration of 1,080 µg/kg, perchlorate concentrations did not exceed 350 µg/kg in any of the borings installed during this investigation.

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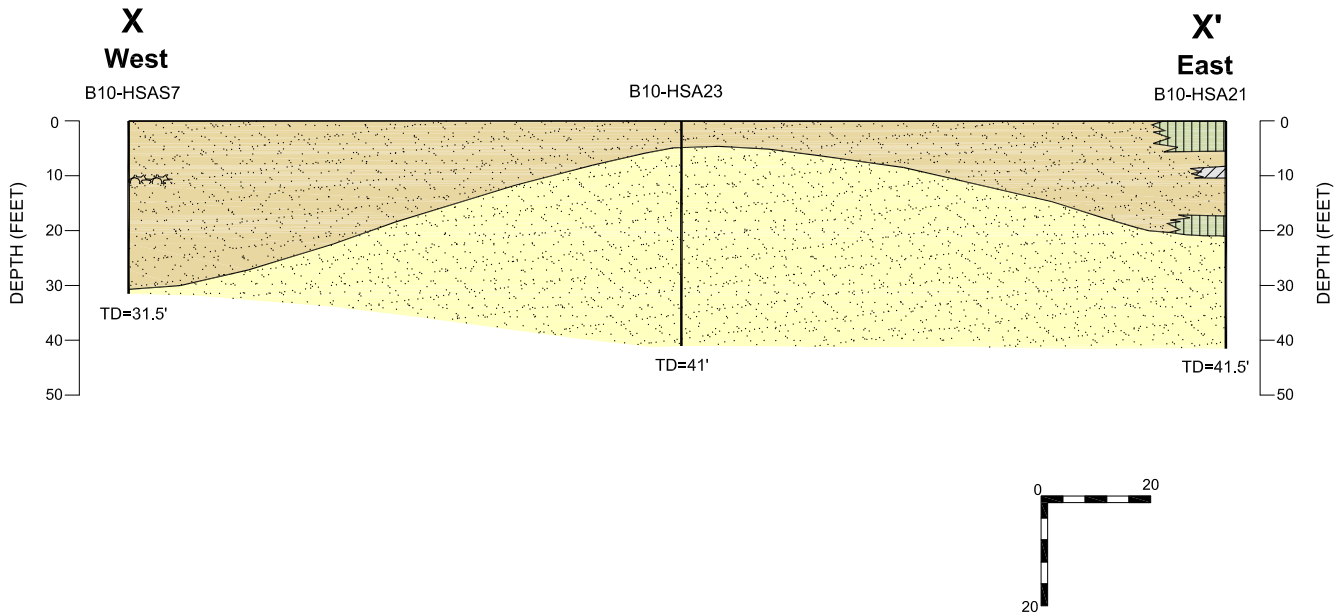

LEGEND

- Clay
- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-7
Geologic Cross Section X-X'
Propellant Mixing Station
(Feature B-10)

TETRA TECH

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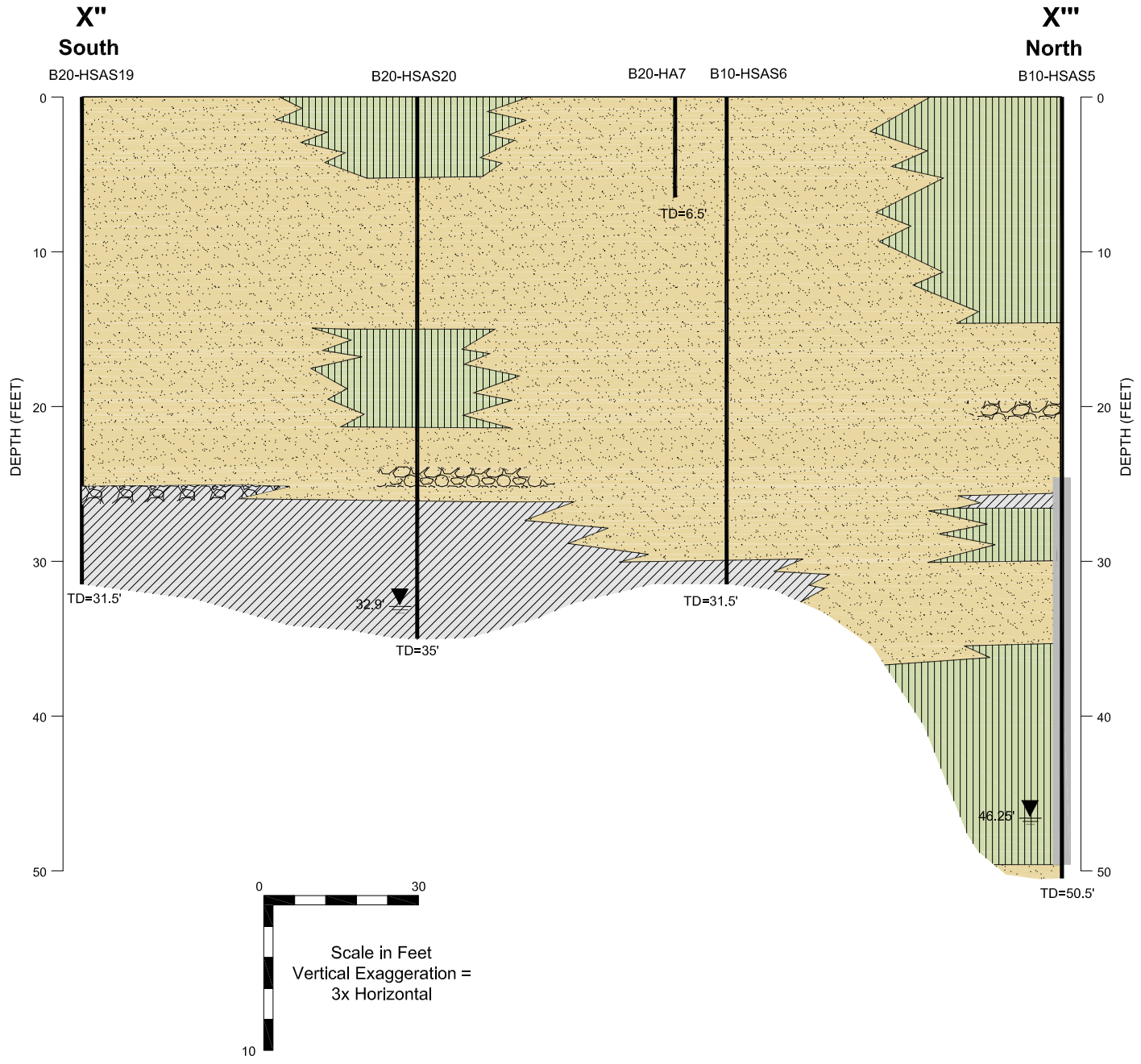

LEGEND

- Clay
- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-8
Geologic Cross Section X"-X'''
Propellant Mixing Station
(Feature B-10)

TETRA TECH

Table 4-4
Sampling Results for Perchlorate, 1,4-Dioxane, and Detected VOCs – Propellant Mixing Station (Feature B-10)

Sample Location - Depth (feet bgs)	Sample Date	Matrix	Perchlorate - Soil (µg/kg)	Perchlorate - Water	1,4-Dioxane	Chloroform (Trichloromethane)	1,1-Dichloroethane (1,1-DCA)	1,1-Dichloroethene (1,1-DCE)	Trichloroethene (TCE)
			Laboratory Results in µg/L unless otherwise specified						
Method Detection Limit (µg/kg or µg/L)(1)			10.4-10.8	200	0.57	0.2	0.2	0.2	0.2
MCL/DWNL (µg/L)			-	6	3	80(2)	5	6	5
B10-HSAS4-5-6.5	4/18/2007	S	40.6	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS4-15-16.5	4/18/2007	S	196	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS4-30-31.5	4/18/2007	S	206	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS5-15-16.5	4/24/2007	S	189	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS5-20-21.5	4/24/2007	S	328	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS5-25-26.5	4/24/2007	S	155	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS6-10-11.5	4/24/2007	S	1,080	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS6-20-21.5	4/24/2007	S	181	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS6-30-31.5	4/24/2007	S	286	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS7-5-6.5	4/23/2007	S	25.5	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS7-15-16.5	4/23/2007	S	17 Jq	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B10-HSAS7-30-31.5	4/23/2007	S	105	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
MW-69	6/19/2007	W	*NA*	2,510	9.0	0.84J	0.21J	6.3	11

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
(2): Value shown is for total trihalomethanes.
bgs: below ground surface
µg/kg: micrograms per kilogram
µg/L: micrograms per liter
NA: not analyzed
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).
S: soil
W: water
Highlighted values exceed a regulatory action or notification level for groundwater (i.e. MCL/DWNL).
MCL: Maximum Contaminant Level
DWNL: Drinking Water Notification Level

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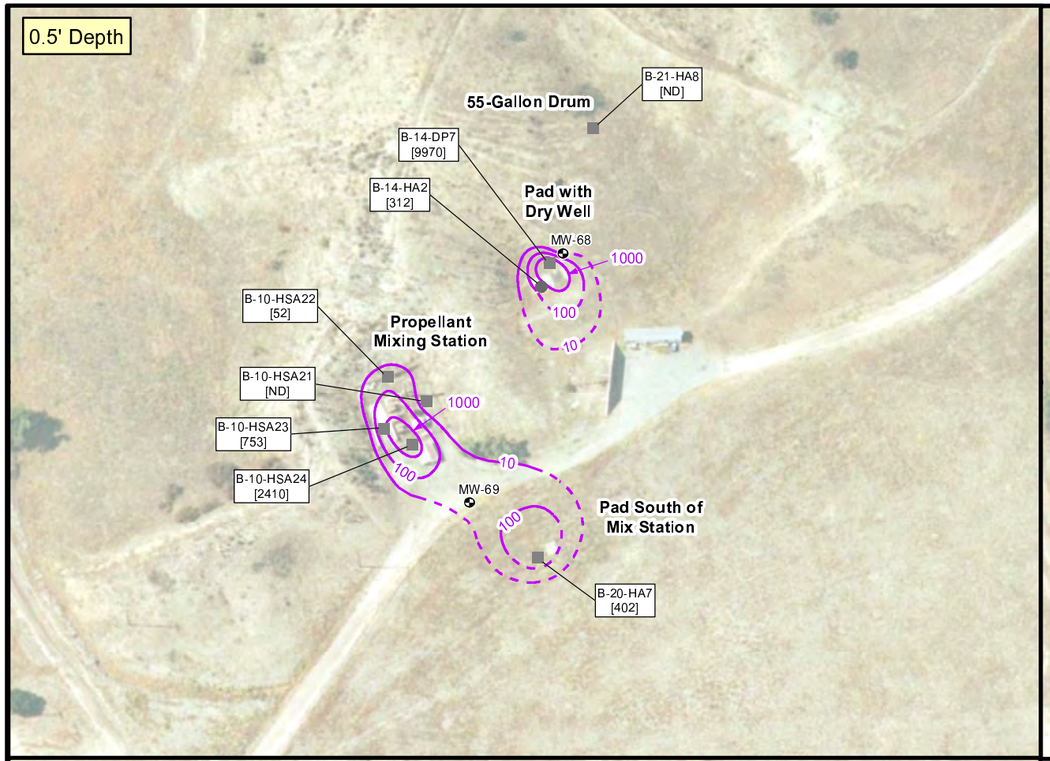
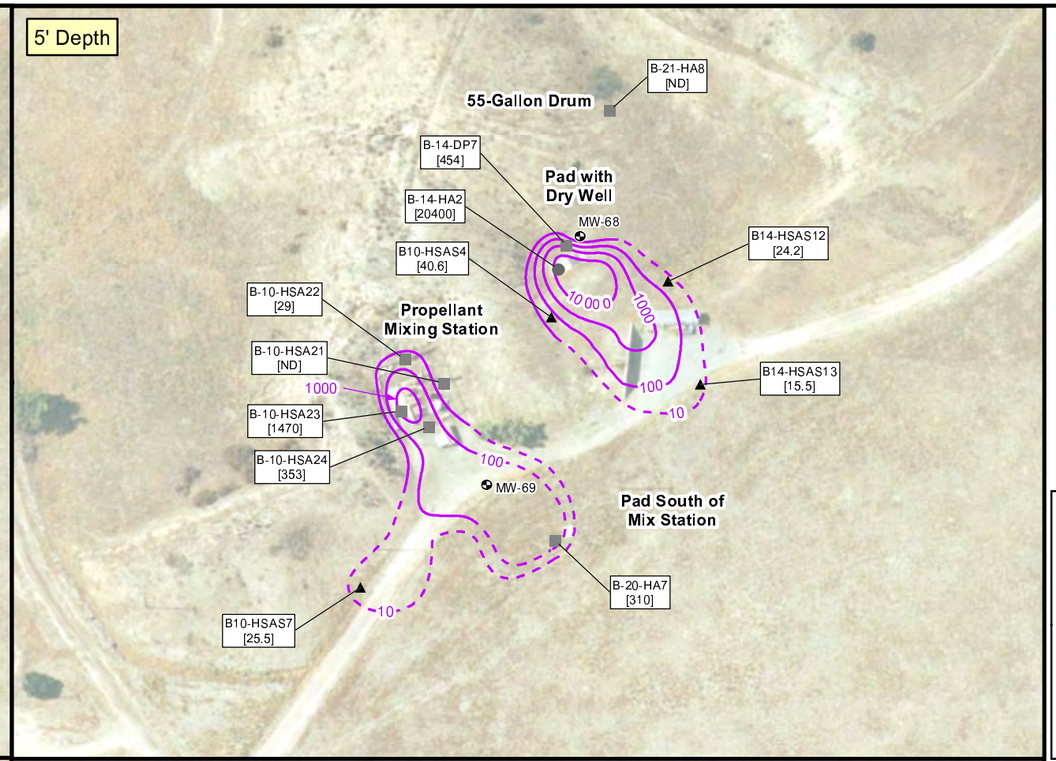
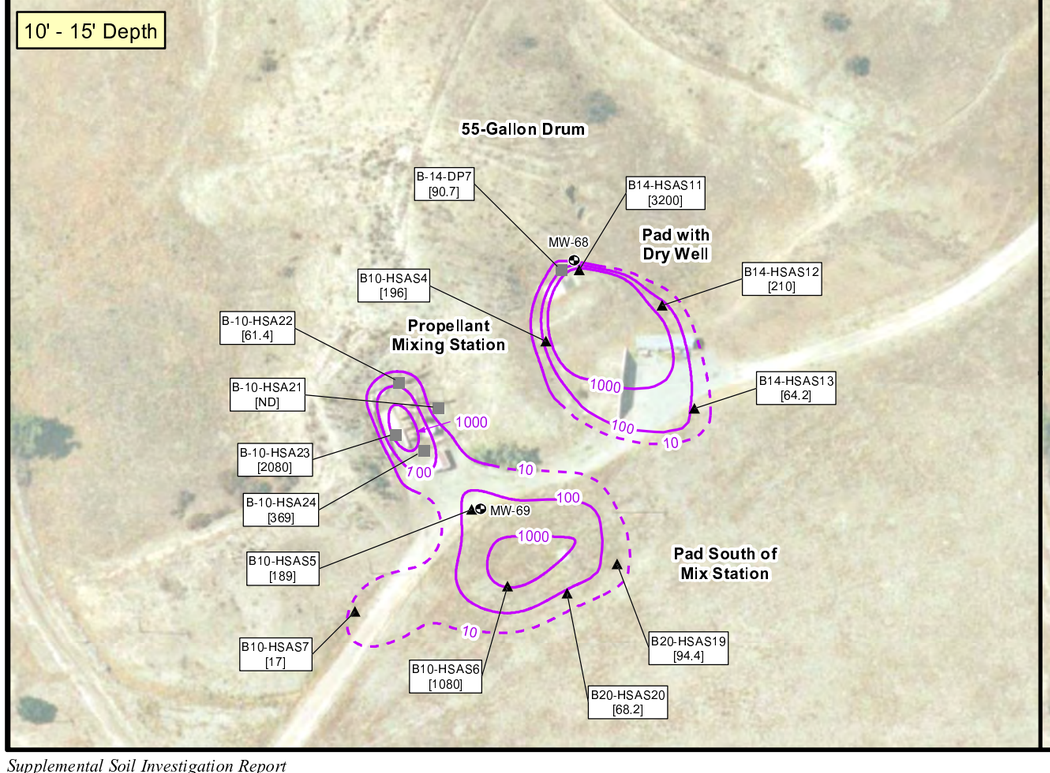
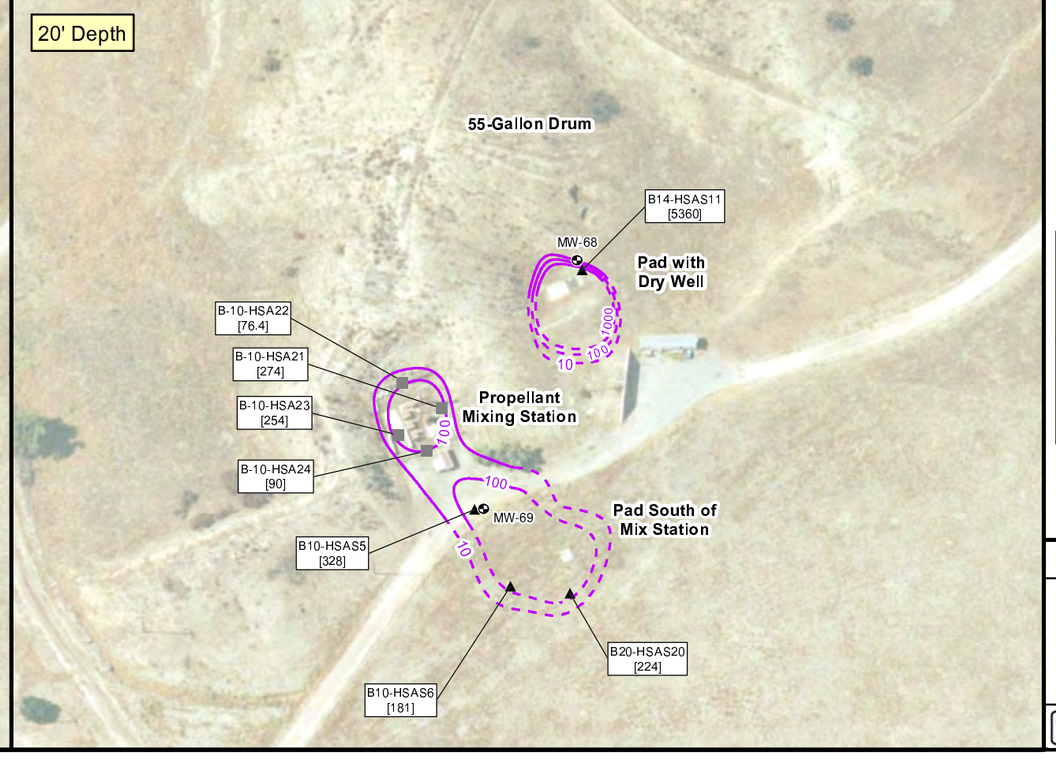
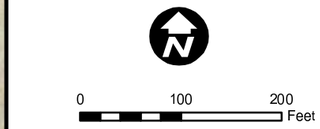










Adapted from: March 2007 aerial photograph.

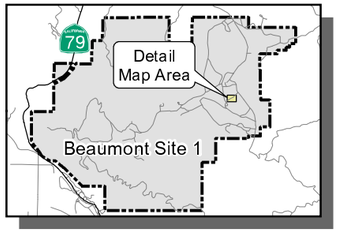
LEGEND

- Monitoring Well Location
- 2007 Soil Boring Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-9
Perchlorate Concentrations in Soil - Propellant Mixing Station (Feature B-10)
(Page 1 of 2)

TETRA TECH

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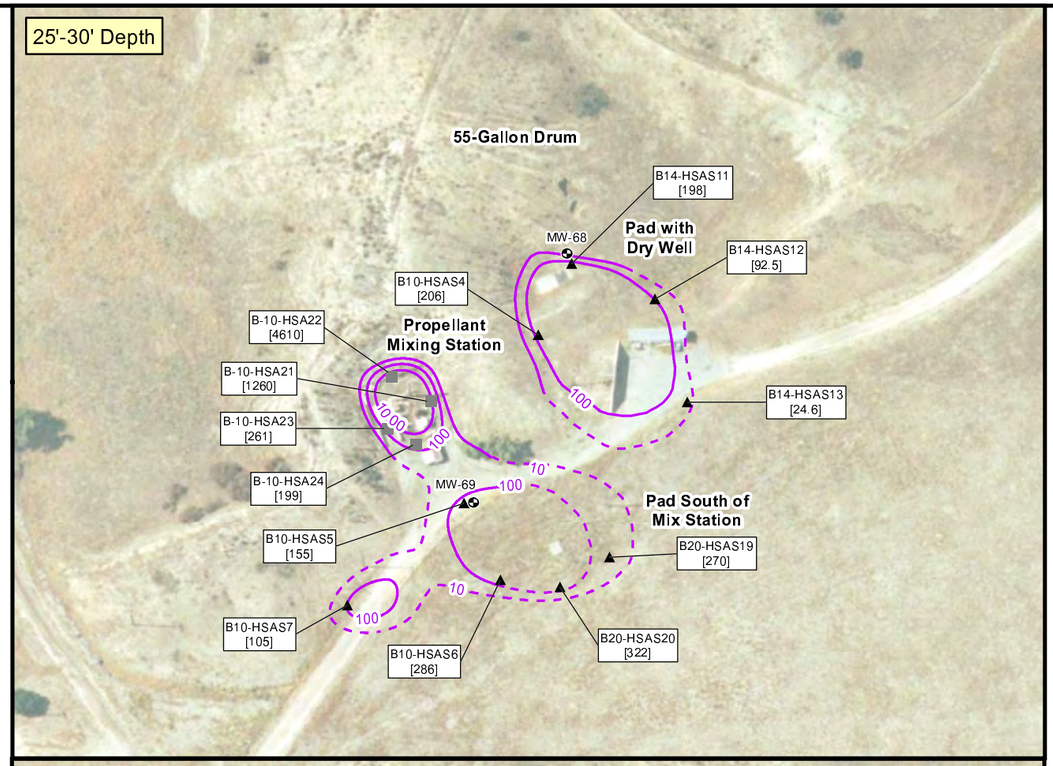


0 100 200 Feet

Adapted from: March 2007 aerial photograph.

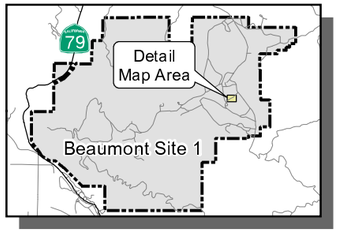
LEGEND

- Monitoring Well Location
- 2007 Soil Boring Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-9
Perchlorate Concentrations in Soil - Propellant Mixing Station (Feature B-10)
(Page 2 of 2)

TETRA TECH

Historical shallow groundwater in the area of the Propellant Mixing Station complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils, similar to the Motor Washout Area (Feature B-9). Although no previous wells were located at the Propellant Mixing Station, perchlorate concentrations in nearby shallow wells have been as high as 800 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 49 feet bgs since 1991. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils.

Groundwater Sampling Results

Perchlorate and 1,4-dioxane were reported in the sample collected from monitoring well MW-69, at concentrations of 2,510 µg/L and 9.0 µg/L, respectively,. Four VOCs were detected in the groundwater sample collected, and 1,1-DCE and TCE detections exceeded their respective MCLs. A summary of the analytical results for those analytes positively detected is presented in Table 4-4. The concentrations reported for perchlorate, 1,1-DCE, TCE, and 1,4-dioxane are similar to groundwater sampling results obtained from nearby wells sampled as part of the Site GMP.

4.2.3 Feature B-11 – Fuel Slurry Station

The Fuel Slurry Station (Building 317) is located in the western central portion of Historical Operational Area B (Figure 4-10). The Fuel Slurry Station was used primarily to weigh and premix liquid fuel prior to propellant mixing activities. Perchlorate and solvents (primarily butadiene) were used at this feature (Tetra Tech, 2002).

Previous Results

Six soil borings and two soil gas probes were installed between 15 and 40 feet bgs at the Fuel Slurry Station during previous investigations (Tetra Tech; 2002, 2005a). Soil samples were analyzed for VOCs, SVOCs, and perchlorate. 1,4-Dioxane was not detected at concentrations above its RL in any of the samples collected. Perchlorate was detected at concentrations ranging from 29.2 to 328 µg/kg. 1,1-DCA, 1,1,1-TCA, acetone, benzene, and toluene were detected at concentrations ranging from 0.93 to 50 µg/kg. In addition, TCE, 1,1-DCE, and methyl tert-butyl ether (MTBE) were detected in soil gas at concentrations up to 1.2, 1.3, and 1.5 µg/L, respectively.

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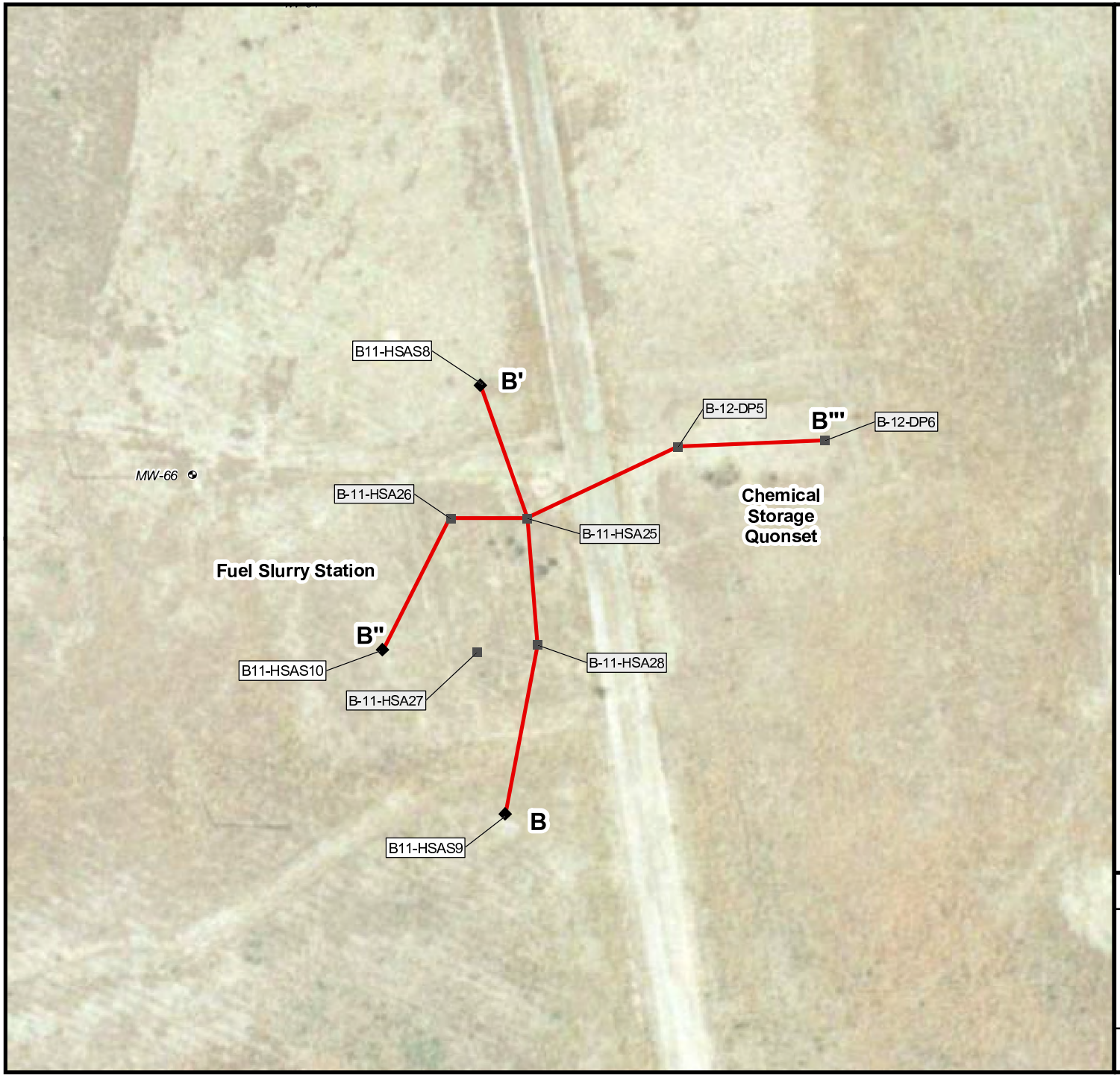
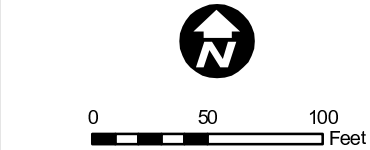
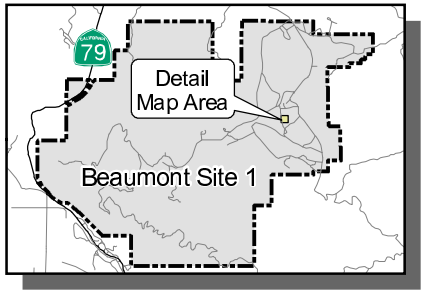




Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-10

Sample and Cross Section Locations - Fuel Slurry Station Feature B-11)

TETRA TECH

Investigation Activities

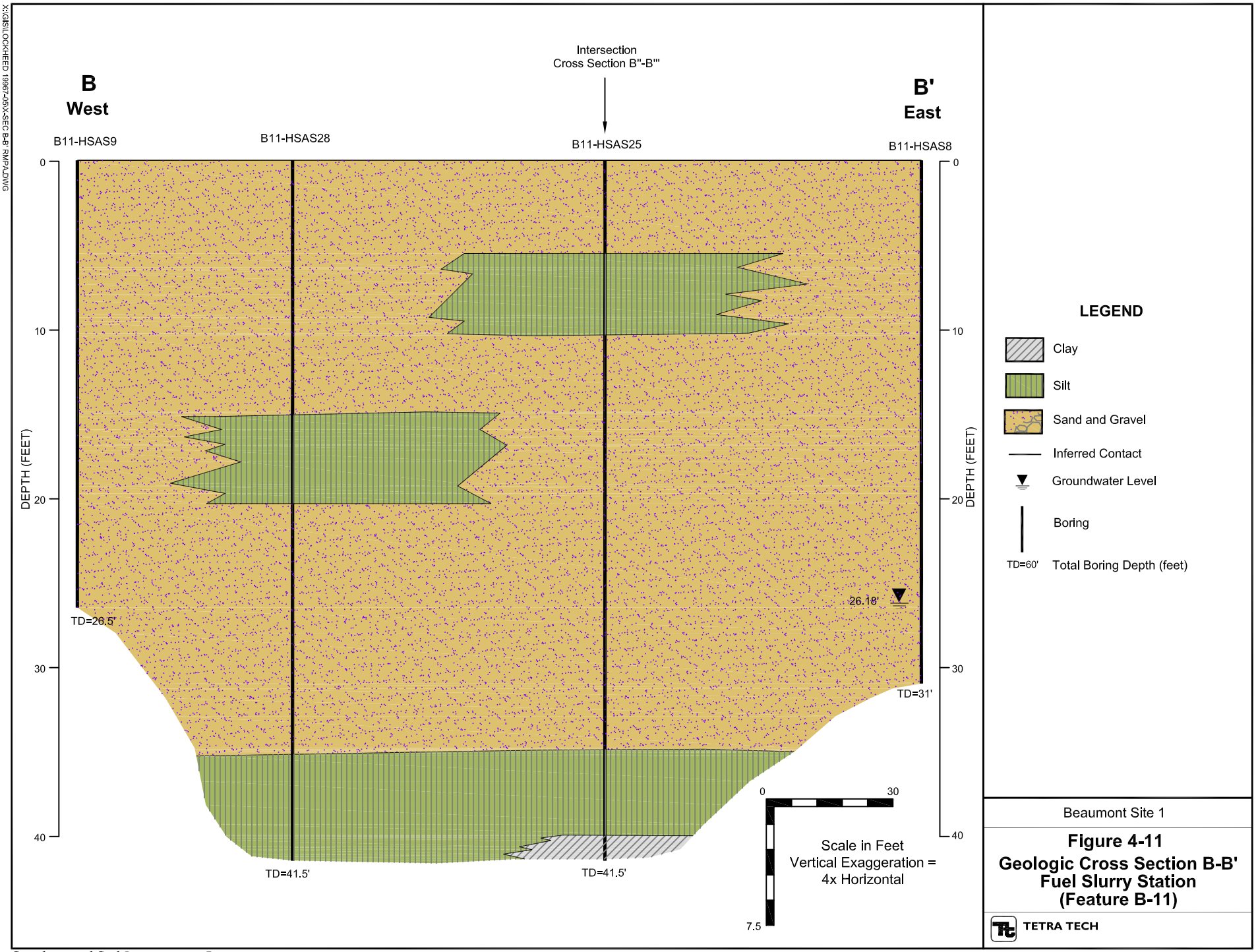
Three HSA soil borings (B11-HSAS8, B11-HSAS9, and B11-HSAS10) were drilled to total depths between 26.5 to 31.5 feet bgs during this investigation (Figure 4-10). Three soil samples were collected from each boring at various depths and analyzed for perchlorate. Soil gas probes were installed at depths of 10 and 25 feet bgs in each boring. Groundwater was encountered at approximately 27 feet bgs. One groundwater grab sample was collected from boring B11-HSAS8 and analyzed for perchlorate and VOCs. Idealized geologic cross sections are shown in Figures 4-11 and 4-12. Soils encountered at Feature B-11 were generally fine- to medium-grained sands with minor amounts of silt.

Soil Sampling Results

Perchlorate was detected above the MDL in seven of the nine soil samples collected from the Fuel Slurry Station, with concentrations ranging from 141 to 725 µg/kg (B11-HSAS10-10-11.5) and an average concentration of 352 µg/kg (Table 4-5). Detected perchlorate concentrations appear relatively consistent at most sampling locations and do not have a clear trend with depth. Figure 4-13 shows the horizontal and vertical extent of perchlorate affected soil at the Fuel Slurry Station utilizing sample results from the previous investigations in addition to the recent results. Previous sampling results collected from the Chemical Storage Quonset Hut (Feature B-12) were also shown in the figure due to the proximity.

Based on the concentration contours, it appears that the largest area of affected soil is between 20 and 30 feet bgs. However, the area of affected soil at 40 feet bgs is undefined, based on the limited number of deeper samples. The higher concentrations of perchlorate appear to be focused immediately under the Fuel Slurry Station and to the south. The total area of affected soil appears to be undefined both laterally and vertically based on the samples collected to date. However, affected groundwater in this area may have impacted the soil beneath this feature.

Historical shallow groundwater in the area of the Fuel Slurry Station complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils, similar to previous discussions. Perchlorate concentrations in a nearby shallow monitoring well (MW-66) have been as high as 1,680 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in this well from less than 13 feet bgs to greater than 38 feet bgs since 1993. Therefore, soil below 13 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils.



Beaumont Site 1

Figure 4-11
Geologic Cross Section B-B'
Fuel Slurry Station
(Feature B-11)

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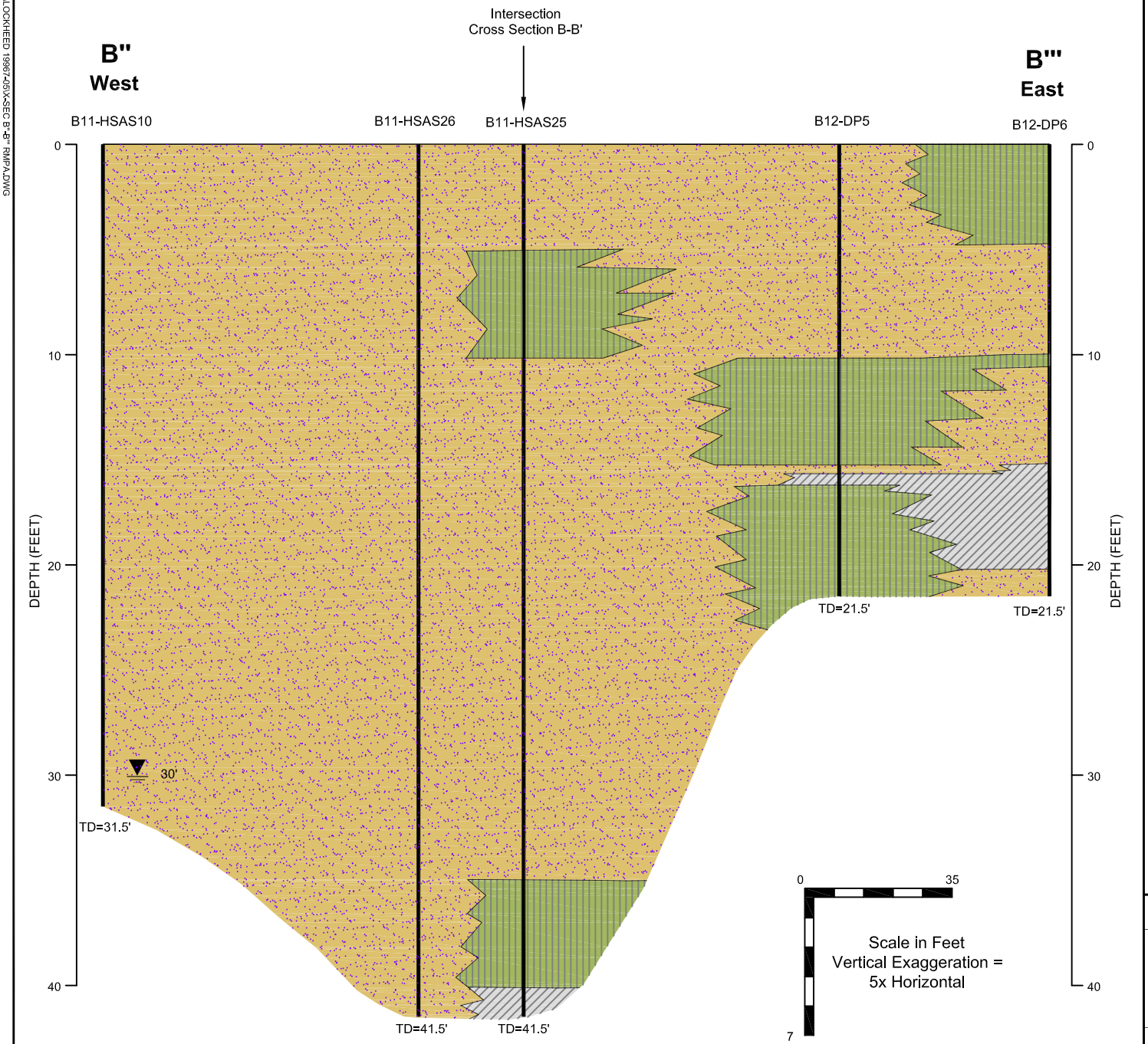

LEGEND

- Clay
- Silt
- Sand and Gravel
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-12
Geologic Cross Section B"-B"'
Fuel Slurry Station
(Feature B-11)

TETRA TECH

Table 4-5
Sampling Results for Perchlorate and Detected VOCs – Fuel Slurry Station (Feature B-11)

Sample Location - Depth (feet bgs)	Sample Date	Matrix	Perchlorate - Soil (µg/kg)	Perchlorate – Water	1,4-Dioxane	Chloroform (Trichloromethane)	1,1-Dichloroethane (1,1-DCA)	1,2-Dichloroethane (1,2-DCA)	1,1-Dichloroethene (1,1-DCE)	cis-1,2-Dichloroethene (cis-1,2-DCE)	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Tetrachloroethene (PCE)
		Laboratory Results in µg/L unless otherwise specified												
MDL (µg/kg or µg/L)(1)			10.4-10.8	200	0.57	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
B11-HSAS10-10-11.5	4/3/2007	S	725	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS10-25-26.5	4/3/2007	S	270	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS10-30-31.5	4/3/2007	S	318	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS8-5-6.5	4/4/2007	S	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS8-20-21.5	4/4/2007	S	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS8-25-26.5	4/4/2007	S	141	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS9-15-16.5	4/3/2007	S	261	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS9-20-21.5	4/3/2007	S	388	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-HSAS9-25-26.5	4/3/2007	S	364	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
B11-GW01	4/4/2007	W	*NA*	1,980	NA	2.3	1.9	0.45 Jq	31	0.23 Jq	0.73 Jq	0.26 Jq	110	0.24 Jq

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
µg/L: micrograms per liter
NA: not analyzed
ND: not detected at or above method detection limit.
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).
S: soil
W: water
Highlighted values exceed a regulatory action or notification level for groundwater (i.e. MCL/DWNL).

Based on low concentrations of perchlorate in shallow samples (0.5 and 5 feet bgs) and moderate perchlorate concentrations in the deeper samples, it is likely that a soil source is not present and the deeper soil may have been negatively impacted by perchlorate in groundwater.

Groundwater Sampling Results

Perchlorate was detected in the grab sample (B11-GW01) collected from boring B11-HSAS8 at a concentration of 1,980 µg/L (Table 4-5). TCE and 1,1-DCE were also detected in the grab sample at concentrations of 110 and 31 µg/L, respectively.

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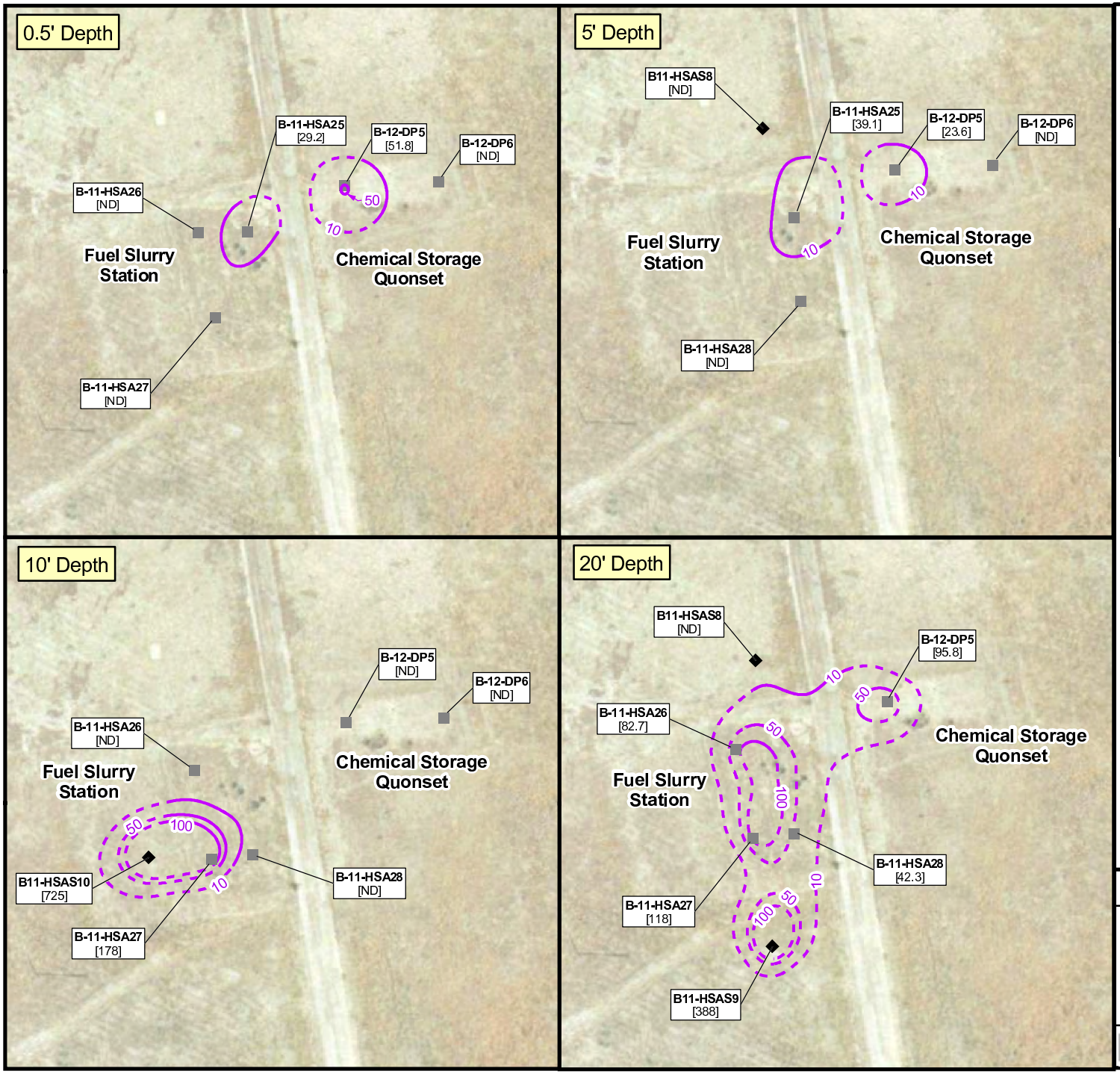
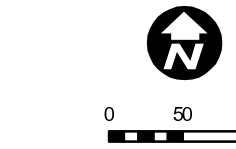




Adapted from: March 2007 aerial photograph.

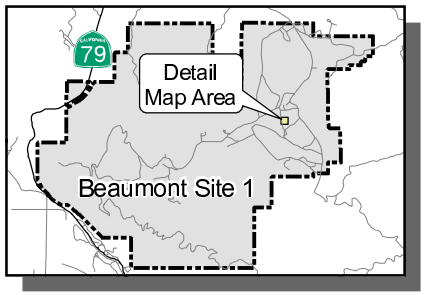
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-13
Perchlorate Concentrations in Soil - Fuel Slurry Station (Feature B-11)
(Page 1 of 2)

TETRA TECH

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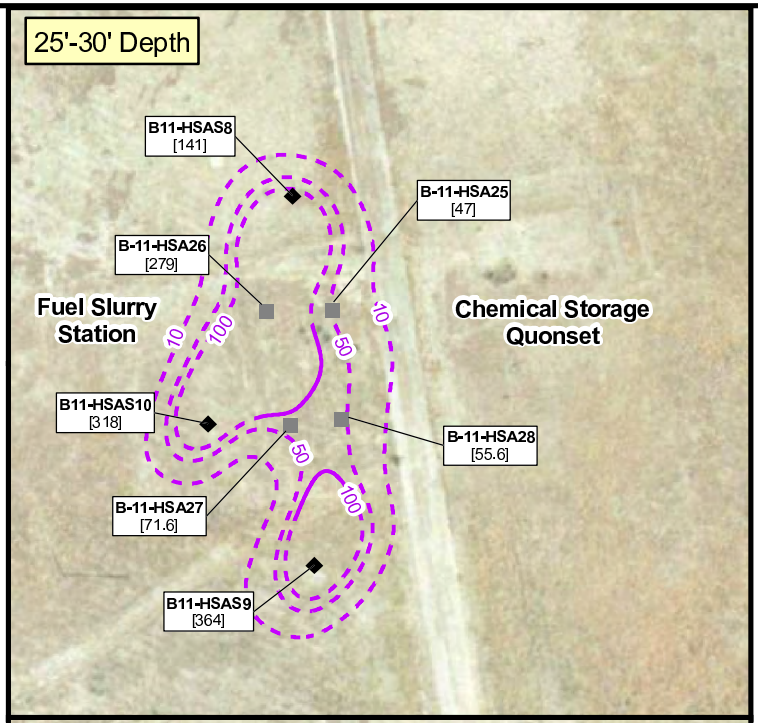
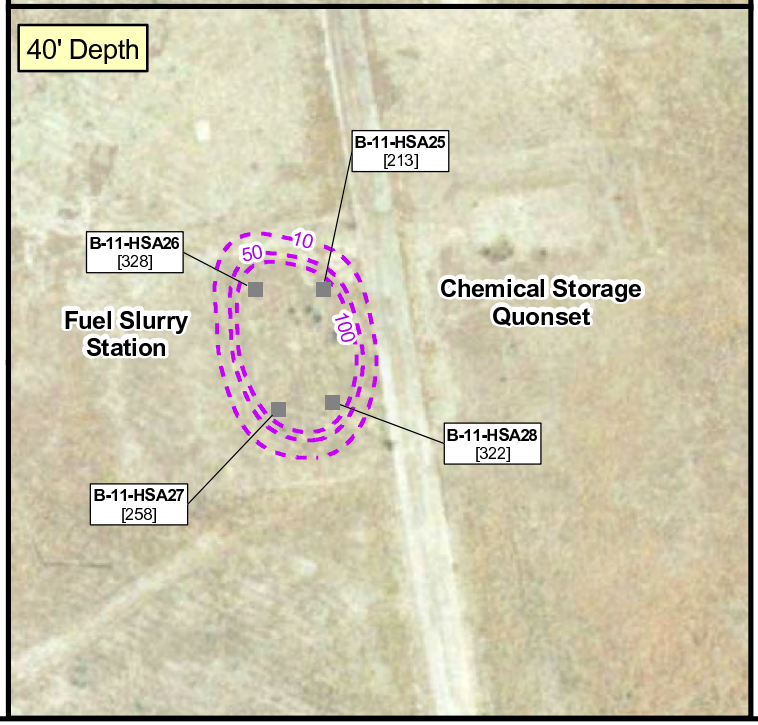






0 50 100 Feet

Adapted from: March 2007 aerial photograph.

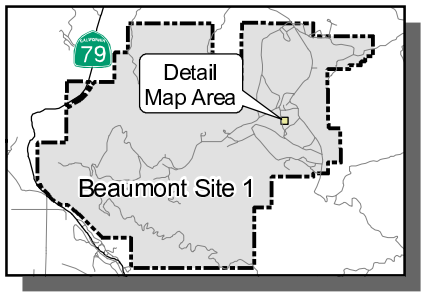
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-13
Perchlorate Concentrations in Soil - Fuel Slurry Station (Feature B-11)
(Page 2 of 2)

TETRA TECH

Low-level detections (<3 µg/L) of chloroform, 1,1-DCA, 1,2-DCA, cis-1,2-DCE, 1,1,1-TCA, 1,1,2-TCA, and PCE were also detected in the grab sample. The concentrations reported for perchlorate, 1,1-DCE, TCE, and 1,4-dioxane are similar to groundwater sampling results obtained from nearby wells sampled as part of the Site GMP.

Soil Gas Sampling Results

VOCs detected in soil gas at the Fuel Slurry Station are shown in Table 4-6. Groundwater COPCs, TCE and 1,1-DCE, were detected at concentrations up to 4,150 and 5,270 µg/m^3, respectively. In general, with the exceptions of the possible laboratory contaminants, 2-butanone and toluene, concentrations of chlorinated and petroleum-related VOCs were higher in samples collected from the deeper soil gas samples (20 to 25 feet bgs). TCE was detected at concentrations ranging from 223 to 4,150 µg/m^3, and was the only analyte detected above California Human Health Screening Levels (CHHSLs). TCE concentrations exceeded the residential CHSSL (528 µg/m^3) in three samples and the commercial/industrial CHHSL in one sample (1,770 µg/m^3) (Table 4-6). Based on the analytes and concentrations detected in soil gas in comparison to groundwater sample results from nearby wells, it is likely that the analytes detected in soil gas could be a result of off-gasing of affected groundwater beneath this feature rather than a shallow soil source. Figure 4-14 shows the total VOC concentration contours for soil gas at the 10 and 20-25 foot intervals for the Fuel Slurry Station and the Chemical Storage Quonset (B-12). As shown in Figure 4-14, the concentrations of total VOCs in soil gas at the 10-foot interval are an order-of-magnitude lower than the concentrations in the 20-25-foot interval. In addition, soil gas concentrations in the western portion of this area beneath the Fuel Slurry Station are much higher than the eastern portion (Chemical Storage Quonset) which is consistent with the groundwater plume morphology in this area.

4.2.4 Feature B-14 - Pad with Dry Well

The Pad with Dry Well is located in the eastern central portion of Historical Operational Area B (Figure 4-15). This feature consists of a concrete pad with an adjacent dry well. Use of the pad and dry well is unknown.

Previous Results

Two soil borings were drilled and sampled to 5 and 10 feet bgs at this location during a previous investigation (Tetra Tech, 2005a). Soil samples collected were analyzed for VOCs, SVOCs, perchlorate, Title 22 metals, PCBs, and TPH. SVOCs, PCBs, 1,4-dioxane, and TPH were not detected at

Table 4-6 Soil Gas Sampling Results for Detected VOCs - Fuel Slurry Stattion (Feature B-11)
Beaumont Site 1

Sample Location - Depth (feet bgs)	Sample Date	Total VOCs	Acetone	Benzene	2-Butanone (MEK)	Carbon disulfide	Chloroform (Trichloromethane)	1,1-Dichloroethane (1,1-DCA)	1,1-Dichloroethene (1,1-DCE)	Ethylbenzene	Methylene chloride (DCM)	Styrene	Tetrachloroethene (PCE)	Toluene (Methyl benzene)	1,1,1-Trichloroethane (1,1,1-TCA)	Trichloroethene (TCE)	Trichlorotrifluoroethane (Freon-113)	1,2,4-Trimethylbenzene	o-Xylene	m,p-Xylenes	2-Methylpropane (Isobutane)
		Laboratory Results (µg/m^3)																			
MDL (µg/m^3)(1)		-	10	2	10	3.0	0.3	0.3	3.0	0.3	10	0.3	0.3	1.0	1.5	1.5	5	0.3	2.0	4.0	2000
Residential CHHSLS (µg/m^3)(2)		-	-	36.2	-	-	-	-	-	-	-	-	180	135,000	991,000	528	-	-	315,000	317,000	-
Commercial/Industrial CHHSLS (µg/m^3)(2)		-	-	122	-	-	-	-	-	-	-	-	603	378,000	2,790,000	1770	-	-	879,000	887,000	-
B11-HSAS8-SVP-10'	5/2/2007	3,077	36.2	8.29	250	37.7	6.6	ND	902	ND	ND	ND	11.2	571	24.4	1,230	ND	ND	ND	ND	ND
B11-HSAS8-SVP-25'	5/2/2007	10,251	41.3	15.2	223	49.1	86.3	76	5,270	10.3	ND	8.46	60.4	95.8	105	4,150	ND	13.8	11.9	34.9	ND
B11-HSAS9-SVP-10'	5/2/2007	905	20.7	5.37	154	26.7	ND	ND	19.4	ND	11.3	ND	ND	428	9.05	223	ND	ND	ND	7.12	ND
B11-HSAS9-SVP-25'	5/2/2007	4,972	50.9 Jp	14.8 Jp	147 Jp	42.1 Jp	32.9 Jp	40.8 Jp	503 Jp	6.86 Jp	38.2 Jp	7.75 Jp	54.8 Jp	97.6 Jp	26.1 Jp	1,060 Jp	ND Rp	8.75 Jp	7.81 Jp	22.3 Jp	2,810 Jp
B11-HSAS10-SVP-10'	5/2/2007	986	14.4	ND	45.3	7.03	6.05	ND	45.4	ND	15.4	ND	ND	372	14	466	ND	ND	ND	ND	ND
B11-HSAS10-SVP-25'	5/2/2007	7,865	25.2 Jp	11.6 Jp	23.8 Jp	51.5 Jp	30.7 Jp	28.3 Jp	1,490 Jp	5.21 Jp	39.0 Jp	5.20 Jp	10.8 Jp	84.1 Jp	22.9 Jp	985 Jp	11.2 Jp	6.98 Jp	6.16 Jp	17.0 Jp	5,010 Jp

Notes:

Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.

(1) - Method Detection Limit (MDL) from most recent laboratory data; note that individual MDLs may vary if sample was analyzed from a diluted aloquot.

(2) - California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas (Vapor Intrusion)

µg/m^3 - microgram per cubic meter.

bgs - below ground surface.

J - The analyte was positively identified and the result is usable; howver, the analyte concentration is an estimated value.

ND - Not detected at or above method detection limit.

p - Professional judgement determined the data should be qualified.

R - The sample result is rejected and not usable for any purpose; the presence or absence of the analyte cannot be verified.

Highlighted values exceed their respective residential land use CHHSL for shallow soil gas.

Highlighted values exceed their respective commercial/industrial land use CHHSL for shallow soil gas.

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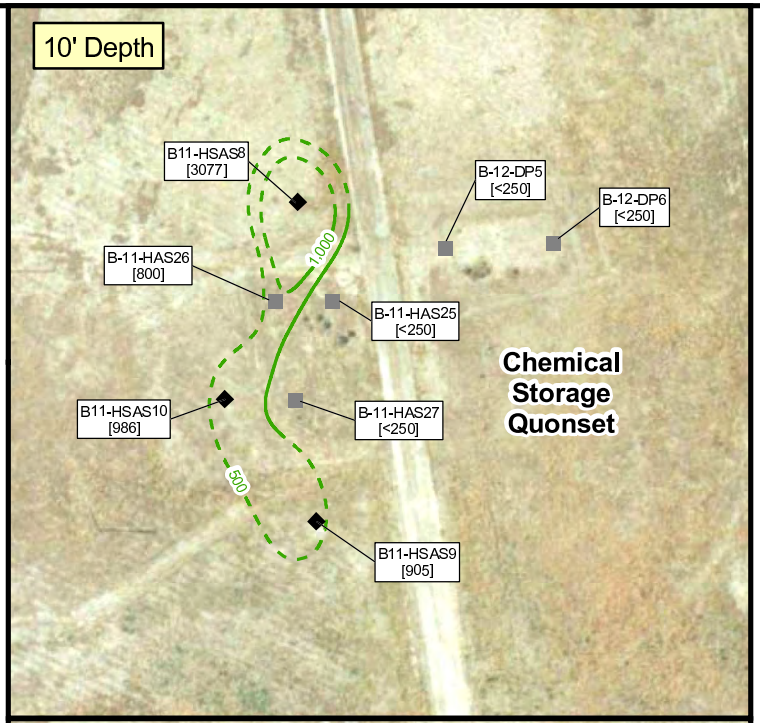
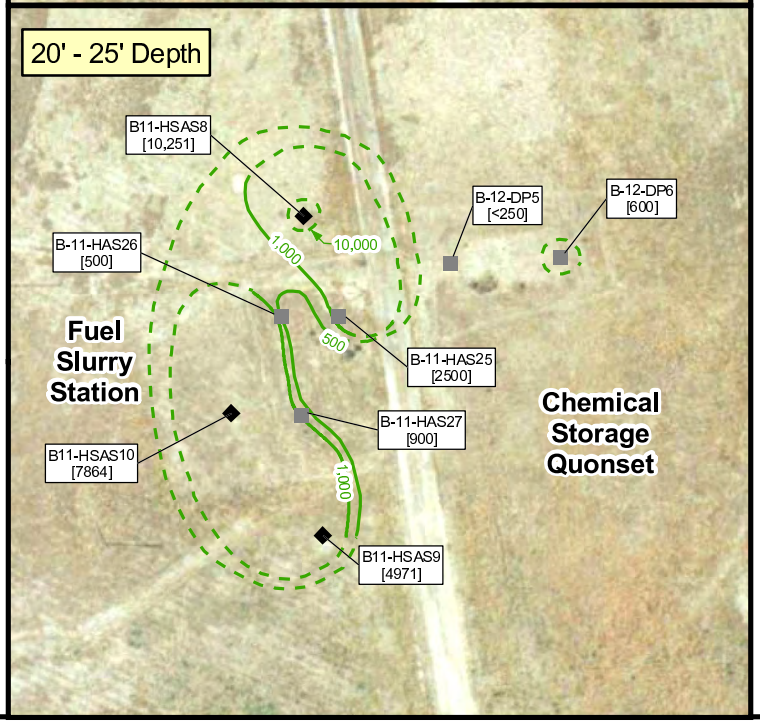




0 50 100 Feet

Adapted from: March 2007 aerial photograph.

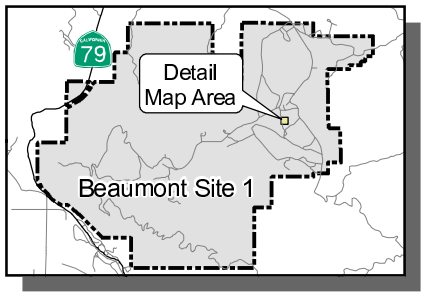
LEGEND

- Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 500 Soil Gas Total VOCs (Dashed where inferred)

Note:

[#] VOC results in µg/m^3.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-14

Total VOC Concentrations in Soil Gas - Fuel Slurry Station (Feature B-11)

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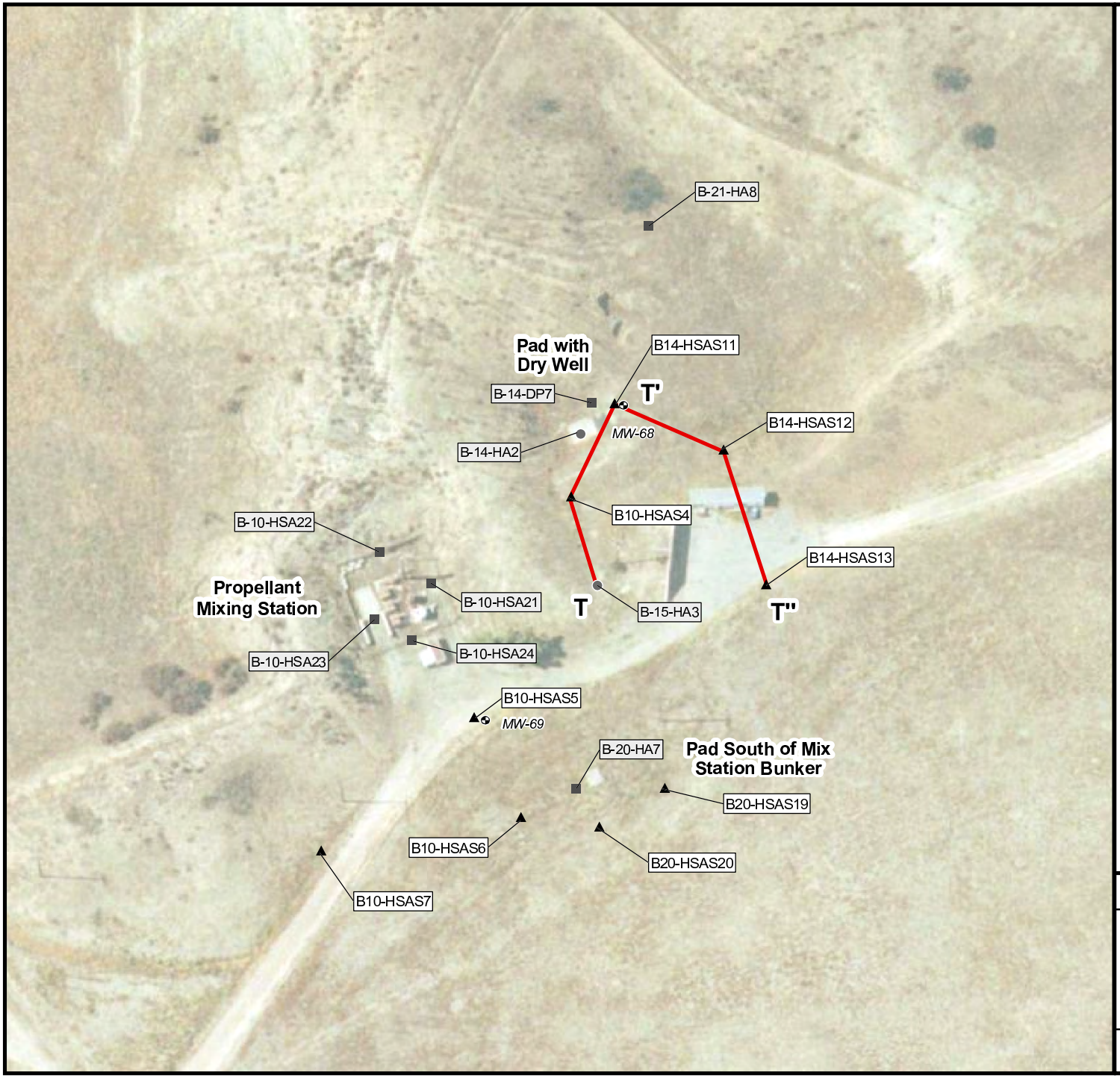
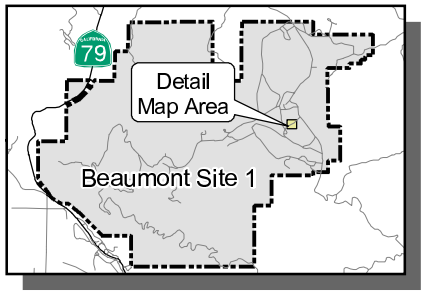


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-15

Sample and Cross Section Locations - Pad with Dry Well (Feature B-14)

TETRA TECH

concentrations above their respective RLs. Perchlorate was detected at concentrations ranging from 312 to 20,400 µg/kg. Acetone, a possible laboratory contaminant, was detected at a concentration of 62 µg/kg. Metals were detected with arsenic at concentrations up to 3.39 mg/kg. A soil gas survey was also performed at this location. VOCs were not detected in any of the soil gas samples collected.

Investigation Activities

Three HSA soil borings (B14-HSAS11, B14-HSAS12 and B14-HSAS13) were drilled at the Pad with Dry Well to total depths ranging from 26.5 to 31.5 feet bgs (Figure 4-15). Soil samples were collected at various depths and analyzed for perchlorate. Idealized geologic cross sections through this feature are shown in Figures 4-16 and 4-17. Soils encountered at Feature B-14 were generally very fine-grained sand with minor amounts of clay. Groundwater was encountered at approximately 35 feet bgs at boring location B14-HSAS11.

Boring B14-HSAS11 was converted to monitoring well MW-68 and screened from 24.5 to 39.5 feet bgs. Monitoring well MW-68 was developed between 18 and 21 May 2007 and sampled on 19 June 2007. After completion of the well construction and development activities, depth to groundwater was measured at 32.10 feet below TOC. Groundwater samples collected from monitoring well MW-68 were analyzed for perchlorate, VOCs, and 1,4-dioxane.

Soil Sampling Results

Perchlorate was detected above the MDL in each of the nine soil samples collected, ranging from 15.5 to 5,360 µg/kg with an average concentration of 1,021 µg/kg (Table 4-7). Perchlorate concentrations were highest in the 10-foot samples from each of the three borings. Figure 4-18 shows the horizontal and vertical extent of perchlorate affected soil at the Pad with Dry Well utilizing sample results from the previous investigation in addition to the recent results. Sampling results collected from the Propellant Mixing Station (Feature B-10) and Pad South of Mix Station Bunker (Feature B-20) were also shown in this figure due to their proximity.

Based on the concentration contours, the highest concentrations of perchlorate at this feature were detected at the Pad with Dry Well (B14HSAS11 and previous borings B-14-HA2 and B-14-DP7). Perchlorate concentrations are confined to the north by the steep hillsides of the Mt. Eden formation and concentrations decrease immediately south and southeast of the pad and dry well by two to three orders of magnitude.

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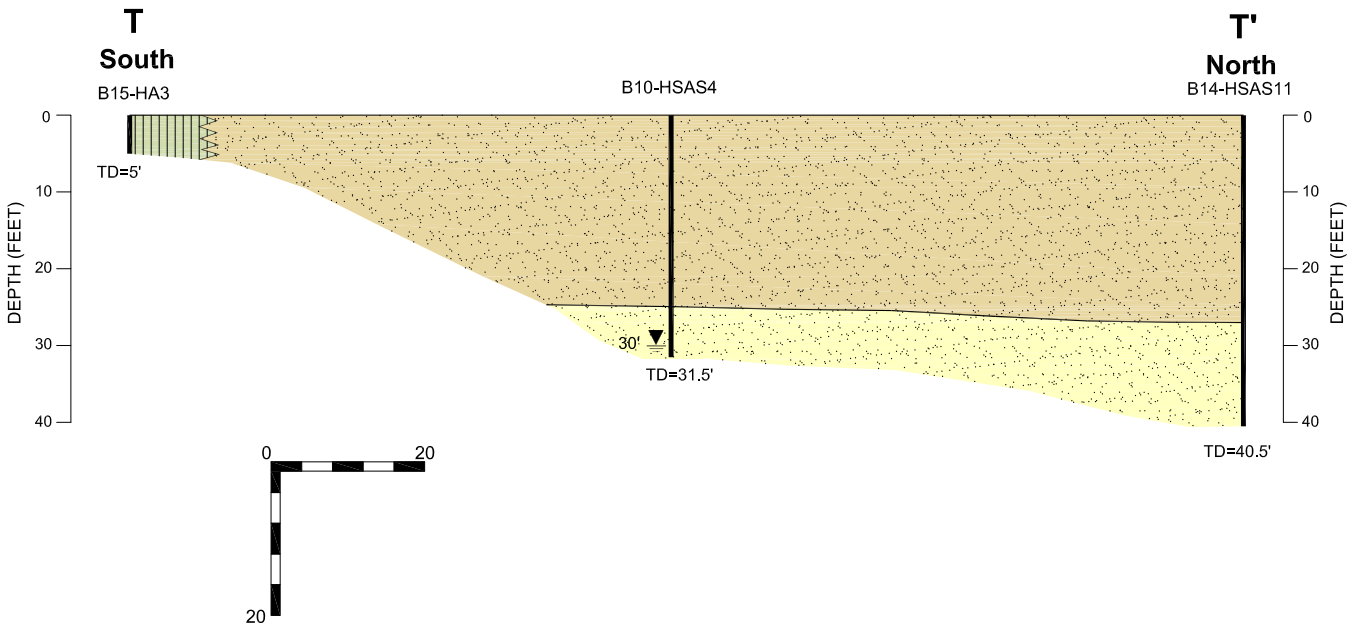

LEGEND

- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-16
Geologic Cross Section T-T'
Pad with Dry Well
(Feature B-14)

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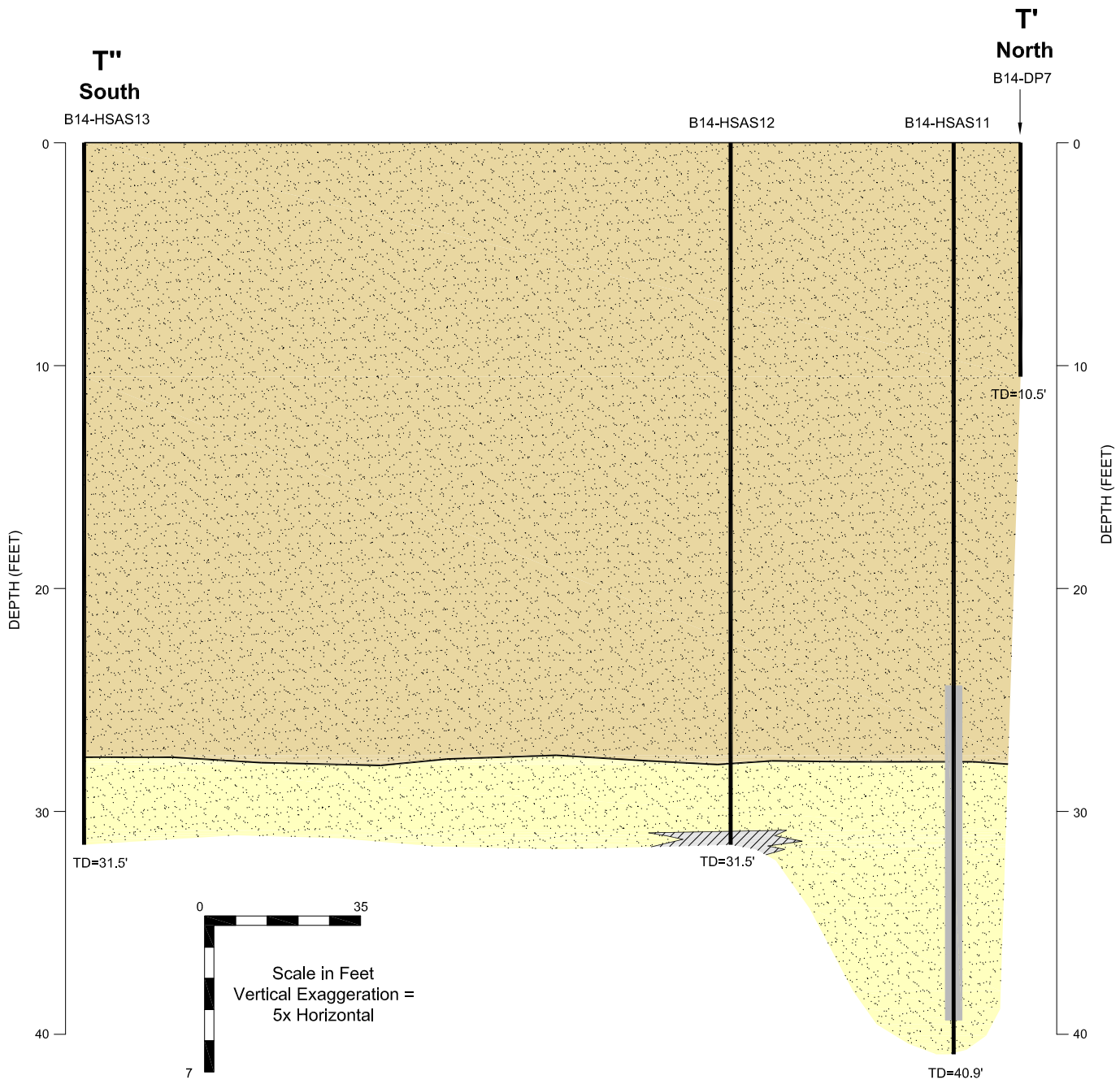

Clay

Silt

Sand and Gravel

Mt Eden Formation
(sandstone with some gravelly units)

Inferred Contact

Boring

TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-17
Geologic Cross Section T''-T''' Pad with Dry Well (Feature B-14)

TETRA TECH

Table 4-7
Sampling Results for Perchlorate, 1,4-Dioxane, and Detected VOCs – Pad with Dry Well (Feature B-14)

Sample Location - Depth (feet bgs)	Sample Date	Matrix	Perchlorate soil (µg/kg)	Perchlorate - Water	1,4-Dioxane	1,1-Dichloroethene (1,1-DCE)	Trichloroethene (TCE)
		Laboratory Results in µg/L unless otherwise specified					
MDL (µg/kg or µg/L)[(1)]			10.4-10.8	200	0.57	0.2	0.2
MCL/DWNL (µg/L)			-	6	3	6	5
B14-HSAS11-10-11.5	4/25/2007	S	3,200	*NA*	*NA*	*NA*	*NA*
B14-HSAS11-20-21.5	4/25/2007	S	5,360	*NA*	*NA*	*NA*	*NA*
B14-HSAS11-30-31.5	4/25/2007	S	198	*NA*	*NA*	*NA*	*NA*
B14-HSAS12-5-6.5	4/18/2007	S	24.2	*NA*	*NA*	*NA*	*NA*
B14-HSAS12-10-11.5	4/18/2007	S	210	*NA*	*NA*	*NA*	*NA*
B14-HSAS12-25-26.5	4/18/2007	S	92.5	*NA*	*NA*	*NA*	*NA*
B14-HSAS13-5-6.5	4/18/2007	S	15.5 Jq	*NA*	*NA*	*NA*	*NA*
B14-HSAS13-10-11.5	4/18/2007	S	64.2	*NA*	*NA*	*NA*	*NA*
B14-HSAS13-25-26.5	4/18/2007	S	24.6	*NA*	*NA*	*NA*	*NA*
MW-68	6/19/2007	W	*NA*	3,270	2.2	1.6	2.0

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
µg/L: micrograms per liter
MCL: maximum contaminant level
DWNL: drinking water notification level
NA: not analyzed
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).
S: soil
W: water
Highlighted values exceed a regulatory action or notification level for groundwater (i.e. MCL/DWNL).

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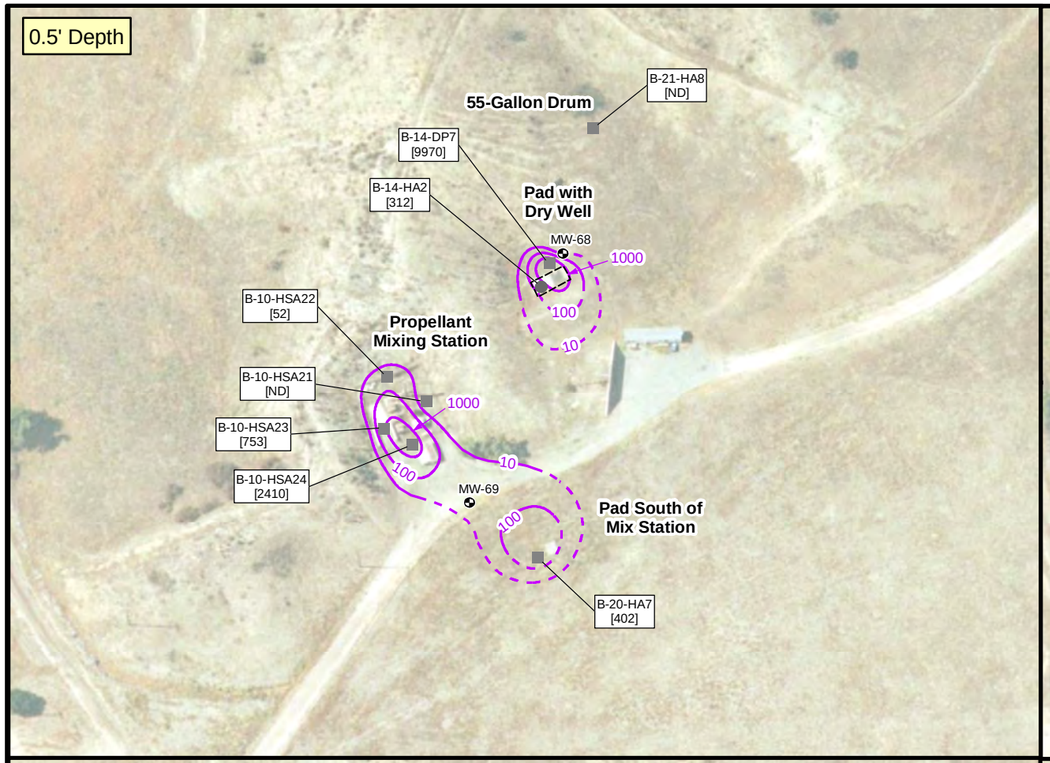
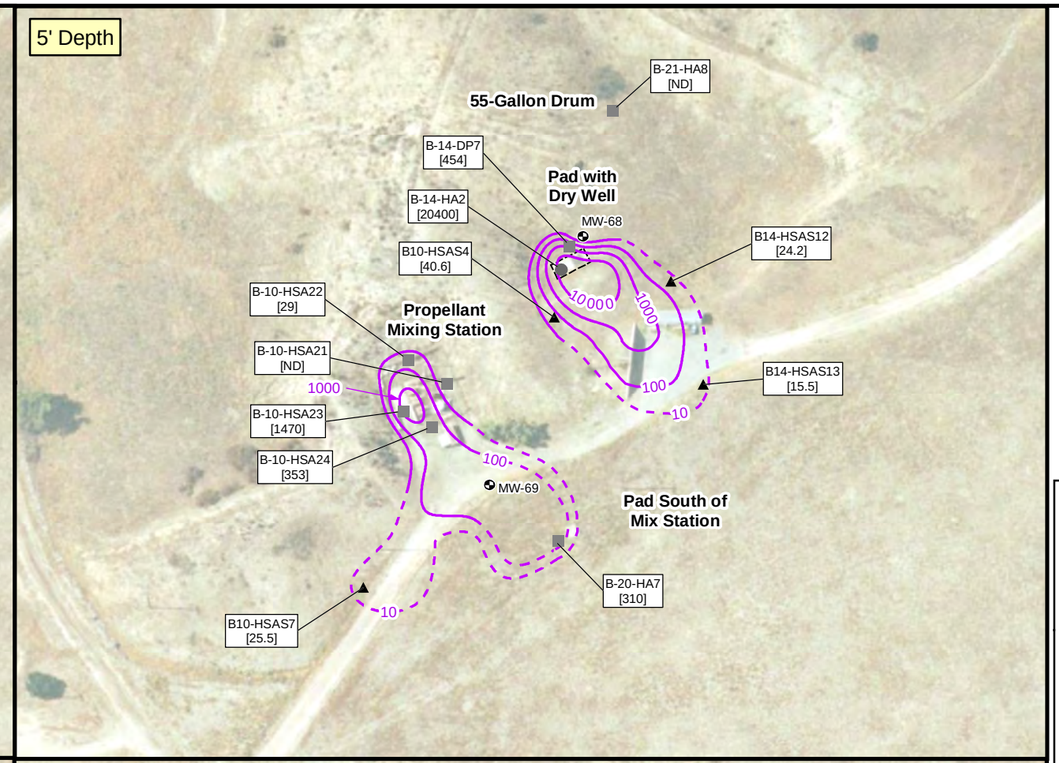
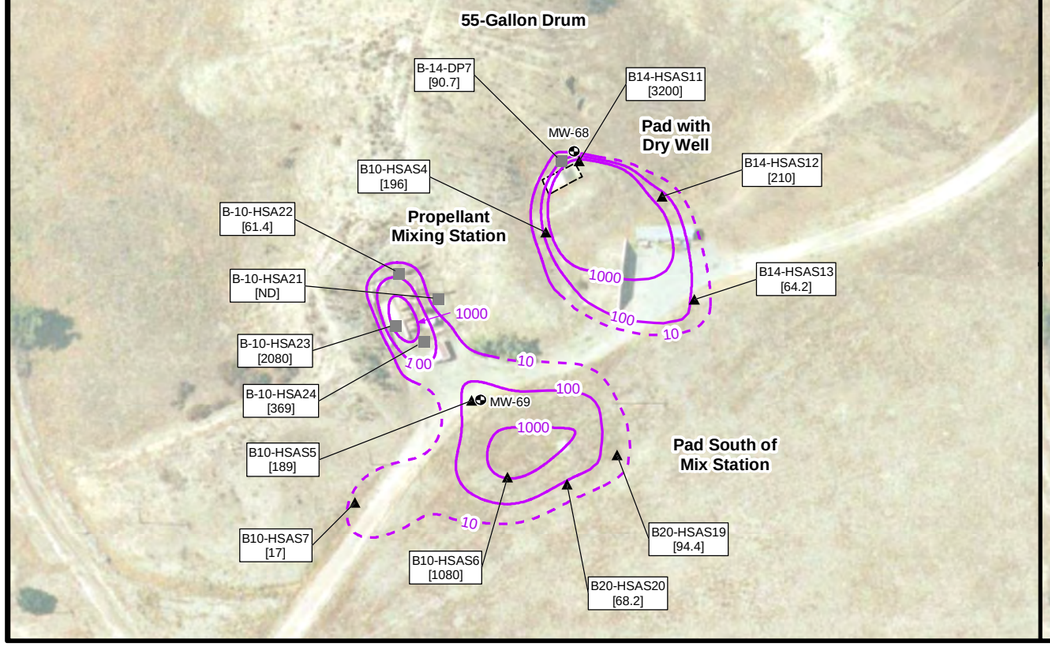
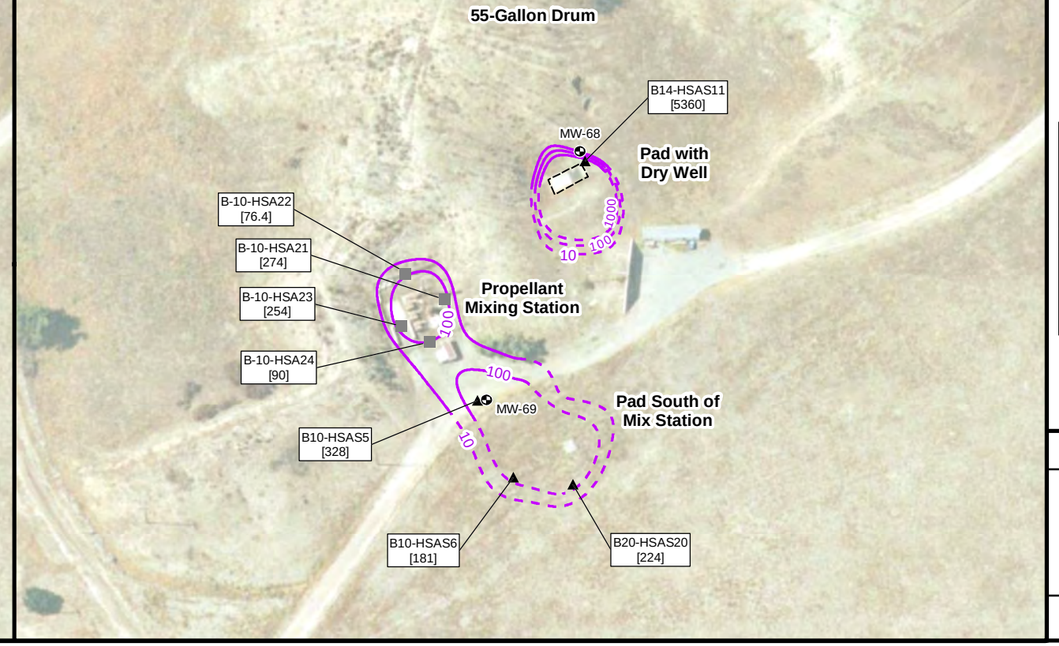
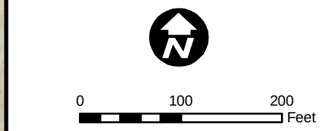










Adapted from: March 2007 aerial photograph.

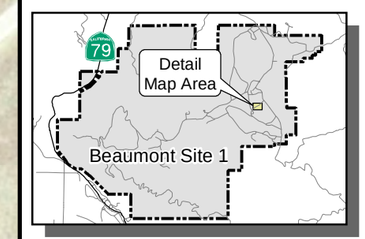
LEGEND

- Monitoring Well Location
- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)
- Approximate Boundary of Pad with Drywell

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-18
Perchlorate Concentrations in Soil - Pad with Dry Well (Feature B-14)
(Page 1 of 2)

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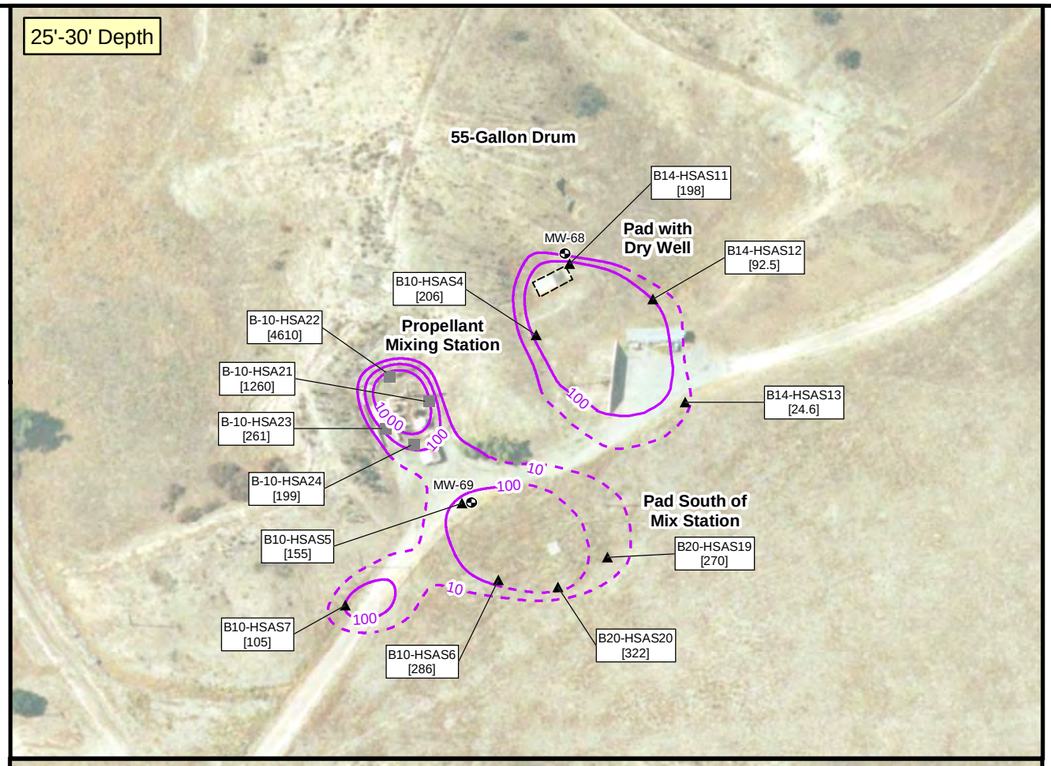
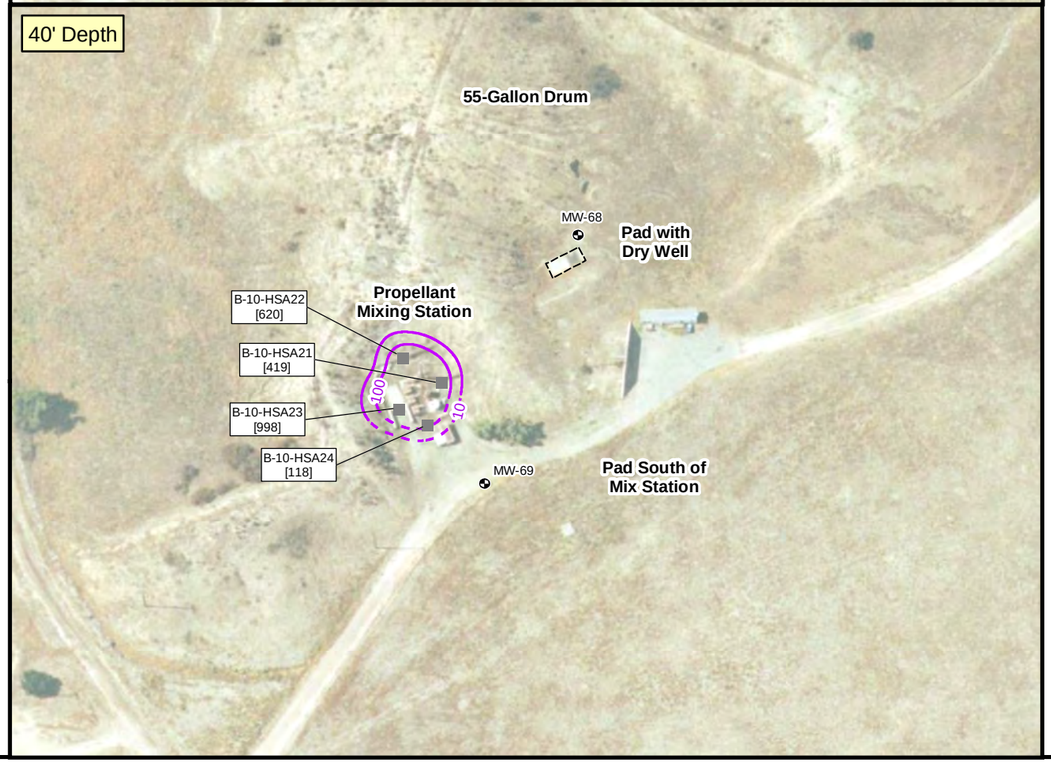






Adapted from: March 2007 aerial photograph.

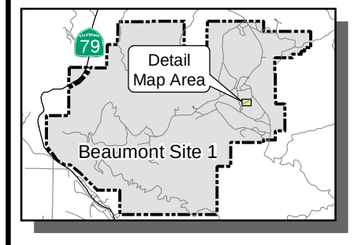
LEGEND

- Monitoring Well Location
- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)
- Approximate Boundary of Pad with Drywell

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-18
Perchlorate Concentrations in Soil - Pad with Dry Well (Feature B-14)
(Page 2 of 2)

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Concentrations of perchlorate decrease in the deeper samples to less than 200 µg/kg in the 25 to 30-foot samples. The total area of gross affected soil appears to be generally defined both laterally and vertically based on the samples collected to date. However, as discussed in the following paragraph, affected groundwater in this area may have impacted the soil beneath this feature.

Historical shallow groundwater in the area of the Pad with Dry Well complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate was detected in groundwater beneath this feature at a concentration of 3,270 µg/L. In addition, groundwater has fluctuated in wells near this feature from 4 to 49 feet bgs since 1991. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. However, based on the vertical distribution of perchlorate and concentrations detected in the shallow samples, it appears that a shallow soil source of perchlorate may be present at this feature.

Groundwater Sampling Results

Perchlorate and 1,4-dioxane were reported at respective concentrations of 3,270 µg/L and 2.2 µg/L in monitoring well MW-68. Two VOCs, 1,1-DCE and TCE, were detected at concentrations of 1.6 and 2.0 µg/L, respectively. A summary of the analytical results for those analytes positively detected is presented in Table 4-7. Perchlorate concentrations appear to be elevated in MW-68 and nearby monitoring well MW-69 (Feature B-10) relative to nearby wells located to the south and southwest. In addition, 1,1-DCE and TCE concentrations appear to be less than the concentrations detected in the same nearby wells to the south and southwest.

4.2.5 Feature B-18 – Cast and Cure Station

The Cast and Cure Station (Building 316) is located in the southern portion of Historical Operational Area B (Figure 4-19). After the propellant mixing process, the mix was brought to the Cast and Cure Station for casting and curing by heating the propellant cast to 140˚ F for several days. Perchlorate and possibly solvents (primarily butadiene) were used at this feature.

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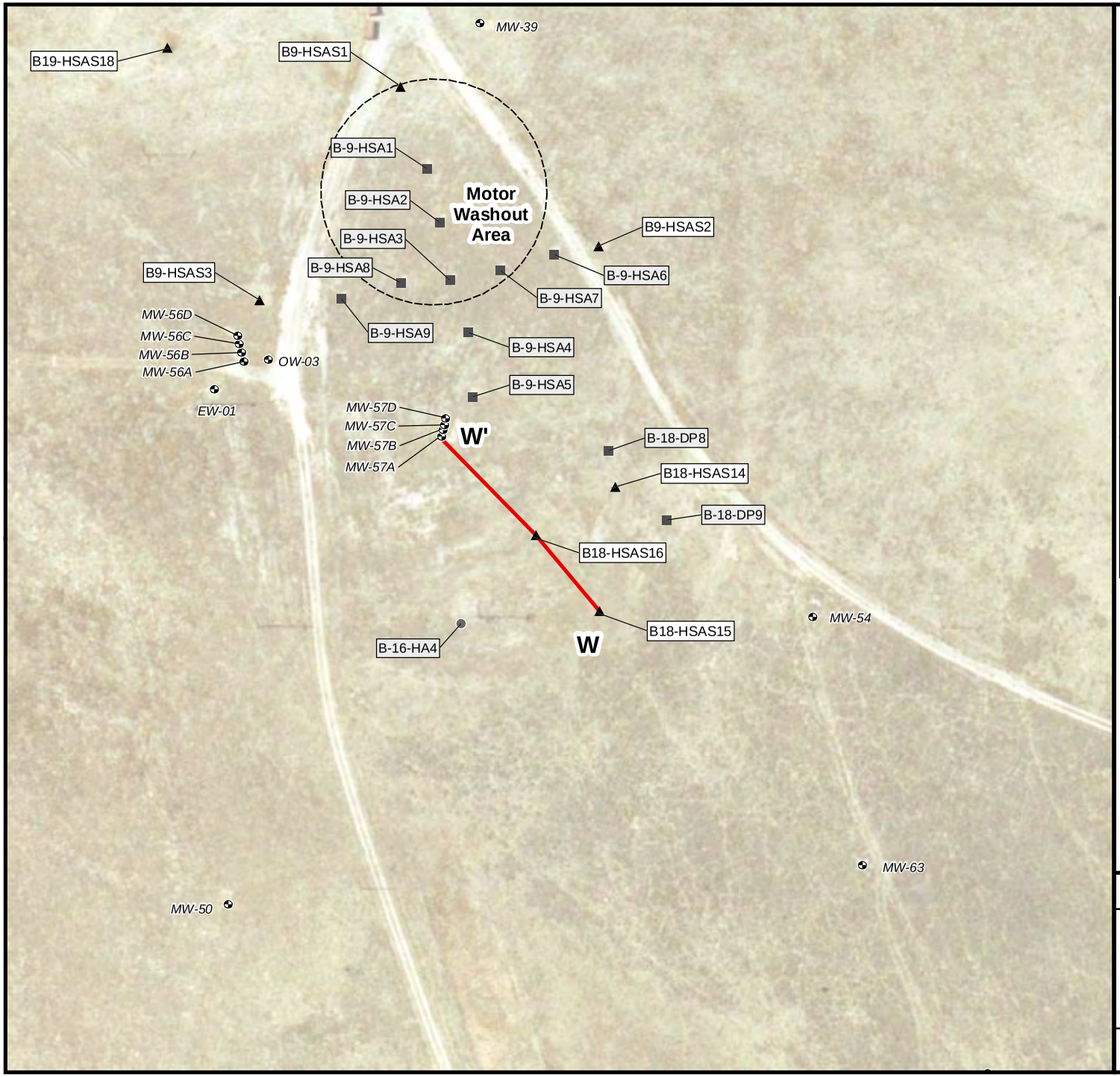
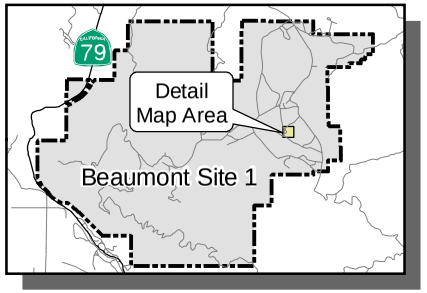


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 ▲ Supplemental Investigation Soil Boring Location
- A-6-HA2 ● Previous Soil Boring Location
- A-3-DP5 ■ Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location
- Approximate Boundary of Motor Washout Area



Beaumont Site 1

Figure 4-19
Sample and Cross Section Locations - Cast and Cure Station (Feature B-18)

TETRA TECH

Previous Results

Four soil and soil gas borings were drilled and sampled from 15 to 20 feet bgs in the vicinity of the fuel slurry station during previous investigations (Tetra Tech; 2002, 2005a). Samples were analyzed for VOCs, 1,4-dioxane, SVOCs, perchlorate, and Title 22 metals. VOCs, 1,4-dioxane and SVOCs were not detected above their RLs. Perchlorate was detected with a maximum concentration of 9,976 µg/kg. One VOC (acetone) was detected at a concentration of 62 µg/kg, which may be associated with laboratory contamination. Detected metals included arsenic with concentrations up to 2.99 mg/kg.

Investigation Activities

Three HSA soil borings (B18-HSAS14, B18-HSAS15, and B18-HSAS16) were drilled to approximately 21.5 feet bgs at the Cast and Cure Station during this investigation (Figure 4-19). Three soil samples were collected from each boring, at the depths of 5, 10 or 15, and 20 feet bgs, and analyzed for perchlorate. Soils encountered at the Cast and Cure Station were generally fine- to medium-grained sand with minor amounts of silt. An idealized geologic cross section through this feature is shown in Figure 4-20. Groundwater was not encountered in any of the soil borings installed at the Cast and Cure Station during this investigation.

Soil Sampling Results

Perchlorate was detected above the MDL in four of the nine soil samples collected, ranging from 19.2 to 41.8 µg/kg with an average concentration of 28 µg/kg (Table 4-8). Perchlorate concentrations are relatively low in comparison to the Motor Washout Area (Feature B-9) located just to the north of the Cast and Cure Station. Concentrations in B18-HSAS15 were relatively consistent at all three depths (19.2 µg/kg at 5 feet bgs, 41.8 µg/kg at 15 feet bgs, and 27 µg/kg at 20 feet bgs). No perchlorate was detected in samples collected from B18-HSAS14, and only one sample collected at B18-HSAS16 at 20 feet bgs was reported with perchlorate (22 µg/kg). Figure 4-21 shows the horizontal and vertical extent of perchlorate affected soil at the Cast and Cure Station utilizing sample results from the previous investigations in addition to the recent results. Samples collected from the Motor Washout Area (Feature B-9) were also shown in this figure due to the proximity. It is possible that the perchlorate detected at the Cast and Cure Station could have originated from the Motor Washout Area (Feature B-9).

Historical shallow groundwater in the area of the Cast and Cure Station complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in the shallow wells have been as high as 1,250 µg/L since sampling for

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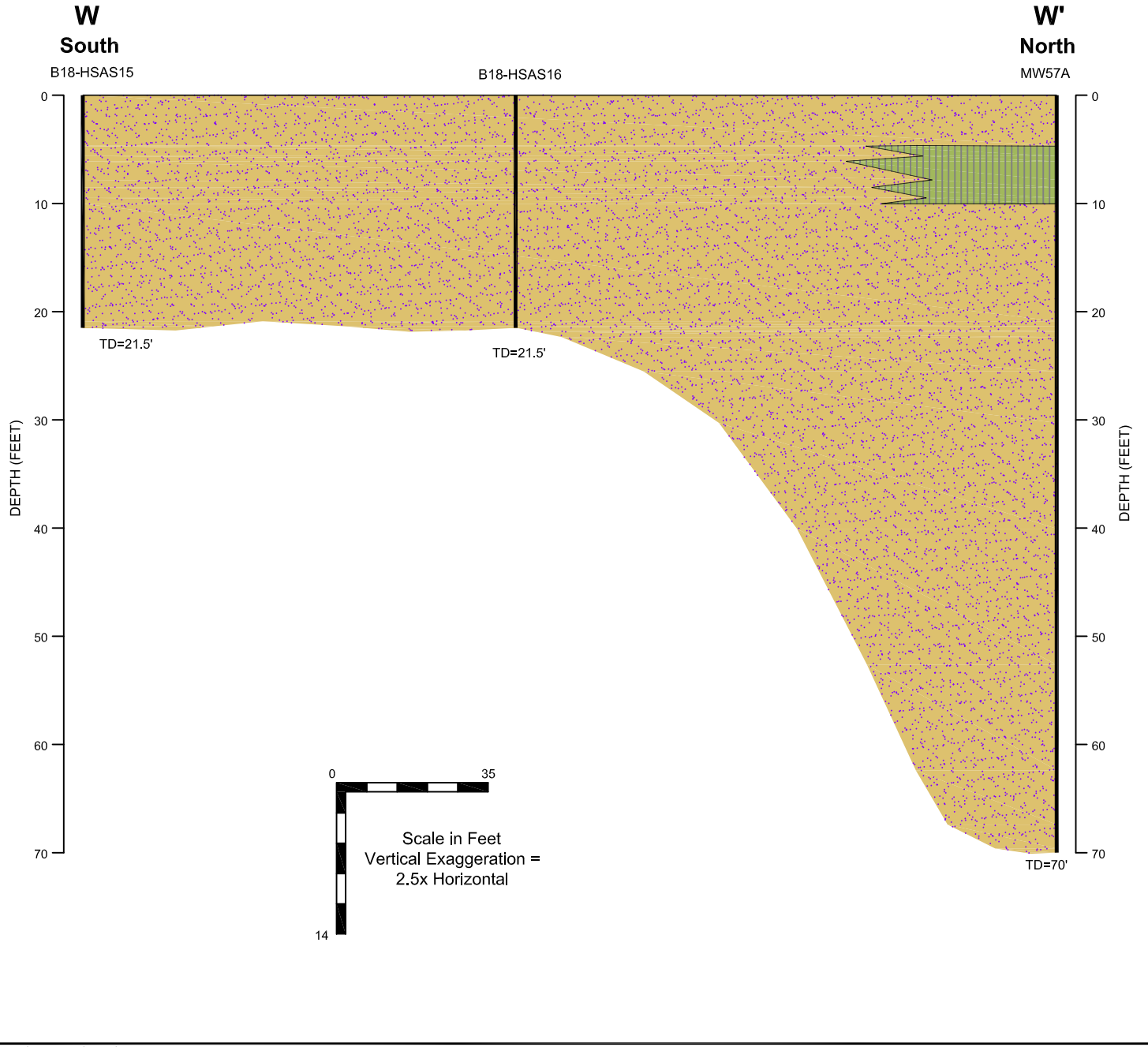

LEGEND

- Silt
- Sand and Gravel
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-20
Geologic Cross Section W-W'
Cast and Cure Station
(Feature B-18)

TETRA TECH

Table 4-8
Soil Sampling Results for Perchlorate – Cast and Cure Station (Feature B-18)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate
	Laboratory Results (µg/kg)	
MDL (µg/kg) (1)		10.3 - 11
B18-HSAS14-5-6.5	4/25/2007	ND
B18-HSAS14-15-16.5	4/25/2007	ND
B18-HSAS14-20-21.5	4/25/2007	ND
B18-HSAS15-5-6.5	4/25/2007	19.2 Jq
B18-HSAS15-15-16.5	4/25/2007	41.8
B18-HSAS15-20-21.5	4/25/2007	27.7
B18-HSAS16-5-6.5	4/25/2007	ND
B18-HSAS16-10-11.5	4/25/2007	ND
B18-HSAS16-20-21.5	4/25/2007	22

Notes: (1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above method detection limit.
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q : The analyte detection was below the Practical Quantitation Limit (PQL).

perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 51 feet bgs since 1992. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Based on the levels detected and the vertical profile, it is likely that the perchlorate detected in the soil at this feature originated from the Motor Washout Area or perchlorate affected groundwater.

4.2.6 Feature B-19 – Pad on Berm

The Pad on Berm area is located in the southern portion of Historical Operational Area B (Figure 4-22). This feature appears to have been used as a test stand. Chemicals stored and/or used at this feature are unknown.

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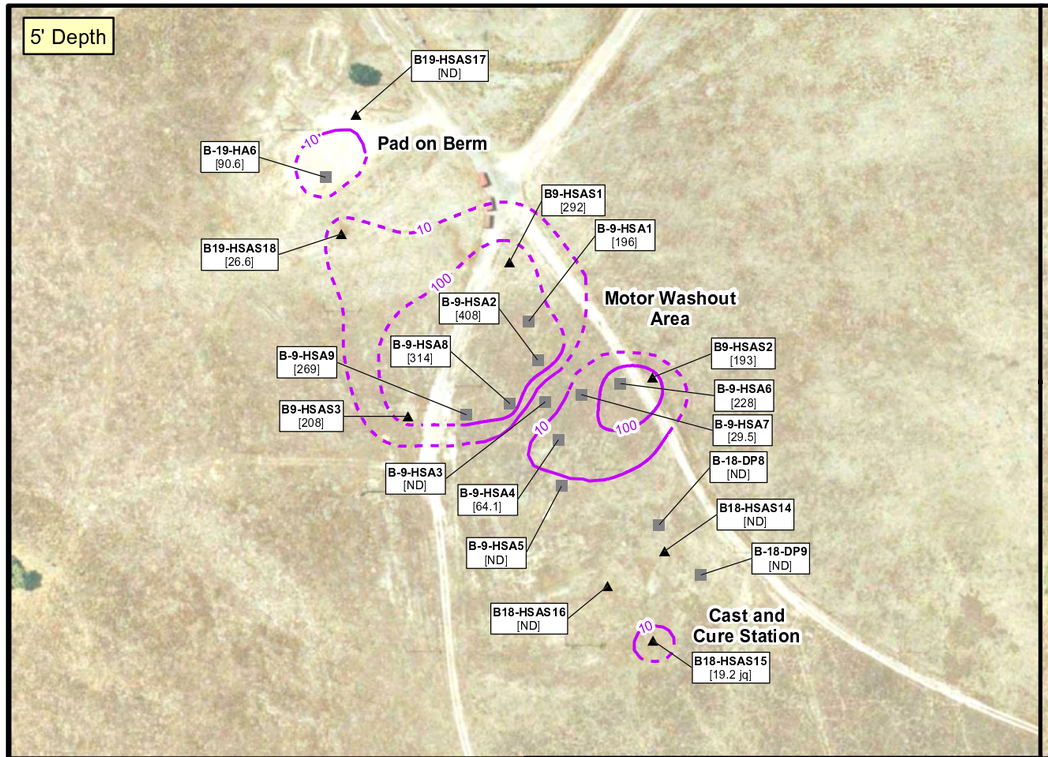
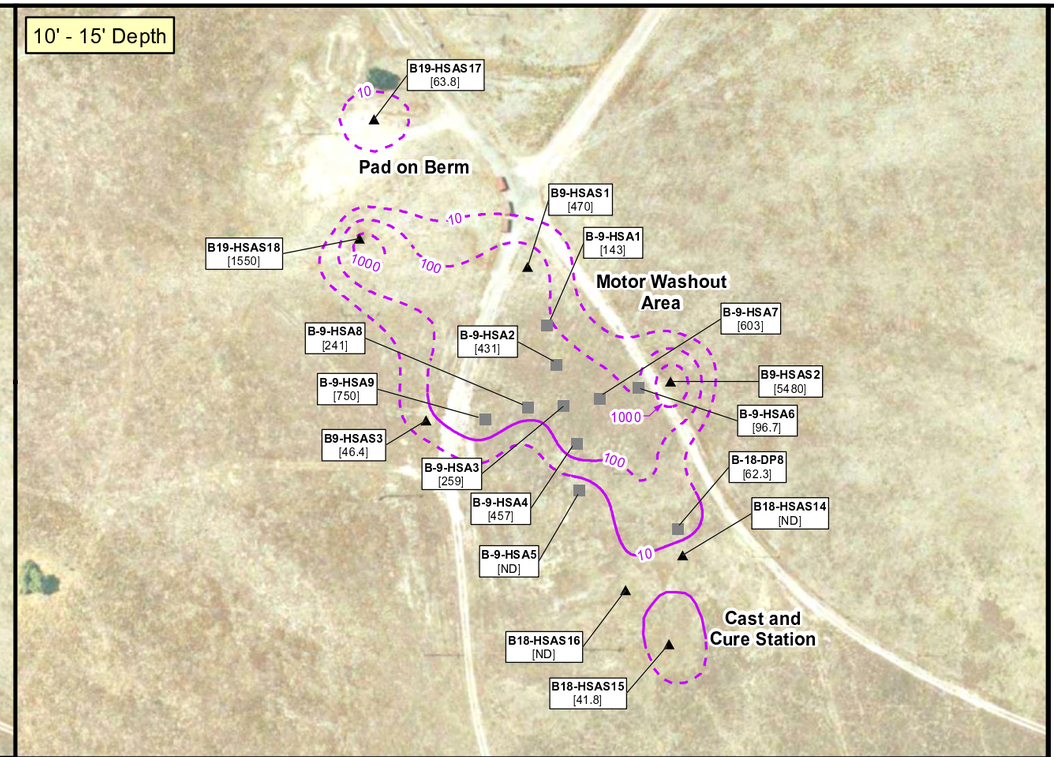
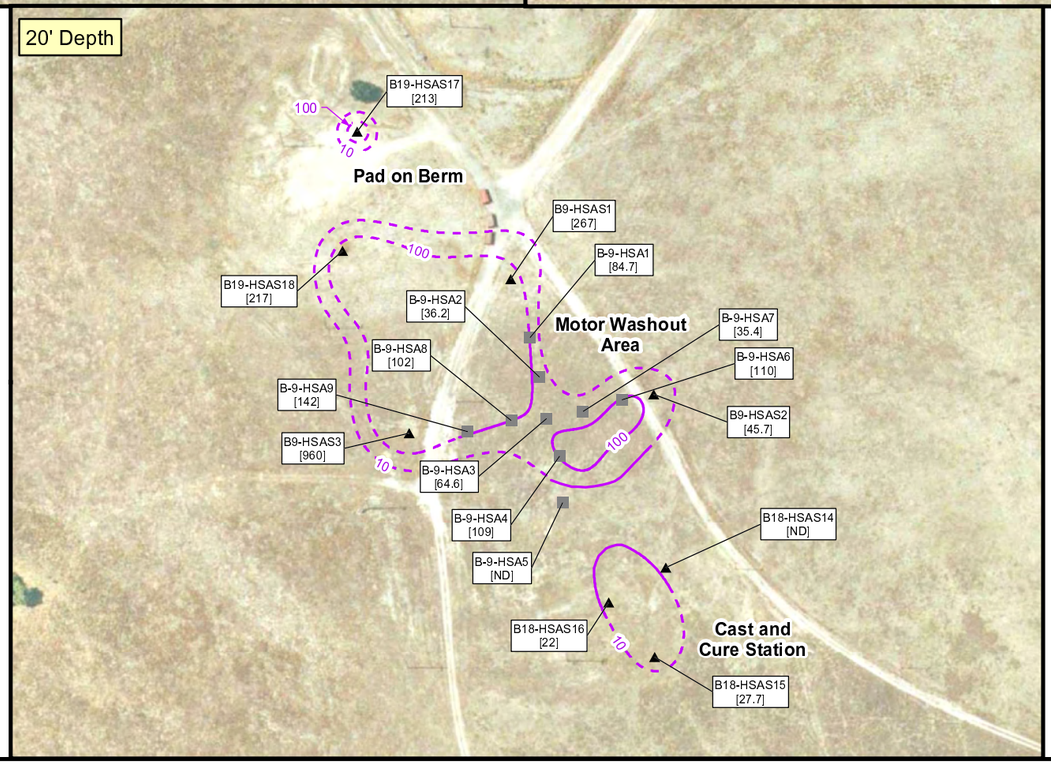








Adapted from: March 2007 aerial photograph.

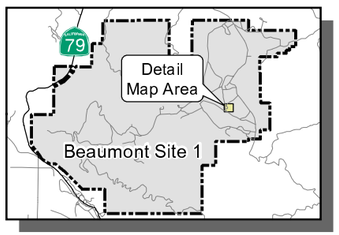
LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ● Previous Soil Boring Location
- ■ Previous Soil Boring and Soil Gas Sample Location
- 10 Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-21
Perchlorate Concentrations in Soil - Cast and Cure Station Feature (B-18)

TETRA TECH

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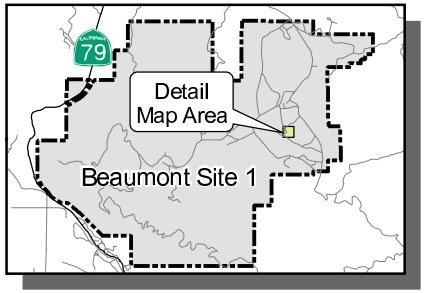
0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-22

Sample and Cross Section Locations - Pad on Berm (Feature B-19)

TETRA TECH

Previous Results

One soil boring was drilled and sampled to 5 feet bgs at this location during a previous investigation (Tetra Tech, 2005). Samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, and PCBs. VOCs, SVOCs, PCBs, and 1,4-dioxane were not detected at concentrations above their respective RLs. Perchlorate concentrations ranged from 85.3 to 90.6 µg/kg. Metals detected included arsenic detected at concentrations up to 7.48 mg/kg.

Investigation Activities

Two HSA soil borings (B19-HSAS17 and B19-HSAS18) were drilled to 21.5 feet bgs at the Pad on Berm during this investigation (Figure 4-22). Three soil samples were collected from each boring, at the depths of 5, 10, and 20 feet bgs, and analyzed for perchlorate. Soils encountered at the Pad on Berm were generally very fine- to medium-grained sand. An idealized geologic cross section through this feature is shown in Figure 4-23. Groundwater was not encountered in either of the soil borings installed at the Pad on Berm during this investigation.

Soil Sampling Results

Perchlorate was detected above the MDL in five of the nine soil samples collected, ranging from 26.6 to 1,550 µg/kg with an average concentration of 414 µg/kg (Table 4-9). Perchlorate concentrations are relatively low (<250 µg/kg) in comparison to the Motor Washout Area (Feature B-9) except for the sample collected from B19-HSAS18 at 10 feet bgs, where perchlorate was detected at 1,550 µg/kg. This boring was installed between the Pad on Berm and the Motor Washout Area. Figure 4-24 shows the horizontal and vertical extent of perchlorate affected soil at the Pad on Berm utilizing sample results from the previous investigations in addition to the recent results. Samples collected from the Motor Washout Area (Feature B-9) were also utilized for this figure due to its close proximity. However, it should be noted that the Pad on Berm is approximately 4 to 5 feet higher in elevation than the surrounding area including the Motor Washout Area. Therefore, the sample depths below ground surface at this feature do not correspond directly with the sampling depths from the Motor Washout Area.

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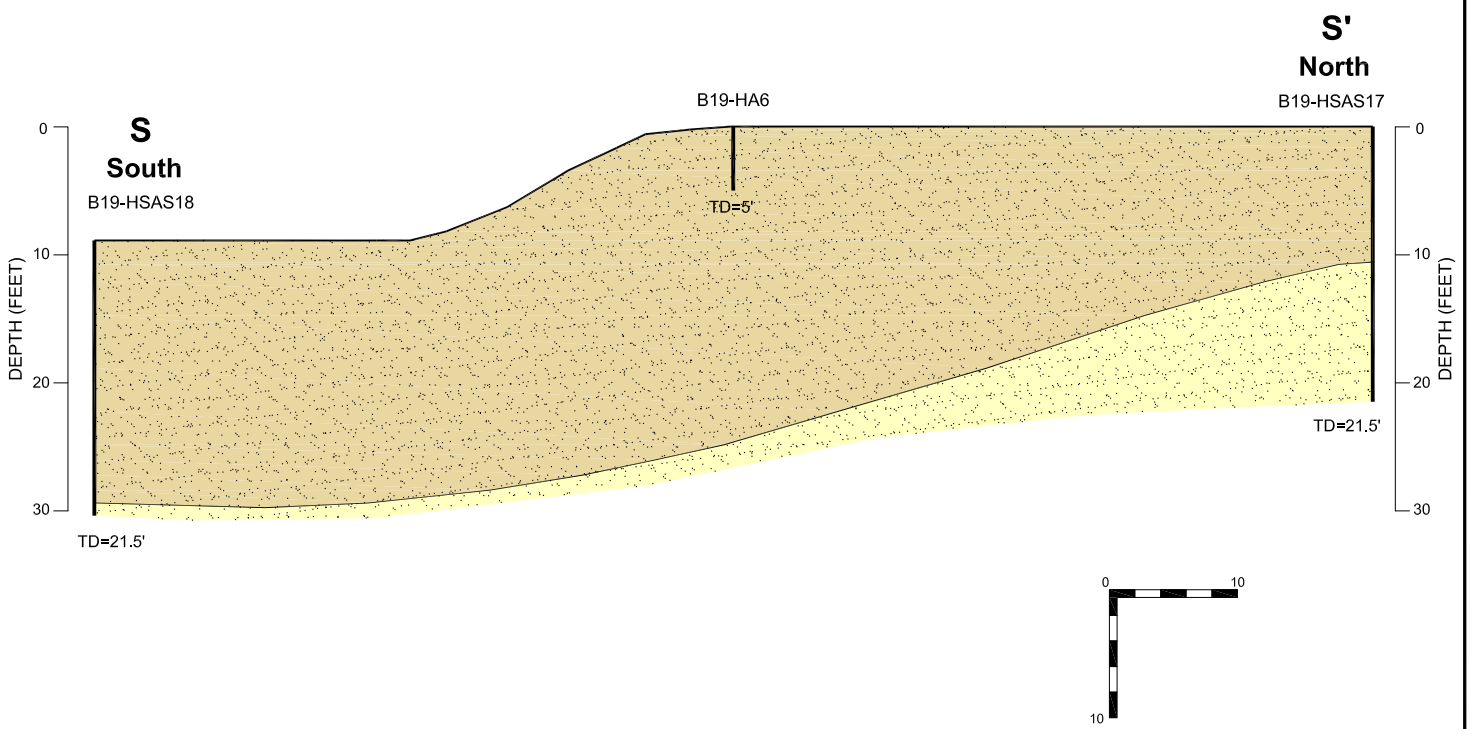

LEGEND

- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-23
Geologic Cross Section S-S'
Pad on Berm
(Feature B-19)

TETRA TECH

Table 4-9
Soil Sampling Results for Perchlorate – Pad on Berm (Feature B-19)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate
		Laboratory Results (µg/kg)
MDL (µg/kg)(1)		10.7
B19-HSAS17-5-6.5'	4/16/2007	ND
B19-HSAS17-10-11.5'	4/16/2007	63.8
B19-HSAS17-20-21.5'	4/16/2007	213
B19-HSAS18-5-6.5	4/18/2007	26.6
B19-HSAS18-10-11.5	4/18/2007	1550
B19-HSAS18-20-21.5	4/18/2007	217

Notes: (1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above method detection limit.

Historical shallow groundwater in the area of the Pad on Berm complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in nearby shallow wells have been as high as 2,000 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area around the Pad on Berm from less than 1 foot bgs to greater than 35 feet bgs since 1992. Therefore, soil below approximately 6 feet bgs (adjusted by 5 feet for elevation difference) at the Pad on Berm may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Except for the high concentration (1,550 µg/kg) detected at B19-HSAS18 south of the Pad on Berm, the vertical profile of increasing perchlorate concentrations with depth appears to support impacts from groundwater rather than a shallow soil source.

4.2.7 Feature B-20 – Pad South of Mix Station Bunker

The Pad South of Mix Station Bunker (Building 315A) is located in the central portion of Historical Operational Area B (Figure 4-25). This concrete pad appears to have been used as a utility pad.

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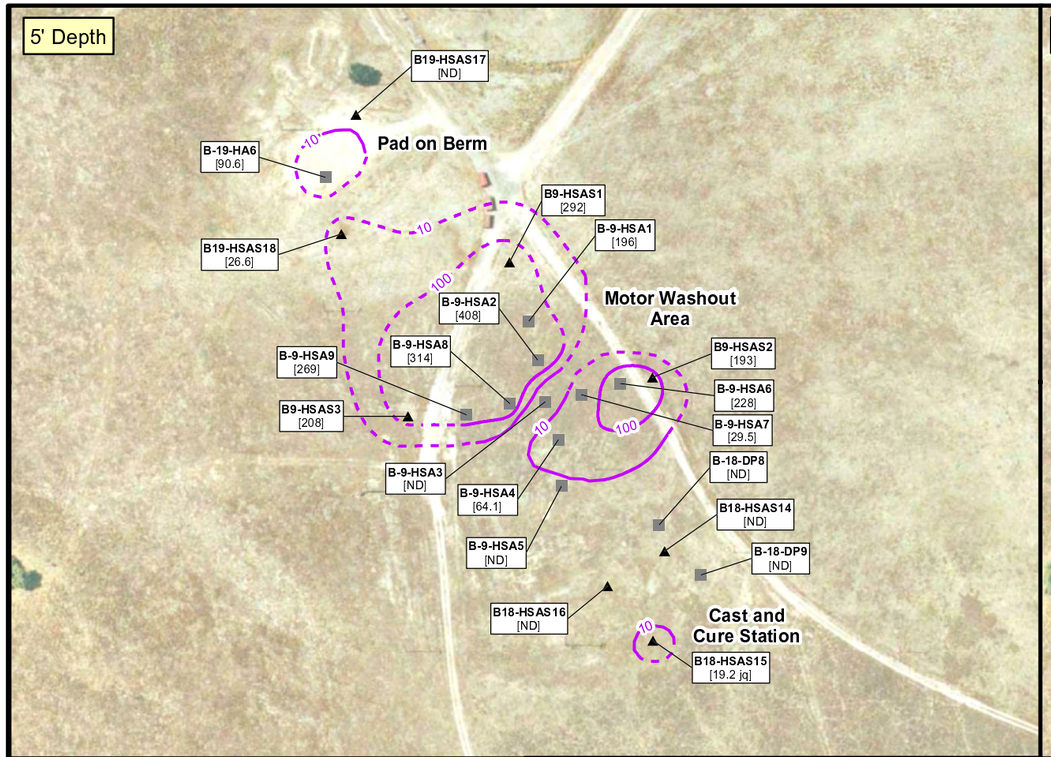
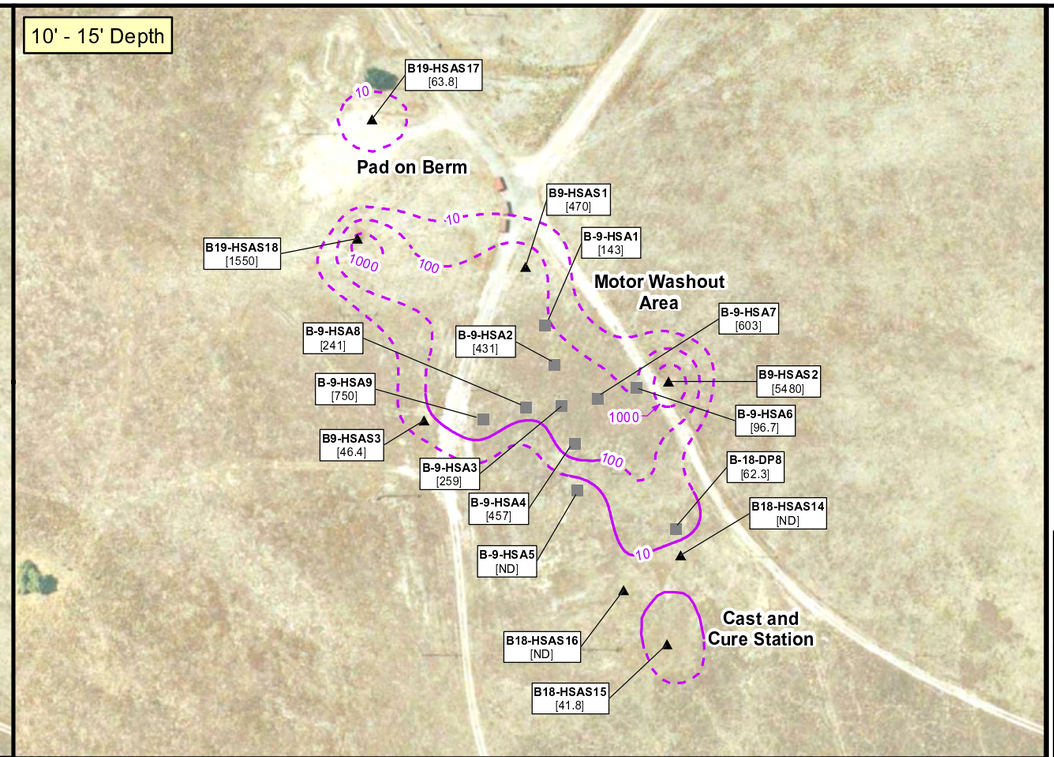
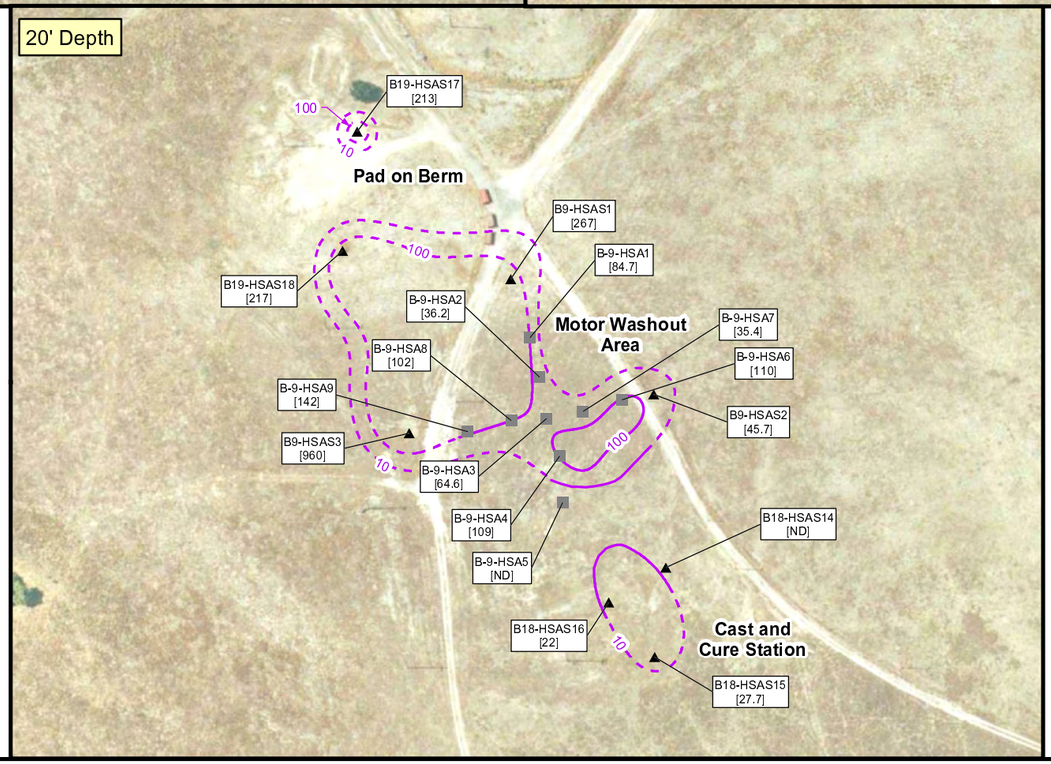








Adapted from: March 2007 aerial photograph.

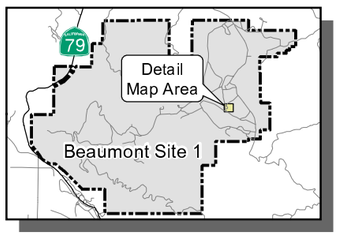
LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ● Previous Soil Boring Location
- ■ Previous Soil Boring and Soil Gas Sample Location
- 10 Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-24
Perchlorate Concentrations in Soil - Pad on Berm (Feature B-19)

TETRA TECH

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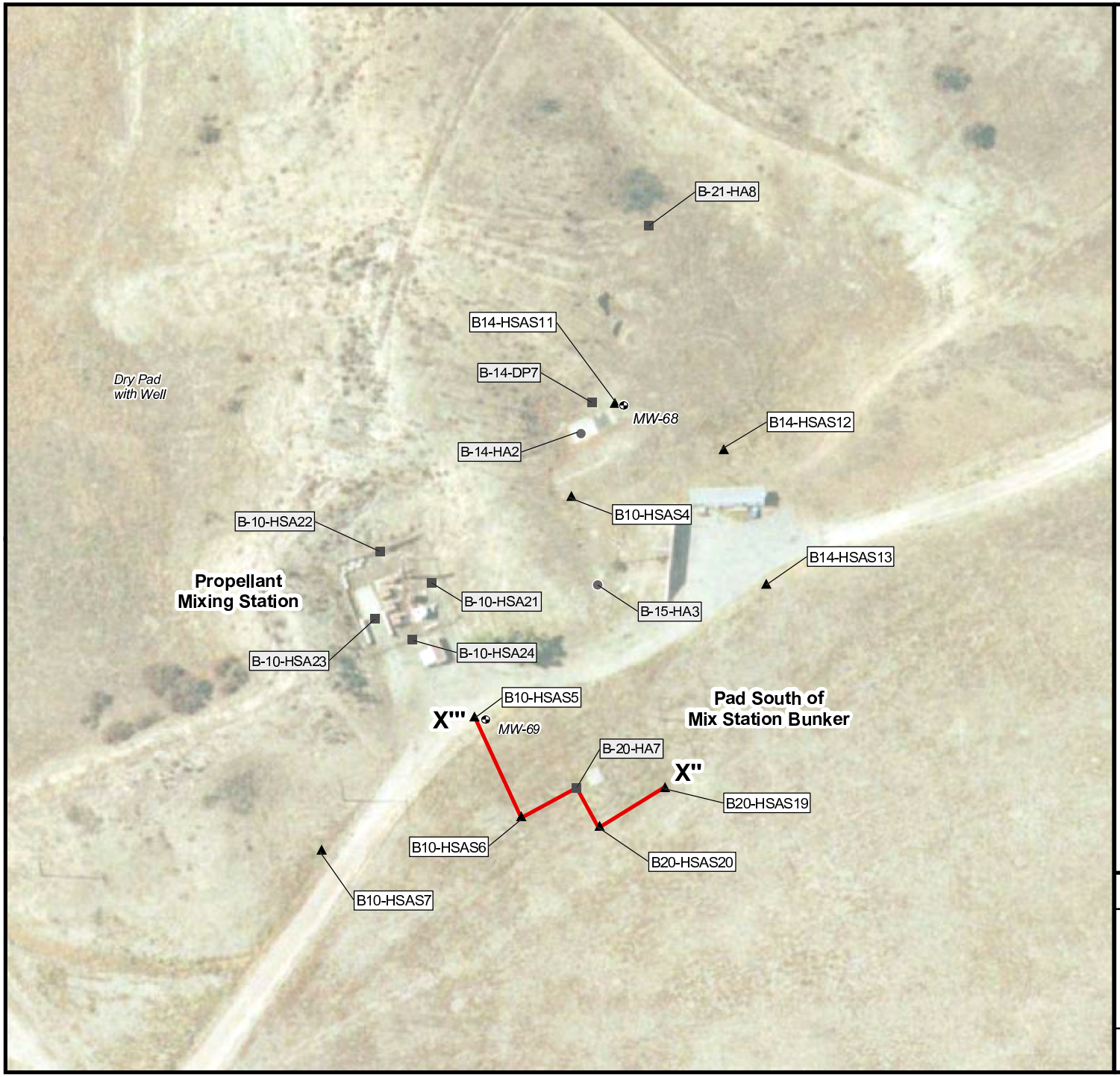
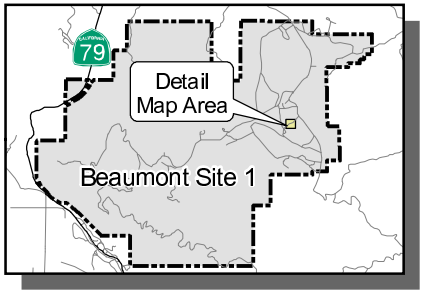


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-25
Sample and Cross Section Locations - Pad South of Mix Station Bunker (Feature B-20)

TETRA TECH

Previous Results

One soil boring was drilled and sampled to 5 feet bgs at this location during a previous investigation (Tetra Tech, 2005a). Samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, Title 22 metals, and PCBs. SVOCs, 1,4-dioxane, and PCBs were not detected at concentrations above their respective RLs. Perchlorate concentrations ranged from 310 to 402 µg/kg. One VOC (acetone) was detected at a concentration of 49 µg/kg and may have been associated with laboratory cross-contamination. Metals were detected at low concentrations, but arsenic was not detected above the RL.

Investigation Activities

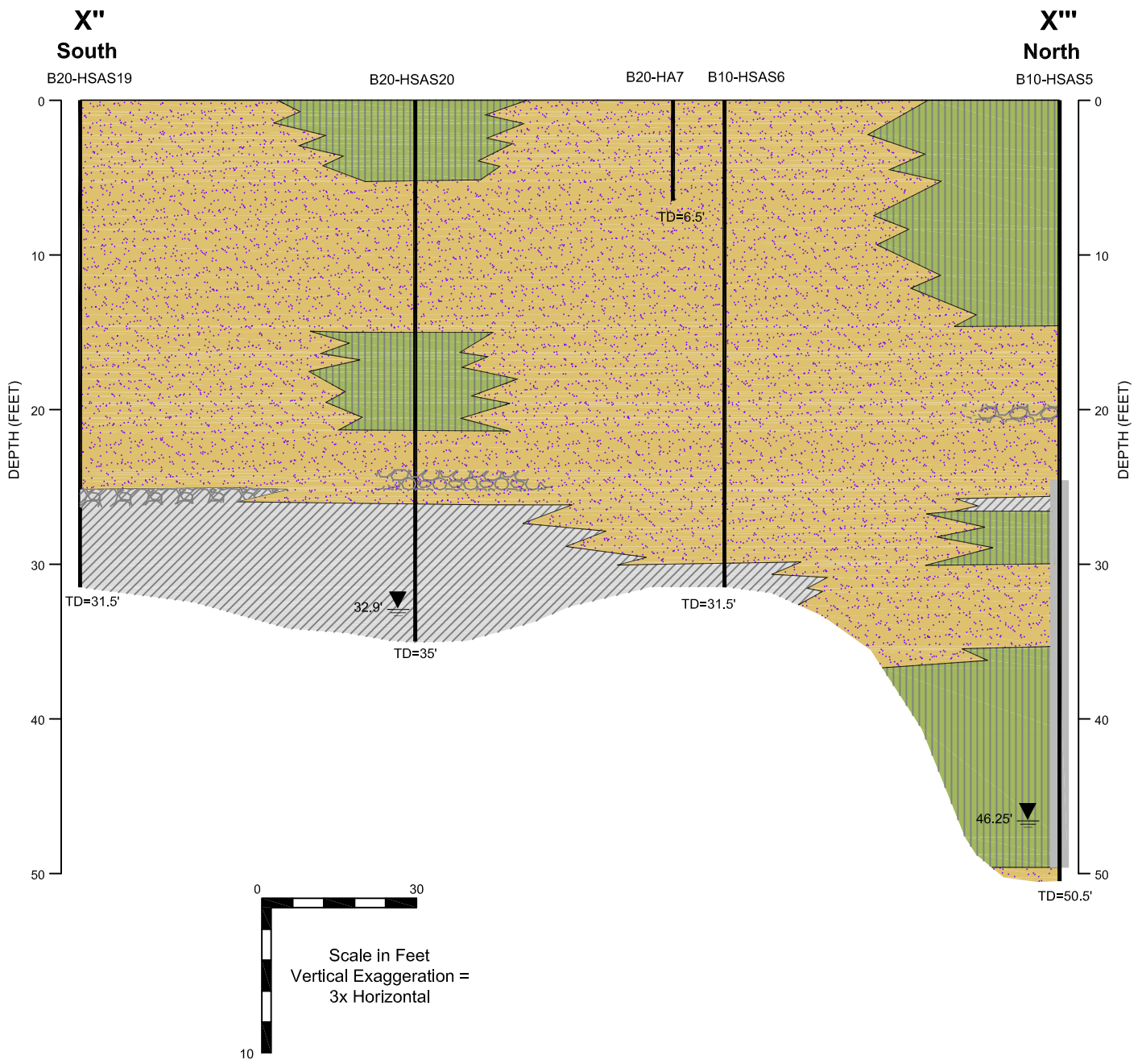
At this feature, two HSA soil borings (B20-HSAS19 and B20-HSAS20) were drilled to depths of 31.5 and 35 feet bgs, respectively (Figure 4-25). Four soil samples were collected from each boring at various depths and analyzed for perchlorate. Soils encountered at the Pad South of Mix Station Bunker were generally very fine-grained sands with a clay layer around 25 to 30 feet bgs. An idealized geologic cross section through this feature is shown in Figure 4-26. Groundwater was encountered at 32.9 feet bgs at location B20-HSAS20 during drilling but no groundwater sample was collected.

Soil Sampling Results

Perchlorate was detected above the MDL in all eight soil samples collected, ranging from 68.2 to 322 µg/kg with an average concentration of 181 µg/kg (Table 4-10). Figure 4-27 shows the horizontal and vertical extent of perchlorate affected soil at the Pad South of Mix Station Bunker utilizing sample results from the previous investigations in addition to the recent results. Samples collected from the Propellant Mixing Station (Feature B-10) and the Pad with Dry Well (Feature B-14) were also utilized for this figure due to their proximity. Perchlorate concentrations are relatively low (<350 µg/kg) in comparison to the Propellant Mixing Station (Feature B-10) to the northwest where perchlorate was detected at 2,410 µg/kg.

Historical shallow groundwater in this area complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in nearby shallow wells have been as high as 800 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from 4 to 49 feet bgs since 1991. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. At this feature, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. The vertical profile of higher perchlorate concentrations at depth appears to support impacts from groundwater rather than a shallow soil source at this feature.

X:\GIS\LOCKHEED 1996\7405\X-SEC X"-X"' MIX STATION.DWG



LEGEND

- Clay
- Silt
- Sand and Gravel
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-26
Geologic Cross Section X"-X'''
Pad South of Mix Station
Bunker (Feature B-20)

TETRA TECH

Table 4-10
Soil Sampling Results for Perchlorate – Pad South of Mix Station Bunker (Feature B-20)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate
		Laboratory Results (µg/kg)
MDL (µg/kg)(1)		10.7
B20-HSAS19-10-11.5	4/23/2007	85.4
B20-HSAS19-15-16.5	4/23/2007	94.4
B20-HSAS19-25-26.5	4/23/2007	77.7
B20-HSAS19-30-31.5	4/23/2007	270
B20-HSAS20-10-11.5	4/24/2007	68.2
B20-HSAS20-20-21.5	4/24/2007	224
B20-HSAS20-25-26.5	4/24/2007	322
B20-HSAS20-30-31.5	4/24/2007	302

Notes (1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram

4.3 HISTORICAL OPERATIONAL AREA C INVESTIGATION

Operational Area C, the BPA, consisted of three primary features: 1) temporary chemical storage area, 2) burn pits, and 3) the beryllium test stand. Hazardous waste materials were stored in 55-gallon drums on a concrete pad east of the burn pits at the chemical storage area until enough material was generated for a burning event. The hazardous materials burned in the pits included: ammonium perchlorate, wet propellant from motor washout, dry propellant, batches of out-of specification propellant, various kinds of adhesives, resin curatives, burn rate modifiers, ignition components and packaging materials (Radian, 1986a).

During burn pit procedures, the hazardous materials were placed in the center of the burn pits, saturated with fuel and ignited. After burning activities, if the trench was suitable for reuse, it was left open for additional burns; otherwise, the trench was filled and covered with soil (Radian, 1986a).

On the south side of the spur, where the burn pit instrumentation bunker was located, there was a one-time firing of small beryllium research motors (Radian, 1986a).

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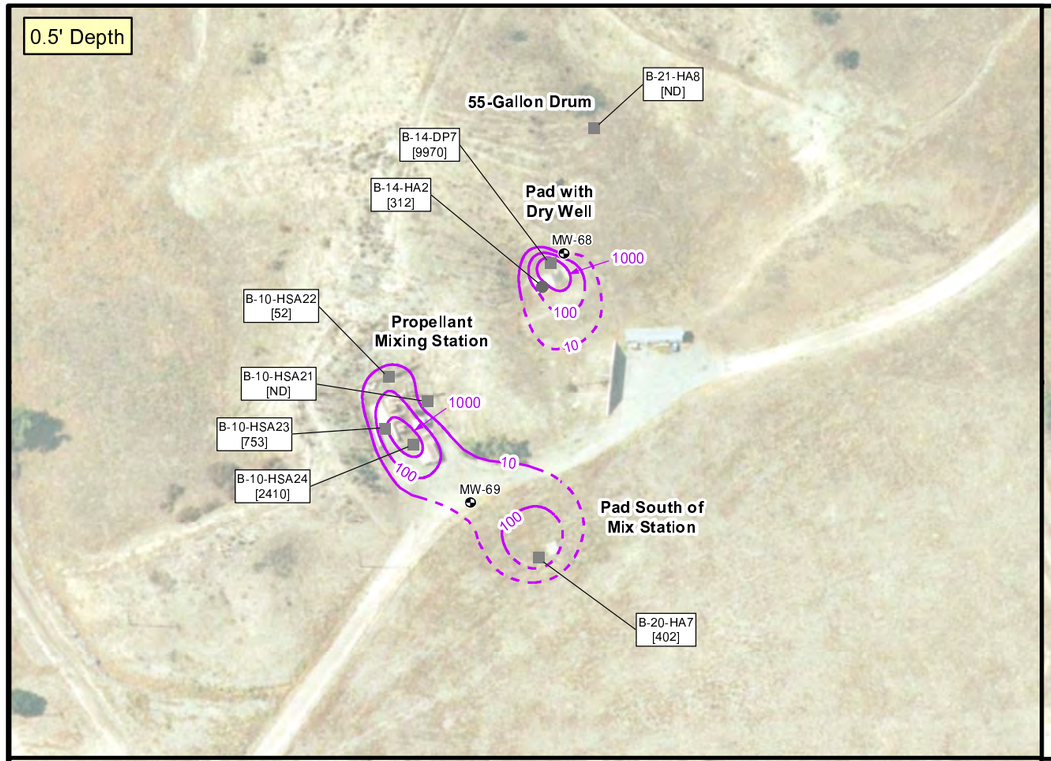
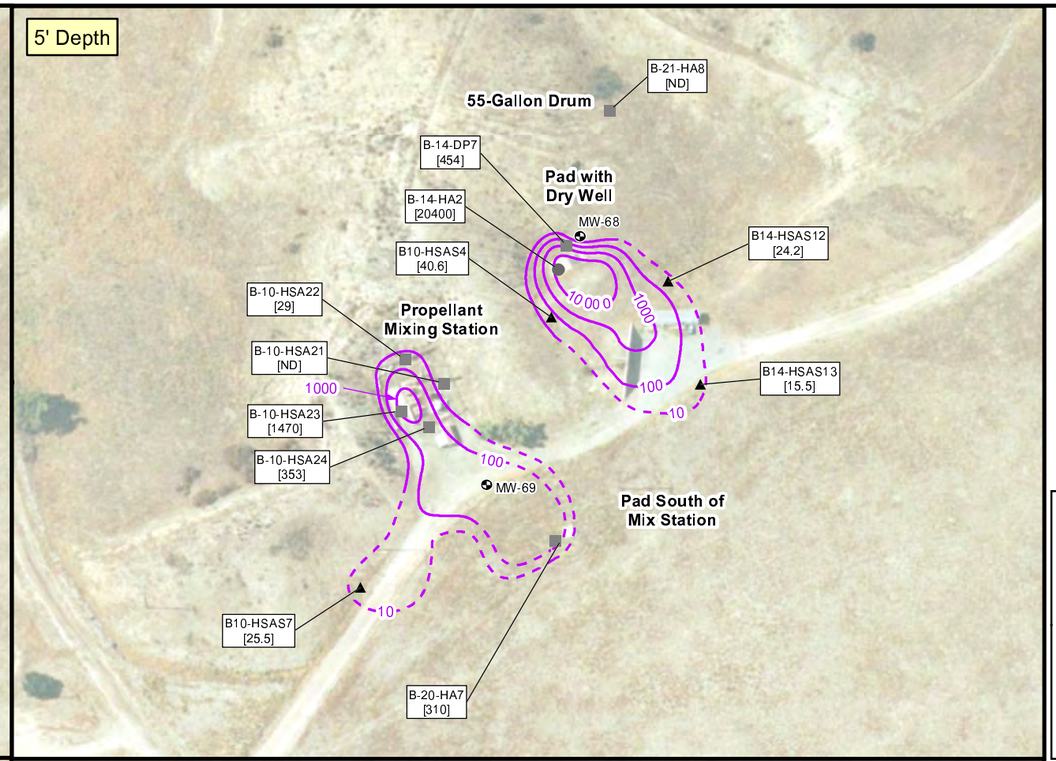
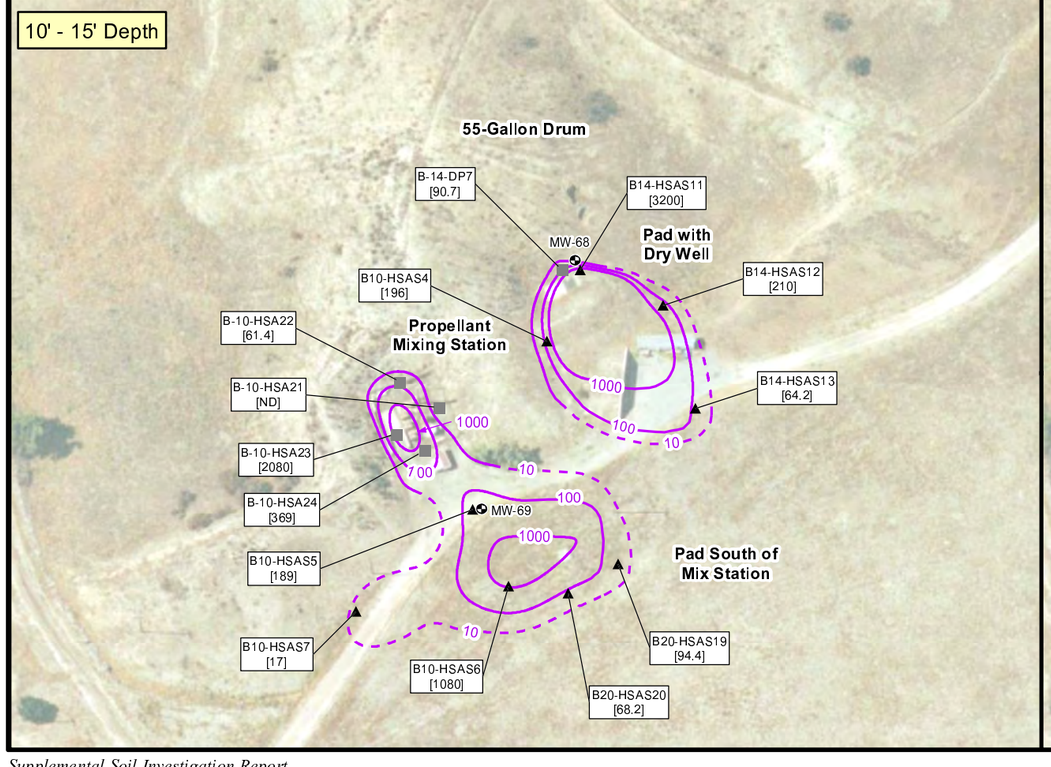
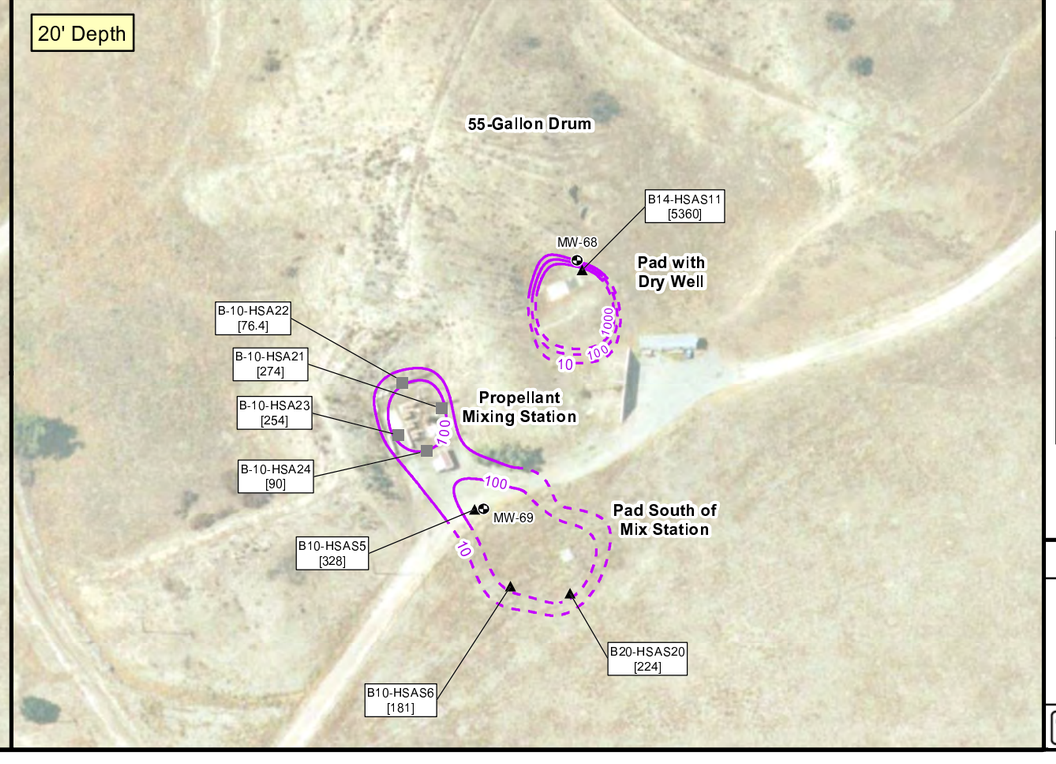
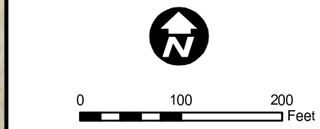










Adapted from: March 2007 aerial photograph.

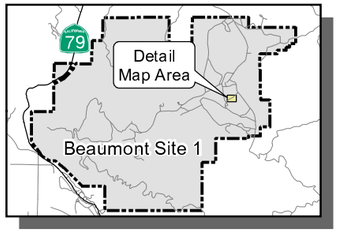
LEGEND

- Monitoring Well Location
- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-27
Perchlorate Concentrations in Soil - Pad South of Mix Station Bunker (Feature B-20)
(Page 1 of 2)

TETRA TECH

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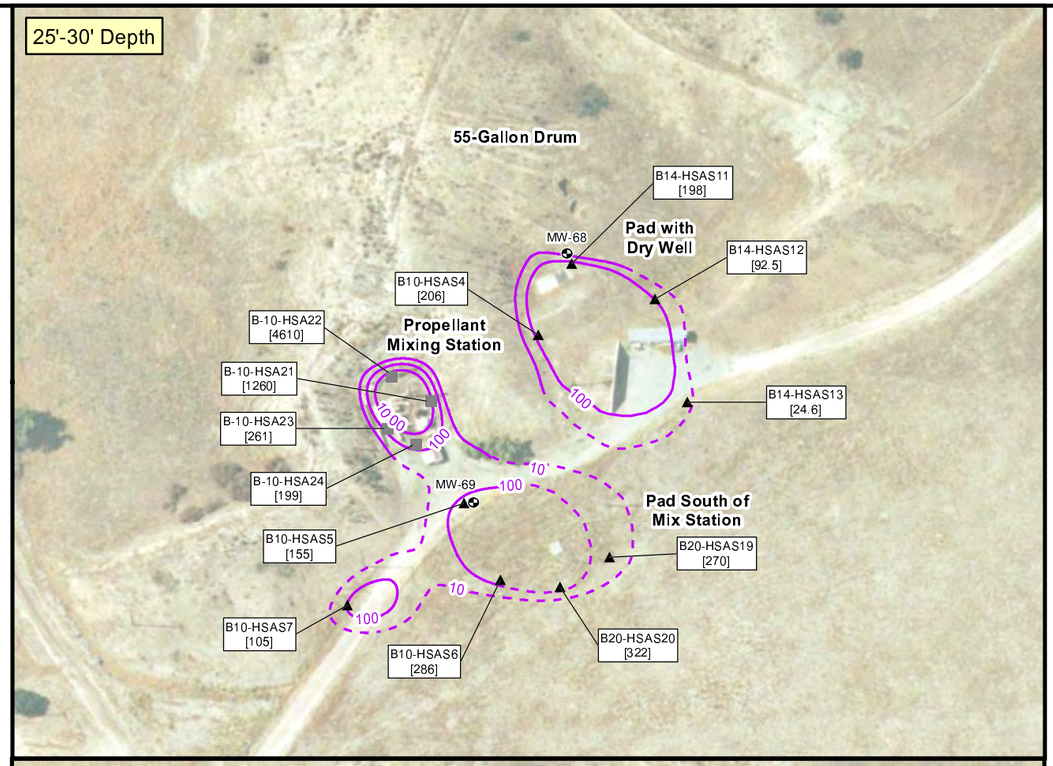


0 100 200 Feet

Adapted from: March 2007 aerial photograph.

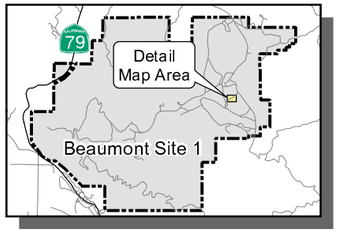
LEGEND

- Monitoring Well Location
- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-27
Perchlorate Concentrations in Soil - Pad South of Mix Station Bunker (Feature B-20)
(Page 2 of 2)

TETRA TECH

4.3.1 Feature C-22 – Burn Pit Landfill

The Burn Pit Landfill is located in the south eastern portion of the Site in Historical Operational Area C (Figure 4-28). Waste material from Beaumont Site 1 and the Redlands Site was placed in trenches, incinerated, and buried in the burn pit landfill area. Materials burned in the trenches included: ammonium perchlorate, diesel fuel, wet propellant, dry propellant, out-of-specification propellant, adhesives, resin, metal drums, plastic bags, paper, and solvents. Burn pits were approximately 6 to 8 feet wide by 50 to 100 feet long and 4 to 6 feet deep. A total of 20 to 40 burn pits were previously reported to be within the burn pit landfill area.

Previous Results

In 1992, a remedial action program within the burn bit landfill was performed and 21 former burn pits were excavated (Radian, 1993). Approximately 18.6 tons of specific wastes were excavated from the trenches. Overall, 48,600 cubic yards of soil was removed and later backfilled into the excavation trenches. Confirmation soil samples were collected from below the excavated materials and analyzed for Title 22 metals, VOCs, and SVOCs; however, none of the confirmation soil samples were analyzed for perchlorate and 1,4-dioxane.

A total of 25 soil and soil gas borings were installed between 5 and 60 feet bgs at the burn pit during previous investigations (Tetra Tech; 2002, 2005a). The soil samples collected were analyzed for VOCs, SVOCs, 1,4-dioxane, perchlorate, Title 22 metals, and TPH. SVOCs, TPH, and 1,4-dioxane were not detected at concentrations above their respective RLs. Perchlorate was detected at concentrations ranging from 22.6 to 171,000 µg/kg. VOCs, including acetone, benzene, chloroethane, and toluene, were detected at concentrations ranging from 1.1 to 40 µg/kg. The detected concentrations of acetone, benzene, and toluene are most likely associated with laboratory or field cross-contamination. Metals were detected with arsenic at concentrations up to 1.20 mg/kg. TCE, PCE, 1,1-DCE, 1,1,1-TCA, and Freon-113 were detected in the soil gas with the highest concentration being Freon-113 at 273 µg/L.

Investigation Activities

Six HSA soil borings (C-22-HSAS21, C-22-HSAS22, C-22-HSAS23, C-22-HSAS24, C-22-HSAS25 and C-22-HSAS26) were drilled, targeting some of the former burn pits, were drilled to depths of 50 to 60 feet bgs during this investigation (Figure 4-28). Three to four soil samples were collected from each boring at various depths and analyzed for VOCs and perchlorate. Soil gas probes were installed at depths of 10, 20, 30, and 40 feet bgs in each boring. Additional soil gas probes were installed at 50 feet bgs in soil

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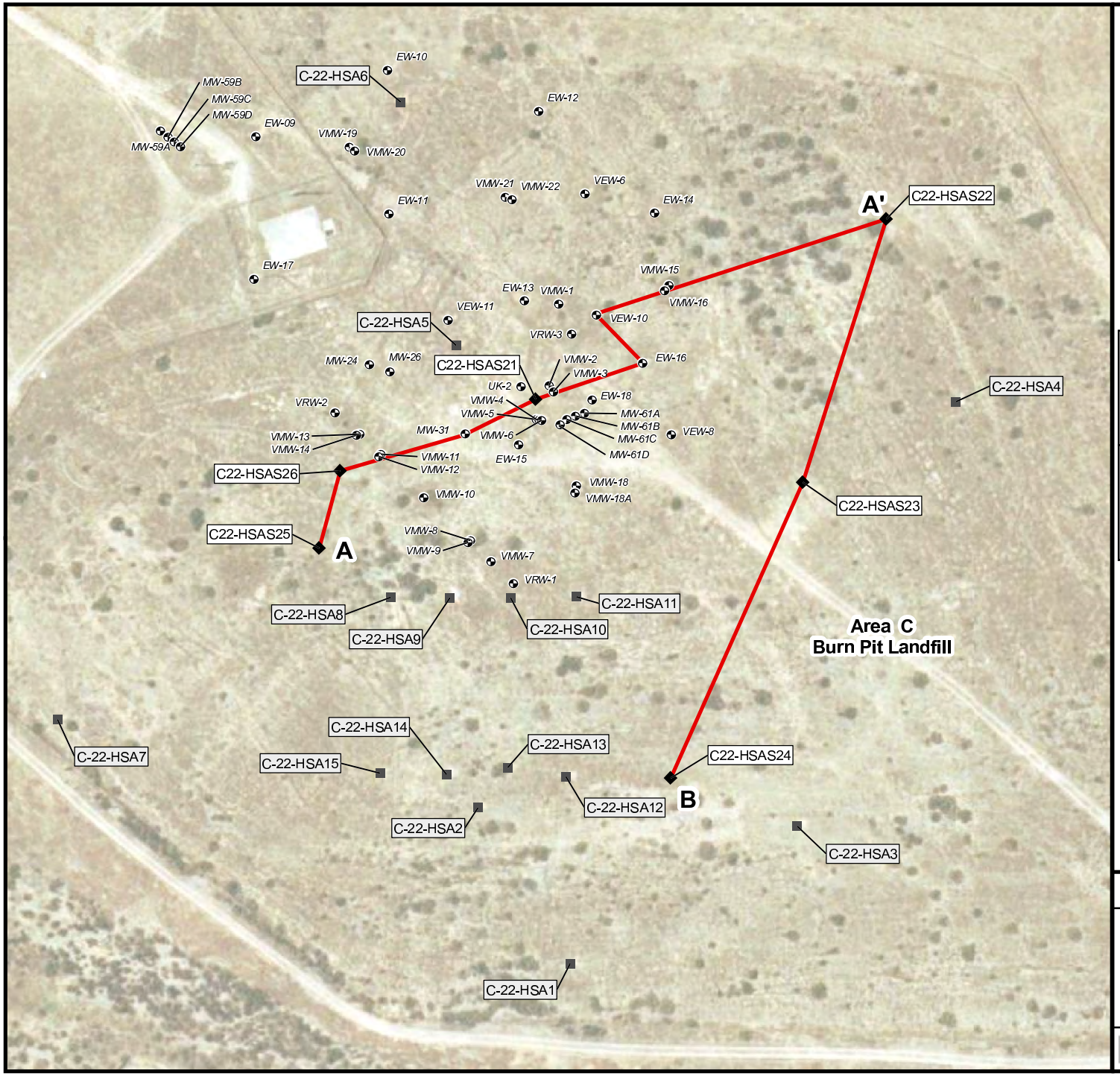
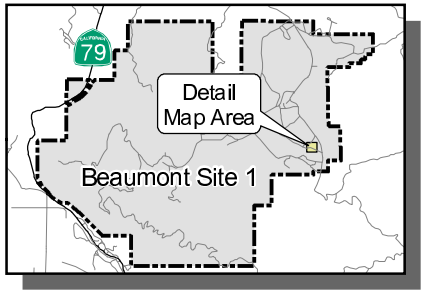


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-28

Sample and Cross Section Locations - Burn Pit Landfill (Feature C-22)

TETRA TECH

borings C-22-HSAS21, C-22-HSAS22, C-22-HSAS23, and C-22-HSAS24. Idealized geologic cross sections through this feature are shown in Figures 4-29 and 4-30. Soils encountered at the Burn Pit Landfill were generally sand to silty sand with minor clay or gravel content. Weathered Mt. Eden Formation was encountered in two of the borings: C22-HSAS21 at 50.6 feet bgs and C22-HSAS23 at 60 feet bgs. Groundwater was not encountered in any of the borings installed during this investigation.

Soil Sampling Results

Perchlorate was detected above the MDL in 16 of the 20 soil samples collected, ranging from 17.6 to 39,600 µg/kg with an average concentration of 3,359 µg/kg (Table 4-11). The highest concentration of perchlorate detected at the Burn Pit Landfill during this investigation was 39,600 µg/kg in C22-HSAS22 at 12.5-14 feet bgs. Based on the borings installed and samples collected during this investigation, there appears to be no overall perchlorate concentration trend with depth and the vertical profile differs by location. Low-level VOCs (acetone and toluene) were detected in three of the 20 soil samples collected ranging from 4.9 to 5.5 µg/kg and are possibly associated with laboratory cross-contamination. The VOC detections in soil are not consistent with the elevated VOC levels detected in the soil gas presented on the following page. This may be a result of vapor migration in the sandy matrix at the Burn Pit Landfill from areas with residual elevated soil concentrations or off-gassing from the affected groundwater.

Figure 4-31 shows the horizontal and vertical extent of perchlorate affected soil at the Burn Pit Landfill utilizing sample results from the previous investigations in addition to the recent results. The highest perchlorate concentrations detected during the more recent investigations (2002-2007) were found in the four larger burn pits near the center of the feature (C-22-HSA9 and 11) and the north-eastern most burn pit where C-22-HSAS22 was installed (Figure 4-31). Perchlorate concentrations decrease to below MDLs near the outer edges of the feature except in the northeast portion where the limits are primarily undefined. Perchlorate concentrations appear to be the highest between 10 and 30 feet bgs.

As previously discussed for the other features, impacted groundwater and large fluctuations in groundwater elevations complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in shallow wells at the Burn Pit Landfill have been as high as 141,000 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from approximately 20 feet bgs to greater than 80 feet bgs since 1992. Therefore, soil below 20 feet bgs may have been affected by impacted groundwater during

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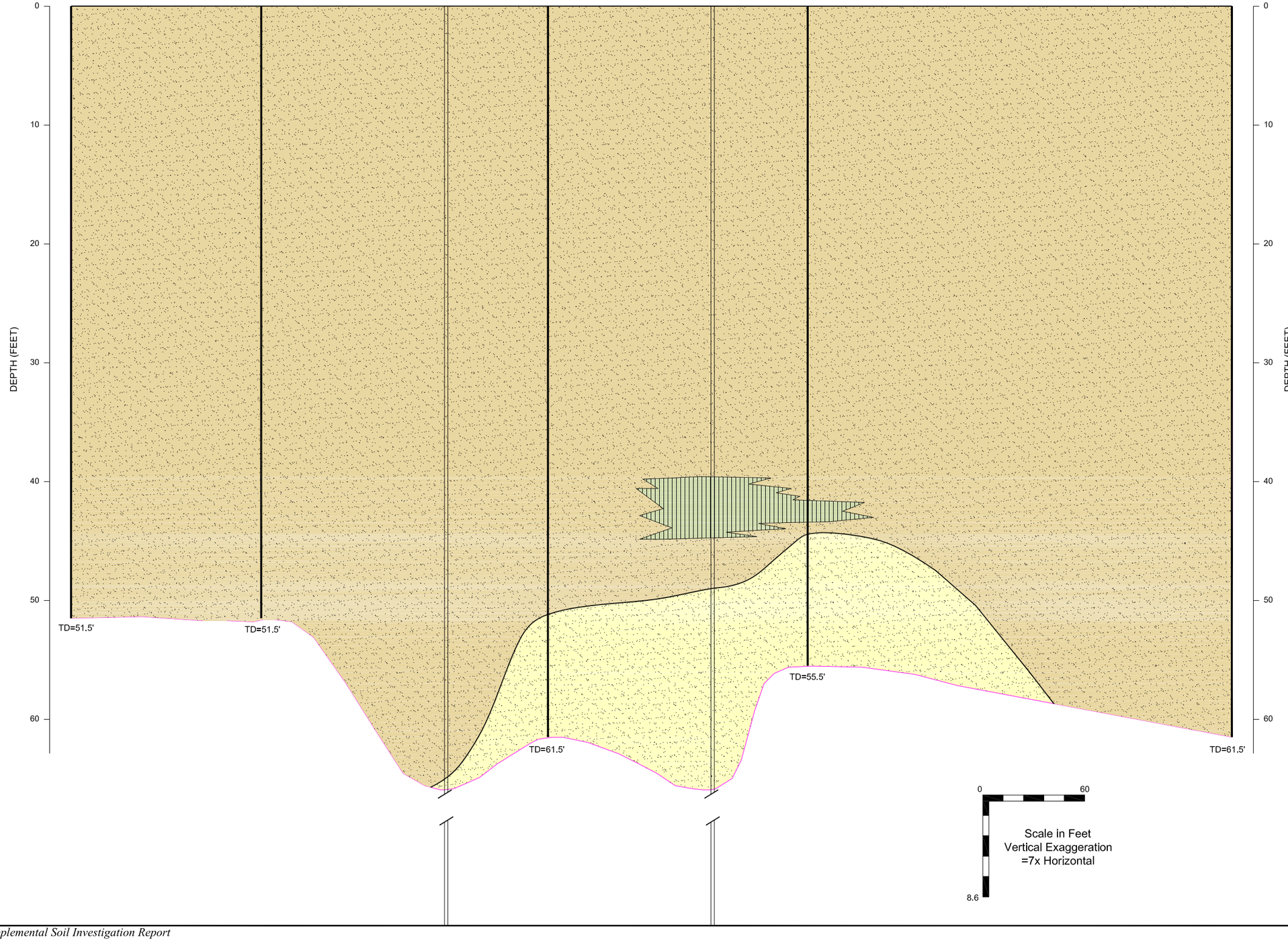
A
Southwest

A'
Northeast



LEGEND

- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-29
Geologic Cross Section A-A'
Burn Pit Landfill
(Feature C-22)

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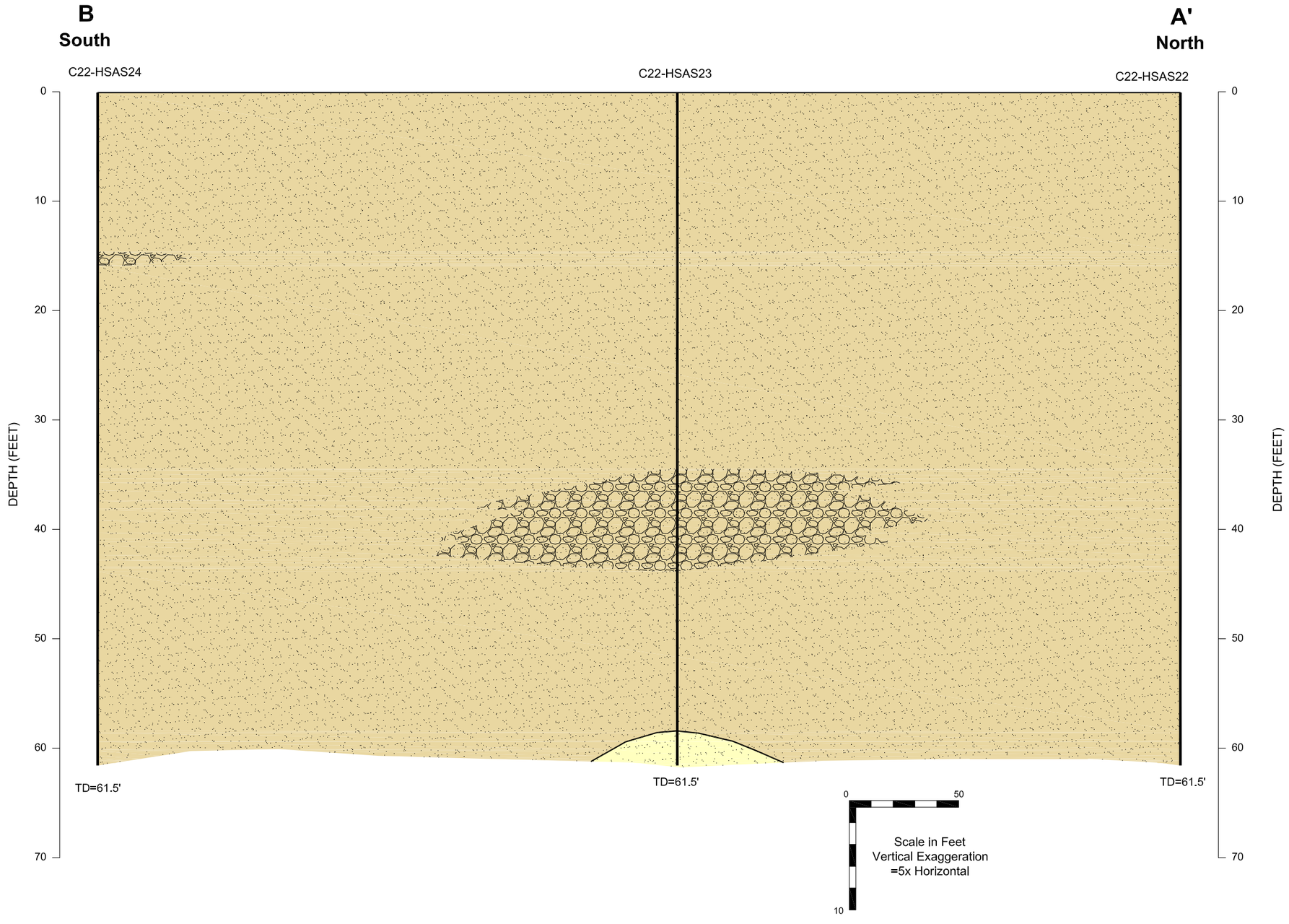

LEGEND

- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-30
Geologic Cross Section A'-B
Burn Pit Landfill
(Feature C-22)

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Table 4-11
Soil Sampling Results for Perchlorate and Detected VOCs –
Burn Pit Landfill (Feature C-22)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate	Acetone	Toluene
		Laboratory Results (µg/kg)		
MDL (µg/kg)(1)		10.4 - 10.6	4.6 - 6.3	1.8 - 2.5
C22-HSAS21-9.5-11	4/17/2007	17.6 Jq	ND	ND
C22-HSAS21-12-15.5	4/17/2007	108	ND	ND
C22-HSAS21-30-31.5	4/17/2007	39.2	ND	ND
C22-HSAS21-60-61.5	4/17/2007	330	4.9 Jq	ND
C22-HSAS22-11-12.5	4/12/2007	*NA*	ND	ND
C22-HSAS22-12.5-14	4/12/2007	39,600	*NA*	*NA*
C22-HSAS22-30-31.5	4/12/2007	5,570	ND	ND
C22-HSAS22-60-61.5	4/12/2007	ND	ND	ND
C22-HSAS23-10-11.5	4/17/2007	522	ND	ND
C22-HSAS23-30-31.5	4/17/2007	3,070	ND	ND
C22-HSAS23-60-61.5	4/17/2007	153	ND	ND
C22-HSAS24-5-6.5	4/19/2007	110	ND	ND
C22-HSAS24-20-21.5	4/19/2007	651	ND	ND
C22-HSAS24-55-56.5	4/19/2007	ND	ND	ND
C22-HSAS25-13-14.5	4/13/2007	31.9	ND	ND
C22-HSAS25-25-26.5	4/13/2007	62.4	ND	ND
C22-HSAS25-46-46.5	4/13/2007	ND	5.5 Jq	ND
C22-HSAS26-15-16.5'	4/16/2007	34.1	5 Jq	2.6 Jq
C22-HSAS26-20-21.5'	4/16/2007	ND	ND	ND
C22-HSAS26-35-36.5'	4/16/2007	87.5	ND	ND

Notes: (1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above method detection limit.
NA: not analyzed
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).

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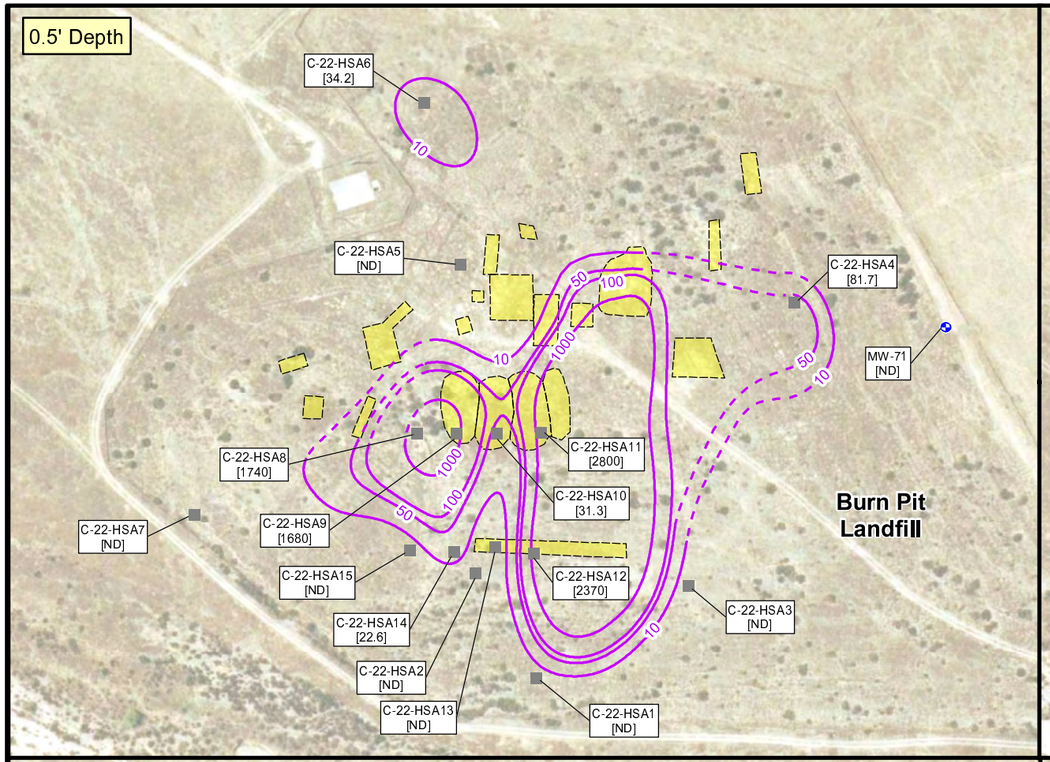
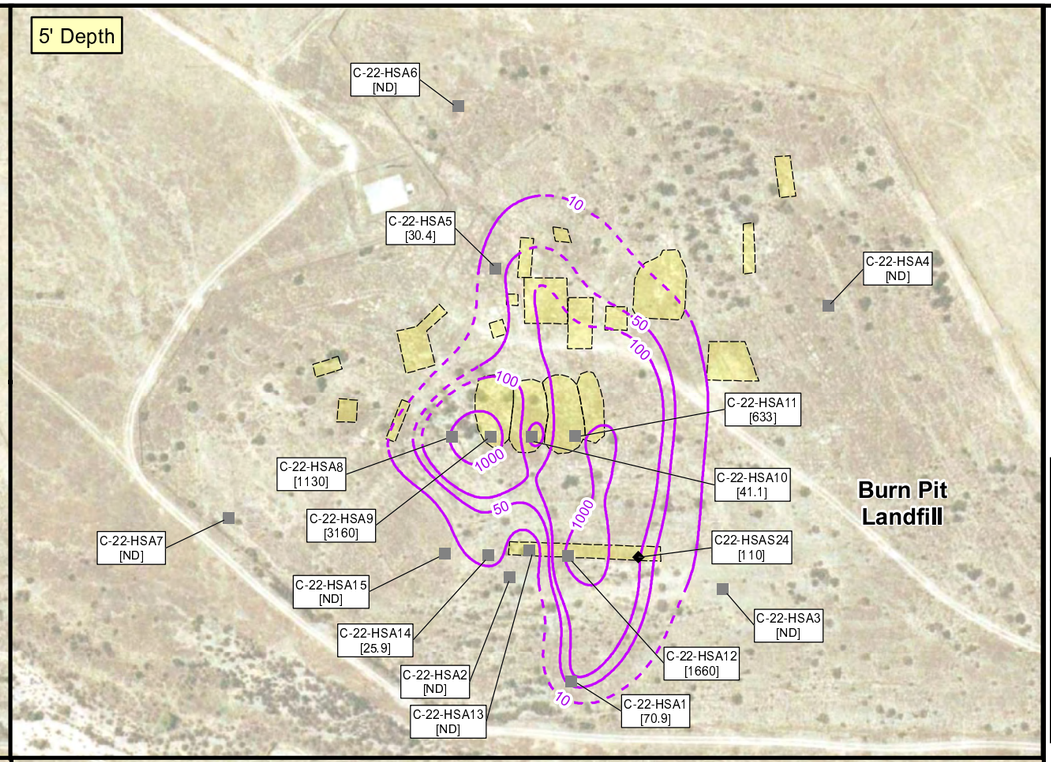
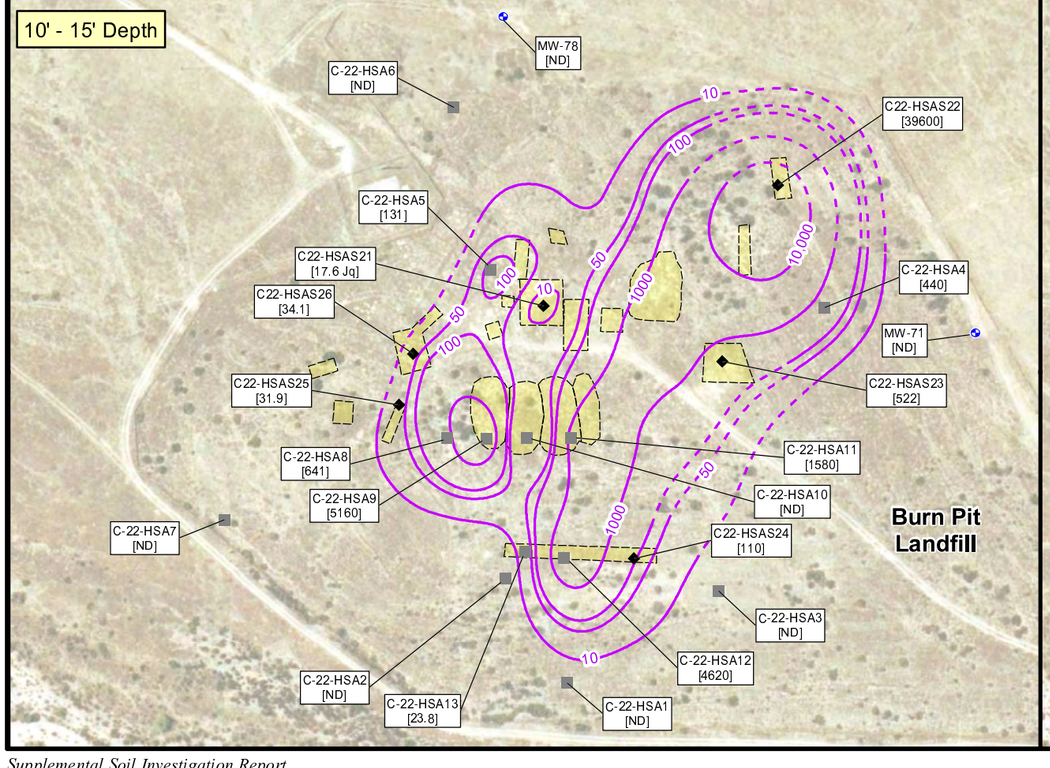
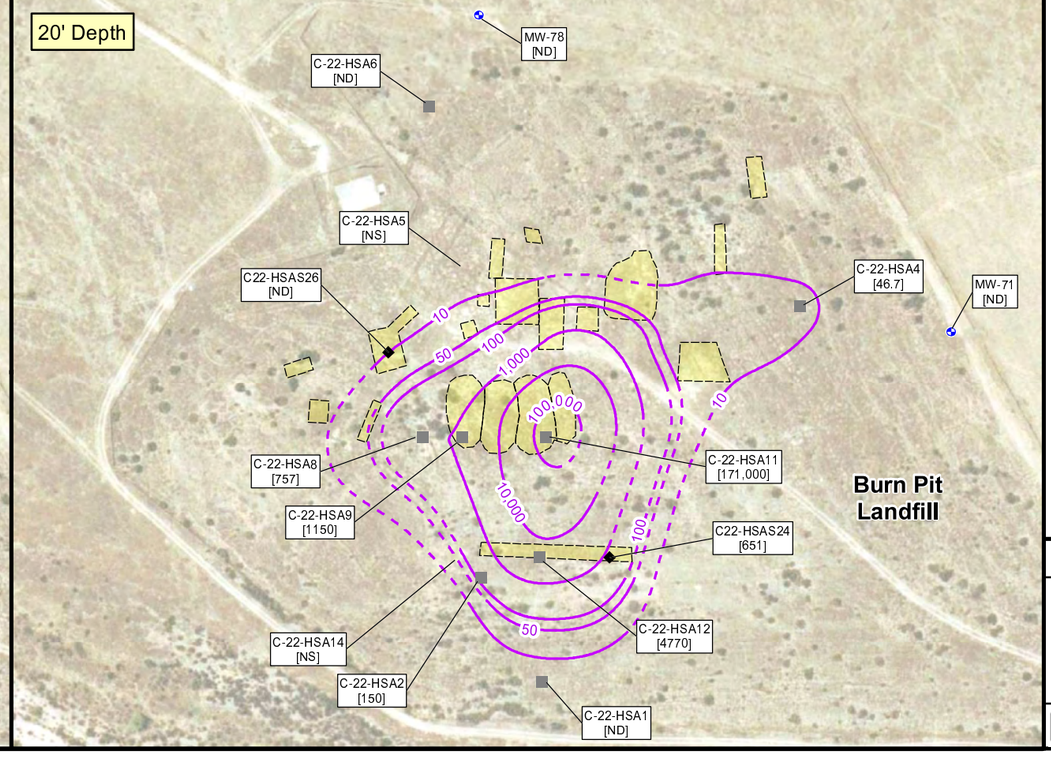








0 100 200 Feet

Adapted from: March 2007 aerial photograph.

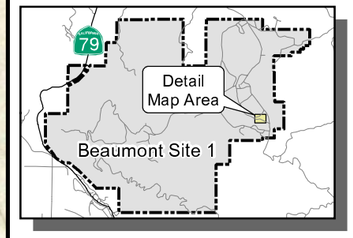
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 Perchlorate Isoconcentration Contour (Dashed where inferred)
- Historic Burn Pit Location

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-31
Perchlorate Concentrations in Soil - Burn Pit Landfill (Feature C-22)
(Page 1 of 2)

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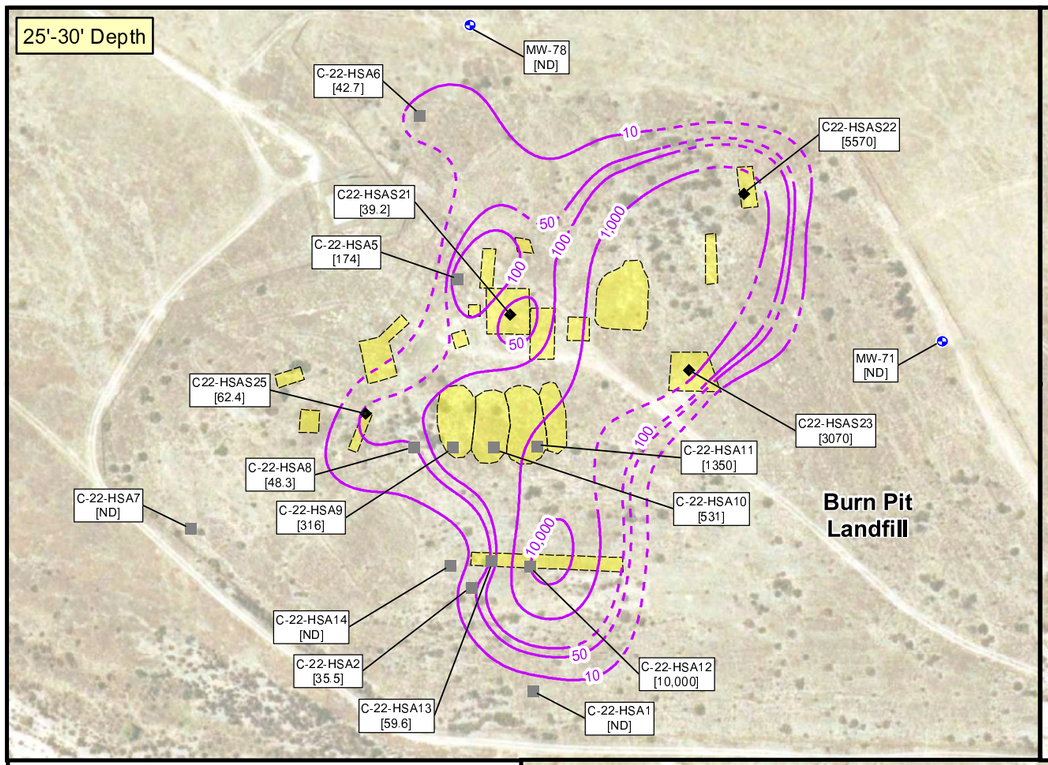
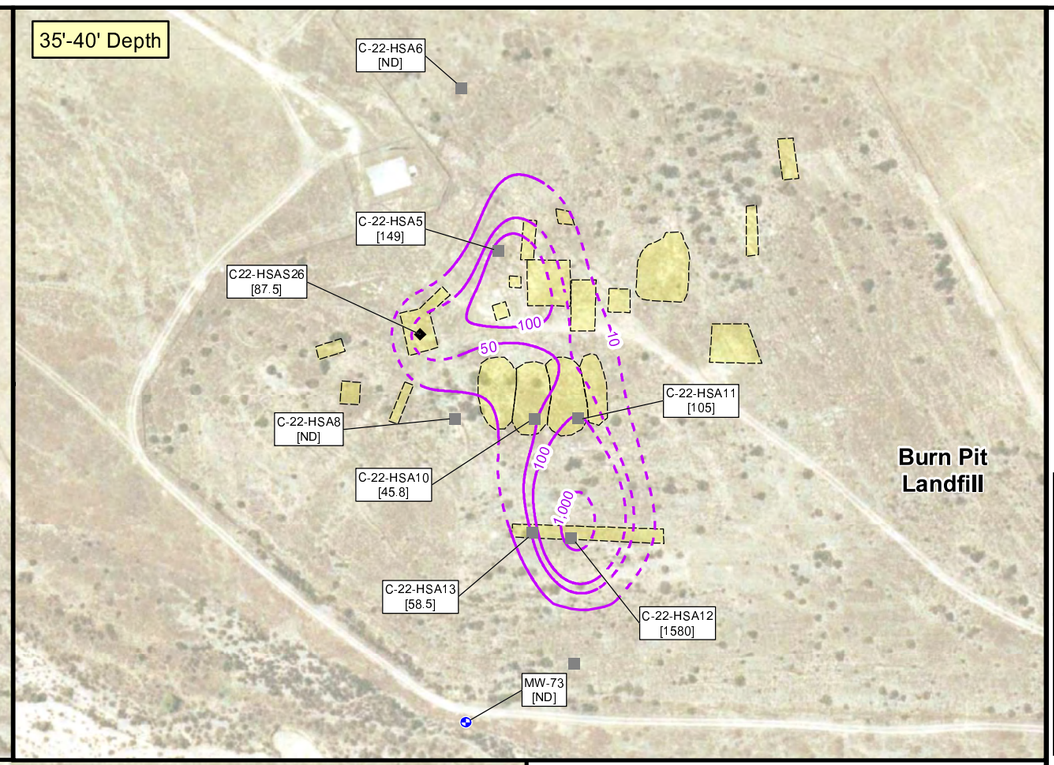
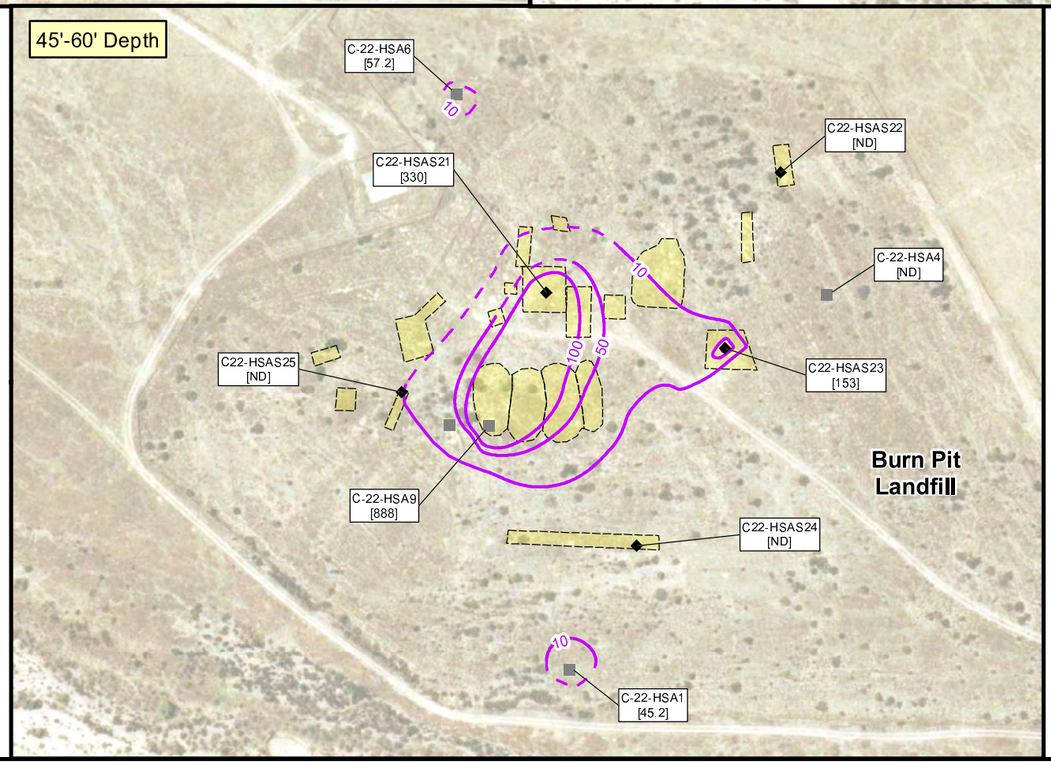






0 100 200 Feet

Adapted from: March 2007 aerial photograph.

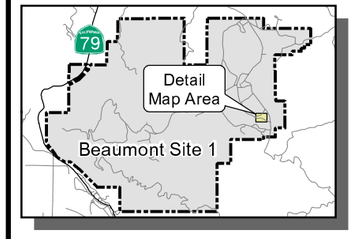
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)
- Historic Burn Pit Location

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-31
Perchlorate Concentration in Soil - Burn Pit Landfill (Feature C-22)
(Page 2 of 2)

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wet periods when high groundwater table conditions exist. In this area, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Due to the high concentrations detected in shallow soils and the Burn Pit Landfill being the primary source area at the Site, it is likely that the perchlorate concentrations detected in soil originated from former activities at this feature and have been transported vertically down through the soil matrix to groundwater.

Soil Gas Sampling Results

VOCs detected in soil gas at the Burn Pit Landfill are shown in Table 4-12. The highest soil gas concentrations detected at the Burn Pit Landfill were PCE and the groundwater COPCs, TCE, 1,1-DCE, and 1,1,1-TCA. Concentrations of TCE, PCE, and carbon tetrachloride exceeded their respective CHHSLs in one or more samples. Carbon tetrachloride was detected in only one of the 28 soil gas samples collected, at a concentration of 154 micrograms per cubic meter (µg/m^3), which exceeds the commercial/industrial CHSSL (84.6 µg/m^3). TCE was detected in 23 of the 28 soil gas samples collected with detected concentrations ranging from 7.41 to 4,760 µg/m^3 with an average concentration of 1,112 µg/m^3. Concentrations of detected TCE exceeded the residential CHHSL (528 µg/m^3) in eight samples and the commercial/industrial CHHSL (1,770 µg/m^3) in another five samples (Table 4-12). PCE was detected in 26 of the 28 soil gas samples collected with concentrations ranging from 9.09 to 5,930 µg/m^3 with an average concentration of 322 µg/m^3. Concentrations of detected PCE exceeded the residential CHHSL (180 µg/m^3) in seven samples and the commercial/industrial CHHSL (603 µg/m^3) in one sample. 1,1,1,-TCA was detected in 27 of the 28 soil gas samples collected with concentrations ranging from 11.6 to 10,800 µg/m^3 with an average concentration of 1,132 µg/m^3. None of the detected 1,1,1-TCA concentrations in soil gas exceeded the residential CHSSL (991,000 µg/m^3). Figure 4-32 shows the total VOC concentration contours for soil gas for the Burn Pit Landfill.

Based on the analytes and concentrations detected in soil gas in comparison to groundwater sample results from wells within the Burn Pit Landfill, it is likely that the analytes detected in soil gas are a result of off-gassing of affected groundwater beneath this feature or possibly some residual soil contamination in the vadose zone. At most locations, VOC concentrations in soil gas increase with depth, supporting off-gassing of affected groundwater as the source of the VOCs detected in soil gas. Similar to the perchlorate concentration contours in soil, the highest VOC concentrations detected in soil gas are located near the center of the former Burn Pit Landfill and the concentrations drop off towards the outer portions.

Table 4-12
Soil Gas Sampling Results for Detected VOCs – Burn Pit Landfill (Feature C-22)

Sample Location - Depth (feet bgs)	Sample Date	Total VOCs	Acetone	Benzene	2-Butanone (MEK)	Carbon disulfide	Carbon tetrachloride	Chloroform (Trichloromethane)	Dichlorodifluoromethane	1,1-Dichloroethane (1,1-DCA)	1,1-Dichloroethene (1,1-DCE)	Ethylbenzene	Methylene chloride (DCM)	Styrene	Tetrachloroethene (PCE)	Toluene (Methyl benzene)	1,1,1-Trichloroethane (1,1,1-TCA)	1,1,2-Trichloroethane (1,1,2-TCA)	Trichloroethene (TCE)	Trichlorofluoromethane	Trichlorotrifluoroethane (Freon-113)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride (Chloroethene)	o-Xylene	m,p-Xylenes
		Laboratory Results (µg/m^3)																								
MDL (µg/m^3)[1]		-	10	2.0	10	3.0	4.0	3.0	4.0	3.0	3.0	3.0	10	3.0	3.0	2.0	3.0	3.0	3.0	4.0	5	3.0	3.0	2.0	2.0	4.0
Residential CHHSLs (µg/m^3)[2]		-	-	36.2	-	-	25.1	-	-	-	-	-	-	-	180	135,000	991,000	-	528	-	-	-	-	13.3	315,000	317,000
Commercial/Industrial CHHSLs (µg/m^3)[2]		-	-	122	-	-	84.6	-	-	-	-	-	-	-	603	378,000	2,790,000	-	1,770	-	-	-	-	44.8	879,000	887,000
C22-HSAS21-SVP-10'	5/10/2007	13,410	52.5	11	ND	11	ND	9.7	ND	21.6	4,720	6.7	63.3	8	271	622	4,730	55.2	2,790	ND	12.6	ND	ND	ND	6.4	18.6
C22-HSAS21-SVP-20'	5/10/2007	12,113	51.5	16.7	ND	73.7	ND	8.32	ND	29.1	6,100	17.7	12.9	7.53	37.9	590	3,900	ND	1,100	ND	16.1	10.9	ND	ND	28.7	112
C22-HSAS21-SVP-30'	5/10/2007	17,178	43.7	15.3	ND	91.6	ND	10.2	ND	52.4	10,400	10.2	24	6.98	52.5	88	4,110	ND	2,190	7.64	24.7	12.7	ND	ND	11.4	27.1
C22-HSAS21-SVP-40'	5/10/2007	42,275	20.7	21.1	ND	66	ND	9.37	ND	92.9	26,100	10.2	ND	7.24	93.8	208	10,800	ND	4,760	8.76	21.6	11.7	6.39	ND	11.4	25.7
C22-HSAS21-SVP-50'	5/9/2007	13,680	19	25.4	ND	66	ND	7.9	8.2	48.1	9,200	14.8	111	ND	46	30.8	2,460	ND	1,560	9.4	13.9	12.9	7	3.6	12.8	22.8
C22-HSAS22-SVP-10'	5/9/2007	1,505	18.4	5.49	32.8	10.9	ND	6.05	ND	ND	705	ND	94.7	ND	13.7	260	44.5	ND	259	ND	54.9	ND	ND	ND	ND	ND
C22-HSAS22-SVP-20'	5/8/2007	1,631	43.7	5.44	ND	6.11	ND	ND	ND	ND	818	6.35	39.5	11.8	69	206	43.7	ND	269	ND	64.2	6.01	ND	ND	8.91	33
C22-HSAS22-SVP-30'	5/8/2007	5,199	91.7	13.3	ND	19.3	ND	9.59	ND	ND	3,220	11	127	45.4	259	92.2	121	ND	933	ND	194	16.4	ND	ND	13.3	33.1
C22-HSAS22-SVP-40'	5/8/2007	12,207	35.9	8.37	ND	15.3	ND	11.3	ND	ND	9,750	11.2	90	28.1	187	183	230	ND	1,140	ND	460	11.9	ND	ND	12.5	32.7
C22-HSAS22-SVP-50'	5/8/2007	7,054	17.6	4.28	12.9	8.28	ND	ND	ND	ND	5,310	ND	64.6	12	92.3	54.3	112	ND	1,080	ND	275	ND	ND	ND	ND	10.9
C22-HSAS23-SVP-10'	5/9/2007	898	ND	8.9	ND	16.1	ND	ND	6.9	ND	141	ND	ND	ND	12.7	525	38.6	ND	32.8	7.5	85.9	8.2	ND	ND	4.7	9.3
C22-HSAS23-SVP-20'	5/9/2007	1,579	ND	6.3	ND	18.4	ND	8.1	8.1	ND	552	13.2	ND	7.4	18.9	440	77.7	ND	97	9.4	193	13.7	ND	ND	23.4	92.4
C22-HSAS23-SVP-30'	5/9/2007	746	21.4	12.5	ND	67.7	ND	ND	6.33	ND	274	10.9	ND	9.11	17.6	81.3	24.1	ND	ND	10.4	153	13.6	ND	ND	12.8	31.1
C22-HSAS23-SVP-40'	5/9/2007	509	ND	17.3	ND	18.6	ND	ND	ND	ND	110	25	ND	8.35	16.8	185	11.9	ND	ND	ND	23.7	13.7	6.98	ND	18.1	53.6
C22-HSAS23-SVP-50'	5/9/2007	352	ND	9	ND	25.5	ND	ND	ND	ND	125	5.99	18.1	ND	ND	11.7	11.6	ND	ND	ND	125	5.5	ND	ND	5.12	9.55
C22-HSAS24-SVP-10'	5/11/2007	449	ND	ND	ND	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	396	36.5	ND	ND	ND	ND	ND	ND	ND	ND	8
C22-HSAS24-SVP-20'	5/11/2007	507	ND	ND	ND	6.47	ND	ND	ND	ND	ND	5.21	ND	ND	9.09	377	43.9	ND	ND	ND	ND	ND	ND	ND	11.1	54.2
C22-HSAS24-SVP-30'	5/11/2007	208	ND	ND	ND	6.72	ND	ND	ND	ND	11.7	ND	ND	ND	13.2	75.6	68.8	ND	7.73	ND	ND	5.6	ND	ND	5.47	13.5
C22-HSAS24-SVP-40'	5/11/2007	2,979	11.8	ND	ND	3.74	ND	ND	ND	ND	14.9	4.6	ND	ND	12.7	2,840	69.9	ND	7.41	ND	ND	ND	ND	ND	ND	13.5
C22-HSAS24-SVP-50'	5/11/2007	8,308	76.1	ND	33.7	ND	154	523	7.02	ND	ND	99.7	ND	ND	5,930	30.7	ND	ND	914	18.8	92.7	22.5	7.47	ND	90.6	308
C22-HSAS25-SVP-10'	5/8/2007	1,138	15.6	8.24	ND	23	ND	ND	ND	ND	54.1	5.04	364	25.7	219	275	85.5	ND	37.6	ND	ND	6.88	ND	ND	5.38	12.8
C22-HSAS25-SVP-20'	5/7/2007	647	10	4.9	16.8	14.9	ND	ND	ND	ND	73.5	6.3	81.6	15.7	113	169	60.5	ND	31	ND	ND	6.2	ND	ND	9.7	34.2
C22-HSAS25-SVP-30'	5/7/2007	1,343	25.9	8	ND	12.7	ND	ND	ND	ND	138	8.6	603	27.5	208	112	107	ND	44.5	ND	ND	12.3	ND	ND	10.6	24.9
C22-HSAS25-SVP-40'	5/7/2007	1,294	19.7	10.3	ND	21.5	ND	ND	ND	ND	157	11	278	38.1	331	209	121	ND	42.5	ND	ND	11	ND	ND	11.8	32
C22-HSAS26-SVP-10'	5/10/2007	3,993	128	4.6	ND	10.1	ND	ND	ND	5.4	2,100	ND	ND	ND	16	498	125	ND	1,090	ND	ND	ND	ND	ND	ND	15.7
C22-HSAS26-SVP-20'	5/10/2007	6,280	73.6	ND	ND	13.6	ND	ND	ND	9.5	3,570	11.6	11.5	5.8	32.8	567	187	ND	1,670	ND	ND	ND	ND	ND	23.6	104
C22-HSAS26-SVP-30'	5/10/2007	8,534	89.4	3.8	ND	18.8	ND	5.8	6.1	ND	5,100	8.3	10.8	7.7	34.6	97.2	272	ND	2,820	ND	ND	15.6	ND	ND	12.6	31.5
C22-HSAS26-SVP-40'	5/10/2007	11,806	50.9	10.7	ND	10.7	ND	9.4	ND	21	5,290	6.5	61.5	7.8	263	604	2,670	53.6	2,710	ND	12.2	ND	ND	ND	6.3	18.1

(1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aloquot.
(2) California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas (Vapor Intrusion)
bgs - Below ground surface.
µg/m3 -micrograms per cubic meter.
ND - not detected at or above method detection limit.
Highlighted values exceed their respective residential land use CHHSL for shallow soil gas.
Highlighted values exceed their respective commercial/industrial land use CHHSL for shallow soil gas.

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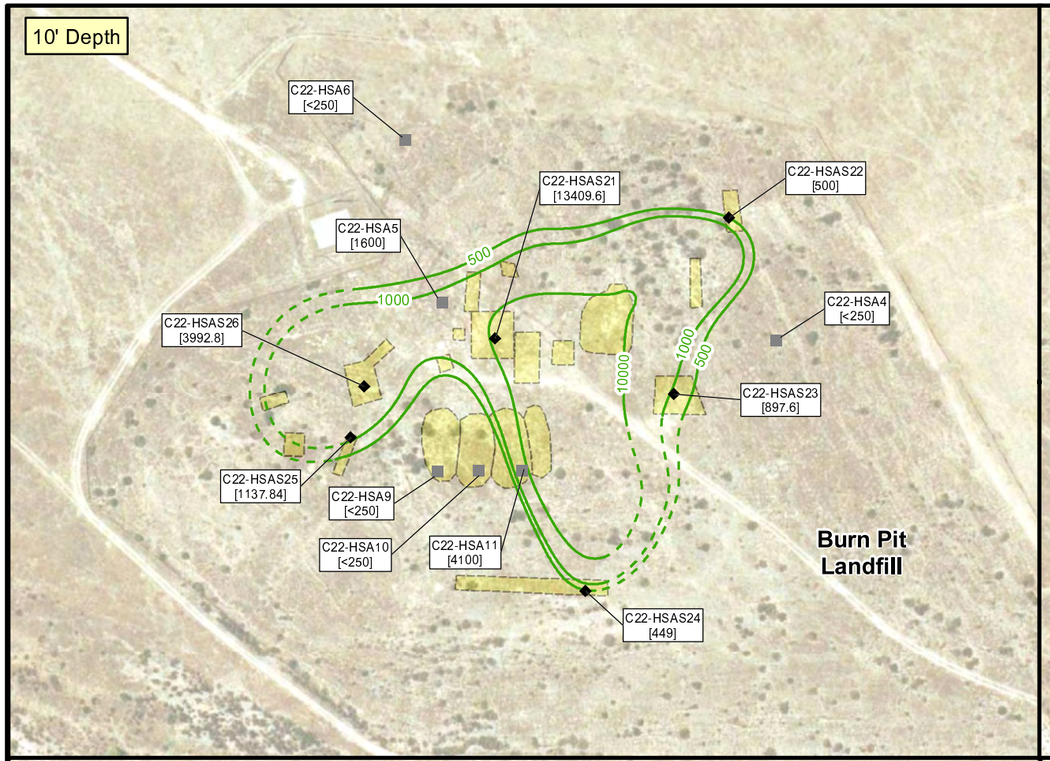
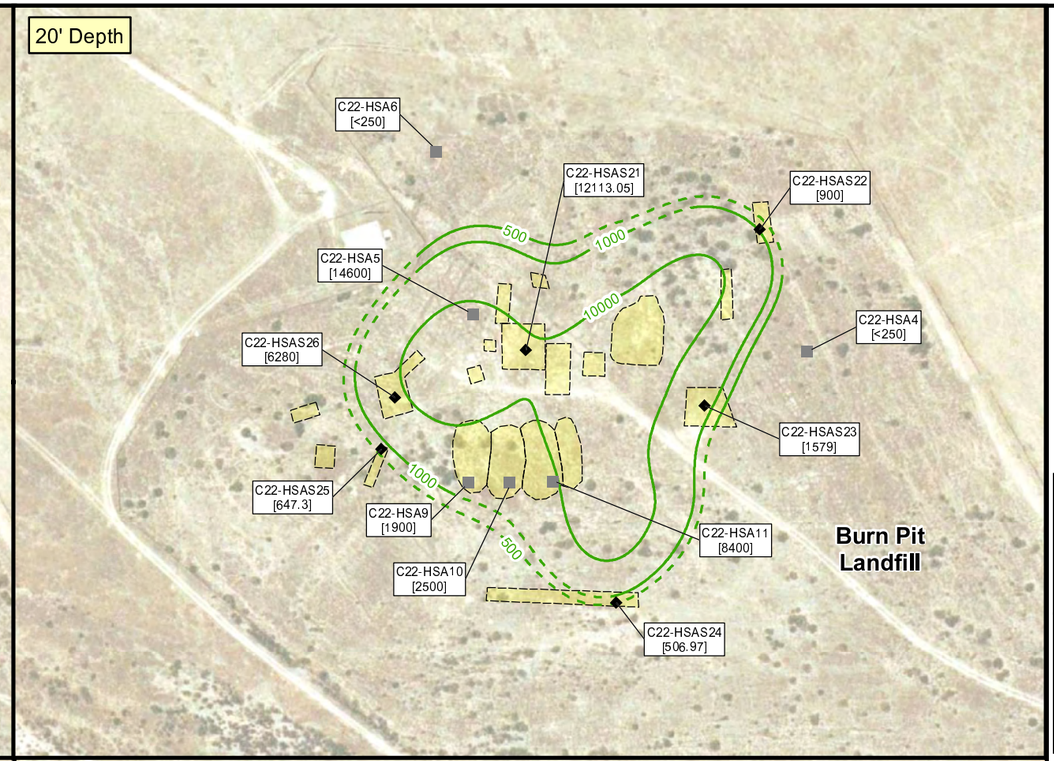
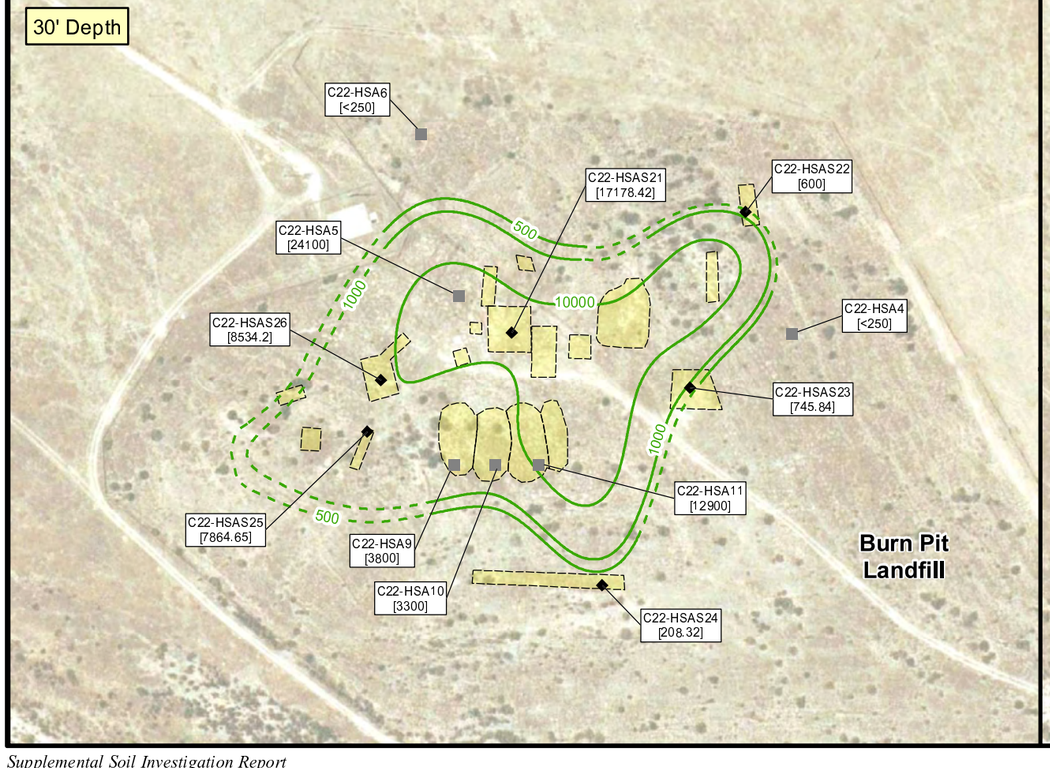
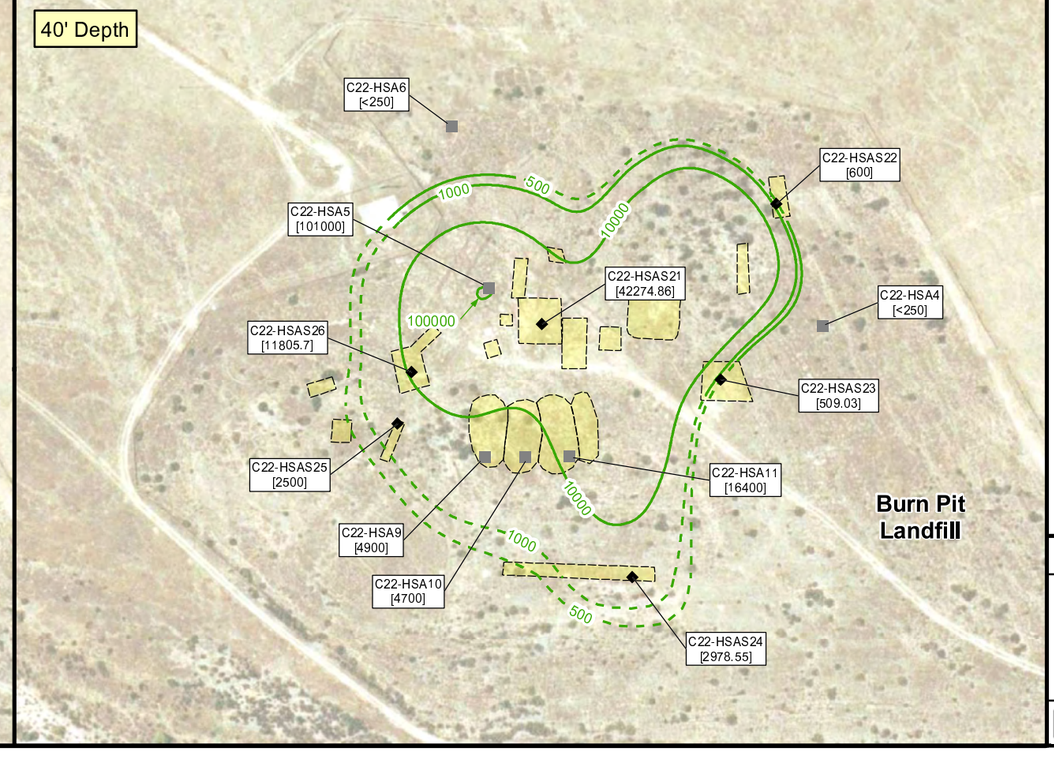
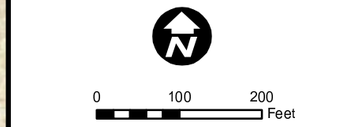










Adapted from: March 2007 aerial photograph.

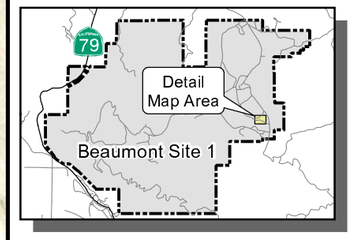
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 500 — Soil Gas Total VOC (Dashed where inferred)
- Historic Burn Pit Location

Note:

[#] VOC results in µg/m^3.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-32
Total VOC Concentrations in Soil Gas - Burn Pit Landfill (Feature C-22)
(Page 1 of 2)

TETRA TECH

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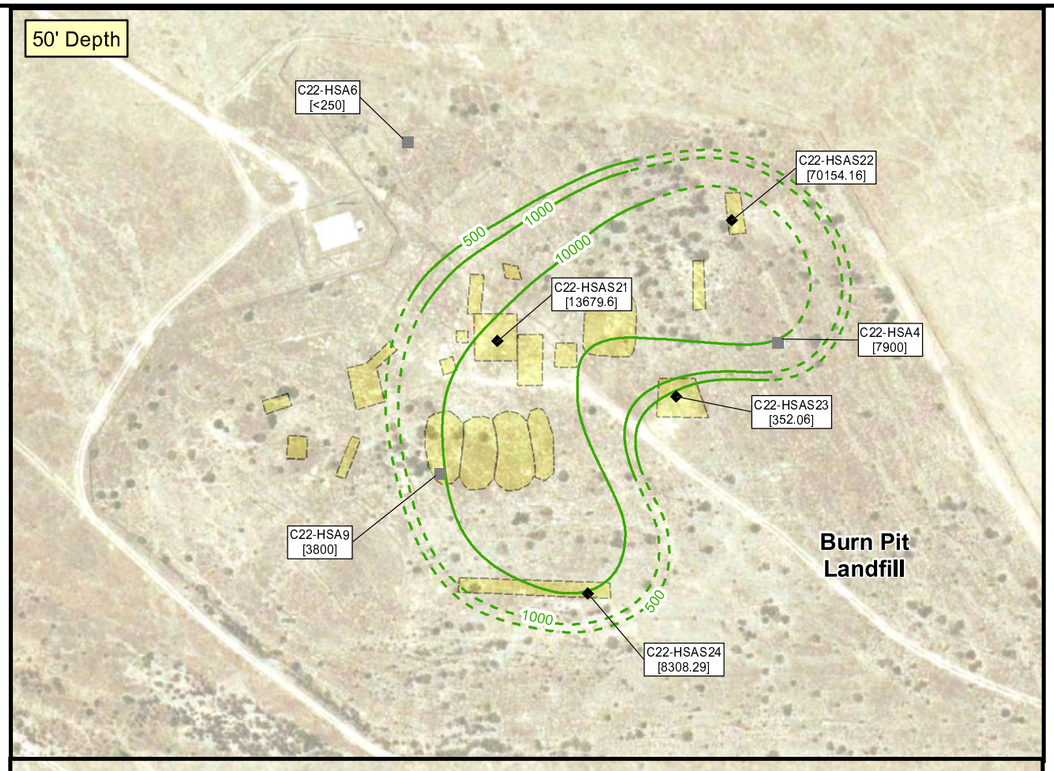
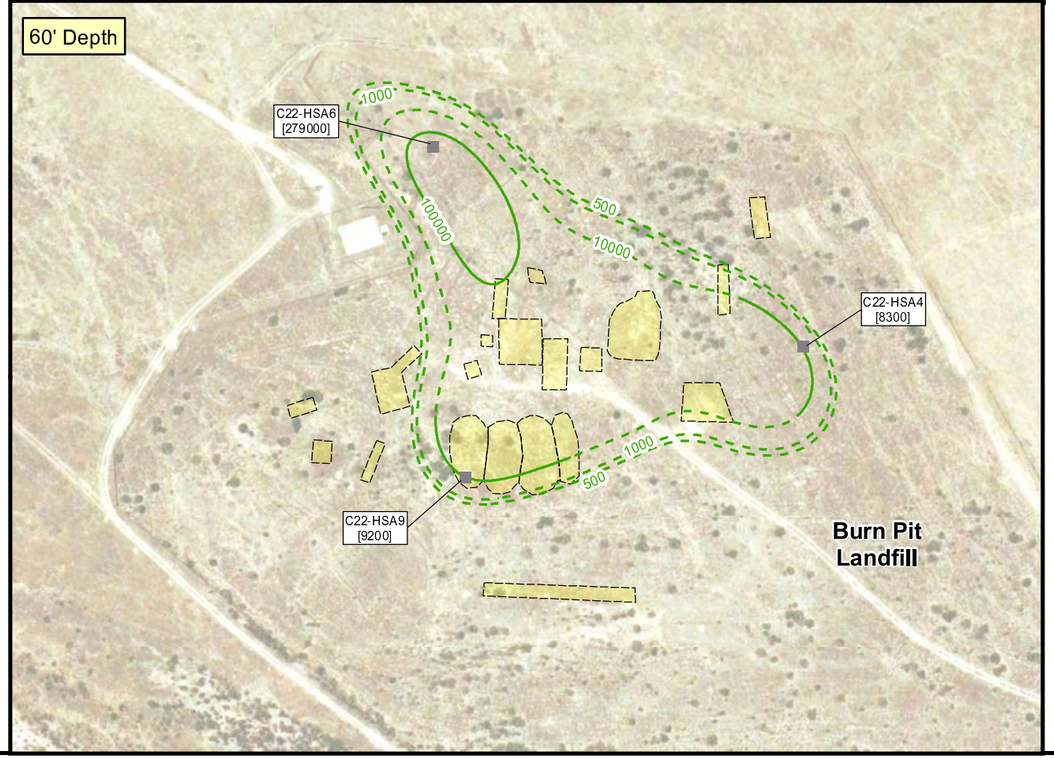




0 100 200 Feet

Adapted from: March 2007 aerial photograph.

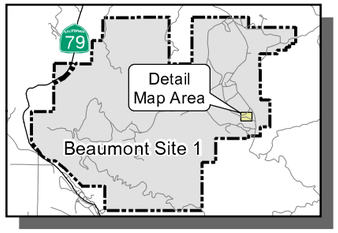
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 500 — Soil Gas Total VOC (Dashed where inferred)
- Historic Burn Pit Location

Note:

[#] VOC results in µg/m^3.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-32
Total VOC Concentrations in Soil Gas - Burn Pit Landfill (Feature C-22)
(Page 2 of 2)

TETRA TECH

4.3.2 Feature C-23 – Temporary Storage Area

The Temporary Storage Area is located in the southern portion of the site in Historical Operational Area C (Figure 4-33). This concrete pad area was used to temporarily store 55-gallon waste storage drums prior to incinerating activities. The contents of the drums are unknown.

Previous Results

Two soil borings were drilled to 20 feet bgs at this location during the previous investigation (Tetra Tech, 2005a). Samples were analyzed for VOCs, SVOCs, perchlorate, 1,4-dioxane, and Title 22 metals. SVOCs and 1,4-dioxane were not detected at concentrations above their respective RLs. Perchlorate was detected at concentrations ranging from 43.6 to 505 µg/kg. One VOC (acetone) was detected at concentrations ranging from 26 to 45 µg/kg but was possibly associated with laboratory cross-contamination. Metals were detected with arsenic at concentrations up to 1.31 mg/kg. VOCs were not detected in any of the soil gas samples collected.

Investigation Activities

Supplemental investigation activities were conducted at the Temporary Storage Area (Feature C-23) as described in the work plan (Tetra Tech, 2006b) to provide additional assessment of perchlorate affected soil. However, recent interviews indicated that beryllium motor testing in Area C may have occurred south of the previous and proposed borings at this feature. Beryllium has low mobility in soils so sampling for beryllium was conducted on surface samples south, southeast and southwest of the subsurface soil borings.

Two HSA soil borings (C-23-HSAS27 and C-23-HSAS28) were drilled to a depth of 40 feet bgs and eight surface soil samples (C-23-SS1 through C-23- SS8) were collected from less than 0.2 feet bgs during this investigation (Figure 4-33). Three soil samples were collected from each HSA boring, at 5, 20, and 30 or 40 feet bgs and analyzed for perchlorate. The eight surface samples collected were analyzed for beryllium. An idealized geologic cross section through this feature is shown in Figure 4-34. Soils encountered at this location were generally medium- to coarse-grained sand with minor silt content. In the two HSA borings, there appeared to be igneous bedrock encountered at 25 feet bgs in C23-HSAS27 and 35 feet bgs in C23-HSAS28.

X:\GIS\LOCKHEED 19967-05\SURFACE SAMPLE TEMP STORAGE.MXD

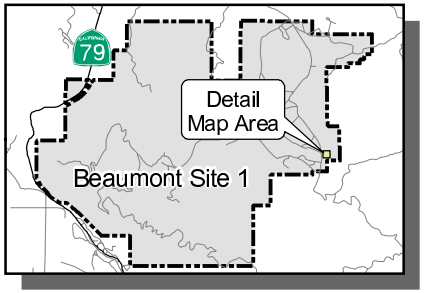


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- C23-SS1 — Supplemental Investigation Surface Sample Location
- C23-HSAS28 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location
- Historical Operational Area Boundary



Beaumont Site 1

Figure 4-33
Sample and Cross Section Locations - Temporary Storage Area (Feature C-23)

TETRA TECH

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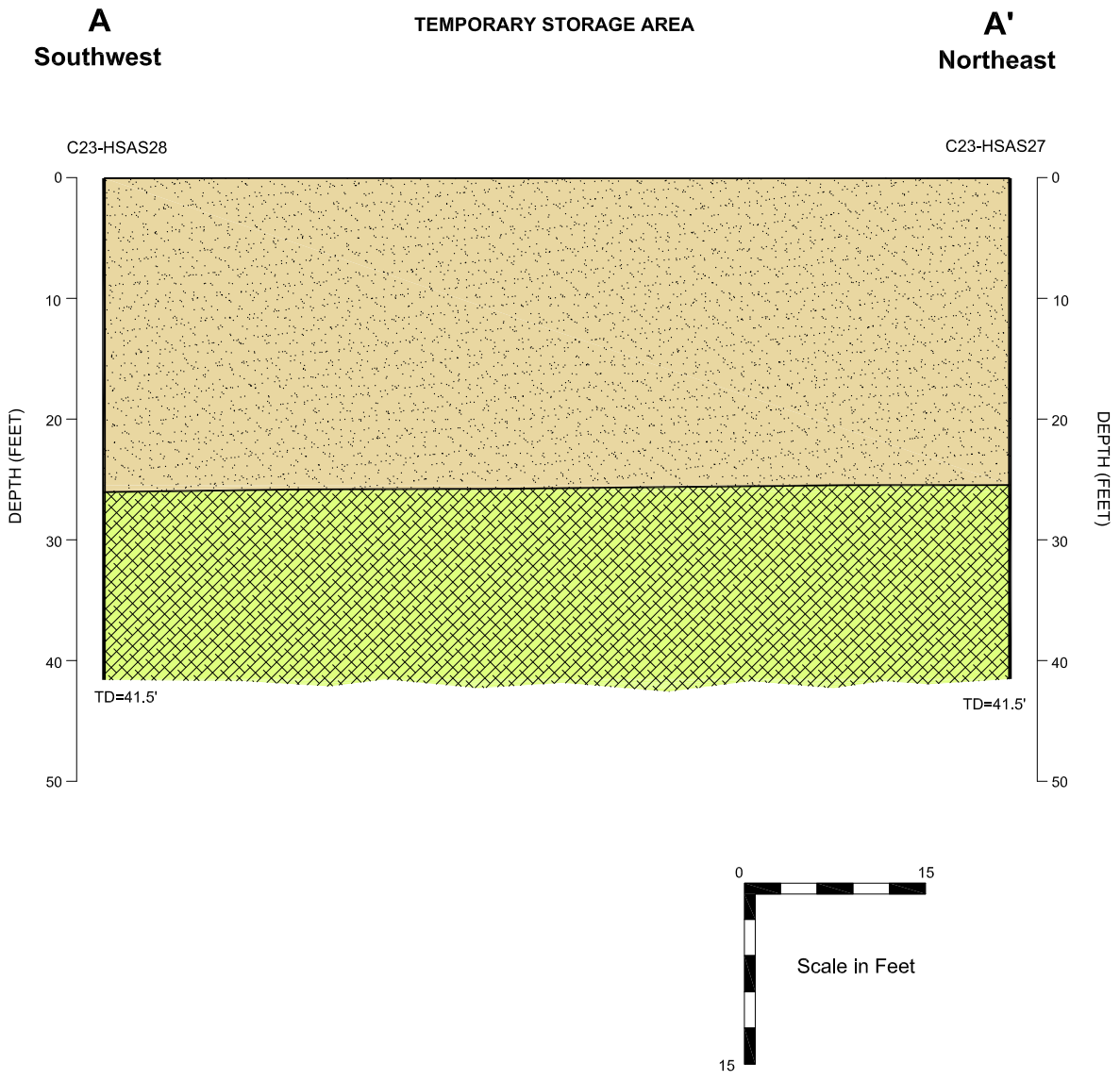

LEGEND

- Sand and Gravel
- Weathered Granite or Granite Boulder
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-34
Geologic Cross Section A-A'
Temporary Storage Area
(Feature C-23)

TETRA TECH

Soil Sampling Results

Perchlorate was not detected above the MDL in any of the six soil samples collected from the Temporary Storage Area during this investigation (Table 4-13). However, perchlorate was detected in two borings (C-23-DP1 and C-23-DP2) installed during a previous investigation (Figure 4-35). The perchlorate previously detected at this feature appeared to be very localized but did increase with depth based on the samples collected. Beryllium was detected in seven of the eight surface samples collected at concentrations ranging from 0.303 to 0.679 mg/kg with an average concentration of 0.423 mg/kg. Metals are naturally occurring and therefore the detection of beryllium in soil samples collected from this feature is expected. It should be noted that the concentrations of beryllium detected at concentrations up to 0.679 mg/kg, are within the normal range of values of elemental concentrations in soil for California (Bradford et al, 1996). However, a site-wide background metals survey is currently planned and therefore a more detailed analysis of beryllium concentrations detected at the Site will be conducted in a future study.

4.4 HISTORICAL OPERATIONAL AREA D INVESTIGATION

Operational Area D, the LPC Ballistics Test Range facilities, included gun mounts, a ballistic tunnel, and storage buildings and trailers. Guns were tested by firing toward a terraced hill. After firing, the hill was policed to pick up the remains of any rounds. Live rounds were not used although projectiles were often specially shaped and weighted to simulate actual live rounds.

The ballistics tunnel consisted of large sections of drainage culvert cut lengthwise and supported on a concrete foundation. Various weapons were fired through the tunnel and photographed with special high-speed strobe photographic equipment.

Class A explosives were stored in two to three 10 by 10 foot buildings located behind a berm. During the closure of the facility, all explosive materials were detonated on-site. At a small area near the bend in the road, acetone was used to dissolve TNT out of incendiary bombs before they were burned. This was a one-time occurrence, and the resulting TNT crystals were collected and destroyed.

4.4.1 Feature D-28 – Former Dissolved TNT Disposal Area

The Former Dissolved TNT Disposal Area (Feature D-28) is located in the central portion of Historical Operational Area D (Figure 4-36). The Former Dissolved TNT Disposal Area was used for dissolving TNT with acetone to remove it from the interior of incendiary bombshells. The resulting TNT crystals were reportedly collected and destroyed with no residue remaining. Chemicals of concern at this feature include VOCs (acetone), 1,4-dioxane, and explosive residue (Tetra Tech, 2005b).

Table 4-13
Soil Sampling Results for Perchlorate and Beryllium – Temporary Storage Area (Feature C-23)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate (µg/kg)	Beryllium (mg/kg)
		Laboratory Results	
MDL(1)		10.2 - 11.1	0.25-2.7
C23-HSAS27-5-6.5	4/19/2007	ND	*NA*
C23-HSAS27-20-21.5	4/19/2007	ND	*NA*
C23-HSAS27-30-31.5	4/19/2007	ND	*NA*
C23-HSAS28-5-6.5	4/19/2007	ND	*NA*
C23-HSAS28-20-21.5	4/19/2007	ND	*NA*
C23-HSAS28-40-41.5	4/19/2007	ND	*NA*
C23-SS1	4/11/2007	*NA*	0.679 Jq
C23-SS2	4/11/2007	*NA*	0.339 Jq
C23-SS3	4/11/2007	*NA*	0.362 Jq
C23-SS4	4/11/2007	*NA*	0.336 Jq
C23-SS5	4/11/2007	*NA*	0.479 Jq
C23-SS6	4/11/2007	*NA*	0.461 Jq
C23-SS7	4/11/2007	*NA*	0.303 Jq
C23-SS8	4/11/2007	*NA*	ND

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above method detection limit.
NA: not analyzed
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).

Previous Results

One soil boring was installed to a depth of 20 feet bgs at the Former Dissolved TNT Disposal Area during a previous investigation (Tetra Tech, 2005b). Soil samples were analyzed for explosive residue, VOCs, and 1,4-dioxane. Explosive residue, VOCs, and 1,4-dioxane were not detected at concentrations above the RLs. In addition, a limited soil gas survey was also performed at this feature and no VOCs were detected. Therefore, no further investigation was proposed for the Former Dissolved TNT Disposal Area. However, during historical research interviews with former site employees in September 2005, it was determined that the Former Dissolved TNT Disposal Area was actually located further north than the previous records had shown (Tetra Tech, 2005b). Results of the interview also indicated that the TNT and acetone was collected in metal containers and the acetone was allowed to evaporate and the

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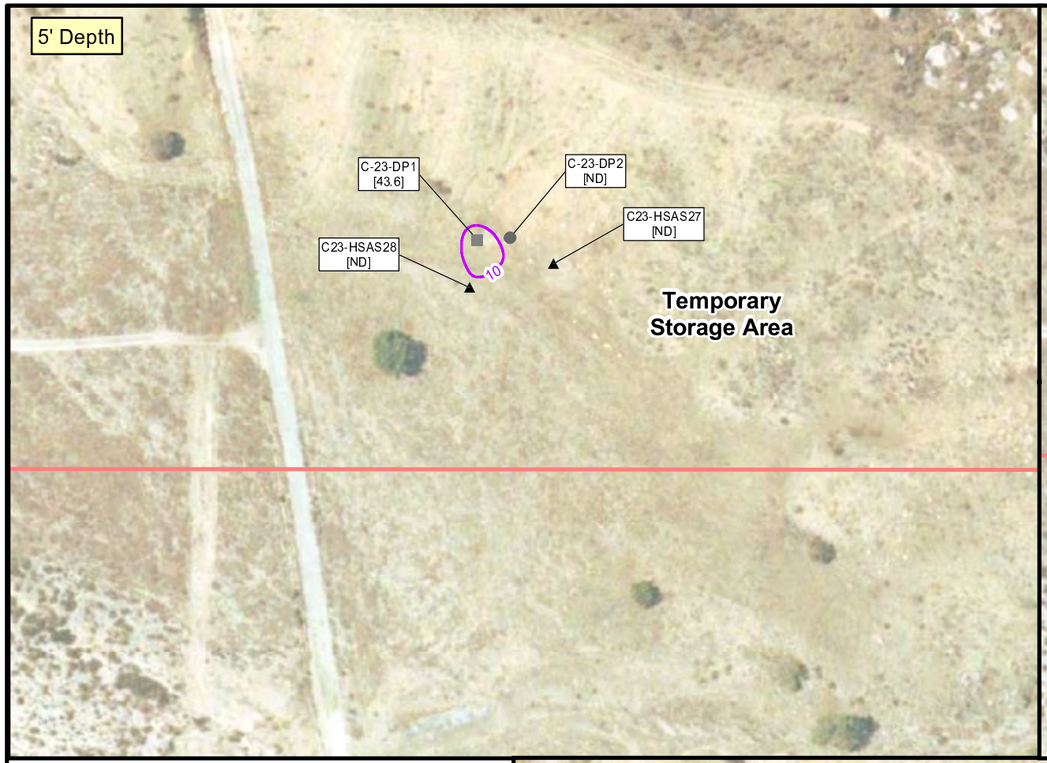
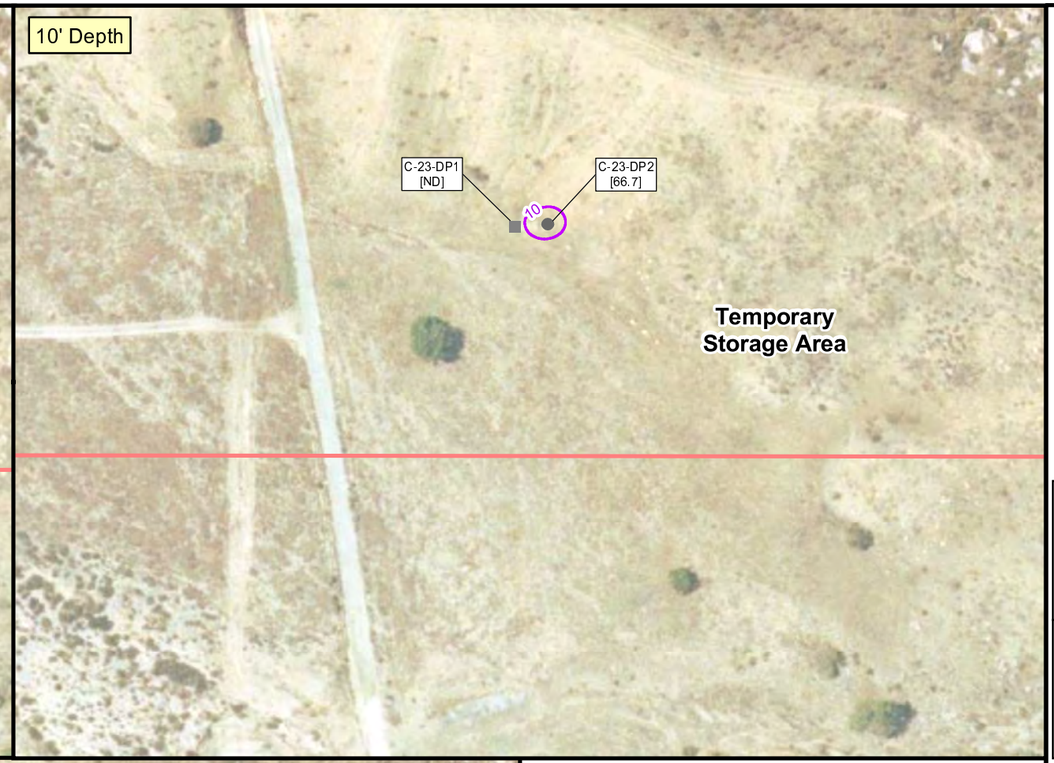
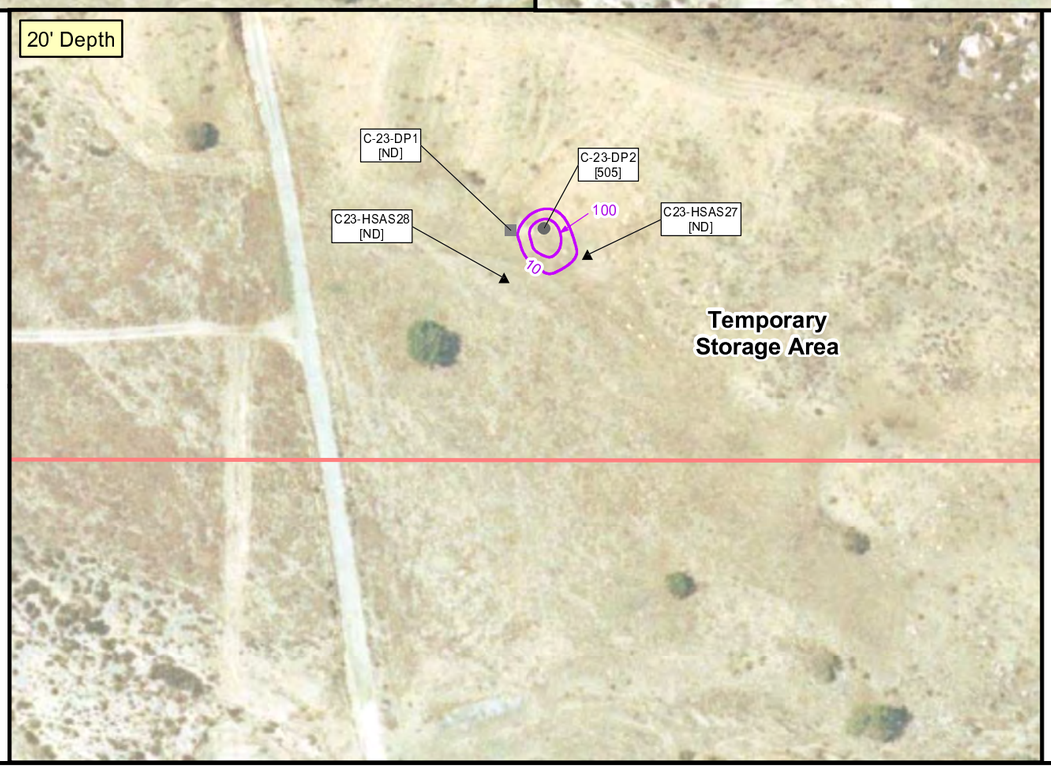
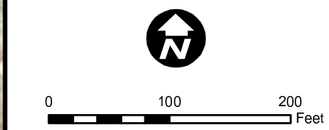








Adapted from: March 2007 aerial photograph.

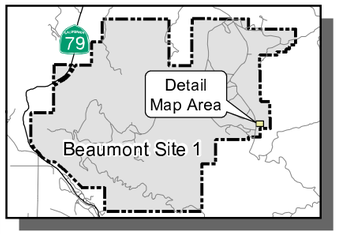
LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ● Previous Soil Boring Location
- ■ Previous Soil Boring and Soil Gas Sample Location
- —10— Perchlorate Isoconcentration Contour (Dashed where inferred)
- Historical Operational Area Boundary

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-35

Perchlorate Concentrations in Soil - Temporary Storage Area (Feature C-23)

TETRA TECH

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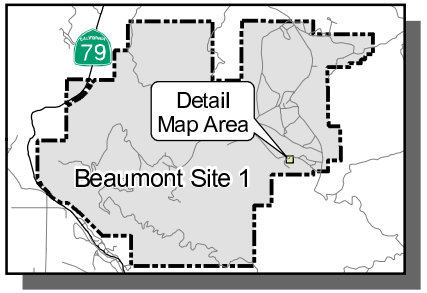
0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- A-6-HAS1 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-36
Sample and Cross Section Locations - Former Dissolved TNT Disposal Area (Feature D-28)

TETRA TECH

remaining TNT crystals were burned. Reportedly, none of the materials were discharged on the ground. Based on these findings, additional soil borings and soil gas sampling in this area was proposed.

Investigation Activities

Three soil borings were drilled to 31.5 feet bgs at the Former Dissolved TNT Disposal Area during this investigation (Figure 4-36). Soil gas probes were installed in all three borings at 10, 20, and 30 feet bgs. Soil gas samples were collected and tested for VOCs. The Mt. Eden formation was encountered at 5 feet bgs in borings D28-HSAS1 and D28-HSAS2 and at 15 feet bgs in D28-HSAS3. An idealized geologic cross section through this feature is shown in Figure 4-37. Groundwater was not encountered in any of the borings installed.

Soil Gas Sampling Results

Table 4-14 shows the VOCs detected in soil gas at the Former Dissolved TNT Disposal Area during this investigation. As shown in the table, with the single exception of one low-level detection of PCE, low-level fuel related compounds including benzene, toluene, ethylbenzene, and total xylenes (BTEX) and acetone were the only compounds detected relatively consistently at this feature. Acetone was detected in six of the nine samples soil gas at concentrations ranging from 16.6 to 54.8 $\mu g/m^3$. However, all analytes and concentrations detected were well below their respective residential and commercial CHSSLs. Figure 4-38 shows the total VOC concentration contours for soil gas at 10, 20, and 30 feet bgs for the Former Dissolved TNT Disposal Area (Feature D-28). The concentrations of total VOCs in soil gas at the 10 and 20 feet bgs are very similar and decrease slightly at 30 feet bgs except in D28-HSAS3. However, the concentrations of VOCs detected at all three depths are very low and do not indicate the presence of a soil source at this feature requiring further investigation.

4.4.2 Feature D-29 – Ballistics Tunnel and Support Facilities

The Ballistics Tunnel and Support Facilities are located in the central portion of Historical Operational Area D (Figure 4-39). This area was used for ballistics testing of various weapons (Tetra Tech; 2003a, 2005b).

Previous Results

Three soil borings and one soil gas probe were installed at 5.5 feet bgs at the Ballistics Tunnel and Support Facilities during a previous investigation (Tetra Tech, 2005b). Soil samples were analyzed for explosive residue and VOCs. Explosive residue was not detected at concentrations above RLs. VOCs

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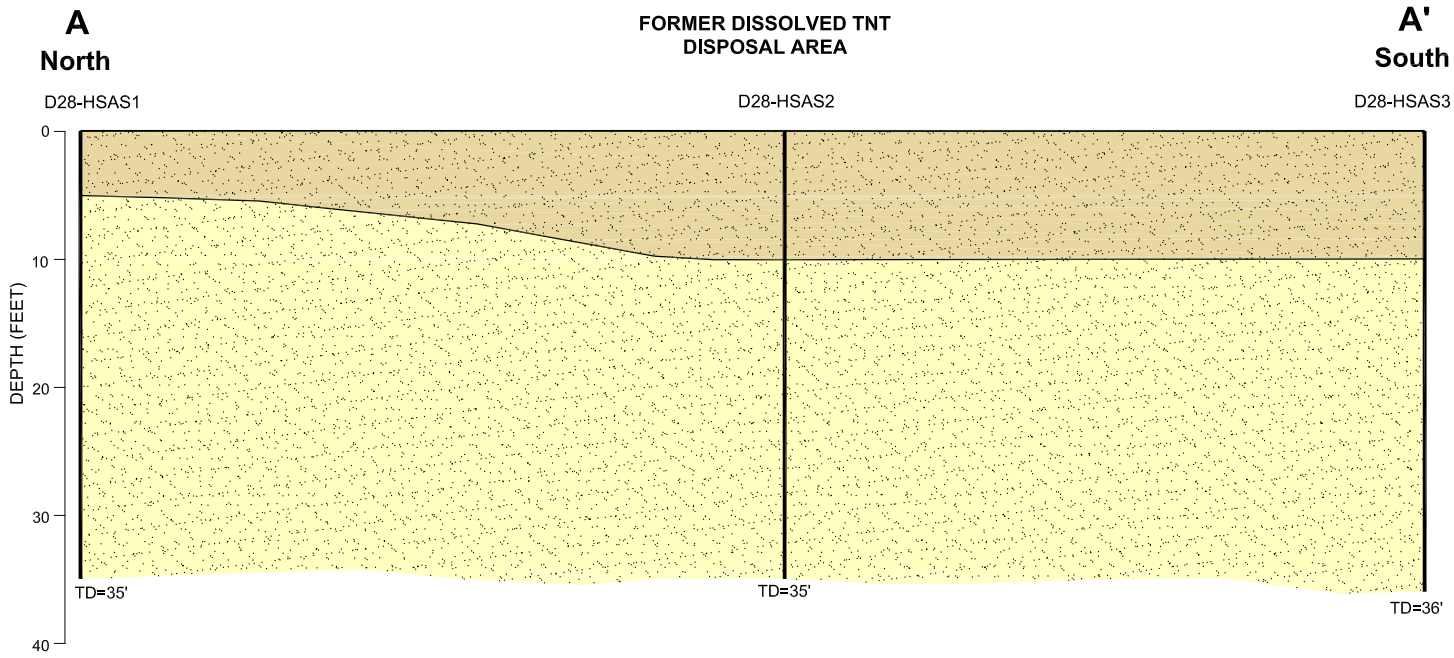

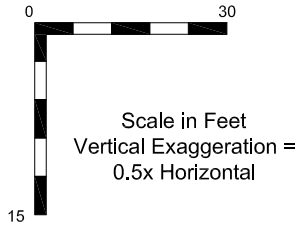

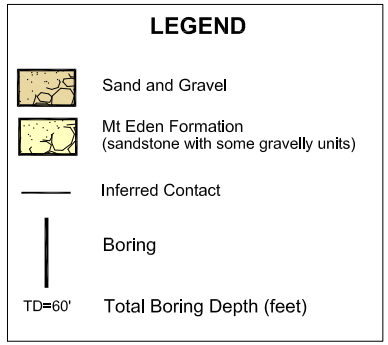

Beaumont Site 1

Figure 4-37

**Geologic Cross Section A-A'
Former Dissolved TNT
Disposal Area (Feature D-28)**

TETRA TECH

Table 4-14
Soil Gas Sampling Results for Detected VOCs – Former Dissolved TNT Disposal Area (Feature D-28)

Sample Name - Depth (feet bgs)	Sample Date	Total VOCs	Acetone	Benzene	Carbon Disulfide	Ethylbenzene	Toluene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Tetrachloroethene (PCE)	m,p-Xylene	o-Xylene
		Laboratory Results (µg/m^3)											
MDL[1] (µg/m^3)		-	10.0	2.0	3.0	3.0	2.0	4.0	2.0	3.0	3.0	4.0	2.0
Residential CHHSLs[2] (µg/m^3)		-	-	36.2	-	-	135,000	-	-	-	180	636,000	315,000
Commercial/Industrial CHHSLs[2] (µg/m^3)		-	-	122	-	-	378,000	-	-	-	603	887,000	879,000
D28-HSAS1-10'	8/21/2007	171.9	53.9	7.66	53.5	ND	24.3	ND	12.6	6.45	7.92	5.52	ND
D28-HSAS1-20'	8/21/2007	161.7	54.8	4.14	25.7	ND	29.3	11.8	15.4	7.89	ND	7.6	5.09
D28-HSAS1-30'	8/21/2007	91.52	53.6	ND	18.7	ND	12.4 Jf	ND	12.4	6.82	ND	7.01 Jf	ND
D28-HSAS2-10'	8/21/2007	116.8	ND	8.49	40.3	5.09	29.2	ND	12.9	6.98	ND	9.03	4.83
D28-HSAS2-20'	8/21/2007	123.2	34.5	ND	15.1	ND	30.9	ND	18.5	9.71	ND	8.31	6.14
D28-HSAS2-30'	8/21/2007	80.28	44.8	ND	11.4	ND	12.9	ND	5.04	ND	ND	6.14	ND
D28-HSAS3-10'	8/21/2007	39.82	ND	ND	17.2	ND	13	ND	9.62	ND	ND	ND	ND
D28-HSAS3-20'	8/21/2007	44.13	ND	ND	4.55	ND	21.6	ND	10	ND	ND	7.98	ND
D28-HSAS3-30'	8/21/2007	91.84	16.6	ND	29.1	5.19	9.78	ND	14.5	8.09	ND	8.58	ND

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot.
(2) California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas (Vapor Intrusion).
bgs – below ground surface
µg/m^3– micrograms per meter
ND – not detected at or above the method detection limit.
J - The analyte was positively identified, but the analyte concentration is an estimated value.
f – The duplicate/replicate sample precision was outside the control limits.
Highlighted values exceed their respective residential land use CHHSL for shallow soil gas.
Highlighted values exceed their respective commercial/industrial land use CHHSL for shallow soil gas.

(2-butanone, acetone, and p-isopropyltoluene) were detected at concentrations ranging from 1.8 to 920 µg/kg. Detected concentrations of acetone and 2-butanone may have been associated with laboratory cross-contamination. There were no detected VOCs in soil gas above RLs.

Investigation Activities

A total of 12 samples were collected, at 0.5 and 5 feet bgs at each of six hand auger locations installed at

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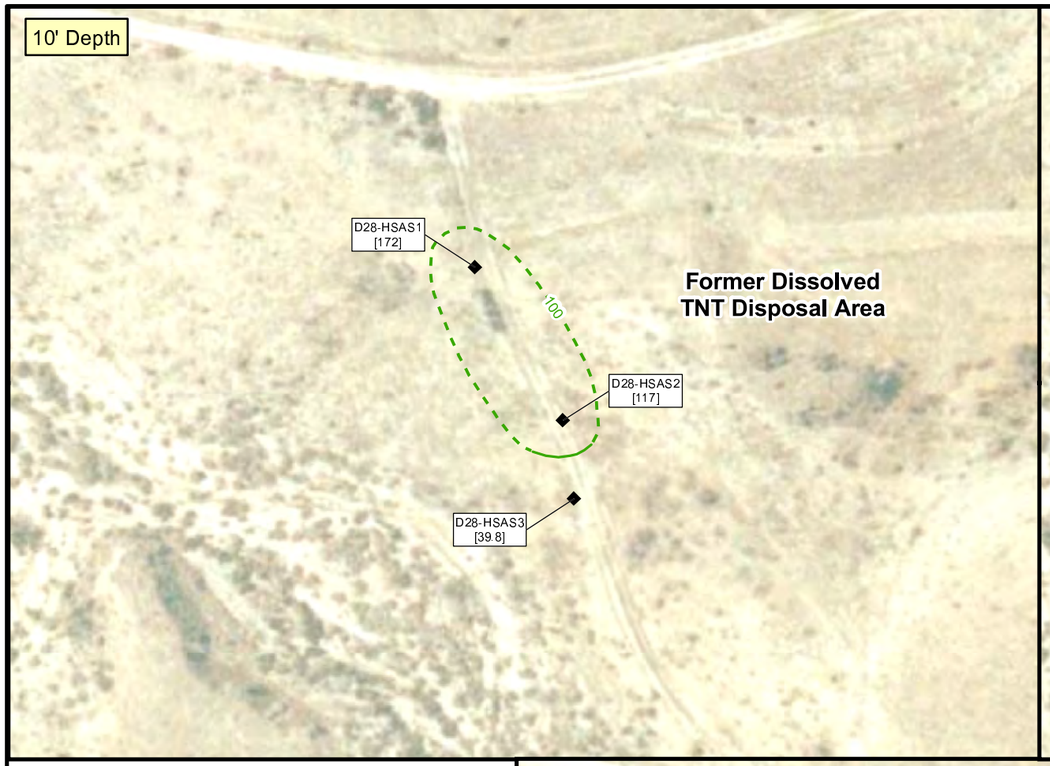
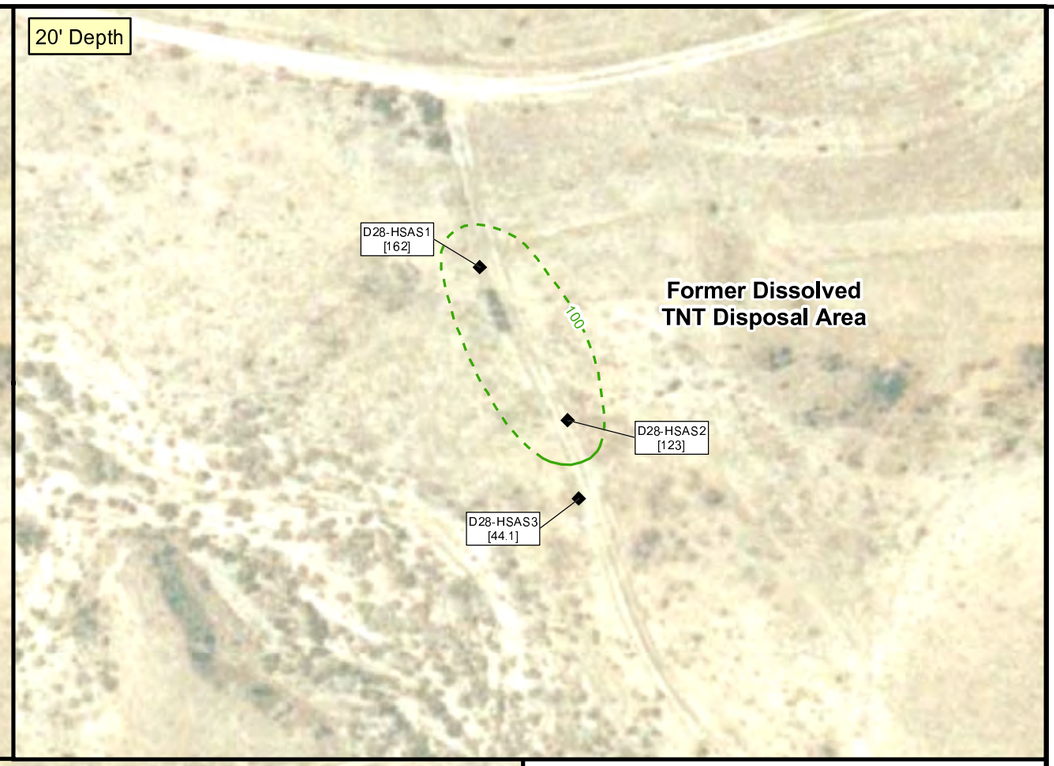
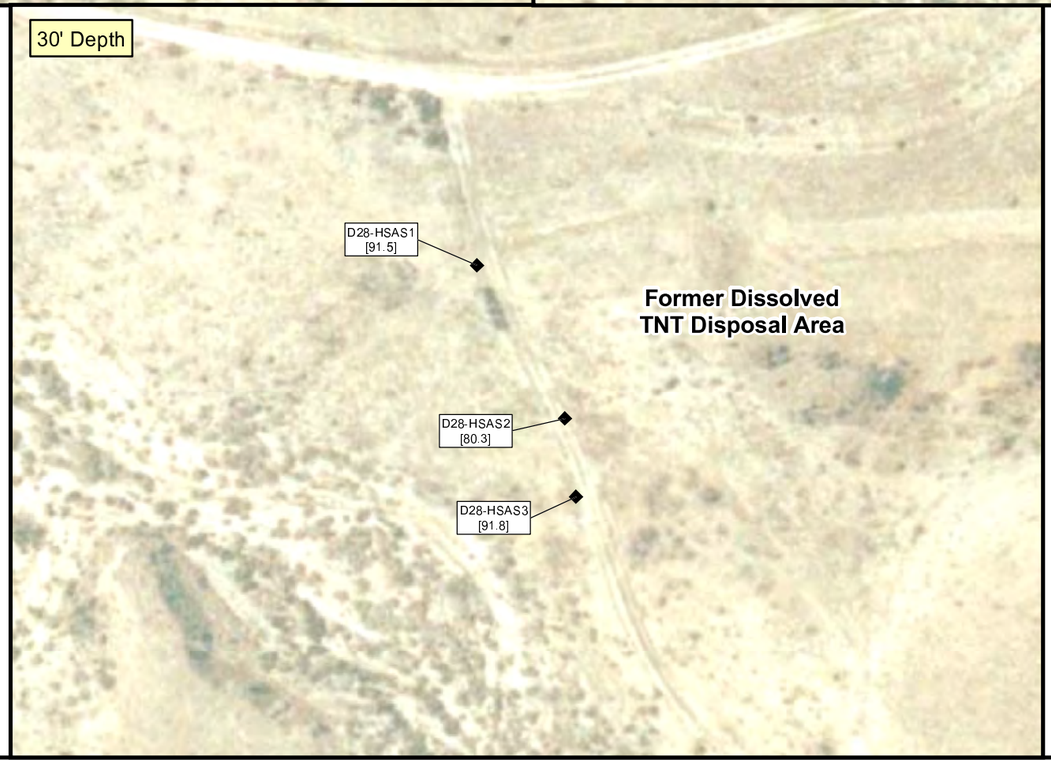






0 50 100 Feet

Adapted from: March 2007 aerial photograph.

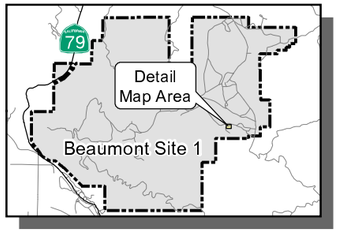
LEGEND

- Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 100 — Soil Gas Total VOC (Dashed where inferred)
- Beaumont Site 1 Property Boundary
- Landfill Extent

Note:

[#] VOC results in $\mu g/m^3$.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-38
Total VOC Concentrations in Soil Gas - Former Dissolved TNT Disposal Area (Feature D-28)

TETRA TECH

the Ballistics Tunnel and Support Facilities during this investigation (Figure 4-39). Explosives were tested for at all six locations, and samples collected from D-29-HAS14, D-29HAS15, and D-29HAS16 were analyzed for VOCs and perchlorate. Soils encountered at the Ballistics Tunnel and Support Facilities were generally fine to coarse sand with minor amounts of silt. Groundwater was not encountered in any of the hand auger borings installed.

Soil Sampling Results

Explosive residue and perchlorate were not detected above MDLs in any of the soil samples collected from the Ballistics Tunnel and Support Facilities (Table 4-15). VOCs detected in soil included the analytes methylene chloride at 2.4 µg/kg and acetone, ranging from 6.6 to 12 µg/kg, and are possibly associated with laboratory cross-contamination.

4.5 HISTORICAL OPERATIONAL AREA F INVESTIGATION

Operational Area F, the LPC Test Services Area, included the following features: 1) three bays for structural load tests, 2) a 13 foot-diameter spherical pressure vessel, 3) six temperature conditioning chambers, 4) five environmental chambers, 5) a 25-MeV Betatron for emitting X-rays into large structures, 6) personnel and instrumentation protection bunkers, 7) supporting work shops and storage areas, and 8) a large motor washout area.

4.5.1 Feature F-33 – Large Motor Washout Area

The Large Motor Washout Area is located in the south central portion of Historical Operational Area F (Figure 4-40). Defective solid rocket propellant was washed out of the motor casings with groundwater supplied by a former groundwater production well (W-1). A high-pressure water jet was used to flush propellant from the motor casings. The solid propellant pieces produced from the washout activities were collected in a sieve and later packed into drums and brought to the burn pit landfill for incineration. Additionally, a long trench leading to an unlined catch basin caught the over spray. After the water percolated into the soil, the remaining solid pieces of propellant were burned directly in the catch basin. Fuel, ammonium perchlorate, and ferrocene were reported to have been in the propellant products (Tetra Tech; 2003a, 2005b).

Previous Results

Nine soil boring and soil gas probes were installed to a depth of 41.5 feet bgs at the Large Motor Washout Area during a previous investigation (Tetra Tech, 2005b). Samples were analyzed for VOCs, SVOCs, TPH, perchlorate, 1,4-dioxane, and Title 22 metals. SVOCs and 1,4-dioxane were not detected at

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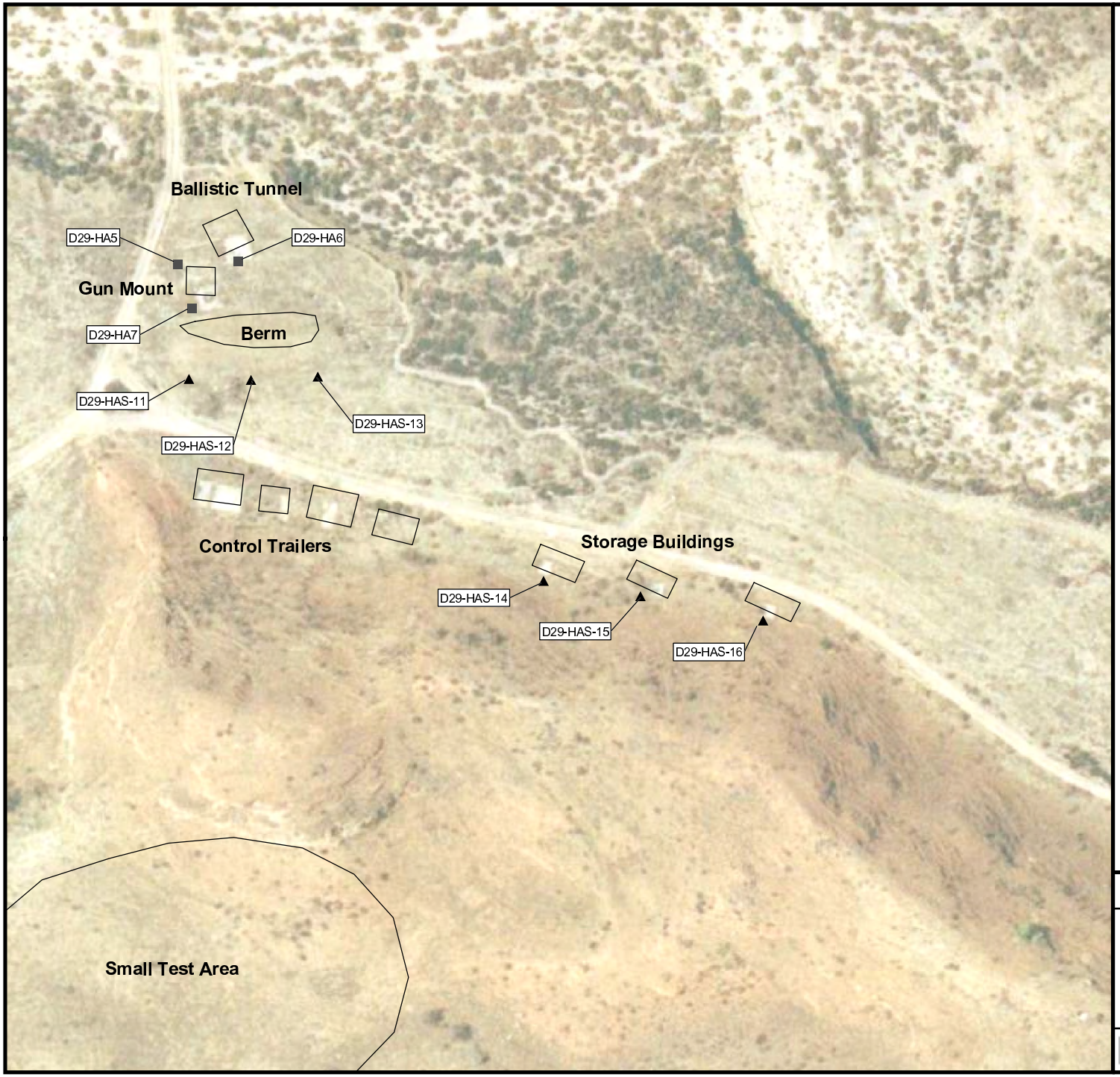


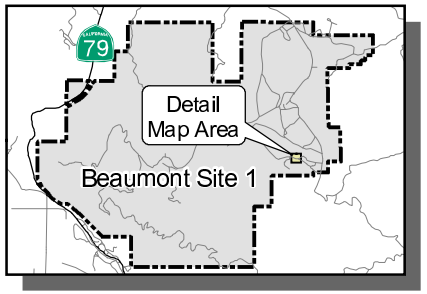
N

0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ● Previous Soil Boring Location
- ■ Previous Soil Boring and Soil Gas Sample Location



Beaumont Site 1

Figure 4-39

Sample Locations - Ballistics Tunnel and Support Facilities (Feature D29)

TETRA TECH

Table 4-15
Soil Sampling Results for Explosives, Perchlorate, and Detected VOCs – Ballistics Tunnel and Support Facilities (Feature D-29)

Sample Location @ Depth (feet bgs)	Sample Date	Perchlorate	Acetone	Methylene Chloride	Explosives
		Laboratory Results (µg/kg)			
MDL (µg/kg)(1)		10.1 - 50.6	4.1 - 5.6	2.0 - 2.4	200
D29-HAS11@0.5'	4/11/2007	*NA*	*NA*	*NA*	ND
D29-HAS11@5'	4/11/2007	*NA*	*NA*	*NA*	ND
D29-HAS12@0.5'	4/11/2007	*NA*	*NA*	*NA*	ND
D29-HAS12@5'	4/11/2007	*NA*	*NA*	*NA*	ND
D29-HAS13@0.5'	4/11/2007	*NA*	*NA*	*NA*	ND
D29-HAS13@5'	4/11/2007	*NA*	*NA*	*NA*	ND
D29-HAS-14-0.5	7/26/2007	ND	7.2 Jq	2.4 Jq	ND
D29-HAS-14-5	7/26/2007	ND	ND	ND	ND
D29-HAS-15-0.5	7/26/2007	ND	12	ND	ND
D29-HAS-15-5	7/26/2007	ND	ND	ND	ND
D29-HAS-16-0.5	7/26/2007	ND	6.6 Jq	ND	ND
D29-HAS-16-5	7/26/2007	ND	ND	ND	ND

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
NA: not analyzed
ND: not detected at or above the method detection limit.
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).

concentrations above their RLs. Diesel-range TPH was detected at concentrations ranging from 6.3 to 45 mg/kg and perchlorate was detected at concentrations ranging from 20 to 57,100 µg/kg. Organics including acetone, benzene, toluene, 1,2,4-trichlorobenzene, and bis(2-ethylhexyl)phthalate were detected at concentrations ranging from 0.52 to 124 µg/kg. Acetone was possibly associated with laboratory cross-contamination. However, benzene, toluene, and 1,2,4-trichlorobenzene are commonly associated with fuel (gasoline or diesel) and bis(2-ethylhexyl)phthalate is found in many plastics and is widely used in the production of PVC [Agency for Toxic Substances and Disease Registry (ATSDR), 2002]. Metals were detected with arsenic at concentrations up to 19 mg/kg. There were no VOCs detected in soil gas above RLs.

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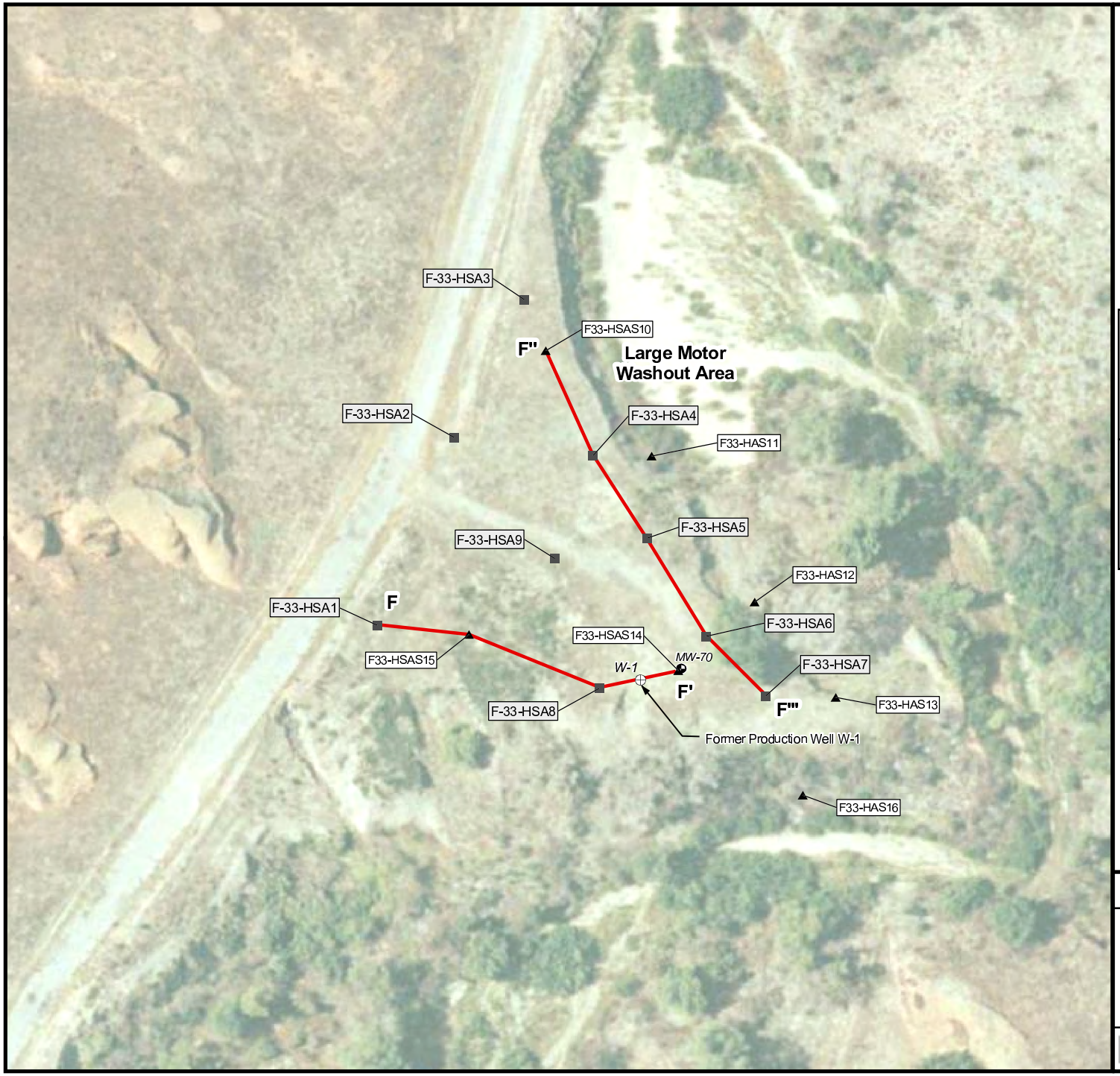
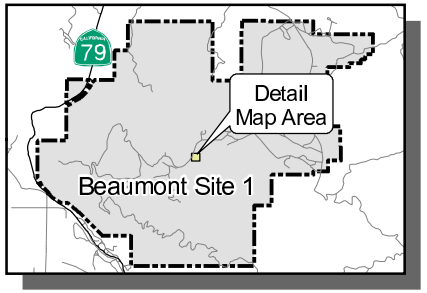


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- Monitoring Well Location
- Former Production Well Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-40
Sample and Cross Section Locations - Large Motor Washout Area (Feature F-33)

TETRA TECH

Investigation Activities

At the Large Motor Washout Area, three HSA soil borings (F33-HSAS10, F33-HSAS14 and F33-HSAS15) were drilled to at least 31.5 feet bgs and four hand auger borings (F33-HAS11, F33-HAS12, F33-HAS13 and F33-HAS16) were installed to 5 feet bgs (Figure 4-40). Soil samples were collected from each HSA boring at various depths and two soil samples were collected from each hand auger boring at 0.5 and 5 feet bgs and analyzed for perchlorate. Soils encountered at the Large Motor Washout Area were generally very fine to coarse-grained sand. Idealized geologic cross sections through this feature are shown in Figures 4-41 and 4-42. Groundwater was encountered between 21.5 and 25 feet bgs in the HSA borings. The hand auger locations were installed at the toe of the slope in the stream bed where groundwater was encountered between 5 and 8.2 feet bgs. A groundwater screening sample was collected at HSA boring location F33-HSAS10 and analyzed for perchlorate.

Boring F33-HSAS14 was converted into monitoring well MW-70 and screened from 20 to 35 feet bgs. Monitoring well MW-70 was developed between 18 and 21 May 2007 and sampled on 15 June 2007. After completion of the well construction and development activities, depth to groundwater in MW-70 was measured at 28.68 feet below TOC. Groundwater samples collected from monitoring well MW-70 were analyzed for perchlorate, VOCs, and 1,4-dioxane.

Soil Sampling Results

Perchlorate was detected above the MDL in 13 of the 18 soil samples collected, ranging from 17.2 to 51,100 µg/kg with an average concentration of 5,599 µg/kg (Table 4-16). Perchlorate concentrations in the shallow hand auger borings were higher in the near surface samples (0.5 ft bgs) in comparison to the samples collected at 5 feet bgs. Perchlorate concentrations decreased with depth in all borings except F33-HSAS14. The highest perchlorate concentration during this investigation (51,100 µg/kg) was detected in the deepest sample (20-21.5 ft bgs) from boring F33-HSAS14. This boring is located near the previous highest perchlorate detection at this feature (57,100 µg/kg), which was detected in boring F-33-HSA6 at 20 feet bgs (Tetra Tech, 2005b).

Figure 4-43 shows the horizontal and vertical extent of perchlorate affected soil at the Large Motor Washout Area utilizing sample results from the previous investigations in addition to the recent results. Based on the concentration contours, the highest concentrations were detected between 5 and 20 feet bgs in the central portion of the Large Motor Washout Area near F-33-HSA6, F33- HSAS14, and F-33-HSA7. Perchlorate concentrations decreased significantly in soil samples collected below the water table at a depth of 30 feet bgs (Figure 4-43, page 2 of 2). Based on the concentration contours and the

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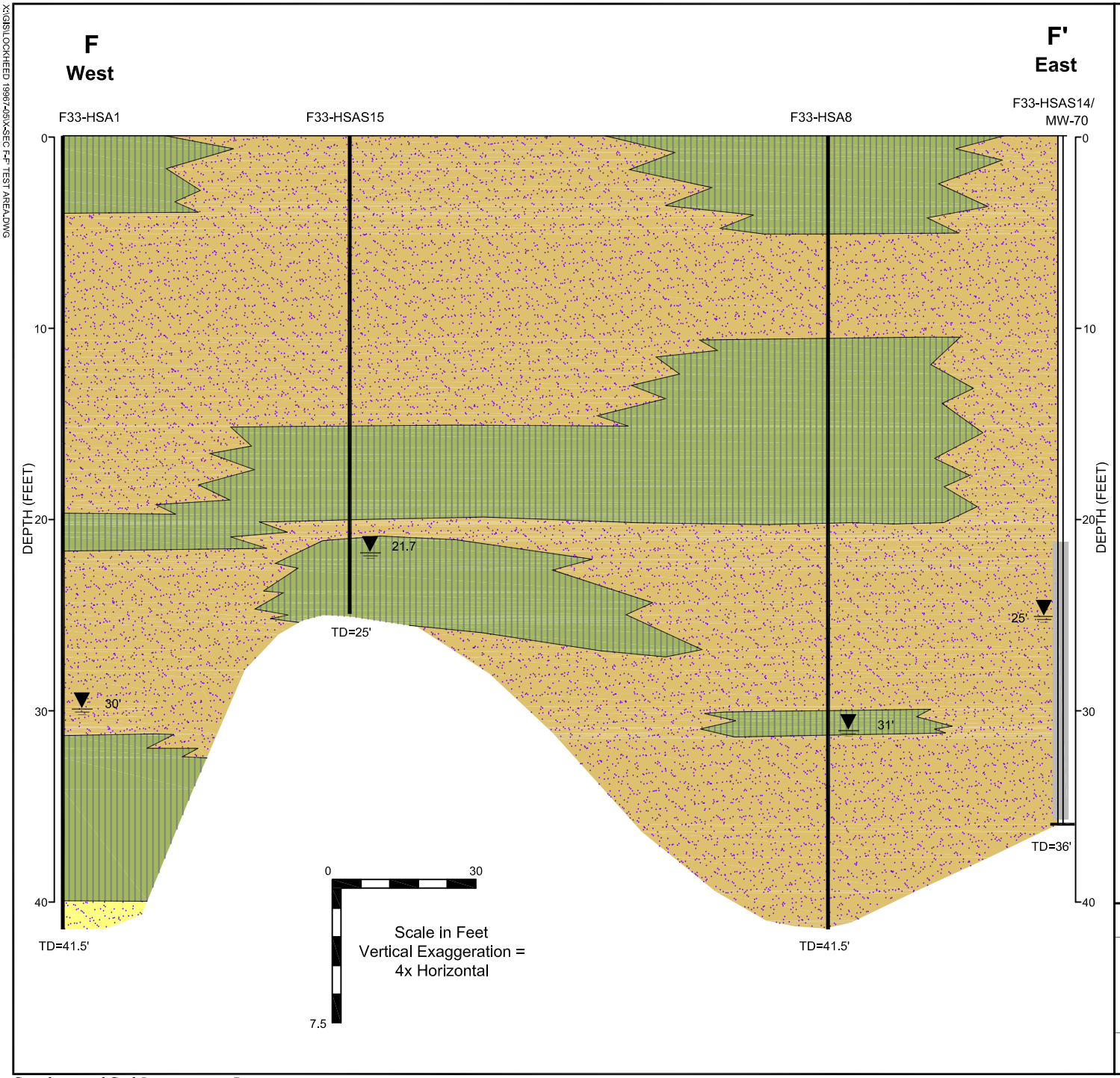

LEGEND

- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)
- Monitoring Well
- Screen Interval

Beaumont Site 1

Figure 4-41
Geologic Cross Section F-F'
Large Motor Washout Area
(Feature F-33)

TETRA TECH

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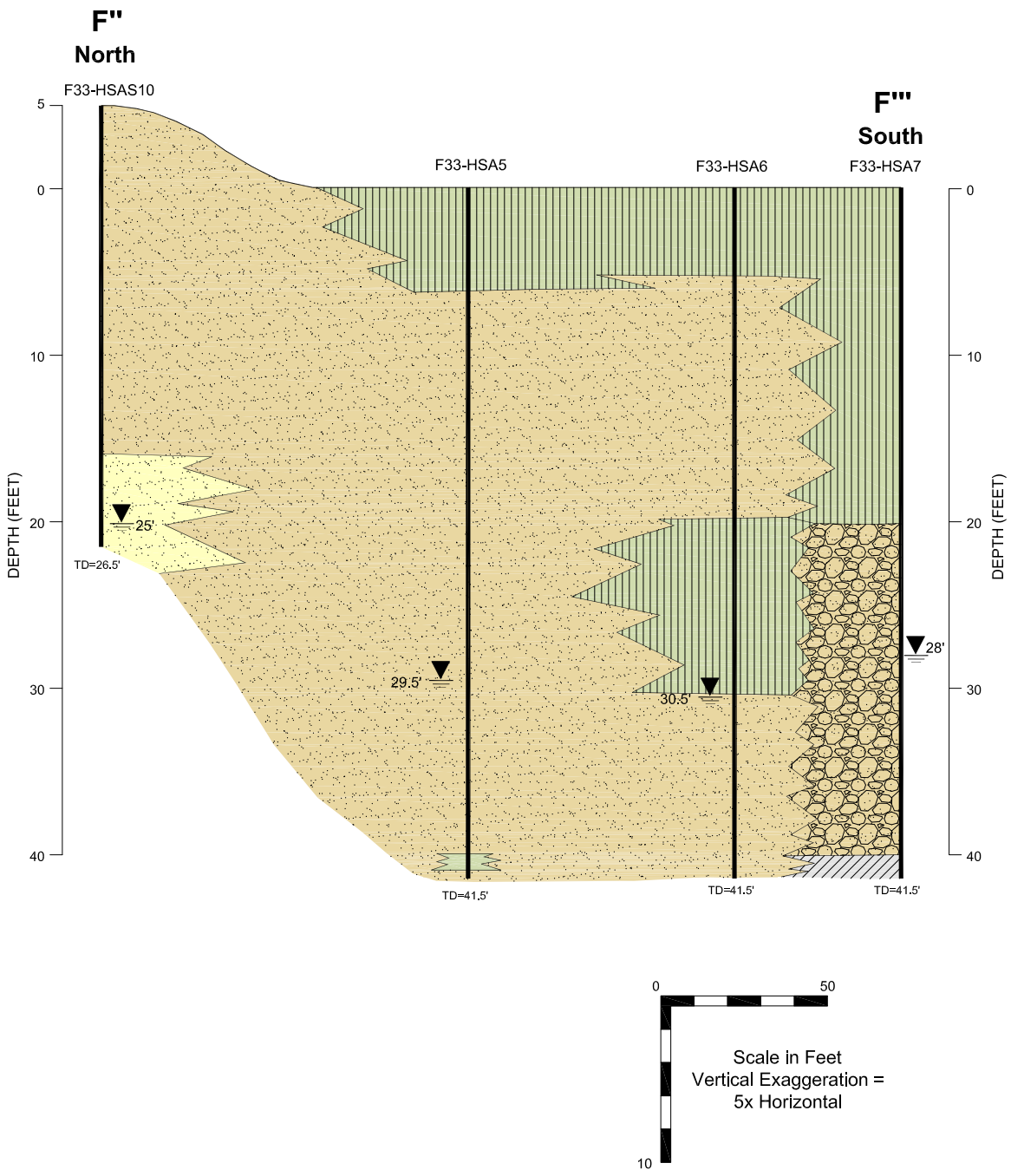

LEGEND

- Clay
- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-42
Geologic Cross Section F"-F'''
Large Motor Washout Area
(Feature F-33)

TETRA TECH

Table 4-16
Sampling Results for Perchlorate, 1,4-Dioxane, and Detected VOCs – Large Motor Washout Area (Feature F-33)

Sample Location @ Depth (feet bgs)	Sample Date	Matrix	Perchlorate - Soil (µg/kg)	Perchlorate - Water	1,4-Dioxane	1,1-Dichloroethene (1,1-DCE)	Trichloroethene (TCE)
			Laboratory Results µg/L unless otherwise specified				
MDL[(1)]			10.4 - 12.4	2.5-5	0.57	0.2	0.2
MCL/DWNL (µg/L)			-	6	3	6	5
F33-HSAS11@0.5	4/27/2007	S	22.3	*NA*	*NA*	*NA*	*NA*
F33-HSAS11@5.0	4/27/2007	S	17.2 Jq	*NA*	*NA*	*NA*	*NA*
F33-HSAS12@0.5	4/27/2007	S	212	*NA*	*NA*	*NA*	*NA*
F33-HSAS12@5.0	4/27/2007	S	100	*NA*	*NA*	*NA*	*NA*
F33-HSAS13@0.5	4/27/2007	S	18 Jq	*NA*	*NA*	*NA*	*NA*
F33-HSAS13@5.0	4/27/2007	S	ND	*NA*	*NA*	*NA*	*NA*
F33-HSAS16@0.5	4/27/2007	S	ND	*NA*	*NA*	*NA*	*NA*
F33-HSAS16@5.0	4/27/2007	S	ND	*NA*	*NA*	*NA*	*NA*
F33-HSAS10-10-11.5	4/27/2007	S	111	*NA*	*NA*	*NA*	*NA*
F33-HSAS10-15-16.5	4/27/2007	S	54.9	*NA*	*NA*	*NA*	*NA*
F33-HSAS10-20-21.5	4/27/2007	S	ND	*NA*	*NA*	*NA*	*NA*
F33-HSAS10GW	4/27/2007	W	*NA*	54.9	*NA*	*NA*	*NA*
F33-HSAS14-5-6.5	4/27/2007	S	328	*NA*	*NA*	*NA*	*NA*
F33-HSAS14-10-11.5	4/27/2007	S	6,260	*NA*	*NA*	*NA*	*NA*
F33-HSAS14-15-16.5	4/27/2007	S	14,400	*NA*	*NA*	*NA*	*NA*
F33-HSAS14-20-21.5	4/27/2007	S	51,100	*NA*	*NA*	*NA*	*NA*
F33-HSAS15-10-11.5	4/20/2007	S	44.2	*NA*	*NA*	*NA*	*NA*
F33-HSAS15-15-16.5	4/20/2007	S	119	*NA*	*NA*	*NA*	*NA*
F33-HSAS15-20-21.5	4/20/2007	S	ND	*NA*	*NA*	*NA*	*NA*
MW-70	6/15/2007	W	*NA*	ND	2.2	1.6	0.5J

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1) Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot
bgs: below ground surface
µg/L: micrograms per liter
MCL: maximum contaminant level
DWNL: drinking water notification level
NA: not analyzed
ND: not detected at or above the method detection limit.
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).
Highlighted values exceed a regulatory action or notification level for groundwater (MCL/DWNL).

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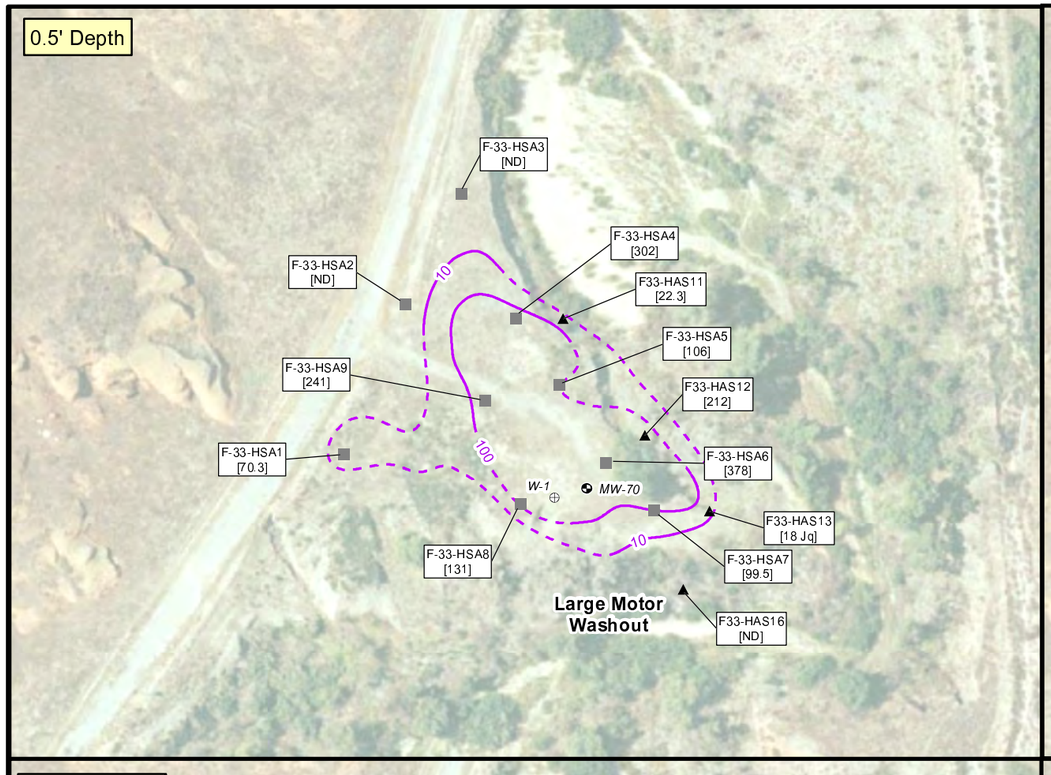
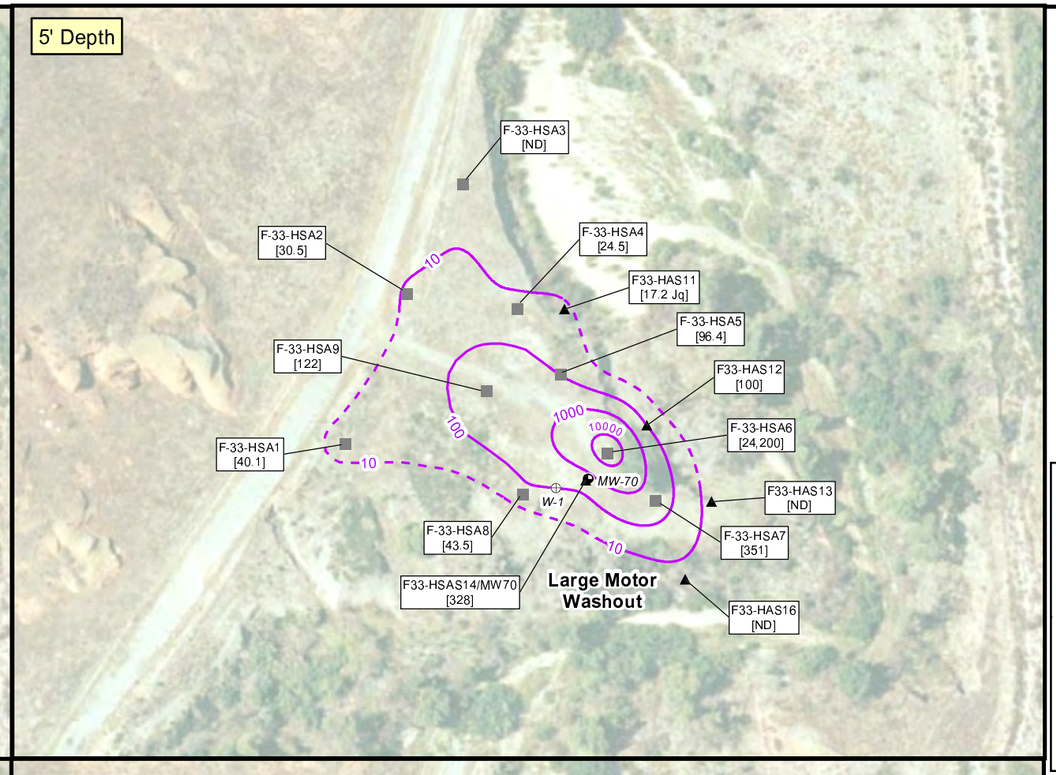
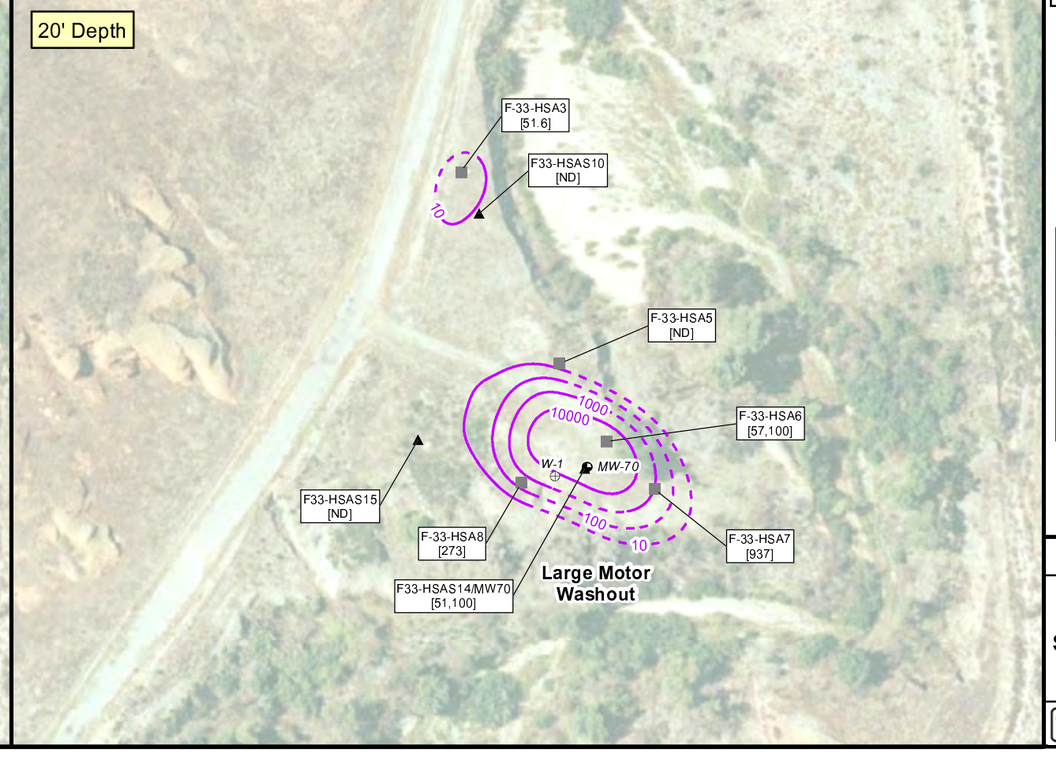
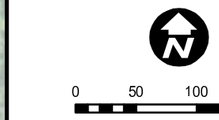










Adapted from: March 2007 aerial photograph.

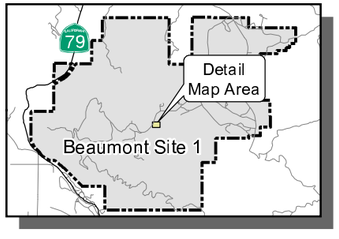
LEGEND

- Monitoring Well Location
- Former Production Well Location
- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-43
Perchlorate Concentrations in Soil - Large Motor Washout Area (Feature F-33)
(Page 1 of 2)

TETRA TECH

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0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

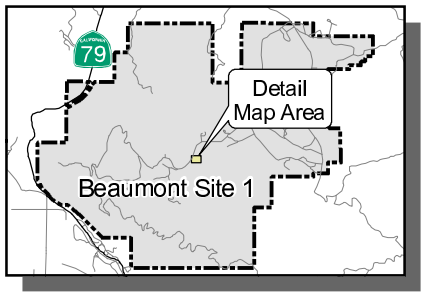
LEGEND

- Monitoring Well Location
- Former Production Well Location
- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)

Note:

[#] Perchoratel results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-43
Perchlorate Concentrations in Soil - Large Motor Washout Area (Feature F-33)
(Page 2 of 2)

TETRA TECH

topography of the Large Motor Washout Area, the area of perchlorate affected soil less than 15 feet bgs is limited to the bluff east of the road where the historical washout activities were conducted. Limits of the perchlorate impacts above a depth of 15 feet bgs on the bluff are defined by topography. The elevation difference between the bluff where the high concentrations were detected and the stream bed is approximately 15 feet. Therefore, the absence of soil from the northwest clockwise to the southwest defines the limits of perchlorate affected soil above 15 feet. Although, the samples collected at 5 feet bgs in the stream bed would be at a similar elevation to the 20-foot samples collected up on the bluff, the origin of the material in the stream bed where the hand auger samples were collected is unknown.

Therefore, the sample depths presented in Figure 4-43 represent the actual depths below ground surface and were not adjusted for the 15-foot elevation difference between the bluff and the stream bed. Affected soil within the stream bed could be a result of affected soil from the bluff being washed down into the stream bed during periods of heavy rainfall.

Groundwater Sampling Results

Concentrations of perchlorate were detected at a concentration of 54.9 µg/L in the groundwater grab sample collected from boring F33-HSAS10 at a depth of 25-26.5 feet bgs. Groundwater samples collected from monitoring well MW-70 were analyzed for perchlorate, VOCs, and 1,4-dioxane. Perchlorate was not detected at concentrations above its respective reporting limits. 1,4-dioxane, 1,1-DCE, and TCE were detected in the groundwater sample collected at concentrations below MCLs/DWNLs (Table 4-16). It should be noted that MW-70 was installed in boring F33-HSAS14 which had a perchlorate concentration of 51,100 µg/kg detected in soil at a depth of 20 feet bgs. However, perchlorate was not detected in groundwater samples collected from MW-70 during the first two sampling events and screened from 20-35 feet bgs within this boring. Low dissolved oxygen within the groundwater at this well may be an indicator that biodegradation of perchlorate could be occurring in this area due to the high organic content in the stream bed nearby creating an anaerobic environment.

4.5.2 Feature F-34 – Maintenance Shop and Storage Warehouse Area

The Maintenance Shop (Bldg. 306) and Storage Warehouse (Bldg. 314) Area is located in the south western portion of Historical Operational Area F (Figure 4-44). The shops were used for general equipment/material storage and possible instrument repair and maintenance. Oils, fuels, solvents, and paints were reported to have been used in this area (Tetra Tech; 2003a, 2005b).

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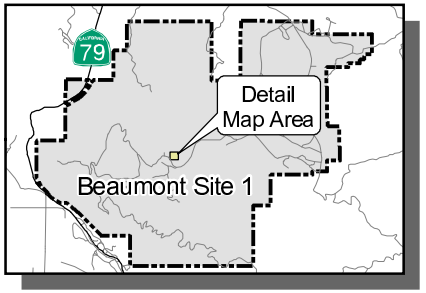
0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- F34-HSAS2 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-44
Sample and Cross Section Location - Maintenance Shop and Storage Warehouse Area (Feature F-34)

TETRA TECH

Previous Results

Four soil borings and one soil gas probe were installed between 21.5 and 41.5 feet bgs at the Maintenance Shop and Storage Warehouse Area during a previous investigation (Tetra Tech, 2005b). Soil samples were analyzed for VOCs, 1,4-dioxane, TPH, and Title 22 metals. VOCs and 1,4-dioxane were not detected at concentrations above their respective RLs. One VOC (1,1-DCE) was detected in soil gas at a depth of 10 feet bgs at a concentration of 2,900 $\mu g/m^3$.

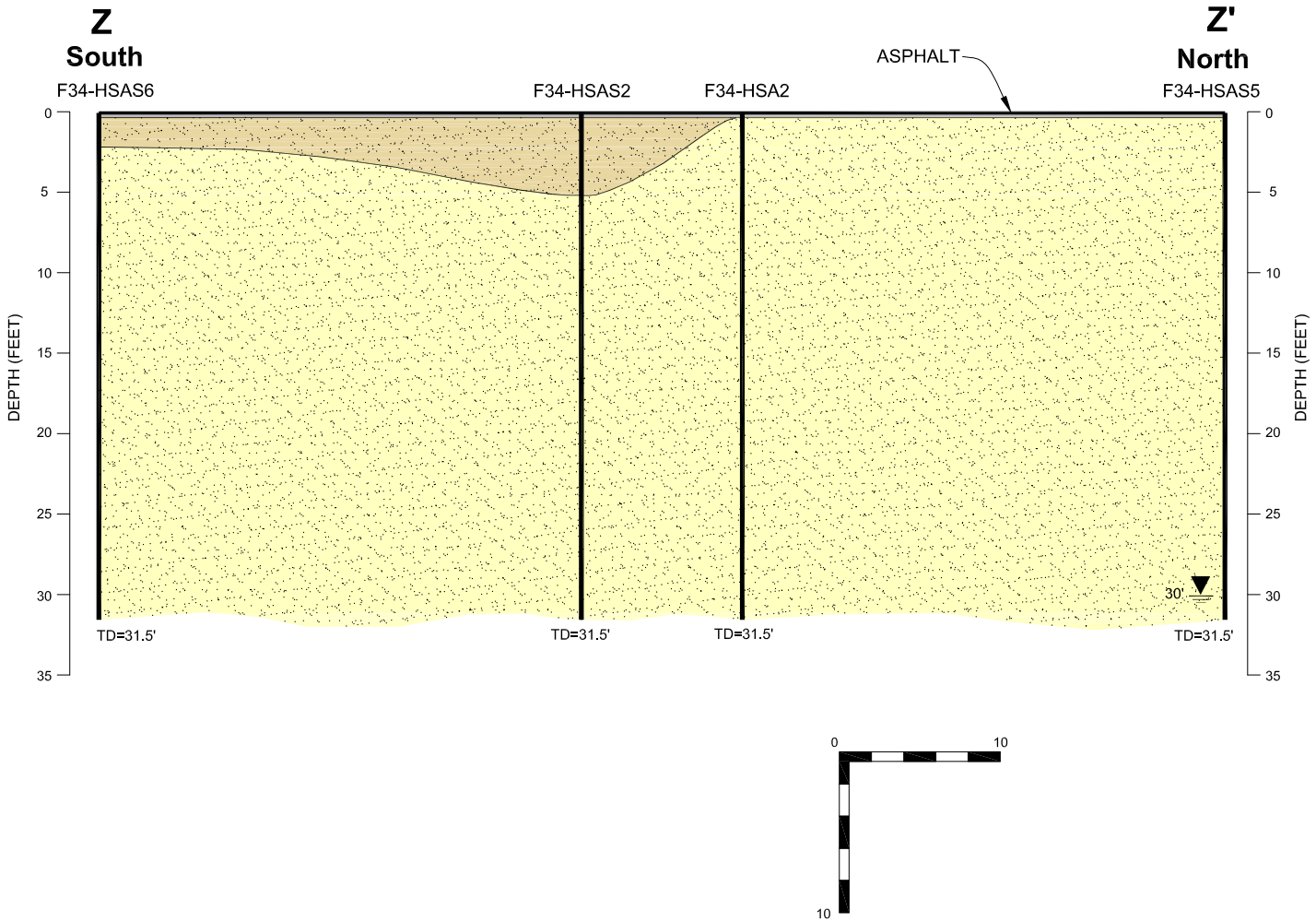
Investigation Activities

At the Maintenance Shop and Storage Warehouse Area, three HSA soil borings (F34-HSAS2, F34-HSAS5, and F34-HSAS6) were drilled to approximately 31.5 feet bgs with soil gas probes installed at 15 and 25 feet in each boring (Figure 4-44). Soils encountered at the Maintenance Shop and Storage Warehouse Area were generally very fine- to coarse-grained sand. An idealized geologic cross section through this feature is shown in Figure 4-45. Groundwater was encountered at 30 feet bgs in HSA boring F34-HSAS5. However, no groundwater sample was collected at this location.

Soil Gas Sampling Results

Table 4-17 shows the VOCs detected in soil gas at the Maintenance Shop and Storage Warehouse Area during this investigation. Two of the soil gas probes (F34-HSAS5-SVP-25' and F34-HSAS6-SVP-25') could not be sampled due to no-flow conditions because of saturated soils. Sampling of the water from these probes was attempted but could not be completed since there was insufficient water present for sampling. As shown in the table, the primary COPCs detected at this feature were low-level TCE, PCE, 1,1-DCE, and BTEX. At location F34-HSAS2, more analytes at generally higher concentrations were detected in the shallow sample (15 feet bgs) in comparison to the deeper sample (25 feet bgs). However, all analytes and concentrations detected were well below their respective residential and commercial CHSSLs. Figure 4-46 shows the total VOC concentration contours for soil gas at 15 and 25 feet bgs for the Maintenance Shop and Storage Warehouse Area (Feature F-34). Given the limited number of deeper samples, it is difficult to determine if the concentrations are higher in shallow soils throughout the feature. Although the concentrations of VOCs detected at all three locations are low, data is not available on impacts to groundwater in this area to evaluate potential off-gassing from groundwater.

X:\GIS\LOCKHEED 1996\7-05\X-SEC Z-Z' LPC TEST AREA.DWG



LEGEND

- Asphalt / Fill
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-45
Geologic Cross Section Z-Z'
Maintenance Shop and Storage Warehouse Area (Feature F-34)

TETRA TECH

Table 4-17
Soil Gas Sampling Results for Detected VOCs – Maintenance Shop and Storage Warehouse Area (Feature F-34)

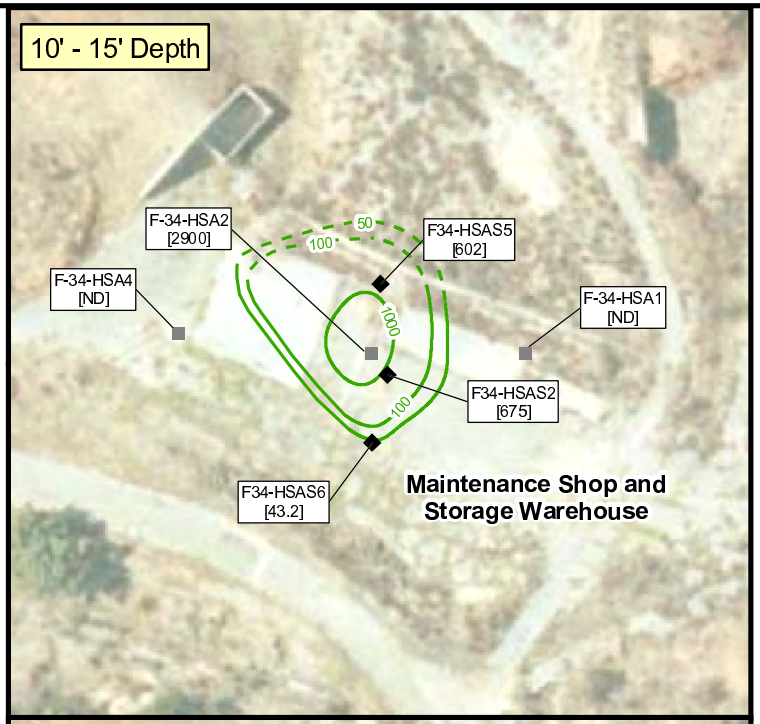
Sample Location - Depth (feet bgs)	Sample Date	Total VOCs	Acetone	Benzene	Carbon disulfide	1,1-Dichloroethene (1,1-DCE)	Ethylbenzene	Styrene	Tetrachloroethene (PCE)	Toluene (Methyl benzene)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 113)	1,2,4-Trimethylbenzene	o-Xylene	m,p-Xylenes
		Laboratory Results (µg/m^3)													
MDL (µg/m^3) (1)			10	2.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0	4.0	3.0	2.0	4.0
Residential CHHSLs (µg/m^3)(2)			-	36.2	-	-	-	-	180	135,000	528	-	-	315,000	317,000
Commercial CHHSLs (µg/m^3)(2)			-	122	-	-	-	-	603	378,000	1,770	-	-	879,000	887,000
F34-HSAS2-SVP-15'	5/4/2007	675.1	ND	8.37	122	ND	20.8	7.26	14.2	359	ND	9.46	9.61	27.7	96.7
F34-HSAS2-SVP-25'	5/16/2007	41.19	19.7	ND	4.29	ND	ND	ND	17.2	ND	ND	ND	ND	ND	ND
F34-HSAS5-SVP-15'	5/4/2007	601.6	ND	ND	16.2	14.1	7.04	ND	10	465	18.1	ND	ND	8.49	62.7
F34-HSAS6-SVP-15'	5/16/2007	43.23	21.5	ND	ND	7.53	ND	ND	14.2	ND	ND	ND	ND	ND	ND

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
(2): California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas (Vapor Intrusion).
bgs: below ground surface
µg/m^3: micrograms per meter
ND: not detected at or above the method detection limit.

4.5.3 Feature F-35 – Betatron Building (Bldg. 303)

The Betatron Building (Bldg. 303) is located in the north eastern portion of Historical Operational Area F (Figure 4-47). The building was used for nondestructive testing, housing a 25-MeV Betatron radiographic unit. The primary use of the Betatron unit was to X-ray rocket motors for voids or foreign material in the solid propellant. A large transformer was also located outside the building. Solvents, PCB oil, and penetrants were likely to have been used in this area (General Electric, 1984; Tetra Tech; 2003a, 2005b).

X:\GIS\LOCKHEED 19976-05\F34 VOC.MXD







0 50 100 Feet

Adapted from: March 2007 aerial photograph.

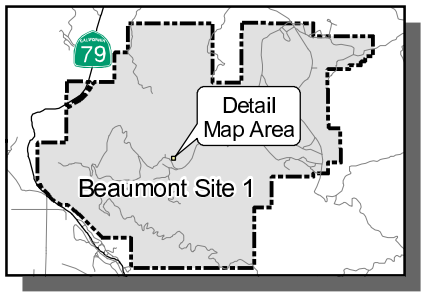
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 50 — Soil Gas Total VOC (Dashed where inferred)

Note:

[#] VOC results in µg/m^3.

[ND] Non-Detect.

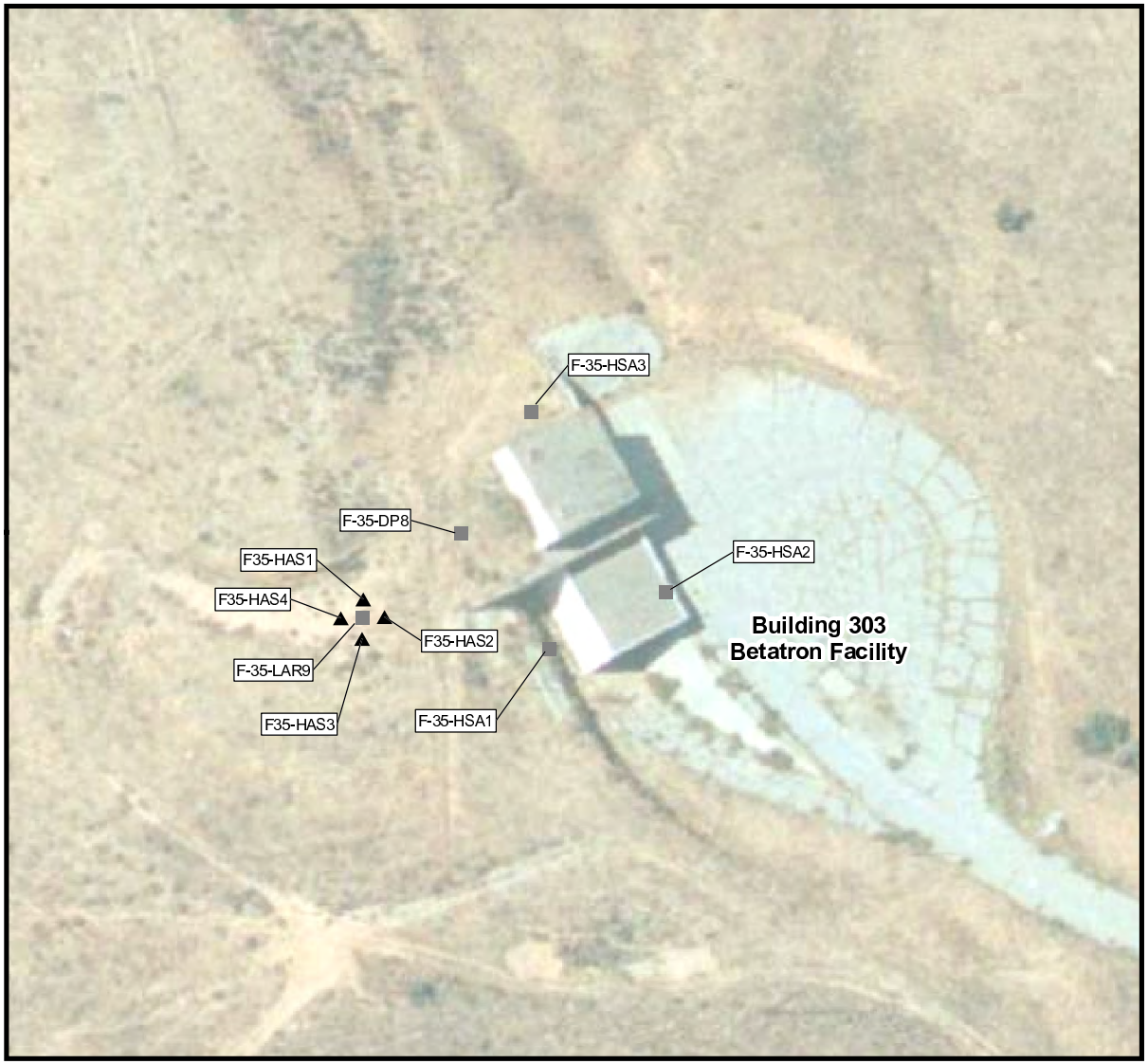


Beaumont Site 1

Figure 4-46
Total VOC Concentrations in Soil Gas - Maintenance Shop and Storage Warehouse (Feature F-34)

TETRA TECH

X:\GIS\LOCKHEED 19976-05\F35 LOCATION.MXD

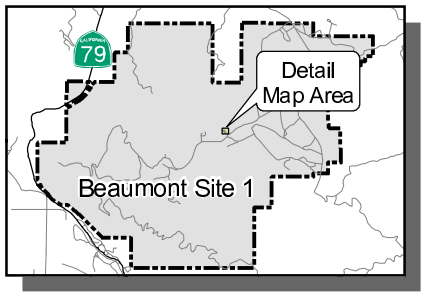


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ■ Previous Soil Boring and Soil Gas Sample Location



Beaumont Site 1

Figure 4-47

Betatron Building (Feature F-35) Sample Locations

TETRA TECH

Previous Results

In 1984, an investigation was performed on vandalized transformers. Asphalt and soil contaminated with PCBs were removed at both Beaumont Site 1 and Site 2. Based on the investigation, the vandalized transformers were moved and stored inside the Betatron Building. Soil was excavated adjacent to the transformer pad at the Betatron Building and soil samples were collected; however, the concentrations are not available (General Electric, 1984).

A total of five soil borings and five soil gas probes were installed between 5 and 21.5 feet bgs at the Betatron Building during a previous investigation (Tetra Tech, 2005b). Two soil borings were installed and soil samples were analyzed for VOCs, SVOCs, 1,4-dioxane, TPH, and PCBs. SVOCs and 1,4-dioxane were not detected at concentrations above their respective RLs. One VOC (acetone) was detected at concentrations ranging from 22 to 39 µg/kg. Acetone concentrations were possibly associated with laboratory cross-contamination. Diesel range TPH was detected at concentrations ranging from 16 to 18 mg/kg in one boring. In addition, one PCB (Aroclor-1260) was detected at a concentration of 72 µg/kg at a depth of 0.5 feet bgs in boring F-35-LAR9 (Figure 4-47). There were no VOCs detected in soil gas above their respective RLs.

Investigation Activities

Four hand augered borings (F35-HAS1 through F35-HAS4) were installed to depths from 1.5 to 5 feet bgs with soil samples collected from 0.5 and 1.5 feet bgs in F35-HAS1 and 0.5 and 5 feet in F35-HAS2, 3, and 4 (Figure 4-47). Soil samples collected during this investigation were analyzed for PCBs only. Soils encountered at this feature were generally sands with trace silt content. In borings F35-HAS2, F35-HAS3 and F35-HAS4, the Mt. Eden formation was encountered at 0.5 feet bgs. The Mt. Eden formation was exposed at the surface in boring F35-HAS1 and refusal was encountered at 1.5 feet bgs. This was the only sampling deviation from the work plan at this feature.

Soil Sampling Results

PCBs were not detected above the MDL in any of the eight soil samples collected from the Betatron Building during this investigation (Table 4-18). However, Aroclor-1260 was detected at a concentration of 72 µg/kg in one sample from F-35-LAR9 during a previous investigation, as shown in Figure 4-48. The four borings installed during this investigation were installed around F-35-LAR9 and were all reported as non-detect for PCBs, including Aroclor-1260. The spatial extent of PCBs previously detected at this feature has been delineated by the borings installed during this investigation and appears to be very localized based on the samples collected.

Table 4-18
Soil Sampling Results for PCBs – Betatron Building (Feature F-35)

Sample Location @ depth (feet bgs)	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
		Laboratory Results (µg/kg)						
MDL (µg/kg)[(1)]		20-21	20-21	20-21	20-21	20-21	20-21	20-21
F35-HAS1@0.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS1@1.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS2@0.5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS2@5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS3@0.5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS3@5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS4@0.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
F35-HAS4@5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above the method detection limit.

4.5.4 Feature F-36 – EBES Testing Area (Facility 313)

The EBES Testing (Facility 313) is located in the south western portion of Historical Operational Area F (Figure 4-49). The building contained a pressure vessel, pumps, and environmental chambers. Transformers, hydraulic systems, and mercury gauges/switches may have been present at this feature (Tetra Tech; 2003a, 2005b).

Previous Results

Five soil borings and four soil gas locations were installed to 12 feet bgs at the EBES Testing Area during a previous investigation (Tetra Tech, 2005b). Samples were analyzed for VOCs, PCBs, TPH, and perchlorate. One PCB (Aroclor-1254) was detected in a single sample at a concentration of 130 µg/kg. Perchlorate was detected at a concentration of 45.2 µg/kg and diesel range TPH was detected at concentrations ranging from 2.2 to 200 mg/kg. One VOC (acetone) was detected at concentrations ranging from 28 to 51 µg/kg. Acetone concentrations were possibly associated with laboratory cross-contamination. There were no detected VOCs in soil gas above their respective reporting limits.

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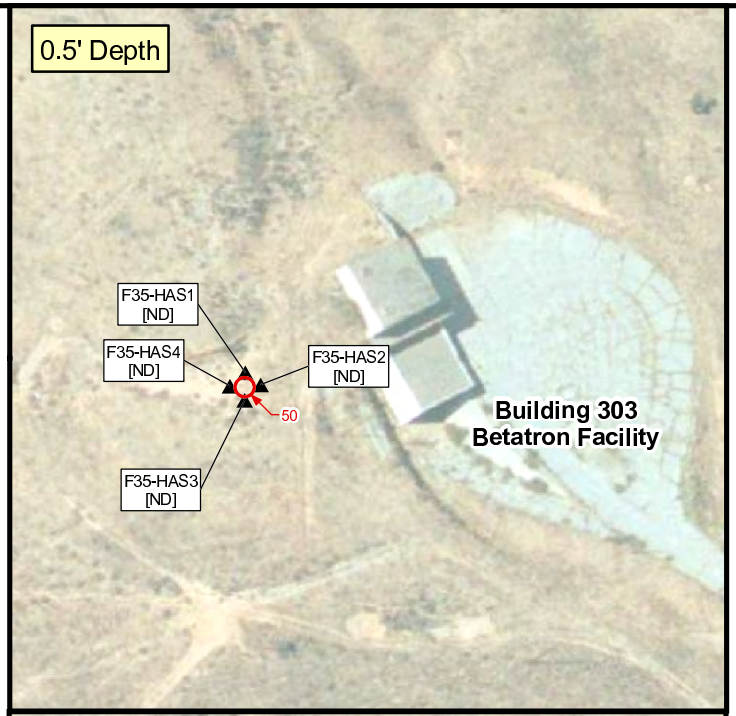
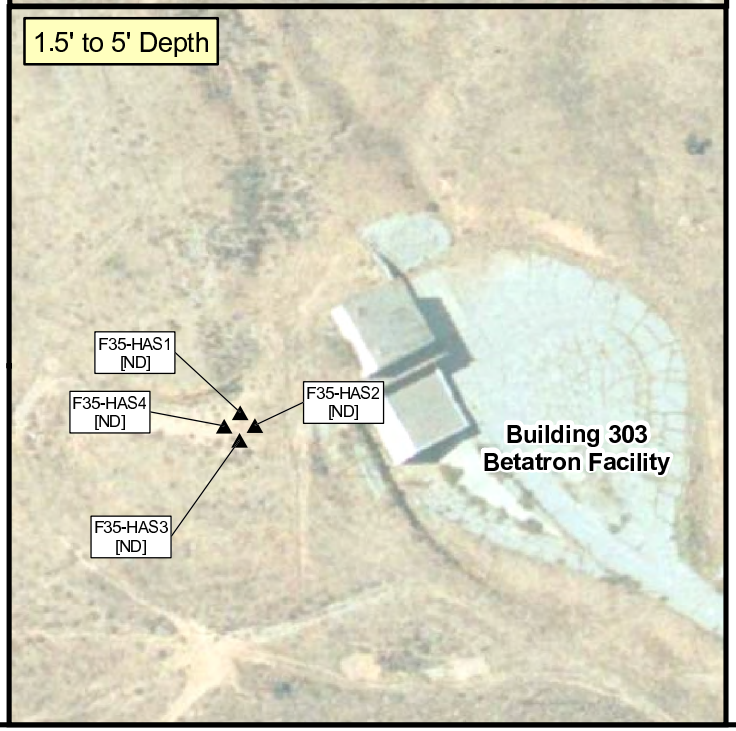




0 50 100 Feet

Adapted from: March 2007 aerial photograph.

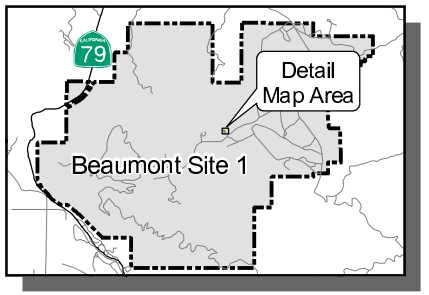
LEGEND

- Supplemental Investigation Soil Boring Location
- Previous Soil Boring and Soil Gas Sample Location
- 10 PCB Isoconcentration Contour (Dashed where inferred)

Note:

[#] PCB results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-48

PCB Concentrations in Soil - Betatron Building (Feature F-35)

TETRA TECH

X:\GIS\LOCKHEED 19976-05\X-SEC E-E' TEST SERVICE.MXD

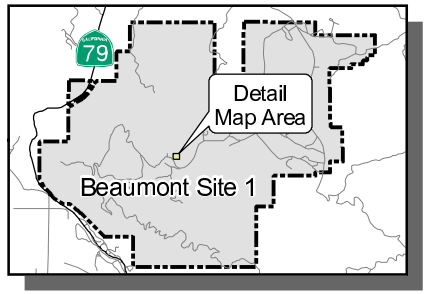


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- F34-HSAS2 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HAS1 — Supplemental Investigation Soil Boring Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



Beaumont Site 1

Figure 4-49
Sample and Cross Section Locations - E.B.E.S. Testing Area (Feature F-36)

TETRA TECH

Investigation Activities

Four HSA soil borings (F36-HSAS1, F36-HSAS2, F36-HSAS3 and F36-HSAS4) were installed to a depth of 16.5 feet bgs at the EBES Testing Area during this investigation. Three soil samples were collected from each boring and analyzed for PCBs. Soils encountered at the EBES Testing Area were generally sands with minor silt content. Idealized geologic cross sections through this feature are shown in Figures 4-50 and 4-51. The Mt. Eden formation was encountered between 5 and 6.5 feet bgs in the borings installed, and groundwater was not encountered.

Soil Sampling Results

PCBs were not detected above the RL in any of the nine soil samples collected from the EBES Testing Area during this investigation (Table 4-19). However, PCBs (Aroclor-1254) were detected in one sample (F-36-DP11) collected during a previous investigation as shown in Figure 4-52. The PCBs previously detected at this feature were only detected at the 10-foot depth and were not detected in the 0.5-foot sample in the same boring. The spatial extent of PCBs previously detected at this feature has been delineated by the borings installed during this investigation and appears to be very localized based on the samples collected.

4.5.5 Feature F-39 – Test Bays (Bldgs. 308, 309, & 310)

The Test Bays (Bldgs. 308, 309, & 310) are located in the south western portion of Historical Operational Area F (Figure 4-53). These structures were used for the firing of large and small rocket motors. Solvents may have been utilized to clean equipment or walls (Tetra Tech; 2003a, 2005b).

Previous Results

Eight soil borings and six soil gas probe locations were installed to a depth of 12 feet bgs at the Test Bays during a previous investigation (Tetra Tech, 2005b). Soil samples were analyzed for VOCs, SVOCs, TPH, 1,4-dioxane, and perchlorate. Perchlorate and 1,4-dioxane were not detected at concentrations above their respective RLs. One SVOC (bis[2-ethylhexyl]phthalate) was detected at concentrations ranging from 0.57 to 1.6 mg/kg. Diesel range TPH was detected at concentrations ranging from 1.2 to 270 mg/kg. Acetone, benzene, ethylbenzene, toluene, and TCE were detected at concentrations ranging from 1.5 to 38 µg/kg. VOCs were detected at concentrations above RLs in soil gas samples collected from two soil borings. TCE was detected at concentrations of 44 and 47 µg/L and Freon-113 was detected at a concentration of 10 µg/L.

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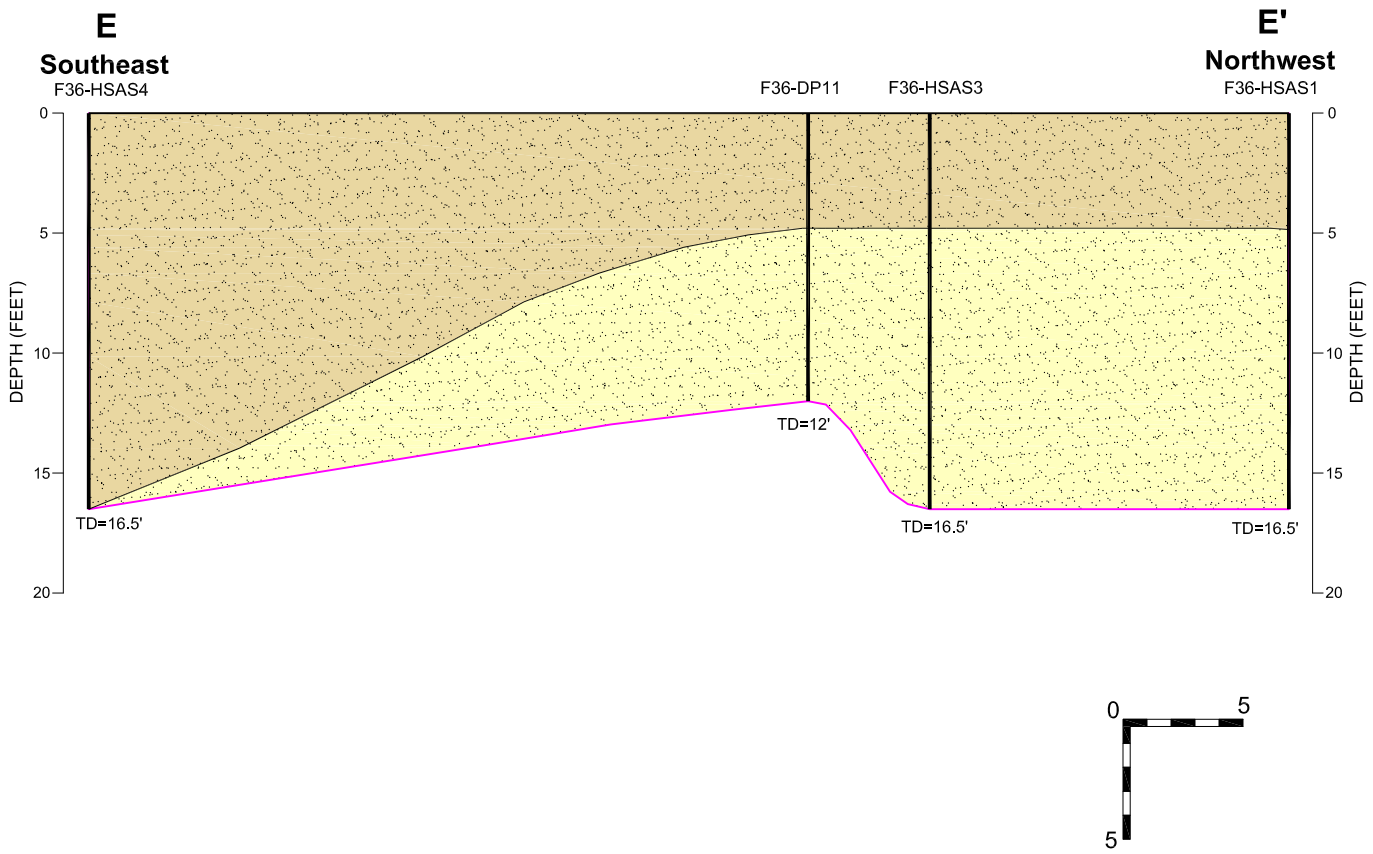


LEGEND

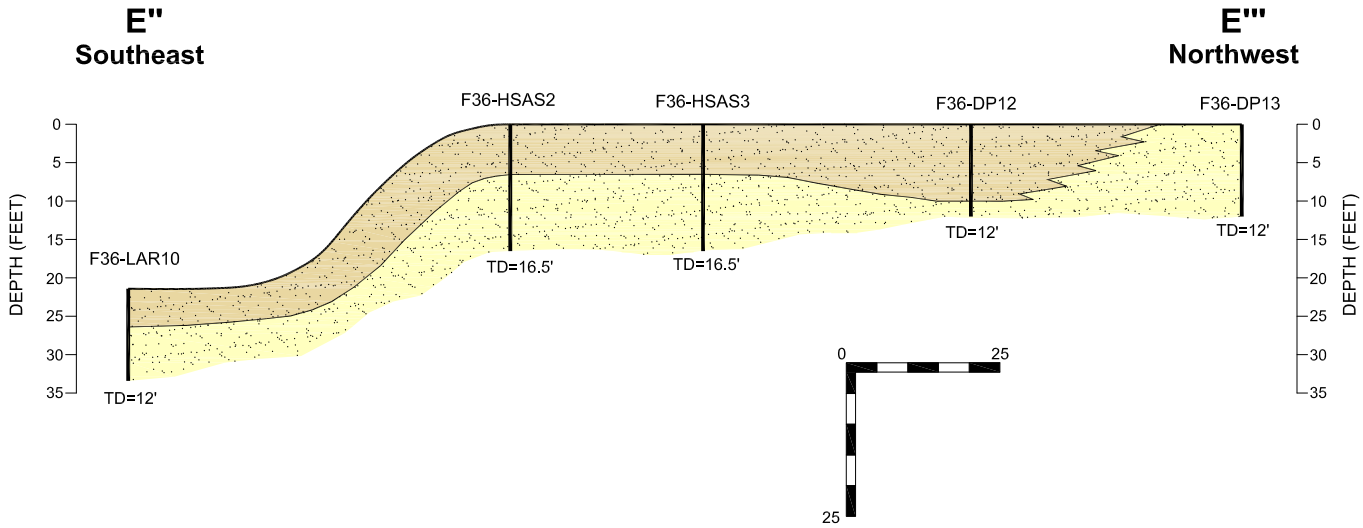
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-50
Geologic Cross Section E-E'
E.B.E.S. Testing Area
(Feature F-36)

TETRA TECH

X:\GIS\LOCKHEED 1996\7-05\X-SEC E-E'' TEST AREA.DWG



LEGEND

- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-51
Geologic Cross Section E''-E'''
E.B.E.S. Testing Area
(Feature F-36)

TETRA TECH

Table 4-19
Soil Sampling Results for PCBs – EBES Testing Area (Feature F-36)

Sample Location @ Depth (feet bgs)	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
		Laboratory Results (µg/kg)						
MDL (µg/kg)(1)		21-22	21-22	21-22	21-22	21-22	21-22	21-22
F36-HSAS1@5'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS1@10'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS1@15'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS2@5'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS2@10'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS2@15'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS3@5'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS3@10'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS3@15'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS4@5'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS4@10'	4/11/2007	ND	ND	ND	ND	ND	ND	ND
F36-HSAS4@15'	4/11/2007	ND	ND	ND	ND	ND	ND	ND

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above the method detection limit.

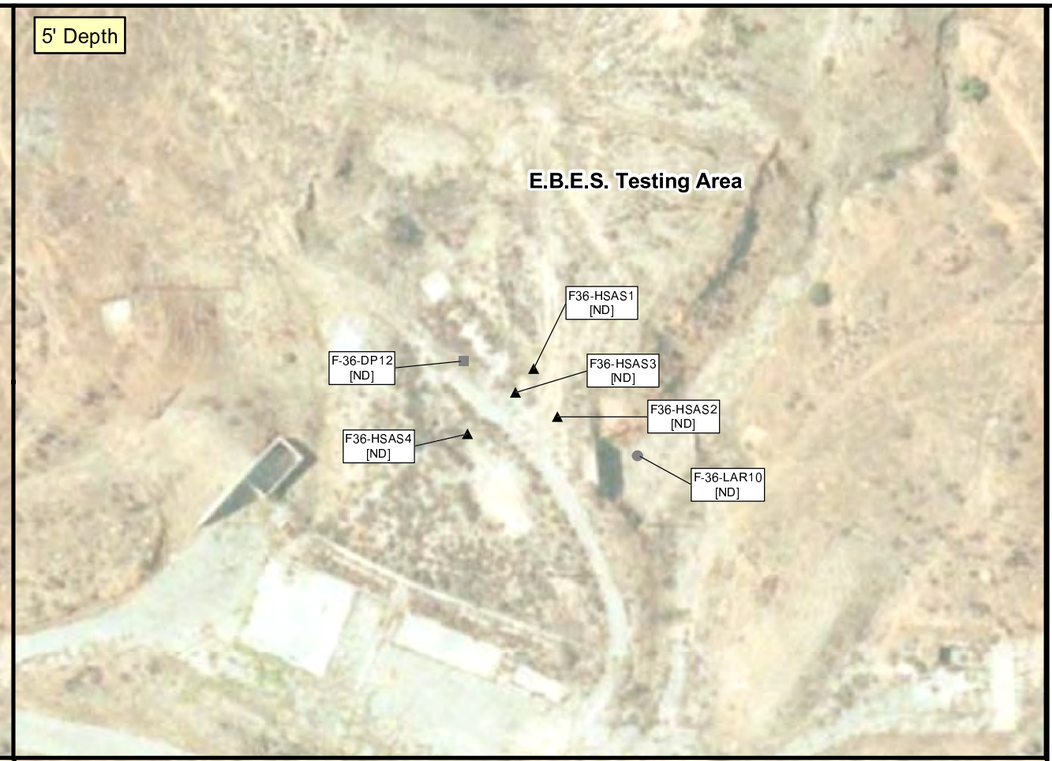
Investigation Activities

Four HSA soil borings (F39-HSAS1, F39-HSAS2, F39-HSAS3 and F39-HSAS4) were installed to depths between 26.5 and 36.5 feet bgs and soil gas probes were installed at 10 and 20 feet bgs during this investigation (Figure 4-53). Soils encountered at the Test Bays were generally fine- to very coarse-grained sand with minor amounts of gravel. Idealized geologic cross sections through the Test Bays are shown in Figures 4-54 and 4-55. Groundwater was encountered between 24 and 31 feet bgs in all four soil borings. A groundwater screening sample was collected from F39-HSAS1 and analyzed for perchlorate and VOCs. No soil samples were collected at the Test Bays during this investigation.

There were deviations from the work plan which specified that three soil gas probes were to be installed in the four borings at approximately 10, 20, and 30 feet bgs. However, groundwater was encountered between 24 and 31 feet bgs in all four borings and therefore only two soil gas probes were installed at 10 and 20 feet bgs within each boring.

X:\GIS\LOCKHEED 1996\7-05\F36 PCB.MXD









0 50 100 Feet

Adapted from: March 2007 aerial photograph.

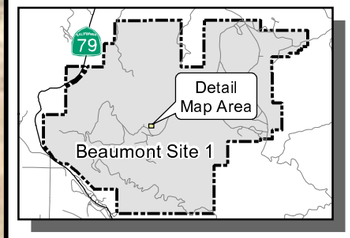
LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ● Previous Soil Boring Location
- ■ Previous Soil Boring and Soil Gas Sample Location
- —10— PCB Isoconcentration Contour (Dashed where inferred)

Note:

[#] PCB results in µg/kg.

[ND] Non-Detect.



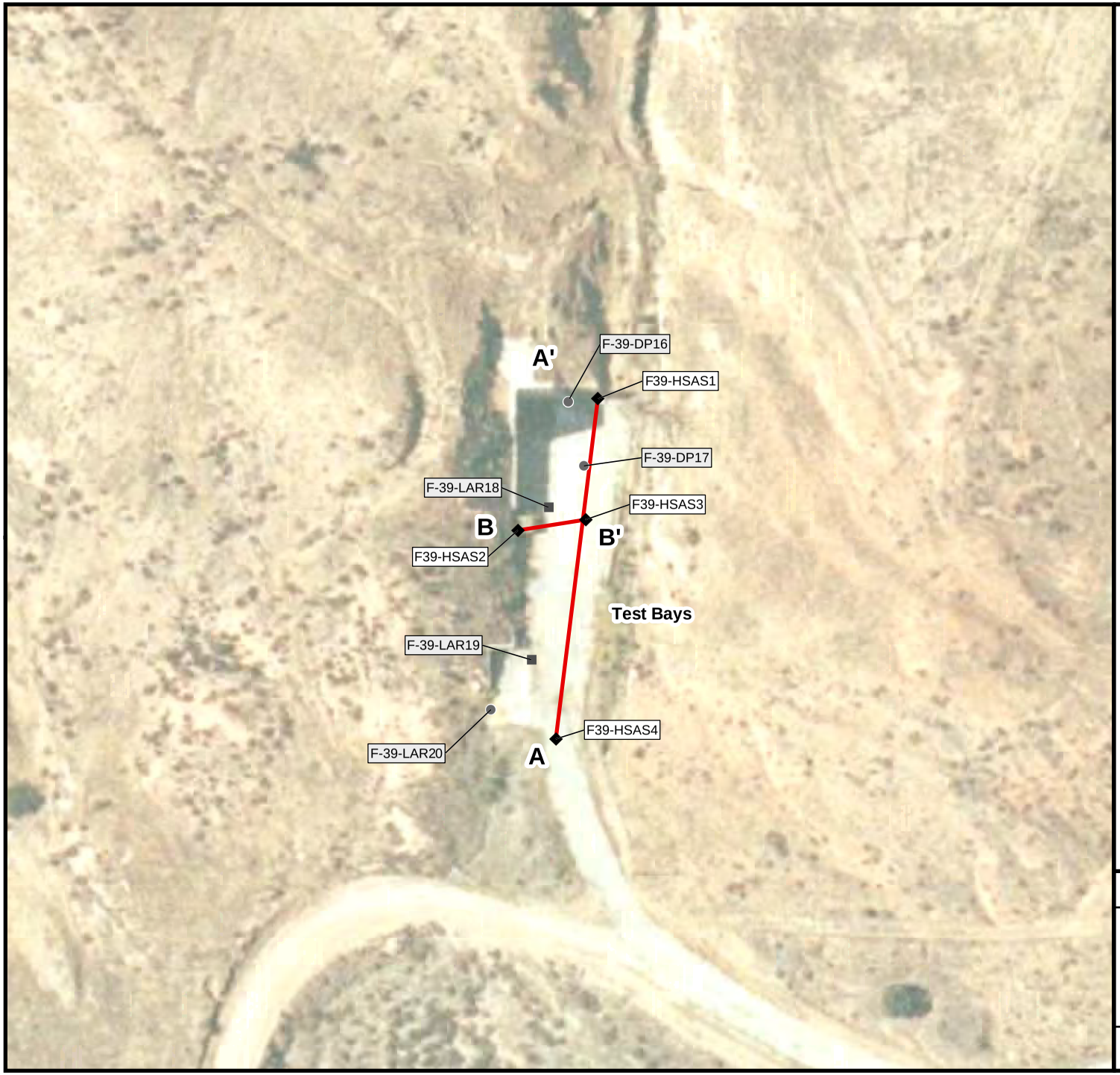
Beaumont Site 1

Figure 4-52

PCB Concentrations in Soil - E.B.E.S. Testing Area (Feature F-36)

TETRA TECH

X:\GIS\LOCKHEED 19976-05\X-SEC A-A' MOTOR BAYS.MXD

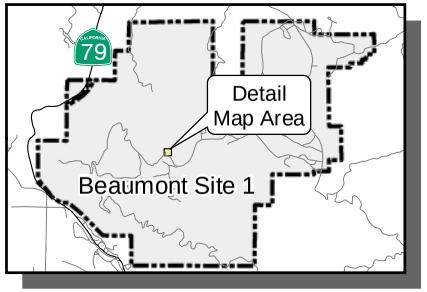


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- A-6-HAS1 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location



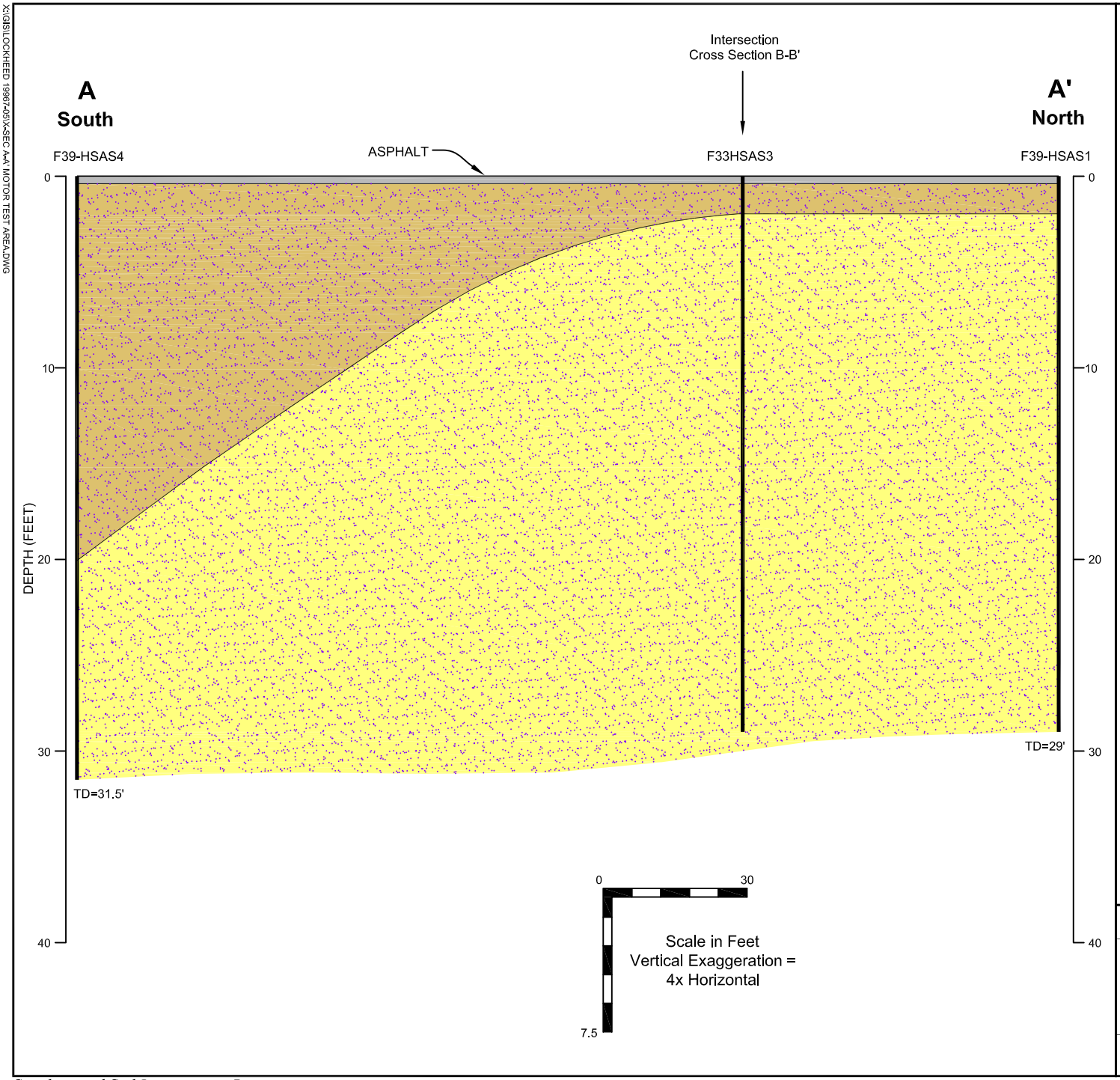
Beaumont Site 1

Figure 4-53

Sample and Cross Section Locations - Test Bays (Feature F-39)

TETRA TECH

X:\GIS\LOCKHEED 1996\7-05\X-SEC A-A' MOTOR TEST AREA.DWG



LEGEND

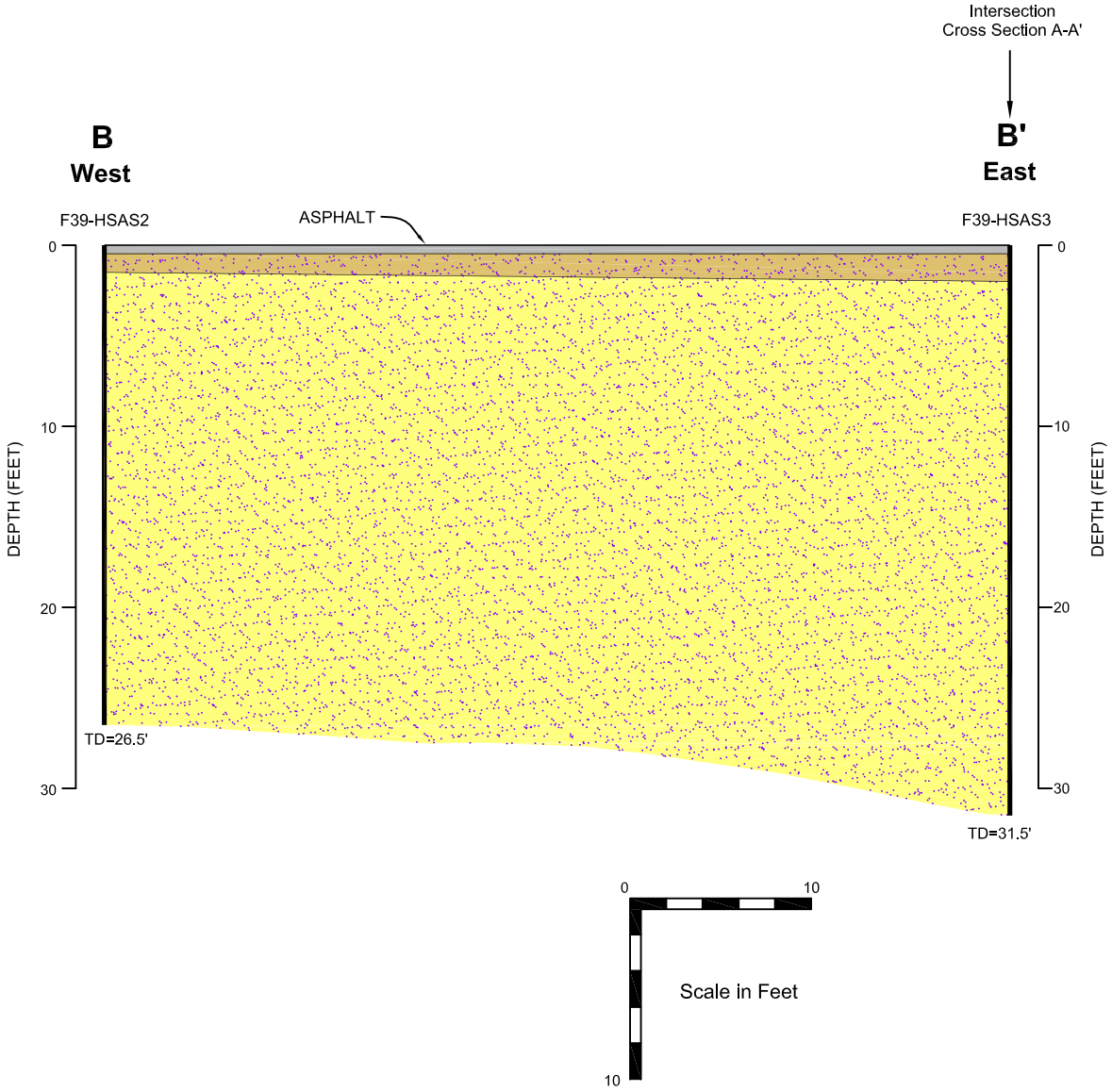
- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-54
Geologic Cross Section A-A'
Test Bays
(Feature F-39)

TETRA TECH

X:\GIS\LOCKHEED 1996\7426\X-SEC B-B' MOTOR TEST AREA.DWG



LEGEND

- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Groundwater Level
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-55

Geologic Cross Section B-B'
Test Bays
(Feature F-39)

TETRA TECH

When attempting to extract soil gas from the eight soil gas probes installed at this feature, groundwater was encountered in five of the soil gas probes at the four locations. Soil gas samples were not collected at locations F39-HSAS1 (10 feet bgs), F39-HSAS2 (10 and 20 feet bgs), F39-HSAS3 (20 feet bgs), or F39-HSAS4 (20' bgs). Due to the presence of groundwater in five of the soil gas probes, water sample collection was attempted using a peristaltic pump. Four of the soil gas probes had sufficient groundwater present for water sample collection. Groundwater samples collected from these probes were analyzed for perchlorate and VOCs.

Soil Gas Sampling Results

Table 4-20 shows the VOCs detected in soil gas at the Test Bays during this investigation. As previously stated, five of the soil gas probes (F39-HSAS1-SVP-10', F39-HSAS2-SVP-10', F39-HSAS2-SVP-20', F39-HSAS3-SVP-20', and F39-HSAS4-SVP-20') could not be sampled due to the presence of groundwater. As shown in the table, the VOCs detected at this feature were low-level benzene, toluene, PCE, and TCE. At location F39-HSAS4, more analytes were detected and at generally higher concentrations than F39-HSAS1-SVP-20' and F39-HSAS3-SVP-10'. However, all analytes and concentrations detected were well below their respective residential and commercial CHSSLs. Figure 4-56 shows the total VOC concentration contours for soil gas at the 10-20 feet bgs depth for the Test Bays (Feature F-39) utilizing previous soil gas results from 2005 in addition to the recent soil gas samples collected. The two largest detections of total VOCs (F-39-LAR18 and 19) were from the 2005 investigation and consisted primarily of TCE. Based on the TCE results from the groundwater samples collected discussed in the following section, it is possible that the TCE in soil gas could be from off-gassing of the groundwater. However, given the limited soil gas and groundwater data available for this feature, definitive conclusions cannot be made at this time.

Groundwater Sampling Results

Acetone, benzene, and TCE were the only VOCs detected in groundwater at the Test Bays. Table 4-21 shows the groundwater sampling results from the most recent investigation. As shown in the table, TCE is the primary COPC detected at this feature with only low level acetone and benzene detected in one sample. TCE was detected above the MCL (5 µg/L) in two of the five groundwater samples collected with concentrations ranging from 1.4 to 64 µg/L with an average concentration of 21.2 µg/L. Figure 4-57 shows the spatial distribution of TCE detected in groundwater based on the samples collected during this investigation. As shown in the Figure 4-57, only one sample was collected from 10-feet bgs and therefore the horizontal extent is unknown at this depth. However, the highest concentration of TCE (64 µg/L) was

Table 4-20
Soil Gas Results for Detected VOCs – Test Bays (Feature F-39)

Sample Location - Depth (feet bgs)	Sample Date	Total VOCs	Acetone	Benzene	Carbon disulfide	Methylene chloride (DCM)	Styrene	Tetrachloroethene (PCE)	Toluene (Methyl benzene)	Trichloroethene (TCE)	Trichlorofluoromethane (Freon 11)	Trichlorotrifluoroethane (Freon-113)	m,p-Xylenes
		Laboratory Results (µg/m^3)											
MDLs (µg/m^3)(1)			10	2	3	10	3	3	2	3	4	5	4
Residential CHHSLs (µg/m^3)(2)			-	36.2	-	-	-	180	135,000	528	-	-	317,000
Industrial CHHSLs (µg/m^3)(2)			-	122	-	-	-	603	378,000	1,770	-	-	887,000
F39-HSAS1-SVP-20'	5/15/2007	32.50	16.5	16	ND	ND	ND	ND	ND	ND	ND	ND	ND
F39-HSAS3-SVP-10'	5/15/2007	42.50	34.1	8.4	3.8	16.4	ND	14.1	45.5	130	146	ND	ND
F39-HSAS4-SVP-10'	5/15/2007	37.42	29.5	7.92	44.6	17.9	6.39	22.8	158	317	ND	161	7.03

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
(2): California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas (Vapor Intrusion).
bgs: below ground surface
µg/m^3: micrograms per meter
ND: not detected at or above the method detection limit.

detected in this sample. At the 20-30 foot interval, the highest concentration of TCE (34 µg/L) was detected in the furthest downgradient boring location (F39-HSAS4). Based on the data collected, the horizontal and vertical extent of TCE in groundwater has not been delineated.

4.5.6 Feature F-40 – Electrical Enclosure

The Electrical Enclosure is located in the south-central portion of the Site in Historical Operational Area F (Figure 4-58). This structure possibly housed an electrical transformer and PCBs may have been used at this feature.

Previous Results

One soil sample was collected at a depth of 0.5 feet bgs and analyzed for PCBs during a previous investigation (Tetra Tech, 2005b). Aroclor-1248 was detected at a concentration of 250 µg/kg.

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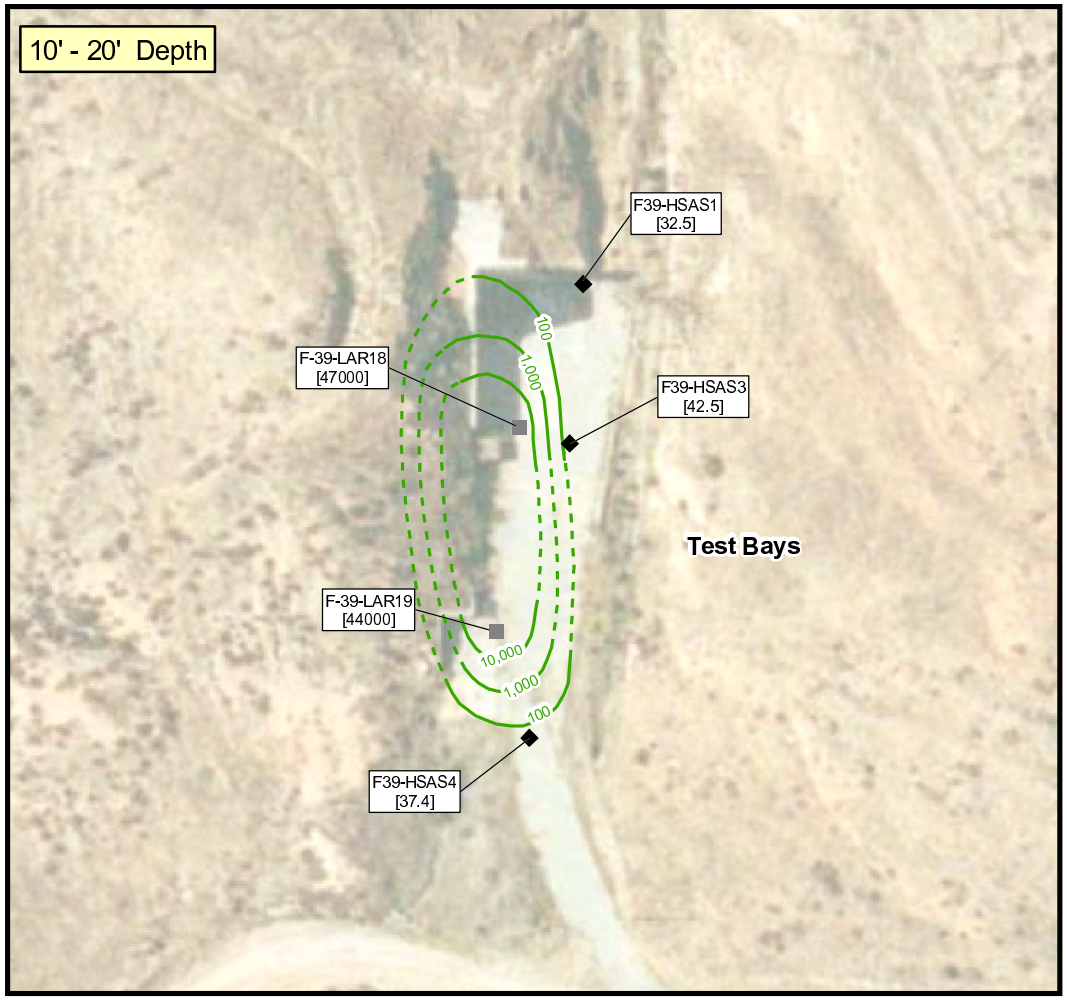


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

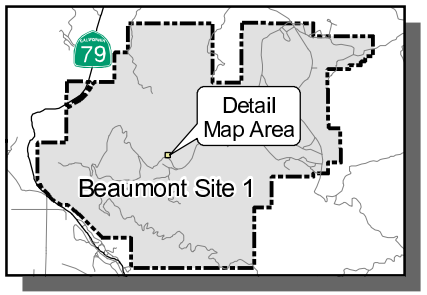
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Soil Gas Total VOC (Dashed where inferred)

Note:

[#] VOC results in µg/m^3.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-56

Total VOC Concentrations in Soil Gas - Test Bays (Feature F-39)

TETRA TECH

Table 4-21
Groundwater Results for Detected VOCs – Test Bays (Feature F-39)

Sample Location @ Depth (feet bgs)	Sample Date	Perchlorate	Acetone	Benzene	Trichloroethene (TCE)
		Laboratory Results (µg/L)			
MDL (µg/L) (1)		0.5	5	0.2	0.2
MCL (µg/L)		6.0	1,500	1.0	5.0
F39-HSAS1-GW-01	4/6/2007	ND	11	0.29 Jq	1.8
F39-HSAS2@10	5/11/2007	ND	ND	ND	64
F39-HSAS2@20	5/11/2007	ND	ND	ND	4.6
F39-HSAS3@20	5/11/2007	ND	ND	ND	1.4
F39-HSAS4@20	5/11/2007	ND	ND	ND	34

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/L: micrograms per liter
MCL: maximum contaminant level
ND: not detected at or above the method detection limit.
J: The analyte was positively identified, but the analyte concentration is an estimated value.
q: The analyte detection was below the Practical Quantitation Limit (PQL).
Highlighted values exceed a regulatory action or notification level for groundwater (MCL/DWNL).

Investigation Activities

Four soil borings (F40-HAS7, F40-HAS8, F40-HAS9 and F40-HAS10) were hand augered to 5 feet bgs at the Electrical Enclosure during this investigation. Soils encountered at the Electrical Enclosure were generally sands with minor silt. On the north and western portions of the feature, the Mt. Eden formation was encountered at approximately 4.5 feet bgs. Two soil samples were collected from each boring at 0.5 and 5 feet bgs and analyzed for PCBs.

Soil Sampling Results

PCBs were not detected above the MDL in any of the eight soil samples collected from the Electrical Enclosure during this investigation (Table 4-22). However, PCBs (Aroclor-1248) were detected in one sample (F-40-HA6) collected during a previous investigation as shown in Figure 4-59. The PCBs previously detected at this feature were only detected at the 0.5 feet bgs. Deeper samples were not collected at this location previously. During this investigation, samples were collected at both 0.5 and 5 feet bgs and all samples were reported as non-detect for Aroclor-1248. Therefore, the spatial extent of PCBs previously detected at this feature has been delineated by the borings installed during this investigation and appears to be very localized based on the samples collected.

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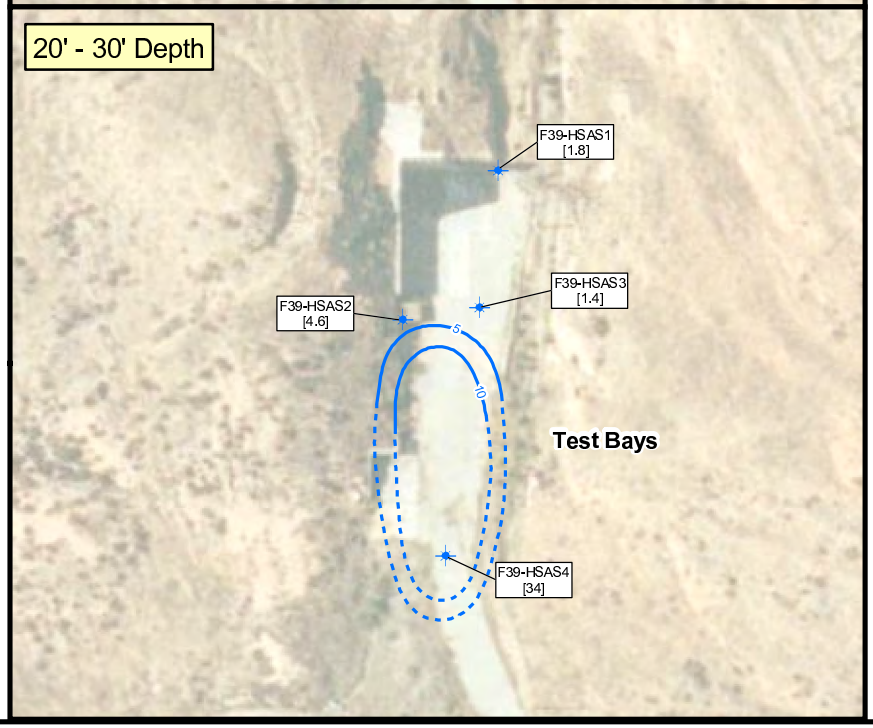


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

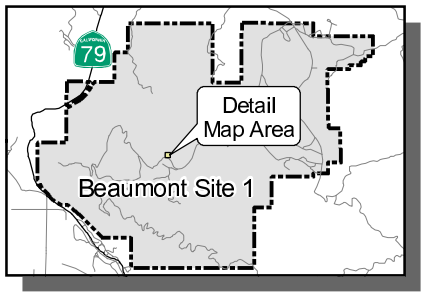
LEGEND

- Groundwater Sampling Location
- 10 — Groundwater TCE (Dashed where inferred)

Note:

[#] TCE results in µg/L.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-57

TCE Concentrations in Groundwater - Test Bays (Feature F-39)

TETRA TECH

X:\GIS\LOCKHEED 19976-05\F40 LOCATION.MXD

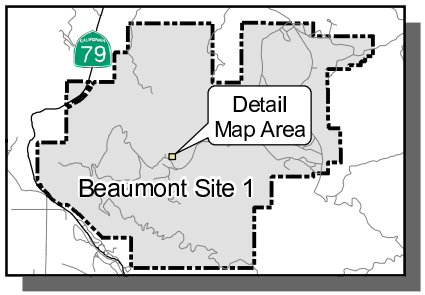


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- ▲ Supplemental Investigation Soil Boring Location
- ● Previous Soil Boring Location



Beaumont Site 1

Figure 4-58

Sample Locations - Electrical Enclosure (Feature #40)

TETRA TECH

Table 4-22
Soil Sampling Results for PCBs – Electrical Enclosure (Feature F-40)

Sample Location @ Depth (feet bgs)	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
		Laboratory Results (µg/kg)						
MDL (µg/kg)[(1)]		20-21	20-21	20-21	20-21	20-21	20-21	20-21
F40-HAS10@0.5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS10@5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS7@0.5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS7@5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS8@0.5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS8@5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS9@0.5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND
F40-HAS9@5'	4/6/2007	ND	ND	ND	ND	ND	ND	ND

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above the method detection limit.

4.5.7 Bldg. 309 - Transformer

California Department of Fish and Game (DFG) purchased the Beaumont Site 1 property from LMC in December 2003. As part of the purchase and sales agreement, LMC was required to remove and dispose of 11 pole-mounted transformers throughout the site. During transformer removal activities, the pole-mounted transformer adjacent to Building 309 was observed to have been vandalized having several bullet holes within the casing. The residual transformer oil was analyzed for PCBs. The analytical results were positive for PCBs with a concentration of 5.67 µg/kg (Tetra Tech, 2006c). No previous soil sampling was conducted at this location.

Investigation Activities

Twelve hand auger borings (Bldg. 309-1 through Bldg. 309-12) were advanced to 0.5 and 2 feet bgs (Figure 4-60). The first four samples were collected approximately 2 feet from the transformer pole in each direction and analyzed for PCBs. The remaining sample locations encircled the inside locations approximately 7 feet from the pole. Those outer eight samples were collected and put on hold per the work plan pending the results from the samples of closer proximity to the pole.

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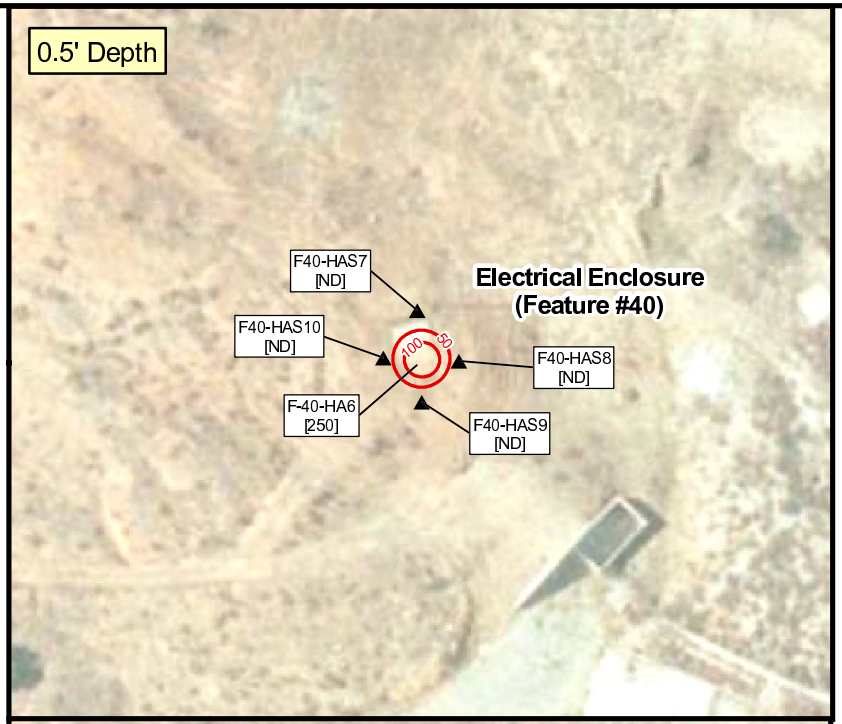
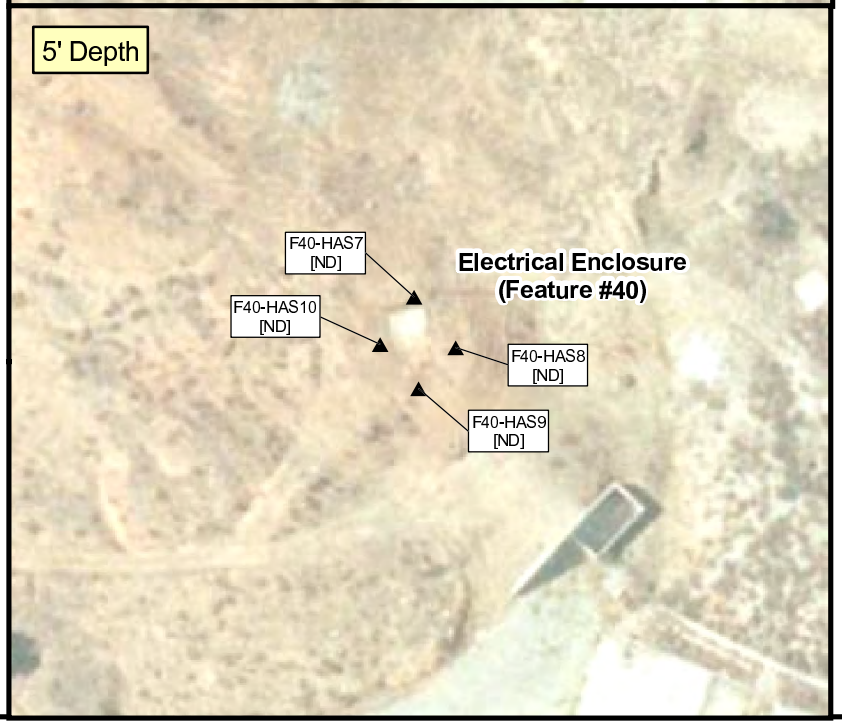




0 50 100 Feet

Adapted from: March 2007 aerial photograph.

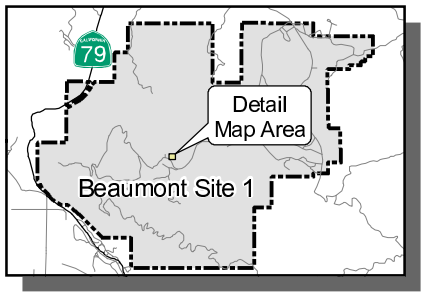
LEGEND

- Supplemental Investigation Soil Boring Location
- Previous Soil Boring Location
- 10 PCB Isoconcentration Contour (Dashed where inferred)

Note:

[#] PCB results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-59
PCB Concentrations in Soil - Electrical Enclosure (Feature F-40)

TETRA TECH

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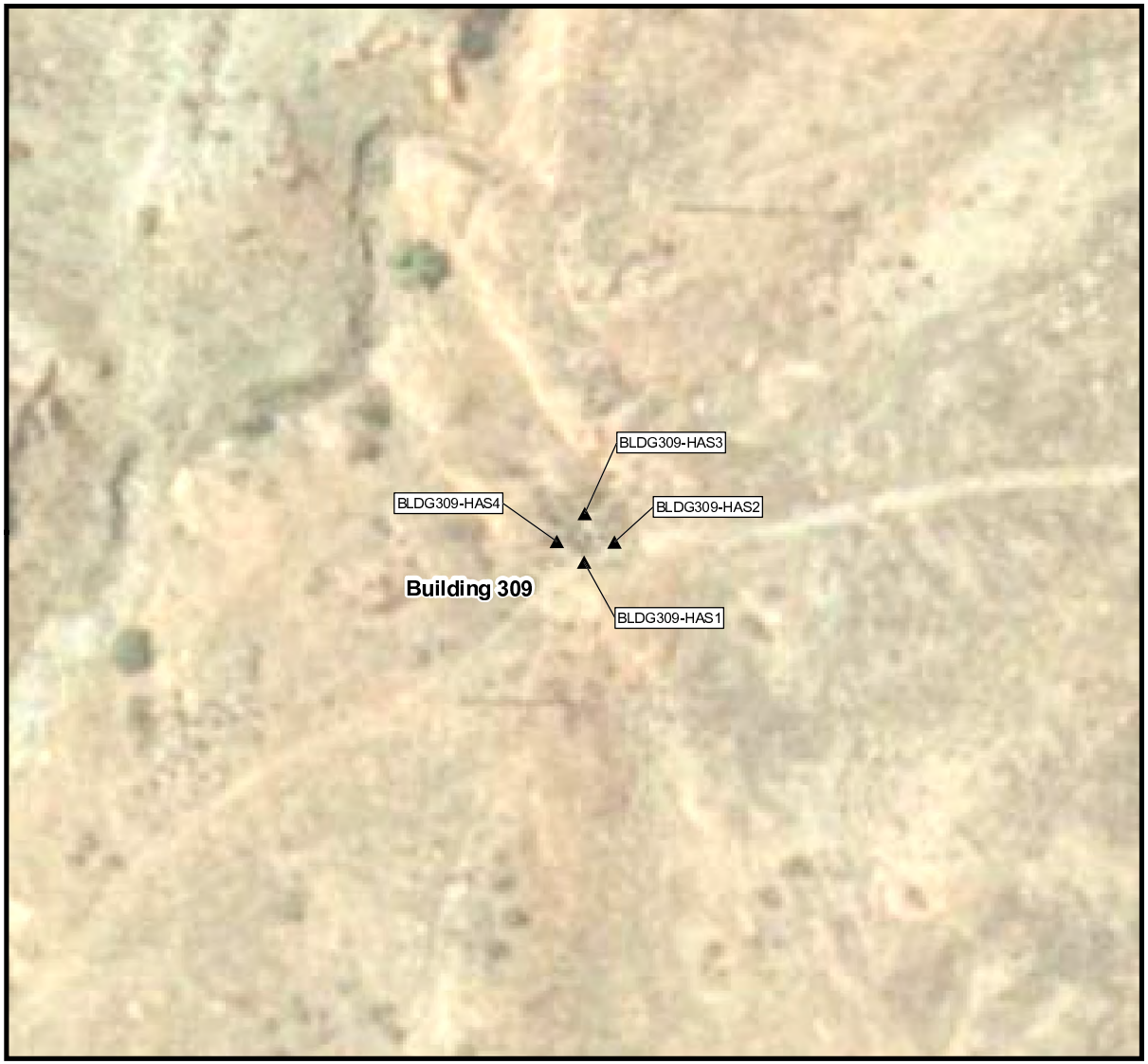
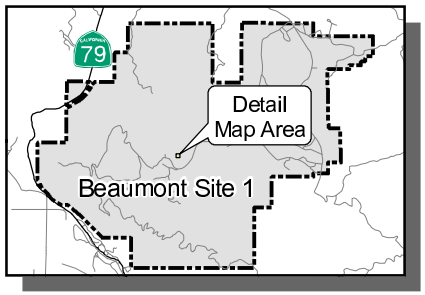


0 25 50 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

▲ Supplemental Investigation Soil Boring Location



Beaumont Site 1

Figure 4-60

Sample Locations - Building 309

TETRA TECH

Soils encountered at Building 309 were generally sands with minor silt/clay content. At sample location Bldg. 309-10, the Mt. Eden formation was encountered at 1.5 feet bgs. At locations Bldg 309-11 and Bldg 309-12, the Mt. Eden formation was encountered at 1 foot bgs. These three locations were on the northwestern side of the transformer pole.

Soil Sampling Results

PCBs were not detected above the MDL in any of the eight soil samples collected from Building 309 during this investigation (Table 4-23). Samples on hold from the outer eight locations were not analyzed for PCBs, based on the results. Therefore, based on the samples collected it does not appear that soil near the former transformer has been impacted with PCBs.

Table 4-23
Soil Sampling Results for PCBs – Building 309

Sample Location @ Depth (feet bgs)	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
		Laboratory Results (µg/kg)						
MDL (µg/kg)(1)		20-21	20-21	20-21	20-21	20-21	20-21	20-21
BLDG309-HAS1@0.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS1@2'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS2@0.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS2@2'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS3@0.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS3@2'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS4@0.5'	4/9/2007	ND	ND	ND	ND	ND	ND	ND
BLDG309-HAS4@2'	4/9/2007	ND	ND	ND	ND	ND	ND	ND

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above the method detection limit.

4.6 HISTORICAL OPERATIONAL AREA G INVESTIGATION

Operational Area G, the helicopter weapons test area, was used to develop equipment for handling helicopter weapons systems. The facilities within this area included a hangar (Building 302), helicopter landing pad, stationary ground mounted gun platforms, and a mobile target suspended between towers. The primary project at this test area was testing of both stationary guns and guns mounted on helicopters.

Experimentation also was performed on the solid propellant portion of an armor-piercing round. The majority of rounds were fired into the side of the creek wash, about 100 yards to the south of the hangar. A longer impact area labeled with distance markers was located in the canyon to the south of the wash. Projectiles were steel only; warheads were not used during tests at this facility (Tetra Tech, 2003a).

4.6.1 Feature G-46 – Helicopter Landing Pad and Hangar (Bldg. 302)

The Helicopter Landing Pad and Hangar (Building 302) are located in the north-central portion of the Site in Historical Operational Area G (Figure 4-61). It is unknown whether helicopters were fueled and serviced in this area.

Previous Results

Two soil borings were drilled to 5 feet bgs during a previous investigation (Tetra Tech, 2005b). Soil samples were analyzed for VOCs and TPH. VOCs (acetone, benzene, and toluene) were detected at concentrations ranging from 1.0 to 27 µg/kg. Low-level acetone detections were possibly associated with laboratory cross-contamination.

Investigation Activities

Two HSA soil borings (G46-HSAS1 and G46-HSAS2) were drilled to 24 and 30 feet bgs, respectively. Soils encountered at the Helicopter Landing Pad and Hangar were generally very fine grain silts with minor sand content. An idealized geologic cross section through this feature is shown in Figure 4-62. The Mt. Eden formation was encountered at 17.5 and 20.2 feet bgs at boring G46-HSAS1 and G46-HSAS2, respectively. Groundwater was not encountered in either boring.

At the Helicopter Landing Pad and Hangar there were deviations from the work plan, which specified that three soil gas probes were to be installed in each boring at 10, 20, and 30 feet bgs. However, the soil sample collected from 20 feet bgs at boring location G46-HSAS1 was moist and therefore only two soil gas probes were installed, at 10 and 20 feet bgs. Soil gas samples were collected from the four probes and analyzed for VOCs.

Soil Gas Sampling Results

VOCs were detected above MDLs in all four samples collected from this feature, including acetone, BTEX, methylene chloride, styrene, and PCE (Table 4-24). In addition, 1,2,4-trimethylbenzene was detected in 3 of the 4 samples collected. There appeared to be no apparent concentration trend with depth

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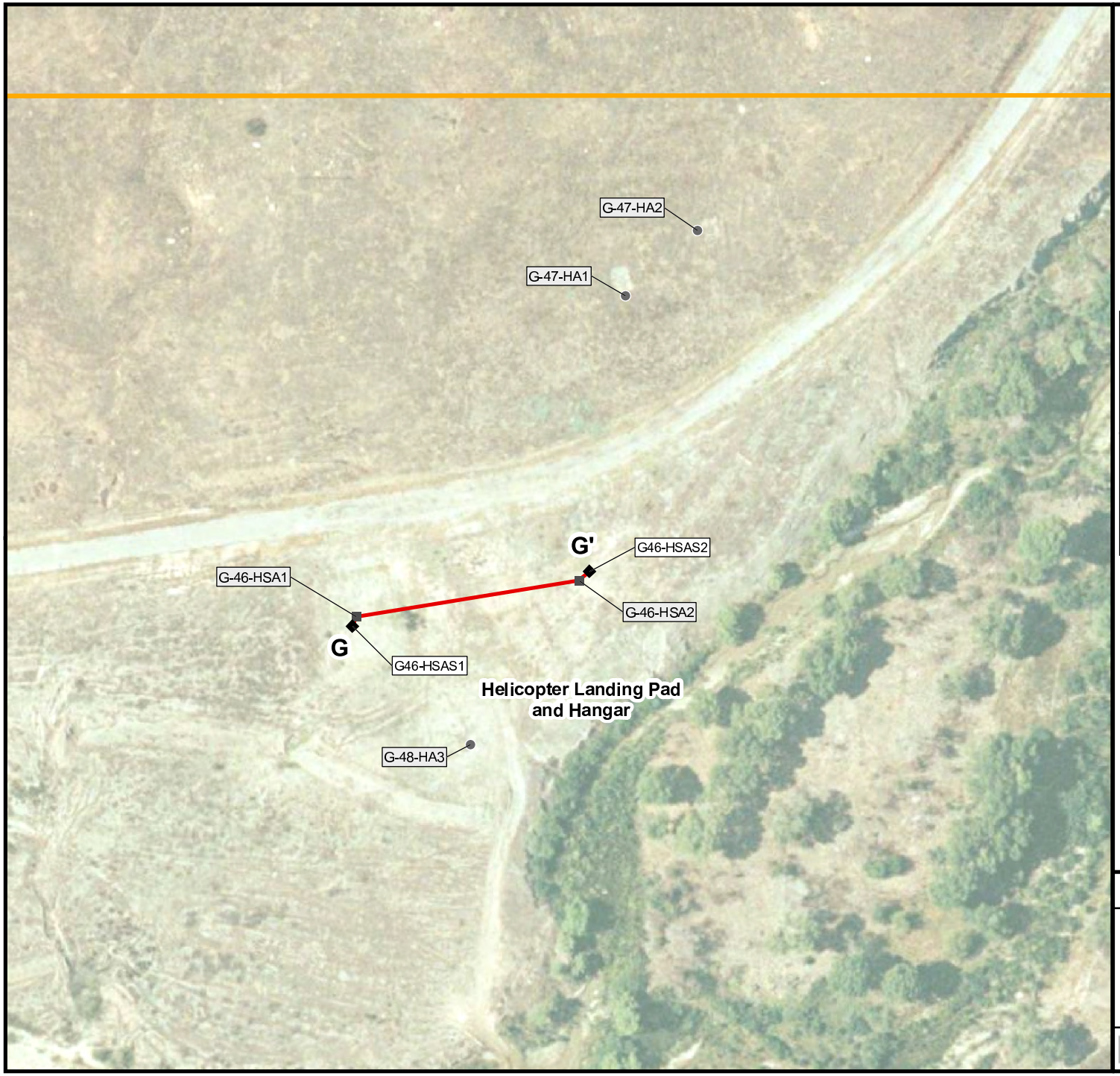
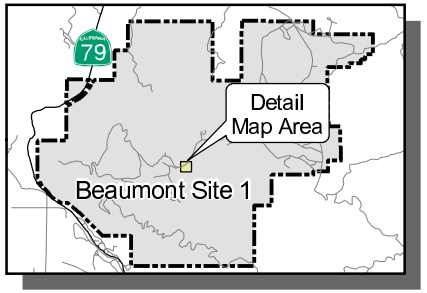


0 50 100 150 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- A-6-HAS1 — Supplemental Investigation Soil Boring and Soil Gas Sampling Location
- A-6-HA2 — Previous Soil Boring Location
- A-3-DP5 — Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location
- Historical Operational Unit Boundary



Beaumont Site 1

Figure 4-61
Sample and Cross Section Locations - Landing Pad and Hangar (Feature G-46)

TETRA TECH

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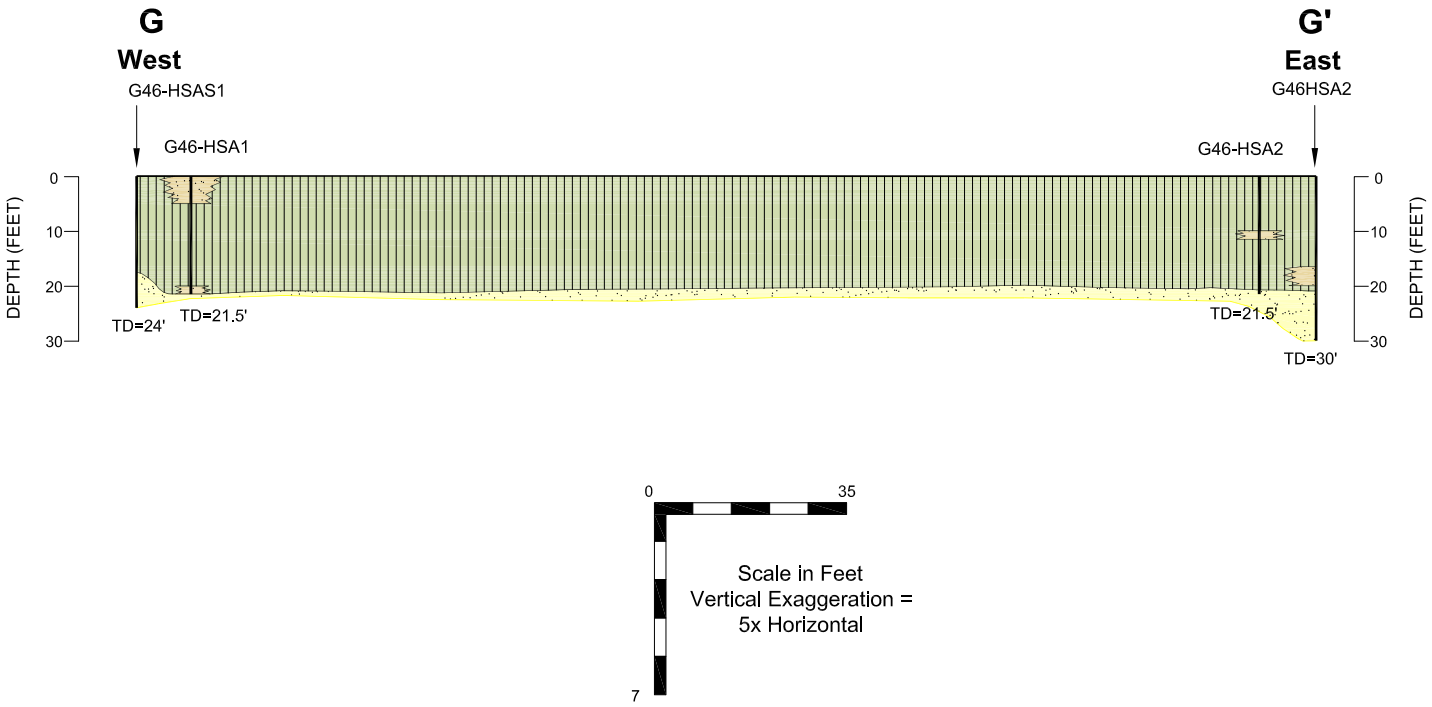

LEGEND

- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-62

Geologic Cross Section G-G'
Helicopter Weapons Test Area
(Feature G-46)

TETRA TECH

Table 4-24
Soil Gas Sampling Results for Detected VOCs – Helicopter Landing Pad and Hangar (Feature G-46)

Sample Location - Dpth (feet bgs)	Sample Date	Total VOCs	Acetone	Benzene	2-Butanone (MEK)	Carbon disulfide	Ethylbenzene	Methylene chloride (DCM)	Styrene	Tetrachloroethene (PCE)	Toluene (Methyl benzene)	Trichlorotrifluoroethane (Freon-113)	1,2,4-Trimethylbenzene	o-Xylene	m,p-Xylenes
MDL (µg/m^3)(1)		-	10	2.0	10	3.0	3.0	10	3.0	3.0	2.0	5.0	3.0	2.0	4.0
Residential CHHSLs (µg/m^3)(2)		-	-	36.2	-	-	-	-	-	180	135,000	-	-	315,000	317,000
Industiral CHHSLs (µg/m^3)(2)		-	-	122	-	-	-	-	-	603	378,000	-	-	879,000	887,000
		Laboratory Results (µg/m^3)													
G46-HSAS1-SVP-10'	5/7/2007	749.70	29.4	9.2	11.1	75.7	9.9	237	34.5	226	75	ND	10.2	9.8	21.9
G46-HSAS1-SVP-20'	5/7/2007	739.52	35.3	6.57	ND	68.9	5.96	264	22.9	201	109	ND	6.24	6.05	13.6
G46-HSAS2-SVP-10'	5/7/2007	739.71	17.6	4.79	ND	72.4	5.82	190	23.7	179	222	ND	6.98	5.82	11.6
G46-HSAS2-SVP-20'	5/7/2007	1008.78	46.1 Jf	4.91	ND	39.6	5.87	669	19.6 Jf	195	58.7	21.5	ND	5.70 Jf	14.2

Notes: Only the VOCs positively detected are presented in this table. All analytes tested for are listed in the laboratory data package.
(1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
(2): California Human Health Screening Levels (CHHSLs) for Shallow Soil Gas (Vapor Intrusion).
bgs: below ground surface
µg/m^3: micrograms per meter
ND: not detected at or above the method detection limit.
J: The analyte was positively identified, but the analyte concentration is an estimated value.
f: The duplicate/replicate precision was outside control limits.
Highlighted values exceed their respective residential land use CHHSL for shallow soil gas.
Highlighted values exceed their respective commercial/industrial land use CHHSL for shallow soil gas.

based on the concentrations of VOCs detected. PCE was the only analyte detected over a residential CHHSL. PCE was detected at concentrations over the residential CHHSL (180 µg/m^3) in three of the four samples collected, ranging from 195 to 226 µg/m^3. Figure 4-63 shows the total VOC concentration contours for soil gas at 10 and 20 feet bgs at the Helicopter Landing Pad and Hangar (Feature G-46). As shown in the figure, the VOC concentrations detected are similar at both depth intervals and the spatial extent is not defined.

4.7 HISTORICAL OPERATIONAL AREA H INVESTIGATION

Operational Area H, a permitted sanitary landfill, was located along the western side of the Site. The

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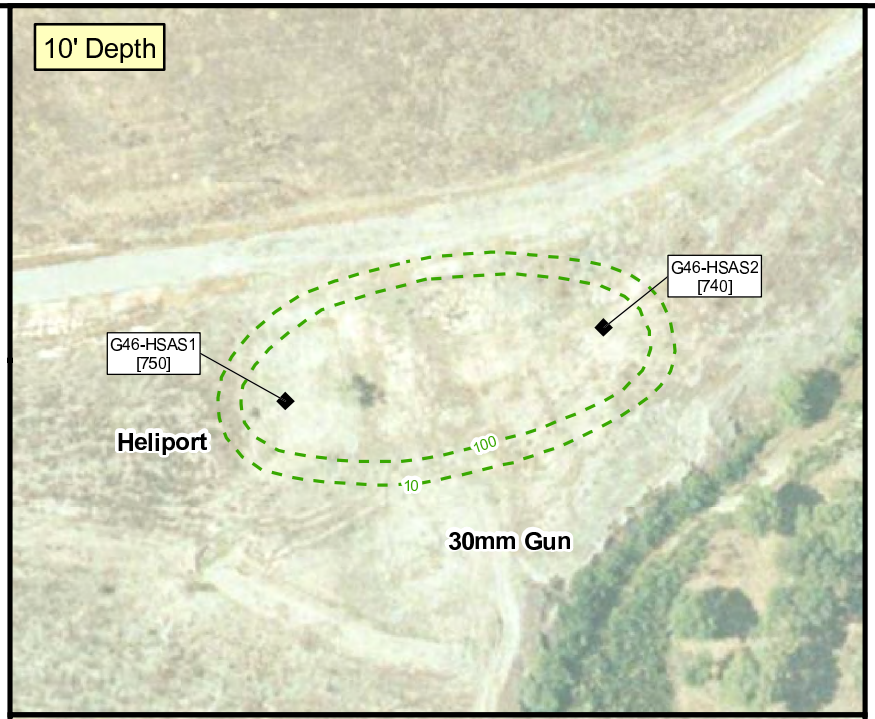
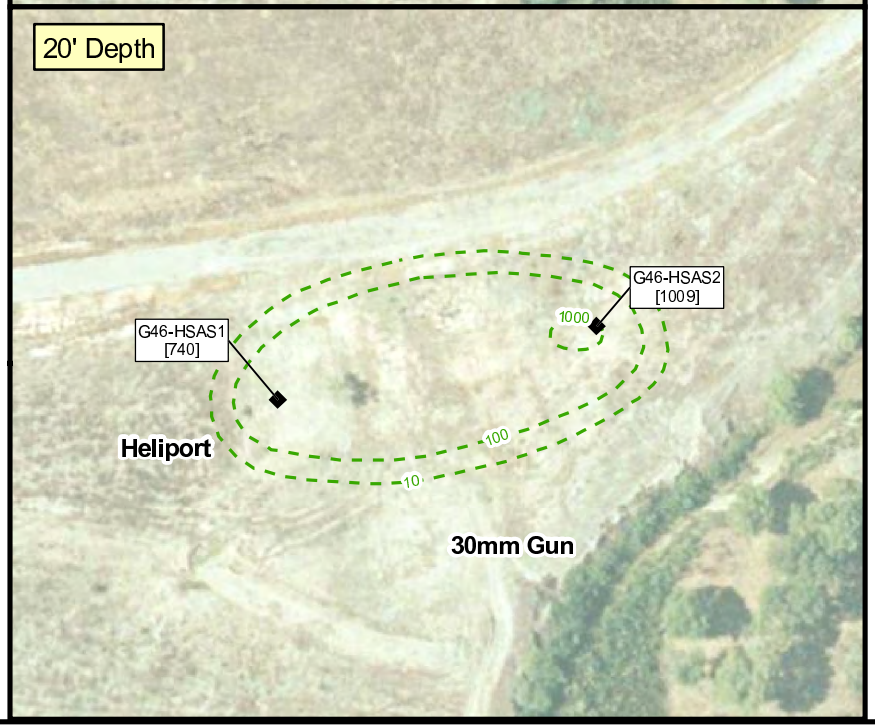




Adapted from: March 2007 aerial photograph.

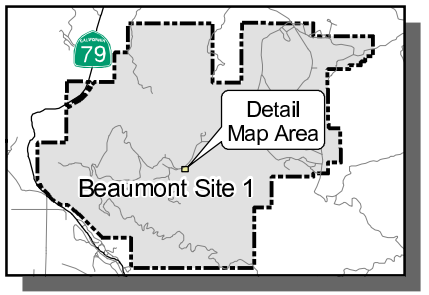
LEGEND

- 2007 Soil Boring and Soil Gas Sampling Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Soil Gas Total VOC (Dashed where inferred)

Note:

[#] VOC results in µg/m^3.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-63
Total VOC Concentrations in Soil Gas - Helicopter Landing Pad and Hangar (Feature G-46)

TETRA TECH

permit for the landfill allowed LPC to dispose of trash such as paper, scrap metal, concrete, and wood generated during routine daily operations. Lockheed policy strictly dictated that hazardous materials were not to be disposed of at this landfill. The trenches were later covered and leveled, with only an occasional tire, metal scrap, or piece of wood remaining on the surface.

4.7.1 Feature H-49 – Sanitary Landfill

The Sanitary Landfill is located in the south eastern portion of the Site in Historical Operational Area H (Figure 4-64). The landfill was used as a general refuse area, where paper, scrap metal, concrete, and wood generated during routine daily operations was deposited. Lockheed policy strictly dictated that hazardous materials were not to be disposed of at this landfill. The trenches were later covered and leveled, with only an occasional tire, metal scrap, or piece of wood remaining on the surface.

Previous Results

Ten borings were drilled to depths up to 40 feet bgs during a previous investigation (Tetra Tech, 2005b). Soil samples were analyzed for VOCs, TPH, SVOCs, perchlorate, 1,4-dioxane, polyaromatic hydrocarbons (PAHs), dioxins/furans, PCBs, and Title 22 metals. SVOCs, 1,4-dioxane, and PAHs were not detected above their respective RLs. Diesel range TPH was detected at concentrations ranging from 6.8 to 10 mg/kg. Perchlorate was detected at concentrations ranging from 42.1 to 1,520 µg/kg. VOCs (acetone, benzene, p-isopropyltoluene, and toluene) were detected at concentrations ranging from 0.97 to 72 µg/kg. Detected concentrations of acetone were possibly associated with laboratory cross-contamination. One PCB (i.e., Aroclor-1248) was detected at concentrations of 86, 210, and 910 µg/kg. Detected dioxin/furan concentrations were converted to their 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) equivalent using toxicity equivalent factors (TEFs). TEF values ranged from 0.131 to 0.474 pg/g. Metals were detected with arsenic detected at concentrations up to 1.90 mg/kg.

Investigation Activities

A total of eight HSA soil borings were drilled to depths between 26.5 and 71.5 feet bgs to further define soil impacts at the Sanitary Landfill during this investigation (Figure 4-64). A minimum of three soil samples were collected from each boring and analyzed for perchlorate or PCBs. The proposed depth of 60 feet bgs could not be reached in H49-HSAS8 and H49-HSAS7 because of refusal in the Mt. Eden formation. Decaying organic material was encountered in H49-HSAS13 at 26.5 feet bgs and was not believed to be related to landfill operations because of the undisturbed nature of the overlying soils.

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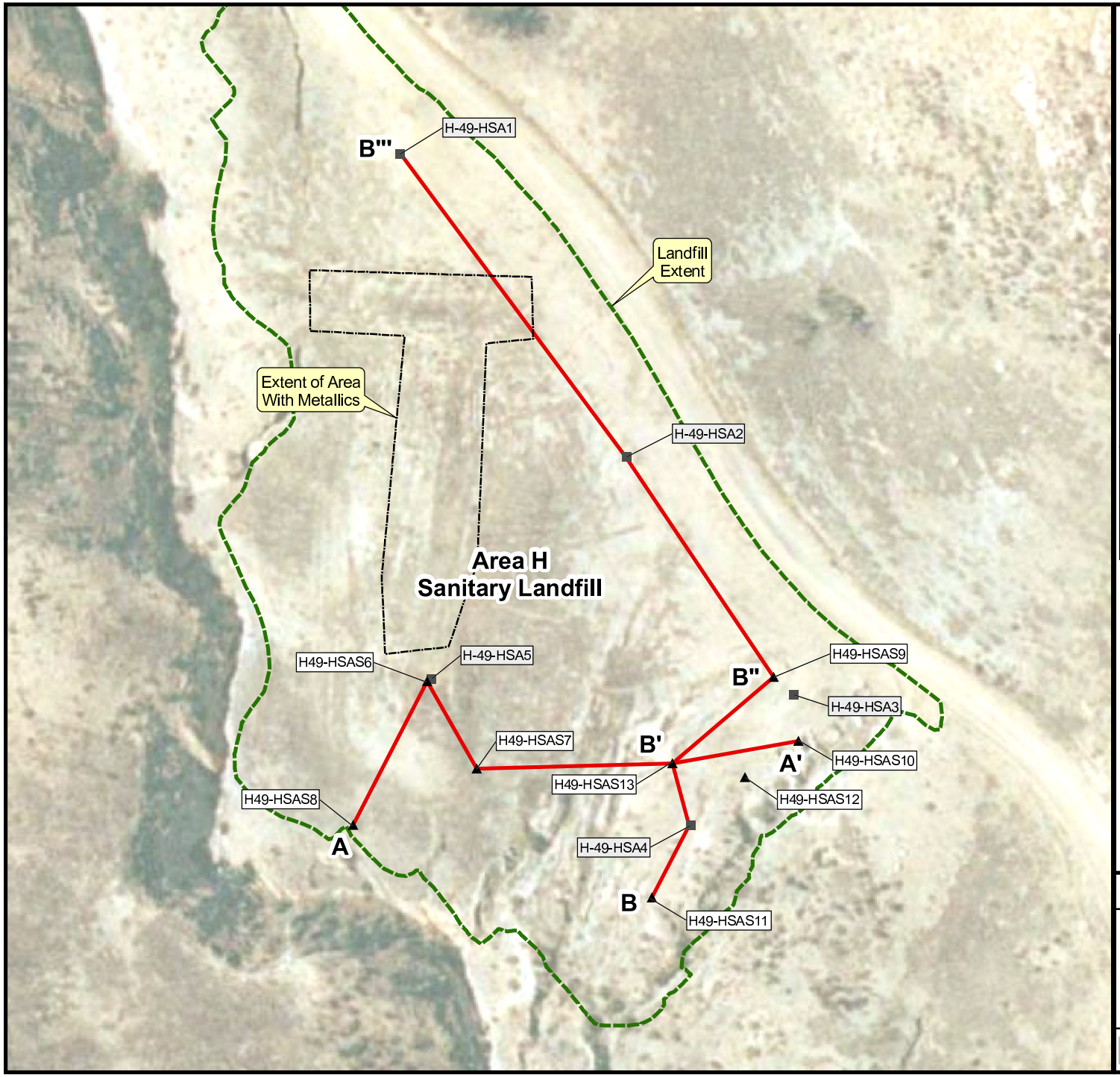
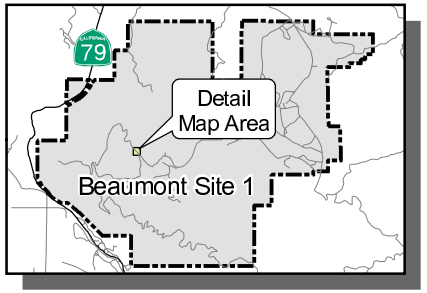


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

LEGEND

- A-6-HAS1 ▲ Supplemental Investigation Soil Boring Location
- A-6-HA2 ● Previous Soil Boring Location
- A-3-DP5 ■ Previous Soil Boring and Soil Gas Sample Location
- Geologic Cross Section Location
- Landfill Extent



Beaumont Site 1

Figure 4-64

Sample and Coss Section Locations - Sanitary Landfill (Feature H-49)

TETRA TECH

During this investigation, some of the proposed borings were moved to ensure safe access by the drill rig and to avoid drilling within the landfill trenches. No boring was moved more than approximately 25 feet and all locations were sampled according to the work plan. The final location of all borings is shown in Figure 4-64. To access the more difficult locations, a limited access rig was mobilized to this feature during the drilling activities. Boring H49-HSAS8 was the proposed well location in the work plan but this location was accessible only with a limited access rig. Drilling at H49-HSAS8 reached refusal at 45.15 feet bgs in the Mt. Eden formation and groundwater was not encountered. Installation of a monitoring well was attempted at H49-HSAS6, but groundwater was not encountered in the boring with a total depth of 71 feet bgs. Additionally, the original location of H49-HSAS6 was moved south approximately 25 feet to avoid drilling into the landfill materials. Trash was encountered at the original H49-HSAS6 location during the initial hand augering.

Soils at the Sanitary Landfill were generally sand to silty sand with occasional clay lenses in some borings. Geologic cross sections through this feature are shown in Figures 4-65 and 4-66. Sandstone was encountered in the borings on the southwest side of the feature in borings H49-HSAS8, H49-HSAS7 and H49-HSAS6. Soils have a higher silt and clay content in the southeastern portion of the feature. In cross-section A-A', the silt content increased in the eastern portion of the feature. In cross-section B-B'-B", the silt and clay content increases in the eastern and northern portions of the feature.

Soil Sampling Results

Concentrations of PCBs were not detected above MDLs (Table 4-25) in any of the samples tested. Perchlorate was detected in soil samples from borings H49-HSAS6 and H49-HSAS7 ranging from 40.1 to 4,910 µg/kg with an average detected concentration of 976 µg/kg. Perchlorate concentrations appear to increase in depth at H49-HSAS6 down to 40 feet bgs and then decrease an order of magnitude at 50 feet bgs. Perchlorate concentrations in H49-HSAS6 were relatively the same at the 5 and 15-foot samples and were reported as non-detect in the 30 and 45 feet bgs samples. Figure 4-67 shows the horizontal and vertical extent of perchlorate affected soil utilizing sample results from the previous investigations in addition to the recent results. Based on the concentration contours, the highest concentrations were detected between 30 and 40 feet bgs in the southwestern portion of the Sanitary Landfill near the former landfill trenches that may be the potential source of the perchlorate contamination. Based on the concentration contours, perchlorate is generally delineated to the southwest but is not defined to the north and east.

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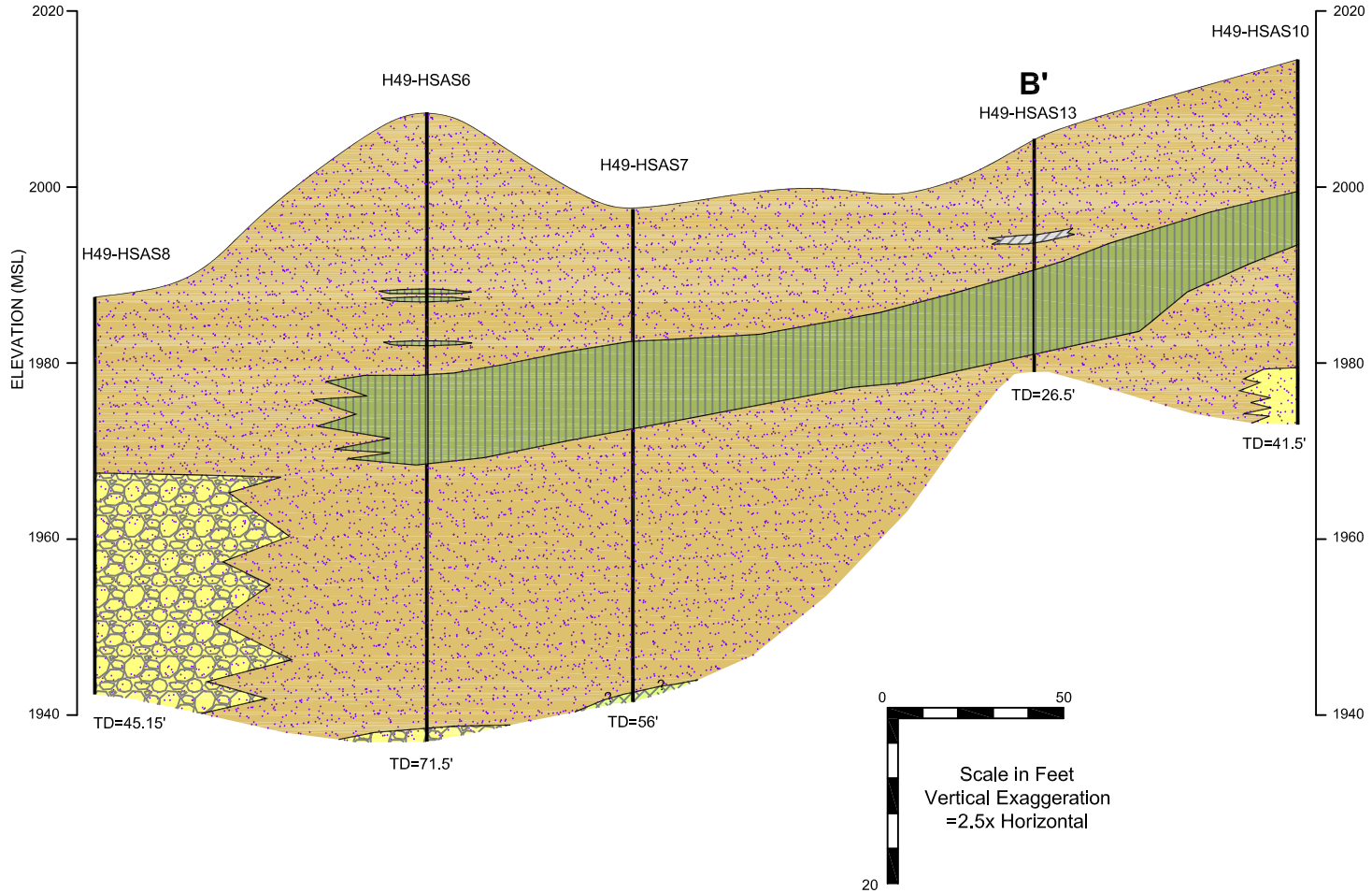


LEGEND

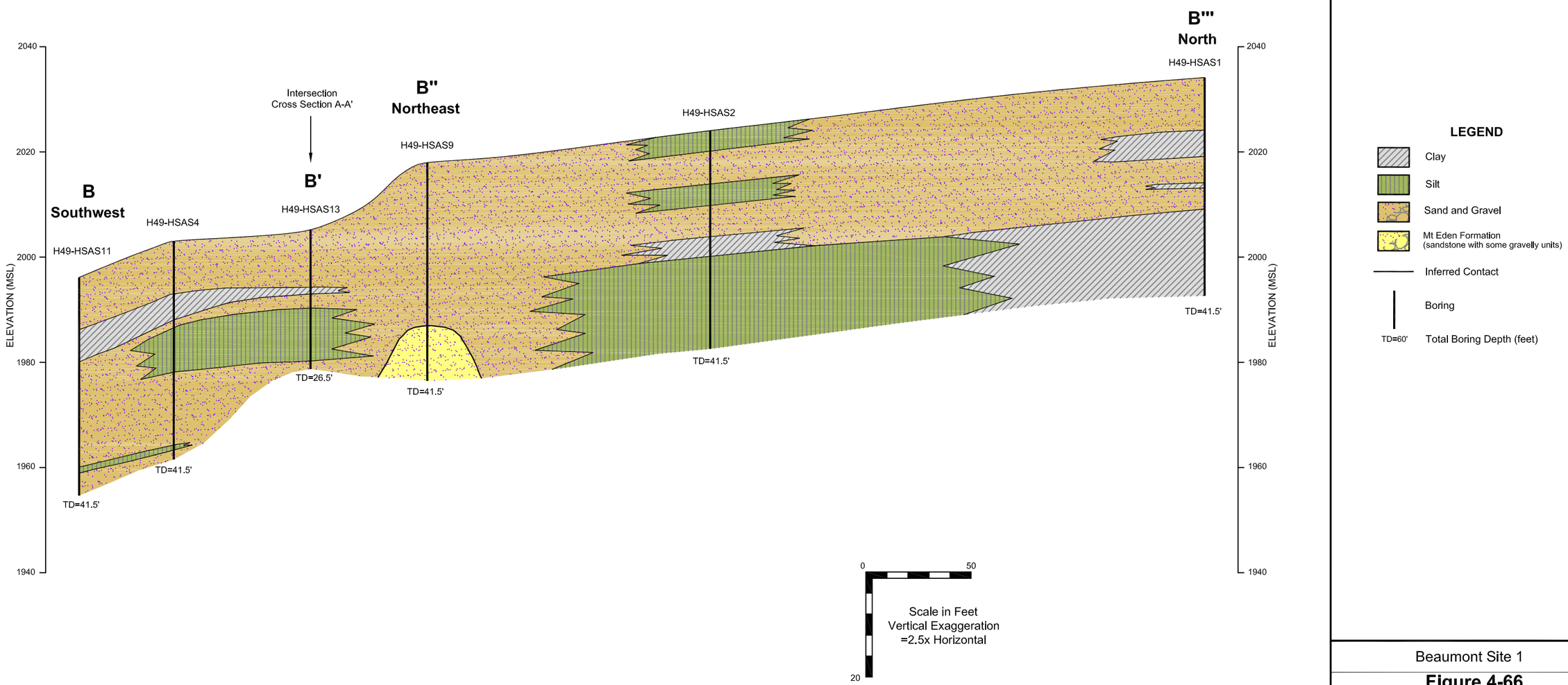
- Clay
- Silt
- Sand and Gravel
- Mt Eden Formation (sandstone with some gravelly units)
- Weathered Granitic Bedrock/Boulder
- Inferred Contact
- Boring
- TD=60' Total Boring Depth (feet)

Beaumont Site 1

Figure 4-65

Geologic Cross Section A-B'-A' Sanitary Landfill (Feature H-49)

TETRA TECH



Beaumont Site 1

Figure 4-66
Geologic Cross Section
B-B'-B''-B'''
Sanitary Landfill
(Feature H-49)

TETRA TECH

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Table 4-25
Soil Sampling Results for Perchlorate and PCBs – Sanitary Landfill (Feature H-49)

Sample Location - Depth (feet bgs)	Sample Date	Perchlorate	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
		Laboratory Results (µg/kg)							
MDL (µg/kg)[(1)]		10.4 - 14.6	21-22	21-22	21-22	21-22	21-22	21-22	21-22
H49-HSAS6-10-11.5	4/30/2007	103	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS6-20-21.5	4/30/2007	361	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS6-40-41.5	4/30/2007	4910	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS6-50-51.5	4/30/2007	386	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS7-5-6.5	4/27/2007	40.1	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS7-15-16.5	4/27/2007	55	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS7-30-31.5	4/27/2007	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS7-45-46.5	4/27/2007	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS8-10-11.5	4/27/2007	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS8-25-26.5	4/27/2007	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS8-40-41.5	4/27/2007	ND	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
H49-HSAS9-10-11.5	4/27/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS9-20-21.5	4/27/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS9-35-36.5	4/27/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS10-10-11.5	4/26/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS10-15-16.5	4/26/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS10-20-21.5	4/26/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS11-10-11.5	4/26/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS11-25-26.5	4/26/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS11-35-36.5	4/26/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS12-10-11.5	4/30/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS12-15-16.5	4/30/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS12-20-21.5	4/30/2007	*NA*	ND	ND	ND	ND	ND	ND	ND
H49-HSAS13-15-16.5	4/27/2007	ND	ND	ND	ND	ND	ND	ND	ND
H49-HSAS13-20-21.5	4/27/2007	ND	ND	ND	ND	ND	ND	ND	ND
H49-HSAS13-25-26.5	4/27/2007	ND	ND	ND	ND	ND	ND	ND	ND

Notes: (1): Method Detection Limit (MDL) - MDLs may vary if sample was analyzed from a diluted aliquot .
bgs: below ground surface
µg/kg: micrograms per kilogram
ND: not detected at or above method detection limit.
NA: not analyzed

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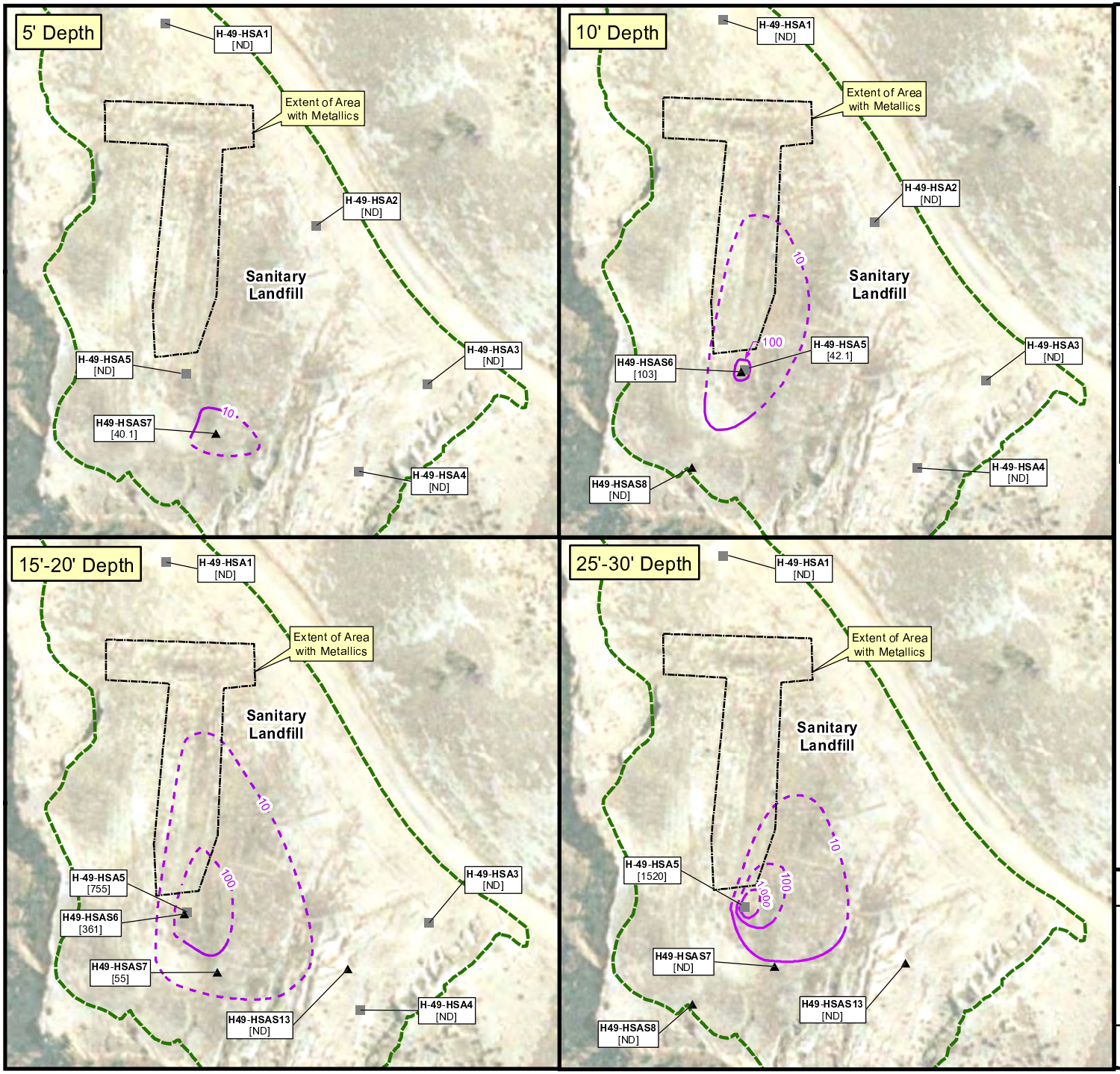


0 50 100 Feet

Adapted from: March 2007 aerial photograph.

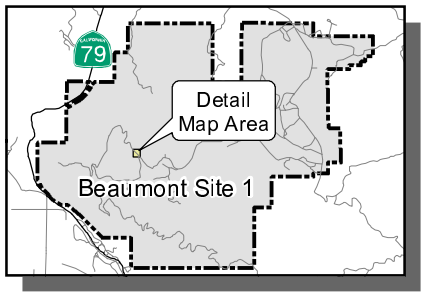
LEGEND

- 2007 Soil Boring Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)
- Beaumont Site 1 Property Boundary
- Landfill Extent

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-67
Perchlorate Concentrations in Soil - Sanitary Landfill (Feature H-49)
(Page 1 of 2)

TETRA TECH

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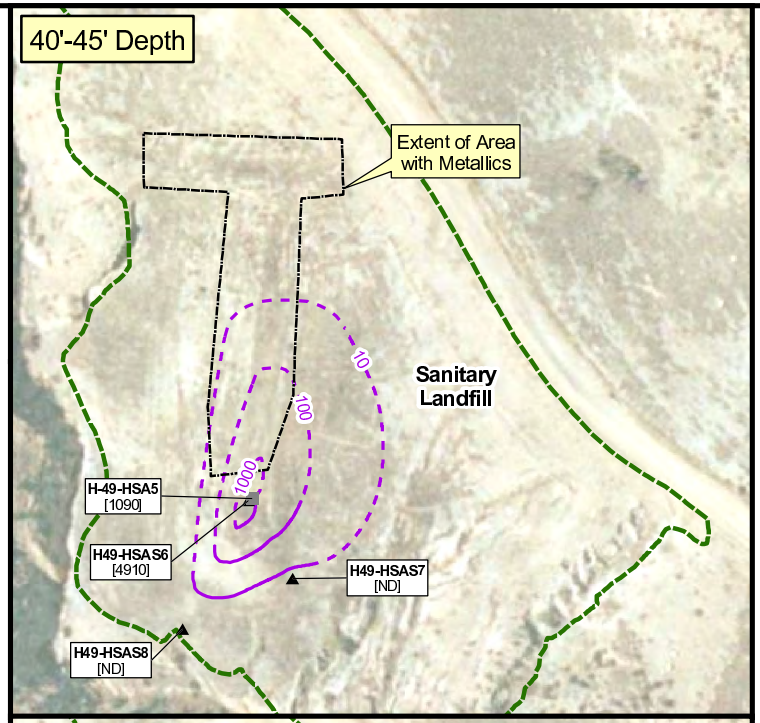
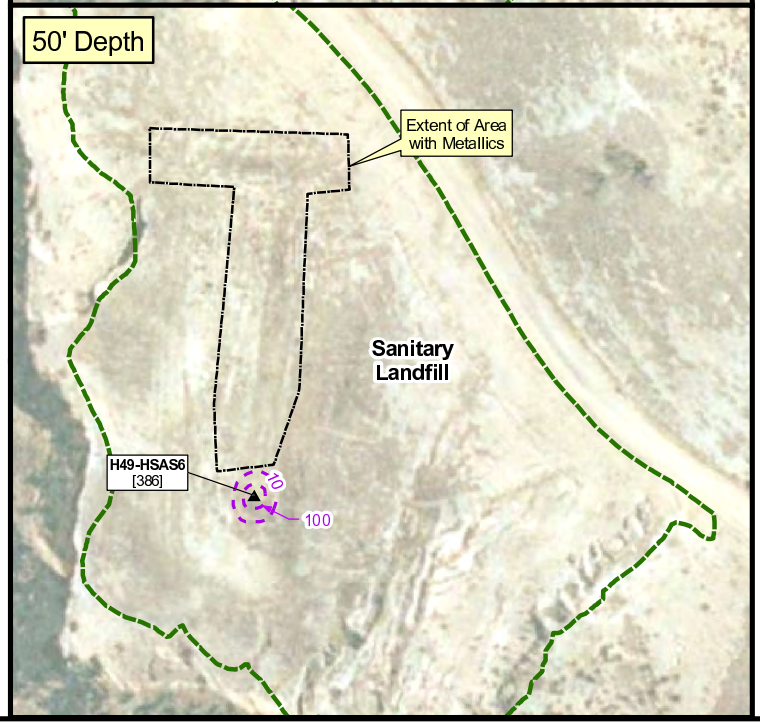




0 50 100 Feet

Adapted from: March 2007 aerial photograph.

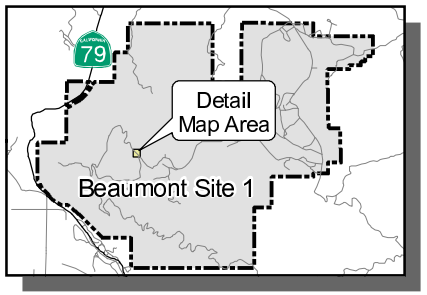
LEGEND

- 2007 Soil Boring Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Perchlorate Isoconcentration Contour (Dashed where inferred)
- Beaumont Site 1 Property Boundary
- Landfill Extent

Note:

[#] Perchlorate results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-67
Perchlorate Concentrations in Soil - Sanitary Landfill (Feature H-49)
(Page 2 of 2)

TETRA TECH

Figure 4-68 shows the horizontal and vertical extent of PCB affected soil at the Sanitary Landfill utilizing sample results from the recent and previous investigations. Based on the concentration contours, the highest concentrations were detected a 5 feet bgs in the southeastern portion of the Sanitary Landfill. Based on the borings installed, it appears that there are two very localized areas of PCB affected soil that is limited to less than 20 feet bgs. Based on the concentration contours, the PCBs affected areas are generally defined at 20-feet bgs but are not defined in the shallow soils at 5 feet bgs.

4.8 DATA QUALITY REVIEW

The results from batch QC samples were evaluated in accordance with EPA standards. These QC samples consisted of method blanks, laboratory control samples, continuing calibration verification samples, and MS/MSD samples. Holding times, sample preservation methods, field duplicates, and field blanks were also evaluated. The data review showed all samples were compliant with all QC control limit criteria. Field duplicates were used to monitor unbiased laboratory precision. Relative percent difference (RPD), the measure of duplicate precision, is calculated for results at or above the practical quantitation limit (PQL). Acceptance criteria was met for soil samples with RPDs less than 40%, or water samples with RPDs less that 30%; and therefore, precision was within the control limits for this data set. In conclusion, the analytical results and data collected for this investigation can be used for their intended purpose. All data qualified as rejected (flagged with an "R") are not usable for any purpose; the presence or absence of the analyte cannot be verified. All data qualified as estimated (flagged with a "J") are usable as estimated concentrations. Validated analytical results for soil, soil gas and groundwater data are included in Appendix I. All data are of known precision and accuracy with the following exceptions.

Field duplicate results from Method SW6010B for Metals analysis had 24.7% of the data outside control limits and qualified as estimated. The data qualified as estimated is usable for the intended purpose.

Soil gas results from Method TO-15 for VOCs had 0.3% of the field duplicate results outside control limits and qualified as estimated. The data qualified as estimated is usable for the intended purpose. In addition, soil gas results from two samples (B11-HSAS9-SVP-25' and B11-HSAS10-SVP-25') were qualified due to the detection of the leak check compound used during sampling. Non-detect results were qualified as rejected, and detected results were qualified as estimated and are usable for the intended purpose.

4.9 PERCOLATION TESTS

The percolation tests in Historical Operational Areas B and C show relatively high potential percolation rates ranging from 0.8 to 19 gpm. Although the Area B test shows the lowest rate, the overall variability

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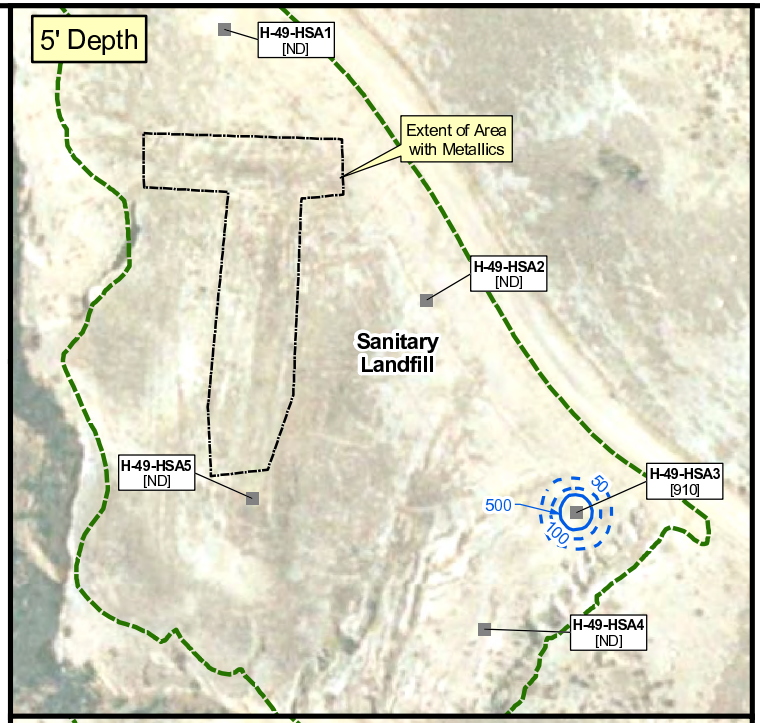
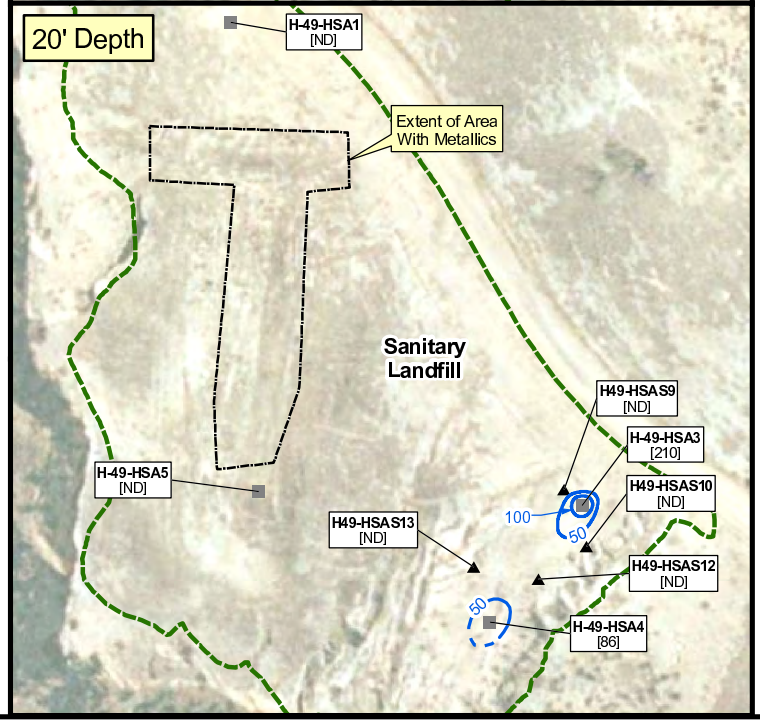




0 50 100 Feet

Adapted from: February 2006 aerial photograph.

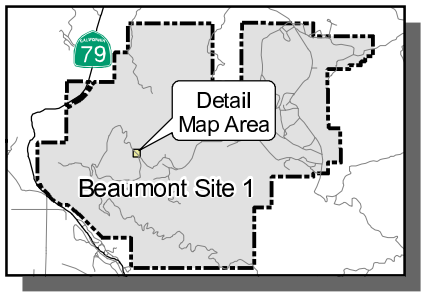
LEGEND

- 2007 Soil Boring Location
- 2004 Soil Boring Location
- 2004 Soil Boring and Soil Gas Sample Location
- 10 — Polychlorinated Biphenyls (PCBs) Isoconcentration Contour (Dashed where inferred)
- Beaumont Site 1 Property Boundary
- Landfill Extent

Note:

[#] Polychlorinated Biphenyl results in µg/kg.

[ND] Non-Detect.



Beaumont Site 1

Figure 4-68

PCB Concentrations in Soil - Sanitary Landfill (Feature H-49)

TETRA TECH

may be indicative of location specific lithology. Even considering the variability in percolation rates, the percolation rates from the tests indicate the percolation of treatment fluid though the vadose zone may be feasible.

Three sets of percolation tests were performed in Historical Operational Areas B and C. The tests were performed to test the relative percolation rate of soils from 10 to 40 feet bgs using the procedures discussed in Section 3.4. The percolation tests were performed to provide a preliminary evaluation on the feasibility of percolating treatment fluid through the vadose zone to groundwater. This information will be used to design treatability tests in determining effective remedial alternatives for the Site. The percolation test locations are shown in Figure 4-69 and the results of the tests are summarized in Table 4-26.

Percolation testing showed variable average flow rates of water addition to maintain a relatively static water level (percolation rate) for both location and depth. Although only tested at the depth of 10 feet bgs, percolation testing in Historical Operational Area B had the lowest average percolation rate at 0.8 gpm. Historical Operational Area C, test location B, had the highest average percolation rate by area at 11.2 gpm and the highest for each depth except 30 feet. Historical Operational Area C, test location C, had the highest average percolation rate for the 30 foot depth at 10.0 gpm, and was the most consistent across all depths. The 10 and 30 foot depths had the lowest average percolation rate at 4.0 and 6.3 gpm respectively. The depths of 20 and 40 feet bgs had the highest average percolation rates of 12.7 and 12.4 gpm respectively.

4.10 GEOPHYSICAL SURVEY FOR SUBSURFACE SOURCES - OPERATIONAL AREAS B AND C

No additional subsurface burning or burial sites within the surveyed area were found in the geophysical survey. Subsurface anomalies and disturbances present can generally be attributed to man-made artifacts such as monitoring wells, roads, fences, power poles, etc. Although there are areas within the survey boundaries where metallic anomalies exist or where higher soil conductivity is present, the areas are the result of human activity related to construction, environmental sampling/monitoring, and/or historical ranching. There are no apparent indications that large scale burning or disposal by burial occurred in the survey area. A report documenting the complete geophysical survey is included in Appendix G.

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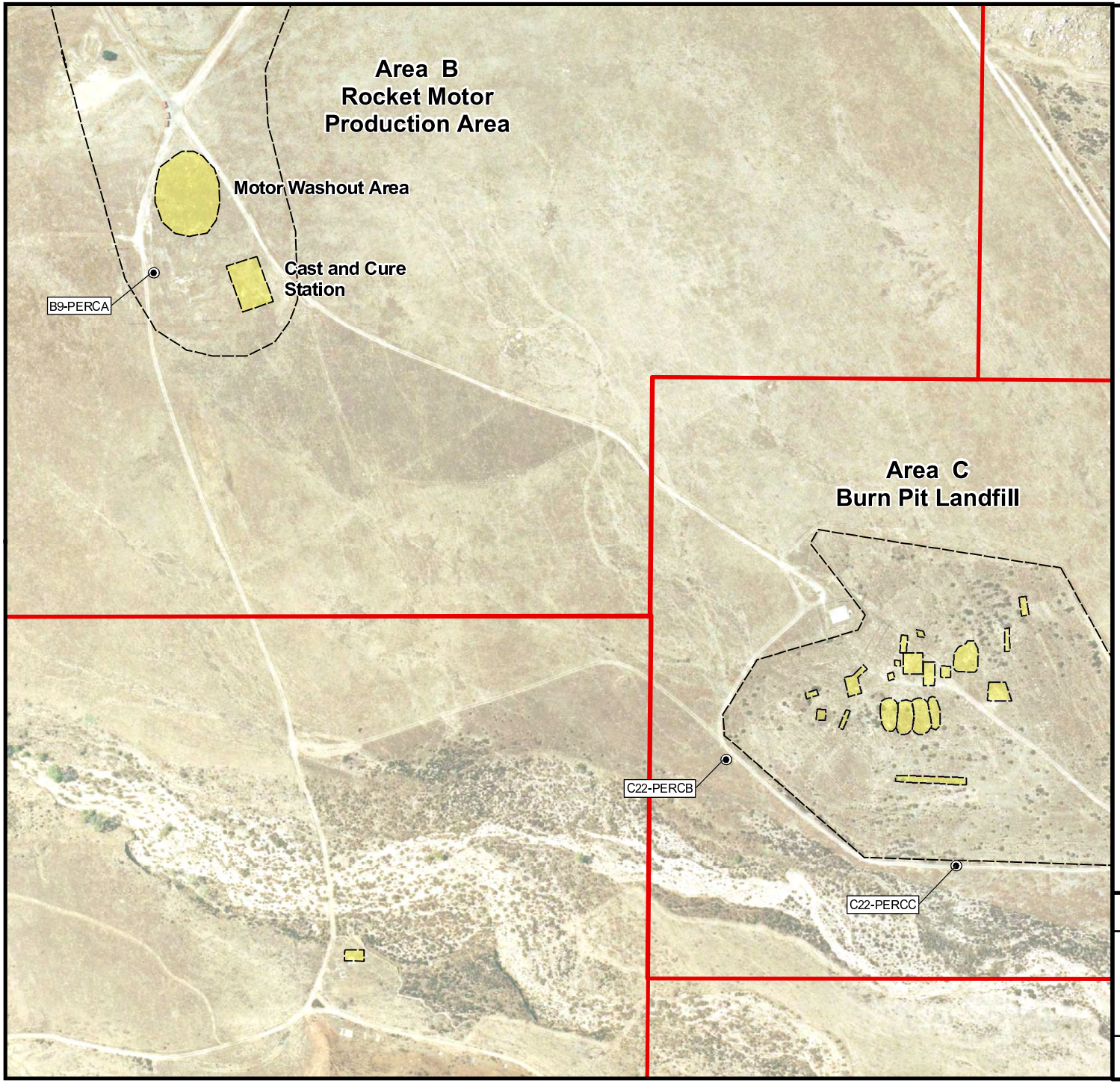


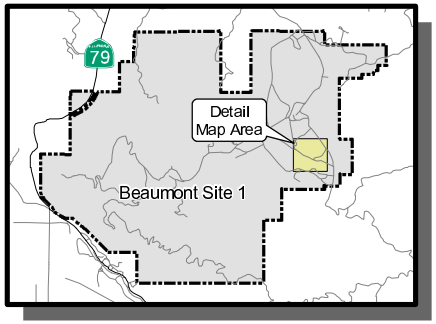
0 200 400 Feet

Adapted from:

March 2007 aerial photograph.

LEGEND

- Percolation Test Location
- Historical Operational Area Boundary
- Historic Site or Assessment Finding Location



Beaumont Site 1

Figure 4-69

Percolation Test Locations - Historical Operational Areas A and B

TETRA TECH

Table 4-26
Percolation Tests Summary Data

Location	Water Addition		Total Gallons	Average Flow	Rebound	
	Start	End	Added	Rate (gpm)	Start	End
B9-PERCA@10'	10:30	13:30	150	0.8	13:30	13:51
C22-PERCB@10'	9:55	10:20	200	8.0	10:20	10:25
C22-PERCB@20'	8:20	8:33	200	15.4	8:33	8:37
C22-PERCB@30'	8:00	9:20	200	2.5	9:20	9:44
C22-PERCB@40'	12:15	12:30	285	19.0	12:30	12:50
C22-PERCB Average	--	--	--	***11.2***	--	--
C22-PERCC@10'	9:15	10:20	200	3.1	10:20	10:29
C22-PERCC@20'	9:00	9:20	200	10.0	9:20	9:24
C22-PERCC@30'	11:00	11:20	200	10.0	11:20	11:28
C22-PERCC@40'	11:35	12:10	200	5.7	12:10	12:29
C22-PERCC Average	--	--	--	***7.2***	--	--
10' Depth Average	--	--	--	***4.0***	--	--
20' Depth Average	--	--	--	***12.7***	--	--
30' Depth Average	--	--	--	***6.3***	--	--
40' Depth Average	--	--	--	***12.4***	--	--

Notes: gpm: gallons per minute

5.0 SUMMARY AND CONCLUSIONS

During this supplemental soils investigation a total of 21 features were investigated within seven operational areas (A, B, C, D, F, G, and H). Field investigation activities conducted during this investigation included: hand auger soil sampling; drilling and sampling of soil borings using hollow-stem auger (HSA) drilling techniques; soil gas probe installation and sampling; and groundwater monitoring well installation, development, and sampling. During this investigation 86 borings were installed, 190 soil samples were collected and analyzed, 54 soil gas probes were installed and sampled, three monitoring wells were installed, and nine groundwater samples were collected and analyzed. A summary of the investigations with conclusions is presented below by operational area and feature. In addition, an update to the CSM is included at the end of this section to summarize the distribution of affected soil and groundwater based on the findings of this investigation. Also included at the end of this section are conclusions regarding the findings of this investigation including those areas identified that may require further characterization to estimate the contaminant mass in soil and groundwater that may require mitigation.

5.1 HISTORICAL OPERATIONAL AREA A INVESTIGATION SUMMARY

Only one feature (A-6) was investigated in Operational Area A during this investigation. Operational Area A is one of two areas previously leased by Aerojet for limited munitions testing and is referred to as the Eastern Aerojet Range. A summary of the investigation and conclusions for Feature A-6 is provided below.

5.1.1 Feature A-6 – Small Storage Tank

At the Small Storage Tank (Feature A-6), one hand auger boring was installed with soil samples collected at 0.5 and 5 feet bgs and tested for VOCs, SVOCs, perchlorate, 1,4-dioxane, and Title 22 metals. Perchlorate, 1,4-dioxane, VOCs, and SVOCs were not detected above their respective MDLs in either of the soil samples collected. Arsenic, barium, beryllium, cobalt, chromium, copper, lead, nickel, selenium, thallium, vanadium and zinc were detected above their respective MDLs. Metals are naturally occurring and therefore the detection of metals in soil samples collected from the Site is expected. It should be noted that the concentrations of metals, including arsenic detected at concentrations up to 5.87 mg/kg, are within the normal range of values of elemental concentrations in soil for California (Bradford et al, 1996). However, a site-wide background metals survey is currently planned and therefore a more detailed analysis of the metals concentrations detected at the Site will be conducted in a future study. Based on the results of this investigation, past operations associated with this feature do not appear to have impacted soils and therefore no further investigation at this feature is recommended.

5.2 HISTORICAL OPERATIONAL AREA B INVESTIGATION SUMMARY

Operational Area B, the Rocket Motor Production Area (formerly known as the Propellant Mixing Area), was used for the processing and mixing of rocket motor solid propellants. Seven features (B-9, B-10, B-11, B-14, B-18, B-19, and B-20) were investigated during this investigation. A summary of the investigations and conclusions for each of the seven features is provided below. It should be noted that , operational Area B is located down gradient from operational Area C (the Burn Pit Area) and is located within the groundwater plumes (perchlorate, chlorinated VOCs, and 1,4-dioxane) known to have originated from activities in Area C. Although it appears some secondary sources for perchlorate exist in operational Area B the highest concentrations of perchlorate detected in the groundwater have been collected from monitoring wells installed in the source area in operational Area C. This coupled with the significant seasonal fluctuations in groundwater elevation complicate discussions about both soil and groundwater impacts in operational Area B.

5.2.1 Feature B-9 – Motor Washout Area

Three HSA soil borings were drilled to approximately 21.5 feet bgs during this investigation with three soil samples collected from each boring at the depths of 5, 10 and 20 feet bgs and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in each of the nine soil samples collected ranging from 45.7 to 5,480 µg/kg with an average concentration of 885 µg/kg. It appears that the highest concentrations were detected at 10 feet bgs in the eastern portion of the Motor Washout Area and in the northwestern area just south of the Pad on Berm (Feature B-19). Based on the concentration contours, the higher concentrations of perchlorate appear to be focused around the Motor Washout Area. The area of affected soil appears to be undefined to the east and west but is defined to the north and south by samples collected from the Cast and Cure Station (Feature B-18) and the Pad on Berm (Feature B-19).

Historical shallow groundwater in the area encompassing the Motor Washout Area complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in nearby shallow wells have been as high as 1,250 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 51 feet bgs since 1992. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. Due to fluctuations of perchlorate affected groundwater in this area, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Based on the results of this investigation, additional soil borings are recommended to delineate perchlorate impacts in the shallow soils to the east, west, and northwest.

5.2.2 Feature B-10 – Propellant Mixing Station

Four HSA soil borings were drilled from between 31.5 to 51.5 feet bgs during this investigation with four soil samples collected from each boring at various depths and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in each of the 13 soil samples collected from the Propellant Mixing Station ranging from 17 to 1,080 µg/kg with an average concentration of 234 µg/kg. Perchlorate concentrations do not appear to have a clear trend with depth at this feature. Based on the concentration contours, it appears that the highest concentrations were detected from near surface (0.5 feet bgs) down to approximately 10 feet bgs in the previous borings installed beneath the central portion of the Propellant Mixing Station. The Propellant Mixing Station is located in a very small box canyon surrounded by steep hillsides of the Mt. Eden formation from the southwest to the northeast and open only to the southeast. Perchlorate concentrations decrease fairly rapidly to the southeast where concentrations are less than 500 µg/kg. Except for the sample collected from a boring near Feature B-20 at 10 feet bgs, perchlorate concentrations did not exceed 350 µg/kg in any of the borings installed during this investigation.

Although no previous wells were located at the Propellant Mixing Station, perchlorate concentrations in nearby shallow wells have been as high as 800 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 49 feet bgs since 1991. Therefore, soil below 4 feet bgs may have been affected by groundwater fluctuations during wet periods when high groundwater table conditions exist. Due to fluctuations of perchlorate affected groundwater in this area, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils.

Soil boring B10-HSAS5 was converted to monitoring well MW-69 and installed with a screen section from 25 to 50 feet bgs. Groundwater samples collected from monitoring well MW-69 were analyzed for perchlorate, VOCs, and 1,4-dioxane. Perchlorate and 1,4-dioxane were reported at concentrations of 2,510 µg/L and 9.0 µg/L, respectively, in the newly installed monitoring well MW-69. Four VOCs were also detected in the groundwater sample collected, of which two, 1,1-DCE and TCE, exceeded their respective MCLs. The concentrations reported for perchlorate, 1,1-DCE, TCE, and 1,4-dioxane are similar to groundwater sampling results obtained from nearby wells sampled as part of the Site GMP. As described above, historically shallow groundwater levels could have affected both soil and groundwater perchlorate concentrations in this area. Based on the results of this investigation, no further investigation at this feature is recommended.

5.2.3 Feature B-11 – Fuel Slurry Station

Three HSA soil borings were drilled from between 26.5 to 31.5 feet bgs during this investigation with three soil samples collected from each boring at various depths and analyzed for perchlorate. Soil gas probes were installed at depths of 10 and 25 feet bgs in each boring. One groundwater grab sample was collected from boring B11-HSAS8 and analyzed for perchlorate and VOCs.

Concentrations of perchlorate were detected above the MDL in seven of the nine soil samples collected from the Fuel Slurry Station with concentrations ranging from 141 to 725 µg/kg with an average concentration of 352 µg/kg. When detected, perchlorate concentrations appear relatively consistent at most sampling locations and do not have a clear trend with depth.

Based on the concentration contours, it appears that the largest area of affected soil is between 20 and 30 feet bgs. However, the area of impacted soil at 40 feet bgs is undefined based on the limited number of deeper samples. Based on the concentration contours, the higher concentrations of perchlorate appear to be focused immediately under the Fuel Slurry Station and to the south. The total area of affected soil appears to be undefined both laterally and vertically based on the samples collected to date. However, as discussed in the following paragraph, affected groundwater in this area may have impacted the soil beneath this feature.

Historical shallow groundwater in the area of the Fuel Slurry Station complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate concentrations in a nearby shallow monitoring well have been as high as 1,680 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in this well from less than 13 feet bgs to greater than 38 feet bgs since 1993. Therefore, soil below 13 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. Due to fluctuations of perchlorate affected groundwater in this area, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Based on the results of this investigation, additional soil borings and groundwater monitoring wells are recommended to delineate perchlorate impacts in the shallow soils and groundwater.

5.2.4 Feature B-14 – Pad with Dry Well

Three HSA soil borings were drilled to between 26.5 and 31.5 feet bgs during this investigation with soil samples collected at various depths and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in each of the nine soil samples collected ranging from 15.5 to 5,360 µg/kg with

an average concentration of 1,021 µg/kg. Perchlorate concentrations were highest in the samples from each of the three borings at 10 feet bgs. Based on the concentration contours, the highest concentrations of perchlorate were detected at the Pad with Dry Well. Perchlorate concentrations are confined to the north by the steep hillsides of the Mt. Eden formation and concentrations decrease immediately south and southeast of the Pad and Dry Well by two to three orders of magnitude. Concentrations of perchlorate decrease in the deeper samples to less than 200 µg/kg in the 25 to 30-foot samples. The total area of gross affected soil appears to be generally defined both laterally and vertically based on the samples collected to date. However, as discussed in the following paragraph, affected groundwater in this area may have impacted the soil beneath this feature.

Historical shallow groundwater in the area of the Pad with Dry Well complicates the discussion regarding the vertical extent of affected soil and the source of perchlorate detected in subsurface soils. Perchlorate was detected in groundwater beneath this feature at a concentration of 3,270 µg/L. Although historical groundwater levels at this feature are not available, groundwater levels in nearby wells have fluctuated between 4 and 49 feet bgs since 1991. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. In this area it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. However, based on the vertical distribution of perchlorate and concentrations detected in the shallow samples, it appears that a shallow soil source of perchlorate may be present at this feature. Based on the results of this investigation, additional soil borings are recommended to delineate perchlorate impacts in the shallow soils.

Boring B14-HSAS11 was converted to monitoring well MW-68 and installed with a screen section from 24.4 to 39.4 feet bgs. Groundwater samples collected from monitoring well MW-68 were analyzed for perchlorate, VOCs, and 1,4-dioxane. Perchlorate and 1,4-dioxane were reported at concentrations of 3,270 µg/L and 2.2 µg/L, respectively, in monitoring well MW-68. Two VOCs (1,1-DCE and TCE) were detected at concentrations of 1.6 and 2.0 µg/L, respectively. Perchlorate concentrations appear to be elevated in MW-68 and nearby monitoring well MW-69 (Feature B-10) relative to nearby wells located to the south and southwest. In addition, 1,1-DCE and TCE concentrations appear to be less than the concentrations detected in the same nearby wells to the south and southwest. As described above, historically shallow groundwater levels could have affected (positively or negatively) both soil and groundwater perchlorate concentrations in this area. Based on the findings of this investigation, further investigation of the groundwater at this feature is recommended.

5.2.5 Feature B-18 – Cast and Cure Station

Three HSA soil borings were drilled to approximately 21.5 feet bgs with three soil samples collected from each boring at the depths of 5, 10 or 15, and 20 feet bgs and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in four of the nine soil samples collected ranging from 19.2 to 41.8 µg/kg with an average concentration of 28 µg/kg. Perchlorate concentrations are relatively low in comparison to the Motor Washout Area (Feature B-9) located just to the north of the Cast and Cure Station. It is possible that the perchlorate detected at the Cast and Cure Station could have originated from the Motor Washout Area (Feature B-9).

Perchlorate concentrations in the shallow wells have been as high as 1,250 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 51 feet bgs since 1992. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. Due to fluctuations of perchlorate affected groundwater in this area, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Based on the levels detected and the vertical profile, it is likely that the perchlorate detected in the soil at this feature originated from the Motor Washout Area or perchlorate affected groundwater. Based on the results of this investigation, no further investigation at this feature is recommended.

5.2.6 Feature B-19 – Pad on Berm

Two HSA soil borings were drilled to 21.5 feet bgs at the Pad on Berm with three soil samples collected from each boring at the depths of 5, 10, and 20 feet bgs and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in five of the nine soil samples collected ranging from 26.6 to 1,550 µg/kg with an average concentration of 414 µg/kg. Perchlorate concentrations are relatively low (<250 µg/kg) in comparison to the Motor Washout Area (Feature B-9) except for the sample collected from B19-HSAS18 at 10 feet bgs, where perchlorate was detected at 1,550 µg/kg. This boring was installed between the Pad on Berm and the Motor Washout Area.

Perchlorate concentrations in nearby shallow wells have been as high as 2,000 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area around the Pad on Berm from less than 1 foot bgs to greater than 35 feet bgs since 1992. Therefore, soil below approximately 6 feet bgs (adjusted by 5 feet for elevation difference) at the Pad on Berm may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. Due to fluctuations of perchlorate affected groundwater in this area, it is possible that perchlorate could have

been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. Except for the high concentration (1,550 µg/kg) detected at B19-HSAS18 south of the Pad on Berm, the vertical profile of increasing perchlorate concentrations with depth appears to support impacts from groundwater rather than a shallow soil source. Based on the results of this investigation, no further investigation at this feature is recommended.

5.2.7 Feature B-20 – Pad South of Mix Station Bunker

Two HSA soil borings were drilled to 31.5 and 35 feet bgs with four soil samples collected from each boring at the various depths and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in all eight soil samples collected ranging from 68.2 to 322 µg/kg with an average concentration of 181 µg/kg. Perchlorate concentrations are relatively low (<350 µg/kg) in comparison to the Propellant Mixing Station (Feature B-10) to the northwest where perchlorate was detected at 2,410 µg/kg.

Perchlorate concentrations in nearby shallow wells have been as high as 800 µg/L since sampling for perchlorate began in 2002. In addition, groundwater has fluctuated in the area from less than 4 feet bgs to greater than 49 feet bgs since 1991. Therefore, soil below 4 feet bgs may have been affected by impacted groundwater during wet periods when high groundwater table conditions exist. Due to fluctuations of perchlorate affected groundwater in this area, it is possible that perchlorate could have been transported vertically in the subsurface by two different mechanisms, either upward from rising groundwater, or downward from direct infiltration of precipitation from the surface if perchlorate was present in shallow soils. The vertical profile of higher perchlorate concentrations at depth appears to support impacts from groundwater rather than a shallow soil source at this feature. Based on the results of this investigation, no further investigation at this feature is recommended.

5.3 HISTORICAL OPERATIONAL AREA C INVESTIGATION SUMMARY

Operational Area C, the BPA, consisted of three primary features: 1) temporary chemical storage area, 2) burn pits, and 3) the beryllium test stand. Two of the features (C-22 and C-23) were investigated during this investigation. A summary of the investigations and conclusions for both of the features is provided below.

5.3.1 Feature C-22 – Burn Pit Landfill

Six HSA soil borings targeting some of the former burn pits were drilled to depths of 50 to 60 feet bgs during this investigation with three to four soil samples collected from each boring at various depths and

analyzed for VOCs and perchlorate. Soil gas probes were installed at depths of 10, 20, 30, and 40 feet bgs in each boring. Additional soil gas probes were installed at 50 feet bgs in four of the six soil borings.

Concentrations of perchlorate were detected above the MDL in 16 of the 20 soil samples collected ranging from 17.6 to 39,600 µg/kg with an average concentration of 3,359 µg/kg. Based on the borings installed and samples collected, there appears to be no overall perchlorate concentration trend with depth and the vertical profile differs by location. Low-level VOCs (acetone and toluene) were detected in only three of the 20 soil samples collected ranging from 4.9 to 5.5 µg/kg and are possibly associated with laboratory cross-contamination. The VOC detections in soil are not consistent with the elevated VOC levels detected in the soil gas. This may be a result of vapor migration in the sandy matrix at the Burn Pit Landfill from areas with residual elevated soil concentrations or off-gassing from the affected groundwater.

The highest soil gas concentrations detected at the Burn Pit Landfill were PCE and the groundwater COPCs, TCE, 1,1-DCE, and 1,1,1-TCA. Concentrations of TCE, PCE, and carbon tetrachloride exceeded their respective CHHSLs in one or more samples. Carbon tetrachloride was detected in only one out of the 28 soil gas samples collected at a concentration of 154 µg/m^3. TCE was detected in 23 of the 28 soil gas samples collected with detected concentrations ranging from 7.41 to 4,760 µg/m^3 with an average concentration of 1,112 µg/m^3. PCE was detected in 26 of the 28 soil gas samples collected with concentrations ranging from 9.09 to 5,930 µg/m^3 with an average concentration of 322 µg/m^3. 1,1,1,-TCA was detected in 27 of the 28 soil gas samples collected with concentrations ranging from 11.6 to 10,800 µg/m^3 with an average concentration of 1,132 µg/m^3.

Based on the analytes and concentrations detected in soil gas in comparison to groundwater sample results from wells within the Burn Pit Landfill, it is likely that the analytes detected in soil gas are a result of off-gassing of affected groundwater beneath this feature or possibly some residual soil contamination in the vadose zone. At most locations, VOC concentrations in soil gas increase with depth thereby, supporting off-gassing of affected groundwater as the source of the VOCs detected in soil gas. Similar to the perchlorate concentration contours in soil, the highest VOC concentrations detected in soil gas are located near the center of the former Burn Pit Landfill and the concentrations drop off towards the outer portions. Based on the results of the recent investigation, additional soil borings are recommended to delineate perchlorate impacts east and northeast of the Burn Pit Landfill. Additional shallow soil gas probes (5 feet bgs) may also be needed to evaluate human health concerns from VOCs present in soil gas.

5.3.2 Feature C-23 – Temporary Storage Area

Two HSA soil borings were installed to a depth of 40 feet bgs during this investigation with three (3) soil samples collected from each boring at 5, 20, and 30 or 40 feet bgs and analyzed for perchlorate. In addition, eight surface soil samples were collected from <0.2 feet bgs during this investigation and analyzed for beryllium.

Perchlorate was not detected above the MDL in any of the six soil samples collected during this investigation. Beryllium was detected in seven of the eight surface samples collected at concentrations ranging from 0.303 to 0.679 mg/kg with an average concentration of 0.423 mg/kg. Metals are naturally occurring and therefore the detection of beryllium in soil samples collected from this feature is expected. It should be noted that the concentrations of beryllium detected at concentrations up to 0.679 mg/kg, are within the normal range of values of elemental concentrations in soil for California (Bradford et al, 1996). However, a site-wide background metals survey is currently planned and therefore a more detailed analysis of beryllium concentrations detected at the Site will be conducted in a future study. Based on the results of this investigation, no further investigation at this feature is recommended.

5.4 HISTORICAL OPERATIONAL AREA D INVESTIGATION SUMMARY

Operational Area D, the LPC Ballistics Test Range facilities, included gun mounts, a ballistic tunnel, and storage buildings and trailers. Two of the features (D-28 and D-29) were investigated during this investigation. A summary of the investigations and conclusions for both features is provided below.

5.4.1 Feature D-28 – Former Dissolved TNT Disposal Area

Three soil borings were drilled to 31.5 feet bgs during this investigation with soil gas probes installed at 10, 20, and 30 feet bgs. Soil gas samples were collected and tested for VOCs. Other than one low-level detection of PCE, low-level fuel related compounds including BTEX and acetone were the only compounds detected relatively consistently at this feature. Acetone, the primary COPC in soil gas, was detected in six of the nine samples at concentrations ranging from 16.6 to 54.8 $\mu g/m^3$. However, all analytes and concentrations detected were well below their respective residential and commercial CHSSLs. Based on the results of this investigation, no further investigation at this feature is recommended.

5.4.2 Feature D-29 – Ballistics Tunnel and Support Facilities

Two samples were taken from 0.5 and 5 feet bgs at each of six hand auger locations installed during this investigation. Explosives were tested for at all six locations and perchlorate and VOCs were analyzed only for samples collected from the three locations installed near the storage buildings. Explosive residue

and perchlorate were not detected above MDLs in any of the 12 soil samples collected. VOCs detected in soil were the analytes methylene chloride at 2.4 µg/kg and acetone ranging from 6.6 to 12 µg/kg and are most likely associated with laboratory cross-contamination. Based on the results of this investigation, no further investigation at this feature is recommended.

5.5 HISTORICAL OPERATIONAL AREA F INVESTIGATION SUMMARY

Operational Area F, the LPC Test Services Area, included the following features: 1) three bays for structural load tests, 2) a 13-foot-diamater spherical pressure vessel, 3) six temperature conditioning chambers, 4) five environmental chambers, 5) a 25-MeV Betatron for emitting X-rays into large structures, 6) personnel and instrumentation protection bunkers, 7) supporting work shops and storage areas, and 8) a large motor washout area. Seven features (F-33, F-34, F-35, F-36, F-39, F-40, and Bldg. 309) were investigated during this investigation. A summary of the investigations and conclusions for each of the seven features is provided below.

5.5.1 Feature F-33 – Large Motor Washout Area

Three HSA soil borings were drilled to at least 31.5 feet bgs and four hand auger borings were installed to 5 feet bgs during this investigation. Soil samples were collected from each HSA boring at various depths and two soil samples were collected from each hand auger boring at 0.5 and 5.0 feet bgs and analyzed for perchlorate. Concentrations of perchlorate were detected above the MDL in 13 of the 18 soil samples collected ranging from 17.2 to 51,100 µg/kg with an average concentration of 5,599 µg/kg. Perchlorate concentrations decrease with depth in all borings except one located in the central portion where the highest perchlorate concentration detected during this investigation (51,100 µg/kg) was detected in the deepest sample (20-21.5 feet bgs). Perchlorate concentrations decrease significantly in soil samples collected below the water table at a depth of 30 feet bgs. Based on the results of this investigation, additional soil borings are recommended to delineate perchlorate impacts in soil.

Boring F33-HSAS14 was converted to monitoring well MW-70 and installed with a screen section from 20 to 35 feet bgs. Groundwater samples collected from monitoring well MW-70 were analyzed for perchlorate, VOCs, and 1,4-dioxane. Perchlorate was not detected at concentrations above its respective reporting limits. 1,4-dioxane, 1,1-DCE, and TCE were detected in the groundwater sample collected at concentrations below MCLs/DWNLs. It should be noted that MW-70 was installed in boring F33-HSAS14 which had a perchlorate concentration of 51,100 µg/kg detected in soil at a depth of 20 feet bgs. However, perchlorate was not detected in groundwater samples collected from MW-70 during the first two sampling events and screened from 20-35 feet bgs within this boring. Low dissolved oxygen within the groundwater at this well may indicate that biodegradation of perchlorate could be occurring in this

area due to the high organic content in the stream bed nearby creating an anaerobic environment. Based on the findings of this investigation, further investigation of the groundwater at this feature, including an evaluation of anaerobic biodegradation, is recommended.

5.5.2 Feature F-34 – Maintenance Shop and Warehouse Storage Area

Three HSA soil borings were drilled to approximately 31.5 feet bgs with soil gas probes installed at 15 and 25 feet in each boring. Two of the soil gas probes could not be sampled due to no-flow conditions because of saturated soils. Sampling of the water from these probes was attempted but could not be completed since there was insufficient water present for sampling. The primary COPCs detected at this feature were low-level TCE, PCE, 1,1-DCE, and BTEX. However, all analytes and concentrations detected were well below their respective residential and commercial CHSSLs. Given the limited number of deeper samples, it is difficult to determine if soil gas concentrations are higher in shallow soils throughout the feature. Although the concentrations of VOCs detected at all three locations are low, data is not available on impacts to groundwater in this area to evaluate potential off-gassing from groundwater. Based on the findings of this investigation, further investigation of the soil and groundwater at this feature is recommended to evaluate potential VOC impacts in soil and groundwater.

5.5.3 Feature F-35 – Betatron Building (Bldg. 303)

Four hand augered borings were installed to depths from 1.5 to 5 feet bgs during this investigation with soil samples collected and analyzed for PCBs only. PCBs were not detected above the MDLs in any of the eight soil samples collected from the Betatron Building during this investigation. However, Aroclor-1260 was detected at a concentration of 72 µg/kg in one sample from F-35-LAR9 during a previous investigation. The four borings installed during this investigation were installed around F-35-LAR9 and were all non-detect for all PCBs tested for including Aroclor-1260. The spatial extent of PCBs previously detected at this feature has been delineated by the borings installed during this investigation and appears to be very localized based on the samples collected. Based on the results of this investigation, no further investigation at this feature is recommended.

5.5.4 Feature F-36 – EBES Testing Area (Facility 313)

Four HSA soil borings were installed to a depth of 16.5 feet bgs during this investigation with three soil samples collected from each boring and analyzed for PCBs. PCBs were not detected above the MDL in any of the nine soil samples collected from the EBES Testing Area during this investigation. However, PCBs (Aroclor-1254) were detected in one sample collected during a previous investigation. The PCBs previously detected at this feature were only detected at 10-feet bgs and were not detected in the near surface sample (0.5 feet bgs) in the same boring. The spatial extent of PCBs previously detected at this

feature has been delineated by the borings installed during this investigation and appears to be very localized based on the samples collected. Based on the results of this investigation, no further investigation at this feature is recommended.

5.5.5 Feature F-39 – Test Bays (Bldgs. 308, 309, and 310)

Four HSA soil borings were installed to depths between 26.5 and 36.5 feet bgs during this investigation and soil gas probes were placed at 10 and 20 feet bgs. Groundwater was encountered between 24 and 31 feet bgs in all four soil borings. A groundwater screening sample was collected from F39-HSAS1 and analyzed for perchlorate and VOCs. No soil samples were collected at the Test Bays during this investigation.

Due to the presence of groundwater in five of the soil gas probes, water sample collection was attempted using a peristaltic pump. Four of the soil gas probes had sufficient groundwater present for water sample collection. Groundwater samples collected from these probes were analyzed for perchlorate and VOCs. Acetone, benzene, and TCE were the only VOCs detected in groundwater. TCE is the primary COPC detected at this feature with only low level acetone and benzene detected in one sample. TCE was detected above the MCL (5 µg/L) in two of the five groundwater samples collected with concentrations ranging from 1.4 to 64 µg/L with an average concentration of 21.2 µg/L. Based on the data collected, the horizontal and vertical extent of TCE in groundwater has not been delineated.

VOCs detected in soil gas at this feature were low-level benzene, toluene, PCE, and TCE. However, all analytes and concentrations detected were well below their respective residential and commercial CHSSLs. The two largest detections of total VOCs were from the 2005 investigation and consisted primarily of TCE. Based on the TCE results from the groundwater samples, it is possible that the TCE in soil gas could be from off-gassing of the groundwater. However, given the limited soil gas and groundwater data available for this feature, definitive conclusions cannot be made at this time. Based on the findings of this investigation, further investigation of the soil and groundwater at this feature is recommended to evaluate potential VOC impacts in soil and groundwater.

5.5.6 Feature F-40 – Electrical Enclosure

Four soil borings were hand augered to 5 feet bgs during this investigation with two soil samples collected from each boring at 0.5 and 5 feet bgs and analyzed for PCBs. PCBs were not detected above the MDL in any of the eight soil samples collected from the Electrical Enclosure during this investigation. However, PCBs (Aroclor-1248) were detected in one sample collected during a previous investigation. The PCBs previously detected at this feature were only detected at the 0.5-foot depth. Deeper samples

were not collected at this location previously to determine the vertical extent. During this investigation, samples were collected at both 0.5 and 5 feet bgs and all samples were non-detect for Aroclor-1248. Therefore, the spatial extent of PCBs previously detected at this feature has been delineated by the borings installed during this investigation and appears to be very localized based on the samples collected. Based on the results of this investigation, no further investigation at this feature is recommended.

5.5.7 Bldg. 309 – Transformer

Twelve hand auger locations were augered to 0.5 and 2 feet bgs. The first four samples were collected approximately 2 feet from the transformer pole in each direction and analyzed for PCBs. The remaining eight sample locations encircled the four inside locations approximately 7 feet from the pole. Those outer eight samples were collected and put on hold per the work plan pending the results from the samples of closer proximity to the pole. If there were any PCB concentrations above their respective detection limits then the samples from the outer eight locations would have been analyzed for PCBs. PCBs were not detected above the MDL in any of the eight soil samples collected during this investigation. Therefore, based on the samples collected it does not appear that soil near the former transformer has been impacted with PCBs. Based on the results of this investigation, no further investigation at this feature is recommended.

5.6 HISTORICAL OPERATIONAL AREA G INVESTIGATION SUMMARY

Operational Area G, the helicopter weapons test area, was used to develop equipment for handling helicopter weapons systems. The facilities within this area included a hangar (Building 302), helicopter landing pad, stationary ground mounted gun platforms, and a mobile target suspended between towers. Only one feature (G-46) was investigated in Operational Area G during this investigation. A summary of the investigation and conclusions for Feature G-46 is provided below.

5.6.1 Feature G-46 – Helicopter Landing Pad and Hangar (Bldg. 302)

Two HSA soil borings were drilled to 24 and 30 feet bgs and two soil gas probes were installed at 10 and 20 feet bgs in each boring. Soil gas samples were collected from the four probes and analyzed for VOCs. VOCs detected in all four samples collected from this feature include acetone, BTEX, methylene chloride, styrene, and PCE. In addition, 1,2,4-trimethylbenzene was detected in 3 of the 4 samples collected. There appears to be no apparent concentration trend with depth based on the concentrations of VOCs detected. PCE was the only analyte detected over a residential CHHSL. PCE was detected at concentrations over the residential CHHSL (180 µg/m^3) in 3 of the 4 samples collected ranging from 195 to 226 µg/m^3. The VOC concentrations detected are similar at both depth intervals and the spatial extent

is not defined. Based on the findings of this investigation, further investigation of the soil and groundwater at this feature is recommended to evaluate potential VOC impacts in soil and groundwater.

5.7 HISTORICAL OPERATIONAL AREA H INVESTIGATION SUMMARY

Operational Area H, a permitted sanitary landfill, was located along the western side of the Site. The permit for the landfill allowed LPC to dispose of trash such as paper, scrap metal, concrete, and wood generated during routine daily operations. Operational Area H consists of only one feature (H-49) which was investigated during this investigation. A summary of the investigation and conclusions for Feature H-49 is provided below.

5.7.1 Feature H-49 – Sanitary Landfill

A total of eight HSA soil borings were drilled to depths between 26.5 and 71.5 feet bgs during this investigation with a minimum of three soil samples collected from each boring and analyzed for perchlorate or PCBs. Concentrations of PCB's were not detected above MDLs in any of the samples tested. Perchlorate was detected in soil samples from two borings ranging from 40.1 to 4,910 µg/kg with an average detected concentration of 976 µg/kg. Perchlorate concentrations appear to increase in depth in one boring down to 40 feet bgs and then decrease an order of magnitude at 50 feet bgs. Perchlorate concentrations in the second boring were relatively the same at the 5 and 15-foot samples and were non detect in the 30 and 45-foot samples. Based on the concentration contours, the highest concentrations were detected between 30 and 40 feet bgs in the southwestern portion of the Sanitary Landfill near the former landfill trenches that may be the potential source of the perchlorate contamination. Based on the concentration contours, perchlorate is generally delineated to the southwest but is not defined to the north and east. Based on the borings installed, it appears that there are two very localized areas of PCB affected soil that is limited to less than 20 feet bgs. Based on the concentration contours, the PCBs affected areas are generally defined at 20-feet bgs but are not defined in the shallow soils at 5 feet bgs. Based on the findings of this investigation, further investigation of the soil and groundwater at this feature is recommended to further evaluate perchlorate impacts in soil and groundwater and further delineate PCB impacts in the shallow soils.

5.8 UPDATED CONCEPTUAL SITE MODEL

This section describes updates to the CSM presented in Section 2.0 based on the findings of this investigation. There are no updates to the site CSM with respect to the physical setting, geology, and hydrogeology. Therefore, the only changes to the site CSM are to the distribution of affected soil and groundwater which are described below.

5.8.1 Distribution of Affected Soil

A summary of the distribution of affected soil site-wide has not been previously included in the CSM. Individual discussions of the distribution of affected soil along with concentration contour maps have been provided in Section 4.0 of this document. The nature, magnitude, and extent of affected soil described in Section 4.0 incorporates all existing sampling data collected during the 2004 and 2007 investigations. Therefore, the individual discussions in Section 4.0 for each feature represent the most current and detailed discussion regarding the distribution of affected soil at each feature. However, a summary of the nature, magnitude, and extent of affected soil at the features where impacted soil was detected is included in Table 5-1 on page 5-16. The estimated areas of impacted soil are based on the concentration contours using all available data collected to date including inferred boundaries for areas not yet delineated. Therefore, the estimates provided will be recalculated as additional data is collected and the concentration contours are updated.

5.8.2 Distribution of Affected Groundwater

As previously stated in Section 2.4, the identification of COPCs is an ongoing process that is conducted routinely to determine if the list of previously identified COPCs still meets the objectives of the site characterization and remediation goals as well as the long term GMP.

Based on the results of this investigation, there are no changes to the list of primary and secondary groundwater COPCs identified in Section 2.4. The previously indentified primary COPCs are still considered representative of the overall Site including the features investigated as part of this investigation. Updates to the extent of the primary COPCs in groundwater based on the results of this investigation are described in the following subsections.

5.8.2.1 Perchlorate

The highest concentrations of perchlorate have consistently been reported in groundwater samples collected from shallow screened wells located in the former BPA and concentrations appear to rapidly decrease outside, and downgradient, of the footprint of the former BPA. However, two potential secondary perchlorate source areas were identified in the former RMPA, the Propellant Mixing Station (Feature B-10) and the Pad with Dry Well (Feature B-14). Perchlorate was detected in groundwater samples collected from wells at these two features ranging from 2,510 to 3,270 µg/L. These perchlorate concentrations are elevated in comparison to concentrations in nearby wells that represent migration of perchlorate from the former BPA. The vertical extent of perchlorate in groundwater at these two features has not been characterized but perchlorate concentrations decrease with depth in all other areas of the Site. Low level concentrations of perchlorate have been detected in groundwater samples collected from

Table 5-1 Summary of Affected Soil by Feature

Feature	Description	COPC	Media	Maximum Concentration Detected (soil units - µg/kg) (soil gas units - µg/m^3)	Depth of Maximum Concentration (ft bgs)	Estimated Area of Affected Soil (ft^2)
B-9	Motor Washout Area	Perchlorate	Soil	5,480	10	106,929
B-10	Propellant Mixing Station	Perchlorate	Soil	2,410	0.5	6,393
B-11	Fuel Slurry Station	Perchlorate	Soil	725	10	35,533
B-12	Chemical Storage Quonset Hut	Perchlorate	Soil	95.8	20	3,811
B-14	Pad with Dry Well	Perchlorate	Soil	20,400	5	24,601
B-18	Cast and Cure Station	Perchlorate	Soil	41.8	15	10,771
B-19	Pad on Berm	Perchlorate	Soil	213	20	9,035
B-20	Pad South of Mix Station Bunker	Perchlorate	Soil	1,080	10	13,941
C-22	Burn Pit Landfill	Perchlorate	Soil	171,000	20	257,330
C-22	Burn Pit Landfill	PCE	Soil Gas	5,930	50	218,414
C-22	Burn Pit Landfill	TCE	Soil Gas	4,760	40	218,414
C-23	Temporary Storage Area	Perchlorate	Soil	505	20	1,879
F-33	Large Motor Washout Area	Perchlorate	Soil	57,100	20	51,867
F-34	Maintenance Shop and Storage Warehouse Area	1,1-DCE	Soil Gas	2,900	10	6,109
F-35	Betatron Building	Aroclor-1260	Soil	72	0.5	118
F-36	EBES Testing Area	Aroclor-1254	Soil	130	10	536
F-39	Test Bays	TCE	Soil Gas	47,000	10	11,722
F-40	Electrical Enclosure	Aroclor-1248	Soil	250	0.5	481
G-46	Helicopter Landing Pad and Hangar	PCE	Soil Gas	226	10	34,426
H-49	Sanitary Landfill	Perchlorate	Soil	4,910	40	22,706
H-49	Sanitary Landfill	Aroclor-1248	Soil	910	5	1,726

Notes: µg/kg: micrograms per kilogram
µg/m^3: micrograms per cubic meter
ft bgs: feet below ground surface
ft^2: square feet

one deeper Mt. Eden Formation well in the BPA. The source of perchlorate affected groundwater appears to primarily be the former BPA with the former RMPA as a secondary source.

5.8.2.2 Trichloroethene

The highest concentrations of TCE have consistently been reported in groundwater samples collected from shallow screened wells located in the former BPA. Groundwater concentrations appear to rapidly decrease outside, and downgradient, of the footprint of the former BPA. No other source areas of TCE in groundwater have been identified except for the Test Bays (Feature F-39) located ion the western portion of Operational Area F. TCE was detected in shallow groundwater at the Test Bays at concentrations up to 64 µg/L. The vertical extent of TCE in groundwater at these this feature has not been characterized but TCE concentrations decrease with depth in all other areas of the Site. The former BPA is the primary source of TCE affected groundwater at the Site. The Test Bays (Feature F-39) represent a secondary source that may be fairly localized based on the topographical setting in this area.

5.9 CONCLUSIONS

Based on the findings of this investigation along with the previous investigation in 2004, no further investigation of features in Historical Operational Areas A, D, E, and I are required. However, additional investigation of select features in areas B, C, F, G, and H are necessary to determine the magnitude and extent of affected soil and/or groundwater. The magnitude and extent of impacted soil and groundwater at these features is needed to estimate the mass of contaminant(s) present (above and below clean-up levels) to determine appropriate mitigation alternatives and understand any potential long-term impacts on groundwater from residual soil contamination remaining after remediation. Currently, feature-specific clean-up levels for soil have not been established since the risk assessment and fate and transport modeling efforts are not yet complete. In addition, some of the potential groundwater source areas have not been fully characterized at these features so the size of the area of high concentration groundwater that may need hot spot treatment/removal cannot be estimated until the characterization is complete. A dynamic site investigation work plan is being prepared to complete the characterization of both the soil and groundwater at features where impacted soil or groundwater has been identified but not adequately characterized.

6.0 REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR)
2002 Toxfaqs™ Hazardous Substances Fact Sheets, http://www.atsdr.cdc.gov/toxfaq.html.

G. R. Bradford, A. C. Chang, A. L. Page, D. Bakhtar, J. A. Frampton, and H. Wright.
1996 *Background Concentrations of Trace and Major Elements in California Soils,* Kearney Foundation Of Soil Science, Division of Agriculture And Natural Resources, University of California, March 1996

Dibblee, T. W.
1981 Geologic Map of Banning (15-minute) Quadrangle, California, South Coast Geologic Society Map 2, Updated 2003.

Domenico, P. A. and Schwartz, F. W.
1990 *Physical and Chemical Hydrogeology*, John Wiley & Sons, New York, New York, 1990.

Earth Tech
2000 *Five Year Sampling Plan, Lockheed Martin Corporation, Beaumont Site 1, Beaumont, California*, March 2000.

2002 *Sampling and Analysis Plan, Lockheed Martin Corporation, Beaumont Site 1, Beaumont, California*, June 2002.

General Electric Corporation
1984 *Engineering Appraisal Report, Lockheed Corporation Beaumont and Potrero Sites*, July 1984.

Harden, Deborah R.
1998 *California Geology*, Prentice Hall, Inc., Upper Saddle River, New Jersey. 1998.

Leighton and Associates
1983a *Geotechnical and Water Resources Management Feasibility Study, Potrero Creek Area South of Beaumont, Riverside County, California*. March 24, 1983.

1983b *Hydrogeologic Investigation for Water Resources Development, Potrero Creek, Riverside County, California*. October 27, 1983.

Radian Corporation (Radian)
1986a *Lockheed Propulsion Company, Beaumont Test Facilities, Historical Report*, September 1986.

1986b *Preliminary Remedial Investigation, Lockheed Propulsion Company Beaumont Test Facilities,* December 1986.

1990 *Source and Hydrogeologic Investigation – Final, Lockheed Propulsion Company Beaumont Test Facilities*, February 19, 1990.

1992a *Lockheed Beaumont No. 1, Treatability Study*, February 1992.

1992b *Burn Pit Remediation Work Plan, Lockheed Propulsion Company Beaumont Test Facilities,* August 1992.

1992c *Lockheed Propulsion Company, Beaumont Test Facilities, Hydrogeologic Study*. December 1992.

1993 *Burn Pit Area Removal Action Report, Lockheed Propulsion Company Beaumont Test Facilities*, June 1993.

1998 *Final Lockheed Martin Burn Pit Area Remediation System Evaluation, Lockheed Beaumont Site 1,* September 1998.

Ransome, F. L.

1932 *Final Geologic Report on the San Jacinto Tunnel Line Colorado River Aqueduct,* Prepared for the Metropolitan Water district of Southern California. March 12, 1932.

Tetra Tech, Inc.

2002 *Final Supplemental Site Characterization Report, Beaumont Site, Lockheed Martin Corporation*, September 2002.

2003a *Lockheed Beaumont, Site 1 & 2, Phase 1 Environmental Site Assessment, Beaumont, California*, March 2003.

2003b *Revised Groundwater Sampling and Analysis Plan, Beaumont Site 1, Lockheed Martin Corporation, Beaumont, California*, April 2003.

2004 *Lockheed Martin Corporation, Final Groundwater Monitoring Well Installation Work Plan, Beaumont Site 2, Beaumont, California*, January 2004.

2005a *Lockheed Martin Corporation, Soil Investigation Report, Beaumont Site 1, Historical Operational Areas A, B, and C, Beaumont, California, May 2005,* August 2005 with revisions.

2005b *Lockheed Martin Corporation, Soil Investigation Report, Beaumont Site 1, Historical Operational Areas D, E, F, G, H and I, Beaumont, California*, April 2005 with revisions of October 2005.

2005c *Low-Effect Habitat Conservation Plan for the Issuance of an Incidental Take Permit Under Section 10(a)(1)(B) of the Endangered Species Act for the Federally Endangered Stephen's Kangaroo Rat on Beaumont Potrero Creek and Beaumont Laborde Canyon Properties, Riverside, California*, May 2005.

2006a *Lockheed Martin Corporation, Soil Investigation Sampling and Analysis Plan, Beaumont Site 1, Historical Operational Areas D, E, F, G, H and I, Beaumont, California*, December 2006.

2006b *Lockheed Martin Corporation, Supplemental Soil Investigation Sampling and Analysis Plan, Beaumont Site 1, Historical Operational Areas A, B, and C, Beaumont, California,* December 2006.

2006c *Lockheed Martin Corporation, Potential Transformer Spill Soil Investigation, Beaumont Site 1, Beaumont, California*.

United States Bureau of Reclamation

1986 *Visual Classification of Soils, Unified Soil Classification System,* Geotechnical Branch Training Manual No. 5, Division of Research and Laboratory Services.

United States Environmental Protection Agency (EPA)

1992 *RCRA Groundwater Monitoring: Draft Technical Guidance,* Office of Solid Waste, November 1992.

1999 *Contract Laboratory Program National Functional Guidelines for Organic Data Review,* EPA-540/R-99-008 (PB99-963506), October 1999.

2004 *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* OSWER 9240.1-45, EPA-540-R-04-004, October 2004.

7.0 ACRONYMS AND ABBREVIATIONS

°C	degree Celsius
µg/kg	micrograms per kilogram (part per billion)
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
%	percent
AETL	American Eagle Testing Laboratories, Inc.
bgs	below ground surface
BPA	burn pit area
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health (formerly Department of Health Services)
CHHSL	California Human Health Screening Level
CoC	Chain-of-Command
COPC	chemical of potential concern
CSM	conceptual site model
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
DO	dissolved oxygen
DGPS	digital global positioning system
DWNL	California drinking water notification level
DTSC	Department of Toxic Substances Control
EC	electrical conductivity
EM31	Geonics EM-31 Mark I
EMAX	EMAX Laboratory, Inc.
EMI	electromagnetic induction
EPA	United States Environmental Protection Agency
f	The duplicate/replicate sample precision was outside the control limits.

ft/day	feet per day
ft/sec	feet per second
GMP	Groundwater Monitoring Program
gpm	gallons per minute
GPS	global positioning system
HASP	Health and Safety Plan
HSA	hollow-stem auger
HSU	hydrostratigraphic unit
IDW	investigation-derived waste
IUOE	International Union of Operating Engineers
J	The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
K	hydraulic conductivity
LMC	Lockheed Martin Corporation
LPC	Lockheed Propulsion Company
MCL	Maximum Contaminant Level
MCEA	Massacre Canyon Entrance Area
MDL	method detection limit
MeV	Million electronic volts
mm	millimeter
mg/L	milligrams per liter
mg/kg	milligrams /kilogram (parts per million)
ml/min	milliliters per minute
MS/MSD	matrix spike/matrix spike duplicate
MTBE	methyl-tert butyl ether
mV	millivolt
NA	not analyzed
NAD83	California State Plane Zone 6, North American Datum of 1983
ND	not detected at or above method detection limit
NTU	nephelometric turbidity unit

NWS	National Weather Service
O&M	operations and maintenance
O.D.	outer diameter
ORP	oxidation-reduction potential
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PPE	personal protective equipment
PQL	practical quantitation limit
PRG	EPA Region IX Preliminary Remediation Goal
PVC	polyvinyl chloride
q	The analyte detection was below the practical quantitation limit.
QA/QC	quality assurance/quality control
Radian	Radian Corporation, Inc.
REC	Recognized Environmental Concern
Report	*Supplemental Site Investigation Report*
RL	laboratory reporting limit
RMPA	Rocket Motor Production Area
RPD	relative percent difference
SAP	Sampling and Analysis Plan
SIM	selective ion monitoring
SKR	Stephens' Kangaroo Rat
SVE	soil vapor extraction
SVOC	semivolatile organic compound
Tetra Tech	Tetra Tech, Inc.
TCE	trichloroethene
Freon 113	1,1,2-trichlorotrifluoroethane
TEF	toxicity equivalent factor
TNT	2,4,6-trinitrotoluene
TPH	total petroleum hydrocarbons
TOC	Top of casing

1,1,1-TCA	1,1,1-trichloroethane
USCS	Unified Soil Classification System
VOC	volatile organic compound
WDC	WDC Exploration, Inc.

Appendix A

Well Construction Permits

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
WELL PERMIT APPLICATION
(For Construction, Reconstruction & Destruction)

CAUTION! STORM DRAINS AND SEWERS MAY NOT BE IDENTIFIED BY UNDERGROUND SERVICE ALERT (USA)

☒ 4080 Lemon Street, 2nd Floor / P.O. Box 1206 - Riverside, CA 92502 - (951) 955-8980
☐ 82675 Hwy. 111, CAC - Indio, CA 92201 - (760) 863-7000
☐ 39493 Los Alamos - Murrieta, CA 92563 - (951) 600-6180

Consultant's check (#1083322) Tetra Tech, Inc. $334.56/100

B14-MWS11

PLEASE REPLY TO ADDRESS CHECKED ABOVE

NOTE: Any abandoned wells on the property must be properly destroyed before an application for construction or reconstruction can be processed.

FOR DEPARTMENT USE ONLY
Permit No. 33133
Expiration 10-20-07

Please Print EHW070352

1. OWNER: Name Lockheed Martin Corporation
Mailing Address 2950 N. Hollywood Way, Suite 125
City Burbank State CA
Zip 91505 Phone No. (818) 847-0899

2. DATE OF WORK (approximate):
Start 4-18-07 Complete 4-30-07

3. WELL DRILLER
Name WDC Exploration and Wells
Riv. Co. Registration No. WDR-04-051
C-57 License No. C57-283-326

4. WELL CHECK (check) B14-MWS11
☐ Community ☒ Monitoring ☐ Industrial
☐ Individual ☐ Cathodic ☐ Other
☐ Agricultural ☐ Horizontal

4A. FOR MONITORING WELL: (Name of Consultant)
Name Tetra Tech, Inc Phone (909) 381-1674

5. TYPE OF WORK (check) Brenda Meyer
☒ New ☐ Reconstruction ☐ Destruction

5A. If reconstruction or destruction, please describe method on reverse side of attached Plot Plan.

6. ANNUAL SEAL:
Depth 38 ft.
Borehole Diam. 10 in.
Conductor Diam. _____ in.
Annular Thickness 3 in.
Sealing Material Bentonite Grout

7. DEPTH OF WELL (feet)
Proposed 60 Existing —
DIAMETER OF BORE (in.) 10

8. PRODUCTION WELL CASING INSTALLED:
☐ Steel ☒ Plastic ☐ Other

From (ft.)	To (ft.)	Dia. (in.)	Wall (Gage)
	60	4	Sch 40

GRAVEL PACK: ☒ Yes ☐ No
From 38 to 60 ft.
Type of rig CME 75 High Torque

9. PERFORATIONS (if applicable):
From 40 to 60 ft.

10. SEALED ZONES (if applicable):
From _____ to _____ ft.

11A. The California Labor code requires Worker's Compensation Insurance as a prerequisite to permit issuance unless the applicant signs the following certificate: **I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers Compensation Insurance laws of California.**

Driller's Signature _____ Date _____

11B. I have read this application and agree to comply with all laws regulating the type of work being performed.

Driller's Signature Jeffrey P. O'Connor Date 4/10/07

12. I declare under penalty of perjury under the laws of the State of California that the information furnished as part of this application is true and correct. I also understand that I am legally obligated to obey all requirements of state law and Riverside County Ordinances in connection with the approval of this application.

Property Owner's Signature Brenda S Meyer for LMC Date 4/19/07

OK JHilk 4/18/07

DISPOSITION OF PERMIT

Approved subject to the following: **FOR DEPARTMENT USE ONLY**

A. Notify the Department, , forty-eight (48) hours in advance to make an inspection of the following operations:
☒ Prior to sealing of the annular space or filling of the conductor casing.
☐ Verify the depth of the conductor (outer) casing prior to further drilling and installation of the inner casing.
☒ After installation of the surface protective slab and pumping equipment.
☐ During destruction of wells, prior to pouring the sealing material.

B. Approved Plot Plan.

C. Submit to the Department within thirty (60) days after completion of work, a copy of:
☒ Water Well Driller's Report (DWR 188).

NOTE: Property located within the Rancho California Water District may be subject to an existing Agency Agreement with said District.

D. Other: _____

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
WELL PERMIT APPLICATION
(For Construction, Reconstruction & Destruction)

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STORM DRAINS SEWERS
MAY BE IN ... BY
GROUND SER...

☒ 4080 Lemon Street, 2nd Floor / P.O. Box 1206 - Riverside, CA 92502 - (951) 955-8980
☐ 82675 Hwy. 111, CAC - Indio, CA 92201 - (760) 863-7000
☐ 39493 Los Alamos - Murrieta, CA 92563 - (951) 600-6180

Consultant's chak Tetra Tech Inc. $334.50 TOU (#1083322)

F33-MWS6

PLEASE REPLY TO ADDRESS CHECKED ABOVE

NOTE: Any abandoned wells on the property must be properly destroyed before an application for construction or reconstruction can be processed.

Please Print EHW070351

FOR DEPARTMENT USE ONLY
Permit No. 33132
Expiration 10-20-07

1. OWNER: Name Lockheed Martin Corporation
Mailing Address 2950 N. Hollywood Way, Suite 125
City Burbank State CA
Zip 91505 Phone No. (818) 847-0899

2. DATE OF WORK (approximate):
Start 4-18-07 Complete 4-30-07

3. WELL DRILLER
Name WDC Exploration and Wells
Riv. Co. Registration No. WDR-04-051
C-57 License No. C57 283 326

4. WELL CHECK (check) F33-MWS6
☐ Community ☒ Monitoring ☐ Industrial
☐ Individual ☐ Cathodic ☐ Other
☐ Agricultural ☐ Horizontal

4A. FOR MONITORING WELL: (Name of Consultant)
Name Tetra Tech, Inc Phone (909) 381-1674

5. TYPE OF WORK (check) Brenda Meyer
☒ New ☐ Reconstruction ☐ Destruction

5A. If reconstruction or destruction, please describe method on reverse side of attached Plot Plan.

6. ANNUAL SEAL:
Depth 38 ft.
Borehole Diam. 10 in.
Conductor Diam. _____ in.
Annular Thickness 3 in.
Sealing Material Bentonite Grout

7. DEPTH OF WELL (feet)
Proposed 60 Existing —
DIAMETER OF BORE (in.) 10

8. PRODUCTION WELL CASING INSTALLED:
☐ Steel ☒ Plastic ☐ Other

From (ft.)	To (ft.)	Dia. (in.)	Wall (Gage)
	60	4	Sch 40

GRAVEL PACK: ☒ Yes ☐ No
From 38 to 60 ft.
Type of rig CME 75 High Torque

9. PERFORATIONS (if applicable):
From 40 to 60 ft.

10. SEALED ZONES (if applicable):
From _____ to _____ ft.

11A. The California Labor code requires Worker's Compensation Insurance as a prerequisite to permit issuance unless the applicant signs the following certificate: **I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers Compensation Insurance laws of California.**

Driller's Signature _____ Date _____

11B. I have read this application and agree to comply with all laws regulating the type of work being performed.

Driller's Signature Jeffrey P. O'Connor Date 4/10/07

12. I declare under penalty of perjury under the laws of the State of California that the information furnished as part of this application is true and correct. I also understand that I am legally obligated to obey all requirements of state law and Riverside County Ordinances in connection with the approval of this application.

Property Owner's Signature Brenda J Meyer for LMC Date 4/19/07

OK [signature] 4/18/07

DISPOSITION OF PERMIT

Approved subject to the following: **FOR DEPARTMENT USE ONLY**

A. Notify the Department, , forty-eight (48) hours in advance to make an inspection of the following operations:
☒ Prior to sealing of the annular space or filling of the conductor casing.
☐ Verify the depth of the conductor (outer) casing prior to further drilling and installation of the inner casing.
☒ After installation of the surface protective slab and pumping equipment.
☐ During destruction of wells, prior to pouring the sealing material.

B. Approved Plot Plan.

C. Submit to the Department within thirty (60) days after completion of work, a copy of:
☒ Water Well Driller's Report (DWR 188).

NOTE: Property located within the Rancho California Water District may be subject to an existing Agency Agreement with said District.

D. Other: _____

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
WELL PERMIT APPLICATION
(For Construction, Reconstruction & Destruction)

CAUTION! STORM DRAINS AND SEWERS MAY NOT BE CERTIFIED BY

☒ 4080 Lemon Street, 2nd Floor / P.O. Box 1206 - Riverside, CA 92502 - (951) 955-8980
☐ 82675 Hwy. 111, CAC - Indio, CA 92201 - (760) 863-7000
☐ 39493 Los Alamos - Murrieta, CA 92563 - (951) 600-6180

Consultant's check (#1083322) Tetra Tech, Inc - $334.56/100

B10-MW55

PLEASE REPLY TO ADDRESS CHECKED ABOVE

NOTE: Any abandoned wells on the property must be properly destroyed before an application for construction or reconstruction can be processed.

FOR DEPARTMENT USE ONLY
Permit No. 33134
Expiration 10-20-07

Please Print EHW070352

1. OWNER: Name Lockheed Martin Corporation
Mailing Address 2950 Hollywood Way, Suite 125
City Burbank State CA
Zip 91505 Phone No. (818) 847-0899

2. DATE OF WORK (approximate):
Start 4-18-07 Complete 4-30-07

3. WELL DRILLER
Name WDC Exploration and Wells
Riv. Co. Registration No. WDR-04-051
C-57 License No. C57 283 326

4. WELL CHECK (check) B10-MW55
☐ Community ☒ Monitoring ☐ Industrial
☐ Individual ☐ Cathodic ☐ Other
☐ Agricultural ☐ Horizontal

4A. FOR MONITORING WELL: (Name of Consultant)
Name Tetra Tech, Inc Phone (909) 381-1674

5. TYPE OF WORK (check) Brenda Meyer
☒ New ☐ Reconstruction ☐ Destruction

5A. If reconstruction or destruction, please describe method on reverse side of attached Plot Plan.

6. ANNUAL SEAL:
Depth 38 ft.
Borehole Diam. 10 in.
Conductor Diam. _____ in.
Annular Thickness 3 in.
Sealing Material Bentonite Grout

7. DEPTH OF WELL (feet)
Proposed 60 Existing —
DIAMETER OF BORE (in.) 10

8. PRODUCTION WELL CASING INSTALLED:
☐ Steel ☒ Plastic ☐ Other

From (ft.)	To (ft.)	Dia. (in.)	Wall (Gage)
	60	4	Sch 40

GRAVEL PACK: ☒ Yes ☐ No
From 38 to 60 ft.
Type of rig CME 75 High Torque

9. PERFORATIONS (if applicable):
From 40 to 60 ft.

10. SEALED ZONES (if applicable):
From _____ to _____ ft.

11A. The California Labor code requires Worker's Compensation Insurance as a prerequisite to permit issuance unless the applicant signs the following certificate: **I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers Compensation Insurance laws of California.**

Driller's Signature _____ Date _____

11B. I have read this application and agree to comply with all laws regulating the type of work being performed.

Driller's Signature Jeffrey P. O'Connor Date 4/10/07

12. I declare under penalty of perjury under the laws of the State of California that the information furnished as part of this application is true and correct. I also understand that I am legally obligated to obey all requirements of state law and Riverside County Ordinances in connection with the approval of this application.

Property Owner's Signature Brenda J Meyer for LMC Date 4/19/07

OK JGhlbs 4/18/07

DISPOSITION OF PERMIT

Approved subject to the following: **FOR DEPARTMENT USE ONLY**

A. Notify the Department, , forty-eight (48) hours in advance to make an inspection of the following operations:
☒ Prior to sealing of the annular space or filling of the conductor casing.
☐ Verify the depth of the conductor (outer) casing prior to further drilling and installation of the inner casing.
☒ After installation of the surface protective slab and pumping equipment.
☐ During destruction of wells, prior to pouring the sealing material.

B. Approved Plot Plan.

C. Submit to the Department within thirty (60) days after completion of work, a copy of:
☒ Water Well Driller's Report (DWR 188).

NOTE: Property located within the Rancho California Water District may be subject to an existing Agency Agreement with said District.

D. Other: _____

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
WELL PERMIT APPLICATION
(For Construction, Reconstruction & Destruction)

CAUTION! STORM DRAINS AND SEWERS ... IDENTIFIED BY ... DIGGING ... DEPARTMENT (USA)

☒ 4080 Lemon Street, 2nd Floor / P.O. Box 1206 - Riverside, CA 92502 - (951) 955-8980
☐ 82675 Hwy. 111, CAC - Indio, CA 92201 - (760) 863-7000
☐ 39493 Los Alamos - Murrieta, CA 92563 - (951) 600-6180

Consultant's check # 1083322) H49-MWS8
Tetra Tech, Inc.
$ 334.50

PLEASE REPLY TO ADDRESS CHECKED ABOVE

NOTE: Any abandoned wells on the property must be properly destroyed before an application for construction or reconstruction can be processed.

EHW070350

FOR DEPARTMENT USE ONLY
Permit No. 33131
Expiration 10-20-07

Please Print

1. OWNER: Name Lockheed Martin Corporation
Mailing Address 2950 N. Hollywood Way, Suite 125
City Burbank State CA
Zip 91505 Phone No. (818) 847-0899

2. DATE OF WORK (approximate):
Start 4-18-07 Complete 4-30-07

3. WELL DRILLER
Name WDC Exploration and Wells
Riv. Co. Registration No. WDR-04-051
C-57 License No. C57 283 326

4. WELL CHECK (check) H49-MWS8
☐ Community ☒ Monitoring ☐ Industrial
☐ Individual ☐ Cathodic ☐ Other
☐ Agricultural ☐ Horizontal

4A. FOR MONITORING WELL: (Name of Consultant)
Name Tetra Tech, Inc Phone (909) 381-1674

5. TYPE OF WORK (check) Brenda Meyer
☒ New ☐ Reconstruction ☐ Destruction

5A. If reconstruction or destruction, please describe method on reverse side of attached Plot Plan.

6. ANNUAL SEAL:
Depth 38 ft.
Borehole Diam. 10 in.
Conductor Diam. ____ in.
Annular Thickness 3 in.
Sealing Material Bentonite Grout

7. DEPTH OF WELL (feet)
Proposed 60 Existing —
DIAMETER OF BORE (in.) 10

8. PRODUCTION WELL CASING INSTALLED:
☐ Steel ☒ Plastic ☐ Other

From (ft.)	To (ft.)	Dia. (in.)	Wall (Gage)
	60	4	Sch 40

GRAVEL PACK: ☒ Yes ☐ No
From 38 to 60 ft.
Type of rig CME 75 High Torque

9. PERFORATIONS (if applicable):
From 40 to 60 ft.

10. SEALED ZONES (if applicable):
From ____ to ____ ft.

11A. The California Labor code requires Worker's Compensation Insurance as a prerequisite to permit issuance unless the applicant signs the following certificate: **I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers Compensation Insurance laws of California.**

Driller's Signature ____ Date ____

11B. I have read this application and agree to comply with all laws regulating the type of work being performed.

Driller's Signature Jeffrey P. O'Connor Date 4/10/07

12. I declare under penalty of perjury under the laws of the State of California that the information furnished as part of this application is true and correct. I also understand that I am legally obligated to obey all requirements of state law and Riverside County Ordinances in connection with the approval of this application.

Property Owner's Signature Brenda Meyer for LMC Date 4/19/07

OK Julie 4/18/07

DISPOSITION OF PERMIT

FOR DEPARTMENT USE ONLY

Approved subject to the following:

A. Notify the Department, , forty-eight (48) hours in advance to make an inspection of the following operations:
☒ Prior to sealing of the annular space or filling of the conductor casing.
☐ Verify the depth of the conductor (outer) casing prior to further drilling and installation of the inner casing.
☒ After installation of the surface protective slab and pumping equipment.
☐ During destruction of wells, prior to pouring the sealing material.

B. Approved Plot Plan.

C. Submit to the Department within thirty (60) days after completion of work, a copy of:
☒ Water Well Driller's Report (DWR 188).

NOTE: Property located within the Rancho California Water District may be subject to an existing Agency Agreement with said District.

D. Other: ____

Appendix B

Boring Logs

TETRA TECH

BORING LOG

(Feature A Operational Area 6) **A6/HAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Old RMC)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	NA	Northing (feet):	
Logged By:	Chris Patrick			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	NA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0845	A6-HAS101 0.5	SP		0 to 5 feet bgs. POORLY GRADED SAND: (7.5YR 4/4) brown, damp, medium dense, subrounded to subangular, fine to coarse-grained sand, trace non-plastic fines.	PID = 0.0
1	A							BZ = 0.0
	N							
2	D			A6-HAS101 0.5 (Dup)				
3	A							
	U							
4	G							
	E							
5	R							
			0900	A6-	SM		5 feet bgs. POORLY GRADED SAND: (7.5YR 4/4) brown, damp, medium dense, very fine to medium-grained sand, non-plastic fines. Groundwater is not confirmed. Total Depth (TD) of boring is 5' bgs.	PID = 0.0
6				HAS1				BZ = 0.0
				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 9 Operational Area B) **B9-HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Motor Wsh Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
0	H		0945		SM		0 to 5 ft. SILTY SAND: (10YR 5/2) grayish brown, very loose,	PID = .2
1	A						dry, 90% subrounded, very fine-grained sand, poorly graded, 10%	BZ = .2
	N						non-plastic fines, no reaction with HCl.	
2	D							
3	A						*Hand auger to 3' bgs. HSA to 5' bgs. Logged by cuttings.	
	U							
4	G							
	E							
5	R							
	81%	9	0955	B9-	SP		5 to 6.5 ft. Same as above. Medium dense.	PID = .2
6		10		HSAS1				BZ = .2
		11		5-6.5				
7								
8							*HSA to 10' bgs.	
9								
10								
	75%	7	1000	B9-	SP		10 to 11.5 ft. Same as above. *Begin sampling using 5' centers.	PID = .2
11		9		HSAS1				BZ = .2
		12		10-11.5				
12								
13								
14								
15								
	50%	10	1006		SP		15 to 16.5 ft. Same as above.	PID = .2
16		15						BZ = .2
		25						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 9 Operational Area B) **B9-HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Motor Wsh Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
20	88%	12	1012	B9-	SP		20 to 21.5 ft. Same as above. Groundwater is not confirmed.	PID = .2
21		14		HSAS1				BZ = .2
		16		20-21.5			Total Depth (TD) of boring is 21.5' bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 9 Operational Area B) B9-HSAS2

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Motor Wsh Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0935		SM		0 to 5 feet bgs. SILTY SAND: (10YR 3/2) very dark grayish brown, loose, dry, 90% subrounded to subangular, very fine to fine-grained sand, poorly graded, 10% non-plastic fines, no odor.	NA
1	A							
	N							
2	D							
3	A						*Hand auger to 5' bgs.	
	U							
4	G							
	E							
5	R							
	28%	30	0954	B9-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very dark grayish brown, very dense, dry, 90% subrounded to subangular, fine to medium-grained sand, 10% non-plastic fines, no odor.	NA
6		50		HSAH2				
				5-6.5				
7								
8							*HSA to 10' bgs.	
9								
10								
	81%	10	0956	B9-	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (10YR 5/3) brown. Same as above. *Begin sampling using 5' centers.	NA
11		15		HSAH2				
		17		10-11.5				
12								
13								
14								
15								
	69%	10	1000		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (10YR 5/3) Same as above. Color change to (10YR 3/2) very dark grayish brown between 15.2 and 15.4' bgs only.	NA
16		12						
		16						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 9 Operational Area B) B9-HSAS2

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Motor Wsh Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
								NA
20	56%	13	1004	B9-	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (10YR 5/3)	
21		17		HSAS2			brown. Same as above. Groundwater is not confirmed.	
		21		20-21.5			Total Depth (TD) of boring is 21.5' bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature B Operational area 9) B9-HSAS3

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Motor Wsh Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1047		SM		0 to 1 foot bgs. SILTY SAND: (10YR 5/3) brown,very loose, dry	NA
1	**AUGER**						90% subrounded to subangular, fine to medium-grained sand with silt, poorly graded, 10 % non-plastic fines, no odor.	
2							* Hand auger refusal at 1' bgs.	
3							* HSA 1' to 5' bgs. Logged by cuttings.	
4								
5	69%	10	1057	B9-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 5/3) brown	NA
6		10		HSAS3			medium dense, dry, 90% subrounded to subangular, fine to	
		10		5-6.5			medium-grained sand, trace coarse grains, 10% non-plastic	
7							fines, color change at 5.8 feet bgs. to (10 YR 3/2) very dark	
							grayish brown, no odor.	
8							*HSA to 10' bgs.	
9								
10	75%	9	1102	B9-	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very	NA
11		10		HSAS3			dark grayish brown, medium dense, dry, 90% subrounded to sub-	
		10		10-11.5			angular, fine to medium grain sand, with trace coarse grains, 10%	
12							non-plastic fines, micaeous, no odor. *Begin sampling using 5'	
							centers.	
13								
14								
15	78%	7	1105		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (10YR 3/2)	NA
16		7					Same as above.	
		7						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature B Operational area 9) B9-HSAS3

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Motor Wsh Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

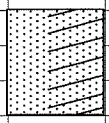
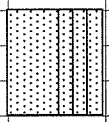
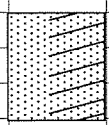
Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	63%	7	1108	B9-	SP-SM		20 to 21.5 feet bgs. POORLY GRADED SAND WITH SILT:	NA
21		10		HSAS3			(10YR 3/2) Same as above. Groundwater is not confirmed.	
		12		20-21.5			Total Depth (TD) of boring is 21.5' bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) B10-HSAS4

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Propellant Mix Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1440				No Recovery	NA
1	A						*Hand auger refusal. HSA to 5' bgs. Logged by cuttings.	
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	87%	8	1449	B10-	SP-SC		5 to 6.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
6		10		HSAS4			(10YR 3/2) very dark grayish brown, medium dense, dry, 80%	
		11		5-6.5			subrounded to subangular, fine to medium-grained sand,	
7							20% stiff, medium plasticity fines, cohesive, no odor.	
8								
							*HSA to 10' bgs.	
9								
10								
	87%	10	1451		SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT:	NA
11		11					(10YR 3/2) very dark grayish brown, medium dense, dry, 80%	
		13					subrounded to subangular, fine to medium-grained sand, trace	
12							coarse grains and quartz clasts, 20% meduim stiff, very	
							low plasticity fines, no odor. *Begin sampling using 5' centers.	
13								
14								
15								
	87%	15	1456	B10-	SP-SC		15 to 16.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
16		17		HSAS4			(10YR 3/2) very dark gray, dense, dry, 90% subrounded to	
		21		15-16.5			subangular, very fine to fine-grained sand, 10% very low-	
17							plasticity fines, no odor, 15.2' bgs color change to (10YR 4/1)	
							dark gray.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) B10-HSAS4

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Propellant Mix Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	69%	14	1501		SP-SM		20 to 21.5 feet bgs. POORLY GRADED SAND WITH SILT:	NA
21		17					(10YR 4/1) dark gray, medium dense, dry, 90% subrounded to	
		24					subangular, very fine to medium-grained sand, 10% non-plastic	
22							fines, micaeous, no odor.	
23								
24								
25	25%	50/4"	1507		SP-SM		25 to 26.5 feet bgs. POORLY GRADED SAND WITH SILT:	NA
26							(10YR 4/1) dark gray, very dense, dry, 90% subrounded to	
							subangular, very fine to fine-grained sand, trace clay, 10%	
27							non-plastic fines, no odor.	
28								
29								
30	43%	50/6"	1513	B10-	SP-SM		30 to 31.5 feet bgs. POORLY GRADED SAND WITH SILT:	NA
31				HSAS4			Same as above. (10YR 5/2) grayish brown. Groundwater is not	
				30-31.5			confirmed. Total Depth (TD) of boring is 31.5' bgs.	
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) B10/HSAS5

Project:	Supplemental Soil Investigation	Borehole Depth:	50.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Propell. Mix Sta)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		0950				*Hand auger refusal at 1' bgs. HSA 1 to 5' bgs. Logged by cuttings.	
1	**AUGER**							
2								
3								
4								
5	100%	10	0959		ML		5 to 6.5 feet bgs. SILT: (2.5YR 3/1) dark reddish gray, medium dense, damp, 90% non-plastic fines, 10% subrounded to subangular, very fine-grained sand, poorly graded, micaceous, slight reaction with HCl, no staining, no odor.	PID = 4.6
6		12						
		16						
7								
8							*HSA to 10' bgs.	
9								
10	100%	8	1001		ML		10 to 11.5 feet bgs. SILT: Same as above. *Begin sampling using 5' centers.	PID = 1.8
11		10						
		10						
12								
13								
14								
15	100%	10	1003	B10-HSAS5 15-16.5 and HSAS501 15-16.5	ML		15 to 16.5 feet bgs. SILT: Same as above.	PID = 2.0
16		13						
		17						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) **B10/HSAS5**

Project:	Supplemental Soil Investigation	Borehole Depth:	50.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Propell. Mix Sta)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	8	1006	B10-HSAS5 20 - 21.5	SC		20 to 21.5 feet bgs. CLAYEY SAND: (2.5YR 3/1) dark reddish gray, medium dense, damp, 60% subrounded to subangular, very fine to fine-grained sand, poorly graded, 40% fines with high plasticity, micaceous. 20.5 to 20.9 feet bgs, POORLY GRADED SAND WITH GRAVEL lens (2.5YR 7/1) light reddish gray, thin layer of fine-grained sand grading to clay bottom 7 inches of sample.	PID = 1.8
21		10			SP-G			
		13			SC			
22								
23								
24								
25	100%	10	1014	B10-HSAS5 25 - 26.5	SC		25 to 25.9 feet bgs. CLAYEY SAND: (5YR 4/3) reddish brown, dense, damp, 60% subrounded to angular, very fine-grained sand, 40% fines with medium plasticity, slightly micaceous.	PID = 3.4
26		15						
		17			CL			
27							25.9 to 26.5 feet bgs. LEAN CLAY: (10R 3/6) dark red, very dry, compressed appearance, friable, oxidation staining.	
28								
29								
30	100%	13	1025		ML		30 to 31.5 feet bgs. SILT WITH SAND: (10YR 4/6) weak red, dense, damp, 80% non-plastic fines, 20% subrounded to subangular, very fine to fine-grained sand, poorly graded, micaceous.	PID = 3.8
31		17						
		19						
32								
33								
34								
35	50%	50	1035		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (Gley1 6/2) pale green, very dense, damp, 95% subangular to angular, very fine to medium-grained sand, 5% non-plastic fines, micaceous.	PID = 6.5
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) **B10/HSAS5**

Project:	Supplemental Soil Investigation	Borehole Depth:	50.5 feet bgs	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Propell. Mix Sta)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	5%	50	1042		ML		40 to 41.5 feet bgs. SILT: (Gley1 4/1) dark greenish gray, very stiff, moist to wet, 95% non-plastic fines, 5% subrounded to subangular, very fine-grained sand, micaceous.	
41								
42								
43								
44								
45	50%	30	1053		ML		45 to 46.5 feet bgs. SILT WITH SAND: (GLEY1 5/GY) greenish gray, very dense, moist to dry with depth, 80% non-plastic fines, 20% very fine-grained sand, micaceous, bottom of the sample is dry. Groundwater is confirmed at 46.25' bgs.	
46		50			▼			
47								
48								
49								
50	10%	50	1100		SP-G		50 to 50.5 feet bgs. POORLY SORTED SAND WITH GRAVEL: (GLEY1 5GY) greenish gray, very dense, wet, 85% subangular to angular, medium to very coarse-grained sand, 15% subrounded to angular gravel, trace non-plastic fines, micaceous. Groundwater confirmed at 46.25 feet bgs. Total Depth (TD) of boring is 50.5' bgs. 4" dia. monitoring well set @ 49.6' bgs w/25' screen.	
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) **B10/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Propell Mix Sta)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1530		SM		0 to 5 feet bgs. SILTY SAND: (5YR 5/1) gray, very loose, damp, 60% subrounded to subangular, very fine to medium-grained sand, poorly graded, trace medium to coarse-grained sand, 40% non-plastic fines, micaceous, slight reaction with HCl.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	80%	10	1538		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (5YR 5/1) gray, medium dense, dry to damp, 95% subrounded to subangular, very fine to medium-grained sand, predominantly very fine to fine-grained, 5% non-plastic fines, micaceous, slight reaction with HCl.	PID = 1.8
6		12						BZ =0.2
		14						
7								
8								
9								
10	100%	10	1542	B10-HSAS6 10 - 11.5	SP		10 to 10.8 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.7
		12			ML		10.8 to 11.2 feet bgs. SILT WITH SAND: (5YR 3/1) very dark gray, medium dense, damp, 85% non-plastic fines, 15% very fine to fine-grained sand, micaceous.	BZ =0.0
11		14			SP			
12							11.2 to 11.5 feet bgs. POORLY GRADED SAND: (5YR 7/1) light gray, dense, damp, 100% subrounded to subangular, medium to coarse-grained sand, micaceous.	
13								
14								
15	100%	15	1544		ML		15 to 16.5 feet bgs. SILT WITH SAND: (5YR 3/1) very dark gray, dense, damp, 75% non-plastic fines, 25% subrounded to subangular, very fine to fine-grained sand, poorly graded, micaceous, no reaction with HCl.	PID = 0.2
		17						BZ =0.0
16		21						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) **B10/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Propell Mix Sta)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	10	1547	B10-HSAS6 20 - 21.5	ML		20 to 20.3 feet bgs. SILT WITH SAND: SAA.	PID = 2.4
		11			SM		20.3 to 21 feet bgs. POORLY GRADED SAND: (5YR 6/1) gray, medium dense, damp, 100% subrounded to subangular, fine to medium-grained sand, micaceous, no reaction with HCl.	BZ =1.1
21		15			ML			
22							21 to 21.5 feet bgs. SILT WITH SAND: (5YR 3/1) very dark gray, dense, damp, 70% non-plastic fines, 30% subrounded to subangular, very fine to fine-grained sand, poorly graded, micaceous, no reaction with HCl.	
23								
24								
25	100%	8	1551		SM		25 to 26.5 feet bgs. SILTY SAND: (5YR 5/2) reddish gray, medium dense, damp, 60% subrounded to subangular, very fine to medium-grained sand, poorly graded, 40% non-plastic fines, micaceous, no reaction HCl. Bottom 0.5 feet of sample has a color change to (5YR 5/2) reddish gray and increasing fines with depth.	PID = 0.5
26		10						
		10						
27								
28								
29								
30	100%	10	1553	B10-HSAS6 30 - 31.5	CL		30 to 31.5 feet bgs. LEAN CLAY: (5YR 3/2) dark reddish brown, very stiff, damp to moist, 95% fines with (low to medium plasticity), 5% subrounded to subangular, very fine-grained sand, poorly graded, micaceous, no reaction with HCl.	PID = bg
31		11						
		13						
32							**Groundwater is not confirmed. TD of boring is 31.5' bgs.**	
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) B10/HSAS7

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Propel. Mix Sta.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2258766.7	
Logged By:	Holly Hanke			Easting (feet): 6353518.7	
Date Boring Started:	23-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	23-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1320		SM		0 to 1 foot bgs. SILTY SAND: (10YR 5/2) grayish brown, very loose, dry.	
1	**AUGER**							
2							*HSA from 1 to 5' bgs. Logged by cuttings.	
3								
4								
5								
6	80%	1 2 3	1335	B10-HSAS7 5 - 6.5	SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (2.5Y 3/1) very dark gray, very loose, damp to moist, 90% subrounded to angular, very fine to very coarse-grained sand, 10% non-plastic fines, trace gravel, micaceous, no reaction with HCl.	PID = 1.9 BZ = 0.2
7								
8							*HSA to 10' bgs.	
9								
10	75%	4 6 11	1339		SP-SM SP-G SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT AND GRAVEL: (2.5Y 4/1) dark gray, medium dense, damp, 70% subrounded to angular, fine to very coarse-grained sand, 20% subrounded to angular gravel, 10% non-plastic fines, micaceous, no reaction with HCl. 10.7 to 11.2' bgs sand and gravel lens (2.5Y 7/1) light gray. *Begin sampling using 5' centers.	PID = 2.2 BZ = 0.2
11								
12								
13								
14								
15	40%	4 6 6	1344	B10-HSAS7 15 - 16.5	SM		15 to 16.5 feet bgs. SILTY SAND: (2.5Y 3.2) very dark grayish brown, medium dense, damp, 60% subrounded to subangular, very fine to fine-grained sand, 40% very stiff, non-plastic fines, micaceous, no odor, no staining, no reaction with HCl.	PID = 2.7 BZ = 0.7
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 10 Operational Area B) B10/HSAS7

Project: Supplemental Soil Investigation	Borehole Depth: 31.5 feet bgs	Sampling Method: Split-spoon	
Location: LMC Beaumont Site 1 (Propel. Mix Sta.)	Borehole Diameter: 8 inches		
Project No.: 19967-02	Drilling Contractor: WDC	Northing (feet): 2258766.7	
Logged By: Holly Hanke		Easting (feet): 6353518.7	
Date Boring Started: 23-Apr-2007	Drilling Method: HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed: 23-Apr-2007		Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	50%	50	1349		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (2.5Y 5/1) gray, very dense, dry, 95% subrounded to subangular, very fine to medium grained sand, 5% non-plastic fines, micaceous. Beginning at 21' bgs slight reaction with HCl for 2-inches.	PID = 9.7
21								BZ = 1.7
22							*** Possible Mt. Eden Formation contact at 20 feet bgs.**	
23								
24								
25	10%	15	1355		SM		25 to 26.5 feet bgs. SILTY SAND: (10R 8/2) pinkish white, dense, damp, 85% subrounded to angular, very fine to fine-grained sand, poorly graded, 15% non-plastic fines, micaceous, medium reaction with HCl, coarse-grained sand at bottom of split-spoon and color change to (5YR 7/1) light gray.	
26		15						BZ = 0.1
		20						
27								
28								
29								
30	25%	50	1401	B10-HSAS7 30 - 31.5	SP		30 to 31.5 feet bgs. POORLY GRADED SAND: (7.5YR 7/1) light gray, very dense, damp to moist, 95% subrounded to angular, medium to very coarse-grained sand, 5% non-plastic fines, micaceous, slight reaction with HCl. Groundwater is not confirmed. Total Depth (TD) of boring is 31.5' bgs.	PID = 1.1
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 11 Operational Area B) B11-HSAS8

Project:	Supplemental Soil Investigation	Borehole Depth:	31 feet bgs.	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Fuel Slurry Stn.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	4-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	4-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		845		SP-SM		0 to 5 feet bgs. POORLY GRADED SAND WITH SILT:	PID=0.3
1	A						(10YR 5/3) brown, very loose, dry, 90% sub angular, very fine to	BZ=0.0
	N						fine grain sand, poorly graded, 10% non-plastic fines, no odor, no	
2	D						reaction to HCL.	
3	A							
	U							
4	G							
	E							
5	R							
	87%	9	907	B11-	SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT:	PID=0.2
6		10		HSAS8			(10YR 3/3) dark brown, medium dense, damp, 90% subangular,	BZ=0.0
		12		5-6.5			very fine to fine grain sand, poorly graded, 10% non-plastic fines,	
7							no odor.	
8								
9								
10								
	62%	10	910		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (10YR 5/4)	PID=0.0
11		10					yellowish brown, medium dense, damp, 90% subangular,	BZ=0.0
		12					fine to medium grain sand, poorly graded, 10% non-plastic fines,	
12							no odor, small silt seam at bottom of split spoon.	
13								
14								
15								
	87%	10	930		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (7.5YR 3/2) dark	PID=0.2
16		12					brown, medium dense, damp, 90% subrounded, fine to medium	BZ=0.0
		14					grain sand, poorly graded, 10% non-plastic fines, no odor.	
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 11 Operational Area B) B11-HSAS8

Project:	Supplemental Soil Investigation	Borehole Depth:	31 feet bgs.	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Fuel Slurry Stn.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	4-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	4-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	80%	12	934	B11-	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (7.5YR 3/2) dark	PID=0.3
21		12		HSAS8			brown, medium dense, damp, 90% subrounded, fine to medium	BZ=0.0
		14		20-21.5			grain sand, poorly graded, 10% non-plastic fines, no odor.	
22								
23								
24								
25	47%	10	955	B11-	SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (7.5YR 3/3) dark	PID=0.2
26		10		HSAS8	▽		brown to light brownish gray , medium dense, damp, 90%	BZ=0.0
		13		25-26.5			subrounded, fine to coarse grain sand, poorly graded,	
27					▼		10% non-plastic fines, no odor, moist at bottom of split spoon.	
28	47%	12	958	B11-	SP		27.5 to 29 feet bgs. POORLY GRADED SAND: (7.5YR 3/3) dark	PID=0.1
		13		HSAS8			brown to light brownish gray , medium dense, moist to wet, 90%	BZ=0.0
29		16		GW01			subrounded, fine to medium grain sand, poorly graded, 10% non-	
							plastic fines, no odor, micaceous.	
30							* groundwater level confirmed at 27.1 feet bgs.	
							* static groundwater level confirmed at 26.18 feet bgs.	
31							Total depth of boring is approximately 31 feet bgs.	
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 11 Operational Area B) **B11/HSAS9**

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 8
Location:	LMC Beaumont Site 1 (Fuel Slurry)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	3-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	3-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		1421		SM		0 to 5 feet bgs. SILTY SAND: (7.5YR 4/2) brown, very loose, dry, 75% subrounded, very fine to fine grained sand, poorly graded, 25% non-plastic fines, organic matter, slightly micaceous, slight reaction with HCl.	
1	A							PID = 0.0
	N							
	D							
2								
	A							
3	U							
	G							
4	E							
	R							
5	95%	10	1431		SM		5 to 6.5 feet bgs. SILTY SAND: SAA. medium dense, dry, subrounded to subangular, color change at 6 feet bgs to (5YR 6/1) gray, micaceous.	
		10						PID = 0.0
6		10						
7								
8								
9								
10								
	100%	8	1435		SM		10 to 11.5 feet bgs. SILTY SAND: (7.5YR 4/2) brown, medium dense, dry, 60% subrounded to subangular, very fine to fine grained sand, poorly graded, 40% non plastic fines, trace clay, micaceous, no reaction with HCl.	
11		11						PID = 0.0
		11						
12								
13								
14								
15								
	100%	6	1442	B11-HSAS9 15-16.5	SM		15 to 16.5 feet bgs. SILTY SAND: (10YR 4/2) dark grayish brown, medium dense, dry, 85% very fine to fine grained sand, poorly graded, 15% non-plastic fines, slightly micaceous.	
16		10						PID = 0.4
		10						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 11 Operational Area B) **B11/HSAS9**

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 8
Location:	LMC Beaumont Site 1 (Fuel Slurry)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	3-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	3-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	66%	7	1448	B11-HSAS9 20-21.5	SM		20 to 21.5 feet bgs. SILTY SAND: (10YR 4/2) dark grayish brown, medium dense, dry to damp, 85% subrounded to subangular, very fine to medium grained sand, poorly graded, trace gravel, micaceous.	
21		10						PID = 0.7
		13						
22								
23								
24								
25	100%	9	1453	B11-HSAS9 25-26.5	SP-SM		25 to 26.5 feet bgs. POORLY GRADED SAND WITH SILT: (10YR 3/3) dark brown, medium dense, damp to moist, 90% surbrounded, very fine to fine grained sand, poorly graded, 10% non-plastic fines, damp to moist at bottom of spoon, micaceous.	
26		12						PID = 0.4
		15						
27							**Groundwater not confirmed. TD of boring is 26.5 feet bgs.**	
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 11 Operational Area B) **B11/HSAS10**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet	Sampling Method: Split-Spoon	Page 1 of 8
Location:	LMC Beaumont Site 1 (Fuel Slurry)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	3-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	3-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0955		SM		0 to 5 feet bgs SILTY SAND: (5YR 3/2): dark reddish brown, very loose, dry, 80% subrounded, very fine grained sand, poorly graded, 20% non-plastic fines, organic matter present, no reaction with HCl, no odor.	PID = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	100%	8	1030		SM		5 to 6.5 feet bgs. SILTY SAND: (5YR 4/2) dark reddish gray, medium dense, dry, 85% subrounded, very fine to fine-grained sand, poorly graded, 15% non-plastic fines, increase in grain size with depth.	PID = 0.3
6		12						
		17						
7								
8								
9								
10								
	100%	18	1035	B11 - HSAS10 - 10-11.5	SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 4/2) dark reddish gray, dense, dry, 90% subrounded, fine to medium grained sand, poorly graded, 10% non-plastic fines, color change at 6 feet bgs to (10YR 6/2) light brownish gray.	PID = 0.3
11		18						
		19						
12								
13								
14								
15								
	100%	18	1043		SM		15 to 16.5 feet bgs. SILTY SAND: (7.5YR 3/3 to 4/3) dark brown to brown, dense, dry, 85% subrounded, very fine to fine grained sand, poorly graded, 15% non-plastic fines, clay lens between 15.5 and 16 feet bgs.	
16		20						
		20						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 11 Operational Area B) **B11/HSAS10**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet	Sampling Method: Split-Spoon	Page 2 of 8
Location:	LMC Beaumont Site 1 (Fuel Slurry)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	3-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	3-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	9	1054		SM		20 to 21.5 feet bgs. SILTY SAND: (5YR 3/3) dark reddish brown, medium dense, dry, 80% subrounded to subangular, very fine to fine grained sand, poorly graded, 20% non-plastic fines, slightly micaceous.	PID = 0.0
21		10						
		10						
22								
23								
24								
25	100%	10	1101	B11-HSAS10-25-26.5	SM		25 to 26.5 feet bgs. SILTY SAND: (7.5YR 3/3) dark brown, medium dense, dry to damp, 80% subrounded to subangular, fine grained sand, poorly graded, 20% non-plastic fines, micaceous.	PID = 0.4
26		12						
		14			▽			
27								
28								
29								
30					▼			
	100%	9	1107	B11-HSAS10-30-31.5	SP-SM		30 to 31.5 feet bgs. POORLY GRADED SAND WITH SILT: (7.5YR 3/3) dark brown, medium dense, moist to wet, 90% subrounded, fine to medium grained sand, 10% non-plastic fines slightly micaceous.	
31		9						
		12						
32							**Groundwater confirmed at 30.0 feet bgs. TD of boring is 31.5 feet bgs.**	
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 14 Operational Area B) B14-HSAS11

Project:	Supplemental Soil Investigation	Borehole Depth:	40.9 feet	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	L. Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		0900				No Recovery	PID=0.3
1	**AUGER**							BZ=0.0
							* Hand auger refusal at 1 foot bgs due to very dense	
2							material. Used Hollow Stem auger to 5' bgs.	
3								
4								
5								
	75%	13	0917		SP-SC		5 to 6.5 feet bgs. CLAYEY SAND: (10YR 4/2) dark grayish brown,	PID=0.8
6		15					medium dense, dry, 60% subrounded to subangular, very fine to	BZ=0.0
		17					fine-grained sand, poorly sorted, 40% fines, stiff (medium	
7							plasticity), no odor.	
8								
9								
10								
	56%	10	0922	B14-	SP-SC		10 to 11.5 feet bgs. CLAYEY SAND: (10YR 5/2) grayish brown,	PID=0.9
11		14		HSAS11			medium dense, dry, 90% subrounded to subangular, very fine to	BZ=0.0
		16		10-11.5			fine-grained sand, poorly sorted, 10% fines (very low plasticity),	
12							micaceous, no odor.	
13								
14								
15								
	81%	15	0926		SP-SC		15 to 16.5 feet bgs. Same as above. (10YR 5/1) gray.	PID=0.0
16		17						BZ=0.0
		25						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 14 Operational Area B) B14-HSAS11

Project:	Supplemental Soil Investigation	Borehole Depth:	40.9 feet	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	L. Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	19%	50/4"	0932	B14-HSAS11 20-21.5	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (10YR 4/1) dark gray, very dense, dry to damp, 95% subrounded to subangular, fine to medium-grained sand, trace coarse grained, poorly sorted, 5% non-plastic fines, micaceous, no odor.	PID=0.0 BZ=0.0
25	81%	17 21 25	0935		SP		25 to 26.5 feet bgs. Same as above. Medium dense to dense.	PID=0.0 BZ=0.0
30	75%	16 23 28	0940	B14-HSAS11 30-31.5	SP		30 to 31.5 feet bgs. Same as above. (10YR 6/1) gray, dense, damp, 90% subrounded to subangular, very fine to fine-grained sand, 10% non-plastic fines. Color change approximately 30.1' to 31.5' bgs. to (10YR 5/2) grayish brown.	PID=0.8 BZ=0.0
35	38%	6 8 10	0946		SP		35 to 36.5 feet bgs. Same as above. (10YR 5/2) grayish brown, medium dense, wet, 95% subrounded to subangular fine to very fine-grained sand, poorly sorted, 5% non-plastic fines, micaceous, oxidation staining. * Groundwater confirmed at 35' bgs. *Driller instructed to advance borhole to approximately 41' bgs. HSA 36.5 to 41' bgs. Logged by cuttings.	PID=0.8 BZ=0.0
40								

TETRA TECH

BORING LOG

(Feature 14 Operational Area B) B14-HSAS11

Project:	Supplemental Soil Investigation	Borehole Depth:	40.9 feet	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	L. Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40					SP		Total Depth (TD) of boring is approximately 41' bgs. 4" dia. monitoring well set @ 39.4' bgs w/15' screen.	
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature14 Operational Area B) B14-HSAS12

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1534				No Recovery	NA
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	94%	8	1554	B14-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very	NA
6		10		HSAS12			dark grayish brown, medium dense, dry, 90% subrounded to	
		13		5-6.5			subangular, fine to medium grain sand with trace coarse grains,	
7							10% non plastic fines, micaceous, no odor.	
8								
9								
10								
	88%	10	1556	B14-	SP-SC		10 to 11.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
11		10		HSAS12			(10YR 3/2) very dark grayish brown, medium dense, dry, 90%	
		11		10-11.5			subrounded to sub-angular, fine to medium grain sand grading to	
12							very fine to fine grain sand, 10% very low plastic fines, color	
							change at 11' bgs (10YR 3/1) very dark gray.	
13								
14								
15								
	88%	12	1600		SP-SC		15 to 16.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
16		14					(10YR 3/3) dark brown, dense, dry, 90% subrounded to subangular,	
		17					very fine to medium grain sand, 10% very low plastic fines,	
17							oxidation staining observed, no odor.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature14 Operational Area B) B14-HSAS12

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

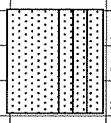
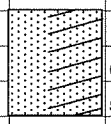
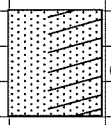
Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	94%	10	1602		SP-SC		20 to 21.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
21		12					(10YR 3/3) dark brown, dense, dry, 90% subrounded to subangular	
		12					very fine to medium grain sand, 10% very low plastic fines, no odor.	
22								
23								
24								
25								
	88%	11	1608	B14-	SP-SC		25 to 26.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
26		14		HSAS12			(10YR 4/3) brown, dense, dry to damp 90% subrounded to	
		16		25-26.5			subangular, very fine to medium grain sand, 10% very low plastic	
27							fines, color change at 25.6' bgs to (10YR 4/1) dark gray,	
							no odor.	
28								
29								
30								NA
	94%	15	1611		CL		30 to 31.5 feet bgs. SANDY LEAN CLAY:	
31		17					(10YR 5/1) gray, dense, dry, 40% subrounded to subangular, very	
		25					fine to fine grain sand, 60% stiff, medium plastic fines, cohesive.	
32							* groundwater not confirmed.	
							Total depth of boring is approximatley 31.5 feet bgs.	
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 14 Operational Area B) B14-HSAS13

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1322				No Recovery	NA
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	88%	10	1332	B14-	SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT:	NA
6		10		HSAS13			(10YR 3/3) dark brown, medium dense, dry, 90% subrounded to	
		12		5-6.5			subangular, fine to medium grain sand with trace coarse grains,	
7							poorly graded, 10% non-plastic fines, micaceous, no odor.	
8								
9								
10								
	81%	10	1336	B14-	SP-SC		10 to 11.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
11		10		HSAS13			(10YR 3/2) very dark grayish brown, medium dense, dry, 90%	
		12		10-11.5			subrounded to subangular, fine to medium grain sand, 10% very	
12							low plastic fines, trace silt, micaceous, no odor.	
13								
14								
15								
	94%	7	1340		SP-SC		15 to 16.5 feet bgs. POORLY GRADED SAND WITH CLAY:	NA
16		10					(10YR 3/3) Same as above.	
		10						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 14 Operational Area B) B14-HSAS13

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Pad w/Dry Well)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	50%	54	1346		CL		20 to 21.5 feet bgs. LEAN CLAY WITH SAND: (10YR 3/3) dark	NA
		6					brown, very dense, dry, 20% subrounded to subangular, very fine	
21							to fine grainsand, 80% stiff, medium plastic fines, color change	
							noted at 20.2' bgs to (10YR 5/1) gray.	
22								
23								
24								
25	38%	30	1351	B14-	CL		25 to 26.5 feet bgs. LEAN CLAY WITH SAND: (10YR 5/1) gray,	NA
		50		HSAS13			very dense, dry, 10 % subrounded to subangular very fine to fine	
26				25-26.5			grain sand, poorly graded, 90% medium stiff, medium plastic fines,	
27							micaceous, no odor.	
28								
29								
30	56%	15	1356		CL		30 to 31.5 feet bgs. LEAN CLAY WITH SAND: (10YR 6/1)	NA
		17					Same as above.	
31		21					* groundwater not confirmed.	
32							Total depth of boring is approximatley 31.5 feet bgs.	
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B18-HSAS14

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Cast & Cure Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1630		SM		0 to 2 feet bgs. SILTY SAND: (2.5Y 4/3) olive brown, medium	PID = 0.0
1	A						dense, dry, 90% subrounded to subangular, fine to medium grain	BZ = 0.0
	N						sand, poorly sorted, 10% non-plastic fines, micaceous, no odor.	
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	75%	12	1641	B18-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5Y 4/3) olive	PID = 0.0
6		14		HSAS14			brown, medium dense, dry, 95% subrounded to subangular, fine to	BZ = 0.0
		16		5-6.5			medium grain sand, poorly sorted, 5% non-plastic fines, micaceous	
7							no odor.	
8								
9								
10								
	75%	15	1643		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.0
11		18						BZ = 0.0
		21						
12								
13								
14								
15								
	88%	6	1646	B18-	SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5Y 3/3) dark	PID = 0.0
16		8		HSAS14			olive brown, medium dense, dry, 90% subrounded to subangular,	BZ = 0.0
		13		15-16.5			fine to medium grain sand with trace coarse grains, poorly graded,	
17							10% very low plastic fines, micaceous, no odor.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B18-HSAS14

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Cast & Cure Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	56%	17	1649	B18-	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.0
21		19		HSAS14			* groundwater not confirmed.	BZ = 0.0
		23		20-21.5			Total depth of boring is approximatley 21.5 feet bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B18-HSAS15

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Cast & Cure Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1522		SP-SM		0 to 5 feet bgs. POORLY GRADED SAND WITH SILT:	PID=0.0
1	A						(2.5YR 3/3) dark reddish brown, very loose, dry, 90% subrounded	BZ=0.0
	N						to subangular, fine grain sand, poorly sorted, 10% non-plastic fines	
2	D						micaceous, no odor.	
3	A							
	U							
4	G							
	E							
5	R							
	75%	8	1533	B18-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/2) dusky	PID=0.0
6		10		HSAS15			red, medium dense, dry, 90% subrounded to subangular,	BZ=0.0
		10		5-6.5			fine to medium grain sand poorly graded, 10% non-plastic	
7							fines, color change at 15.6' bgs to (2.5YR 2.5/1) reddish	
							black, no odor.	
8								
9								
10								
	69%	12	1535		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 6/2) pale	PID=0.0
11		15					red, loose, dry, 100% subrounded to subangular, medium to coarse	BZ=0.0
		17					grain sand, trace gravel and silt, color change at 11' bgs. to	
12							(2.5YR 3/2) dusky red, no odor.	
13								
14								
15								
	81%	8	1537	B18-	SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/2)	PID=1.0
16		10		HSAS15			dusky red, medium dense, dry, 95% subrounded to subangular,	BZ=0.0
		10		15-16.5			fine to coarse grain sand with trace gravel and silt, poorly graded, ,	
17							5% non-plastic fines, color change at 15.35' bgs to (2.5YR 6/4)	
							light reddish brown, no odor.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B18-HSAS15

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Cast & Cure Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	62%	6	1539	B18-	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/2)	PID=0.0
21		8		HSAS15			Same as above, groundwater not confirmed.	BZ=0.0
		10		20-21.5			Total depth of boring is approximatley 21.5 feet bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
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34								
35								
36								
37								
38								
39								
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TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B18-HSAS16

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Cast & Cure Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1600		SP-SM		0 to 5 feet bgs. POORLY GRADED SAND WITH SILT:	PID=0.0
1	A						(2.5YR 3/3) dark reddish brown, very loose, dry, 90% subrounded	BZ=0.0
	N						to subangular, fine to medium grain sand, poorly sorted, 10%	
2	D						non-plastic fines, no odor.	
3	A							
	U							
4	G							
	E							
5	R							
	50%	8	1610	B18-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/3) reddish	PID=0.0
6		9		HSAS16			brown, medium dense, dry, 95% subrounded to subangular,	BZ=0.0
		11		5-6.5			fine to medium grain sand, trace coarse grains, 5% non-plastic	
7							fines, micaceous, no odor.	
8								
9								
10								
	75%	12	1613	B18-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/3)	PID=0.0
11		14		HSAS16			Same as above.	BZ=0.0
		16		10-11.5				
12								
13								
14								
15								
	69%	10	1616		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/3)	PID=0.0
16		12					Same as above.	BZ=0.0
		12						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B18-HSAS16

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Cast & Cure Stn)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	25-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	25-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	56%	8	1619	B18-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/3)	PID=0.0
21		10		HSAS16			Same as above. * groundwater not confirmed.	BZ=0.0
		12		20-21.5			Total depth of boring is approximatley 21.5 feet bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 19 Operational Area B) **B19-HSAS17**

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Pad on Berm)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
0	H		0830		SM		0 to 5 ft. SILTY SAND: (10YR 5/3) brown, very loose, dry,	PID = .2
1	A						90% subrounded very fine-grained sand, poorly graded; 10% non-	BZ = .2
	N						plastic fines, no reaction with HCl.	
2	D							
							*Hand auger to 2' bgs. HSA to 5' bgs. Logged by cuttings.	
3	A							
	U							
4	G							
	E							
5	R							
	75%	9	0852	B19-	SP		5 to 6.5 ft. Same as above. Medium dense, fine to medium-grained,	PID =.2
6		12		HSAS17			oxidation staining.	BZ = .2
		14		5-6.5				
7								
8							*HSA to 10' bgs.	
9								
10								
	31%	50/6"	0856	B19-	SP		10 to 11.5 ft. Same as above. Very dense, increasing oxidation	PID= .2
11				HSAS17			staining below 10' bgs. *Begin sampling using 5' centers.	BZ = .2
				10-11.5				
12								
13								
14								
15								
	63%	12	0905		SP		15 to 16.5 ft. Same as above. Oxidation staining throughout below	PID= .2
16		12					15' bgs.	BZ = .2
		14						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 19 Operational Area B) **B19-HSAS17**

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Pad on Berm)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
20	63%	10	0912	B19-	SP		20 to 21.5 ft. Same as above. Groundwater is not confirmed.	PID = .2
21		10		HSAS17				BZ = .2
		12		20-21.5			Total Depth (TD) of boring is 21.5' bgs.	
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B19-HSAS18

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Pad on Berm)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2258477.0	
Logged By:	Linda Margullis			Easting (feet): 6353175.3	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		0833		SM		0 to 5 feet bgs. SILTY SAND: (10YR 5/2) brown, very loose, dry, 90% subrounded to subangular, very fine to fine-grained sand, poorly graded, 10% non-plastic fines, no odor.	NA
1	**A**							
	N							
	D							
2								
	A							
3	**U**							
	G							
4	**E**							
	R							
5	75%	8	0850	B19-HSAS18 5 - 6.5	SM		5 to 6.5 feet bgs. SILTY SAND: Same as above. (10YR 3/2) very dark grayish, brown, medium dense, fine to medium-grained sand, trace clay, oxidation staining.	NA
		10						
6		12						
7								
							*HSA to 10' bgs.	
8								
9								
10	81%	10	0853	B19-HSAS18 10 - 11.5	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very dark grayish brown, medium dense, dry 90% subrounded to subangular, fine to medium-grained sand grading to medium to coarse grained sand, 10% non-plastic fines, no odor. 10.4' bgs color change to (10YR 5/3) brown. *Begin sampling using 5' centers.	NA
		14						
11		16						
12								
13								
14								
15	88%	8	0856		SP		15.to 16.5 feet bgs. POORLY GRADED SAND: Same as above. (10YR 4/2) dark grayish brown, loose, 70% subrounded to subangular, very fine to medium-grained sand, coarse-grained sand decreasing with depth, 30% fines of low plasticity, trace clay, no odor.	NA
		8						
16		8						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 18 Operational Area B) B19-HSAS18

Project:	Supplemental Soil Investigation	Borehole Depth:	21.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Pad on Berm)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2258477.0	
Logged By:	Linda Margullis			Easting (feet): 6353175.3	
Date Boring Started:	18-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	18-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	31%	50/6"	0859	B19-HSAS18 20 - 21.5	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: Same as above. (2.5YR 4/4) reddish brown, very dense, dry, 60% subrounded to subangular, very fine to fine-grained sand, 40% fines of low plasticity Groundwater is not confirmed.	NA
21								
22							Total Depth (TD) of boring is 21.5' bgs.	
23							*** Possible weathered Mt. Eden Formation contact at 20 feet bgs.**	
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 20 Operational Area B) **B20/HSAS19**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Pad So. Mix Sta.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	23-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	23-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H				SP		0 to 5 feet bgs. POORLY GRADED SAND: very loose, dry, subrounded to angular, very fine to medium-grained sand, sand sliding through auger barrel, added water.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	75%	4	1500		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5Y 4/1) dark gray, loose, dry, 95% subrounded to angular, very fine to medium, trace coarse to very coarse-grained sand, 5% non-plastic fines, trace gravel, micaceous, reacts with HCl, no staining, no odor.	PID = 1.6
6		4						BZ = 0.1
		5						
7								
8								
9								
10								
	75%	3	1505	B20-HSAS19 10 - 11.5	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5Y 6/1) gray, loose, dry, 100% subrounded to subangular, very fine to fine-grained sand, micaceous, reacts with HCl, no staining, no odor.	PID = 3.6
11		3						BZ = 0.1
		3						
12								
13								
14								
15								
	75%	7	1508	B20-HSAS19 15 - 16.5	SM		15 to 16.5 feet bgs. SILTY SAND: (2.5Y 6/1) gray, medium dense, dry, 80% subrounded to subangular, very fine-grained sand, 20% non-plastic fines, micaceous, slight reaction with HCl, no staining, no odor.	PID = 4.5
16		7						BZ = 0.2
		4						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 20 Operational Area B) **B20/HSAS19**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Pad So. Mix Sta.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	23-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	23-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	25%	9	1512		SM		20 to 21.5 feet bgs. SILTY SAND: SAA.	PID = 0.2
21		9						
		10						
22								
23								
24								
25	100%	1	1518	B20-HSAS19 25 - 26.5	CL		25 to 26.5 feet bgs. GRAVELLY LEAN CLAY WITH SAND: (2.5Y 6/1) gray, medium dense, damp, 50% fines with high plasticity, 30% subrounded to angular gravel, 20% subrounded to angular, very fine to very coarse-grained sand, poorly graded. Clay layer from 25.5 to 25.8 feet bgs (2.5Y 3/2) very dark grayish brown.	PID = 4.2
26		7						BZ = 0.2
		8						
27								
28								
29								
30	80%	2	1524	B20-HSAS19 30 - 31.5	CL		30 to 31.5 feet bgs. SANDY LEAN CLAY: (2.5Y 3/2) very dark grayish brown, medium stiff, wet, 70% fines with high plasticity, 30% loose, subrounded to subangular, very fine to fine-grained sand, increasing sand with depth, micaceous, slight reaction with HCl, no odor, no staining.	PID = 4.2
31		2						BZ = 0.2
		5						
32							Groundwater not confirmed. TD of boring is 31.5 feet bgs.	
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 20 Operational Area B) **B20/HSAS20**

Project:	Supplemental Soil Investigation	Borehole Depth:	35 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Pad So. Mix Sta.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0815		ML		0 to 5 feet bgs. SANDY SILT: (7.5YR 4/1) dark gray, very loose, dry, 60% non-plastic fines, 40% subrounded to angular, very fine to fine, trace medium-grained sand, poorly graded.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
		8	0837		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (7.5yr 5/1) gray, medium dense, dry, 90% subrounded to angular, very fine to fine-grained sand, poorly graded, 10% non-plastic fines, micaceous, no reaction with HCl, no staining, no odor, increasing sand with depth, coarse-grained sand at bottom of spoon.	PID = 1.1
6		12						BZ = 0.4
		16						
7								
8								
9								
10								
		20	0840	B20-HSAS20 10 - 11.5	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (7/5YR 5/1) gray, medium dense, dry, 100% subrounded to angular, fine to medium, trace coarse-grained sand, poorly graded, trace non-plastic fines, micaceous, slight reaction with HCl, no staining, no odor.	PID = 3.5
11		15						BZ = 0.4
		17						
12								
13								
14								
15								
		10	0843		ML		15 to 16.5 feet bgs. SILT: (7.5YR 5/2) brown, medium dense, dry to damp, 90% non-plastic fines, 10% subrounded to subangular, very fine-grained sand, poorly graded, micaceous, possibly clay in the bottom of spoon.	PID = 1.9
16		12						BZ = 0.6
		12						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 20 Operational Area B) **B20/HSAS20**

Project:	Supplemental Soil Investigation	Borehole Depth:	35 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Pad So. Mix Sta.)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	24-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	24-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20		8	0846	B20-HSAS20 20 - 21.5	SM/SC		20 to 21.5 feet bgs. SILTY SAND/CLAYEY SAND: (7.5YR 5/2) brown, medium dense, damp, 75% subrounded to angular, very fine to fine-grained sand, poorly graded, 25% fines with medium plasticity, micaceous, no reaction with HCl, no staining, no odor.	PID = 2.6
21		10						BZ = 0.7
		14						
22								
23								
24								
25		6	0848	B20-HSAS20 25 - 26.5	SM		25 to 26.5 feet bgs. SILTY SAND: (7.5YR 3/1) very dark gray, medium dense, damp, 80% subrounded to angular, very fine to very coarse-grained sand, poorly graded, 20% non-plastic fines, micaceous, at 25.5 feet bgs POORLY GRADED SAND WITH GRAVEL, at 26 feet bgs, LEAN CLAY WITH GRAVEL.	PID = 2.8
26		8			SP-G			BZ = 1.3
		10			CL-G			
27								
28								
29								
30		6	0853	B20-HSAS20 30 - 31.5	CL		30 to 31.5 feet bgs. LEAN CLAY: (7.5YR 3/3) dark brown, very stiff to very stiff, wet, 90% fines with high plasticity, 10% subrounded to subangular, very fine-grained sand, poorly graded, micaceous, reacts with HCl, no staining, no odor.	PID = 3.0
31		7						BZ = 0.4
		8			▽			
32								
33					▼			
34							HSA from 31.5 to 35 feet bgs. Groundwater confirmed at 32.9 feet bgs. Static water at 31.7 feet bgs. TD of boring is 35 feet bgs.	
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS21**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet HSA):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H							
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	50%	8	0850		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 4/2) dark grayish brown, medium dense, dry, 95% subrounded to subangular, very fine to very coarse, predominantly fine to medium-grained sand, poorly graded, , 5 % non-plastic fines, trace gravel, micaceous, no reaction with HCl, no odor.	PID = 0.3
		10						BZ = 0.3
6		12						
	50%	13	0853		SP			PID = 0.3
7		15					6.5 to 8 feet bgs. POORLY GRADED SAND: SAA, dense.	
		20						
8	20%	15	0855		SP		8 to 9.5 feet bgs. POORLY GRADED SAND: (10YR 4/2) dark grayish brown, dense, damp, 95% subrounded to subangular, very fine to fine-grained sand, poorly graded, 5% non-plastic fines, micaceous, no reaction with HCl, no odor.	PID = 0.5
		15						
9		16						
	75%	14	0858	C22-HSAS21-9.5-11	SP		9.5 to 11 feet bgs. POORLY GRADED SAND: (10YR 7/1) light gray, dense, damp, 100% subrounded to subangular, very fine to very coarse-grained sand, poorly graded, predominantly medium to coarse- grained, micaceous, no reaction with HCl, no odor.	PID = 0.4
10		16						
		18						
11	10%	15	0903		SP		11 to 12.2 feet bgs. POORLY GRADED SAND: SAA. dry to damp, dense, medium to very coarse-grained sand, trace non-plastic fines. Possible contact between fill and native soil at 12.2 feet bgs.	PID = 0.5
		17						
12		21		C22-HSAS21-12-15.5				
	60%	13	0910		SP		12.2 to 14 feet bgs. POORLY GRADED SAND: (7.5YR 4/2) brown, dense, dry to damp, 100% subrounded to subangular, very fine to medium-grained sand, poorly graded, trace non-plastic fines, micaceous.	PID = 0.4
13		15						
		16						
14	80%	16	0915		SP		14 to 15.5 feet bgs. POORLY GRADED SAND: SAA, no reaction with HCl, no odor.	PID = 0.4
		18						
15		21						
16								
17								
							* Borehole advanced to 20 feet bgs. Begin 5 foot centers from 20 feet bgs.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS21**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet HSA):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	75%	15	0924		SP		20 to 20.8 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.3
		18					20.8 to 21.5 feet bgs. POORLY GRADED SAND: (7.5YR 8/1) white, dense, dry to damp, 100% subrounded to angular, medium to very coarse-grained sand, poorly graded, trace gravel.	
21		25						
22								
23								
24								
25	75%	15	0926		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (7.5YR 5/3) brown, dense, dry to damp, 100% subrounded to subangular, very fine to very coarse-grained sand, poorly graded, trace non-plastic fines, at 26 feet bgs very coarse-grained sand.	PID = 0.5
26		17						
		21						
27								
28								
29								
30	90%	10	0933	C22-HSAS21 30-31.5	SM		30 to 31.5 feet bgs. SILTY SAND: (10YR 5/2) grayish brown, dense, damp, 60% subrounded to angular, very fine to medium-grained sand, predominantly fine-grained, poorly graded, 40% non-plastic fines, micaceous, at 31 feet bgs thin white (7.5YR 8/1) sand lens.	PID = 0.3
31		15						
		17						
32								
33								
34								
35	100%	12	0944		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (7.5YR 5/1) gray, medium dense, dry to damp, 95% subrounded to angular, very fine to medium-grained sand, 5% non-plastic fines, micaceous, medium-grained sand at bottom of spoon.	PID = 0.4
36		13						
		16						
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS21**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet HSA):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40		15	0949		SP		40 to 40.9 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.5
41		17					40.9 to 41.5 feet bgs. POORLY GRADED SAND: (7.5YR 7/1) light gray, dense, dry, 100% subrounded to angular, medium to very coarse-grained sand, poorly graded, micaceous, no reaction with HCl, no odor.	
		23						
42								
43								
44								
45								
		15	0955		SP		45 to 46.5 feet bgs. POORLY GRADED SAND: (10YR 5/1) gray, very dense, dry to damp, 95% subrounded to angular, very fine to very coarse-grained sand, poorly graded, 5% non-plastic fines, trace gravel at bottom of spoon, micaceous, no reaction with HCl, no odor.	PID = 0.5
46		20						
		35						
47								
48								
49								
50	100%	15	1030		SP		50 to 50.6 feet bgs. POORLY GRADED SAND: (2.5YR 5/2) grayish brown, dense, dry, 100% subrounded to angular, very fine to medium-grained sand, predominantly very fine to fine-grained, micaceous, no reaction with HCl, no odor.	PID = 0.4
51		17						
		23						
52							50.6 to 51.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/6) red, SAA. **Weathered Mt. Eden Fm.**	
53								
54								
55	70%	17	1035		SP		55 to 56.5 feet bgs. POORLY GRADED SAND: SAA. **Weathered Mt. Eden Fm.**	PID = 1.2
56		23						BZ = 0.3
		25						
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS21**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 4 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet HSA):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
60	50%	30	1041	C22-HSAS21 60 -61.5	SP		60 to 61.5 feet bgs. POORLY GRADED SAND: SAA. **Weathered Mt. Eden Fm.**	PID = 0.4
61		50						
							Groundwater not confirmed. TD of boring 61.5 feet bgs.	
62				C22-HSAS 2101 60-61.5				
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS22**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	12-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	12-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H							
1	**A**							
	N							
2	**D**							
3	**A**							
	U							
4	**G**							
	E							
	R							
5	50%	5	0925		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 6/2) light brownish gray, very loose, dry, 100% subrounded to subangular, very fine to very coarse-grained sand, trace non-plastic fines, trace gravel, some organic matter, micaceous, no odor, no staining.	PID = 0.5
6		6						
		7						
7	50%	6	0926		SP		6.5 to 8 feet bgs. Same as above: Loose, no gravel, and no organic matter.	PID = 0.6
		7						
8		9						
	50%	7	0930		SP		8 to 9.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, loose, dry, 100% subrounded to subangular, very fine to very coarse, predominantly medium-grained sand, trace non-plastic fines, trace organics, micaceous, no odor, no staining.	PID = 0.4
9		9						
		11						
10	5%	9	0936		SP		9.5 to 11 feet bgs. Same as above.	PID = 0.5
		12						BZ = 0.5
		14						
11	50%	12	0950	C22-HSAS22-11-12.5	SP		11 to 12.2 feet bgs. POORLY GRADED SAND: (10YR 6/1) gray, loose, dry, 100% subrounded to subangular, very fine to very coarse-grained sand, trace non-plastic fines.	PID = 0.5
		14						
12		16			SP		12.2 to 14 feet bgs. POORLY GRADED SAND: (10YR 4/2) dark grayish brown, loose, damp, 100% subrounded to subangular, very fine to coarse-grained sand, trace non-plastic fines, micaceous.	PID = 0.5
		9		C22-HSAS22-12.5 - 14				
13		9						
		12						
14		7	1015		SP		14 to 15 feet bgs. POORLY GRADED SAND: SAA. Very loose.	PID = 0.4
		9					15 to 16 feet bgs. SAA	
15	80%	7	1018		SP		16 to 16.5 feet bgs. POORLY GRADED SAND: (2.5Y 7/1) light gray, very loose to loose, dry to damp, 100% subrounded to subangular, fine to very coarse, predominantly medium to coarse-grained, trace non-plastic fines, trace gravel.	
16		9						
		12			SP			
17	10%	12	1025		SP		16.5 to 18 feet bgs. POORLY GRADED SAND: (2.5Y 7/1) light gray, loose, dry, 100% subrounded to subangular, medium to very coarse-grained sand, trace gravel, slightly micaceous, no odor, no staining. Driller advances borehole to 20 feet bgs. No sampling begin 5 foot centers at 20 feet bgs.	PID = 0.4
		14						
18		14						
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS22**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	12-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	12-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	75%	19	1033		SM		20 to 21.5 feet bgs. SILTY SAND: (2.5Y 7/1) light gray, loose, damp, 85% subrounded to subangular, fine to very coarse-grained sand, poorly graded, 15% non-plastic fines, at 19.5 feet bgs (7.5YR 4/2) brown, silt lens to 19.7 feet bgs.	PID = 0.4
21		12						
22								
23								
24								
25	95%	7	1040		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (7.5YR 4/2) brown, loose, damp, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines, micaceous, no odor.	PID = 0.2
26		12						
		14						
27								
28								
29								
30	100%	9	1047	C22-HSAS22-30-31.5	SP		30 to 31.5 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.3
31		11						
		12						
32								
33								
34								
35	80%	6	1056		SM		35.5 to 36 feet bgs. SILTY SAND: (7.5YR 3/2) dark brown, loose, damp, 60% subrounded to subangular, very fine to fine-grained sand, 40% non plastic fines, micaceous. 36 to 36.5 feet bgs. POORLY GRADED SAND: (7.5YR 7/1) light gray, loose, damp, 100% subrounded to subangular, medium to coarse-grained sand, trace non-plastic fines, micaceous.	PID = 0.2
36		8						
		10			SP			
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS22**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	12-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	12-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40			1102		SC		40 to 41.5 feet bgs. CLAYEY SAND: (7.5YR 4/2) brown, loose, damp, 65% subrounded to subangular, very fine to very coarse, 30% medium plastic fines, at 41 feet bgs, (7.5YR 7/1) gray, 1inch POORLY GRADED SAND WITH GRAVEL lens.	PID = 0.2
41								
42								
43								
44								
45	50%	8	1110		SP		45 to 46.5 feet bgs. POORLY GRADED SAND: (10YR 7/1) light gray, loose, damp, 100% subrounded, medium to very coarse-grained sand, trace gravel, micaceous, no odor, no staining.	PID = 0.1
46		10						
		11						
47								
48								
49								
50		5	1118		SP		50 to 51.5 feet bgs. POORLY GRADED SAND: (10YR 7/1) light gray, very loose to loose, damp, 100% subrounded to subangular, medium to very coarse, predominantly medium to coarse-grained, micaceous, no odor, no staining.	PID = 0.3
51		6						
		8						
52								
53								
54								
55		10	1128		SP		55 to 56.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, loose, damp, 100% subrounded to subangular, very fine to coarse-grained sand, micaceous, no staining, no odor.	PID = 0.3
56		13						
		16						
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS22**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 4 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	12-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	12-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
60	20%	6	1137	C22-HSAS22-60-61.5	SP		60 to 61.5 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.4
61		9						
		11					Groundwater not confirmed. TD of boring is 61.5 feet bgs.	
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS23**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1410		SP		0 to 5 feet bgs. POORLY GRADED SAND: (10YR 4/3) brown, very loose, dry to damp, 95% subrounded to angular, very fine to very coarse-grained sand, 5% non-plastic fines, driller indicates material is very hard, black particles of material observed within auger cuttings.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	80%	9	1425		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 6/1) gray, medium dense, damp, 95% subrounded to angular, very fine to medium-grained sand, 5% fines with low plasticity at bottom of spoon, trace coarse sand, micaceous.	
6		10						
		12						
7								
8								
9								
10								
	80%	10	1430	C22-HSAS23-10-11.5	SM		10 to 11.5 feet bgs. SILTY SAND: (7.5YR 4/2) brown, medium dense, dry to damp, 85% subrounded to angular, very fine to medium-grained sand, trace coarse-grained, poorly graded, 15% non-plastic fines, micaceous, no odor.	PID = 0.1
11		14						
		14						
	60%	12	1434		SP		11.5 to 13 feet bgs. POORLY GRADED SAND: (7.5YR 6/1) gray, dense, damp, 100% subrounded to angular, medium to very coarse-grained sand, trace non plastic fines. At 12.2 feet bgs. 2.5 inch sand lens (2.5YR 3/2) very dark grayish brown.	PID = 0.2
12		15						
		17						
13	80%	14	1440		SP		13 to 14.5 feet bgs. POORLY GRADED SAND: (10YR 6/2) light brownish gray, dense, damp, 100% subrounded to subangular, medium to very coarse-grained sand, trace non-plastic fines, high biotite content, no odor.	PID = 0.0
		17						
14		21						
	50%	18	1445		SP-G		14.5 to 16 feet bgs. POORLY GRADED SAND WITH GRAVEL: (10YR 7/1) light gray, dense, dry to damp, 80% subangular to angular, medium to very coarse-grained sand, 20% subangular to angular gravel, micaceous.	PID = 0.0
15		17						
		21						
16								
							* Borehole advanced to 20 feet bgs. Begin 5 foot centers from 20 feet bgs.	
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS23**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20		15	1503		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (10YR 5/3) brown, dense, damp, 100% subrounded to angular medium to very coarse-grained sand, predominantly coarse-grained, trace non-plastic fines, micaceous.	PID = 0.0
21		15						
		20						
22								
23								
24								
25	40%	30	1506		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.0
26		50						
27								
28								
29								
30	75%	15	1510	C22-HSAS23-30-31.5	SP		30 to 31.5 feet bgs. POORLY GRADED SAND: SAA	PID = 0.3
31		17						BZ = 0.3
		25						
32								
33								
34								
35	50%	12	1514		SP-G		35 to 36.5 feet bgs. POORLY GRADED SAND WITH GRAVEL: (2.5YR 7/1) light gray, dense, dry, 60% subrounded to angular, medium to very coarse, predominantly very coarse-grained sand, 40% subrounded to subangular gravel, micaceous.	PID = 0.2
36		16						BZ = 0.2
		18						
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) C22/HSAS23

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	30%	30	1518		SP-G		40 to 41.5 feet bgs. POORLY GRADED SAND WITH GRAVEL: SAA, very dense.	PID = 0.4
41		50						
42								
43								
44								
45	80%	12	1524		SP-G		45 to 46.5 feet bgs. SILTY SAND WITH GRAVEL: SAA. At 45.5 feet bgs 6 inch thick SANDY LEAN CLAY lens (2.5Y 4/2) dark grayish brown.	PID = 0.8
46		15			CL			
		17			SP-G			
47								
48								
49								
50	75%	14	1527		SP		50 to 51.5 feet bgs. POORLY GRADED SAND: SAA. 90% well rounded to subangular, very fine to very coarse-grained sand, At 51 feet bgs. (5YR 5/6) yellowish red (possibly weathered Mt. Eden Fm), micaceous.	PID = 0.4
51		17						
		24						
52								
53								
54								
55	75%	15	1533		SP		55 to 56.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/8) red, dense, damp, 100% subrounded to subangular, fine to coarse-grained sand, trace non-plastic fines, micaceous Driller indicates material is very hard.	PID = 0.2
56		17						
		24						
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS23**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 4 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	17-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	17-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
60	75%	12		C22-HSAS23-60-61.5	SP		60 to 61.5 feet bgs. POORLY GRADED SAND: (5YR 4/3) reddish brown, dense, dry to damp, 100% subrounded to subangular, very fine to medium-grained sand, trace non-plastic fines, micaceous, highly weathered Mt. Eden Fm.	PID = 1.8
61		15						
		17						
62				C22-HSAS 2301 60-61.5			Groundwater not confirmed. TD of boring is 61.5 feet bgs.	
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS24**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H						0 to 5 feet bgs. hand auger.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	100%	7	1352	C22-HSAS24 - 5-6.5 MSMS/D	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (7.5YR 4/3) brown, medium dense, dry to damp, 100% subrounded to angular, fine to coarse-grained sand, trace non-plastic fines, micaceous, no reaction with HCl, no odor, no staining.	PID = 0.0
		9						
6		10						
7								
8								
9								
10								
	100%	9	1354		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (7.5YR 3/2) dark brown, medium dense, damp, 100% subrounded to subangular, very fine to very coarse-grained sand, predominantly fine to medium-grained, trace non-plastic fines, trace cobbles, micaceous, no reaction with HCl, no staining.	PID = 0.9
11		9						
		10						
	75%	10	1357		SP			PID = 0.4
12		12					11.5 to 13 feet bgs. POORLY GRADED SAND: (7.5YR 7/1) light gray, medium dense, dry to damp, 100% subrounded to angular, medium to very coarse-grained sand, predominantly coarse-grained, micaceous, no reaction with HCl, no stain, no odor.	
		15						
13	50%	11	1401		SP			PID = 0.1
		13						
14		13					13 to 14.5 feet bgs. POORLY GRADED SAND: SAA.	
15	100%	15	1420		SP-G		15 to 16.5 feet bgs. POORLY GRADED SAND WITH GRAVEL: (7.5YR 7/1) light gray, dense, damp, 80% subrounded to angular, medium to very coarse-grained sand, predominantly very coarse, 20% subrounded to angular gravel, micaceous, no reaction with HCl, no staining, no odor.	PID = 0.7
		15						
16		20						
17								
18							* Driller advances borehole to 20 feet bgs. Begin 5 foot centers at 20 feet bgs.	
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS24**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	15	1445	C22-HSAS24 20-21.5	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (7.5YR 4/3) brown, very dense, damp, 100% subrounded to angular, very fine to medium-grained sand, extremely micaceous, no reaction with HCl, no odor, no staining.	PID = 0.5
21		27						
		29						
22								
23								
24								
25	100%	15	1447		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (7.5YR 6.2) pinkish gray, very dense, damp, 95% subangular to angular, very fine to very coarse, 5% non-plastic fines, micaceous, at bottom of spoon color change to (7.5YR 2.5/2) very dark brown fines layer.	PID = 0.9
26		25						
		26						
27								
28								
29								
30	100%	15	1450		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: (7.5YR 4/3) brown, dense, damp, 100% subrounded to angular, very fine to very coarse, trace non-plastic fines, micaceous, no reaction with HCl, no stain.	PID = 0.1
31		15						
		20						
32								
33								
34								
35	75%	10	1455		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (7.5YR 5.2) brown, dense, dry, 100% subrounded to angular, medium to very coarse-grained sand, predominantly very coarse-grained, micaceous, no reaction with HCl, no odor, no staining.	PID = 0.4
36		15						
		26						
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22/HSAS24**

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	50%	10	1459		SP		40 to 41.5 feet bgs. POORLY GRADED SAND: (7.5YR 7/1) light gray, medium dense, damp, 95% subrounded to angular, medium to very coarse-grained sand, predominantly very coarse, 5% non-plastic fines, silt lens at bottom of spoon, (7.5YR 4/3) brown, micaceous, no	PID = 0.2
41		12						
		15						
42								
43								
44								
45	50%	10	1503		SP-G		45 to 46.5 feet bgs. POORLY GRADED SAND WITH GRAVEL: SAA, dense, 80% sand, 20% gravel.	PID = 0.5
46		15						
		18						
47								
48								
49								
50	15%	35	1507		SP		50 to 51.5 feet bgs. POORLY GRADED SAND: (7.5YR 5/2) brown, very dense, damp to moist, 95% subrounded to angular, medium to very coarse-grained sand, predominantly very coarse, 5% subangular to angular gravel, micaceous.	PID = 0.2
51		50						
52								
53								
54								
55		15	1511	C22-HSAS24 55-56.5	SP		55 to 56.5 feet bgs. POORLY SORTED SAND: (7.5YR 7/1) light gray, dense, damp to moist, 100% subangular, medium to very coarse-grained sand, trace gravel, trace non-plastic fines, micaceous, no reaction with HCl, no staining, no odor.	PID = 0.2
56		15						
		18						
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) C22/HSAS24

Project:	Supplemental Soil Investigation	Borehole Depth:	61.5 feet bgs.	Sampling Method: Split-spoon	Page 4 of 8
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
60		15	1515		SP		60 to 61.5 feet bgs. POORLY GRADED SAND: (7.5YR 5/2) brown, dense, moist, 100% subangular to angular, medium to very coarse-grained sand, micaceous, no reaction with HCl, no odor, no staining.	PID = 1.5
61		20						BZ = 0.2
		25						
62							Groundwater not confirmed. TD of boring is 61.5 feet bgs.	
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) C22-HSAS25

Project:	Supplemental Soil Investigation	Borehole Depth:	51.5 feet bgs	Sampling Method: Split Spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	13-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	13-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		835		SM		0 to 5 feet bgs. SILTY SAND: (10YR 3/2) very dark grayish brown,	PID = 0.3
1	A						very loose, dry, 90% subrounded to subangular, very fine to	BZ = 0.0
	N						medium grain sand, poorly graded, 10% non-plastic fines, no odor.	
2	D							
3	A							
	U						* Hand auger to 5' bgs. Logged by cuttings.	
4	G							
	E							
5	R							
	66%	10	849		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very	PID = 0.3
6		10					dark grayish brown, medium dense, dry to damp, 90% subrounded	BZ = 0.0
		12					to subangular, fine to medium grain sand, poorly graded, 10% very-	
7							stiff, non-plastic fines, micaceous, no odor.	
8								
9								
10								
	53%	8	853		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.2
11		11					* Begin continuous sampling	BZ = 0.0
		13						
	40%	10	857		SP		11.52 to 13 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.3
12		10						BZ = 0.0
		12						
13	56%	10	903	C22-	SP		13 to 14.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.0
		10		HSAS25				BZ = 0.0
14		12		13-14.5				
	40%	9	920		SP		14.5 to 16 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.0
15		9						BZ = 0.0
		10						
16							* Sampling using 5' centers	
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) C22-HSAS25

Project:	Supplemental Soil Investigation	Borehole Depth:	51.5 feet bgs	Sampling Method: Split Spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	13-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	13-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	94%	10	935		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very	PID = 0.3
21		12					dark grayish brown, medium dense, dry to damp, 90% subrounded	BZ = 0.0
		14					to subangular, very fine to fine grain sand with trace silt,	
22							10% low plastic fines, micaceous, no odor.	
23								
24								
25								
	34%	25	1007	C22-	SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very	PID = 0.0
26		50		HSAS25			dark grayish brown, medium dense, dry to damp, 90% subrounded	BZ = 0.0
				25-26.5			to subangular, very fine to fine grain sand becoming medium to	
27							coarse grain sand with depth, 10% low plastic fines, micaceous,	
							color change at 25.4' bgs to (10YR 7/2) light gray,	
28							no odor.	
29								
30								
	75%	8	1013		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: (10YR 7/2)	PID = 0.0
31		10					light gray, medium dense, dry to damp, 95% subrounded	BZ = 0.0
		13					to subangular, medium to coarse grain sand becoming very fine to	
32							fine grain sand with depth, 5% low plastic fines, micaceous,	
							color change at 31' bgs to (10YR 3/2) very dark	
33							grayish brown, no odor.	
34								
35								
	59%	8	1022		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (10YR 3/2) very	PID = 0.0
36		9					dark grayish brown, medium dense, dry to damp, 90% subrounded	BZ = 0.0
		11					to subangular, very fine to fine grain sand becoming medium to	
37							coarse grain sand with depth, 10% low plastic fines, micaceous,	
							color change at 35.4' bgs to (10YR 7/2) light gray, no odor.	
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22-HSAS25**

Project:	Supplemental Soil Investigation	Borehole Depth:	51.5 feet bgs	Sampling Method: Split Spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	13-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	13-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	50%	5	1027		SP		40 to 41.5 feet bgs. POORLY GRADED SAND: (10YR 7/2)	PID = 0.0
41		10					light gray, medium dense, dry to damp, 100% subrounded	BZ = 0.0
		11					to subangular, medium to coarse grain sand becoming very fine to	
42							fine grain sand with depth, trace fines, micaceous, no odor.	
43								
44								
45	56%	8	1034	C22-	SP		45 to 46.5 feet bgs. POORLY GRADED SAND: (10YR 5/3)	PID = 0.0
46		9		HSAS25			brown, medium dense, dry to damp, 90% subrounded to	BZ = 0.0
		11		45-46.5			subangular, very fine to medium grain sand, trace coarse grains,	
47							10% non-plastic fines, no odor.	
48								
49								
50	41%	5	1042		SP		50 to 51.5 feet bgs. POORLY GRADED SAND: (10YR 7/2) light	PID = 0.0
51		6					gray, loose, dry to damp, 100% subrounded to subangular, very	BZ = 0.0
		9					fine to coarse grain sand, trace fines, micaceous,	
52							* groundwater not confirmed.	
							Total depth of boring is approximatley 51.5 feet bgs.	
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22-HSAS26**

Project:	Supplemental Soil Investigation	Borehole Depth:	51.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 4
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
0	H		1230		SM		0 to 5 ft. SILTY SAND: (10YR 5/3) brown, very loose, dry, 90% subrounded to subangular very fine-grained sand, poorly graded, 10% no-plastic fines, no odor, no staining, no reaction with HCl. Probable Fill material.	PID = .2
1	A							BZ = .2
	N							
2	D							
3	A						*Hand auger to 5' bgs. Logged by cuttings.	
	U							
4	G							
	E							
5	R							
	66%	7	1250		SP-SM		5 to 6.5 ft. POORLY GRADED SAND WITH SILT: (10YR 4/2) dark grayish brown, medium dense, 90% subrounded to subangular very fine to medium-grained sand, 10% non-plastic fines, no staining, no reaction with HCl, little micaceous material below 5' bgs. Probable Fill material.	PID =.2
6		10						BZ = .2
		10						
7								
8								
							*HSA to 10' bgs.	
9								
10								
	72%	6	1300		SP-SM		10 to 13 ft. Same as above. Micaceous material decreasing below 13' bgs. *Begin continuous sampling.	PID = .2
11		9						BZ = .2
		11						
12	66%	8	1306					
		10						
13		12					*Contact between Fill material and native soil @ 12.7' bgs.	
	55%	15	1311		SP		13 to 14.5 ft. POORLY GRADED SAND: (10YR 5/3) brown, dense, 95% subrounded to subangular fine to medium-grained sand, 5% non-plastic fines, no odor, no staining, no reaction with HCl, little micaceous.	PID = .2
14		17						BZ = .2
		21						
15							*HSA to 15' bgs.	
	66%	9	1324	C22-	SP		15 to 16.5 ft. Same as above. (10YR5/3) brown, not micaceous.	PID = .2
16		11		HSAS26			*Begin sampling using 5' centers.	BZ = .2
		13		15-16.5				
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22-HSAS26**

Project:	Supplemental Soil Investigation	Borehole Depth:	51.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 4
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
20	66%	6	1332	C22-	SP		20 to 21.5 ft. SAA: Micaceous below 20' bgs.	PID = .2
21		8		HSAS26				BZ = .2
		10		20-21.5				
22								
23								
24								
25	61%	10	1340		SP		25 to 26.5 ft. SAA: Fine to coarse-grained sand, decreasing amounts of micaceous material below 25' bgs.	PID = .2
26		14						BZ = .2
		17						
27								
28								
29								
30	55%	14	1349		SP		30 to 31.5 ft. Same as above.	PID= .2
31		16						BZ = .2
		20						
32								
33								
34								
35	55%	9	1356	C22-	SP		35 to 36.5 ft. Same as above.	PID = .2
36		13		HSAS26				BZ = .2
		16		35-36.5				
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **C22-HSAS26**

Project:	Supplemental Soil Investigation	Borehole Depth:	51.5 feet bgs	Sampling Method: Split-spoon	Page 3 of 4
Location:	LMC Beaumont Site 1 (Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Jack Zimmerman			Easting (feet):	
Date Boring Started:	16-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	16-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery (feet)	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	PID (ppm, BZ = breathing zone)
40	55%	14	1406		SP		40 to 41.5 ft. SAA: Trace fine-grained quartz gravel.	PID= .2
41		16						BZ = .2
		21						
42								
43								
44								
45	72%	12	1420		SP		45 to 46.5 ft. Same as above.	PID = .2
46		14						BZ = .2
		18						
47								
48								
49								
50	55%	30	1445		SP		50 to 51.5 ft. SAA: Increasing amounts of fine-grained quartz gravel and increasing amounts of micaceous material below 50' bgs. Groundwater is not confirmed. Total Depth (TD) of boring is 51.5' bgs.	PID = .2
51		50						BZ = .2
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/HSAS27**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Temp Storage)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H				SP		Hand auger the first 5 feet, very loose sand, added water to prevent sand sliding out of auger barrel.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	50%	10	0845	C23-HSAS27-5-6.5	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (7.5YR 4/4) brown, medium dense, dry, 95% subangular to angular, very fine to very coarse grained sand, poorly graded, 5% subangular to angular gravel, micaceous, no reaction with HCL, organic material present, no odor.	PID = 0.3
6		12						
		15						
7				C23-HSAS 2701- 5-6.5				
8								
9								
10								
	50%	8	0849		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: SAA, subrounded to angular sand.	PID = 1.1
11		10						BZ = 0.3
		13						
12								
13								
14								
15								
	50%	11	0854		SP		15 to 15.2 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.7
16		15					15.2 to 16.5 feet bgs. POORLY GRADED SAND: (5YR 3/1) very dark gray, dense, damp, 100% subangular, very fine to fine grained sand, driller indicates material is very hard, grinding up bedrock (gneiss), high percentage of micaceous material.	
		17						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/HSAS27**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Temp Storage)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	50%	10	901	C23-HSAS27-20-21.5	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (5YR 4/1) dark reddish gray, medium dense, dry, 100% subangular to angular, very fine to medium grained sand, trace fines, large angular gneiss fragments included, still a high percentage or micaceous material.	
21		13						
		12						
22								
23								
24								
25	0%	50/4	0906		Bedrock		25 to 26.5 feet bgs. No recovery only a few bedrock fragments.	PID = 0.3
26								
27								
28								
29								
30	60%	15	0915	C23-HSAS27-30-31.5	Bedrock		30 to 31.5 feet bgs. BEDROCK: (5YR 5/1) gray, very dense, dry, 100% subangular to angular, very coarse bedrock (gneiss) fragments, extremely micaceous.	PID = 0.3
31		17						
		21						
32				C23-HSAS2701 30-31.5				
33								
34								
35	15%	50/6	0920		Bedrock		35 to 36.5 feet bgs. BEDROCK: (7.5YR 6/3) light brown, very dense, dry, 100% ground bedrock, appears to be granite, fine to medium grained clasts.	PID = 0.3
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/HSAS27**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Temp Storage)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	5%	50/4	0920		Bedrock		40 to 41.5 feet bgs. BEDROCK: (5YR 7/1) light gray, SAA fine to medium grained, powdered bedrock.	PID = 0.3
41							Groundwater not confirmed. TD of boring is 41.5 feet bgs.	
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/HSAS28**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Temp Storage)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H				SP		Hand auger the first 5 feet, very loose sand, added water to prevent sand sliding out of auger barrel.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	75%	8	1013	C23-HSAS28-5-6.5 MSMS/D	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (7.5YR 4/2) brown, medium dense, dry to damp, 100% subrounded to subangular, fine to medium-grained sand, trace fines, micaceous, no reaction with HCl, no odor, organic matter present.	PID = 1.9
		10						BZ = 0.2
6		10						
7								
8								
9								
10	75%	10	1016		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.1
		11						
11		13						
12								
13								
14								
15	90%	13	1019		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (5YR 4/4) reddish brown, dense, dry, 100% subrounded to angular, fine to coarse-graind sand, trace fines, micaceous, no reaction with HCl, no odor.	PID = 0.2
		17						
16		18						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/HSAS28**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Temp Storage)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	10	1022	C23-HSAS28-20-21.5	SP-SM		20 to 21.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 4/3) reddish brown, medium dense, damp, 90% subrounded to subangular, very fine to medium-grained sand, 10% fines with low plasticity, micaceous, no reaction with HCl, no odor, no staining.	PID = 5.3
21		12						BZ = 0.2
		14						
22				C23-HSAS2801 20-21.5				
23								
24								
25	100%	14	1029		SP		25 to 26.5 POORLY GRADED SAND: (5YR 4/3) reddish brown, dense, damp, 100% subangular to angular, fine to coarse-grained sand, micaceous, no reaction with HCl, no odor, no staining. At 26.2 feet bgs decomposed granite.	PID = 0.2
26		17						
		21						
27								
28								
29								
30	70%	15	1037		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: (7.5YR 5/6) strong brown, very dense, dry, 100% subangular to angular, fine to coarse-grained sand, trace non-plastic fines, micaceous, no reaction with HCl, no odor, no staining.	PID = 0.2
31		17						
		25						
32								
33								
34								
35	5%	50/4	1043		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (10YR 7/4) very dark brown, very dense, dry, 100% subrounded to angular, fine to coarse-grained sand, trace non-plastic fines, into bedrock, no reaction with HCl, no odor, no staining.	PID = 0.0
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/HSAS28**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Temp Storage)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	19-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	19-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	10%	50/6	1049	C23-HSAS28-40-41.5	SP		40 to 41.5 feet bgs. POORLY GRADED SAND: (5YR 7/1) light gray, very dense, dry, 100% subangular to angular, medium to very coarse-grained sand, appears to be some oxide staining (2.5YR 5/8) red.	PID = 1.9
41								BZ = 0.2
42							Groundwater not confirmed. TD of boring is 41.5 feet bgs.	
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/SS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1112	C23 - SS1	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
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14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/SS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1115	C23 - SS2	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/SS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1118	C23 - SS3	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
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15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) C23/SS4

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1125	S23 - SS4	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/SS5**

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1128	C23 - SS5	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/SS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1133	C23 - SS6	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
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11								
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16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) C23/SS7

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1141	C23 - SS7	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 23 Operational Area C) **C23/SS8**

Project:	Supplemental Soil Investigation	Borehole Depth:	0.5 feet bgs	Sampling Method: Trowel	Page 1 of 1
Location:	LMC Beaumont Site 1 (New AOC)	Borehole Diameter:	N/A		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly A. Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1135	C23 - SS8	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (10YR 5/2) grayish brown, very loose, dry, 100% subrounded to subangular, fine to coarse-grained, predominantly medium-grained sand, poorly graded, micaceous, organic material present.	
1	A							
	N							
2	D						Groundwater not confirmed. TD of boring is 0.5 feet bgs.	
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 26 Operational Area D) D28/HSAS1

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (TNT Disposal)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	2-Aug-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	2-Aug-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0845		SM		0 to 5 feet bgs. SILTY SAND: (5YR 4/2) dark reddish gray, very loose, dry, 80% surrounded to subangular, very fine to fine-grained sand, poorly graded, 20% non-plastic fines, micaceous.	PID = 0.0
1	A							BZ = 0.0
	N							
2	D							
3	A						*Hand auger to 5' bgs. Logged by cuttings.	
	U							
4	G							
	E							
5	R							
	33%	50/6"	0850		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (5YR 4/4) reddish brown, very dense, dry, 95% subrounded to subangular, fine to coarse grained sand, micaceous, quartz and feldspar clasts.	PID = 0.0
6								BZ = 0.0
7							*** Mt. Eden Formation contact at 5.3 feet bgs.**	
							*HSA to 10' bgs.	
8								
9								
10								
	73%	20	0858		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: Same as above. *Begin sampling using 5' centers.	PID = 0.0
		25						BZ = 0.0
11		40						
12								
13								
14								
15								
	33%	60/6"	0905		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.1
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 26 Operational Area D) **D28/HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (TNT Disposal)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	2-Aug-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	2-Aug-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	66%	30	0910		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: Same as above. Fine grained sand grading to coarse-grained sand, strong reaction with HCl.	PID = 0.1
21		50						
25	100%	26	0915		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: Same as above. No reaction with HCl.	PID = 0.1
26		50						
		50						
30	100%	27	0920		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: Same as above. Groundwater is not confirmed.	PID = 0.1
31		50						
							Total Depth (TD) of boring is 31.5' bgs.	

TETRA TECH

BORING LOG

(Feature 26 Operational Area D) **D28/HSAS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (TNT Disposal)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	1-Aug-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-Aug-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		1251		SM		0 to 5 feet bgs. SILTY SAND: (5YR 4/2) dark reddish gray, very loose, dry, 80% surrounded to subangular, very fine to fine-grain sand, poorly graded, 20% non-plastic fines, micaceous.	PID = 0.0
1	**A**							BZ = 0.0
	N							
2	**D**							
3	**A**						*Hand auger to 5' bgs. Logged by cuttings.	
	U							
4	**G**							
	E							
	R							
5	53%	30	1300		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 4/2) dark reddish gray, dense, dry, 90% subangular to angular, very fine to fine-grained sand, poorly graded, 10% non-plastic fines, no odor, no reaction with HCl. 5.5' bgs color change to (5YR 5/1) gray.	PID = 4.2
6		50						
7								
							*HSA to 10' bgs.	
8								
9								
10								
	73%	18	1305		SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 5/1) gray, dense, dry, 90% subangular to angular, very fine to medium grained sand, poorly graded, 10% non-plastic fines, no odor, no reaction with HCl. 10.6' bgs color change to (5YR 5/3) reddish brown. . *Begin sampling using 5' centers.	PID =4.4
11		23						
		39						
12							*** Mt. Eden Formation contact at 10.6 feet bgs.**	
13								
14								
15	40%	35	1310		SP-SM		15 to 16.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = .6
16		50						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 26 Operational Area D) **D28/HSAS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (TNT Disposal)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	1-Aug-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-Aug-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	80%	27	1315		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: Same as above. (5YR 3/4) dark reddish brown.	PID = 1.6
21		35						
		50						
22								
23								
24								
25								
	46%	50	1320		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 7.6
26		50						
27								
28								
29								
30								
	66%	29	1325		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 2.2
31		37						
		59					Groundwater is not confirmed. TD of boring is 31.5' bgs.	
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 26 Operational Area D) **D28/HSAS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Small Test Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	1-Aug-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-Aug-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		0954		SM		0 to 5 feet bgs. SILTY SAND: (5YR 2.5/2) dark reddish brown, very loose, dry, 80% subrounded to subangular, very fine to fine-grained sand, poorly graded, 20% non-plastic fines, micaceous	PID = 0.0
1	**A**							BZ = 0.0
	N							
2	**D**							
3	**A**						*Hand auger to 5' bgs. Logged by cuttings.	
	U							
4	**G**							
	E							
5	**R**							
	73%	25	1005		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 2.5/2) dark reddish brown, dense, 90% subrounded to subangular, very fine to medium-grained sand, poorly graded, 10% non-plastic fines. 5.6' bgs color change to (5 YR 4/4) reddish brown, trace coarse clasts.	PID = 0.2
6		50						
7								
8							*HSA to 10' bgs.	
9								
10								
	67%	25	1010		SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 4/4) reddish brown, dense, dry, 90% subrounded to subangular, very fine to medium-grained sand, poorly graded 10% non-plastic fines, trace non-plastic fines. 10.5' bgs color change to (5YR 4/6) yellowish red. . *Begin sampling using 5' centers. *** Mt Eden Formation contact at 11.5 feet bgs.**	PID = 2.3
11		50						
12								
13								
14								
15								
	73%	30	1015		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (5YR 4/6) yellowish red, very dense, dry, 95% subrounded to subangular, fine to coarse-grained sand, poorly graded, 5% non-plastic fines, micaceous, quartz, feldspar.	PID = 2.0
16		50						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 26 Operational Area D) **D28/HSAS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Small Test Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	1-Aug-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-Aug-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	67%	45	1020		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 16.3
21		50						
22								
23								
24								
25	73%	25	1025		SP-SM		25 to 26.5 feet bgs. POORLY GRADED SAND WITH SILT: (5 YR 4/6) yellowish red, dense, dry, 90% subrounded to subangular, very fine to coarse-grained sand, poorly graded, 10% non-plastic fines, micaceous, 25.5' bgs color change to (5YR 4/3) reddish brown.	PID = 0.7
26		15						
		15						
27								
28								
29								
30	57%	28	1030		SP-SM		30 to 31.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 4/4) reddish brown, very dense, dry, 90% subrounded to subangular, fine to coarse-grained sand, poorly graded, 10% non-plastic fines, quartz and feldspar clasts. Groundwater is not confirmed. Total Depth (TD) of boring is 31.5' bgs.	PID = 6.1
31		49						
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 29 Operational Area D) **D29/HAS11**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Explosve. Storg)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0903	D29-	SP		0 to 5 feet bgs. POORLY GRADED SAND: (10YR 4/1) dark yellowish brown, very loose, dry, 100% subrounded to subangular, fine to medium grained-sand, trace non-plastic fines, micaceous.	
1	A			HAS11				
	N			0.5				
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			0933	D29-	SP		5 feet bgs. POORLY GRADED SAND: SAA: (2.5YR 6/3) light yellowish brown, very loose to loose, fine to coarse-grained sand. **Groundwater not confirmed. TD of boring is 5 feet bgs.**	
6				HAS11				
				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 29 Operational Area D) **D29/HAS12**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1.
Location:	LMC Beaumont Site 1 (Explosve. Storg)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0941	D29-	SP		0 to 5 feet bgs. POORLY GRADED SAND: (10YR 4/3) brown, very loose, dry, 100% subrounded to subangular, very fine to medium-grained sand, trace non-plastic fines, predominantly fine-grained, micaceous, trace organic material.	
1	A			HAS12				
	N			0.5				
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			0955	D29-	SP		5 feet bgs. POORLY GRADED SAND: SAA: (10YR 6/2) light brownish gray, fine to very coarse-grained sand, predominantly coarse to very coarse-grained. **Groundwater not confirmed. TD of boring is 5 feet bgs.**	
6				HSA12				
				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 29 Operational Area D) **D29/HAS13**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Explosve. Storg)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	HA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1000	D29-	SP		0 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 4/2) dark grayish brown, very loose, dry, 100% subrounded to subangular, very fine to fine grained-sand, trace non-plastic fines, micaceous.	
1	A			HAS13				
	N			0.5				
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1010	D29-	SP		5 feet bgs. POORLY GRADED SAND: SAA: very fine to coarse-grained sand, predominantly very fine to fine-grained. **Groundwater not confirmed. TD of boring is 5 feet bgs.**	
6				HAS13				
				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 29 Operational Area D) **D29/HAS14**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (TNT Dis. Area)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Chris Patrick			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1230	D26-HAS14 0.5	SM		0 to 5 feet bgs. SILTY SAND: (7.5YR 4/4) brown, damp, medium dense, subrounded, fine to coarse-grained sand, poorly graded, non-plastic fines.	PID = 0.0
1	A							BZ = 0.0
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1300	D26-HAS14 5	SM		5 feet bgs. SILTY SAND: SAA. dry, loose to medium dense, subrounded to subangular, very fine to coarse-grained sand, poorly graded, non-plastic fines. **Groundwater is not confirmed. Total Depth (TD) of boring is 5 bgs.**	PID = 0.0
6								BZ = 0.0
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 29 Operational Area D) **D29/HAS15**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (TNT Dis. Area)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Chris Patrick			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1055	D26-HAS15 0.5	SM		0 to 5.0 feet bgs. SILTY SAND: (7.5YR 4/4) brown, damp, medium dense, subrounded, very fine to medium-grained sand, poorly graded, non-plastic fines.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1135	D26-HAS15 5	SP		5 feet bgs. POORLY GRADED SAND: (7.5YR 5/6) strong brown, dry, loose to medium dense, subangular, very fine to very coarse-grained sand, trace gravel, trace non-plastic fines. **Groundwater is not confirmed. Total Depth (TD) of boring is 5 bgs.**	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 29 Operational Area D) **D29/HAS16**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (TNT Dis. Area)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Chris Patrick			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		0910	D26-	SP		0 to 5 feet bgs. POORLY GRADED SAND: (7.5YR 4/4) brown, damp, medium dense, subrounded, fine to medium-grained sand, non-plastic fines.	PID = 0.0
1	A			HAS16				BZ = 0.0
	N			0.5				
	D			D26-				
2				HAS116				
	A			0.5				
3	U							
	G							
4	E							
	R							
5			0945	D26-	SP		5 feet bgs. POORLY GRADED SAND: (7.5YR 5/6) strong brown, dry to damp, loose to medium dense, subrounded to subangular, very fine to very coarse-sand, trace non-plastic fines, trace gravel. **Groundwater is not confirmed. Total depth (TD) of boring is 5 bgs.**	PID = 0.0
6				HAS16				BZ = 0.0
				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33-HSAS10

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256212.9	
Logged By:	Linda Margullis			Easting (feet): 6345337.5	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**H**		0900		SM		0 to 5 feet bgs. SILTY SAND: (7.5YR 5/4) brown, very loose, dry, 60% subrounded to subangular, very fine to fine-grained sand, 40% non-plastic fines, no odor.	PID = 0.0
1	**A**							BZ = 0.0
	N							
2	**D**							
3	**A**						*Hand auger to 5' bgs. Logged by cuttings.	
	U							
4	**G**							
	E							
	R							
5	31%	10	0910	F33-HSAS10 5 - 6.5	SM		5 to 6.5 feet bgs. Same as above: (5YR 4/2) dark reddish gray, loose, dry, 60% subrounded to subangular, very fine to fine-grained sand, 40% non-plastic fines, no odor.	PID = 0.0
6		5						BZ = 0.0
		7						
7								
8							*HSA to 10' bgs.	
9								
10								
	81%	8	0912	F33-HSAS10 10 - 115	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (5YR 4/2) dark reddish gray, loose, dry, 100% subrounded to subangular, very fine to medium-grained sand, trace non-plastic fines, no odor. *Begin sampling using 5' centers.	PID = 0.0
11		12						BZ = 0.0
		14						
12								
13								
14								
15								
	63%	9	0915	F33-HSAS10 15 - 16.5	SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (5YR 4/2) dark reddish gray, loose, dry, 80% subrounded to subangular, very fine to coarse-grained sand, stiff, 20% fines of low plasticity, no odor.	PID = 0.0
16		12						BZ = 0.0
		14						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33-HSAS10

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256212.9	
Logged By:	Linda Margullis			Easting (feet): 6345337.5	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	81%	10	0919	F33-HSAS10 20 - 21.5	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/1)reddish gray, medium dense, damp, 95% subrounded to subangular, fine to coarse-grained sand, 5% non-plastic fines. 20.7' bgs., color change to (2.5YR 3/6) dark red, no odor.	PID = 0.0
21		15						BZ = 0.0
		18						
22							*** Possible weathered Mt. Eden Formation contact at 20 feet bgs.**	
23								
24								
25					▼			
	75%	8	0920	F33-HSAS10 GW	SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, medium dense, wet, 95% subrounded to subangular, fine to medium-grained sand, increasing fines with depth, 5% non-plastic fines. 25.7' bgs color change to (7.5YR 3/2) dark brown, no odor. Groundwater is confirmed at 25' bgs. Total Depth (TD) of boring is 26.5' bgs.	PID = 0.0
26		10						BZ = 0.0
		10						
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33-HAS11

Project:	Supplemental Soil Investigation	Borehole Depth:	8.2 feet bgs.	Sampling Method: Grab	Page 1 of 1
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	2 inches		
Project No.:	19967-02	Drilling Contractor:	Tetra Tech Inc.	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	Hand Auger	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		912	F33-	SP		0 to 8.2 feet bgs. POORLY GRADED SAND: (10YR 4/3) brown	PID=0.0
1	A			HAS11			very loose, damp to moist, 90% subrounded to subangular, very	BZ=0.0
	N			0.5			fine to medium grain sand, poorly sorted, 10% non-plastic fines,	
2	D						micaceous no odor.	
3	A							
	U							
4	G							
	E							
5	R							
			930	F33-	SP		Same as above.	PID=0.0
6	T			HAS11				BZ=0.0
	O			5				
7								
	8.2							
8	ft.				▽		* groundwater confirmed at 8.2 feet bgs.	
							Total depth of borehole is approximatley 8.2 feet bgs.	
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) **F33/HAS12**

Project:	Supplemental Soil Investigation	Borehole Depth:	8.1 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Christopher Patrick			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1024	F33-HAS 12 0.5	SP-SM		0 to 5 feet bgs. POORLY GRADED SAND WITH SILT: (10YR 6/3) pale brown, medium dense, damp, fine to medium-grained sand, non-plastic fines, trace gravel.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1037	F33-HAS12 5	SP		5 to 8.1 feet bgs. POORLY GRADED SAND: (10YR 6/2) light grayish brown, damp to wet, fine to medium-grained sand, trace non-plastic fines.	
6								
7							**Groundwater confirmed at 8.1 feet bgs. Total Depth (TD) of boring is 8.1' bgs.**	
8					▼			
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) **F33/HAS13**

Project:	Supplemental Soil Investigation	Borehole Depth:	7.9 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Christopher Patrick			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1114	F33-HAS 13 0.5	SP-SM		0 to 5 feet bgs. POORLY GRADED SAND WITH SILT: (10YR 6/3) pale brown, medium dense, dry, very fine to fine-grained sand, non-plastic fines.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5			1124	F33-HAS 13 5	ML		5 to 7.9 feet bgs. SILT: (10YR 6/2) light grayish brown, medium dense, damp to wet, non-plastic fines, trace fine-grained sand.	
6								
7								
							Groundwater confirmed at 7.9 feet bgs. Total Depth (TD) of boring is 7.9' bgs.	
8					▼			
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33/HSAS14

Project:	Supplemental Soil Investigation	Borehole Depth:	36 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256002.2	
Logged By:	Linda Margullis			Easting (feet): 6345424.6	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		0958		SM		0 to 5 feet bgs. SILTY SAND: (7.5YR 3/2) dark brown, very loose to loose, dry, 60% subrounded to subangular, very fine to fine-grained sand, poorly graded, 40% non-plastic fines.	PID = 0.0
1	A							BZ = 0.0
	N							
2	D							
3	A						*Hand auger to 5' bgs. Logged by cuttings.	
	U							
4	G							
	E							
5	R							
	65%	8	1012				5 to 6.5 feet bgs. POORLY GRADED SAND: 5 to 5.6' bgs same as above. 5.6 to 6.5' bgs (10YR 4/2) dark grayish brown, medium dense, dry, 90% subrounded to subangular, very fine to medium-grained sand, 5% non-plastic fines.	PID = 0.0
6		10			SP			BZ = 0.0
		13						
7								
8							*HSA to 10' bgs.	
9								
10								
	70%	11	1014		SP		10 to 11.5 feet bgs. Same as above. (10YR 4/2) dark grayish brown, dry, medium dense, 90% subrounded to subangular, fine to medium-grained sand, 10% non-plastic fines. *Begin sampling using 5' centers.	PID = 0.0
11		13						BZ = 0.0
		16						
12								
13								
14								
15								
	65%	14	1016		SP-SM		15 to 16.5 feet bgs. 15 to 15.6' bgs. POORLY GRADED SAND WITH SILT: (10YR 5/2) grayish brown, medium dense, dry, 80% non-plastic fines, 20% subrounded to subangular, very fine-grained sand. 15.6 to 16.5' bgs. POORLY GRADED SAND: 90% subrounded to subangular, medium to coarse-grained sand, 10% non-plastic fines.	PID = 0.0
16		16			SP			BZ = 0.0
		17						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33/HSAS14

Project:	Supplemental Soil Investigation	Borehole Depth:	36 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256002.2	
Logged By:	Linda Margullis			Easting (feet): 6345424.6	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	70%	12	1018		SP		20 to 21.5 feet bgs. Same as above. (10YR 4/2) dark grayish brown, medium dense, moist, 95% subrounded to subangular fine to medium-grained sand, trace coarse-grained, 5% non-plastic fines.	PID = 0.0
21		15						BZ = 0.0
		17						
22							*** Possible weathered Mt. Eden Formation contact at 20 feet bgs.**	
23								
24							*Static groundwater inside borehole at 24.6' bgs.	
25								
	30%	14	1024		SP		25 to 26.5 feet bgs. Same as above. Wet, fine to coarse-grained sand. Groundwater is confirmed at 25' bgs. *Driller instructed to advance borehole to 36' bgs.	PID = 0.0
26		17						BIZ = 0.0
		21						
27								
							*HSA 26.5 to 36' bgs. Logged by cuttings.	
28								
29								
30								
								PID = 0.0
31								BZ = 0.0
32								
33								
34								
35								
							36 feet bgs. Total Depth (TD) of boring is 36' bgs. 4" monitoring well set @ 35.9' bgs w/15' screen.	PID = 0.0
36								BZ = 0.0
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33/HSAS15

Project:	Supplemental Soil Investigation	Borehole Depth:	25 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256026.2	
Logged By:	Holly Hanke			Easting (feet): 6345286.9	
Date Boring Started:	20-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	20-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		0850		SM		0 to 5 feet bgs. SILTY SAND: (7.5YR 5/1) gray, very loose to loose, dry, 60% subrounded to subangular, very fine to fine-grained sand, poorly graded, 40% non-plastic fines.	PID = 0.0
1	**A**							BZ = 0.0
	N							
	D							
2								
	A						*Hand auger to 5' bgs. Logged by cuttings.	
3	**U**							
	G							
4	**E**							
	R							
5	75%	8	0900		SM		5 to 6.5 feet bgs. SILTY SAND: Same as above: (7.5YR 6/2) pinkish gray, loose to medium dense, slight oxidation staining.	PID = 0.5
		10						BZ = 0 .5
6		10						
7								
							*HSA to 10' bgs.	
8								
9								
10	60%	10	0903	F33-HSAS15 10 - 11.5	SM		10 to 11.5 feet bgs. SILTY SAND: Sas above: (7.5YR 5/3) brown, slight oxidation staining, two small clay lenses. *Begin sampling using 5' centers.	PID = 2.9
		12						BZ = 0.5
11		14						
12								
13								
14								
15	80%	10	0906	F33-HSAS15 15 - 16.5	ML		15 to 16.5 feet bgs. SILT WITH SAND: (10YR 5/2) grayish brown, medium dense, dry, 80% non-plastic fines, 20% subrounded to subangular, very fine to coarse-grained sand (bottom of split-spoon), poorly graded, micaceous.	PID = 0.8
		11						
16		13						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) F33/HSAS15

Project:	Supplemental Soil Investigation	Borehole Depth:	25 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256026.2	
Logged By:	Holly Hanke			Easting (feet): 6345286.9	
Date Boring Started:	20-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	20-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	80%	8	0909	F33-HSAS15 20 - 21.5	SP		20 to 20.5 feet bgs. POORLY GRADED SAND: (10YR 4/2) dark grayish brown, medium dense, moist to wet, 90% subrounded to subangular, very fine to coarse-grained sand, 10% non-plastic fines.	PID = 0.6
21		10			ML		20.5 to 21.5 feet bgs. SANDY SILT: 60% non-plastic fines, 40% subrounded to subangular, very fine to coarse-grained sand, increasing amounts of sand with depth, reaction with HCl, oxidation staining. Groundwater is confirmed at 21.7' bgs.	
		10						
22								
23								
24							*HSA to 25' bgs.	
25							Total Depth (TD) of boring is 25' bgs.	
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 33 Operational Area F) **F33/HAS16**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Washout Area)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Christopher Patrick			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1157	F33-HAS16 0.5	SP		0 to 5 feet bgs. POORLY GRADED SAND WITH SILT: (10YR 6/3) pale brown, medium dense, damp, fine to medium-grained sand, non-plastic fines, trace gravel.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R		1210	F33-HAS16 5	▼ SP-SM		5 feet bgs. POORLY GRADED SAND: (10YR 6/2) light grayish brown, damp to wet, trace non-plastic fines. **Groundwater confirmed at 5 feet bgs. Total Depth (TD) of boring is 5 bgs.**	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 34 Operational Area F) F34-HSAS5

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs.	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Shop Buildings)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	HAND				SM		0 to 1.5 feet bgs. SILTY SAND: (7.5YR 4/4) brown, very loose, dry, 90% subrounded to subangular, very fine to fine grain sand.	
1	AUGER						* Top of Mt. Eden Formation at 1.5' bgs.	
2			930		SP		1.5 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, medium to coarse grain sand, poorly graded, trace non-plastic fines, no odor.	PID = 0.0 BZ = 0.0
3								
4								
5	66%	25	945		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, very dense, dry, 95% subrounded to subangular, fine to very coarse grain sand, 5% non-plastic fines, trace silt, no odor, arkosic.	PID = 0.3 BZ = 0.0
6		50						
7								
8								
9								
10	33%	33	955		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, very dense, dry, 90% subrounded to subangular, fine to very coarse grain sand, 10% non-plastic fines, trace coarse grains no odor, no reaction to HCl.	PID = 0.3 BZ = 0.0
11		50						
12								
13								
14								
15	66%	30	1000		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, very dense, dry, 90% subrounded to subangular, fine to very coarse grain sand, 10% non-plastic fines, mostly fine grain sand, quartz clasts, no odor, arkosic.	PID = 0.3 BZ = 0.0
16		50						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 34 Operational Area F) F34-HSAS5

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs.	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Shop Buildings)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	66%	23	1005		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/4)	PID = 0.3
		35					reddish brown, very dense, dry to damp, 90% subrounded to	BZ = 0.0
21		50					subangular, fine to very coarse grain sand, 10% non-plastic fines,	
22							trace gravel, no odor.	
23								
24								
25	100%	20	1015		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/4)	PID = 0.3
		25					reddish brown, very dense, dry to damp, 95% subrounded to	BZ = 0.0
26		30					subangular, fine to very coarse grain sand, 5% non-plastic fines,	
27							trace silt and gravel, no odor.	
28								
29								
								PID = 0.3
30					▽			BZ = 0.0
	60%	30	1020		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/4)	
31		50					Same as above.	
32							* Static groundwater is confirmed at 30' bgs.	
33							Total depth of boring is approximately 31.5 feet bgs.	
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 34 Operational Area F) **F34/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Bldgs 306 & 314)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0910	SP			0 to 1 inch bgs ASHPHALT/FILL.	
1	A						1 inch to 2 feet bgs. POORLY GRADED SAND: (5YR 4/4) reddish brown, loose, dry to damp, 95% subrounded to subangular, fine to medium-grained sand, poorly graded, 5% non-plastic fines, micaceous, no odor. **Mt Eden Fm (ME)** @ 2.0' bgs.	
	N							
2	D						2 to 5 feet bgs. POORLY GRADED SAND: SAA. (2.5YR 5/8) red, dense, damp. **ME**	
3	A							
	U							
4	G							
	E							
5	R							
	30%	30	0917		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/8) red, very dense, damp 100% subrounded to angular, fine to very coarse-grained sand, trace gravel, trace non-plastic fines, micaceous, no odor, no reaction with HCl. **ME**	PID = 0.2
6		50						
7								
8								
9								
10								
	75%	18	0927		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: SAA. Dry to damp, predominantly medium-grained sand. **ME**	PID = 0.2
11		25						
		30						
12								
13								
14								
15								
	100%	22	0934		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/8) red, very dense, damp, 100% subrounded to angular, fine to coarse-grained sand, trace non-plastic fines, trace gravel, micaceous, no odor, no reaction with HCl. **ME**	PID = 0.2
16		35						
		30						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 34 Operational Area F) **F34/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Bldgs 306 & 314)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	80%	50	0944		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: SAA. (2.5YR 4/8) red, very fine to coarse-grained, predominantly medium-grained sand, more damp at 21.5 feet bgs. **ME**	PID = 0.1
21		50						
22								
23								
24								
25	100%	50	0952		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: SAA. (2.5YR 4/6) red, large gravel clasts in spoon. **ME**.	PID = 0.2
26		50						
27								
28								
29								
30								
31							Overdrilled per field manager. Groundwater not confirmed. TD of boring is 31.5 feet bgs.	
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 35 Operational Area F) F35/HAS1

Project:	Supplemental Soil Investigation	Borehole Depth:	1.5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Betatron Bldg.)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1249	F35-	SP		0 to 1.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/8) red, dry, dense to very dense, 100% subrounded to angular, very fine to very coarse-grained sand, predominantly medium to coarse-grained, trace non-plastic fines, micaceous. **Top Mt. Eden Fm** @ surface. Groundwater is not confirmed. TD of boring is 1.5 feet bgs.	
1	A			HAS1				
	N			0.5				
2	D		1339	F35-				
				HAS1				
3	A			1.5				
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 35 Operational Area F) **F35/HAS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Betatron Bldg.)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1311	F35-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/8) red, dry, dense to very dense, 100% subrounded to angular, very fine to very coarse-grained, predominantly medium to coarse-grained sand, trace non-plastic fines, micaceous. **Top Mt. Eden Fm** @ 0.5 feet bgs.	
1	A			HAS2				
	N			0.5				
2	D							
3	A							
	U							
4	G							
	E							
5	R		1325	F35-	SP		0.5 to 5 feet bgs. Same as above. Groundwater is not confirmed. TD of boring is 5 feet bgs.	
				HAS2				
6				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 35 Operational Area F) **F35/HAS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Betatron Bldg.)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1221	F35-HAS3 0.5	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/8) red, dry, medium dense to very dense, 100% subrounded to angular, very fine to very coarse-grained, predominantly medium to coarse-grained sand, trace non-plastic fines, trace gravel, micaceous. **Top Mt. Eden Fm** @ 0.5 feet bgs.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R		1303	F35-HAS3 5	SP		0.5 to 5 feet bgs. Same as above. Very dense, *Very difficult to hand auger. Groundwater is not confirmed. TD of boring is 5 feet bgs.	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 35 Operational Area F) **F35/HAS4**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Betatron Bldg.)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1215	F35-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, dry, medium dense to dense, 100% subrounded to angular, very fine to very coarse-grained sand, trace non-plastic fines, trace gravel, micaceous. **Top of Mt. Eden Fm** @ 0.5 feet bgs.	
1	A			HAS4				
	N			0.5				
2	D							
3	A							
	U							
4	G							
	E							
5	R		1243	F35-	SP		0.5 to 5 feet bgs. Same as above. (2.5YR 4/8) red, dense to very dense, predominantly medium to coarse-grained sand. Groundwater is not confirmed. TD of boring is 5 feet bgs.	
				HAS4				
6				5				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 36 Operational Area F) F36-HSAS1

Project:	Supplemental Soil Investigation	Borehole Depth:	16.5 feet bgs.	Sampling Method: Split-Spoon	Page 1 of 1
Location:	LMC Beaumont Site 1 (EBES Testing)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1533				* No Recovery	BZ=0.0
1	**AUGER**							
2								
3								
4								
5								
	81%	18	1544	F36-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/4) reddish	PID=0.0
6		22		HSAS1			brown, dense, dry, 90% subrounded to subangular, fine to coarse	BZ=0.0
		26		5-6.5			grain sand, 10% non-plastic fines, interbedded with a fine to	
7							medium grain sand, (2.5YR 6/2)	
8							* Top of Mt. Eden Formationation at 5' bgs	
9								
10								
	78%	19	1549	F36-	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/4)	PID=0.0
11		24		HSAS1			reddish brown, very dense, dry, 90% subrounded to subangular,	BZ=0.0
		28		10-11.5			fine to coarse grain sand, 10% non-plastic fines, oxidation	
12							present.	
13								
14								
15								
	19%	50/4"	1552	F36-	SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red,	PID=0.2
16				HSAS1			very dense, dry, 100% subrounded to subangular, fine to very	BZ=0.0
				15-16.5			coarse grain sand, trace non-plastic fines, no odor.	
17								
							* groundwater is not confirmed	
18							Total depth of borehole is approximately 16.5' bgs	
19								
20								

TETRA TECH

BORING LOG

(Feature 36 Operational Area F) F36-HSAS2

Project:	Supplemental Soil Investigation	Borehole Depth:	16.5 feet bgs	Sampling Method: Split-Spoon	Page 1 of 1
Location:	LMC Beaumont Site 1 (EBES Testing)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1557		SP		0 to 1 foot bgs. POORLY GRADED SAND: (10YR 4/4) and	PID = 0.0
1	**AUGER**						very pale brown, loose, dry, 90% subrounded to subangular, fine	BZ = 0.0
							to medium grain sand, 10% non-plastic fines.	
2								
							* Hand auger refusal at 1 foot bgs. Begin using hollow stem auger.	
3								
4								
5								
	81%	20	1606	F36-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 8/4) to	PID = 0.2
6		23		HSAS1			(10YR 4/6) very pale brown to dark yellowish, brown, dense,	BZ = 0.0
		26		5-6.5			dry, 90% subrounded to subangular, fine to medium grain sand,	
7							poorly graded, 10% non-plastic fines, color change at 6.3' bgs red sand	
							(2.5YR 4/6) red, fine to coarse grain sand.	
8							Mt. Eden Formation confirmed at approximately 6.5 feetbgs.	
9								
10								
	78%	25	1608	F36-	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red,	PID = 0.1
11		50		HSAS1			very dense, dry, 100% subrounded to subangular, fine to coarse	BZ = 0.0
				11-12.5			grain sand, trace non-plastic fines, no odor, silt decreasing below	
12							10' bgs.	
13								
14								
15								
	19%	30	1611	F36-	SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red,	PID = 0.2
16		50		HSAS1			very dense, dry, 100% subrounded to subangular, fine to coarse	BZ = 0.0
				15-16.5			grain sand, trace non-plastic fines, no odor, quartz and lithic	
17							fragments throughout.	
							* groundwater is not confirmed	
18							Total depth of boring is approximatley 16.5' bgs.	
19								
20								

TETRA TECH

BORING LOG

(Feature 36 Operational Area F) F36-HSAS3

Project:	Supplemental Soil Investigation	Borehole Depth:	16.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 1
Location:	LMC Beaumont Site 1 (EBES Testing)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256291.7	
Logged By:	Linda Margullis			Easting (feet): 6343513.1	
Date Boring Started:	11-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1515		SP		0 to 1 foot bgs. POORLY GRADED SAND: (2.5YR 5/4) reddish brown, loose, dry, 90% subrounded to subangular, fine to medium-grained sand, 10% non-plastic fines, no odor.	PID = 0.0
1	**AUGER**							BZ = 0.0
2								
3							*HSA from 1 to 5' bgs. Logged by cuttings.	
4								
5								
6	75%	19	1524	F36-HSAS3 5 - 6.5	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 5/4) reddish brown, dense, dry, 90% subrounded to subangular, fine to medium-grained sand, 10% non-plastic fines, no odor.	PID = 0.2
		22						BZ = 0.0
		26						
7							*** Possible weathered Mt. Eden Formation contact at 5 feet bgs.**	
8								
9							*HSA to 10' bgs.	
10	100%	21	1527	F36-HSAS3 10 - 11.5	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 6/4) light reddish brown, dense, dry, 95% subrounded to subangular, fine to coarse-grained sand, 5% non-plastic fines, 11.1' bgs color change to (2.5YR 6/2) pale red, no odor, oxidation staining. *Begin sampling using 5' centers.	PID = 0.2
11		23						BZ = 0.0
		25						
12								
13								
14								
15	66%	25	1532	F36-HSAS3 15 - 16.5	SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5YR 6/2) pale red, very dense, dry, 95% subrounded to subangular, fine to coarse-grained sand, trace gravel, 5% non-plastic fines, no odor. Groundwater is not confirmed.	PID = 0.2
16		50						BZ = 0.0
17							Total Depth (TD) of boring is 16.5' bgs.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 36 Operational Area F) F36-HSAS4

Project:	Supplemental Soil Investigation	Borehole Depth:	16.5 feet bgs.	Sampling Method: Split-Spoon	Page 1 of 1
Location:	LMC Beaumont Site 1 (EBES Testing)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1430		SP		0 to 1 foot bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish	BZ=0.0
1	**AUGER**						brown, dense, dry, 90% subrounded to subangular, very fine	
							to medium grain sand, trace coarse grains, 10% non-plastic fines	
2								
							* Hand auger refusal at 1foot bgs. Begin using hollow stem auger.	
3								
4								
5								
	100%	15	1500	F36-	SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish	PID=0.1
6		21		HSAS4			brown, dense, dry, 90% subrounded to subangular, very fine	BZ=0.0
		25		5-6.5			to medium grain sand, trace coarse grains, 10% non-plastic fines,	
7							no odor.	
8							* Begin sampling using 5' centers.	
9								
10								
	69%	19	1505	F36-	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (10YR 5/2)	PID=0.0
11		23		HSAS4			greyish brown, dense, dry, 95% subrounded to subangular, fine to	BZ=0.0
		26		10-11.5			coarse grain sand, 5% non-plastic fines, no odor.	
12								
13								
14								
15							15 to 16.5 feet bgs. POORLY GRADED SAND: (10YR 5/4) pale	
	100%	19	1509	F36-	SP		yellowish brown, dense, dry, 90% subrounded to subangular,	PID=0.0
16		21		HSAS4			fine to coarse grain sand, trace gravel, 10% non-plastic fines,	BZ=0.0
		24		15-16.5			no odor, .10" thick clay lens at 16.05' bgs.	
17							* groundwater not confirmed	
							Total depth of boring is approximately 16.5' bgs.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	29 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256552.0	
Logged By:	Linda Margullis			Easting (feet): 6342914.3	
Date Boring Started:	6-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0			0815				0 to 0.5 feet bgs. ASPHALT/GRAVEL FILL	PID = 0.0
1	**HAND**				SM		0.5 to 5 feet bgs.	BZ = 0.0
	AUGER						*** Mt. Eden Formation contact at 2 feet bgs.**	
2							*Obstructions (steel re-bar and buried material) prevented use of split-spoon sampler apparatus during attempt to collect material for description. After numerous attempts location was adjusted and augers were advanced to 5' bgs.	
3								
4							*HSA from .5 to 5' bgs. Logged by cuttings.	
5								
	60%	7	0820		SP-SM		5 to 6.0 feet bgs. POORLY GRADED SAND WITH SILT: (2.5 YR 4/6) red, medium dense, dry, 90% subrounded to subangular, fine to medium-grained sand, 10% non-plastic fines, no reaction with HCl.	PID = 0.2
6		8						BZ = 0.2
		10						
7								
8							*HSA to 10' bgs.	
9								
10	30%	54/6"	0825		SP		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: Same as above. Very dense, dry, predominantly medium-grained sand. *Begin sampling using 5' centers.	PID = 0.1
11								BZ = 0.1
12								
13								
14								
15	100%	9	0835		SP		15 to 16.5 feet bgs. POORLY GRADED SAND WITH SILT: Same as above. Medium dense, dry, fine to medium-grained sand.	PID = 0.2
16		10						BZ = 0.2
		12						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	29 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256552.0	
Logged By:	Linda Margullis			Easting (feet): 6342914.3	
Date Boring Started:	6-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	12	0840		SP		20 to 21.5 feet bgs. POORLY GRADED SAND WITH SILT: Same as above. Medium dense, dry, fine to medium-grained sand. Persistant white material (outside of split-spoon), no odor, no reaction with HCl.	PID = 0.3
21		12						BZ = 0.3
		15						
22								
23								
24								
25	20%	54/6"	0850		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: (2.5YR 6/6) light red, very dense, wet, 90% subrounded to subangular, fine to coarse-grained sand, 10% non-plastic fines, trace subangular to angular quartz/feldspar fragments, slightly micaceous, trace oxidation staining. Groundwater is confirmed at 26.5' bgs. **Mt Eden Frm @ 25' bgs**.	PID = 0.3
26					▼			BZ = 0.3
27								
28				F39-HSAS1 GW-01	▽		*Static groundwater inside borehole at 27.9' bgs.	
29							Total Depth (TD) of boring is 29' bgs.	
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8"		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	5-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	5-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1335				0 to 0.5 feet bgs. ASPHALT/GRAVEL FILL	
1	A				SP		0.5 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 4/8) red, very loose, damp, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous. Hand auger refusal at about 1.5 feet bgs. **Mt. Eden Fm (ME)** at 1.5 feet bgs.	PID = 0.1
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	15%	50/5"	1348		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (2.5YR 4/6) red, very dense, damp, 90% subrounded to subangular, very fine to very coarse-grained sand, 10% non-plastic fines. *Driller indicates the material is "really hard".	PID = 0.3
6								
7								
8								
9								
10								
	30%	12	1359		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, medium dense, damp, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous. A large crushed granite cobble in sample spoon. **ME.**	PID = 0.0
11		12						
		13						
12								
13								
14								
15								
	50%	50/6"	1410		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: SAA. Very dense, damp, 85% subrounded to subangular, very fine to very coarse-grained sand, 10% subangular to angular gravel, 5% non-plastic fines. *Driller indicates material is "really hard". **ME.**	PID = 0.0
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8"		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	5-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	5-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	30%	50/6"	1417		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: SAA. Moist, 95% subrounded to angular, fine to very coarse-grained, predominantly coarse-grained sand including sandstone fragments, grinding up bedrock, 5% non-plastic fines, trace gravel. **ME.**	PID = 0.0
21								
22								
23								
24								
25	10%	50/5"	1425		SP		25 to 26.5 feet bgs. POORLY SORTED SAND: SAA. Moist to wet, 100% subrounded to subangular, fine to very coarse-grained sand, trace non-plastic fines. **ME.** Groundwater is confirmed at 26.0 feet bgs. TD of boring is 26.5' bgs.	PID = 0.0
26					▼			
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	5-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	5-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H						0 to 0.5 feet bgs. ASPHALT/FILL	
1	A				SP		0.5 to 2 feet bgs. POORLY GRADED SAND: (2.5YR 3/4) dark reddish brown, very loose, dry to damp, 95% subrounded to angular, very fine to very coarse-grained sand, 5% non-plastic fines, trace gravel. Possilby top of Mt Eden Fm (ME). *Hand auger refusal at 2.0 feet bgs.	
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	80%	7	1140		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (2.5 YR 3/4) dark reddish brown, medium dense, damp, 90% subrounded to subangular, very fine to medium-grained sand, 10% non-plastic fines, trace plastic fines. Color change at 6.0' bgs to (10YR 7/1) light gray.	PID = 0.6
6		8						
		10						
7								
8								
9								
10								
	100%	9	1146		SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, medium dense, damp, 100% subrounded to subangular, very fine to coarse, trace gravel, trace non-plastic fines, micaceous.	PID = 0.2
11		10						
		12						
12								
13								
14								
15								
	100%	10	1150		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: SAA. (2.5YR 4/8) red, medium dense, dry to damp, 95% subrounded to subangular, very fine to very coarse-grained sand, 5% non-plastic fines. **ME**	PID = 4.9
16		10						
		12						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	5-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	5-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	7	1153		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: SAA. **ME**	PID = 0.1
21		8						
		9						
22								
23								
24								
25	100%	10	1157		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: SAA. Dense, damp, very fine to medium-grained sand, 5% non-plastic fines, trace subangular to angular gravel, slightly micaceous. *Static groundwater inside borehole at 26.5' bgs. **ME**	PID = 0.2
26		20						
		25			▽			
27								
28								
29								
30	70%	10	1203		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: SAA. Medium dense, damp, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines, Color change at approximately 31' to (7.5YR 7/1) light gray. **ME.** Groundwater confirmed at 31.5 feet bgs. TD of boring is 31.5' bgs.	PID = 0.1
31		12						
		13			▼			
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS4**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H						0 to 0.5 feet bgs. ASPHALT/GRAVEL FILL	
1	A						0.5 to 10.0 feet bgs. No Recovery. Auger refusal to 10.0' bgs. Obstructions (steel re-bar and buried material) prevented use of split-spoon sample apparatus during attempt to collect material for description. After numerus attempts augers were advanced to 10.0' bgs.	
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
								PID = 0.0
6								BZ = 0.0
7								
8								
9								
10								
	77%	10	1120		SP		10.0 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: (5YR 3/4) dark reddish brown, medium dense, dry, 95% subrounded to subangular, very fine to coarse, trace gravel, 5% non-plastic fines, oxidation staining between 10.8 and 10.9 ' bgs, micaceous, no reaction with HCl. Color change at 11.3' bgs to (5YR 3/1) very dark gray.	PID = 0.1
11		11						BZ = 0.1
		15						
12								
13								
14								
15								
	100%	10	1136		SP		15.0 to 16.5 feet bgs. POORLY GRADED SAND: (5YR 3/1) very dark gray, medium dense, damp, 95% subrounded to subangular, fine to medium-grained sand, trace coarse-grained sand, trace gravel, 5% non-plastic fines, micaceous.	PID = 0.0
16		10						BZ = 0.0
		15						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **F39/HSAS4**

Project:	Supplemental Soil Investigation	Borehole Depth:	31.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Test Bays)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	60%	13	1142		SP		20.0 to 21.5 feet bgs. Same as above. (5YR 4/6) yellowish red, medium dense, dry, 95% subrounded to subangular, very fine to very coarse-grained sand, 5% non-plastic fines. Rock fragments in spoon (possible Mount Eden Frm.)	PID = 0.0
21		15						BZ = 0.0
		16						
22								
23								
24					▼		* Groundwater confirmed at 24.0' bgs.	
25	10%	54/5"	1150		SP		25.0 to 26.5 feet bgs. Same as above. (2.5YR 4/6) red, dense, damp, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines, rock frags (sandstone/arkosic appearance) , slightly micaceous. **Top of Mount Eden Frm @ 25.0' bgs.**	PID = 0.0
26								BZ = 0.0
27								
28								
29								
30	10%	54/5"	1200		SP		30.0 to 31.5 feet bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish brown, dense to very dense, dry, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines, trace gravel, micaceous. Groundwater confirmed at 24.0' bgs. Total Depth (TD) of boring is 31.5' bgs.	PID = 0.0
31								BZ = 0.0
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 40 Operational Area F) **F40/HAS7**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Elect. Enclsr)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H A N D A U G E R		0900	F40-HAS7 0.5	SP		0 to 5 feet bgs. POORLY GRADED SAND: (10R 5/3) weak red, dry, loose, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines.	
5			0932	F40-HAS7 - 5	SP		5 feet bgs. POORLY GRADED SAND: (2.5YR 5/6) red, dry, very dense, 100% subrounded to subangular, fine to very-coarse grained sand, trace non-plastic fines.	
							Groundwater not confirmed. TD of boring is 5 feet bgs.	

TETRA TECH

BORING LOG

(Feature 40 Operational Area F) **F40/HAS8**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Elect. Enclsr)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0945	F40-HAS8 0.5	SP		0 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 5/8) red, dry, very loose to loose, 95% subrounded to subangular, very fine to coarse-grained sand, poorly graded, 5% non-plastic fines, organics present.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			0957	F40-HAS8 5	SP		5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, dry, loose to medium dense, 100% subrounded to subangular, fine to very coarse grained, predominantly medium-grained sand, trace non-plastic fines, trace gravel.	
6								
7							Groundwater not confirmed. TD of boring is 5 feet bgs.	
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 40 Operational Area F) **F40/HAS9**

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Elect. Enclsr)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1012	F40-HAS9 0.5	SP		0 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, dry, loose to medium-dense, 100% subrounded to subangular, very fine to very coarse-grained, predominantly medium to coarse-grained sand, poorly graded, trace non-plastic fines.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1020	F40-HAS9 5	SP		5 feet bgs. POORLY GRADED SAND: SAA(2.5YR 4/8) red, fine to very coarse-grained.	
6							Groundwater not confirmed. TD of boring is 5 feet bgs.	
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 40 Operational Area F) F40/HAS10

Project:	Supplemental Soil Investigation	Borehole Depth:	5 feet bgs.	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Elect. Enclsr)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	6-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	6-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1030	F40-HAS10 0.5	SP		0 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red, dry, very loose to loose, 100% subrounded to subangular, very fine to coarse-grained, predominantly fine to medium grained-sand, trace non-plastic fines.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1103	F40-HAS10 5	SP		5 feet bgs. POORLY GRADED SAND: SAA. (2.5YR 5/8) red, dry, dense to very dense, very fine to very coarse-grained sand, micaceous. Grinding up **Mt. Eden Fm. (ME)**	
6								
7							Groundwater not confirmed. TD of boring is 5 feet bgs.	
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 46 Operational Area G) **G46/HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	24 feet bgs	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Bldgs 306 & 314)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1330		SM		0 to 5 feet bgs. SILTY SAND: (10YR 4/1) dark gray, loose, dry, 60% subrounded very fine to medium-grained sand, 40% non-plastic fines, micaceous.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	100%	7	1338		ML		5 to 6.5 feet bgs. SANDY SILT: (10YR 4/1) dark gray, very loose to loose, damp, 70% non-plastic fines, 30% subrounded to subangular, very fine to fine-grained sand, poorly graded.	PID = 0.3
6		10						
		9						
7								
8								
9								
10								
	100%	10	1343		ML		10 to 11.5 feet bgs. SANDY SILT: SAA, medium dense, very fine to medium-grained sand, micaceous.	PID = 0.3
11		10						
		10						
12								
13								
14								
15								
	100%	5	1350		ML		15 to 16.5 feet bgs. SANDY SILT: (10YR 3/1) very dark gray, medium dense, damp, 70% non-plastic fines, 30% very fine to fine-grained sand, poorly graded, trace plastic fines, increasing sand at bottom of spoon.	PID = 0.5
16		7						
		7						
17								
	50%	20	1358		SP		17 to 18.5 feet bgs. POORLY GRADED SAND WITH SILT: (2.5YR 5/8) red, very dense, damp to moist, 90% subrounded to angular, very fine to coarse, predominantly medium-grained sand, 10% non-plastic fines. **Mt Eden Fm at 17.5 feet bgs.**	PID = 0.0
18		50						
19								
20								

TETRA TECH

BORING LOG

(Feature 46 Operational Area G) **G46/HSAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	24 feet bgs	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Bldgs 306 & 314)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	10-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	10-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	80%	15	1408		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: SAA (2.5YR 4/6) red, 95% very fine to very coarse-grained sand, micaceous, moist at bottom of spoon. **Mt Eden Fm.**	PID = 0.0
21		50						
22							**Groundwater not confirmed. TD of boring is 24 feet bgs.**	
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 46 Operational Area G) G46-HSAS2

Project:	Supplemental Soil Investigation	Borehole Depth:	30 feet bgs.	Sampling Method: Split-Spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Landing Pad)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		845				0 to 0.5 ASPHALT/GRAVEL FILL	PID = 0.2
1	A				ML		0.5 to 5 feet bgs. SANDY SILT: (10YR 4/3) brown, very loose, dry,	BZ = 0.0
	N						40% subangular, very fine to fine grain sand, 60% very soft, very	
2	D						low plastic fines, no odor.	
3	A							
	U							
4	G							
	E							
5	R							
	100%	7	856		ML		5 to 6.5 feet bgs. SANDY SILT: (10YR 4/3) brown,	PID = 0.2
6		9					medium dense, dry, 40% subangular, very fine to fine grain sand,	BZ = 0.0
		11					60% very soft, very low plastic fines, trace clay, micaceous.	
7								
8								
9								
10								
	100%	10	900		ML		10 to 11.5 feet bgs. SANDY SILT: (2.5YR 5/3)	PID = 0.2
11		12					reddish brown, medium dense, dry, 30% subangular, very fine to	BZ = 0.0
		16					fine grain sand, 60% very soft, very low plastic fines, trace clay,	
12							micaceous, no odor, reacts to HCl.	
13								
14								
15								
	81%	7	908		SM		15 to 16.5 feet bgs. SILTY SAND: (10YR 5/4)	PID = 0.2
16		7					yellowish brown, medium dense, dry, 70% subangular, very fine to	BZ = 0.0
		8					fine grain sand, 30% soft, very low plastic fines, trace clay, fine	
17							fine grain sand grading to medium grain sand with depth, no odor.	
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 46 Operational Area G) G46-HSAS2

Project:	Supplemental Soil Investigation	Borehole Depth:	30 feet bgs.	Sampling Method: Split-Spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Landing Pad)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Linda Margullis			Easting (feet):	
Date Boring Started:	11-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	11-Apr-2007			Top of Casing Elevation (feet MSL):	

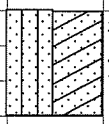
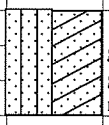
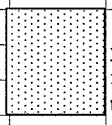
Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	56%	20	915		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark	PID = 0.2
21		50					red sand, very dense, dry, 90% subrounded to subangular, fine	BZ = 0.0
							to coarse grain sand, 10% non-plastic fines grading to coarse	
22	38%	50/6"	925		SP		grain sand with depth.	PID = 0.2
							21.5 to 29 feet bgs. POORLY GRADED SAND: (2.5YR 4/6) red,	BZ = 0.0
23							very dense, dry to damp, 95% subrounded to subangular, fine to	
	25%	50/4"	939		SP		coarse grain sand, 5% non-plastic fines, no odor,.micaceous	PID = 0.2
24							(biotite)	BZ = 0.0
							* Begin continuous sampling.	
25	19%	30	944		SP		* Groundwater is not confirmed	PID = 0.1
		50						BZ = 0.0
26							* Top of Mt. Eden Formation at approximately 20.2' bgs.	
	19%	50/4"	950		SP			PID = 0.1
27								BZ = 0.0
	38%	50/6"	955		SP			
28								PID = 0.1
								BZ = 0.0
29								
30							Total depth of boring is approximately 30' bgs.	
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	71.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 4
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0920				Hand auger location for the first 5 feet bgs.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	5%	17	1020		SM/SC		5 to 6.5 feet bgs. SILTY SAND/CLAYEY SAND: (10YR 5/2) grayish brown, dense, dry to damp, 85% subrounded to subangular, very fine to fine, trace medium to coarse-grained sand, poorly graded, 15% fines with low to medium plasticity, violent reaction with HCl, no odor, no staining.	PID = 0.2
6		21						
		26						
7								
8								
9								
10								
	95%	18	1025	H49-HSAS6 10 -11.5	SM/SC		10 to 11.5 feet bgs. SILTY SAND/CLAYEY SAND: (5Y 5/2) olive gray, dense, damp, 80% subrounded to subangular, very fine to fine-grained sand, poorly graded, 20% fines with low to medium plasticity, micaceous, thin layer of caliche at 10 feet bgs.	PID = 0.4
11		25						
		20						
12								
13								
14								
15								
	60%	14	1028		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (2.5Y 6/4) light yellowish brown, medium-dense, dry to damp, 100% subangular, very fine to medium, predominantly medium, trace coarse-grained sand, trace fines, micaceous, no reaction with HCl, no odor.	PID = 0.2
16		15						
		17						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	71.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 4
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	12	1031	H49-HSAS6 20-21.5	ML & SP		20 to 21.5 feet bgs. SILT and POORLY GRADED SAND: (5Y 5/2) olive gray, medium dense, damp, 60% non-plastic fines, (5Y 7/2) light gray, 40% subrounded to subangular, very fine to medium, predominantly medium-grained sand, micaceous, intermittent sand and silt layers, slight intermittent oxidation staining.	PID = 0.2
21		14						
		16						
22								
23								
24								
25	100%	11	1035		SP		25 to 26.5 feet bgs. POORLY GRADED SAND and SILT: (5Y 5/1) gray, medium dense, damp, 70% subangular to angular, very fine to medium, predominantly medium-grained sand, 30% non-plastic fines, micaceous, no reaction with HCl, sulfur odor, silt lens 25.5 to 25.9 feet bgs.	PID = 0.2
26		13			ML			
		17			SP			
27								
28								
29								
30	100%	15	1038		ML		30 to 31.5 feet bgs. SANDY SILT: (5Y 5/2) olive gray, dense, damp, 60% non-plastic fines, 40% subrounded to subangular, fine to medium-grained sand, poorly graded, micaceous, increasing sand with depth.	PID = 0.3
31		20						
		25						
32								
33								
34								
35	50%	15	1044		ML		35 to 36.5 feet bgs. SANDY SILT: (5Y 5/2) olive gray, very dense, damp, 70% non-plastic fines, 30% subrounded to subangular, fine to medium-grained sand, poorly graded, trace gravel in upper portion of spoon, lower-most portion of spoon increase in sand grain size, micaceous, no reaction with HCl.	
36		50						
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	71.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 4
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40		16	1050	H49-HSAS6 40-41.5	SP-SM		40 to 41.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 6/1) gray, dense, damp, 90% subrounded to subangular, very fine to fine-grained sand, 10% non-plastic fines, micaceous, no reaction with HCl, sulfur odor.	PID = 0.2
41		19						
		21						
42				H49-HSAS601 40-41.5				
43								
44								
45	100%	16	1113		SP		45 to 46.5 feet bgs. POORLY GRADED SAND: (5Y 5/2) olive gray, dense, damp, 95% subrounded to subangular, fine to coarse-grained sand, 5% non-plastic fines, very micaceous, no reaction with HCl, sulfur odor.	PID = 0.4
46		18						
		23						
47								
48								
49								
50	95%	17	1117	H49-HSAS6 50-51.5	SP		50 to 51.5 feet bgs. POORLY GRADED SAND: (10R 8/1) white, dense, dry (slightly damp), 100% subrounded to subangular, medium to very coarse-grained sand, trace gravel, micaceous, no reaction with HCl, no odor, weathered sandstone.	PID = 0.2
51		21						
		25						
52								
53								
54								
55	5%	50/4	1122		SP		55 to 55.5 feet bgs. POORLY GRADED SAND: (10R 8/1) white, very dense, dry, 95% subangular to angular, very fine to coarse, predominantly medium to coarse-grained sand, poorly graded, 5% non-plastic fines, micaceous, no reaction with HCl, sulfur odor, no staining, grinding up the bedrock.	
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	71.5 feet bgs.	Sampling Method: Split-spoon	Page 4 of 4
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
60	10%	50/6	1128		SP		60 to 60.5 feet bgs. POORLY GRADED SAND: SAA, 100% sand, trace fines.	
65	60%	16	1131		SP		65 to 66.5 feet bgs. POORLY GRADED SAND: (10R 8/1) white, dense, damp, 95% subrounded to subangular, medium to very coarse-grained sand, 5% non-plastic fines, micaceous, no reaction with HCl.	PID = 0.3
		19						
66		25						
70	50%	16	1328		SP		70 to 71.5 feet bgs. POORLY GRADED SAND: (2.5YR 6/8) light red, dense, dry, 100% subrounded to subangular, fine to coarse, trace very coarse-grained sand, trace fines, **Top of Mt Eden Fm @ 70 feet bgs.**	
		19						
71		24						
72							Groundwater not confirmed. TD of boring is 71.5 feet bgs.	
80								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS7**

Project:	Supplemental Soil Investigation	Borehole Depth:	56 feet bgs.	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
1	H							
2	A							
3	N							
4	D							
5								
6	A							
7	U							
8	G							
9	E							
10	R							
11	80%	17	1130	H49-HSAS7 5 - 6.5	SM		5 to 6.5 feet bgs. SILTY SAND: (5Y 6/3) pale olive, dense, dry, 80% subrounded to angular, very fine to medium, predominantly fine-grained sand, poorly graded, 20% non to low plastic fines, no reaction with HCl, no odor.	PID = 0.0
12		21						
13		22						
14								
15								
16								
17								
18								
19								
20								
21	80%	14	1136		SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 6/3) pale olive, dry to damp, 90% very fine to coarse, predominantly medium-grained sand, 10% fines with low to medium plasticity, micaceous, sulfur odor, clay lens at bottom of spoon, damp with some slight oxidation staining.	PID = 0.0
22		18						
23		21						
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36	75%	21	1146	H49-HSAS7 15 -1 6.5 MSMS/D	ML		15 to 16.5 feet bgs. SANDY SILT: (5Y 3/2) dark olive gray, dense, dry to damp, 70% non-plastic fines, 30% subrounded to subangular, very fine to fine-grained sand, poorly graded, micaceous, no reaction with HCl.	PID = 0.0
37		21						
38		23						
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
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58								
59								
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TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS7**

Project:	Supplemental Soil Investigation	Borehole Depth:	56 feet bgs.	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	75%	19	1151		ML		20 to 21.5 feet bgs. SANDY SILT: SAA, damp, subangular to angular, very fine to coarse-grained, from 20.5 to 20.8 feet bgs. POORLY GRADED SAND lens, (5Y 4/1) dark gray, medium to coarse-grained sand.	PID = 0.0
21		21						
		21						
22								
23								
24								
25	75%	18	1156		SP-SM		25 to 26.5 feet bgs. POORLY GRADED SAND WITH SILT: (Gley1 10GY) greenish gray, very dense, dry to damp, 90% subangular to angular, very fine to medium-grained sand, poorly graded, 10% non-plastic fines, micaceous, sulfur odor, no staining.	PID = 0.0
26		23						
		27						
27								
28								
29								
30	75%	15	1202	H49-HSAS7 30 -31.5	SP-SM		30 to 31.5 feet bgs. POORLY GRADED SAND WITH SILT: SAA, 2 inch silt lens at 31 feet bgs.	PID = 0.0
31		19						
		22						
32								
33								
34								
35	75%	20	1208		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: SAA. dense, damp, 100% fine to coarse-grained sand, trace non-plastic fines, increasing grain size with depth.	PID = 0.0
36		20						
		25						
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS7**

Project:	Supplemental Soil Investigation	Borehole Depth:	56 feet bgs.	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	50%	23	1214		SP		40 to 41.5 feet bgs. POORLY GRADED SAND: SAA, very dense, dry to damp, 100% fine to medium, trace coarse-grained sand.	PID = 0.0
41		25						
		29						
42								
43								
44								
45	70%	19	1221	H49-HSAS7 45 - 46.5	SP		45 to 46.5 feet bgs. POORLY GRADED SAND: SAA, medium to very coarse, predominantly coarse-grained sand, trace fines, trace gravel, some organic material present.	PID = 0.0
46		23						
		28						
47								
48								
49								
50	25%	50/6	1230		SP		50 to 50.5 feet bgs. POORLY GRADED SAND: SAA, moist, granitoid bedrock in bottom of spoon (5YR 8/2) pinkish white.	PID = 0.0
51								
52								
53								
54								
55	5%	50/2	1241		Bedrock		55 to 55.15 feet bgs. BEDROCK: (5YR 8/2) pinkish white, dry to damp, very dense, subangular to angular, very fine to very coarse, grinding bedrock. Refusal at 56 feet bgs. Groundwater not confirmed. TD of boring is 56 feet bgs.	PID = 0.0
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS8**

Project:	Supplemental Soil Investigation	Borehole Depth:	45.15 feet bgs.	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		835		SP		0 to 5 feet bgs. Dry, very loose to loose, very fine to medium-grained sand, poorly graded. Added water to prevent cuttings from sliding out of auger barrel.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	75%	15	0910		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (5Y 7/3) pale yellow, dense, dry, 100% subangular to angular, very fine to fine-grained sand, trace fines, trace organic matter present, reacts with HCl, organic odor.	PID = 0.2
6		19						
		22						
7								
8								
9								
10								
	50%	18	0917	H49-HSAS8 10-11.5	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: SAA, fine to medium, trace coarse-grained sand, 5% fines, decrease in grain size with depth, slightly micaceous, no reaction with HCl, organic odor, slight oxidation staining.	PID = 0.0
11		18						BZ = 0.2
		23						
12								
13								
14								
15								
	80%	25	0928		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: (5Y 8/2) pale yellow, very dense, dry to damp, mostly dry, 100% subangular to angular, fine to coarse, predominantly medium-grained sand, trace fines, micaceous, no reaction with HCl, no odor, no staining.	PID = 0.0
16		27						BZ = 0.2
		30						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS8**

Project:	Supplemental Soil Investigation	Borehole Depth:	45.15 feet bgs.	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	15%	60/6	0932		SP		20 to 20.5 feet bgs. POORLY GRADED SAND: (5Y 7/2) light gray, very dense, damp, 100% subangular to angular, fine to medium, trace coarse-grained sand, micaceous, no reaction with HCl.	PID = 0.8
25	40%	70/6	0940	H49-HSAS8 25 - 25.5	SP		25 to 25.5 feet bgs. POORLY GRADED SAND: (5YR 8/2) pinkish white, very dense, dry, 100% subangular to angular, fine to coarse, predominantly medium-grained sand, micaceous, no reaction with HCl, sulfur odor, breaking bedrock.	PID = 0.0 BZ = 0.1
30	10%	50/5	0950		SP		30 to 30.5 feet bgs. POORLY GRADED SAND: SAA, very fine to coarse-grained sand.	PID = 0.1
35	5%	50/5	0956		SP		35 to 35.5 feet bgs. POORLY GRADED SAND: SAA.	PID = 0.0
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS8**

Project:	Supplemental Soil Investigation	Borehole Depth:	45.15 feet bgs.	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	5%	60/5	1005	H49-HSAS8 40 - 41.5	SP		40 to 40.5 feet bgs. POORLY GRADED SAND: SAA, very fine to very coarse, predominantly medium to coarse-grained sand, fragments of crushed granite observed, HSA overheating, add water to cool..	PID = 0.0
41								
42								
43								
44								
45	5%	55/2	1036		SP		45 to 45.15 feet bgs. POORLY GRADED SAND: SAA, auger smoking, at 1020 added water to cool HSA refusal at 45.15 feet bgs. Groundwater not confirmed. TD of boring at 45.15 feet bgs.	PID = 0.0
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49-HSAS9**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256516.4	
Logged By:	Linda Margullis			Easting (feet): 6340359.0	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND**		1420		SM		0 to 2 feet bgs. SILTY SAND: (10YR 4/2) very dark brown, very loose, dry, 60% subrounded to subangular, very fine to fine-grained sand with silt, 40% non-plastic fines, no odor.	PID = 0.0
1	**AUGER**							BZ = 0.0
2								
3							*HSA from 2 to 5' bgs. Logged by cuttings.	
4								
5								
6	31%	50/6"	1435		SP		5 to 6.5 feet bgs. POORLY GRADED SAND: (10YR 4/2) very dark brown, very dense, dry, 90% subrounded to subangular, very fine to medium-grained sand, trace silt, 10% non-plastic, very stiff fines, no odor.	PID = 0.0
7								BZ = 0.0
8							*HSA to 10' bgs.	
9								
10	38%	10	1439	H49-HSAS9 10 - 11.5	SP		10 to 11.5 feet bgs. POORLY GRADED SAND: (10YR 6/4) light yellowish brown, medium dense, dry, 95% subrounded to subangular, very fine to medium-grained sand, trace coarse-grained sand, 10% non-plastic fines, no odor. *Begin sampling using 5' centers.	PID = 0.0
11		15						BZ = 0.0
		18						
12								
13								
14								
15	13%	50/4"	1441		SP		15 to 16.5 feet bgs. POORLY GRADED SAND: Same as above. (5YR 5/2) reddish gray.	PID = 0.0
16								BZ = 0.0
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) H49-HSAS9

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256516.4	
Logged By:	Linda Margullis			Easting (feet): 6340359.0	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	75%	17	1444	H49-HSAS9 20 - 21.5	SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (5YR 5/2) reddish gray, medium dense, dry, 95% subrounded to subangular, fine to coarse-grained sand, 5% non-plastic fines, quartz clasts, no odor, oxidation staining.	PID = 0.0
21		21						BZ = 0.0
		26						
22				H49-HSAS901 20 - 21.5 Duplicate				
23								
24								
25	56%	30	1448		SP		25 to 26.5 feet bgs. POORLY GRADED SAND: Same as above.	PID = 0.0
26		50						BZ = 0.0
27								
28								
29								
30	13%	50/4"	1452		SP		30 to 31.5 feet bgs. POORLY GRADED SAND: (5YR 5/2) reddish gray, very dense, dry, 95% subrounded to subangular, very fine to coarse-grained sand, 5% non-plastic fines. 31' bgs color change to (5YR 6/3) light reddish brown, no odor.	PID = 0.0
31								BZ = 0.0
32							*** Possible Mt. Eden Formation contact at 31 feet bgs.**	
33								
34								
35	13%	30/6"	1454	H49-HSAS9 35 - 36.5	SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (5YR 6/3) light reddish brown, very dense, dry, 95% subrounded to subangular, medium to coarse-grained sand, little fine-grained sand, 5% non-plastic fines, trace gravel, no odor.	PID = 0.0
36								BZ = 0.0
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49-HSAS9**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256516.4	
Logged By:	Linda Margullis			Easting (feet): 6340359.0	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	25%	50/6"	1458	H49-HSAS9 40 - 41.5	SP		40 to 41.5 feet bgs. POORLY GRADED SAND: Same as above. (5YR 6/2) pinkish gray. Groundwater is not confirmed.	PID = 0.0
41								BZ = 0.0
							Total Depth (TD) of boring is 41.5' bgs.	
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) H49/HSAS10

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256479.2	
Logged By:	Holly Hanke			Easting (feet): 6340373.4	
Date Boring Started:	26-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	26-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	**HAND AUGER**		1430		SP		0 to 5 feet bgs. POORLY GRADED SAND: Medium dense, dry, 95% subangular to angular, fine to medium-grained sand, 5% non-plastic fines, some organic matter present, slight reaction with HCl.	PID = 0.0
5	80%	14 19 23	1443		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (2.5Y 5/1) gray, very dense, dry, 90% subangular to angular, very fine to medium-grained sand, 10% non-plastic fines, no odor, slight oxidation staining (small reddish brown [rust colored] splotches), slight reaction with HCl. Extremely dense material bottom 0.5' of split spoon.	PID = 0.0
10	50%	23 27 30	1452	H49-HSAS10 10 - 11.5	SP-SM		10 ot 11.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 6/3) pale olive, very dense, dry, 90% subrounded to subangular, very fine to fine-grained sand, predominantly fine-grained sand, trace coarse-grained sand, 10% non-plastic fines, slight oxidation staining, no reaction with HCl. *Begin sampling using 5' centers.	PID = 0.0
15	95%	20 20 25	1456	H49-HSAS10 15 - 16.5	ML		15 to 16.5 feet bgs. SANDY SILT: (5Y 6/3) pale olive, dense, damp, 70% fines of low plasticity, 30% subrounded to subangular, very fine to medium-grained sand, poorly graded, sulfur odor, some oxidation staining, increasing fines with depth.	PID = 0.0

*HSA from .5 to 5' bgs. Logged by cuttings.

*HSA to 10' bgs.

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) H49/HSAS10

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256479.2	
Logged By:	Holly Hanke			Easting (feet): 6340373.4	
Date Boring Started:	26-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	26-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	8	1502	H49-HSAS10 20 - 21.5	SM/SC		20 to 21.5 feet bgs. SILTY SAND/CLAYEY SAND: (5Y 3/1) very dark gray, medium dense, damp, 60% subrounded to subangular, very fine to medium-grained, trace coarse-grained sand, poorly graded, 40% fines of low to medium plasticity, decrease in plasticity with depth, slightly micaceous, trace oxidation staining.	PID = 0.0
21		12						
		17						
22								
23								
24								
25	50%	30	1510		SP-SM		25 to 26.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 5/2) olive gray, very dense, dry, 90% subrounded to subangular, very fine to medium-grained sand, 10% non-plastic fines, micaceous, sulfur/organic odor, no reaction with HCl.	PID = 0.0
26		37						
		40						
27								
28								
29								
30	80%	27	1518		SP-SM		30 to 31.5 feet bgs. POORLY GRADED SAND WITH SILT: Same as above. Slight oxidation staining.	PID = 0.0
31		27						
		31						
32								
33								
34								
35	20%	80/ "	1530		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (5Y 8/1) white, very dense, dry, 100% subrounded to subangular, very fine to very coarse-grained sand, trace non-plastic fines, micaceous, sulfur odor, no reaction with HCl. *Driller indicates "hard and tight" material.	PID = 0.0
36								
37							*** Possible Mt. Eden Formation contactat 35 feet bgs.**	
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS10**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet): 2256479.2	
Logged By:	Holly Hanke			Easting (feet): 6340373.4	
Date Boring Started:	26-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	26-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	15%	60/3"	1542		SP		40 to 41.5 feet bgs. POORLY GRADED SAND: (5Y 6/2) light olive gray, very dense, dry, 95% subrounded to angular, very fine to coarse-grained sand, predominantly fine to medium-grained sand, 5% non-plastic fines, trace gravel, slightly micaceous, trace oxidation staining, slight reaction with HCl. Groundwater is not confirmed. Total Depth (TD) of boring is 41.5' bgs.	PID = 0.0
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS11**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	26-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	26-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H							PID = 0.3
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	80%	7	1057		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 5/3) olive, medium dense, dry, 90% subrounded to subangular, medium to very coarse-grained sand, 10% non-plastic fines, no reaction with HCl, no staining, no odor, at 6 feet bgs, 20% increase in non-plastic fines and decrease in sand respectively.	PID = 3.3
6		9						
		11						
7								
8								
9								
10								
	50%	10	1104	H49-HSAS11 10 to 11.5	ML/CL		10 to 11 feet bgs. SILT WITH SAND/LEAN CLAY WITH SAND: (5Y 3/2) dark olive gray, very dense, dry to damp, 80% fines with low to medium plasticity , 20% subrounded to subangular, medium to very coarse-grained sand, no reaction with HCl, no odor, no staining.	PID = 0.3
11		15			CL			BZ = 0.3
		25						
12							11 to 11.5 feet bgs. SANDY LEAN CLAY: SAA, 60% fines with medium plasticity, 40% sand, SAA.	
13								
14								
15								
	40%	19	1110		CL		15 to 16.5 feet bgs. LEAN CLAY: (5Y 3/2) dark olive gray, very dense, dry, 90% fines with low to medium plasticity, 10% subrounded to subangular, very fine to medium-grained sand, poorly graded, slightly micaceous, no reaction with HCl, no staining, no odor.	PID = 0.3
16		21						
		24						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS11**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	26-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	26-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	75%	27	1118		SP		20 to 21.5 feet bgs. POORLY GRADED SAND: (2.5Y 7/1) light gray, very dense, dry, 100% subrounded to angular, very fine to very coarse, predominantly medium-grained sand, trace non-plastic fines, slightly micaceous.	PID = 2.5
21		30						
		33						
22								
23								
24								
25	80%	21	1123	H49-HSAS11 25-26.5 duplicate	SM		25 to 26.5 feet bgs. SILTY SAND: (5Y 6/1) gray, very dense, dry to damp, 80% subrounded to subangular, very fine to coarse-grained, predominantly fine-grained sand, poorly graded, 20% fines with low to medium plasticity, micaceous, no reaction with HCl, at 25.5 feet bgs clay lens.	PID = 0.3
26		33						
		37						
27								
28								
29								
30	80%	17	1129		SP-SM		30 to 31.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 6/1) gray, very dense, dry to damp, 90% subrounded to angular, very fine to very coarse, predominantly medium-grained sand, 10% non-plastic fines, micaceous, no reaction with HCl.	PID = 0.3
31		31						
		39						
32								
33								
34								
35	80%	19	1137	H49-HSAS11 35-36.5	SP-SM		35 to 36 feet bgs. POORLY GRADED SAND WITH SILT: SAA, increasing fines with depth.	PID = 0.3
36		25						
		33			ML		36 to 36.5 feet bgs. SANDY SILT: SAA. 55% non-plastic fines, 45% sand, last inch of spoon medium to coarse-grained sand.	
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS11**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	26-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	26-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40	80%	22	1145		SP		40 to 41.5 feet bgs. POORLY GRADED SAND: (5Y 6/1) gray, very dense, dry to damp, 100% subrounded to angular, very fine to very coarse-grained sand, micaceous, no reaction with HCl, no staining, no odor.	PID = 0.2
41		27						
		31						
42							Groundwater not confirmed. TD of boring is 41.5 feet bgs.	
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS12**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1400				0 to 0.5 feet bgs hand auger. At 0.5 feet bgs encounter very hard material and decide to drill slowly through the first 5 feet bgs.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5	10%	50/6	1419		SP-SM		5 to 6.5 feet bgs. POORLY GRADED SAND WITH SILT: (5Y 6/2) light olive gray, very dense, dry to damp, 90% subangular, fine to coarse, predominantly medium-grained sand, 10% non to low plastic fines, slight reaction with HCl, earthen odor, no staining.	PID = 0.0
6								BZ = 0.0
7								
8								
9								
10	95%	13	1424	H49-HSAS12 10 -11.5	SP-SM		10 to 11.5 feet bgs. POORLY GRADED SAND WITH SILT: SAA, dense, subrounded to subangular, very fine to medium-grained sand, non-plastic fines, no reaction with HCl, trace oxidation staining.	PID = 0.5
11		17						BZ = 0.0
		21						
12								
13								
14								
15	95%	11	1427	H49-HSAS12 15 -16.5	ML/CL		15 to 16.5 feet bgs. SILT/LEAN CLAY (5Y 5/2) olive gray, medium dense/very stiff, damp, 95% fines with low to medium plasticity , 5% subangular, very fine to medium-grained sand, poorly graded, slightly micaceous, no reaction with HCl, organic odor, trace oxidation staining.	PID = 0.2
16		12						BZ = 0.0
		17						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) H49/HSAS12

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	8	1431	H49-HSAS12 20 - 21.5	CL		20 to 21.5 feet bgs. LEAN CLAY: (5Y 2.5/1) black, very stiff, damp, 95% fines with medium plasticity , 5% subangular to angular, medium-grained sand, poorly graded, at 21.1 feet bgs color change (Gley1 4/3) dark greenish gray, micaceous.	PID = 0.4
21		10						
		12						
22								
23								
24								
25	100%	20	1436		SM		25 to 26.5 feet bgs. SILTY SAND: (Gley1 6/3) greenish gray, very dense, damp, 85% subangular to angular, very fine to fine, trace coarse-grained sand, poorly graded, 15% non-plastic fines, micaceous, slight sulfur odor.	PID = 0.6
26		25						
		27						
27								
28								
29								
30	90%	14	1441		SM		30 to 31.5 feet bgs. SILTY SAND: SAA.	PID = 0.2
31		17						
		21						
32								
33								
34								
35		18	1446		SP		35 to 36.5 feet bgs. POORLY GRADED SAND: (Gley1 7/1) light gray, dense, dry, 100% subangular to angular, very fine to coarse, predominantly medium-grained sand, trace fines, trace gravel, very micaceous, no reaction with HCl.	PID = 0.6
36		17						BZ = 0.2
		25						
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS12**

Project:	Supplemental Soil Investigation	Borehole Depth:	41.5 feet bgs.	Sampling Method: Split-spoon	Page 3 of 3
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	30-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	30-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40		20	1450	H49-HSAS12 40 - 41.5	SP-SM/ SP-SC		40 to 41.5 feet bgs. POORLY GRADED SAND WITH SILT/POORLY GRADED SAND WITH CLAY: (5Y 7/2) light gray, very dense, dry, 90% subangular to angular, very fine to fine, trace medium-grain sand, 10% fines with low to medium plasticity, trace mica, no reaction with HCl, no odor.	PID = 0.3
41		50						
42							Groundwater not confirmed. TD of boring is 41.5 feet bgs.	
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS13**

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs.	Sampling Method: Split-spoon	Page 1 of 2
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0								
	H		1500				Hand auger refusal at 0.5 feet bgs.	
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
	50%	7	1534	H49-HSAS13 5-6.5	SC		5 to 6.5 feet bgs. CLAYEY SAND: (5Y 6/3) pale olive, dense, dry to damp, 85% subrounded to subangular, fine to medium, trace coarse-grained sand, poorly graded, 15% medium plastic fines, no reaction with HCl, sulfur odor, no staining.	PID = 0.0
6		14						
		18						
7								
8								
9								
10	100%	18	1540		SC		10 to 10.6 feet bgs. CLAYEY SAND: SAA, damp, 55% very fine to medium-grained sand, poorly graded, 45% fines with medium plasticity, trace gravel, intermittent oxidation staining.	PID = 0.0
11		18			CL			
		21						
12							10.6 to 11.5 feet bgs. LEAN CLAY: (Gley1 4/3) dark greenish gray, fines with medium plasticity, trace non-plastic fines, trace sand, intermittent staining, no reaction with HCl.	
13								
14								
15	100%	21	1546	H49-HSAS13 15-16.5	ML/CL		15 to 16.5 feet bgs. SANDY CLAYEY SILT: (5Y 2.5/2) black, very dense/hard, 70% non to medium plastic fines, 30% subangular, very fine to fine-grained sand, poorly graded, micaceous, some oxidation staining.	PID = 0.2
16		23						
		28						
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 49 Operational Area H) **H49/HSAS13**

Project:	Supplemental Soil Investigation	Borehole Depth:	26.5 feet bgs.	Sampling Method: Split-spoon	Page 2 of 2
Location:	LMC Beaumont Site 1 (Sanitary Landfill)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	27-Apr-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	27-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20	100%	15	1553		ML/CL		20 to 21.5 feet bgs. SANDY CLAYEY SILT: SAA, moist, 80% non to medium plastic fines, 20% very fine-grained sand, some orgainc matter present.	PID = 0.0
21		19						
		21						
22								
23								
24								
25	100%	12	1602	H49-HSAS13 25-26.5	ML/CL		25 to 26.5 feet bgs. SANDY CLAYEY SILT: SAA, material in spoon glistens in the sunlight, collected some organic matter in spoon thought to be trash, terminate boring. Groundwater not confirmed. TD of boring is 26.5 feet bgs.	PID = 0.0
26		14						
		28						
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS1**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Building 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1031	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A			HAS1				
	N			0.5				
2	D		1039	Bldg309-	SP			
				HAS1				
3	A			2				
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS2**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Building 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1034	Bldg309-HAS2 0.5	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A							
	N							
2	D		1036	Bldg309-HAS2 2	SP			
3	A							
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS3**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1039	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A			HAS3				
	N			0.5				
2	D		1045	Bldg309-	SP			
				HAS3				
3	A			2				
	U							
4	G							
	E							
5	R							
6								
7								
8								
9								
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16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS4**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1048	Bldg309-HAS4-0.5	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A							
	N							
2	D		1054	Bldg309-HAS4-2	SP			
3	A							
	U							
4	G							
	E							
5	R							
6								
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18								
19								
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS5**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0935	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A			HAS5				
	N			0.5				
2	D		0938	Bldg309-	SP			
				HAS5				
3	A			2				
	U							
4	G							
	E							
5	R							
6								
7								
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS6**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Building 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0940	Bldg309-HAS6 0.5	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A							
2	N							
	D		0941	Bldg309-HAS6 2	SP			
3	A							
4	U							
5	G							
6	E							
7	R							
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS7**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0943	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A			HAS7				
	N			0.5				
2	D		0945	Bldg309-	SP			
				HAS7				
3	A			2				
	U							
4	G							
	E							
5	R							
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS8**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0948	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed.** **TD of boring is 2 feet bgs.**	
1	A			HAS8				
	N			0.5				
2	D		0952	Bldg309-	SP			
				HAS8				
3	A			2				
	U							
4	G							
	E							
5	R							
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS9**

Project:	Supplemental Soil Investigation	Borehole Depth:	2 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0954	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 2 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 2 feet bgs.**	
1	A			HAS9				
	N			0.5				
2	D		0958	Bldg309-	SP			
				HAS9				
3	A			2				
	U							
4	G							
	E							
5	R							
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS10**

Project:	Supplemental Soil Investigation	Borehole Depth:	1.5 feet bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1000	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 1.5 feet bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 1.5 feet bgs.**	
1	A			HAS10				
	N			0.5	SP			
2	D		1018	Bldg309-				
				HAS10				
3	A			1.5				
	U							
4	G							
	E							
5	R							
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS11**

Project:	Supplemental Soil Investigation	Borehole Depth:	1 foot bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1022	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 1 foot bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 1 foot bgs.**	
1	A			HAS11				
	N		1030	0.5				
2	D			Bldg309-				
				HAS11				
3	A			1				
	U							
4	G							
	E							
5	R							
6								
7								
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TETRA TECH

BORING LOG

(Feature 39 Operational Area F) **Bldg309/HAS12**

Project:	Supplemental Soil Investigation	Borehole Depth:	1 foot bgs	Sampling Method: Hand Auger	Page 1 of 1
Location:	LMC Beaumont Site 1 (Bldg 309)	Borehole Diameter:	3 inches		
Project No.:	19967-02	Drilling Contractor:	N/A	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	9-Apr-2007	Drilling Method:	N/A	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	9-Apr-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0931	Bldg309-	SP		0 to 0.5 feet bgs. POORLY GRADED SAND: (2.5YR 3/6) dark red, dry, very loose, 95% subrounded to angular, very fine to coarse-grained sand, 5% non-plastic fines, slightly micaceous, organic matter present. 0.5 to 1 foot bgs. Same as above. (2.5YR 3/4) dark reddish brown, dry, dense to very dense, 95% subrounded to subangular, very fine to very coarse-grained sand. **Groundwater is not confirmed. TD of boring is 1 foot bgs.**	
1	A			HAS12				
	N			0.5				
2	D		0934	Bldg309-				
				HAS12				
3	A			1				
	U							
4	G							
	E							
5	R							
6								
7								
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18								
19								
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TETRA TECH

BORING LOG

(Feature 9 Operational Area B) **Perc/A@10**

Project:	Supplemental Soil Investigation	Borehole Depth:	15 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 1
Location:	Beaumont, CA (South of Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1610		SP		0 to 15 feet bgs. POORLY GRADED SAND: (7.5YR 5/2) brown, loose to medium dense, dry, 95% subrounded to subangular, very fine to medium, trace coarse, predominantly medium grained sand, 5% non-plastic fines, micaceous, no reaction with HCl, no odor, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1615		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1618		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15			1620		SP		**Groundwater not confirmed. TD of boring is 15 feet bgs.**	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@10**

Project:	Supplemental Soil Investigation	Borehole Depth:	15 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 1
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1130		SP		0 to 15 feet bgs. POORLY GRADED SAND: (2.5YR 4/3) reddish brown, very loose to loose, dry to damp, 95% subangular to angular, fine to coarse, trace very coarse sand, predominantly fine to medium grained, poorly graded, 5% non-plastic fines, micaceous, no reaction with HCl, no odor, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1133		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1136		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15							**Groundwater not confirmed. TD of boring is 15 feet bgs.**	
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@20**

Project:	Supplemental Soil Investigation	Borehole Depth:	30 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1050		SP		0 to 20 feet bgs. POORLY GRADED SAND: (2.5YR 4/3) reddish brown, loose, dry to damp, 95% subangular to angular, fine to coarse, trace very coarse, predominantly medium grained sand, 5% non-plastic fines, micaceous, no reaction with HCl, no staining, no odor.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1053		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1056		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15								
			1100		SP		Same as above	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@20**

Project:	Supplemental Soil Investigation	Borehole Depth:	30 feet bgs.	Sampling Method: Logged by cuttings	Page 2 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20			1104		SP		20 to 30 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
21								
22								
23								
24								
25			1107		SP		Same as above	BZ = 0.2
26								
27								
28								
29								
30			1110		SP		**Groundwater not confirmed. TD of boring is 30 feet bgs.**	
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@30**

Project:	Supplemental Soil Investigation	Borehole Depth:	38 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0950		SP		0 to 20 feet bgs. POORLY GRADED SAND: (2.5YR 4/3) reddish brown, loose, damp, 95% subangular to angular, fine to coarse, trace very coarse sand, 5% non-plastic fines, micaceous, no reaction with HCl, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			0953		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10			0956		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15			0958		SP		Same as above	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@30**

Project:	Supplemental Soil Investigation	Borehole Depth:	38 feet bgs.	Sampling Method: Logged by cuttings	Page 2 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20			1000		SP		20 to 38 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
25			1002		SP		Same as above	
30			1005		SP		Same as above	
35			1009		SP		Same as above	BZ = 0.2
38							**Groundwater not confirmed. TD of boring is 38 feet bgs.**	
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@40**

Project:	Supplemental Soil Investigation	Borehole Depth:	42 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 3
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		0849		SP		0 to 5 feet bgs. POORLY GRADED SAND: (2.5YR 4/3) reddish brown, very loose, dry to damp, 95% subangular to angular, fine to coarse sand, trace very coarse sand, poorly graded, 5% non-plastic fines, micaceous, no reaction with HCl, added water to help prevent the material from sliding out of the hand auger bucket.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5			0915		SP		5 to 10 feet bgs. POORLY GRADED SAND: SAA, loose, damp.	BZ = 0.2
6								
7								
8								
9								
10			0917		SP		10 to 20 feet bgs. POORLY GRADED SAND: SAA, color change about 10 feet bgs. (5YR 5/3) reddish brown.	BZ = 0.2
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@40**

Project:	Supplemental Soil Investigation	Borehole Depth:	42 feet bgs.	Sampling Method: Logged by cuttings	Page 2 of 3
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20			0920		SP		20 to 40 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/B@40**

Project:	Supplemental Soil Investigation	Borehole Depth:	42 feet bgs.	Sampling Method: Logged by cuttings	Page 3 of 3
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40			0927		SP		40 to 42 feet bgs. POORLY GRADED SAND: SAA, (5YR 5/3) reddish brown.	BZ = 0.2
41								
42							**Ground water is not confirmed. TD of boring is 42 feet bgs.**	
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@10**

Project:	Supplemental Soil Investigation	Borehole Depth:	15 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 1
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1512		SP		0 to 15 feet bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish brown, very loose, dry, 95% subrounded to angular, very fine to very coarse, predominantly medium grained sand, 5% non-plastic fines, trace gravel, no reaction with HCl, no odor, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
	R							
5			1515		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1518		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15			1520		SP		**Groundwater not confirmed. TD of boring is 15 feet bgs.**	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@20**

Project:	Supplemental Soil Investigation	Borehole Depth:	30 feet bgs.	Sampling Method: Logged from cuttings	Page 1 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1430		SP		0 to 20 feet bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish brown, loose to medium dense, dry, 95% subrounded to angular, very fine to very coarse, predominantly fine to medium grained sand, 5% non-plastic fines, trace gravel, micaceous, no reaction with HCl, no odor, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1432		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1435		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15								
			1438		SP		Same as above	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@20**

Project:	Supplemental Soil Investigation	Borehole Depth:	30 feet bgs.	Sampling Method: Logged from cuttings	Page 2 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20			1440		SP		20 to 30 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
25			1442		SP		Same as above	BZ = 0.2
30			1505				**Groundwater not confirmed. TD of boring is 30 feet bgs.**	

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@30**

Project:	Supplemental Soil Investigation	Borehole Depth:	40 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1400		SP		0 to 20 feet bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish brown, loose to medium dense, dry, 95% subrounded to angular, very fine to very coarse, predominantly fine to medium grained sand, 5% non-plastic fines, trace gravel, micaceous, no reaction with HCl, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1405		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1407		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15								
			1409		SP		Same as above	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@30**

Project:	Supplemental Soil Investigation	Borehole Depth:	40 feet bgs.	Sampling Method: Logged by cuttings	Page 2 of 2
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20			1411		SP		20 to 40 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
25			1413		SP		Same as above	BZ = 0.2
30			1415		SP		Same as above	BZ = 0.2
35			1417		SP		Same as above	BZ = 0.2
40			1418		SP		**Groundwater not confirmed. TD of boring is 40 feet bgs.**	

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@40**

Project:	Supplemental Soil Investigation	Borehole Depth:	45 feet bgs.	Sampling Method: Logged by cuttings	Page 1 of 3
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
0	H		1340		SP		0 to 20 feet bgs. POORLY GRADED SAND: (2.5YR 4/4) reddish brown, loose to medium dense, damp, 95% subrounded to angular, very fine to very coarse, predominantly medium grained sand, 5% non-plastic fines, trace gravel, micaceous, no reaction with HCl, no odor, no staining.	BZ = 0.2
1	A							
	N							
2	D							
3	A							
	U							
4	G							
	E							
5	R							
			1341		SP		Same as above	BZ = 0.2
6								
7								
8								
9								
10								
			1343		SP		Same as above	BZ = 0.2
11								
12								
13								
14								
15								
			1345		SP		Same as above	BZ = 0.2
16								
17								
18								
19								
20								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@40**

Project:	Supplemental Soil Investigation	Borehole Depth:	45 feet bgs.	Sampling Method: Logged by cuttings	Page 2 of 3
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
20			1347		SP		20 to 40 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
25			1348		SP		Same as above	BZ = 0.2
30			1349		SP		Same as above	BZ = 0.2
35			1350		SP		Same as above	BZ = 0.2
40								

TETRA TECH

BORING LOG

(Feature 22 Operational Area C) **Perc/C@40**

Project:	Supplemental Soil Investigation	Borehole Depth:	45 feet bgs.	Sampling Method: Logged by cuttings	Page 3 of 3
Location:	LMC Beaumont Site 1 (So. Burn Pit)	Borehole Diameter:	8 inches		
Project No.:	19967-02	Drilling Contractor:	WDC	Northing (feet):	
Logged By:	Holly Hanke			Easting (feet):	
Date Boring Started:	1-May-2007	Drilling Method:	HSA	Ground Surface Elevation (feet MSL):	
Date Boring Completed:	1-May-2007			Top of Casing Elevation (feet MSL):	

Depth (feet bgs)	Recovery	Blow Counts	Time	Sample No.	USCS	Graphic Log	Interval and Lithologic Description	OVA (ppm, BZ = breathing zone)
40			1351		SP		40 to 45 feet bgs. POORLY GRADED SAND: SAA.	BZ = 0.2
45			1353				**Groundwater not confirmed. TD of boring is 45 feet bgs.**	

Appendix C

Soil Gas Probe Completion Diagrams

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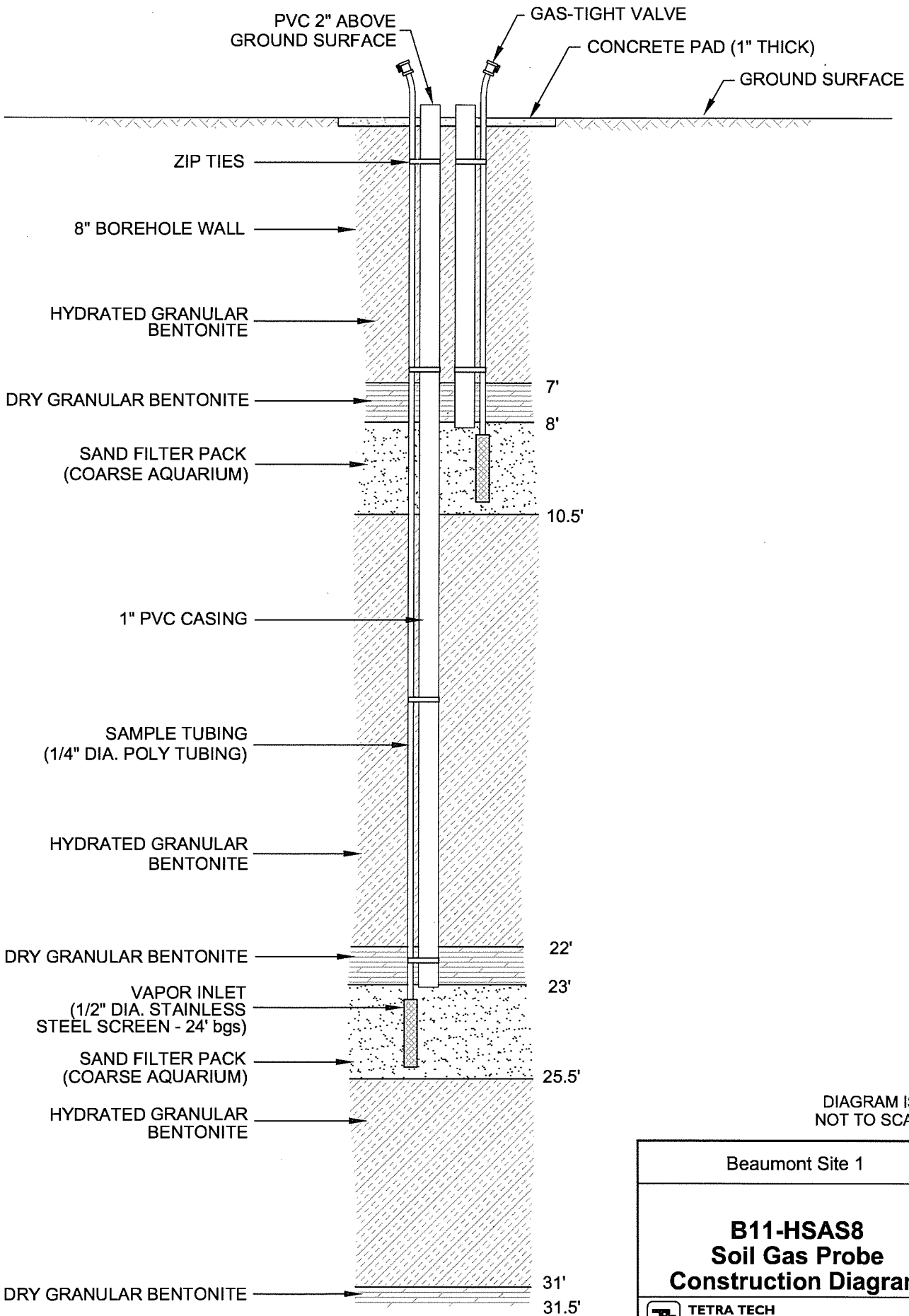

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

B11-HSAS8 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

X:\GIS\LOCKHEED 19967-05\B11-HSAS9.DWG

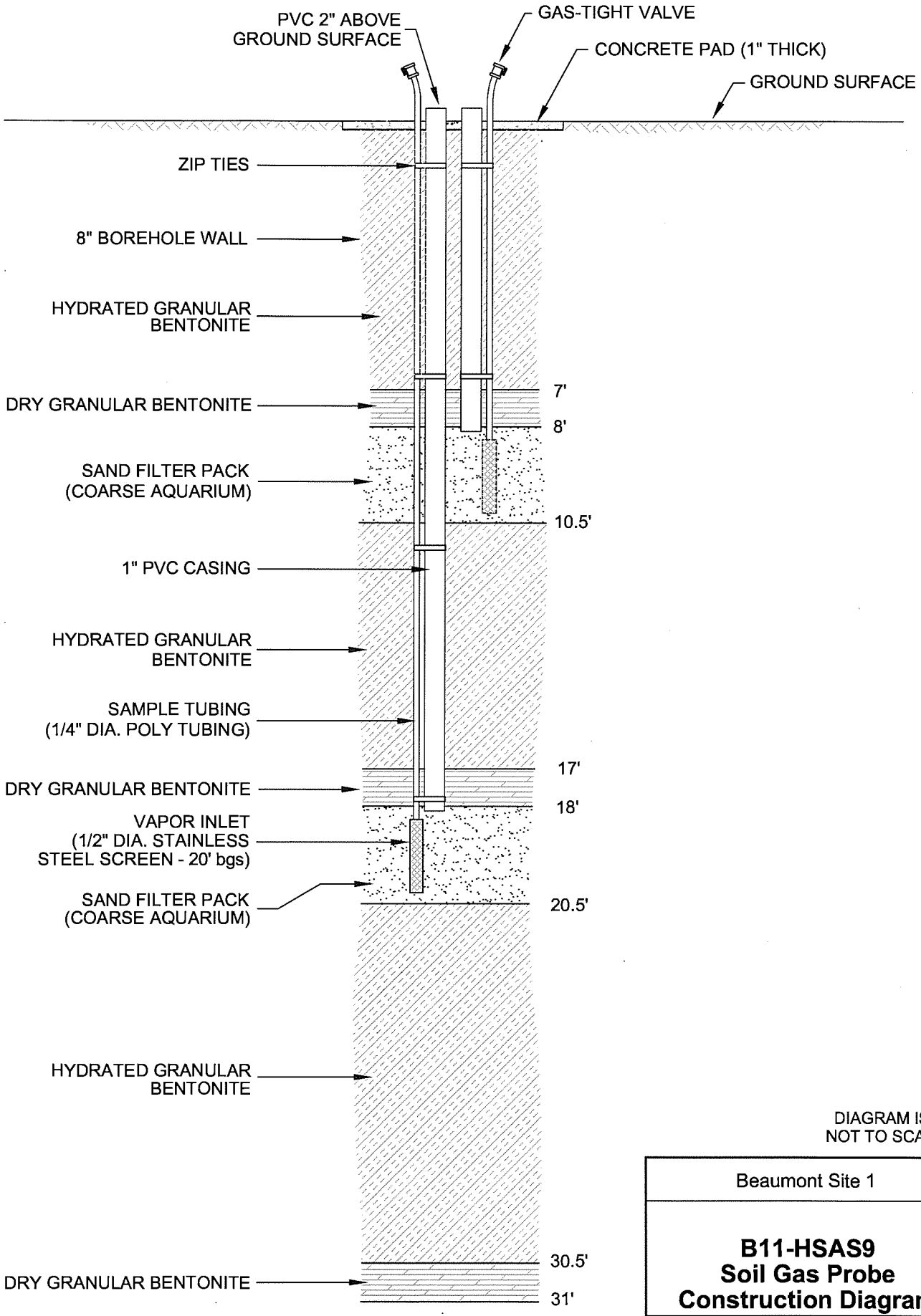

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

B11-HSAS9 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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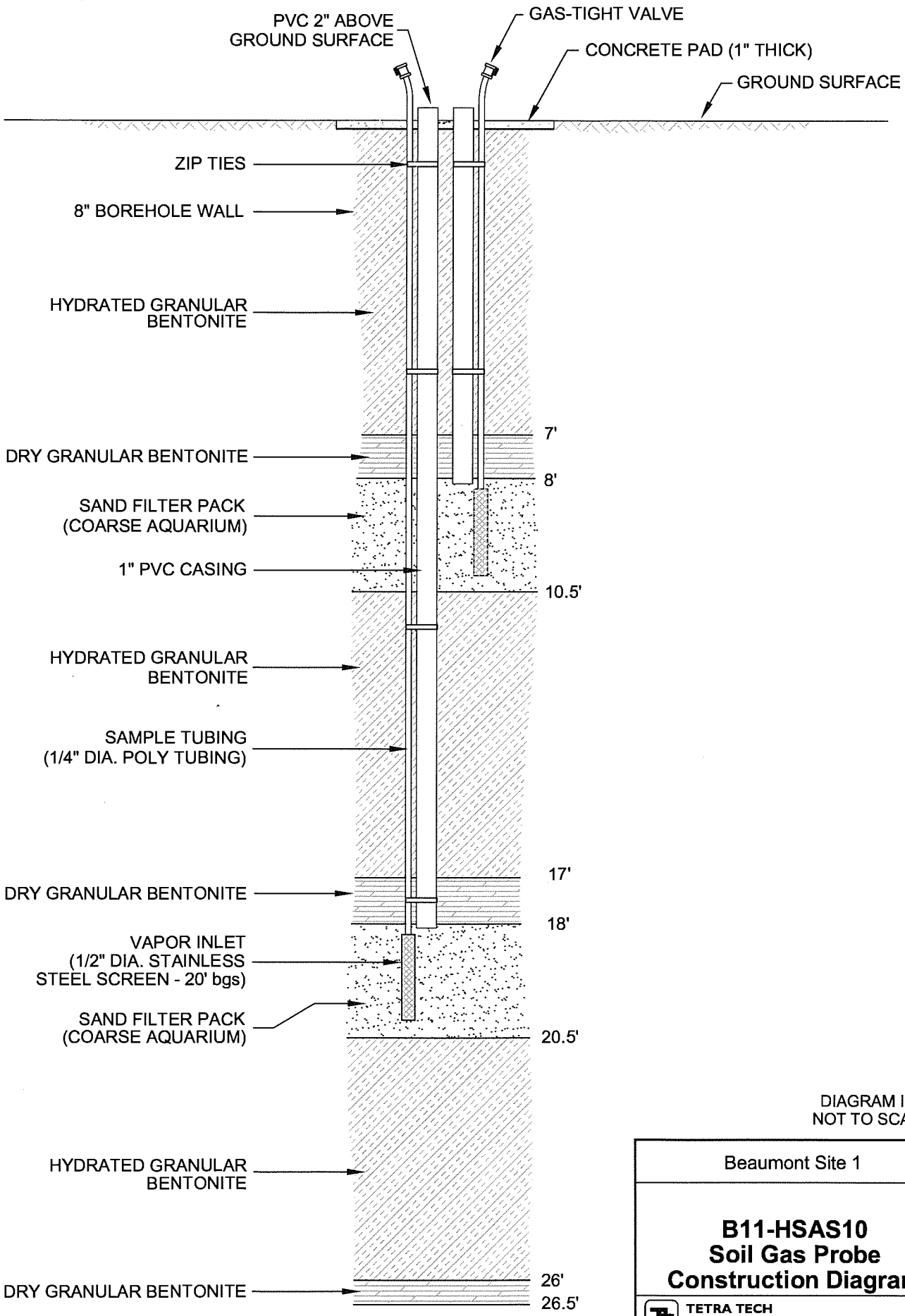

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

B11-HSAS10 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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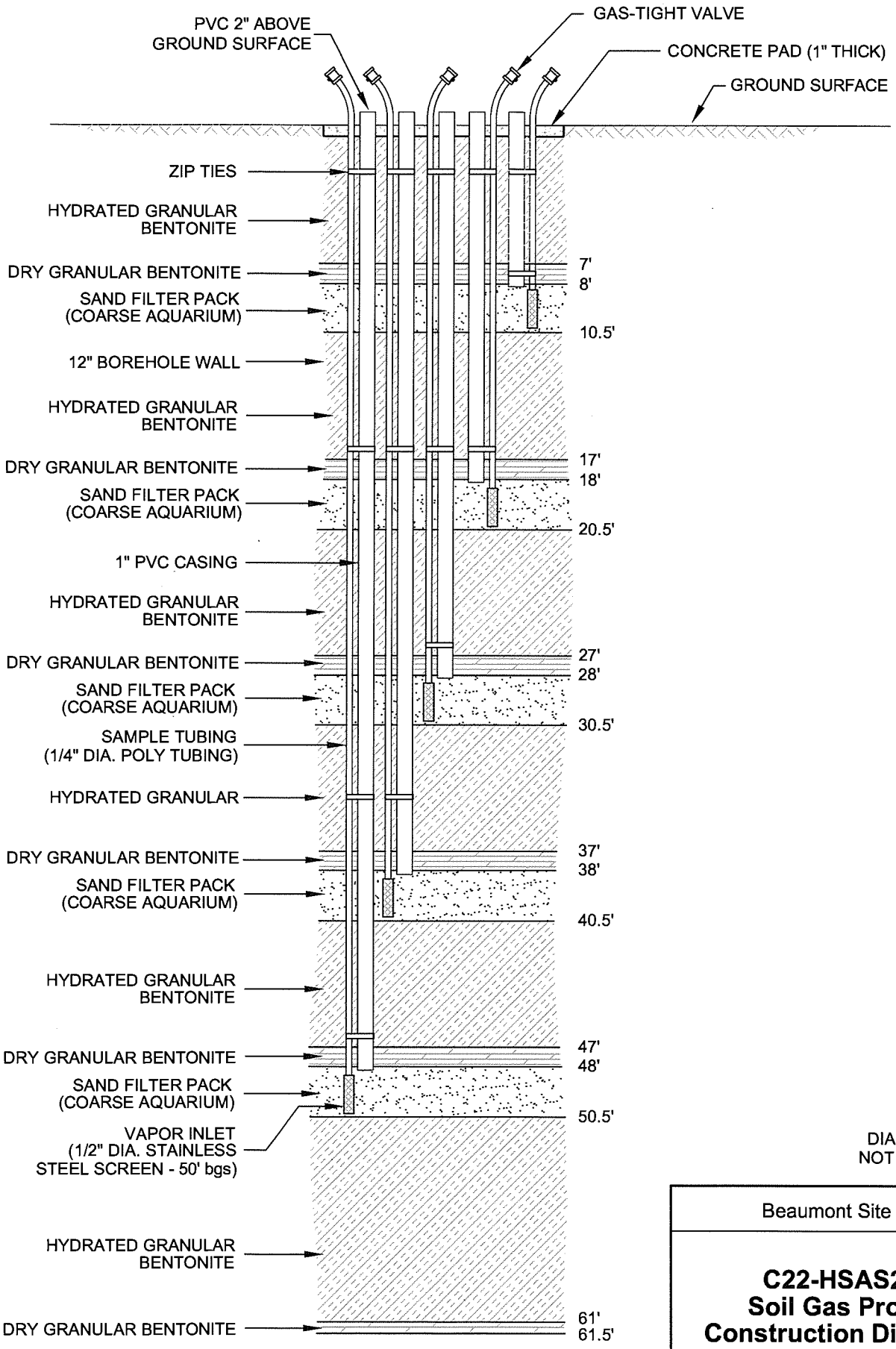

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

C22-HSAS21 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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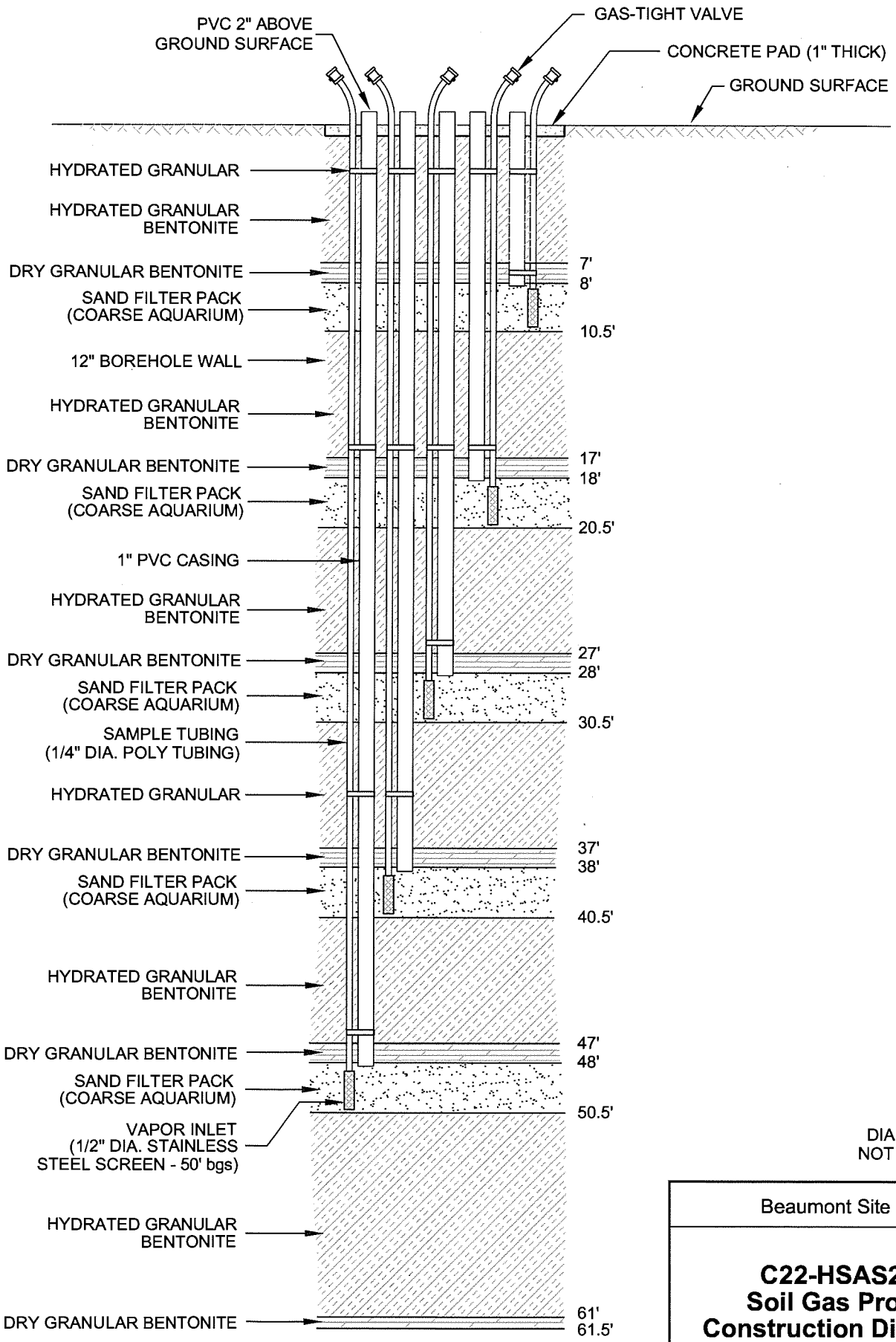

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

C22-HSAS22 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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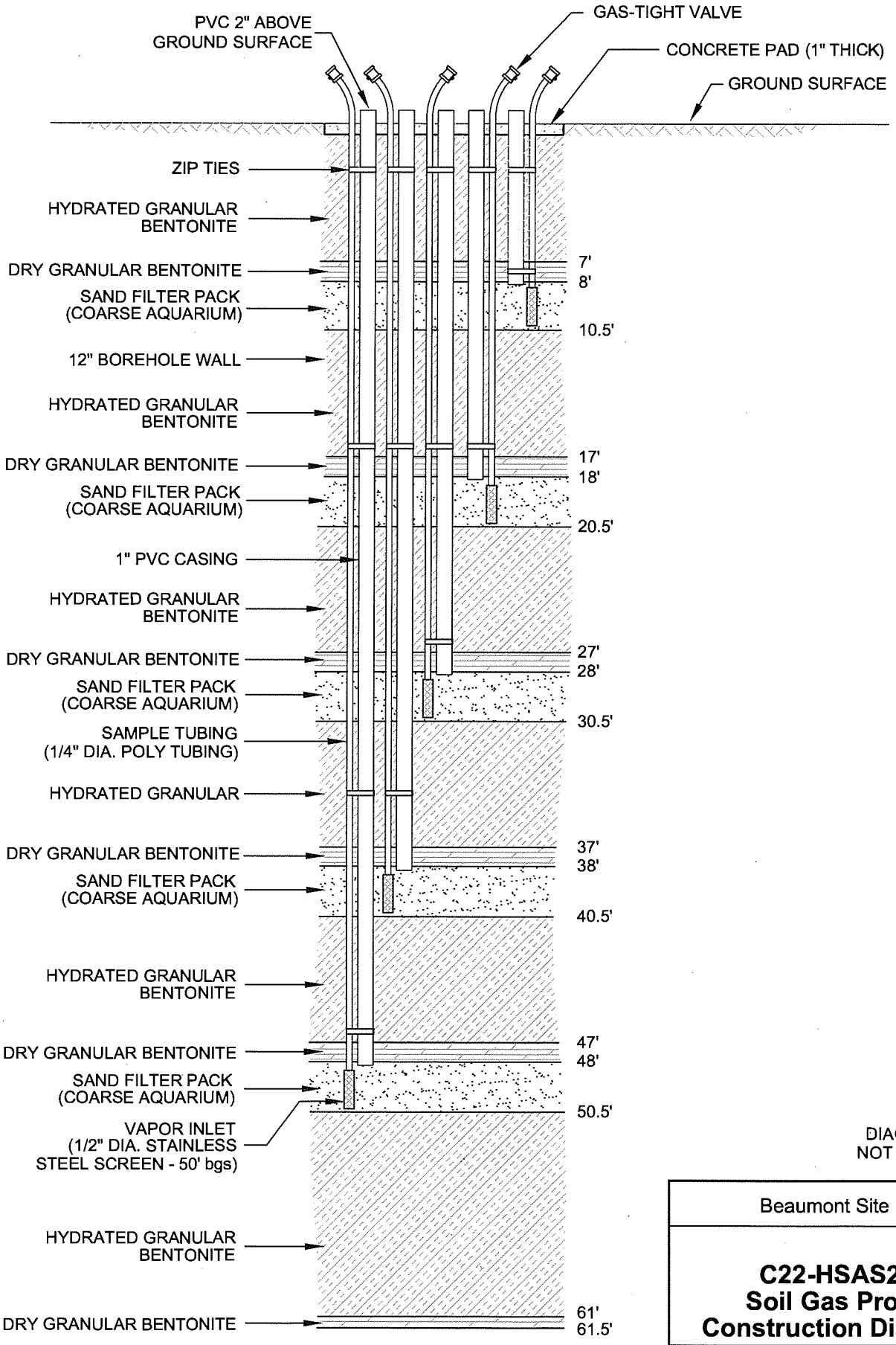

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

C22-HSAS23 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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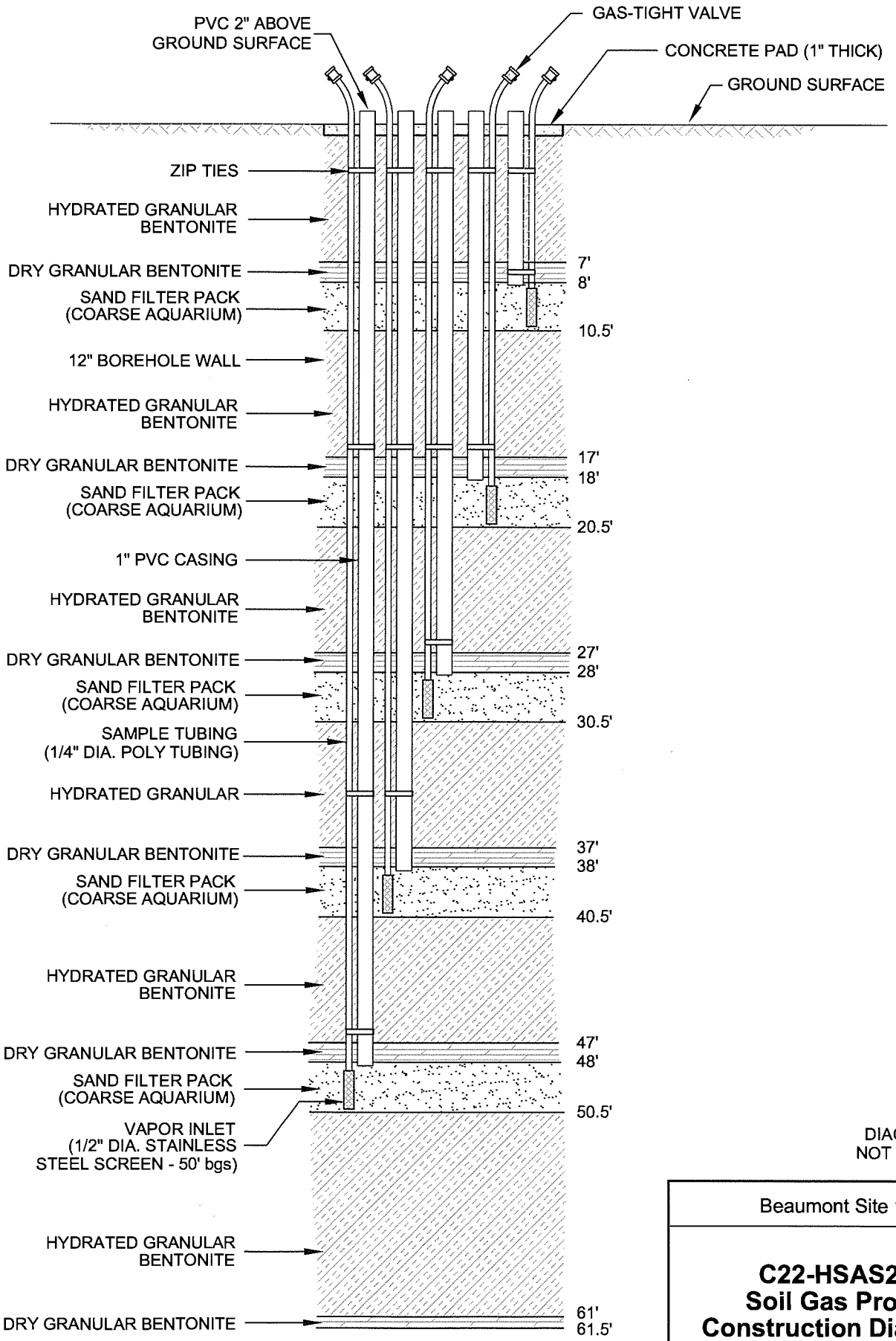

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

C22-HSAS24 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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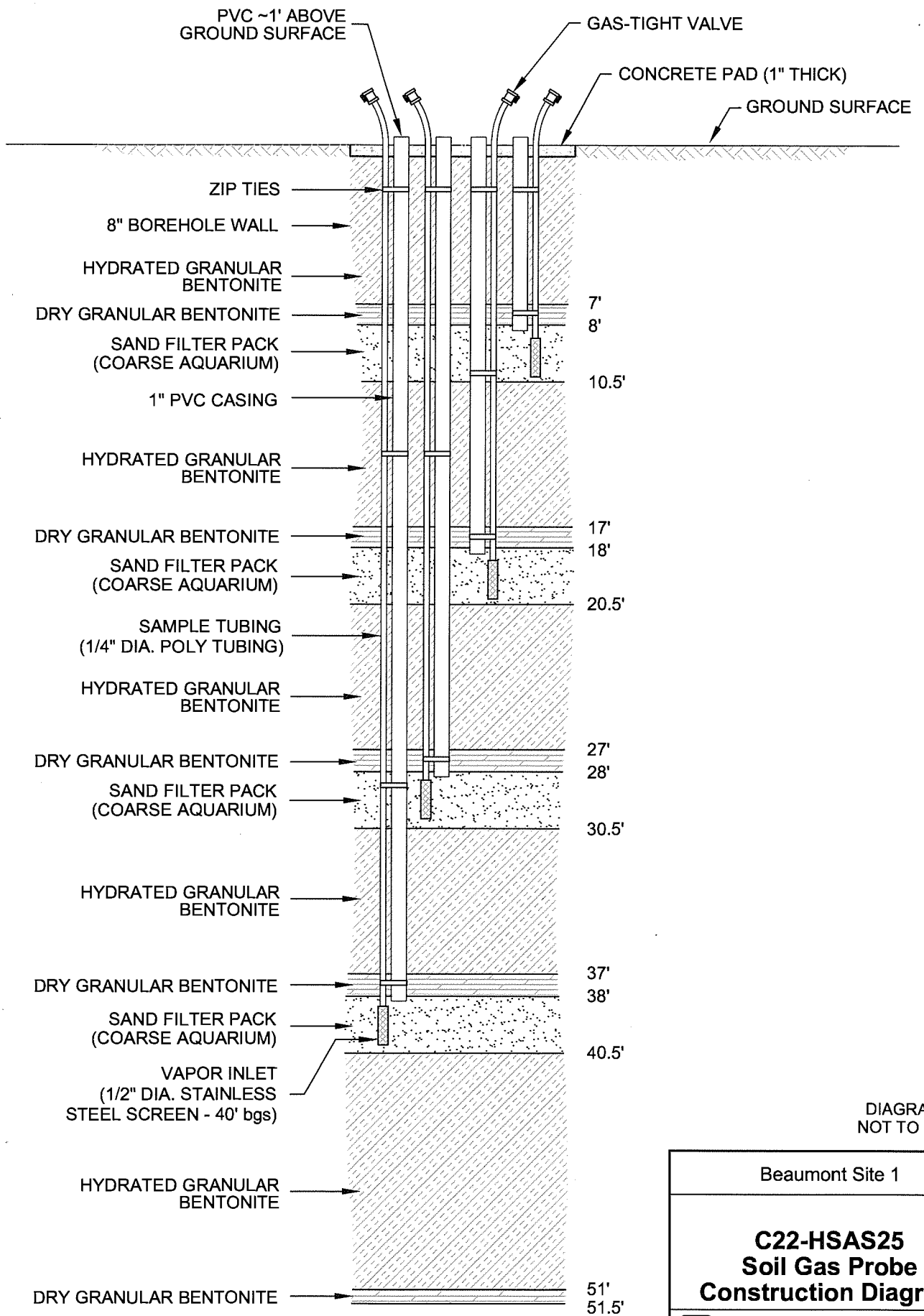

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

C22-HSAS25 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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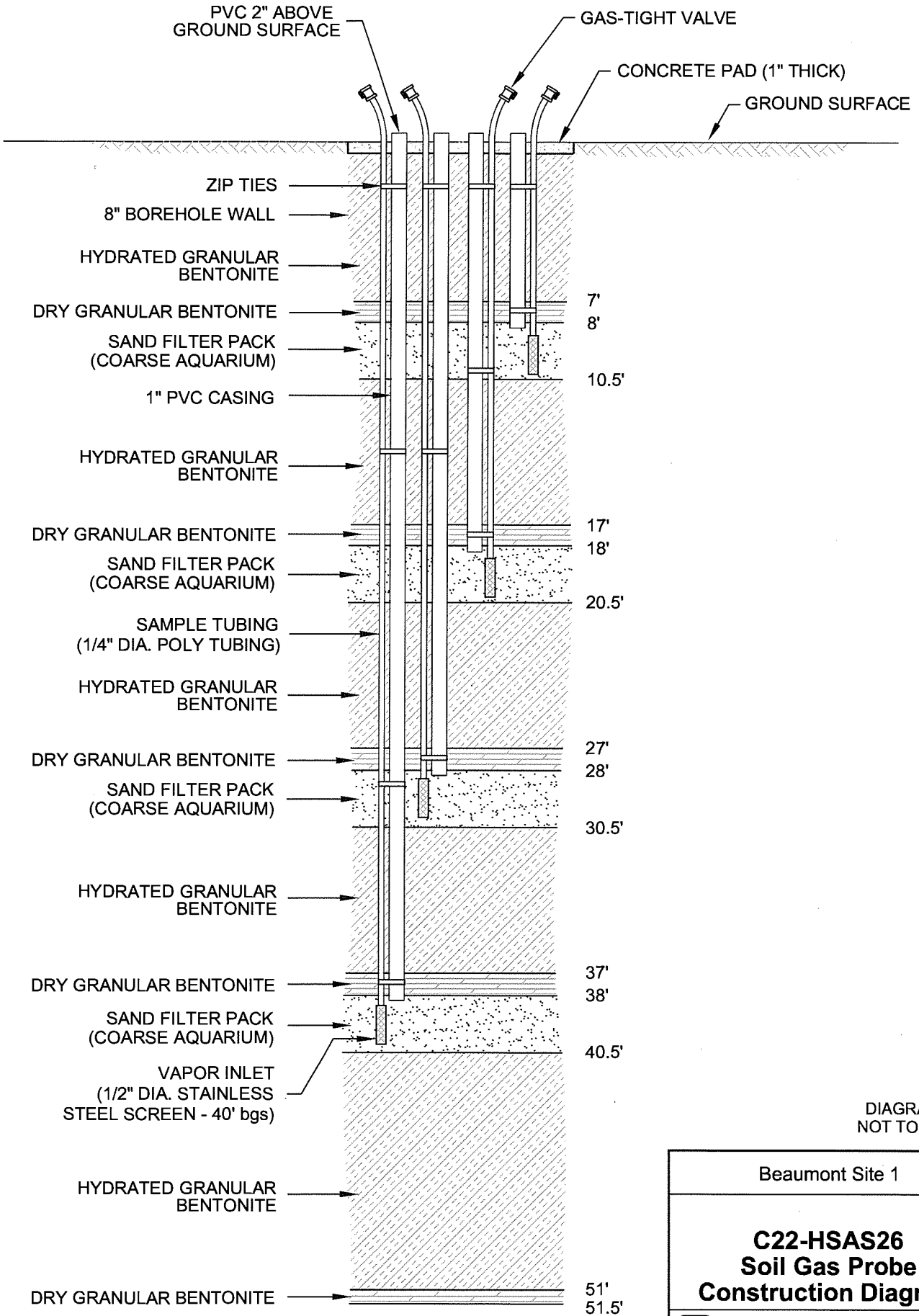

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

C22-HSAS26 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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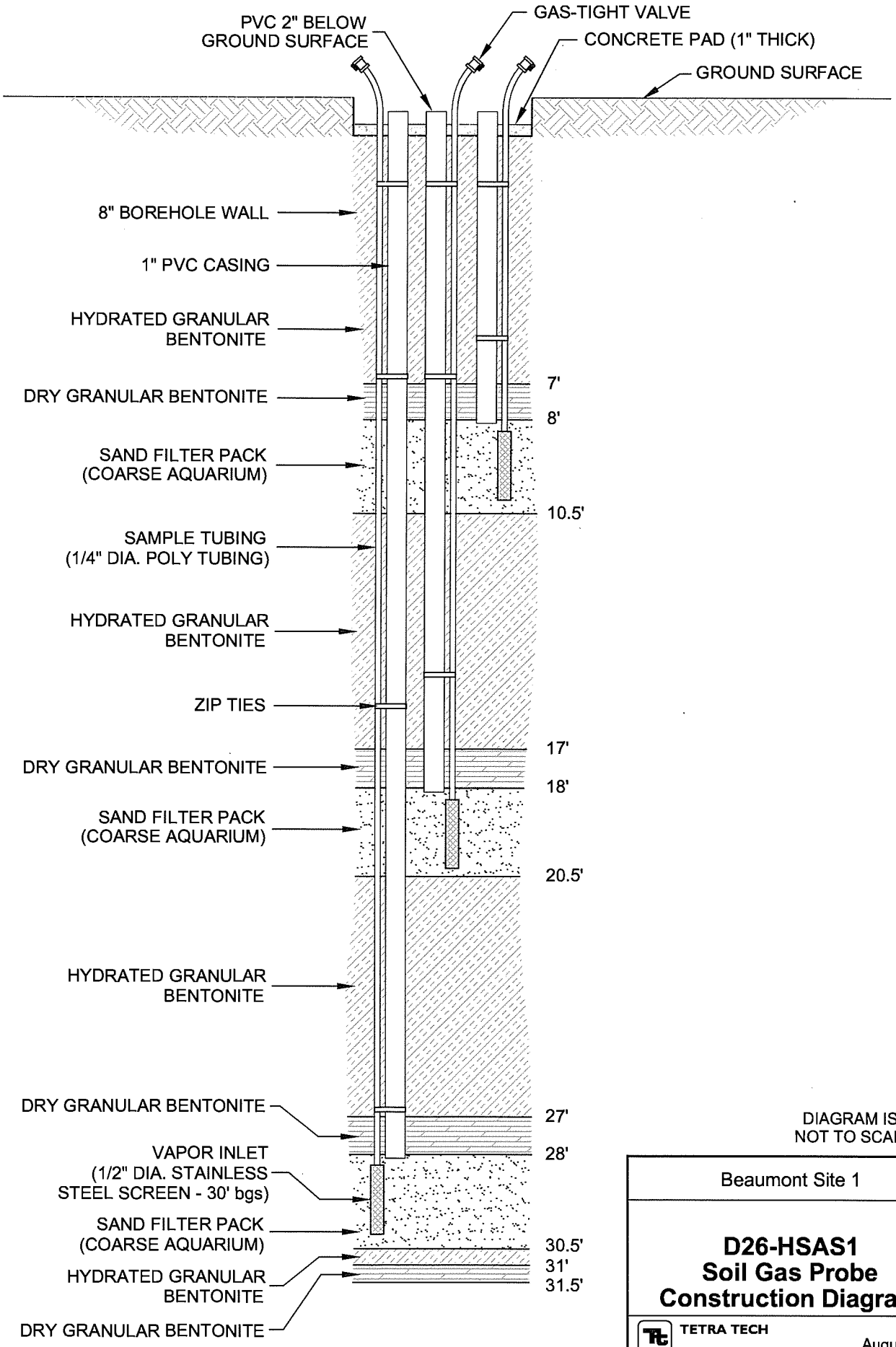

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

D26-HSAS1 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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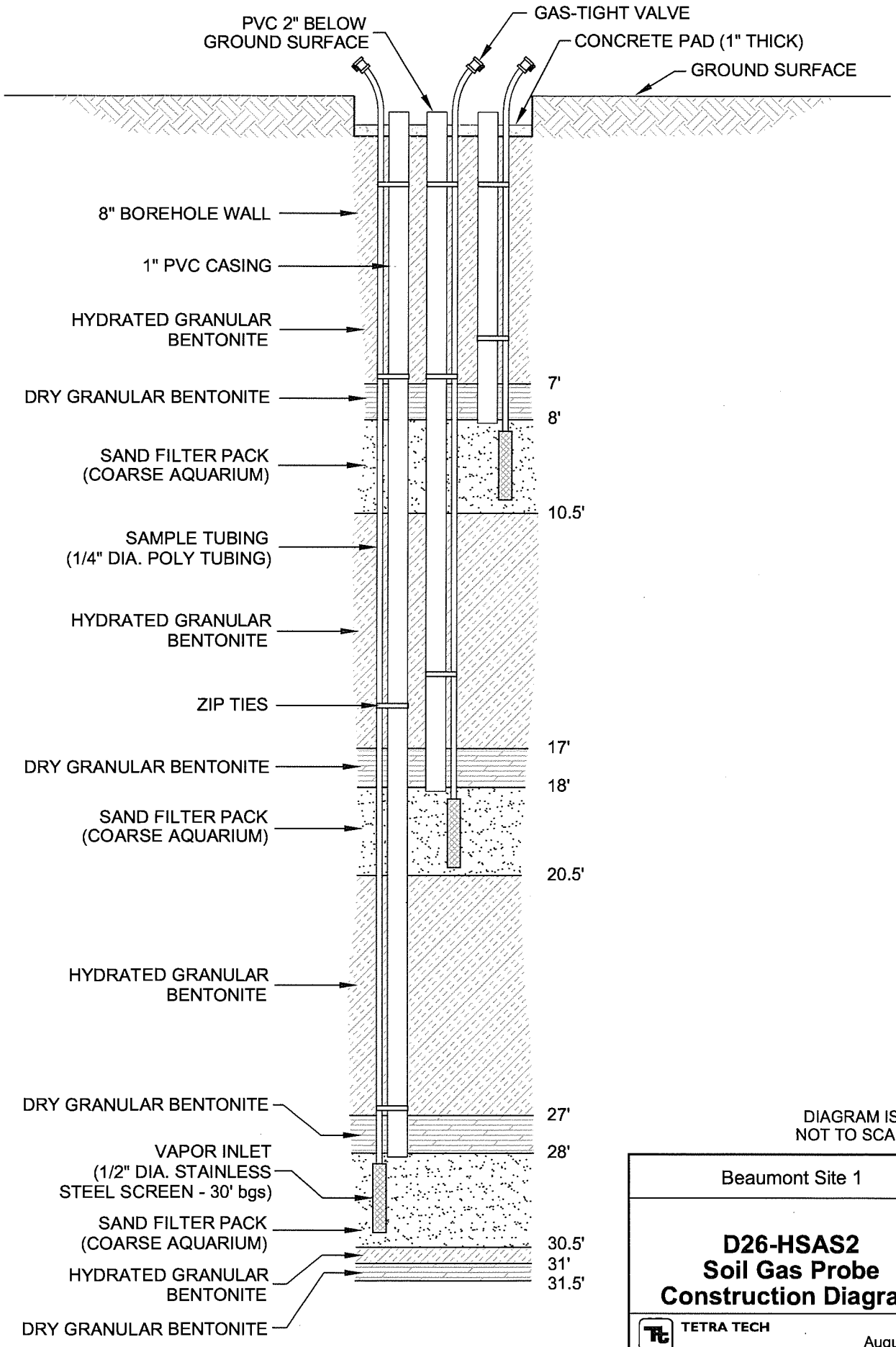

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

D26-HSAS2 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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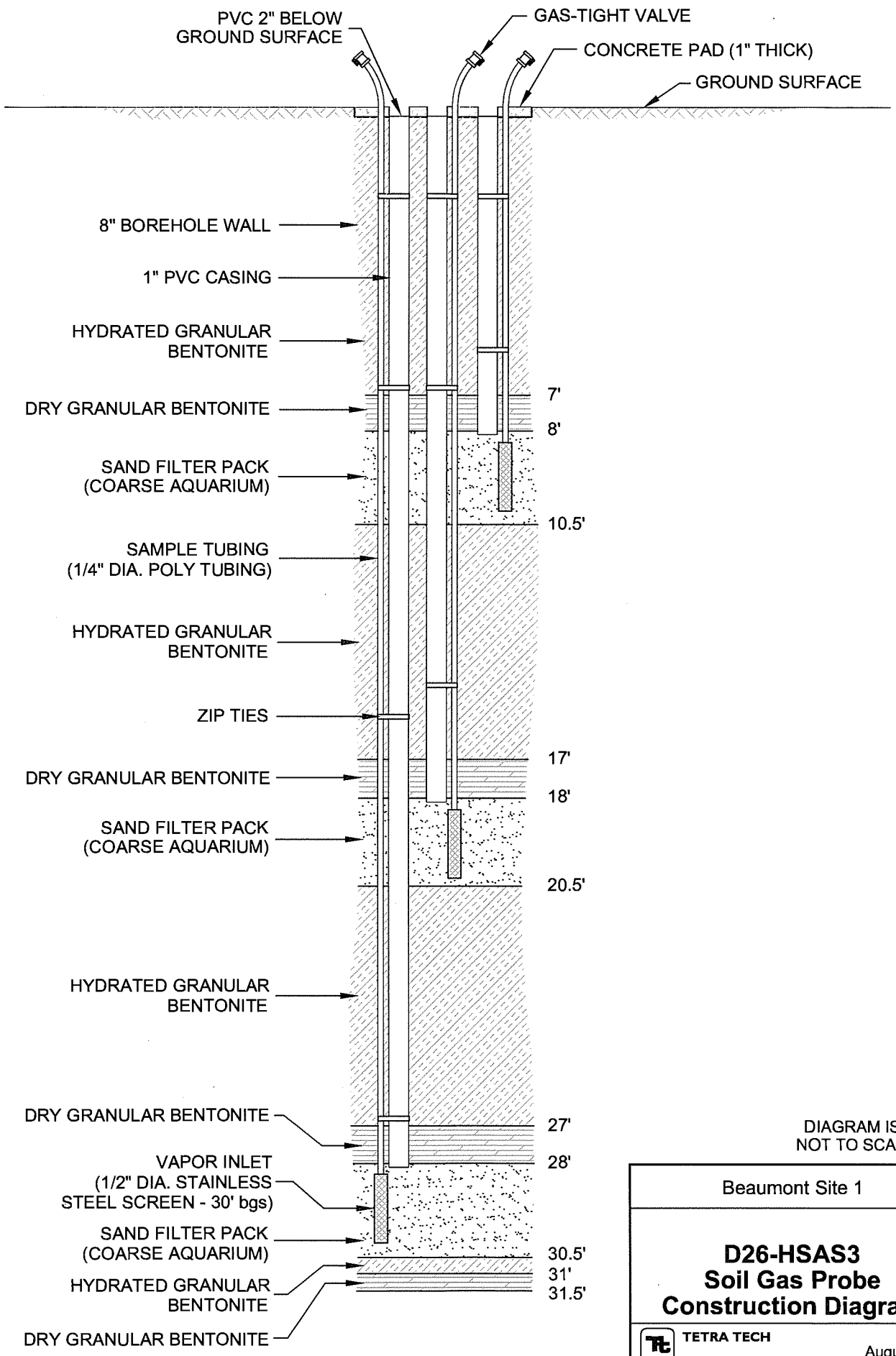

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

D26-HSAS3 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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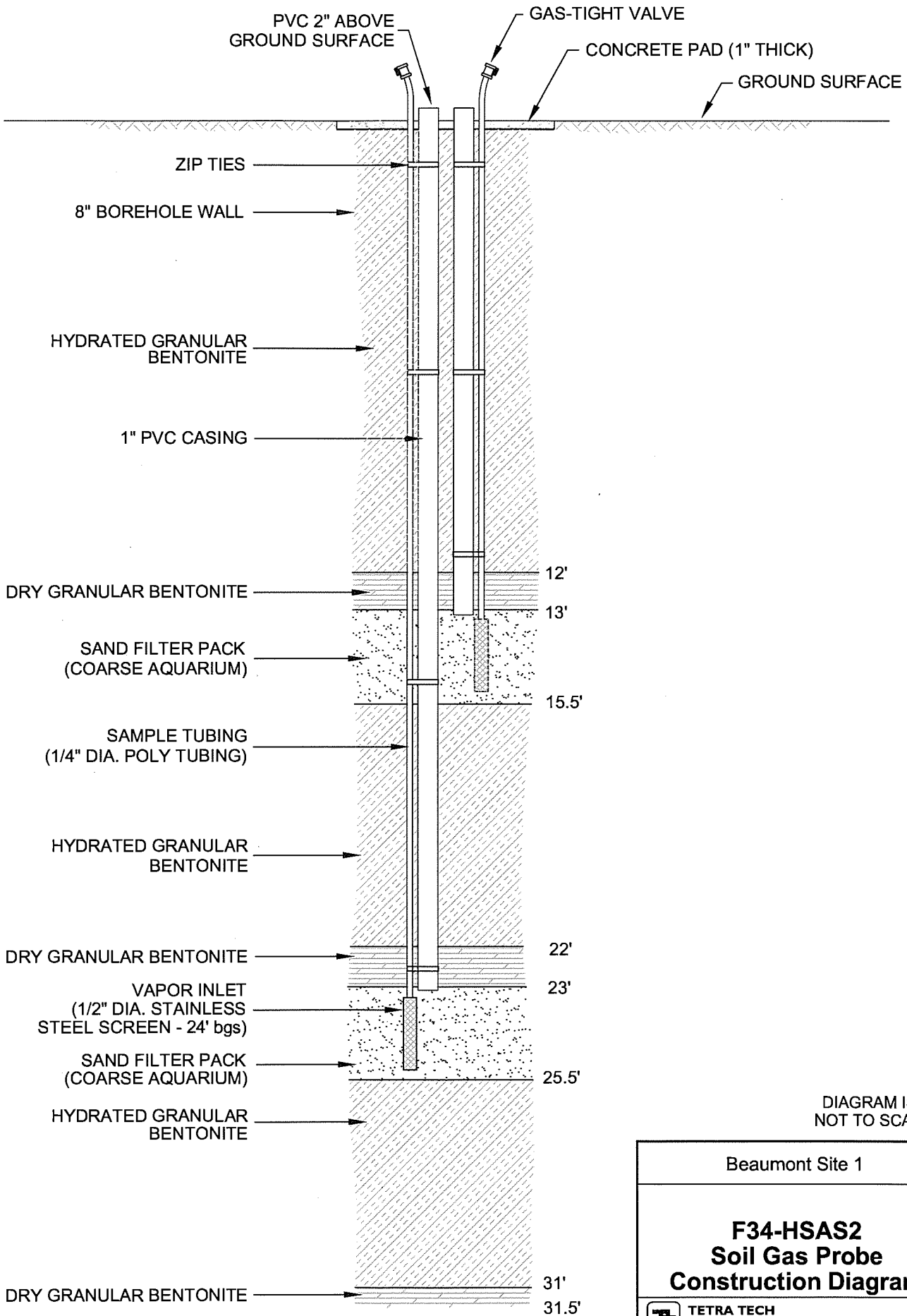

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

F34-HSAS2 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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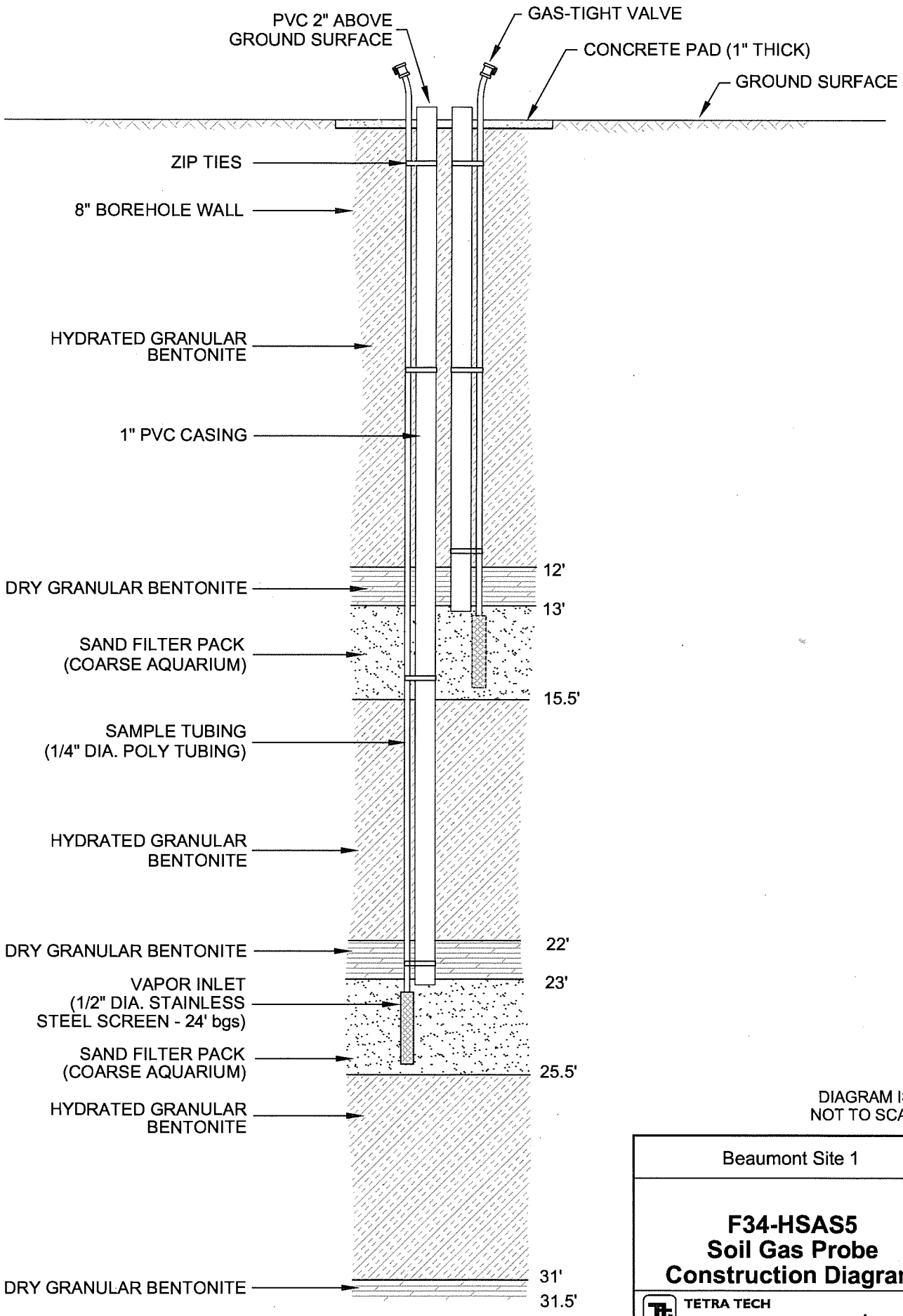

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

F34-HSAS5 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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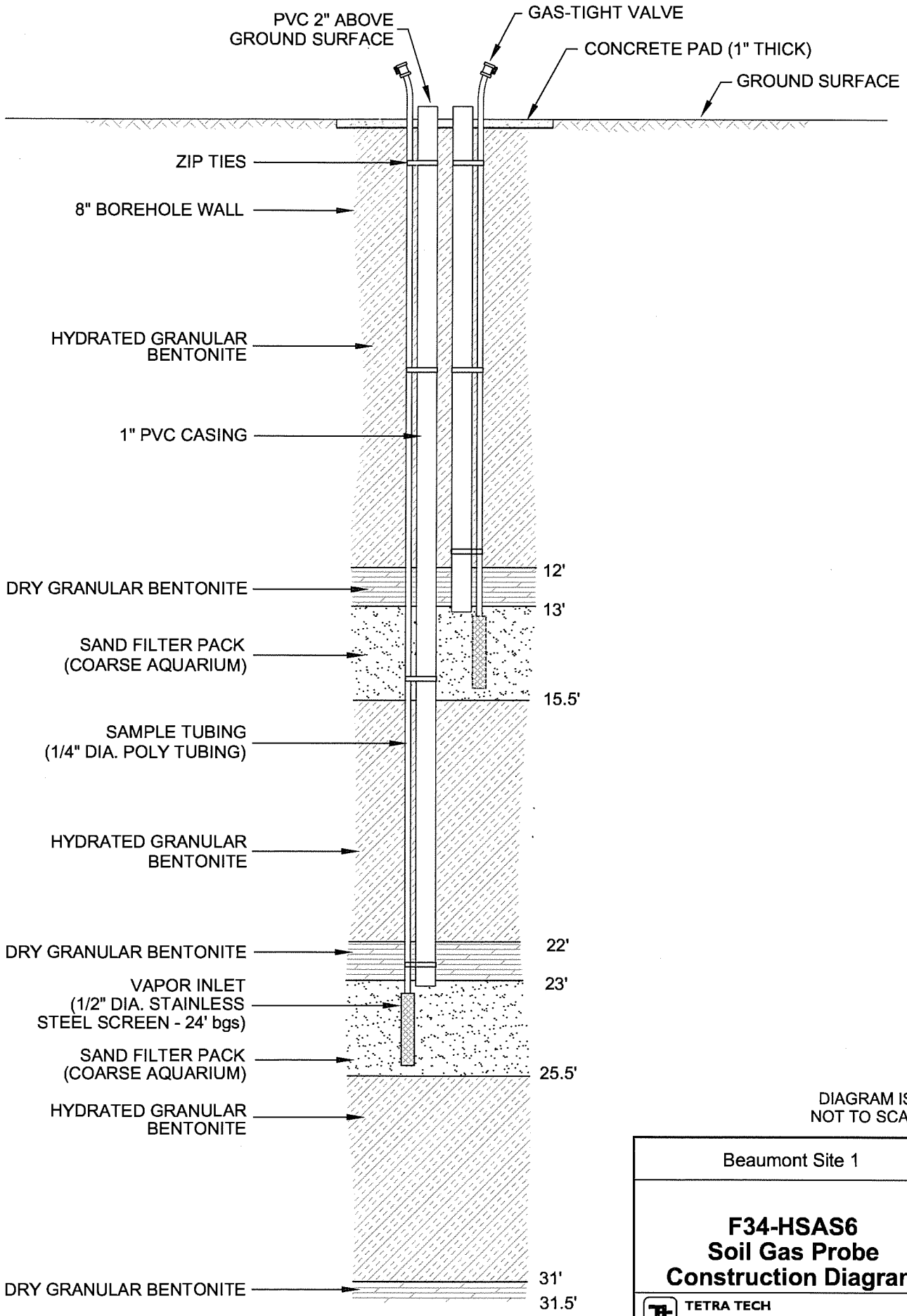

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Beaumont Site 1

F34-HSAS6 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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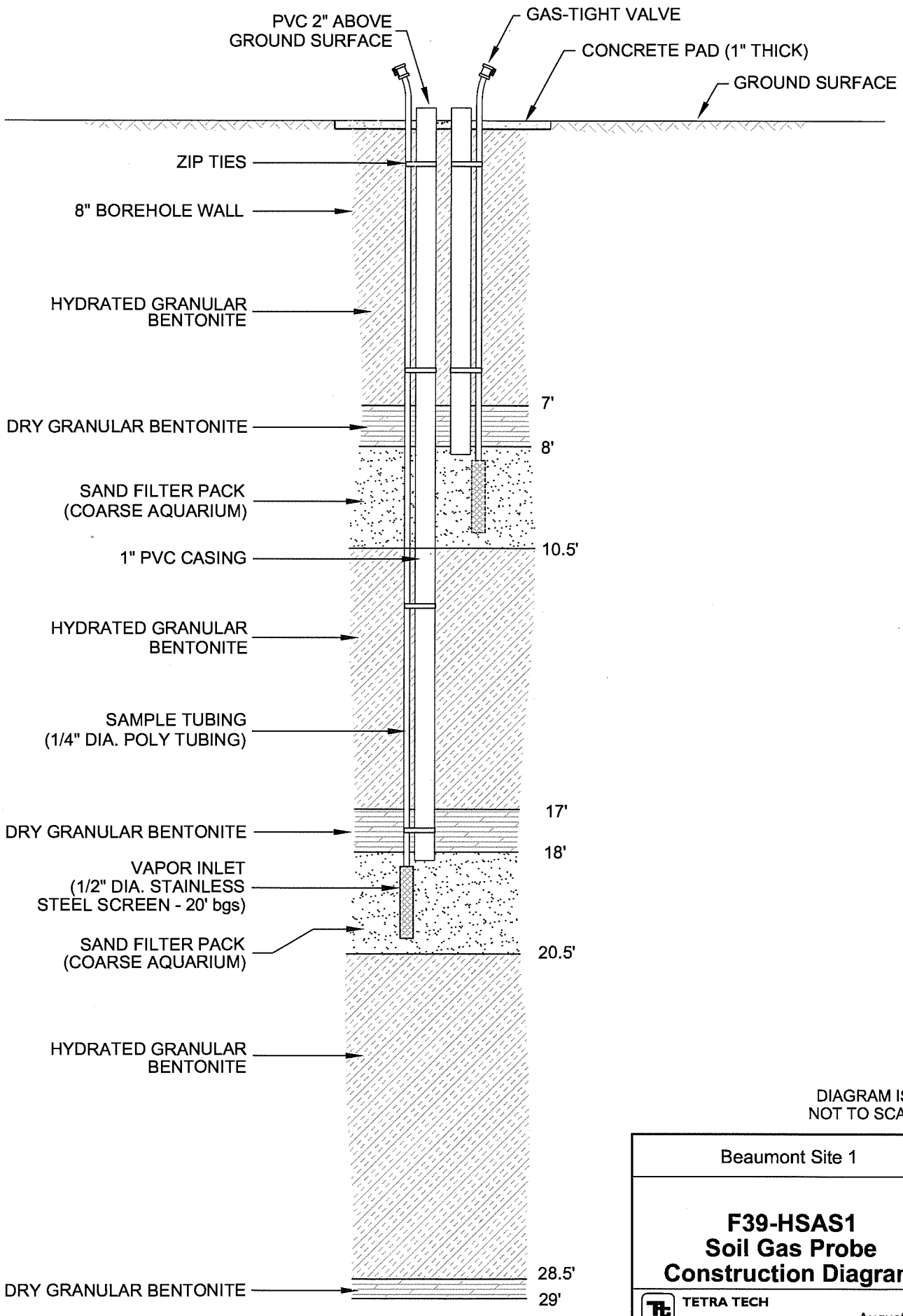

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

F39-HSAS1 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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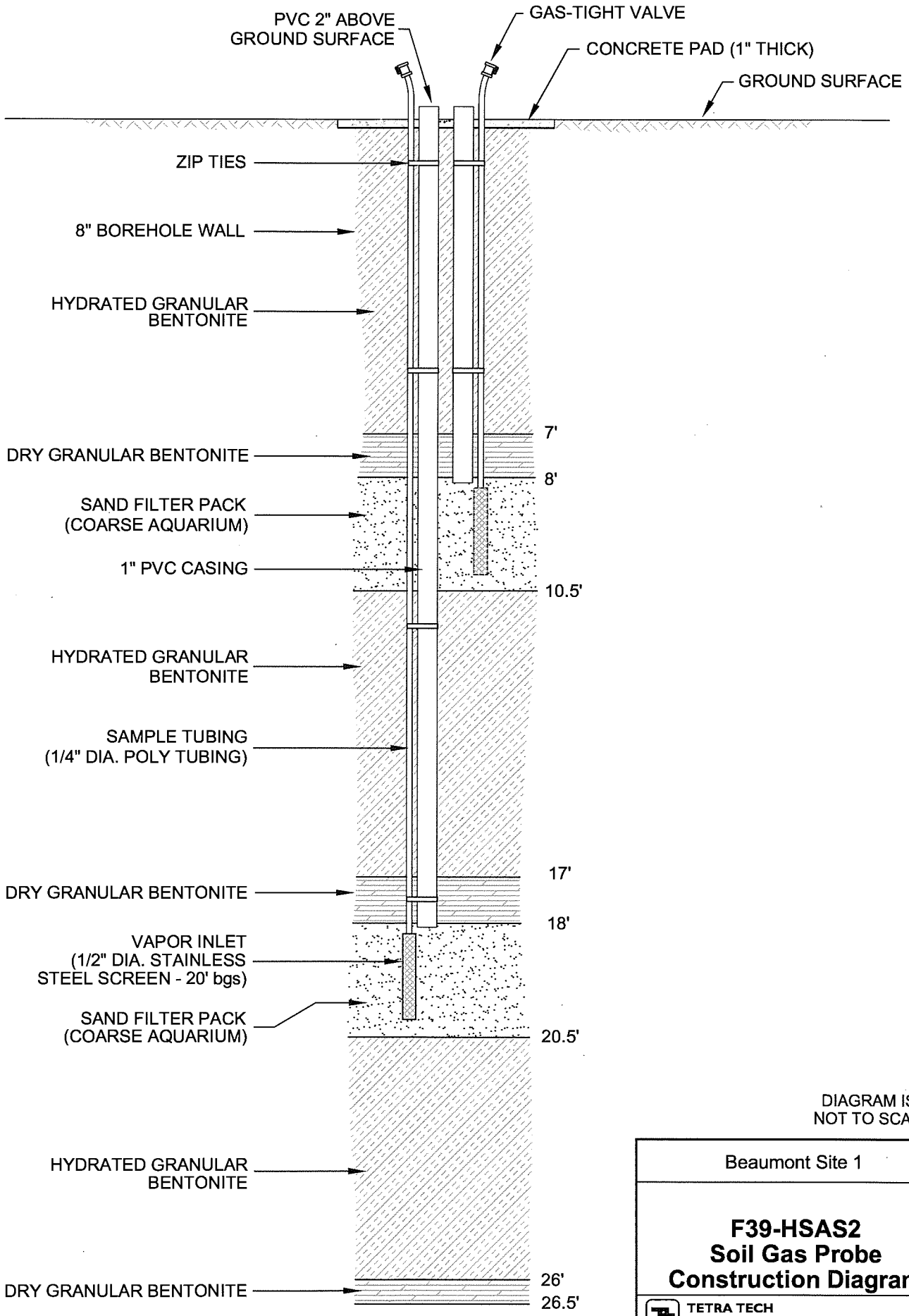

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

F39-HSAS2 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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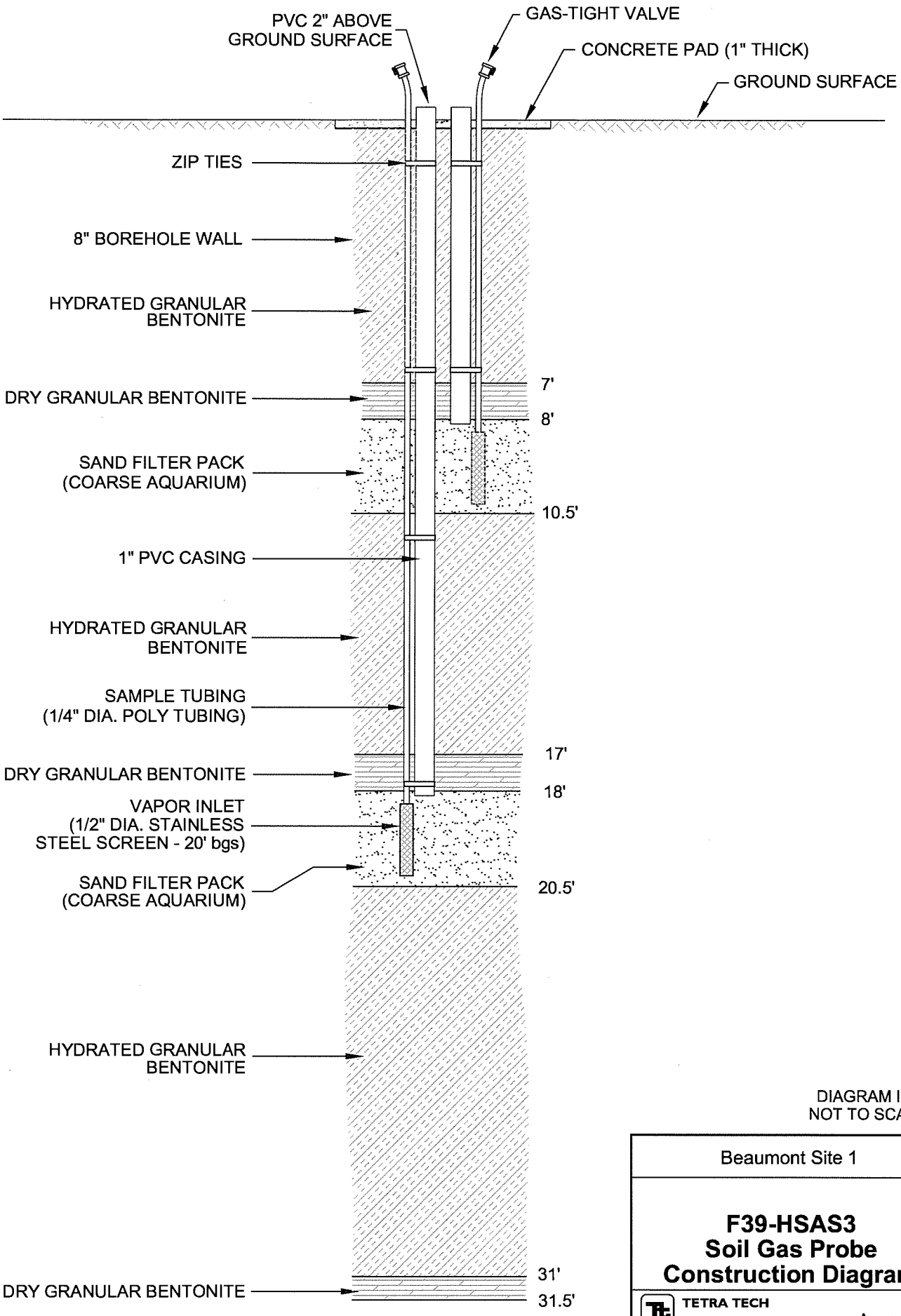

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

F39-HSAS3
Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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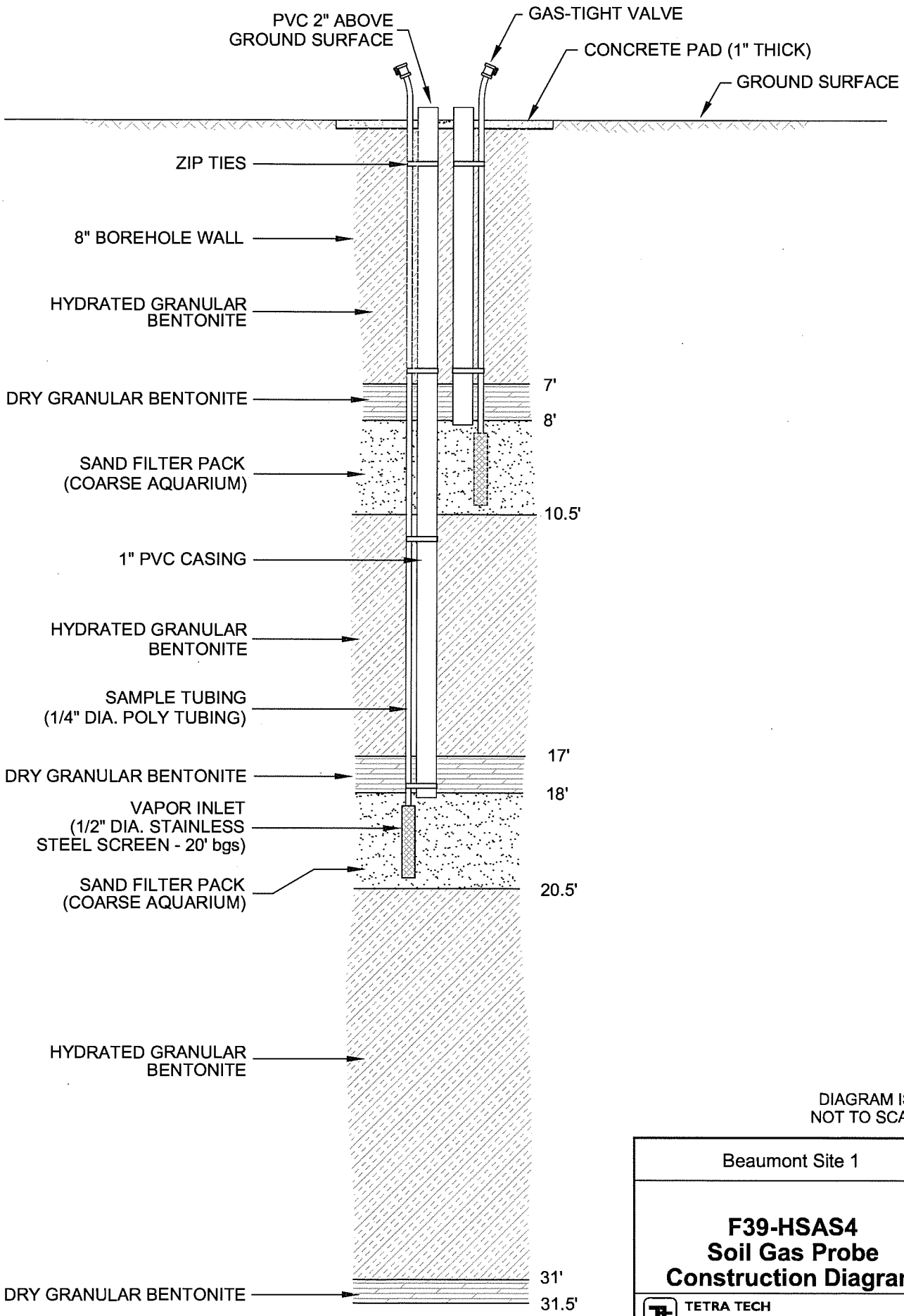

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

F39-HSAS4 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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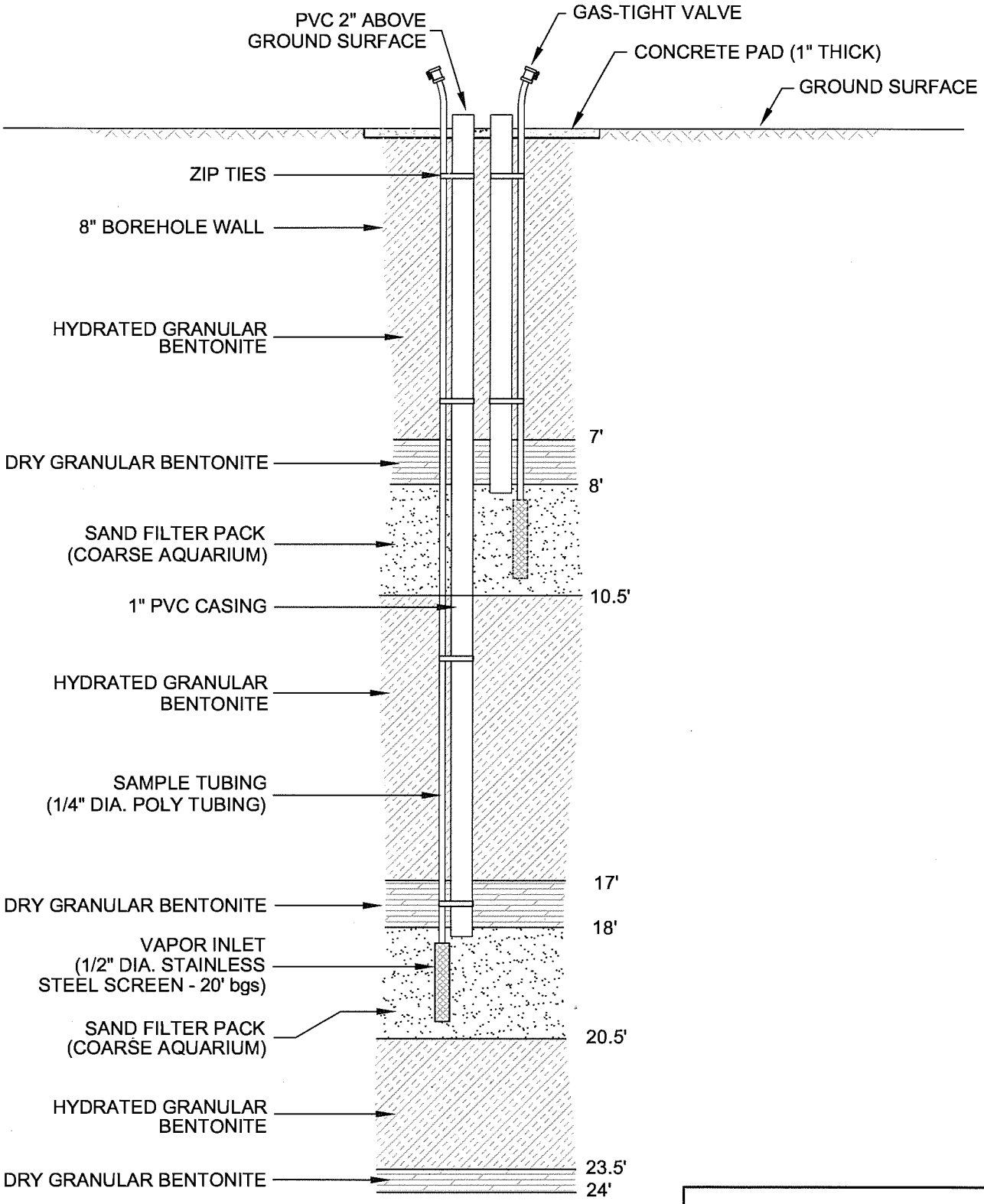

Beaumont Site 1

G46-HSAS1
Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

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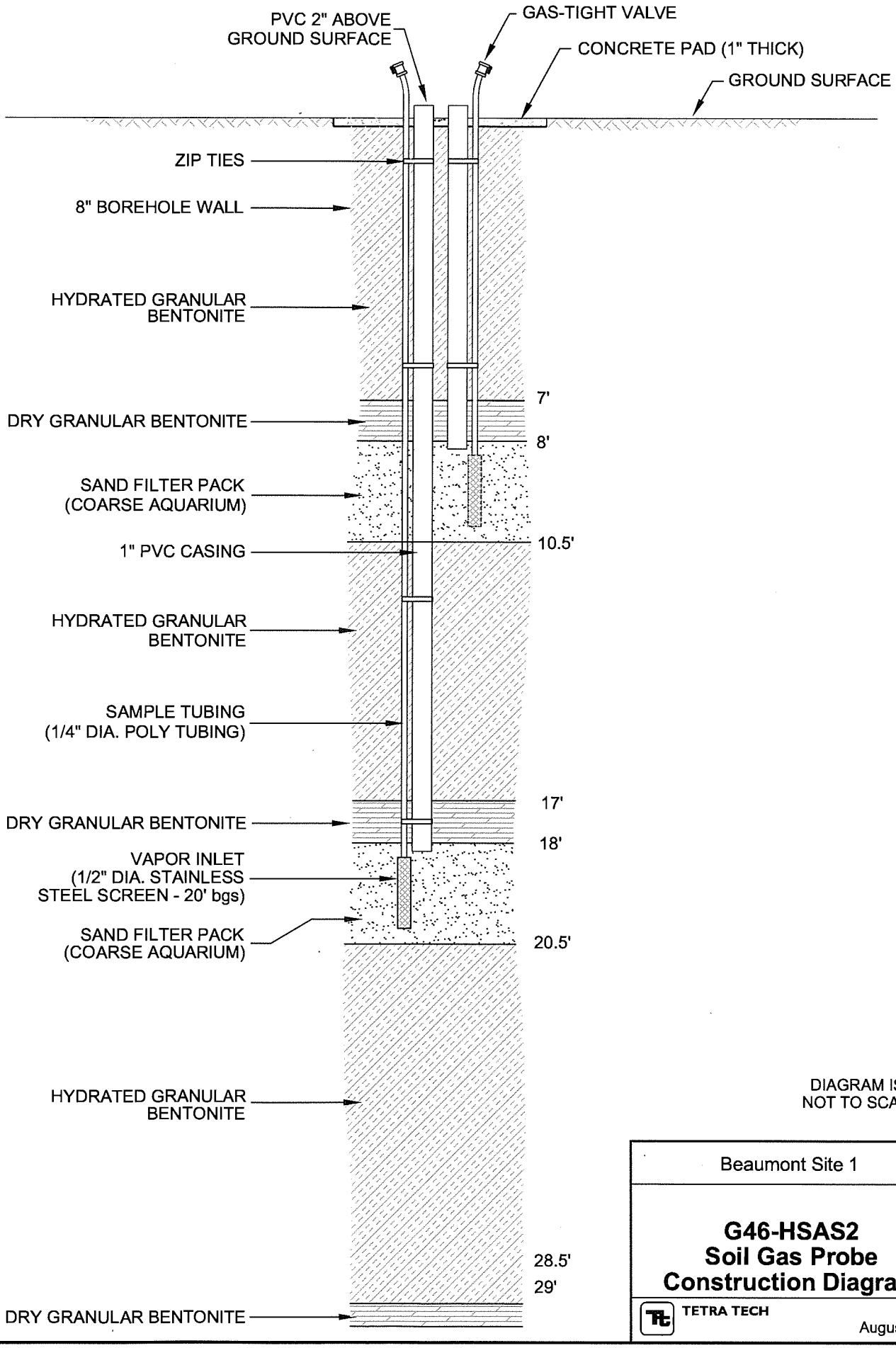

DIAGRAM IS NOT TO SCALE

Beaumont Site 1

G46-HSAS2 Soil Gas Probe Construction Diagram

TETRA TECH

August 2007

Appendix D

Well Completion Diagrams

X:\GIS\LOCKHEED 1996?-05\F33-HSAS14.DWG

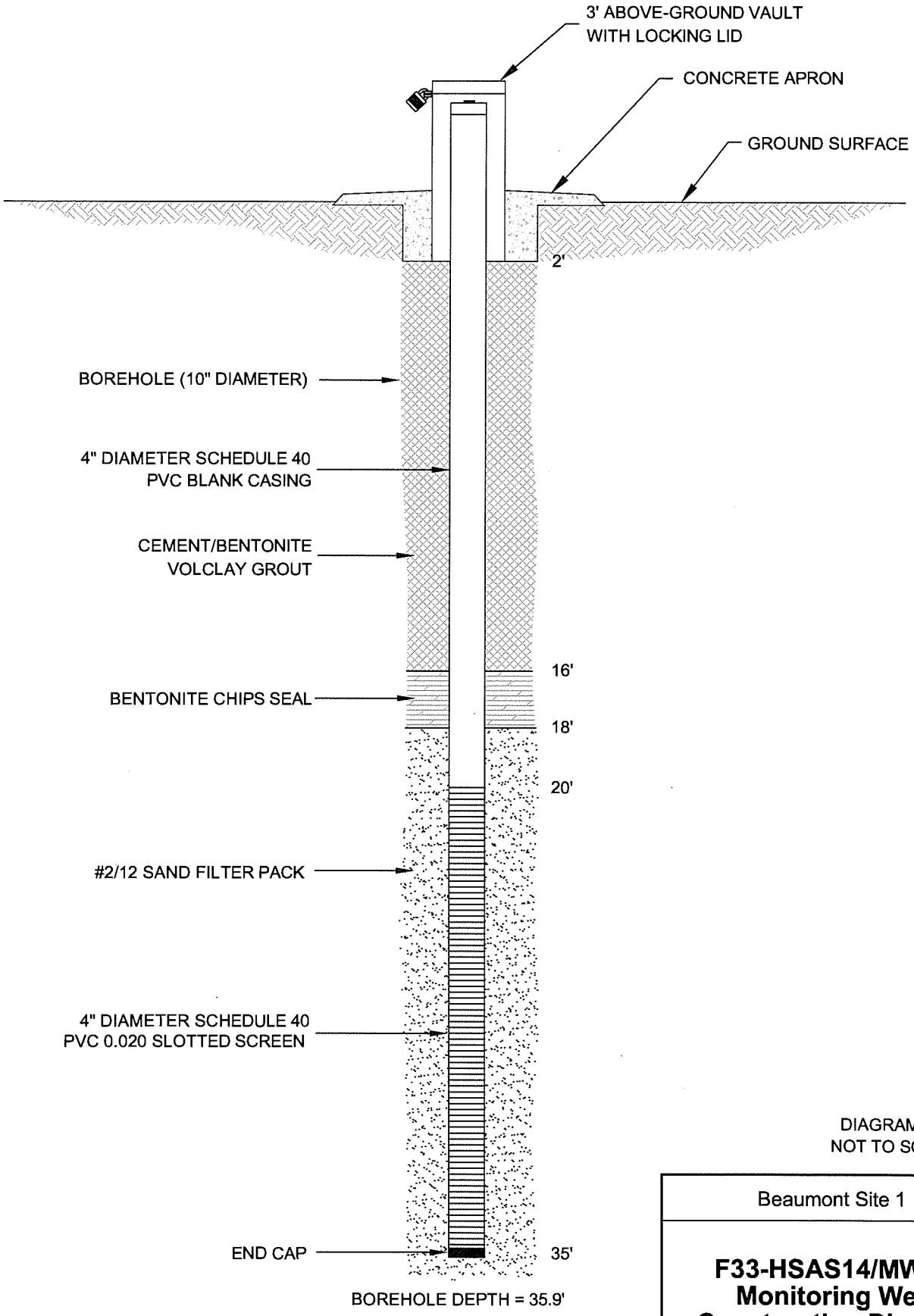

DIAGRAM IS
NOT TO SCALE

Beaumont Site 1

F33-HSAS14/MW70 Monitoring Well Construction Diagram

TETRA TECH

August 2007

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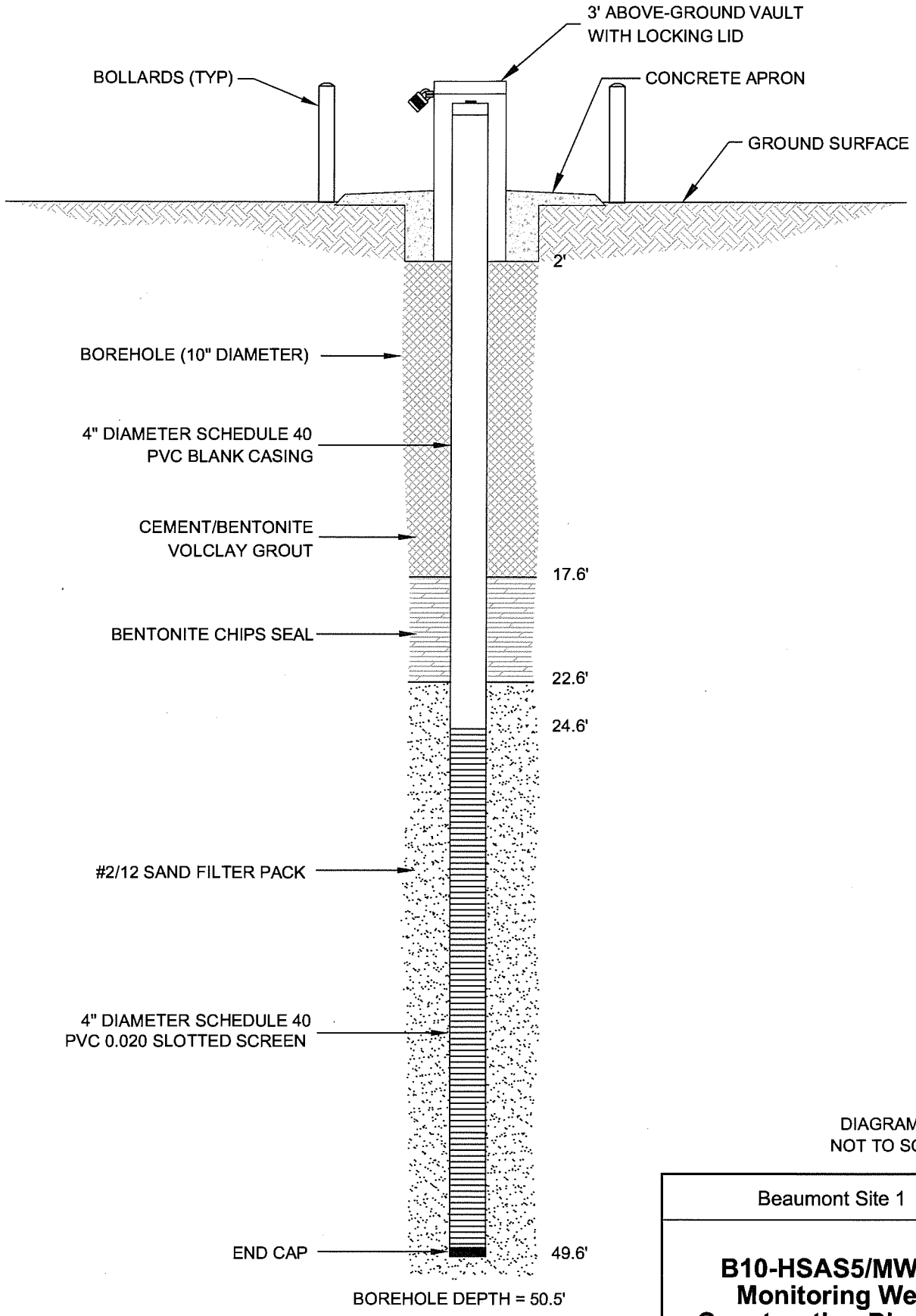

DIAGRAM IS
NOT TO SCALE

Beaumont Site 1

B10-HSAS5/MW69 Monitoring Well Construction Diagram

TETRA TECH

August 2007

X:\GIS\LOCKHEED 19967-05\B14-HSAS11.DWG

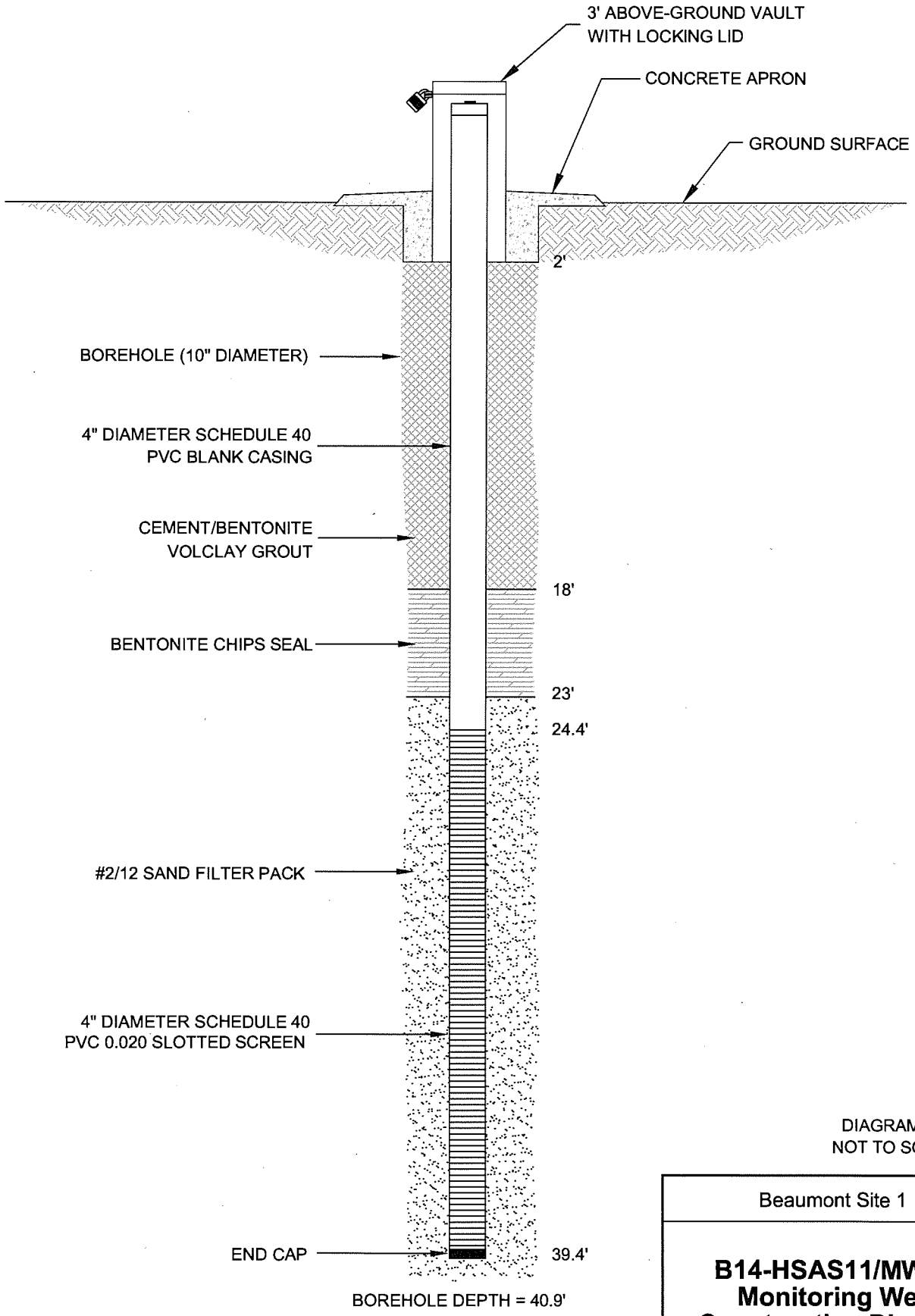

DIAGRAM IS
NOT TO SCALE

Beaumont Site 1

B14-HSAS11/MW68
Monitoring Well
Construction Diagram

TETRA TECH

August 2007

Appendix E

Field Data Sheets

TETRA TECH, INC.
348 West Hospitality Lane, Suite 300
San Bernardino, CA 92408-3216
(909) 381-1674; FAX (909) 889-1391

Lockheed Beaumont
GROUNDWATER MONITORING WELL
FIELD DATA/LOG SHEET - STATIC WATER LEVELS

June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
Site 1 (TC# 19961-01)										
EW-01	32.09	5-30-07	1335	.7	33.41					
EW-02	NA									Dirt in hole. ~~Can't find borehole~~. well filled with dirt
EW-08	63.89	5-31-07	1219	0.2	65.23	65.23				
EW-09	65.19	5-31-07	1317	0.2	66.57	66.57				
EW-10	65.38	5-31-07	1214	0.3	66.78	66.78				
EW-11	65.17	5-31-07	1229	0.3	66.61	66.61				
EW-12	66.81	5-31-07	1210	0.3	68.34	68.34				
EW-13	66.42	5-31-07	1243	0.2	67.82	67.82	Y		100.07	
EW-14	69.40	5-31-07	1206	0.3	70.89	70.89				
EW-15	Dry Well	5-31-07	1138	0.5	D.T.					
EW-16	67.36	5-31-07	1147	0.4	69.08	69.08				
EW-17	66.71	5-31-07	1321	0.2	68.05	68.05				
EW-18	68.00	5-31-07	1134	0.5	67.88					

NOTE:
NA - Not Available
ND - Not Detected
If difference from this month and previous month is greater than 0.5 ft. confirm measurement with 2nd static water level measurement.
T.D. well only if sampling this quarter.

TETRA TECH, INC.
348 West Hospitality Lane, Suite 300
San Bernardino, CA 92408-3216
(909) 381-1674; FAX (909) 889-1391

Lockheed Beaumont
GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - STATIC WATER LEVELS

June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
IW-01	49.91	5-30-07	9:19	.9	51.31	51.31				
IW-02	44.29	5-30-07	9:23	.7	45.86	45.86				
IW-03	32.15	5-30-07	1201	.3	32.71					
IW-04	34.85	5-30-07	11:57	.4	35.37		Y		61.58	
IW-05	37.03	5-30-07	1155	.3	37.56	37.56				
MW-01	65.79	5-31-07	0903	0.8	67.16	67.16				
MW-02	58.11	5-31-07	0914	0.8	59.46	59.46	Y		94.64	
MW-03	121.41	5-31-07	0911	0.8	122.45	122.45				
MW-04	48.09	5-31-07	0939	0.8	49.39	49.39				
MW-05	16.06	5-30-07	1231	.3	16.91		Y		45.26	
MW-06	18.80	5-30-07	1229	.7	19.73					
MW-07	65.26	5-31-07	0855	0.8	66.66	66.66	Y		91.96	

NOTE:
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T.D. well only if sampling this quarter.

TETRA TECH, INC.
348 West Hospitality Lane, Suite 300
San Bernardino, CA 92408-3216
(909) 381-1674; FAX (909) 889-1391

Lockheed Beaumont
GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - STATIC WATER LEVELS

June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
MW-08	11.84	5-29-07	1349	0.4	12.49	12.49				
MW-09	Artesian	5/29/07	1353	0.5	Artesian	~~~125.8~~	Y		~125.8	exact feet exact depth
MW-10	64.50	5 29-07	0958	0.8	66.03	66.03				
MW-11	42.72	5-30-07	1138	.8	43.01					
MW-12	20.04	5-30-07	1112	.4	21.03					
MW-13	14.42	5-30-07	1035	.4	15.30		Y		37.89	
MW-14	32.29	5-29-07	12:56	1.3	32.95	32.95	Y		50.53	
MW-15	28.17	5-29-07	12:06	3.4	28.85	28.85	Y		92.74	
MW-16	NA									
MW-17	30.50	5-30-07	9:47	.6	31.84	31.84	Y		65.62	
MW-18	27.94	5-29-07	12:03	0.6	28.51	28.61	Y		52.11	
MW-19	14.31	5-30-07	9:55	.9	15.05	15.05	Y		46.81	
MW-20	50.98	~~5-~~ 5-31-07	0835	0.9	52.31	52.31				
MW-21	49.20	5-31-07	0931	0.8	50.52	50.52				

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June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
MW-22	57.92	5-31-07	1021	0.6	59.25	59.25	Y		114.02	
MW-23	50.45	5-31-07	0929	0.8	51.70	51.76				
MW-24	NA	5-31-07	1231	0.2	~~49~~	dry				Obstruction in well at 65.18'
MW-26	69.86	5-31-07	1236	0.2	71.21	71.21	Y		126.71	
MW-27	67.81	5-31-07	1002	0.7	69.34	69.34	Y		93.52	
MW-28	49.79	5-31-07	0837	0.9	51.11	51.11	Y		132.31	
MW-29	22.90	5-30-07	1015	.6	23.04					
MW-30	48.89	5-31-07	0933	0.8	50.25	50.25				
MW-31	85.85	5-31-07	1141	0.4	87.21	87.21				
MW-32	79.99	5-31-07	0900	0.8	81.29	81.29				
MW-34	40.50	5-31-07	0943	0.8	41.76	41.76	Y		83.95	
MW-35	59.89	5-31-07	0846	0.8	61.28	61.28	Y		99.36	
MW-36	82.15	5-31-07	1100	0.6	84.14	84.14	Y		103.15	
MW-37	35.48	5-29-07	12:35	0.9	35.84		Y		61.79	

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FIELD DATA LOG SHEET - STATIC WATER LEVELS

June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
MW-38	45.25	5-29-07	1156	0.4	45.87	45.87				
MW-39	33.19	5-30-07	1344	.1	34.54	34.54				
MW-40	37.88	5-30-07	1127	.6	38.34	38.34	Y		67.57	
MW-41	26.49	5-30-07	1252	.4	27.55	27.55				
MW-42	7.22	5-30-07	1005	.7	7.44		Y		36.02	
MW-43	3.96	5-29-07	1318	0.4	4.49	4.49				
MW-44	25.70	5-30-07	1217	.9	26.38					
MW-45	Artesian	5-30-07	815	1.0	artesian		Y		59.01	
MW-46	50.93	5-29-07	12:43	0.5	51.03		Y		62.15	
MW-47	Artesian	5-29-07	1332	0.4	artesian		Y			
MW-48	7.06	5-29-07	1339	0.4	6.19					
MW-49	21.49	5-30-07	~~1310~~	.8	~~23.76~~ ~~26.38~~	~~23.78~~ ~~26.38~~	Y		~~53.22~~ ~~55.91~~	
MW-50	40.77	5-30-07	943	.9	42.15	42.15				
MW-51	27.99	5-30-07	1306	.8	29.27	29.27				

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June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
MW-52	26.36	5-30-07	1302	.6	27.65	27.65				
MW-53	42.57	5-30-07	9:31	1.0	43.95	43.95	Y		75.29	
MW-54	42.40	5-31-07	0823	6.9	43.71	43.71	Y		74.61	
MW-55	55.34	5-31-07	0972	0.8	56.61	56.61	Y		88.15	
MW-56A	45.34	5-30-07	1325	.1	46.55	46.55				
MW-56B	31.94	5-30-07	1326	.4	33.26	33.26				
MW-56C	32.25	5-30-07	1327	.5	33.57	33.57	Y		59.59	
MW-56D	31.86	5-30-07	1330	.4	33.18	33.18				
MW-57A	35.17	5-30-07	1347	.3	36.51	36.51				
MW-57B	35.37	5-30-07	1348	.1	36.71	36.71				
MW-57C	35.17	5-30-07	1349	.3	36.51	36.51				
MW-57D	35.29	5-30-07	1350	.7	36.64	36.64				
MW-58A	30.57	5-30-07	1316	.8	31.89	31.89				
MW-58B	30.39	5-30-07	1320	.3	31.72	31.72				

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June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
MW-58C	30.78	5-30-07	1321	.7	32.11	32.11				
MW-58D	30.79	5-30-07	1321	.3	32.11	32.11				
MW-59A	71.11	5-31-07	1305	0.1	72.54	72.54				
MW-59B	66.41	5-31-07	1307	0.2	67.80	67.80	Y		105.08	
MW-59C	68.41	5-31-07	1310	0.2	69.85	69.85				
MW-59D	68.42	5-31-07	1312	0.2	69.84	69.84	Y		121.33	
MW-60A	70.63	5-31-07	1011	0.7	72.09	72.09				
MW-60B	68.81	5-31-07	1013	0.4	70.21	70.21	Y		116.80	
MW-61A	77.44	5-31-07	1124	0.5	78.39	78.39				
MW-61B	69.78	5-31-07	1125	0.5	71.36	71.36	Y		102.08	
MW-61C	76.61	5-31-07	1130	0.4	78.03	78.03				
MW-61D	73.91	5-31-07	1132	0.5	75.34	75.34				
MW-62A	22.49	5-30-07	1257	.5	23.64	23.64	Y		42.03	
MW-62B	22.61	5-30-07	12:55	.4	23.85					

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June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
MW-63	45.16	5-31-07	0830	0.8	46.47					
MW-64	21.56	5-30-07	1242	.7	22.52	22.52				
MW-65	22.31	5-30-07	1240	.9	23.29					
MW-66	28.71	5-30-07	1214	.5	29.34		Y		48.91	
MW-67	5.03	5-29-07	11:24	0.6	5.08		Y		15.11	
MW-68	NA	5-31-07	1046	0.5	32.85	32.85	Y		43.97	New Well, Boring B14-HSAS11
MW-69	NA	5-31-07	1050	0.5	32.77	32.77	Y		53.36	New Well, Boring B10-HSAS5
MW-70	NA	5-29-07	11:45	0.7	28.15		Y		37.95	New Well, Boring F33-HSAS14
OW-01	51.49	5-31-07	1033	0.6	52.29	52.29	Y		70.39	
OW-02	1.77	5-30-07	853	1.0	1.99		Y		18.86	
OW-03	33.03	5-30-07	1340	.5	34.34					
OW-05	Dry Well									
OW-08	49.39	5-29-07	12:17	1.4	50.04					

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June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
P-02	17.47	~~5-30-07~~	1045 ~~907~~	~~.7~~ .6	18.13		Y		36.62	
P-03	42.66	5-30-07	11:46	.6	43.16		Y		60.09	
P-04	24.60	5-30-07	1119	.4	24.49					
P-05	51.57	5-30-07	907	1.7	53.06	53.06	Y		72.99	
SW-01	Dry						Y			Pond near main gate
SW-02	Standing Water						Y			South of OW-02, upper pond #1
SW-03	Standing Water						Y			Upper Pond #2
SW-04	Standing Water						Y			South of MW-43/MW-45, upper pond #3
SW-05	Dry						Y			PVC pipe on north side of road from MW-13
SW-06	Flowing Water						Y			Near prior S-3 in sandstone canyon
SW-07	Flowing Water						Y			Near MW-67
SW-08	Dry						Y			pond east of the building 315 bunker

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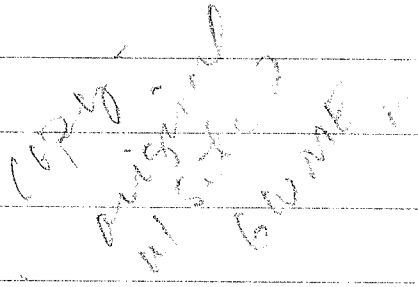
June 2007
Quarter 2

Monitoring Well I.D.	Mar-07 Static Water Level	Date Measured	Time	OVA (ppm)	Water Level (feet)	Second Static Water Level (feet) see foot note	Sample This Quarter	Truck Access Y/N	Well TD (feet) see foot note	Comments
'SW-June 07	Flowing Water						Y			First water in Potrero Creek
SW-June 07	Flowing Water						Y			Last water in Potrero Creek
Site 2 (TC# 19524-01)										
IT-MW2-1	54.91	5-29-07	0941	1.3	55.31		Y	Y	73.72	
Tt-MW2-2	68.83	5-29-07	1036	0.9	68.99		Y	Y	120.00	
Tt-MW2-3	69.78	5-29-07	1012	0.9	69.94		Y	Y	100.89 ~~100.04~~	
Tt-MW2-4S	49.71	5-29-07	0918	0.9	49.87		Y	Y	93.15	
t-MW2-4D	56.06	5-29-07	0915	1.1	56.14					
Tt-MW2-5	37.71	5-29-07	0852	0.8	3799		Y	Y	42.95	
t-MW2-6S	34.20	5-29-07	0848	1.1	34.43		Y	Y	38.12	
t-MW2-6D	35.15	5-29-07	0843	2.1	35.41		Y	Y	56.35	
IT-MW2-7	18.41	5-29-07	0820	2.9	18.41		Y	Y	30.17	
IT-MW2-8	16.79	5-29-07	0825	2.5	16.62		Y	Y	27.11	



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San Bernardino, CA 92408
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/18/07 SITE NAME / NUMBER 1 DEVELOPMENT DEVICE: bailer / swab / pump

PROGRAM NAME LMC Bermt OVA: ☐ FID ☒ PID In Casing (ppm) (initial) ND (vented to) ___

MONITORING WELL IDENTIFICATION B14-HSAS11 MW-68 IN BREATHING ZONE (ppm) (initial) ND (vented to) ___

STATIC WATER LEVEL (ft btoc) 32.10 WATER COLUMN (feet) 11.85 INITIAL WELL DEPTH 43.95 FINAL WELL DEPTH 44.22

CASING DIAMETER (in) 4 CASING VOLUME (gal) 11.85 x 0.65 = 7.70 SAMPLER'S SIGNATURE ___

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
1025	start bail	32.10									~~0~~	~~0~~	~~0~~
1035	end bail	well purged dry									20	2.60	—
1055		34.55											
1100	start swab												
1115	end swab	32.85											
1115	start bail										20	2.60	—
1125	end bail	dry		FD	44.22						35	4.55	—
	move to next well												
	arrive @ site										~~35~~		
1330	start bail	32.75									~~20~~	4.55	—
1340	end bail	dry									55	7.14	—
1450	arrive	on site											
1455	start bail	33.40									55	7.14	—
1505	end bail	well dry									75	9.74	—
	last site												

Comments: ___

bunker amy

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/21/07 SITE NAME / NUMBER / DEVELOPMENT DEVICE: bail / swab / pump

PROGRAM NAME LMC Beaumont OVA: ☐ FID ☒ PID In Casing (ppm) (initial) ND (vented to) _____

MONITORING WELL IDENTIFICATION B14-HSAS11 MW-68 IN BREATHING ZONE (ppm) (initial) ND (vented to) _____

STATIC WATER LEVEL (ft btoc) 32.50 WATER COLUMN (feet) 11.45 INITIAL WELL DEPTH 43.95 FINAL WELL DEPTH _____

CASING DIAMETER (in) 4 CASING VOLUME (gal) 11.45 x 0.65 = 7.44 SAMPLER'S SIGNATURE _____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
840	arrived on site												
845	start bail	32.50									0	0	-
850	end bail	well	purged dry								17	2.28	
900	move to next well												
1000	arrived on site												
1005	start bail	33.13									17	2.28	
1010	end bail										33	4.44	
1015	move to next well												
1255	arrive on site												
1308	start pump	32.90	42	22.45	1.095	7.73	31.5	8.10	89.1	cloudy	33	4.44	0.4
1330	raise pump rate	35.34		23.31	1.131	7.45	54.3	6.82	61.8	cloudy	52	6.99	0.8
1345	raise pump rate	37.02		22.45	1.134	7.91	16.9	7.57	85.3	clear	64	8.60	1.0
1400		39.98		22.25	1.077	7.39	70.6	6.82	74.0	cloudy	79	10.62	↓
1415	lower pump rate	41.71		22.19	1.094	7.48	39.5	6.57	70.7	cloudy	94	12.63	0.9
1430		39.78		22.40	1.110	7.43	14.6	7.24	64.8	clear	108	14.52	↓

Comments: bunker area

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/18/07 SITE NAME / NUMBER 1 DEVELOPMENT DEVICE: bailer / surge / pump

PROGRAM NAME LMC Bonnt OVA: ☐ FID ☐ PID In Casing (ppm) (initial) ND (vented to) ___

MONITORING WELL IDENTIFICATION BIO-HSAS 5 MW-69 IN BREATHING ZONE (ppm) (initial) ND (vented to) ___

STATIC WATER LEVEL (ft btoc) 32.60 WATER COLUMN (feet) 18.60 INITIAL WELL DEPTH 51.20 FINAL WELL DEPTH 52.64

CASING DIAMETER (in) 4 CASING VOLUME (gal) 18.60 x 0.65 = 12.09 SAMPLER'S SIGNATURE [signature]

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
855	start bail	32.60									0	0	0
910	end bail	well bailed	dry								30	2.48	
930	~~start surge~~	39.00	check WL								—		
940	start surge										—		
955	end surge	35.86									—		
955	start bail										30	2.48	
1005	end bail	dry		TD	52.64						60	4.96	
1015	move to next well												
1250	return to site	to bail well											
1300	start bail	33.15									60	4.96	
1310	end bail	dry									90	7.44	
1325	move to next well												
1425	arrive on site												
1430	start bail	34.95									90	7.44	
1440	end bail										120	9.93	

Comments: left site

air strip per am

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/21/07 SITE NAME / NUMBER 1 DEVELOPMENT DEVICE: bail / swab / pump

PROGRAM NAME LMC Bent MW-69 OVA: ☐ FID ☒ PID In Casing (ppm) (initial) ND (vented to) _____

MONITORING WELL IDENTIFICATION ~~E33thSt~~ B10-HSAS5 IN BREATHING ZONE (ppm) (initial) ND (vented to) _____

STATIC WATER LEVEL (ft btoc) 32.60 WATER COLUMN (feet) 20.69 INITIAL WELL DEPTH 53.30 FINAL WELL DEPTH _____

CASING DIAMETER (in) 4 CASING VOLUME (gal) 20.69 x 0.65 = 13.45 SAMPLER'S SIGNATURE _____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
810	arrival	on site											
815	start bail	32.60									0	0	—
825	end bail	- well	bailed dry								30	2.23	—
835	move to	next	well										
930	arrived	on site											
938	start bail	35.03									30	2.33	
948	end bail	- well	bailed dry								58	4.31	
955	move to	next well											
1020	arrive on site	prepare to pump well											
1030	start pump	39.32	~~49.00~~	19.09	0.812	6.31	+200	8.27	53.5	brn/cloudy	58	4.31	0.5
1037		40.58	52	20.13	0.816	6.86	182	8.00	51.0	cloudy	62	4.61	
1045		41.44		21.08	0.834	7.11	113	7.62	51.3	cloudy	65	4.83	
1100		48.04		20.22	0.858	7.06	+200	7.00	56.9	brn	72	5.35	
1115	reduce purge rate	51.01		22.54	0.835	7.49	+200	6.75	54.7	brn	80	5.95	0.3
1130		49.85		23.08	0.860	7.43	28.2	6.55	57.3	cloudy	85	6.32	

Comments: air stripper area

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/21/07 SITE NAME / NUMBER / DEVELOPMENT DEVICE: bail / swab / pump

PROGRAM NAME Lme Boat OVA: ☐ FID ☒ PID In Casing (ppm) (initial) ND (vented to) _____

MONITORING WELL IDENTIFICATION BIO-HSA S5 MW-69 IN BREATHING ZONE (ppm) (initial) ND (vented to) _____

STATIC WATER LEVEL (ft btoc) 32.60 WATER COLUMN (feet) 20.69 INITIAL WELL DEPTH 53.30 FINAL WELL DEPTH _____

CASING DIAMETER (in) 4 CASING VOLUME (gal) 20.69 x 0.65 = 13.45 SAMPLER'S SIGNATURE _____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
1145		49.61	52	22.81	0.851	7.48	6.53	6.66	62.5	clear	92	6.84	0.3
1158		49.56		22.40	0.837	7.50	7.80	6.52	55.8	clear	95	7.06	1
1200		50.33		22.06	0.834	7.56	9.46	6.81	61.6	clear	98	7.29	0.6
1205	well	dry	—								100	7.43	1

Comments: air stripper away

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/18/07 SITE NAME / NUMBER 1 DEVELOPMENT DEVICE: bailer / swab / pump

PROGRAM NAME LMC Bamt 70 OVA: ☒ FID ☐ PID In Casing (ppm) (initial) 0.0 (vented to) ___

MONITORING WELL IDENTIFICATION F33-HSAS 6/14 MW-68 IN BREATHING ZONE (ppm) (initial) ND (vented to) ___

STATIC WATER LEVEL (ft btoc) 28.05 WATER COLUMN (feet) 8.80 INITIAL WELL DEPTH 36.85 (sonic) FINAL WELL DEPTH 37.90

CASING DIAMETER (in) 4 CASING VOLUME (gal) 8.80 x 0.65 = 5.72 SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
745	start bail	28.05	—	—	—	—	—	—	—	—	0	0	0
755	end bail	37.10	—	—	—	—	—	—	—	—	8	1.40	—
815	start bail	33.97	—	—	—	—	—	—	—	—	8	1.40	—
820	end bail	dry	—	—	—	—	—	—	—	—	10	1.75	—
835	move to next well												
1145	return to site												
1155	start swab	28.05	—	—	—	—	—	—	—	—			
1210	end swab												
1210	start bail										10	1.75	
1220	end bail	dry	well TD - 37.90								18	3.15	
1240		move to next well											
1400	arrive on site												
1405	stabbail	30.50									18	3.15	
1415	end bail	dry									24	4.20	
1420	left site												

Comments: motor wash at area

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

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348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - DEVELOPMENT

DATE 5/21/07 SITE NAME / NUMBER 1 DEVELOPMENT DEVICE: bail / Swab / Pump

PROGRAM NAME LMC Bermt 70 OVA: ☐ FID ☒ PID In Casing (ppm) (initial) ~0 (vented to) ___

MONITORING WELL IDENTIFICATION F33-HSA5/6W4 MW-68 IN BREATHING ZONE (ppm) (initial) ~0 (vented to) ___

STATIC WATER LEVEL (ft btoc) 27.67 WATER COLUMN (feet) 10.23 INITIAL WELL DEPTH 37.90 FINAL WELL DEPTH ___

CASING DIAMETER (in) 4 CASING VOLUME (gal) 10.23 x 0.65 = 6.65 SAMPLER'S SIGNATURE ___

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Casing Volumes Purged	Flow Rate (gal/min)
7:15	start bail	27.67	—								Ø	Ø	—
757	end bail	well bailed dry									8	1.20	
805	move to next well												
910	arrive on site												
915	start bail	31.05									8	1.20	
920	end bail - well bailed dry										14	2.11	
925	move to next well												
1230	arrived at site												
1237	start bail	28.51									14	2.11	
1240	end bail - well bailed dry										21	3.16	
1245	move to next well												
1450	arrive on site												
1455	start bail	29.25									21	3.16	
1505	end bail - well bailed dry										29	4.36	
	left site to pump tank												

Comments: ___

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Make every attempt tp dertemine a sustainable purge rate and the maximum sustainable purge rate

TETRA TECH, INC
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/01 SITE NAME / NUMBER 1

PROGRAM NAME LMC Board

MONITORING WELL IDENTIFICATION F3-1 HSA S5 @ 25'

SAMPLE I.D. _____ DUPLICATE I.D. _____

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 25

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 25

SAMPLER'S SIGNATURE _____

WELL SAMPLE TIME _____ DUPLICATE SAMPLE TIME _____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
900	start pm	—	25	—									
905		—	—	23.85	2.883	7.31	+200	2.08	101.1		0	0	
908	water	stopped	Slowly	/	intermittent			Slow			2500		
	insufficient	water	for	purging	&	sampling							
910	shut	off	pump										

Alkalinity (ppm) — Fe+2 (ppm) — Taken, immediately before sampling

Water level at time of sampling (ft btoc): — Turbidity at time of sampling: —

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C — Conductivity ± 5%

pH ± 0.1 — Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

ETRA TECH, INC
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bent

MONITORING WELL IDENTIFICATION F34-HSA S2 @ 25'

SAMPLE I.D. WA DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 25

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 25

SAMPLER'S SIGNATURE [signature]

WELL SAMPLE TIME — DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
835	start pump	—	25								Ø	Ø	
845	water stopped flowing / intermittent flow										50		
855	insufficient water for purging and sample, ran pump for 20 min												
	no sample collected												

Alkalinity (ppm) — Fe+2 (ppm) — Taken, immediately before sampling

Water level at time of sampling (ft btoc): — Turbidity at time of sampling: —

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C — Conductivity ± 5%

pH ± 0.1 — Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

Well ID	Purge Amount	Sampled (Y /N)	Comments
F34-HSAS2@25	50 ml	N	well purged dry, intermittent flow
F34-HSAS5@25	250 ml	N	well purged dry, intermittent flow
F39-HSAS1@10	1000 ml	N	well purged dry, returned after 3 hours - still dry
F39-HSAS1@20	0 ml	N	no flow to intermittent flow
F39-HSAS2@10	500	Y	MS/MSD sample
F39-HSAS2@20	500	Y	Dup sample (F39-HSAS2@120) collected
F39-HSAS3@10	0 ml	N	well dry
F39-HSAS3@20	1500 ml	Y	well purged dry, sampled after 2 hour wait
F39-HSAS4@10	0 ml	N	well dry
F39-HSAS4@20	500	Y	

ETRA TECH, INC.
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Boat

MONITORING WELL IDENTIFICATION F39- HSAS1 @ 10'

SAMPLE I.D. — DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 10

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 10

SAMPLER'S SIGNATURE _____

WELL SAMPLE TIME — DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
915	start pump	—	10	—	—	—	—	—	—	—	0	0	
920		—	10	21.91	2.818	7.61	7.45	1.84	79.6	clear	500		100
925			10	22.10	2.739	7.52	62.2	3.01	-10.7	cloudy	1000		
927	well purged dry - no sample collected												
1200	return to locals to collect sample - well dry												

Alkalinity (ppm)_____ **Fe+2 (ppm)** _____ **Taken, immediately before sampling**

Water level at time of sampling (ft btoc): _____ **Turbidity at time of sampling:** _____

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C — Conductivity ± 5%

pH ± 0.1 — Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

TETRA TECH, INC.
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bmt

MONITORING WELL IDENTIFICATION F39-HSAS1 @ 20'

SAMPLE I.D. _____ DUPLICATE I.D. _____

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 20

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) _____

SAMPLER'S SIGNATURE _____

WELL SAMPLE TIME _____ DUPLICATE SAMPLE TIME _____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
935	start purg	—	20	—						—	ø	ø	
940	none to	instantan	flow										
945	insufficient	water	for	purge	+ sample		— no	sample	collected				

Alkalinity (ppm)_____ **Fe+2 (ppm)** _____ **Taken, immediately before sampling**

Water level at time of sampling (ft btoc): _____ **Turbidity at time of sampling:** _____

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C	Conductivity ± 5%
pH ± 0.1	Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

TETRA TECH, INC.
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bend

MONITORING WELL IDENTIFICATION F39-HSAS2@10'

SAMPLE I.D. F39-HSAS2@10 DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 10

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/~~ft~~) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 10'

SAMPLER'S SIGNATURE [signature]

WELL SAMPLE TIME 1055 DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
1050	start purg	—	10	23.5	1.012	8.12	+200	2.61	19.7	cloudy			
1055	sample coll										500		
	sample collected after purge = 500 ml												

Alkalinity (ppm) — Fe+2 (ppm) — Taken, immediately before sampling

Water level at time of sampling (ft btoc): — Turbidity at time of sampling: —

Comments: MS/MSD

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C	Conductivity ± 5%
pH ± 0.1	Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

TETRA TECH, INC.
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

Page ____ of ____

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bend

MONITORING WELL IDENTIFICATION F39-HSAS2@20

SAMPLE I.D. F39-HSAS2@20 DUPLICATE I.D. F39-HSSAS2@120

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 20

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) _____ 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☐ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☑ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 20

SAMPLER'S SIGNATURE _____

WELL SAMPLE TIME 1110 DUPLICATE SAMPLE TIME 1115

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
1005	start pump	—	20	—							0	0	
1110	collect samp			24.07	0.753	8.30	73.6	1.71	10.5				
	collected samples after purge						500 ml						

Alkalinity (ppm) — Fe+2 (ppm) _____ Taken, immediately before sampling

Water level at time of sampling (ft btoc): _____ Turbidity at time of sampling: _____

Comments: Collected dup sample F39-HSAS2@120

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C	Conductivity ± 5%
pH ± 0.1	Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

.ETRA TECH, INC
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Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bent

MONITORING WELL IDENTIFICATION F39-HSAS3@10'

SAMPLE I.D. — DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 10

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) ____

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ ____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) ____ (vented to) ____

IN BREATHING ZONE (ppm) (initial) ____ (vented to) ____

FINAL PUMP DEPTH (ft btoc) 10

SAMPLER'S SIGNATURE [signature]

WELL SAMPLE TIME ____ DUPLICATE SAMPLE TIME ____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
950	start pump	—	10	—							0	0	
955	no water	—	no	sample	collected								

Alkalinity (ppm)____ **Fe+2 (ppm)** ____ **Taken, immediately before sampling**

Water level at time of sampling (ft btoc): ____ **Turbidity at time of sampling:** ____

Comments: ____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C — Conductivity ± 5%

pH ± 0.1 — Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

ETRA TECH, INC
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bmt

MONITORING WELL IDENTIFICATION F39-HSAS3020'

SAMPLE I.D. — DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 20

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 20

SAMPLER'S SIGNATURE CB

WELL SAMPLE TIME 1210 DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
1000	start pump	-	20	—	—	—	—	—	—	—	0	0	100
1005				22.78	1.425	7.86	26.5	2.84	30.7	cloudy	500		
1010				22.78	1.282	7.61	40.8	2.89	39.8	cloudy			
1015				22.93	1.131	7.77		2.38	38.2				
1015	well purged dry - no sample collected												
1210	return to location to collect sample												

Alkalinity (ppm)_____ **Fe+2 (ppm)** _____ **Taken, immediately before sampling**

Water level at time of sampling (ft btoc): _____ **Turbidity at time of sampling:** _____

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C	Conductivity ± 5%
pH ± 0.1	Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

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San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-1391

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bennt

MONITORING WELL IDENTIFICATION F39-HSAS-1 @ 10

SAMPLE I.D. — DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 10

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 10

SAMPLER'S SIGNATURE [signature]

WELL SAMPLE TIME _____ DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
1138	start pump	—	10	—	—	—	—	—	—	—	ø	ø	
	Dry — no sample collected												

Alkalinity (ppm)_____ **Fe+2 (ppm)** _____ **Taken, immediately before sampling**

Water level at time of sampling (ft btoc): _____ **Turbidity at time of sampling:** _____

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ± 1°C	Conductivity ± 5%
pH ± 0.1	Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

Page ____ of ____

DATE 5/11/07 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bmt

MONITORING WELL IDENTIFICATION F39-HSAS 4@20

SAMPLE I.D. F39-HSAS4@20 DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) — WELL DEPTH (ft btoc) 20

WATER COLUMN (feet) — CASING/TUBE DIAMETER (in/ft) 1/4

WELL/PUMP VOLUME (V) (gals) — 3 v (gals) —

PURGING DEVICE: ☐ Grundfos Pump ☑ Peristaltic Pump ☐ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ _____

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

FINAL PUMP DEPTH (ft btoc) 20

SAMPLER'S SIGNATURE [signature]

WELL SAMPLE TIME 1146 DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals / ml)	Well/Pump Volumes Purged	Flow Rate (GPM ml/min)
1143	Start pump	—	20								Ø	Ø	
1148		—	20	23.44	1.365	7.96	14.4	2.62	17.1				
	Sample collected after purge						500 ml						

Alkalinity (ppm) — **Fe+2 (ppm)** _____ **Taken, immediately before sampling**

Water level at time of sampling (ft btoc): _____ **Turbidity at time of sampling:** _____

Comments: _____

PARAMETERS FOR WATER QUALITY STABILIZATION	
Temperature ± 1°C	Conductivity ± 5%
pH ± 0.1	Turbidity ≤ 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities and recorded in the logbook.

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 6/15/07 SITE NAME / NUMBER 1 PURGING DEVICE: ☐ Grundfos Pump ☐ Peristaltic Pump ☑ Bladder Pump

PROGRAM NAME LMC Bmt. SAMPLING DEVICE: ☑ Purging Pump ☐ Disposable Bailer ☐ Other

MONITORING WELL IDENTIFICATION MW-70 OVA: ☐ FID ☐ PID In Casing (ppm) (initial) _____ (vented to) _____

SAMPLE I.D. mw-70 DUPLICATE I.D. _____ IN BREATHING ZONE (ppm) (initial) _____ (vented to) _____

STATIC WATER LEVEL (ft btoc) 28.68 WELL DEPTH (ft btoc) 37.90 FINAL PUMP DEPTH (ft btoc) 36

WATER COLUMN (feet) 9.22 CASING/TUBE DIAMETER (ft/in) 1/4 SAMPLER'S SIGNATURE Jose L. Santoyo

~~WELL~~ /PUMP VOLUME (V) (~~gal~~/ml) 942 3 v (gal/ml) NR WELL SAMPLE TIME _____ DUPLICATE SAMPLE TIME _____

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (~~gals~~/ml)	~~Well~~/Pump Volumes Purged	Flow Rate (~~gal/min~~ ml/min)
1125		28.68	36										110
1135		28.73		35.61	0.727	7.72	8.41	4.26	173.0	clear	1100	1.16	
1140		28.79		34.90	0.888	7.22	6.44	3.67	142.0	clear	1650	1.75	90
1145		28.85		34.37	0.915	7.02	6.22	2.75	108.2	clear	2100	2.23	
1150		28.88		34.54	0.922	6.97	6.41	2.71	80.8	clear	2550	2.71	
1155		28.91		34.92	0.929	6.99	6.13	2.60	64.4	clear	3000	3.18	
1200		28.97		35.18	0.934	7.00	4.82	2.44	54.1	clear	3450	3.66	
1203		28.99		35.54	0.941	7.01	4.39	2.38	49.5	clear	3720	3.95	
1206	sample	29.01		35.76	0.945	7.01	4.96	2.38	46.3	clear			

Colorimetric test (taken prior to sampling) Alkalinity (ppm): — Fe^{+2} (ppm): — D.O. (ppm): —

Water level at time of sampling (ft btoc): _____ Turbidity at time of sampling: _____

Pump Settings: CPM: _____ PSI: _____ Recharge: _____ Discharge: _____

Comments: 140 ft. ¼ in tubing (5.3 ml. per foot) + 200 ml. (bladder)

PARAMETERS FOR WATER QUALITY STABILIZATION	
Temperature collect readings	Conductivity ± 3 %
pH ± 0.1	DO ± 0.3 mg/L
Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)	
WL ± 0.1 foot	ORP ± 10 mV

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 6/19/07 SITE NAME / NUMBER 1 PURGING DEVICE: ☐ Grundfos Pump ☐ Peristaltic Pump ☑ Bladder Pump

PROGRAM NAME LMC Bmt. SAMPLING DEVICE: ☑ Purging Pump ☐ Disposable Bailer ☐ Other

MONITORING WELL IDENTIFICATION MW-69 OVA: ☐ FID ☑ PID In Casing (ppm) (initial) 0.00 (vented to) 0.00

SAMPLE I.D. MW-69 DUPLICATE I.D. — IN BREATHING ZONE (ppm) (initial) ___ (vented to) ___

STATIC WATER LEVEL (ft btoc) 33.10 WELL DEPTH (ft btoc) 53.30 FINAL PUMP DEPTH (ft btoc) 43

WATER COLUMN (feet) 20.20 ~~CASING~~/TUBE DIAMETER ~~(ft/in)~~ ___ SAMPLER'S SIGNATURE ___

~~WELL~~ /PUMP VOLUME (V) ~~(gal~~/ml) ___ 3 v (gal/ml) NA WELL SAMPLE TIME ___ DUPLICATE SAMPLE TIME ___

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ml)	Well/Pump Volumes Purged	Flow Rate (gal/min ml/min)
1145		33.10	43	—	—	—	—	—	—	—	0	0	100.
1155		33.19	|	34.02	0.860	6.93	3.09	6.50	199.2	clear	1000	1.06	
1200		33.23	|	33.66	0.991	6.77	2.05	5.55	166.9	clear	1500	1.59	
1205		33.27	|	33.68	1.015	6.79	1.81	5.41	141.8	clear	2000	2.12	
1210		33.28	|	33.85	1.022	6.88	2.26	5.34	122.2	clear	2500	2.65	
1213		33.31	|	34.00	1.027	6.93	2.48	5.32	111.8	clear	2800	2.97	
1216		33.31	|	34.19	1.034	6.98	2.09	5.07	103.1	clear	3100	3.29	
1219		33.32	|	34.28	1.038	6.99	2.74	5.07	97.5	clear	3400	3.61	
1222	sample	33.32	▼	34.34	1.039	7.00	2.10	4.99	93.5	clear	3700		

Colorimetric test (taken prior to sampling) Alkalinity (ppm): — Fe^{+2} (ppm): — D.O. (ppm): —

Water level at time of sampling (ft btoc): 33.32 Turbidity at time of sampling: 2.10

Pump Settings: CPM: 2 PSI: 30 Recharge: 20 Discharge: 10

Comments: 140 ft. of 1/4 in. tubing (5.3 mL per foot) + 200 (bladder)

PARAMETERS FOR WATER QUALITY STABILIZATION	
Temperature collect readings	Conductivity ± 3 %
pH ± 0.1	DO ± 0.3 mg/L
Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)	
WL ± 0.1 foot	ORP ± 10 mV

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 6/19/07 SITE NAME / NUMBER 1 PURGING DEVICE: ☐ Grundfos Pump ☐ Peristaltic Pump ☑ Bladder Pump

PROGRAM NAME LMC Bmt. SAMPLING DEVICE: ☑ Purging Pump ☐ Disposable Bailer ☐ Other

MONITORING WELL IDENTIFICATION MW-68 OVA: ☐ FID ☑ PID In Casing (ppm) (initial) 0.00 (vented to) 0.00

SAMPLE I.D. MW-68 DUPLICATE I.D. — IN BREATHING ZONE (ppm) (initial) ___ (vented to) ___

STATIC WATER LEVEL (ft btoc) 33.18 WELL DEPTH (ft btoc) 44.22 FINAL PUMP DEPTH (ft btoc) 39

WATER COLUMN (feet) 11.04 ~~CASING~~/TUBE DIAMETER ~~(ft~~/in) 1/4 SAMPLER'S SIGNATURE Jose R. Lantaya

~~WELL~~ /PUMP VOLUME (V) ~~(gal~~/ml) 942 3 v (~~gal~~/ml) NA WELL SAMPLE TIME 1046 DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged ~~(gals~~/ml)	~~Well~~/Pump Volumes Purged	Flow Rate (~~gal/min.~~ ml/min)
1010		33.18	39	—	—	—	—	—	—	—	0	0	80
1020		33.24		34.01	.975	7.26	3.66	6.50	174.1	Clear	800	0.84	
1025		33.26		33.88	1.201	7.15	2.98	6.54	147.0	Clear	1200	1.27	
1030		33.28		33.97	1.255	7.16	1.63	6.94	127.4	Clear	1600	1.70	
1035		33.30		34.07	1.274	7.16	1.83	6.44	111.6	Clear	2000	2.12	
1040		33.31		34.19	1.285	7.19	1.63	6.10	102.1	Clear	2400	2.55	
1043		33.32		34.30	1.292	7.24	2.16	6.19	95.5	Clear	2640	2.80	
1046	Sample	33.32		34.40	1.298	7.22	1.35	6.29	91.6	Clear			

Colorimetric test (taken prior to sampling) Alkalinity (ppm): — Fe^{+2} (ppm): — D.O. (ppm): —

Water level at time of sampling (ft btoc): 33.32 Turbidity at time of sampling: 1.35

Pump Settings: CPM: 2 PSI: 30 Recharge: 22 Discharge: 8

Comments: 140ft of 1/4 in. tubing (5.3ml. per foot) + 200 (bladder)

PARAMETERS FOR WATER QUALITY STABILIZATION	
Temperature collect readings	Conductivity ± 3 %
pH ± 0.1	DO ± 0.3 mg/L
Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)	
WL ± 0.1 foot	ORP ± 10 mV

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.

TETRA TECH
348 W Hospitality Ln. Suite 100
San Bernardino, CA 92408
Telephone (909) 381-1674
Telefax (909) 889-139

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - SAMPLING

DATE 8/25/09 SITE NAME / NUMBER 1

PROGRAM NAME LMC Bond

MONITORING WELL IDENTIFICATION MW-64

SAMPLE I.D. MW-64 DUPLICATE I.D. —

STATIC WATER LEVEL (ft btoc) 29.57 WELL DEPTH (ft btoc) 48.86

WATER COLUMN (feet) 19.29 CASING/TUBE DIAMETER (ft/in) 2

~~WELL~~ /PUMP VOLUME (V) (gal/ml) 942 3 v (gal/ml) NA

PURGING DEVICE: ☐ Grundfos Pump ☐ Peristaltic Pump ☒ Bladder Pump

SAMPLING DEVICE: ☒ Purging Pump ☐ Disposable Bailer ☐ Other

OVA: ☐ FID ☐ PID In Casing (ppm) (initial) 0.6 (vented to) ND

IN BREATHING ZONE (ppm) (initial) ND (vented to) —

FINAL PUMP DEPTH (ft btoc) 43

SAMPLER'S SIGNATURE

WELL SAMPLE TIME 845 DUPLICATE SAMPLE TIME —

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (°C)	EC (ms/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (~~gals~~/ml)	~~Well~~/Pump Volumes Purged	Flow Rate (~~gal/min~~ ml/min)
810	start pm	29.57	43	—	—	—	—	—	—	—	0	0	160
820	lower purge rate	29.95		26.02	0.264	6.77	44.0	3.64	100.2	cloudy	1600	1.70	5
825		29.99		25.55	0.34	6.87	21.3	1.52	97.2	cloudy	2400	2.55	100
830		29.95		25.65	0.379	6.97	21.5	0.85	90.0	cloudy	2900	3.08	
835		29.95		25.98	0.392	7.10	26.3	0.68	81.8	cloudy	3400	3.61	
838		29.99		26.20	0.395	7.12	32.7	0.61	77.7	cloudy	3700	3.93	
841		30.01		26.31	0.397	7.22	41.9	0.54	74.9	cloudy	4000	4.25	
844		30.02		26.41	0.398	7.23	34.5	0.52	73.0	cloudy	4300	4.56	
847		30.00		26.42	0.398	7.24	35.8	0.51	72.5	cloudy	4600	4.88	

Colorimetric test (taken prior to sampling) Alkalinity (ppm): — Fe^{+2} (ppm): — D.O. (ppm): —

Water level at time of sampling (ft btoc): 30.00 Turbidity at time of sampling: 35.8

Pump Settings: CPM: 2 PSI: 35 Recharge: 20 Discharge: 10

Comments: (140' (1¼" tubing) x 5.3 ml) + 200 ml (bladder) = 942

PARAMETERS FOR WATER QUALITY STABILIZATION	
Temperature collect readings	Conductivity ± 3 %
pH ± 0.1	DO ± 0.3 mg/L
Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)	
WL ± 0.1 foot	ORP ± 10 mV

Note:

If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.

If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.

Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.

Appendix F

Laboratory Data Packages

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D051**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1004
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2044
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8025
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-20-2007
EMAX Batch No.: 07D051

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/05/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
B11-GW01	D051-01	04/04/07	WATER	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
LTB-040407	D051-02	04/04/07	WATER	VOLATILE ORGANICS BY GC/MS
B11-HSAS9-15-16.5	D051-03	04/03/07	SOIL	PERCHLORATE BY IC
B11-HSAS9-20-21.5	D051-04	04/03/07	SOIL	PERCHLORATE BY IC
B11-HSAS9-25-26.5	D051-05	04/03/07	SOIL	PERCHLORATE BY IC
B11-HSAS10-10-11.5	D051-06	04/03/07	SOIL	PERCHLORATE BY IC
B11-HSAS10-25-26.5	D051-07	04/03/07	SOIL	PERCHLORATE BY IC
B11-HSAS10-30-31.5	D051-08	04/03/07	SOIL	PERCHLORATE BY IC
B11-HSAS8-5-6.5	D051-09	04/04/07	SOIL	PERCHLORATE BY IC
B11-HSAS8-5-6.5D	D051-10	04/04/07	SOIL	PERCHLORATE BY IC
B11-HSAS8-20-21.5	D051-11	04/04/07	SOIL	PERCHLORATE BY IC
B11-HSAS8-25-26.5	D051-12	04/04/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX
1835 W. 20TH St.
Torrance, CA
90501

TT- 0618

07D051 DATE 4-4-07 PAGE 1 OF 1

CLIENT: Lockheed Martin
PROJECT NAME: Supplemental Soil Investigation Beaumont Site 1
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Linda Margullis

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260B VOCs	E314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	B11-GW01	4-4-07	1100		X	U	W	P	2	NR
1.	B11-GW01	4-4-07	1100	X		F	F	G	3	HCl
2.	LTB-040407	4-4-07	0830	X		F	F	G	2	HCl
4.										
5.										
6.										
7.										
8.										
9.										
10.										

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LM 4-4-07

T-3.8

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY:
Linda Margullis	Linda Margullis	TETRA TECH, INC.	4-4-07	1730	
RECEIVED BY: ALFREDO GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/5/07	TIME: 11:35	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: ALFREDO GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/5/07	TIME: 13:00	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: [illegible]	SIGNATURE	COMPANY: [illegible]	DATE: 4/5/07	TIME: 1350	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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1 of 1

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX
1835 W. 205th St.
Torrance, CA
90501

07D051 DATE 4-4-07 PAGE 1 OF 1

CLIENT: Lockheed Martin
PROJECT NAME: Supplemental Soil Investigation Beaumont Site 1
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Linda Margulis

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	E314.0 Perchlorate	8260B VOCs	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
3	B11-HSAS9-15-16.5	4-3-07	1442	X		U	S	G	1	NR
4	B11-HSAS9-20-21.5'	4-3-07	1448	X						
5	B11-HSAS9-25-26.5	"	1453	X						
6	B11-HSAS10-10-11.5	"	1035	X						
7	B11-HSAS10-25-26.5	"	1100	X						
8	B11-HSAS10-30-31.5	"	1107	X						
9	B11-HSAS8-5-6.5'	4-4-07	0907	X						
10	B11-HSAS8-5-6.5D	"	0907	X						
11	B11-HSAS8-20-21.5	"	0934	X						
12	B11-HSAS8-25-26.5	"	0955	X						

T-3.8C

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Linda Margulis	SIGNATURE: Linda Margulis	TETRA TECH, INC.	DATE: 4-4-07	TIME: 1730	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10
RECEIVED BY: ALFRED GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 4/5/07	TIME: 11:35	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: ALFRED GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 4/5/07	TIME: 13:00	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: ANTHONY FIORINO	SIGNATURE:	COMPANY: tma	DATE: 4/5/07	TIME: 1300	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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1 of 2

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	SAT COC	ECN 0TD651
☐ Client Delivery		Recepient A. FUENTES
☐ Third Party		Date 040507
		Time 1360

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☑ Preservative (if any) ☐ TAT

Safety Issues

☐ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ Packing
Temperatures	☑ Cooler 1 3.8 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☑ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 04/05/07

SRF _____ Date 4/5/07

PM _____ Date 4/6/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 07D051

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D051

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 04/05/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D051
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001D09Q	1	NA	04/11/0702:59	04/11/0702:59	RDV106	RDV088	V001D09	Method Blank
LCS1W	V001D09L	1	NA	04/11/0701:00	04/11/0701:00	RDV103	RDV088	V001D09	Lab Control Sample (LCS)
LCD1W	V001D09Y	1	NA	04/11/0709:37	04/11/0709:37	RDV116	RDV088	V001D09	LCS Duplicate
LTB-040407	D051-02	1	NA	04/11/0704:18	04/11/0704:18	RDV108	RDV088	V001D09	Field Sample
B11-GW01	D051-01	1	NA	04/11/0704:58	04/11/0704:58	RDV109	RDV088	V001D09	Field Sample
MBLK2W	V001D14Q	1	NA	04/12/0713:46	04/12/0713:46	RDV158	RDV088	V001D14	Method Blank
LCS2W	V001D14L	1	NA	04/12/0711:06	04/12/0711:06	RDV154	RDV088	V001D14	Lab Control Sample (LCS)
LCD2W	V001D14C	1	NA	04/12/0711:46	04/12/0711:46	RDV155	RDV088	V001D14	LCS Duplicate
B11-GW01DL	D051-01T	25	NA	04/12/0718:28	04/12/0718:28	RDV165	RDV088	V001D14	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/04/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/05/07
Batch No. : 07D051	Date Extracted: 04/11/07 04:58
Sample ID: B11-GW01	Date Analyzed: 04/11/07 04:58
Lab Samp ID: D051-01	Dilution Factor: 1
Lab File ID: RDV109	Matrix : WATER
Ext Btch ID: V001D09	% Moisture : NA
Calib. Ref.: RDV088	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	0.73J	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	0.26J	1.0	0.20
1,1-DICHLOROETHANE	1.9	1.0	0.20
1,1-DICHLOROETHENE	31	1.0	0.20
1,2-DICHLOROETHANE	0.45J	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	2.3	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	0.23J	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	0.24J	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	96E	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	70-140
4-BROMOFLUOROBENZENE	106	70-130
TOLUENE-D8	94	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/04/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/05/07
Batch No. : 07D051	Date Extracted: 04/12/07 18:28
Sample ID: B11-GW01DL	Date Analyzed: 04/12/07 18:28
Lab Samp ID: D051-01T	Dilution Factor: 25
Lab File ID: RDV165	Matrix : WATER
Ext Btch ID: V001D14	% Moisture : NA
Calib. Ref.: RDV088	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	25	5.0
1,1,2,2-TETRACHLOROETHANE	ND	25	5.0
1,1,2-TRICHLOROETHANE	ND	25	5.0
1,1-DICHLOROETHANE	ND	25	5.0
1,1-DICHLOROETHENE	19J	25	5.0
1,2-DICHLOROETHANE	ND	25	5.0
1,2-DICHLOROPROPANE	ND	25	5.0
2-BUTANONE	ND	250	120
2-HEXANONE	ND	250	120
4-METHYL-2-PENTANONE	ND	250	120
ACETONE	ND	250	120
BENZENE	ND	25	5.0
BROMODICHLOROMETHANE	ND	25	5.0
BROMOFORM	ND	25	7.5
BROMOMETHANE	ND	25	5.0
CARBON DISULFIDE	ND	25	5.0
CARBON TETRACHLORIDE	ND	25	5.0
CHLOROBENZENE	ND	25	5.0
CHLOROETHANE	ND	25	5.0
CHLOROFORM	ND	25	5.0
CHLOROMETHANE	ND	25	5.0
CIS-1,2-DICHLOROETHENE	ND	25	5.0
CIS-1,3-DICHLOROPROPENE	ND	25	5.0
DIBROMOCHLOROMETHANE	ND	25	5.0
ETHYLBENZENE	ND	25	5.0
M/P-XYLENES	ND	50	12
MTBE	ND	25	5.0
METHYLENE CHLORIDE	ND	25	12
O-XYLENE	ND	25	5.0
STYRENE	ND	25	5.0
TETRACHLOROETHENE	ND	25	5.0
TOLUENE	ND	25	5.0
TRANS-1,2-DICHLOROETHENE	ND	25	5.0
TRANS-1,3-DICHLOROPROPENE	ND	25	5.0
TRICHLOROETHENE	110	25	5.0
VINYL CHLORIDE	ND	25	5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	107	70-140
4-BROMOFLUOROBENZENE	118	70-130
TOLUENE-D8	102	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/04/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/05/07
Batch No. : 07D051	Date Extracted: 04/11/07 04:18
Sample ID: LTB-040407	Date Analyzed: 04/11/07 04:18
Lab Samp ID: D051-02	Dilution Factor: 1
Lab File ID: RDV108	Matrix : WATER
Ext Btch ID: V001D09	% Moisture : NA
Calib. Ref.: RDV088	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	100	70-140
4-BROMOFLUOROBENZENE	116	70-130
TOLUENE-D8	104	70-140

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D051	Date Extracted: 04/11/07 02:59
Sample ID: MBLK1W	Date Analyzed: 04/11/07 02:59
Lab Samp ID: V001D09Q	Dilution Factor: 1
Lab File ID: RDV106	Matrix : WATER
Ext Btch ID: V001D09	% Moisture : NA
Calib. Ref.: RDV088	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	86	70-140
4-BROMOFLUOROBENZENE	114	70-130
TOLUENE-D8	102	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D051
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001D09Q	V001D09L	V001D09Y		
LAB FILE ID:	RDV106	RDV103	RDV116		
DATE EXTRACTED:	04/11/0702:59	04/11/0701:00	04/11/0709:37	DATE COLLECTED:	NA
DATE ANALYZED:	04/11/0702:59	04/11/0701:00	04/11/0709:37	DATE RECEIVED:	04/11/07
PREP. BATCH:	V001D09	V001D09	V001D09		
CALIB. REF:	RDV088	RDV088	RDV088		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	9.39	94	10.0	11.8	118	23	60-130	30
Benzene	ND	10.0	8.99	90	10.0	10.5	105	15	70-130	30
Chlorobenzene	ND	10.0	9.08	91	10.0	10.5	105	14	70-120	30
Toluene	ND	10.0	9.23	92	10.0	10.8	108	16	70-130	30
Trichloroethene	ND	10.0	8.97	90	10.0	10.2	102	12	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.83	88	10.0	11.5	115	70-140
4-Bromofluorobenzene	10.0	9.86	99	10.0	11.1	111	70-130
Toluene-d8	10.0	9.98	100	10.0	10.9	109	70-130

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/12/07
Batch No.	: 07D051	Date Extracted:	04/12/07 13:46
Sample ID:	MBLK2W	Date Analyzed:	04/12/07 13:46
Lab Samp ID:	V001D14Q	Dilution Factor:	1
Lab File ID:	RDV158	Matrix :	WATER
Ext Btch ID:	V001D14	% Moisture :	NA
Calib. Ref.:	RDV088	Instrument ID :	T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	70-140
4-BROMOFLUOROBENZENE	112	70-130
TOLUENE-D8	103	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D051
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V001D14Q	V001D14L	V001D14C		
LAB FILE ID:	RDV158	RDV154	RDV155		
DATE EXTRACTED:	04/12/0713:46	04/12/0711:06	04/12/0711:46	DATE COLLECTED:	NA
DATE ANALYZED:	04/12/0713:46	04/12/0711:06	04/12/0711:46	DATE RECEIVED:	04/12/07
PREP. BATCH:	V001D14	V001D14	V001D14		
CALIB. REF:	RDV088	RDV088	RDV088		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	9.30	93	10.0	8.74	87	6	60-130	30
Benzene	ND	10.0	9.04	90	10.0	9.57	96	6	70-130	30
Chlorobenzene	ND	10.0	9.15	91	10.0	9.17	92	0	70-120	30
Toluene	ND	10.0	8.87	89	10.0	9.21	92	4	70-130	30
Trichloroethene	ND	10.0	8.83	88	10.0	9.31	93	5	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.98	90	10.0	7.74	77	70-140
4-Bromofluorobenzene	10.0	10.4	104	10.0	9.41	94	70-130
Toluene-d8	10.0	9.41	94	10.0	9.34	93	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D051
Lab File ID: RDV082
BFB Injection Date : 04/10/07
Instrument ID: T-001
BFB Injection Time : 10:48
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.31
75	30.0 - 60.0% of mass 95	45.31
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.03
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	74.03
175	5.0 - 9.0% of mass 174	4.87(6.6)1
176	95.0 - 101.0% of mass 174	73.30(99.0)1
177	5.0 - 9.0% of mass 176	4.99(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V001D101	RDV083	04/10/07	11:42
2	VSTD0.5	V001D102	RDV084	04/10/07	12:22
3	VSTD01	V001D103	RDV085	04/10/07	13:02
4	VSTD02	V001D104	RDV086	04/10/07	13:42
5	VSTD05	V001D105	RDV087	04/10/07	14:21
6	VSTD010	V001D106	RDV088	04/10/07	15:01
7	VSTD020	V001D107	RDV089	04/10/07	15:41
8	VSTD030	V001D108	RDV090	04/10/07	16:21
9	VSTD040	V001D109	RDV091	04/10/07	17:00

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO01
Beginning DateTime :04/10/07 11:42
Spike Units :PPB
IC File :RDV088

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :04/10/07 17:00
HPChem Method :VO01D10

M	IDX	Parameters	.5 11:42 RDV083	.5 12:22 RDV084	1 13:02 RDV085	2 13:42 RDV086	5 14:21 RDV087	10 15:01 RDV088	20 15:41 RDV089	30 16:21 RDV090	40 17:00 RDV091	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	11.5963
	2	Dichlorodifluoromethane	------	0.488	0.524	0.493	0.591	0.656	0.587	0.485	0.422	0.531	14.20	3.4371
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	0.478	0.469	0.460	0.430	0.459	0.529	0.465	0.385	0.343	0.447	12.19	3.8409
	5	Vinyl chloride	0.326	0.385	0.388	0.374	0.424	0.470	0.383	0.287	------	0.380	14.71	3.9906
	6	Bromomethane	0.328	0.305	0.320	0.284	0.313	0.333	0.336	0.287	0.274	0.309	7.38	4.7843
	7	Chloroethane	0.162	0.197	0.180	0.172	0.186	0.196	0.196	0.165	0.161	0.180	8.48	4.9065
	8	Dichlorofluoromethane	0.563	0.634	0.695	0.723	0.761	0.712	0.707	0.601	0.562	0.662	11.12	4.9644
	9	Trichlorofluoromethane	0.397	0.499	0.511	0.524	0.582	0.613	0.553	0.467	0.409	0.506	14.43	5.3493
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	11	Acrolein	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.177	0.175	0.198	0.214	0.227	0.215	0.203	0.198	0.191	0.200	8.60	6.1242
2	13	Acetone	------	------	0.057	0.041	0.039	0.037	0.029	0.024	0.023	0.036	33.12	6.1998
	14	1,1-Dichloroethene	0.353	0.368	0.403	0.429	0.505	0.472	0.412	0.378	0.364	0.409	12.64	6.4514
5	15	tert-Butyl alcohol	------	------	0.009	0.007	0.008	0.008	0.007	0.007	0.007	0.008	12.86	6.6013
	16	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	17	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	18	Iodomethane	------	0.299	0.358	0.420	0.439	0.435	0.397	0.411	0.447	0.401	12.49	7.0245
	19	Methylene chloride	------	0.708	0.601	0.500	0.471	0.427	0.352	0.321	0.320	0.463	29.97	7.2940
	20	Carbon disulfide	0.686	0.619	0.651	0.689	0.744	0.708	0.617	0.612	0.653	0.664	6.88	7.3766
3	21	Acrylonitrile	------	------	0.024	0.026	0.033	0.033	0.031	0.031	0.032	0.030	12.32	7.4743
	22	tert-Butyl methyl ether (MTBE)	0.273	0.261	0.323	0.330	0.359	0.351	0.304	0.293	0.304	0.311	10.64	7.5765
	23	trans-1,2-Dichloroethene	0.385	0.356	0.415	0.425	0.471	0.449	0.398	0.375	0.383	0.406	9.13	7.8210
	24	Isopropyl ether (DIPE)	0.758	0.695	0.866	0.897	0.938	0.910	0.789	0.755	0.741	0.817	10.68	8.3349
	25	Vinyl acetate	------	0.227	0.239	0.253	0.257	0.260	0.234	0.222	0.223	0.239	6.43	8.4966
	26	1,1-Dichloroethane	0.528	0.447	0.506	0.557	0.609	0.573	0.524	0.499	0.494	0.526	9.11	8.5381
	27	tert-Butyl ethyl ether (ETBE)	0.586	0.539	0.630	0.672	0.715	0.712	0.640	0.571	0.548	0.624	10.75	9.0288
2	28	2-Butanone	------	------	0.054	0.046	0.057	0.054	0.049	0.046	0.046	0.050	9.50	9.2269
	29	2,2-Dichloropropane	0.378	0.336	0.387	0.424	0.449	0.437	0.386	0.342	0.326	0.385	11.63	9.4914
	30	cis-1,2-Dichloroethene	0.473	0.430	0.477	0.518	0.563	0.538	0.489	0.443	0.437	0.485	9.59	9.5625
	31	Chloroform	0.461	0.468	0.510	0.534	0.590	0.571	0.518	0.451	0.445	0.505	10.49	9.8268
	32	Bromochloromethane	0.190	0.211	0.222	0.230	0.264	0.260	0.239	0.206	0.206	0.225	11.26	10.1027
	33	Tetrahydrofuran	------	------	0.037	0.036	0.032	0.031	0.031	0.027	0.028	0.032	11.28	10.1998
	34	1,1,1-Trichloroethane	0.484	0.513	0.562	0.608	0.647	0.614	0.566	0.481	0.449	0.547	12.56	10.5026
	35	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	36	tert-Amyl methyl ether (TAME)	0.347	0.381	0.440	0.449	0.453	0.453	0.415	0.389	0.385	0.413	9.34	10.9321
	37	1,2-Dichloroethane-d4	------	0.281	0.305	0.299	0.301	0.301	0.268	------	------	0.293	5.03	10.9906
	38	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	16.9198
	39	1,1-Dichloropropene	0.127	0.126	0.126	0.132	0.139	0.135	0.125	0.120	0.123	0.128	4.73	10.7636
	40	Carbon tetrachloride	0.443	0.424	0.461	0.506	0.525	0.507	0.452	0.424	0.419	0.462	8.77	10.9470
	41	1,2-Dichloroethane	0.347	0.337	0.368	0.392	0.404	0.380	0.339	0.309	0.297	0.353	10.32	11.1420
	42	Benzene	1.062	0.981	1.071	1.139	1.137	1.078	0.987	0.964	1.019	1.049	6.19	11.2048
	43	Trichloroethene	0.330	0.315	0.333	0.353	0.359	0.348	0.325	0.332	0.356	0.339	4.53	12.1829
	44	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	45	1,2-Dichloropropane	0.301	0.283	0.310	0.339	0.344	0.340	0.305	0.307	0.318	0.316	6.52	12.4522
	46	Bromodichloromethane	0.334	0.359	0.408	0.420	0.456	0.455	0.407	0.378	0.377	0.399	10.36	12.8454
	47	Dibromomethane	0.120	0.144	0.145	0.156	0.166	0.162	0.145	0.142	0.147	0.147	9.18	12.9495
2	48	4-Methyl-2-pentanone	------	------	0.135	0.125	0.163	0.162	0.142	0.142	0.146	0.145	9.52	13.3267
	49	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	50	cis-1,3-Dichloropropene	0.355	0.358	0.402	0.435	0.469	0.463	0.435	0.433	0.444	0.422	9.85	13.7161
	51	Toluene-d8	1.348	1.235	1.252	1.229	1.325	1.295	1.143	1.140	1.122	1.232	6.75	14.1837
	52	Toluene	1.370	1.357	1.392	1.458	1.510	1.421	1.255	1.190	1.220	1.353	8.09	14.3175
	53	Ethyl methacrylate	------	0.163	0.190	0.217	0.242	0.247	0.223	0.225	0.232	0.217	12.90	14.4743
	54	trans-1,3-Dichloropropene	0.254	0.251	0.295	0.340	0.365	0.386	0.341	0.320	0.322	0.319	14.39	14.5555
	55	1,1,2-Trichloroethane	0.191	0.183	0.228	0.227	0.234	0.241	0.210	0.197	0.200	0.212	9.83	14.8545
2	56	2-Hexanone	------	------	0.100	0.087	0.109	0.112	0.101	0.096	0.099	0.101	8.37	14.8052
	57	1,3-Dichloropropane	0.319	0.305	0.318	0.344	0.353	0.371	0.328	0.314	0.326	0.331	6.37	15.2890
	58	Tetrachloroethene	0.327	0.353	0.364	0.389	0.403	0.392	0.347	0.334	0.331	0.360	7.93	15.4923
	59	Dibromochloromethane	0.233	0.209	0.256	0.287	0.314	0.328	0.304	0.297	0.300	0.281	14.20	15.8392
	60	1,2-Dibromoethane	0.196	0.216	0.243	0.241	0.268	0.273	0.254	0.244	0.245	0.242	9.85	16.2209
	61	1-Chlorohexane	0.461	0.453	0.503	0.555	0.591	0.599	0.534	0.526	0.534	0.528	9.59	16.4026
	62	Chlorobenzene	1.039	1.024	1.055	1.107	1.132	1.127	1.020	0.970	0.979	1.050	5.74	16.9941
	63	1,1,1,2-Tetrachloroethane	0.273	0.269	0.296	0.325	0.332	0.328	0.291	0.275	0.288	0.297	8.32	17.0387

TO2

BMP
4/14/07

	64	Ethylbenzene	1.592	1.607	1.685	1.846	1.902	1.826	1.570	1.415	1.412	1.651	10.87	17.0503
2	65	m-Xylene & p-Xylene	1.170	1.187	1.246	1.348	1.404	1.358	1.178	1.060	1.032	1.220	10.72	17.1924
	66	o-Xylene	1.097	1.073	1.214	1.353	1.473	1.461	1.269	1.144	1.128	1.246	12.29	18.0499
	67	Styrene	------	0.741	0.817	0.965	1.094	1.110	0.975	0.926	0.931	0.945	13.23	18.1026
	68	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	22.5852
	69	Isopropylbenzene	5.597	4.923	4.946	5.315	5.039	4.668	4.198	4.087	4.267	4.782	10.87	18.7190
	70	Bromoform	0.405	0.422	0.488	0.545	0.545	0.521	0.490	0.477	0.501	0.488	10.01	18.8264
	71	1,1,2,2-Tetrachloroethane	0.756	0.609	0.653	0.681	0.632	0.598	0.547	0.542	0.579	0.622	10.96	19.0296
	72	4-Bromofluorobenzene	------	------	1.354	1.323	1.311	1.238	1.122	1.077	1.080	1.215	9.90	19.2555
	73	1,2,3-Trichloropropane	0.536	0.511	0.575	0.546	0.413	0.383	0.350	0.339	0.351	0.445	21.57	19.3320
	74	trans-1,4-Dichloro-2-butene	------	------	0.106	0.118	0.131	0.135	0.125	0.126	0.127	0.124	7.71	19.4127
	75	n-Propylbenzene	5.192	4.659	4.747	5.245	4.989	4.786	4.432	4.253	4.432	4.748	7.28	19.5253
	76	Bromobenzene	1.234	1.156	1.213	1.262	1.161	1.105	0.994	0.954	1.015	1.122	9.93	19.7037
	77	1,3,5-Trimethylbenzene	2.688	2.318	2.544	2.720	2.690	2.589	2.344	2.224	2.387	2.500	7.42	19.8425
	78	2-Chlorotoluene	3.765	3.033	3.351	3.509	3.255	3.026	2.616	2.638	2.748	3.105	12.87	19.9548
	79	4-Chlorotoluene	2.985	2.586	2.756	2.864	2.630	2.512	2.284	1.984	2.077	2.520	13.65	20.0309
	80	tert-Butylbenzene	3.262	2.586	2.750	3.083	2.995	2.850	2.613	2.579	2.790	2.834	8.42	20.5810
	81	1,2,4-Trimethylbenzene	2.246	2.017	2.093	2.288	2.337	2.263	2.080	1.998	2.132	2.162	5.77	20.6802
	82	sec-Butylbenzene	4.831	4.238	4.486	4.979	5.009	4.647	4.236	4.235	4.379	4.560	6.98	21.0354
	83	p-Isopropyltoluene	2.688	2.155	2.353	2.675	2.849	2.724	2.651	2.582	2.812	2.610	8.53	21.3031
	84	1,3-Dichlorobenzene	1.945	1.744	1.808	1.995	1.860	1.781	1.680	1.601	1.697	1.790	7.12	21.6005
	85	1,4-Dichlorobenzene	1.810	1.608	1.630	1.793	1.747	1.661	1.569	1.509	1.596	1.658	6.27	21.8136
	86	n-Butylbenzene	------	1.440	1.550	1.799	2.079	2.152	2.145	2.098	2.202	1.933	15.41	22.1843
	87	1,2-Dichlorobenzene	1.594	1.555	1.566	1.636	1.579	1.553	1.479	1.397	1.484	1.538	4.70	22.6447
	88	1,2-Dibromo-3-chloropropane	------	------	0.082	0.100	0.111	0.122	0.123	0.125	0.131	0.113	15.29	24.3389
	89	1,2,4-Trichlorobenzene	0.555	0.537	0.454	0.523	0.614	0.640	0.675	0.677	0.686	0.596	13.77	26.3654
	90	Hexachlorobutadiene	0.888	0.818	0.861	0.914	0.951	0.939	0.875	0.830	0.829	0.878	5.58	26.6628
	91	Naphthalene	------	0.561	0.343	0.420	0.465	0.468	0.526	0.546	0.555	0.486	15.79	26.9966
	92	1,2,3-Trichlorobenzene	0.417	0.423	0.361	0.430	0.519	0.531	0.555	0.550	0.559	0.483	15.50	27.5649

Spike Amount = Nominal Amount * M

Ave_%RSD : 10.6 Max_%RSD : 33.1

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15

Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
13	Acetone	0.00825	0.02450	0.9859*
19	Methylene chloride	0.02692	0.33104	0.9939*
73	1,2,3-Trichloropropane	0.01173	0.35039	0.9965
86	n-Butylbenzene	-0.04879	2.17141	0.9997
88	1,2-Dibromo-3-chloropropane	-0.00557	0.12858	0.9996
91	Naphthalene	-0.01084	0.53847	0.9979
92	1,2,3-Trichlorobenzene	-0.00877	0.55336	0.9994

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995

Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
13	Acetone	0.00396	0.03579	-0.00176	0.9980
19	Methylene chloride	0.01711	0.41733	-0.02831	0.9984

Kmd
4.1.10

2515

SECOND SOURCE VERIFICATION

2016

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D051
Lab File ID: RDV099
BFB Injection Date : 04/10/07
Instrument ID: T-001
BFB Injection Time : 22:22
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.53
75	30.0 - 60.0% of mass 95	38.47
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.32
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	91.95
175	5.0 - 9.0% of mass 174	7.27(7.9)1
176	95.0 - 101.0% of mass 174	91.41(99.4)1
177	5.0 - 9.0% of mass 176	5.72(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	IV001D103	RDV102	04/11/07	00:20

2017

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV102.D Vial: 5
Acq On : 11 Apr 2007 12:20 am Operator: CR
Sample : IVO01D103 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Mon Apr 16 14:27:46 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	124	0.00
2	T	Dichlorodifluoromethane	10.000	10.745	-7.4	107	0.00
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T	Chloromethane	10.000	10.722	-7.2	112	0.00
5	C,T	Vinyl chloride	10.000	10.537	-5.4	105	0.01
6	T	Bromomethane	10.000	10.287	-2.9	118	0.00
7	T	Chloroethane	10.000	11.212	-12.1	127	0.00
8	T	Dichlorofluoromethane	10.000	10.403	-4.0	120	0.00
9	T	Trichlorofluoromethane	10.000	10.795	-7.9	110	0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T	Acrolein	-1.000	0.000	0.0	0	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.542	4.6	110	0.00
13	T	Acetone	20.000	16.590	17.1	98	0.00
14	C,T	1,1-Dichloroethene	10.000	9.826	1.7	105	0.00
15	T	tert-Butyl alcohol	50.000	48.635	2.7	108	0.00
16	T	Acetonitrile	-1.000	0.000	0.0	0	0.00
17	T	Methyl acetate	-1.000	0.000	0.0	0	0.00
18	T	Iodomethane	10.000	10.250	-2.5	117	0.00
19	T	Methylene chloride	10.000	9.387	6.1	111	0.01
20	T	Carbon disulfide	10.000	9.726	2.7	113	0.00
21	T	Acrylonitrile	30.000	32.331	-7.8	119	0.01
22	T	tert-Butyl methyl ether (MT	10.000	9.644	3.6	106	0.00
23	T	trans-1,2-Dichloroethene	10.000	9.191	8.1	103	0.00
24	T	Isopropyl ether (DIPE)	10.000	10.284	-2.8	114	0.00
25	T	Vinyl acetate	10.000	8.600	14.0	98	0.01
26	P,T	1,1-Dichloroethane	10.000	9.614	3.9	109	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	10.417	-4.2	113	0.00
28	T	2-Butanone	20.000	18.360	8.2	106	0.01
29	T	2,2-Dichloropropane	10.000	8.711	12.9	95	0.00
30	T	cis-1,2-Dichloroethene	10.000	9.361	6.4	104	0.00
31	C,T	Chloroform	10.000	9.395	6.1	103	0.00
32	T	Bromochloromethane	10.000	10.355	-3.6	111	0.00
33	T	Tetrahydrofuran	10.000	9.192	8.1	116	0.00
34	T	1,1,1-Trichloroethane	10.000	9.274	7.3	102	0.00
35	T	Cyclohexane	-1.000	0.000	0.0	0	0.00
36	T	tert-Amyl methyl ether (TAM	10.000	10.653	-6.5	120	-0.01
37	S	1,2-Dichloroethane-d4	10.000	8.615	13.8	103	0.00
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	120	0.00
39	T	1,1-Dichloropropene	10.000	9.611	3.9	109	0.00
40	T	Carbon tetrachloride	10.000	9.663	3.4	106	0.00

(#) = Out of Range

2018

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV102.D Vial: 5
Acq On : 11 Apr 2007 12:20 am Operator: CR
Sample : IVO01D103 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Mon Apr 16 14:27:46 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	8.797	12.0	98	0.00
42	T	Benzene	10.000	9.826	1.7	115	0.00
43	T	Trichloroethene	10.000	9.741	2.6	114	0.00
44	T	Methylcyclohexane	-1.000	0.000	0.0	0	0.00
45	C,T	1,2-Dichloropropane	10.000	10.196	-2.0	114	0.00
46	T	Bromodichloromethane	10.000	9.640	3.6	101	0.00
47	T	Dibromomethane	10.000	9.676	3.2	106	0.00
48	T	4-Methyl-2-pentanone	20.000	22.015	-10.1	118	0.01
49	T	2-Chloroethyl vinyl ether	10.000	0.000	100.0#	0	0.00
50	T	cis-1,3-Dichloropropene	10.000	10.164	-1.6	111	0.00
51	S	Toluene-d8	10.000	10.319	-3.2	118	0.00
52	C,T	Toluene	10.000	9.947	0.5	114	0.00
53	T	Ethyl methacrylate	10.000	10.703	-7.0	113	0.01
54	T	trans-1,3-Dichloropropene	10.000	10.471	-4.7	104	0.00
55	T	1,1,2-Trichloroethane	10.000	10.544	-5.4	111	0.00
56	T	2-Hexanone	20.000	21.915	-9.6	118	0.01
57	T	1,3-Dichloropropane	10.000	10.363	-3.6	111	0.00
58	T	Tetrachloroethene	10.000	9.903	1.0	109	0.00
59	T	Dibromochloromethane	10.000	10.685	-6.9	110	0.00
60	T	1,2-Dibromoethane	10.000	10.553	-5.5	112	0.00
61	T	1-Chlorohexane	10.000	10.746	-7.5	114	0.00
62	P	Chlorobenzene	10.000	9.750	2.5	109	0.00
63	T	1,1,1,2-Tetrachloroethane	10.000	9.822	1.8	107	0.00
64	C,T	Ethylbenzene	10.000	9.822	1.8	107	0.00
65	T	m-Xylene & p-Xylene	20.000	19.609	2.0	106	0.01
66	T	o-Xylene	10.000	10.534	-5.3	108	0.00
67	T	Styrene	10.000	10.763	-7.6	110	0.01
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	111	0.00
69	T	Isopropylbenzene	10.000	9.237	7.6	105	0.00
70	P,T	Bromoform	10.000	10.326	-3.3	107	0.00
71	P,T	1,1,2,2-Tetrachloroethane	10.000	9.653	3.5	111	0.00
72	S	4-Bromofluorobenzene	10.000	10.096	-1.0	110	0.00
73	T	1,2,3-Trichloropropane	10.000	8.613	13.9	91	0.01
74	T	trans-1,4-Dichloro-2-butene	10.000	9.200	8.0	94	0.02
75	T	n-Propylbenzene	10.000	9.836	1.6	108	0.01
76	T	Bromobenzene	10.000	9.348	6.5	105	0.00
77	T	1,3,5-Trimethylbenzene	10.000	10.180	-1.8	109	0.00
78	T	2-Chlorotoluene	10.000	9.679	3.2	110	0.00
79	T	4-Chlorotoluene	10.000	8.519	14.8	95	0.00
80	T	tert-Butylbenzene	10.000	9.744	2.6	108	0.00

(#) = Out of Range

2019

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV102.D Vial: 5
Acq On : 11 Apr 2007 12:20 am Operator: CR
Sample : IVO01D103 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Mon Apr 16 14:27:46 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	10.425	-4.3	110	0.00
82	T	sec-Butylbenzene	10.000	10.048	-0.5	109	0.01
83	T	p-Isopropyltoluene	10.000	10.336	-3.4	110	0.00
84	T	1,3-Dichlorobenzene	10.000	9.842	1.6	110	0.00
85	T	1,4-Dichlorobenzene	10.000	9.632	3.7	107	0.00
86	T	n-Butylbenzene	10.000	9.954	0.5	109	0.00
87	T	1,2-Dichlorobenzene	10.000	9.699	3.0	107	0.00
88	T	1,2-Dibromo-3-chloropropane	10.000	9.769	2.3	109	0.00
89	T	1,2,4-Trichlorobenzene	10.000	11.257	-12.6	116	0.00
90	T	Hexachlorobutadiene	10.000	9.991	0.1	104	0.00
91	T	Naphthalene	10.000	10.889	-8.9	136	0.01
92	T	1,2,3-Trichlorobenzene	10.000	10.258	-2.6	117	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2020

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV102.D Vial: 5
Acq On : 11 Apr 2007 12:20 am Operator: CR
Sample : IVO01D103 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Mon Apr 16 14:27:46 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	124	0.00
2	T	Dichlorodifluoromethane	0.531	0.570	-7.3	107	0.00
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T	Chloromethane	0.447	0.479	-7.2	112	0.00
5	C,T	Vinyl chloride	0.380	0.400	-5.3	105	0.01
6	T	Bromomethane	0.309	0.318	-2.9	118	0.00
7	T	Chloroethane	0.180	0.201	-11.7	127	0.00
8	T	Dichlorofluoromethane	0.662	0.689	-4.1	120	0.00
9	T	Trichlorofluoromethane	0.506	0.546	-7.9	110	0.01
10	T	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T	Acrolein	0.000	0.000	0.0	0#	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	0.200	0.191	4.5	110	0.00
13	T	Acetone	0.036	0.029	19.4	98	0.00
14	C,T	1,1-Dichloroethene	0.409	0.402	1.7	105	0.00
15	T	tert-Butyl alcohol	0.008	0.007	12.5	108	0.00
16	T	Acetonitrile	0.000	0.000	0.0	0#	0.00
17	T	Methyl acetate	0.000	0.000	0.0	0#	0.00
18	T	Iodomethane	0.401	0.411	-2.5	117	0.00
19	T	Methylene chloride	0.463	0.384	17.1	111	0.01
20	T	Carbon disulfide	0.664	0.646	2.7	113	0.00
21	T	Acrylonitrile	0.030	0.032	-6.7	119	0.01
22	T	tert-Butyl methyl ether (MT	0.311	0.300	3.5	106	0.00
23	T	trans-1,2-Dichloroethene	0.406	0.374	7.9	103	0.00
24	T	Isopropyl ether (DIPE)	0.817	0.840	-2.8	114	0.00
25	T	Vinyl acetate	0.239	0.206	13.8	98	0.01
26	P,T	1,1-Dichloroethane	0.526	0.506	3.8	109	0.00
27	T	tert-Butyl ethyl ether (ETB	0.624	0.650	-4.2	113	0.00
28	T	2-Butanone	0.050	0.046	8.0	106	0.01
29	T	2,2-Dichloropropane	0.385	0.335	13.0	95	0.00
30	T	cis-1,2-Dichloroethene	0.485	0.454	6.4	104	0.00
31	C,T	Chloroform	0.505	0.475	5.9	103	0.00
32	T	Bromochloromethane	0.225	0.233	-3.6	111	0.00
33	T	Tetrahydrofuran	0.032	0.029	9.4	116	0.00
34	T	1,1,1-Trichloroethane	0.547	0.507	7.3	102	0.00
35	T	Cyclohexane	0.000	0.000	0.0	0#	0.00
36	T	tert-Amyl methyl ether (TAM	0.413	0.439	-6.3	120	-0.01
37	S	1,2-Dichloroethane-d4	0.293	0.252	14.0	103	0.00
38	I	CHLOROBENZENE-D5	1.000	1.000	0.0	120	0.00
39	T	1,1-Dichloropropene	0.128	0.123	3.9	109	0.00
40	T	Carbon tetrachloride	0.462	0.447	3.2	106	0.00

(#) = Out of Range

4/18/07

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV102.D Vial: 5
Acq On : 11 Apr 2007 12:20 am Operator: CR
Sample : IVO01D103 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Mon Apr 16 14:27:46 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.353	0.310	12.2	98	0.00
42	T	Benzene	1.049	1.030	1.8	115	0.00
43	T	Trichloroethene	0.339	0.330	2.7	114	0.00
44	T	Methylcyclohexane	0.000	0.000	0.0	0#	0.00
45	C,T	1,2-Dichloropropane	0.316	0.323	-2.2	114	0.00
46	T	Bromodichloromethane	0.399	0.385	3.5	101	0.00
47	T	Dibromomethane	0.147	0.143	2.7	106	0.00
48	T	4-Methyl-2-pentanone	0.145	0.160	-10.3	118	0.01
49	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.00
50	T	cis-1,3-Dichloropropene	0.422	0.429	-1.7	111	0.00
51	S	Toluene-d8	1.232	1.272	-3.2	118	0.00
52	C,T	Toluene	1.353	1.345	0.6	114	0.00
53	T	Ethyl methacrylate	0.217	0.233	-7.4	113	0.01
54	T	trans-1,3-Dichloropropene	0.319	0.334	-4.7	104	0.00
55	T	1,1,2-Trichloroethane	0.212	0.224	-5.7	111	0.00
56	T	2-Hexanone	0.101	0.110	-8.9	118	0.01
57	T	1,3-Dichloropropane	0.331	0.343	-3.6	111	0.00
58	T	Tetrachloroethene	0.360	0.357	0.8	109	0.00
59	T	Dibromochloromethane	0.281	0.300	-6.8	110	0.00
60	T	1,2-Dibromoethane	0.242	0.256	-5.8	112	0.00
61	T	1-Chlorohexane	0.528	0.568	-7.6	114	0.00
62	P	Chlorobenzene	1.050	1.024	2.5	109	0.00
63	T	1,1,1,2-Tetrachloroethane	0.297	0.292	1.7	107	0.00
64	C,T	Ethylbenzene	1.651	1.621	1.8	107	0.00
65	T	m-Xylene & p-Xylene	1.220	1.196	2.0	106	0.01
66	T	o-Xylene	1.246	1.312	-5.3	108	0.00
67	T	Styrene	0.945	1.017	-7.6	110	0.01
68	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	111	0.00
69	T	Isopropylbenzene	4.782	4.418	7.6	105	0.00
70	P,T	Bromoform	0.488	0.504	-3.3	107	0.00
71	P,T	1,1,2,2-Tetrachloroethane	0.622	0.600	3.5	111	0.00
72	S	4-Bromofluorobenzene	1.215	1.227	-1.0	110	0.00
73	T	1,2,3-Trichloropropane	0.445	0.314	29.4#	91	0.01
74	T	trans-1,4-Dichloro-2-butene	0.124	0.114	8.1	94	0.02
75	T	n-Propylbenzene	4.748	4.671	1.6	108	0.01
76	T	Bromobenzene	1.122	1.049	6.5	105	0.00
77	T	1,3,5-Trimethylbenzene	2.500	2.545	-1.8	109	0.00
78	T	2-Chlorotoluene	3.105	3.005	3.2	110	0.00
79	T	4-Chlorotoluene	2.520	2.146	14.8	95	0.00
80	T	tert-Butylbenzene	2.834	2.762	2.5	108	0.00

(#) = Out of Range

2022

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV102.D Vial: 5
Acq On : 11 Apr 2007 12:20 am Operator: CR
Sample : IVO01D103 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Mon Apr 16 14:27:46 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	2.162	2.253	-4.2	110	0.00
82	T	sec-Butylbenzene	4.560	4.582	-0.5	109	0.01
83	T	p-Isopropyltoluene	2.610	2.698	-3.4	110	0.00
84	T	1,3-Dichlorobenzene	1.790	1.762	1.6	110	0.00
85	T	1,4-Dichlorobenzene	1.658	1.597	3.7	107	0.00
86	T	n-Butylbenzene	1.933	2.113	-9.3	109	0.00
87	T	1,2-Dichlorobenzene	1.538	1.492	3.0	107	0.00
88	T	1,2-Dibromo-3-chloropropane	0.113	0.120	-6.2	109	0.00
89	T	1,2,4-Trichlorobenzene	0.596	0.670	-12.4	116	0.00
90	T	Hexachlorobutadiene	0.878	0.877	0.1	104	0.00
91	T	Naphthalene	0.486	0.576	-18.5	136	0.01
92	T	1,2,3-Trichlorobenzene	0.483	0.559	-15.7	117	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
RDV102.D VO01D10.M Mon Apr 16 14:39:49 2007 Page 13

2023

DAILY CALIBRATIONS

2024

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D051
Lab File ID: RDV099
BFB Injection Date : 04/10/07
Instrument ID: T-001
BFB Injection Time : 22:22
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.53
75	30.0 - 60.0% of mass 95	38.47
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.32
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	91.95
175	5.0 - 9.0% of mass 174	7.27(7.9)1
176	95.0 - 101.0% of mass 174	91.41(99.4)1
177	5.0 - 9.0% of mass 176	5.72(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001D1001	RDV100	04/10/07	23:01
2	MBLK1W	V001D09Q	RDV106	04/11/07	02:59
3	LCS1W	V001D09L	RDV103	04/11/07	01:00
4	LCD1W	V001D09Y	RDV116	04/11/07	09:37
5	LTB-040407	D051-02	RDV108	04/11/07	04:18
6	B11-GW01	D051-01	RDV109	04/11/07	04:58

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDV088
Instrument ID: T-001
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D051
Date Analyzed: 04/10/07
Time Analyzed: 15:01
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2039344	11.60	2134246	16.92	962192	22.59
	UPPER LIMIT	4078688	12.10	4268492	17.42	1924384	23.09
	LOWER LIMIT	1019672	11.10	1067123	16.42	481096	22.09
	SAMPLE ID						
1	VSTD010	2532754	11.60	2623794	16.92	1086611	22.59
2	MBLK1W	2517655	11.60	2432991	16.92	786787	22.58
3	LCS1W	2694656	11.60	2812869	16.92	1154930	22.58
4	LCD1W	1651230	11.59	1745405	16.92	803362	22.58
5	LTB-040407	2328487	11.61	2238389	16.93	752648	22.58
6	B11-GW01	2316247	11.60	2291328	16.92	767941	22.59

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV100.D Vial: 3
Acq On : 10 Apr 2007 11:01 pm Operator: CR
Sample : CVO01D1001 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	124	0.00
2	T	Dichlorodifluoromethane	10.000	10.219	-2.2	103	-0.02
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.47#
4	P,T	Chloromethane	10.000	9.755	2.4	102	0.00
5	C,T	Vinyl chloride	10.000	10.073	-0.7	101	0.00
6	T	Bromomethane	10.000	9.209	7.9	106	-0.02
7	T	Chloroethane	10.000	9.719	2.8	110	0.01
8	T	Dichlorofluoromethane	10.000	9.345	6.5	108	0.00
9	T	Trichlorofluoromethane	10.000	10.663	-6.6	109	0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	-0.26
11	T	Acrolein	20.000	0.000	100.0#	0	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.599	4.0	111	0.01
13	T	Acetone	20.000	16.045	19.8	96	0.00
14	C,T	1,1-Dichloroethene	10.000	9.732	2.7	105	0.00
15	T	tert-Butyl alcohol	50.000	45.922	8.2	103	0.00
16	T	Acetonitrile	-1.000	0.000	0.0	91	-0.02
17	T	Methyl acetate	-1.000	0.000	0.0	99	0.01
18	T	Iodomethane	10.000	9.821	1.8	112	0.01
19	T	Methylene chloride	10.000	8.897	11.0	106	0.01
20	T	Carbon disulfide	10.000	9.430	5.7	110	0.00
21	T	Acrylonitrile	30.000	32.640	-8.8	121	0.01
22	T	tert-Butyl methyl ether (MT	10.000	9.902	1.0	109	0.00
23	T	trans-1,2-Dichloroethene	10.000	9.485	5.2	107	0.00
24	T	Isopropyl ether (DIPE)	10.000	10.099	-1.0	113	0.01
25	T	Vinyl acetate	10.000	9.412	5.9	108	0.01
26	P,T	1,1-Dichloroethane	10.000	9.787	2.1	112	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	10.141	-1.4	110	0.00
28	T	2-Butanone	20.000	18.976	5.1	110	0.01
29	T	2,2-Dichloropropane	10.000	8.911	10.9	98	0.01
30	T	cis-1,2-Dichloroethene	10.000	9.638	3.6	108	0.00
31	C,T	Chloroform	10.000	9.694	3.1	106	0.00
32	T	Bromochloromethane	10.000	10.282	-2.8	111	0.01
33	T	Tetrahydrofuran	10.000	9.042	9.6	114	0.00
34	T	1,1,1-Trichloroethane	10.000	9.667	3.3	107	0.01
35	T	Cyclohexane	-1.000	0.000	0.0	0	-10.07#
36	T	tert-Amyl methyl ether (TAM	10.000	10.206	-2.1	115	0.00
37	S	1,2-Dichloroethane-d4	10.000	8.571	14.3	103	0.00
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	123	0.00
39	T	1,1-Dichloropropene	10.000	9.559	4.4	111	0.00
40	T	Carbon tetrachloride	10.000	9.547	4.5	107	0.00

(#) = Out of Range

2027

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV100.D Vial: 3
Acq On : 10 Apr 2007 11:01 pm Operator: CR
Sample : CVO01D1001 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	8.994	10.1	102	0.00
42	T	Benzene	10.000	9.343	6.6	112	0.01
43	T	Trichloroethene	10.000	9.431	5.7	113	0.00
44	T	Methylcyclohexane	-1.000	0.000	0.0	117	0.00
45	C,T	1,2-Dichloropropane	10.000	9.877	1.2	113	0.00
46	T	Bromodichloromethane	10.000	9.683	3.2	104	0.00
47	T	Dibromomethane	10.000	9.805	2.0	110	0.00
48	T	4-Methyl-2-pentanone	20.000	19.978	0.1	110	0.00
49	T	2-Chloroethyl vinyl ether	10.000	0.000	100.0#	0	0.00
50	T	cis-1,3-Dichloropropene	10.000	9.877	1.2	111	0.00
51	S	Toluene-d8	10.000	9.188	8.1	107	0.00
52	C,T	Toluene	10.000	9.213	7.9	108	0.00
53	T	Ethyl methacrylate	10.000	10.326	-3.3	112	0.00
54	T	trans-1,3-Dichloropropene	10.000	10.511	-5.1	107	0.00
55	T	1,1,2-Trichloroethane	10.000	10.226	-2.3	111	0.00
56	T	2-Hexanone	20.000	20.003	-0.0	110	0.00
57	T	1,3-Dichloropropane	10.000	9.910	0.9	109	0.00
58	T	Tetrachloroethene	10.000	9.566	4.3	108	0.00
59	T	Dibromochloromethane	10.000	10.481	-4.8	110	0.00
60	T	1,2-Dibromoethane	10.000	10.170	-1.7	111	0.00
61	T	1-Chlorohexane	10.000	10.065	-0.6	109	0.00
62	P	Chlorobenzene	10.000	9.406	5.9	108	0.00
63	T	1,1,1,2-Tetrachloroethane	10.000	9.512	4.9	106	0.00
64	C,T	Ethylbenzene	10.000	9.533	4.7	106	-0.02
65	T	m-Xylene & p-Xylene	20.000	18.889	5.6	104	0.00
66	T	o-Xylene	10.000	10.097	-1.0	106	0.00
67	T	Styrene	10.000	10.021	-0.2	105	0.00
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	113	0.00
69	T	Isopropylbenzene	10.000	9.098	9.0	105	0.00
70	P,T	Bromoform	10.000	10.264	-2.6	109	0.00
71	P,T	1,1,2,2-Tetrachloroethane	10.000	9.464	5.4	111	0.00
72	S	4-Bromofluorobenzene	10.000	9.382	6.2	104	0.00
73	T	1,2,3-Trichloropropane	10.000	9.773	2.3	104	0.00
74	T	trans-1,4-Dichloro-2-butene	10.000	9.612	3.9	100	0.02
75	T	n-Propylbenzene	10.000	9.266	7.3	104	0.00
76	T	Bromobenzene	10.000	8.866	11.3	102	0.00
77	T	1,3,5-Trimethylbenzene	10.000	9.484	5.2	103	0.00
78	T	2-Chlorotoluene	10.000	8.756	12.4	101	0.00
79	T	4-Chlorotoluene	10.000	8.939	10.6	101	0.00
80	T	tert-Butylbenzene	10.000	9.055	9.5	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV100.D Vial: 3
Acq On : 10 Apr 2007 11:01 pm Operator: CR
Sample : CVO01D1001 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	9.673	3.3	104	0.00
82	T	sec-Butylbenzene	10.000	9.513	4.9	105	0.00
83	T	p-Isopropyltoluene	10.000	9.798	2.0	106	0.00
84	T	1,3-Dichlorobenzene	10.000	9.196	8.0	104	0.01
85	T	1,4-Dichlorobenzene	10.000	9.166	8.3	103	0.00
86	T	n-Butylbenzene	10.000	9.351	6.5	104	0.00
87	T	1,2-Dichlorobenzene	10.000	9.392	6.1	105	0.00
88	T	1,2-Dibromo-3-chloropropane	10.000	9.120	8.8	103	0.00
89	T	1,2,4-Trichlorobenzene	10.000	10.154	-1.5	107	0.00
90	T	Hexachlorobutadiene	10.000	9.492	5.1	100	0.00
91	T	Naphthalene	10.000	8.965	10.4	114	0.01
92	T	1,2,3-Trichlorobenzene	10.000	9.253	7.5	107	0.00

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV100.D Vial: 3
Acq On : 10 Apr 2007 11:01 pm Operator: CR
Sample : CVO01D1001 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	124	0.00
2	T	Dichlorodifluoromethane	0.531	0.542	-2.1	103	-0.02
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	-3.47#
4	P,T	Chloromethane	0.447	0.436	2.5	102	0.00
5	C,T	Vinyl chloride	0.380	0.383	-0.8	101	0.00
6	T	Bromomethane	0.309	0.284	8.1	106	-0.02
7	T	Chloroethane	0.180	0.174	3.3	110	0.01
8	T	Dichlorofluoromethane	0.662	0.619	6.5	108	0.00
9	T	Trichlorofluoromethane	0.506	0.540	-6.7	109	0.01
10	T	sec-Propyl alcohol	0.000	0.000	0.0	0#	-0.26
11	T	Acrolein	0.000	0.002	0.0	0#	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	0.200	0.192	4.0	111	0.01
13	T	Acetone	0.036	0.028	22.2#	96	0.00
14	C,T	1,1-Dichloroethene	0.409	0.398	2.7	105	0.00
15	T	tert-Butyl alcohol	0.008	0.007	12.5	103	0.00
16	T	Acetonitrile	0.000	0.000	0.0	91	-0.02
17	T	Methyl acetate	0.000	0.000	0.0	99	0.01
18	T	Iodomethane	0.401	0.394	1.7	112	0.01
19	T	Methylene chloride	0.463	0.366	21.0#	106	0.01
20	T	Carbon disulfide	0.664	0.626	5.7	110	0.00
21	T	Acrylonitrile	0.030	0.033	-10.0	121	0.01
22	T	tert-Butyl methyl ether (MT	0.311	0.308	1.0	109	0.00
23	T	trans-1,2-Dichloroethene	0.406	0.385	5.2	107	0.00
24	T	Isopropyl ether (DIPE)	0.817	0.825	-1.0	113	0.01
25	T	Vinyl acetate	0.239	0.225	5.9	108	0.01
26	P,T	1,1-Dichloroethane	0.526	0.515	2.1	112	0.00
27	T	tert-Butyl ethyl ether (ETB	0.624	0.632	-1.3	110	0.00
28	T	2-Butanone	0.050	0.048	4.0	110	0.01
29	T	2,2-Dichloropropane	0.385	0.343	10.9	98	0.01
30	T	cis-1,2-Dichloroethene	0.485	0.468	3.5	108	0.00
31	C,T	Chloroform	0.505	0.490	3.0	106	0.00
32	T	Bromochloromethane	0.225	0.232	-3.1	111	0.01
33	T	Tetrahydrofuran	0.032	0.029	9.4	114	0.00
34	T	1,1,1-Trichloroethane	0.547	0.529	3.3	107	0.01
35	T	Cyclohexane	0.000	0.000	0.0	0#	-10.07#
36	T	tert-Amyl methyl ether (TAM	0.413	0.421	-1.9	115	0.00
37	S	1,2-Dichloroethane-d4	0.293	0.251	14.3	103	0.00
38	I	CHLOROBENZENE-D5	1.000	1.000	0.0	123	0.00
39	T	1,1-Dichloropropene	0.128	0.123	3.9	111	0.00
40	T	Carbon tetrachloride	0.462	0.441	4.5	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV100.D Vial: 3
Acq On : 10 Apr 2007 11:01 pm Operator: CR
Sample : CVO01D1001 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.353	0.317	10.2	102	0.00
42	T	Benzene	1.049	0.980	6.6	112	0.01
43	T	Trichloroethene	0.339	0.320	5.6	113	0.00
44	T	Methylcyclohexane	0.000	0.000	0.0	117	0.00
45	C,T	1,2-Dichloropropane	0.316	0.312	1.3	113	0.00
46	T	Bromodichloromethane	0.399	0.387	3.0	104	0.00
47	T	Dibromomethane	0.147	0.145	1.4	110	0.00
48	T	4-Methyl-2-pentanone	0.145	0.145	0.0	110	0.00
49	T	2-Chloroethyl vinyl ether	0.000	0.004	0.0	0#	0.00
50	T	cis-1,3-Dichloropropene	0.422	0.416	1.4	111	0.00
51	S	Toluene-d8	1.232	1.132	8.1	107	0.00
52	C,T	Toluene	1.353	1.246	7.9	108	0.00
53	T	Ethyl methacrylate	0.217	0.224	-3.2	112	0.00
54	T	trans-1,3-Dichloropropene	0.319	0.336	-5.3	107	0.00
55	T	1,1,2-Trichloroethane	0.212	0.217	-2.4	111	0.00
56	T	2-Hexanone	0.101	0.101	0.0	110	0.00
57	T	1,3-Dichloropropane	0.331	0.328	0.9	109	0.00
58	T	Tetrachloroethene	0.360	0.344	4.4	108	0.00
59	T	Dibromochloromethane	0.281	0.294	-4.6	110	0.00
60	T	1,2-Dibromoethane	0.242	0.247	-2.1	111	0.00
61	T	1-Chlorohexane	0.528	0.532	-0.8	109	0.00
62	P	Chlorobenzene	1.050	0.988	5.9	108	0.00
63	T	1,1,1,2-Tetrachloroethane	0.297	0.283	4.7	106	0.00
64	C,T	Ethylbenzene	1.651	1.573	4.7	106	-0.02
65	T	m-Xylene & p-Xylene	1.220	1.152	5.6	104	0.00
66	T	o-Xylene	1.246	1.258	-1.0	106	0.00
67	T	Styrene	0.945	0.947	-0.2	105	0.00
68	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	113	0.00
69	T	Isopropylbenzene	4.782	4.351	9.0	105	0.00
70	P,T	Bromoform	0.488	0.501	-2.7	109	0.00
71	P,T	1,1,2,2-Tetrachloroethane	0.622	0.589	5.3	111	0.00
72	S	4-Bromofluorobenzene	1.215	1.140	6.2	104	0.00
73	T	1,2,3-Trichloropropane	0.445	0.354	20.4#	104	0.00
74	T	trans-1,4-Dichloro-2-butene	0.124	0.119	4.0	100	0.02
75	T	n-Propylbenzene	4.748	4.400	7.3	104	0.00
76	T	Bromobenzene	1.122	0.995	11.3	102	0.00
77	T	1,3,5-Trimethylbenzene	2.500	2.371	5.2	103	0.00
78	T	2-Chlorotoluene	3.105	2.718	12.5	101	0.00
79	T	4-Chlorotoluene	2.520	2.252	10.6	101	0.00
80	T	tert-Butylbenzene	2.834	2.566	9.5	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D10\RDV100.D Vial: 3
Acq On : 10 Apr 2007 11:01 pm Operator: CR
Sample : CVO01D1001 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	2.162	2.091	3.3	104	0.00
82	T	sec-Butylbenzene	4.560	4.338	4.9	105	0.00
83	T	p-Isopropyltoluene	2.610	2.557	2.0	106	0.00
84	T	1,3-Dichlorobenzene	1.790	1.646	8.0	104	0.01
85	T	1,4-Dichlorobenzene	1.658	1.520	8.3	103	0.00
86	T	n-Butylbenzene	1.933	1.982	-2.5	104	0.00
87	T	1,2-Dichlorobenzene	1.538	1.445	6.0	105	0.00
88	T	1,2-Dibromo-3-chloropropane	0.113	0.112	0.9	103	0.00
89	T	1,2,4-Trichlorobenzene	0.596	0.605	-1.5	107	0.00
90	T	Hexachlorobutadiene	0.878	0.834	5.0	100	0.00
91	T	Naphthalene	0.486	0.472	2.9	114	0.01
92	T	1,2,3-Trichlorobenzene	0.483	0.503	-4.1	107	0.00

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc | Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.: | SAS No.: SDG No.: 07D051
Lab File ID: RDV151 | BFB Injection Date : 04/12/07
Instrument ID: T-001 | BFB Injection Time : 08:57
GC Column:RTX502.2ID:0.32mm (mm) | Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.16
75	30.0 - 60.0% of mass 95	39.74
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	89.07
175	5.0 - 9.0% of mass 174	6.28(7.1)1
176	95.0 - 101.0% of mass 174	86.28(96.9)1
177	5.0 - 9.0% of mass 176	5.16(6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001D1008	RDV153	04/12/07	10:26
2	MBLK2W	V001D14Q	RDV158	04/12/07	13:46
3	LCS2W	V001D14L	RDV154	04/12/07	11:06
4	LCD2W	V001D14C	RDV155	04/12/07	11:46
5	B11-GW01DL	D051-01T	RDV165	04/12/07	18:28

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDV088
Instrument ID: T-001
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D051
Date Analyzed: 04/10/07
Time Analyzed: 15:01
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2039344	11.60	2134246	16.92	962192	22.59
	UPPER LIMIT	4078688	12.10	4268492	17.42	1924384	23.09
	LOWER LIMIT	1019672	11.10	1067123	16.42	481096	22.09
	SAMPLE ID						
1	VSTD010	2746544	11.61	2813531	16.93	1163100	22.60
2	MBLK2W	2530328	11.62	2367048	16.94	766515	22.60
3	LCS2W	2787812	11.61	2965528	16.93	1070113	22.60
4	LCD2W	2935102	11.62	2914978	16.94	1136196	22.60
5	B11-GW01DL	1645438	11.61	1574066	16.93	532048	22.60

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D12\RDV153.D Vial: 3
Acq On : 12 Apr 2007 10:26 am Operator: CR
Sample : CVO01D1008 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	135	0.01
2	T	Dichlorodifluoromethane	0.531	0.485	8.7	99	0.00
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	-3.47#
4	P,T	Chloromethane	0.447	0.422	5.6	107	0.01
5	C,T	Vinyl chloride	0.380	0.366	3.7	105	0.01
6	T	Bromomethane	0.309	0.306	1.0	124	0.00
7	T	Chloroethane	0.180	0.177	1.7	122	0.01
8	T	Dichlorofluoromethane	0.662	0.614	7.3	116	0.01
9	T	Trichlorofluoromethane	0.506	0.495	2.2	109	0.01
10	T	sec-Propyl alcohol	0.000	0.000	0.0	0#	-0.22
11	T	Acrolein	0.000	0.003	0.0	0#	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	0.200	0.184	8.0	115	0.01
13	T	Acetone	0.036	0.031	13.9	115	0.00
14	C,T	1,1-Dichloroethene	0.409	0.375	8.3	107	0.01
15	T	tert-Butyl alcohol	0.008	0.007	12.5	111	0.01
16	T	Acetonitrile	0.000	0.000	0.0	175	-0.21
17	T	Methyl acetate	0.000	0.000	0.0	101	0.01
18	T	Iodomethane	0.401	0.417	-4.0	129	0.01
19	T	Methylene chloride	0.463	0.362	21.8#	114	0.01
20	T	Carbon disulfide	0.664	0.578	13.0	110	0.01
21	T	Acrylonitrile	0.030	0.032	-6.7	129	0.01
22	T	tert-Butyl methyl ether (MT	0.311	0.297	4.5	114	0.01
23	T	trans-1,2-Dichloroethene	0.406	0.386	4.9	116	0.01
24	T	Isopropyl ether (DIPE)	0.817	0.801	2.0	119	0.01
25	T	Vinyl acetate	0.239	0.212	11.3	110	0.01
26	P,T	1,1-Dichloroethane	0.526	0.509	3.2	120	0.01
27	T	tert-Butyl ethyl ether (ETB	0.624	0.600	3.8	113	0.01
28	T	2-Butanone	0.050	0.047	6.0	117	0.01
29	T	2,2-Dichloropropane	0.385	0.358	7.0	110	0.01
30	T	cis-1,2-Dichloroethene	0.485	0.463	4.5	116	0.01
31	C,T	Chloroform	0.505	0.477	5.5	113	0.01
32	T	Bromochloromethane	0.225	0.230	-2.2	119	0.01
33	T	Tetrahydrofuran	0.032	0.029	9.4	125	0.01
34	T	1,1,1-Trichloroethane	0.547	0.489	10.6	107	0.01
35	T	Cyclohexane	0.000	0.000	0.0	0#	-10.07#
36	T	tert-Amyl methyl ether (TAM	0.413	0.382	7.5	114	0.00
37	S	1,2-Dichloroethane-d4	0.293	0.252	14.0	113	0.01
38	I	CHLOROBENZENE-D5	1.000	1.000	0.0	132	0.01
39	T	1,1-Dichloropropene	0.128	0.115	10.2	112	0.01
40	T	Carbon tetrachloride	0.462	0.403	12.8	105	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D12\RDV153.D Vial: 3
Acq On : 12 Apr 2007 10:26 am Operator: CR
Sample : CVO01D1008 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.353	0.300	15.0	104	0.01
42	T	Benzene	1.049	0.966	7.9	118	0.03
43	T	Trichloroethene	0.339	0.312	8.0	118	0.01
44	T	Methylcyclohexane	0.000	0.000	0.0	122	0.03
45	C,T	1,2-Dichloropropane	0.316	0.318	-0.6	124	0.01
46	T	Bromodichloromethane	0.399	0.386	3.3	112	0.01
47	T	Dibromomethane	0.147	0.143	2.7	116	0.01
48	T	4-Methyl-2-pentanone	0.145	0.143	1.4	116	0.01
49	T	2-Chloroethyl vinyl ether	0.000	0.002	0.0	0#	0.01
50	T	cis-1,3-Dichloropropene	0.422	0.414	1.9	118	0.03
51	S	Toluene-d8	1.232	1.200	2.6	122	0.01
52	C,T	Toluene	1.353	1.222	9.7	113	0.01
53	T	Ethyl methacrylate	0.217	0.213	1.8	114	0.01
54	T	trans-1,3-Dichloropropene	0.319	0.315	1.3	108	0.01
55	T	1,1,2-Trichloroethane	0.212	0.210	0.9	115	0.01
56	T	2-Hexanone	0.101	0.098	3.0	115	0.03
57	T	1,3-Dichloropropane	0.331	0.315	4.8	112	0.01
58	T	Tetrachloroethene	0.360	0.331	8.1	111	0.01
59	T	Dibromochloromethane	0.281	0.278	1.1	112	0.01
60	T	1,2-Dibromoethane	0.242	0.234	3.3	113	0.01
61	T	1-Chlorohexane	0.528	0.515	2.5	113	0.01
62	P	Chlorobenzene	1.050	0.950	9.5	111	0.01
63	T	1,1,1,2-Tetrachloroethane	0.297	0.274	7.7	110	0.01
64	C,T	Ethylbenzene	1.651	1.492	9.6	108	0.01
65	T	m-Xylene & p-Xylene	1.220	1.099	9.9	107	0.03
66	T	o-Xylene	1.246	1.218	2.2	110	0.01
67	T	Styrene	0.945	0.964	-2.0	114	0.03
68	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	121	0.01
69	T	Isopropylbenzene	4.782	4.367	8.7	113	0.01
70	P,T	Bromoform	0.488	0.479	1.8	111	0.03
71	P,T	1,1,2,2-Tetrachloroethane	0.622	0.593	4.7	120	0.01
72	S	4-Bromofluorobenzene	1.215	1.266	-4.2	124	0.01
73	T	1,2,3-Trichloropropane	0.445	0.392	11.9	124	0.01
74	T	trans-1,4-Dichloro-2-butene	0.124	0.126	-1.6	113	0.03
75	T	n-Propylbenzene	4.748	4.495	5.3	114	0.03
76	T	Bromobenzene	1.122	0.998	11.1	109	0.01
77	T	1,3,5-Trimethylbenzene	2.500	2.421	3.2	113	0.03
78	T	2-Chlorotoluene	3.105	2.652	14.6	106	0.01
79	T	4-Chlorotoluene	2.520	2.405	4.6	116	0.03
80	T	tert-Butylbenzene	2.834	2.696	4.9	114	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D12\RDV153.D Vial: 3
Acq On : 12 Apr 2007 10:26 am Operator: CR
Sample : CVO01D1008 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	2.162	2.109	2.5	113	0.01
82	T	sec-Butylbenzene	4.560	4.391	3.7	114	0.03
83	T	p-Isopropyltoluene	2.610	2.651	-1.6	118	0.01
84	T	1,3-Dichlorobenzene	1.790	1.645	8.1	112	0.03
85	T	1,4-Dichlorobenzene	1.658	1.484	10.5	108	0.01
86	T	n-Butylbenzene	1.933	2.002	-3.6	112	0.01
87	T	1,2-Dichlorobenzene	1.538	1.416	7.9	110	0.01
88	T	1,2-Dibromo-3-chloropropane	0.113	0.109	3.5	107	0.01
89	T	1,2,4-Trichlorobenzene	0.596	0.558	6.4	106	0.03
90	T	Hexachlorobutadiene	0.878	0.756	13.9	97	0.03
91	T	Naphthalene	0.486	0.438	9.9	113	0.03
92	T	1,2,3-Trichlorobenzene	0.483	0.460	4.8	105	0.01

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D12\RDV153.D Vial: 3
Acq On : 12 Apr 2007 10:26 am Operator: CR
Sample : CVO01D1008 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	135	0.01
2	T	Dichlorodifluoromethane	10.000	9.136	8.6	99	0.00
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.47#
4	P,T	Chloromethane	10.000	9.442	5.6	107	0.01
5	C,T	Vinyl chloride	10.000	9.650	3.5	105	0.01
6	T	Bromomethane	10.000	9.920	0.8	124	0.00
7	T	Chloroethane	10.000	9.879	1.2	122	0.01
8	T	Dichlorofluoromethane	10.000	9.269	7.3	116	0.01
9	T	Trichlorofluoromethane	10.000	9.779	2.2	109	0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	-0.22
11	T	Acrolein	20.000	0.000	100.0#	0	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.219	7.8	115	0.01
13	T	Acetone	20.000	18.111	9.4	115	0.00
14	C,T	1,1-Dichloroethene	10.000	9.157	8.4	107	0.01
15	T	tert-Butyl alcohol	50.000	45.693	8.6	111	0.01
16	T	Acetonitrile	-1.000	0.000	0.0	175	-0.21
17	T	Methyl acetate	-1.000	0.000	0.0	101	0.01
18	T	Iodomethane	10.000	10.415	-4.1	129	0.01
19	T	Methylene chloride	10.000	8.800	12.0	114	0.01
20	T	Carbon disulfide	10.000	8.701	13.0	110	0.01
21	T	Acrylonitrile	30.000	32.246	-7.5	129	0.01
22	T	tert-Butyl methyl ether (MT	10.000	9.537	4.6	114	0.01
23	T	trans-1,2-Dichloroethene	10.000	9.494	5.1	116	0.01
24	T	Isopropyl ether (DIPE)	10.000	9.812	1.9	119	0.01
25	T	Vinyl acetate	10.000	8.861	11.4	110	0.01
26	P,T	1,1-Dichloroethane	10.000	9.669	3.3	120	0.01
27	T	tert-Butyl ethyl ether (ETB	10.000	9.620	3.8	113	0.01
28	T	2-Butanone	20.000	18.638	6.8	117	0.01
29	T	2,2-Dichloropropane	10.000	9.301	7.0	110	0.01
30	T	cis-1,2-Dichloroethene	10.000	9.542	4.6	116	0.01
31	C,T	Chloroform	10.000	9.447	5.5	113	0.01
32	T	Bromochloromethane	10.000	10.197	-2.0	119	0.01
33	T	Tetrahydrofuran	10.000	9.082	9.2	125	0.01
34	T	1,1,1-Trichloroethane	10.000	8.939	10.6	107	0.01
35	T	Cyclohexane	-1.000	0.000	0.0	0	-10.07#
36	T	tert-Amyl methyl ether (TAM	10.000	9.257	7.4	114	0.00
37	S	1,2-Dichloroethane-d4	10.000	8.607	13.9	113	0.01
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	132	0.01
39	T	1,1-Dichloropropene	10.000	8.940	10.6	112	0.01
40	T	Carbon tetrachloride	10.000	8.715	12.9	105	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D12\RDV153.D Vial: 3
Acq On : 12 Apr 2007 10:26 am Operator: CR
Sample : CVO01D1008 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	8.501	15.0	104	0.01
42	T	Benzene	10.000	9.210	7.9	118	0.03
43	T	Trichloroethene	10.000	9.209	7.9	118	0.01
44	T	Methylcyclohexane	-1.000	0.000	0.0	122	0.03
45	C,T	1,2-Dichloropropane	10.000	10.067	-0.7	124	0.01
46	T	Bromodichloromethane	10.000	9.661	3.4	112	0.01
47	T	Dibromomethane	10.000	9.666	3.3	116	0.01
48	T	4-Methyl-2-pentanone	20.000	19.647	1.8	116	0.01
49	T	2-Chloroethyl vinyl ether	10.000	0.000	100.0#	0	0.01
50	T	cis-1,3-Dichloropropene	10.000	9.818	1.8	118	0.03
51	S	Toluene-d8	10.000	9.739	2.6	122	0.01
52	C,T	Toluene	10.000	9.038	9.6	113	0.01
53	T	Ethyl methacrylate	10.000	9.782	2.2	114	0.01
54	T	trans-1,3-Dichloropropene	10.000	9.867	1.3	108	0.01
55	T	1,1,2-Trichloroethane	10.000	9.902	1.0	115	0.01
56	T	2-Hexanone	20.000	19.575	2.1	115	0.03
57	T	1,3-Dichloropropane	10.000	9.531	4.7	112	0.01
58	T	Tetrachloroethene	10.000	9.187	8.1	111	0.01
59	T	Dibromochloromethane	10.000	9.889	1.1	112	0.01
60	T	1,2-Dibromoethane	10.000	9.657	3.4	113	0.01
61	T	1-Chlorohexane	10.000	9.742	2.6	113	0.01
62	P	Chlorobenzene	10.000	9.044	9.6	111	0.01
63	T	1,1,1,2-Tetrachloroethane	10.000	9.208	7.9	110	0.01
64	C,T	Ethylbenzene	10.000	9.036	9.6	108	0.01
65	T	m-Xylene & p-Xylene	20.000	18.018	9.9	107	0.03
66	T	o-Xylene	10.000	9.779	2.2	110	0.01
67	T	Styrene	10.000	10.200	-2.0	114	0.03
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	121	0.01
69	T	Isopropylbenzene	10.000	9.132	8.7	113	0.01
70	P,T	Bromoform	10.000	9.811	1.9	111	0.03
71	P,T	1,1,2,2-Tetrachloroethane	10.000	9.527	4.7	120	0.01
72	S	4-Bromofluorobenzene	10.000	10.416	-4.2	124	0.01
73	T	1,2,3-Trichloropropane	10.000	10.846	-8.5	124	0.01
74	T	trans-1,4-Dichloro-2-butene	10.000	10.148	-1.5	113	0.03
75	T	n-Propylbenzene	10.000	9.466	5.3	114	0.03
76	T	Bromobenzene	10.000	8.898	11.0	109	0.01
77	T	1,3,5-Trimethylbenzene	10.000	9.682	3.2	113	0.03
78	T	2-Chlorotoluene	10.000	8.542	14.6	106	0.01
79	T	4-Chlorotoluene	10.000	9.543	4.6	116	0.03
80	T	tert-Butylbenzene	10.000	9.511	4.9	114	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D12\RDV153.D Vial: 3
Acq On : 12 Apr 2007 10:26 am Operator: CR
Sample : CVO01D1008 Inst : TO01
Misc : 10PPB 8260/20PPB KET_AA/50PB TBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO01D10.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Wed Apr 11 10:51:05 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	9.755	2.4	113	0.01
82	T	sec-Butylbenzene	10.000	9.629	3.7	114	0.03
83	T	p-Isopropyltoluene	10.000	10.156	-1.6	118	0.01
84	T	1,3-Dichlorobenzene	10.000	9.191	8.1	112	0.03
85	T	1,4-Dichlorobenzene	10.000	8.952	10.5	108	0.01
86	T	n-Butylbenzene	10.000	9.443	5.6	112	0.01
87	T	1,2-Dichlorobenzene	10.000	9.207	7.9	110	0.01
88	T	1,2-Dibromo-3-chloropropane	10.000	8.887	11.1	107	0.01
89	T	1,2,4-Trichlorobenzene	10.000	9.377	6.2	106	0.03
90	T	Hexachlorobutadiene	10.000	8.605	13.9	97	0.03
91	T	Naphthalene	10.000	8.327	16.7	113	0.03
92	T	1,2,3-Trichlorobenzene	10.000	8.470	15.3	105	0.01

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/10/07 ☐ 5-ml Purge ☑ 25-ml Purge Book # A01 -023

BATCH V0010106

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDV081	BFB01D06	2ul	NA	NA	NA	
02		082	BFB01D07 ✓	2ul				
03		083	V0010101 ✓	0.03/0.05/0.15ul				0.3/0.6/1.5 ppb 8260
04		084	2 ✓	0.05/0.1/0.25ul				0.5/1/2.5 ppb
05		085	3 ✓	0.1/0.2/0.5ul				1/2/5 ppb
06		086	4 ✓	0.2/0.4/1ul				2/4/10 ppb
07		087	5 ✓	0.5/1/2.5ul				5/10/25 ppb
08		088	6 ✓	1/2/5ul				10/20/50 ppb
09		089	7 ✓	2/4/10ul				20/40/100 ppb
10		090	8 ✓	3/6/15ul				30/60/150 ppb
11		091	9 ✓	4/8/20ul				40/80/200 ppb
12		092	10	5/10/25ul				50/100/250 ppb
13		093	IS/SS	25ml				
14		094	V0010078	25ml				
15		095	IV0010101	1/2/5ul				10/20/50 ppb *
16		096	IV0010102	1/2/5ul				10/20/50 ppb *
17		097	RINSE	25ml				
18								
19								
20								
21								
22								
23								
24								
25						cn		4/10/07

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	4/10/07
ICAL ID	V0010106

STANDARDS

NAME	ID	CONC. (mg/L)
DCC GASES	SVIC-11-69-1	250
DCC 8260	SVIC-11-69-2	50/250
DCC KET/AA	SVIC-11-63-1	250
BFB	SVIC-11-49-3	50
IS/SURR.	SVIC-11-57-3	250
LCS GASES	SVIC-11-69-3	250
LCS 8260	SVIC-11-64-3	50/250
LCS KET/AA	SVIC-11-59-3	250

SOLVENT	ID	
METHANOL	IS SVIC-11-54-2	250
	SS SVIC-11-55-1	250
DATA FILE	04070	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO01	

Comments: * ACETONE NOT VERIFIED

Analyzed By: cn

Date Disposed: 4/11/07

Disposed By: cn

2012

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/10/07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # A01 -023**

BATCH W6D1001

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDV098	BFB01008	2ml				
02		099	BFB01009	2ml				10:22
03		100	CV0010100 1	1/2/5ml				
04		101	CV0010100 2	1/2/5ml				
05		102	IV0010103	1/2/5ml				
06		103	V0010094	1/2/5ml				
07		104	C	1/2/5ml				
08		105	B	25ml				
09		106	Q	25ml				
10		107	07D065-05	25ml	1	12.0		
11		108	07D051-02		1			1
12		109	-01		1			RR @ 25X
13		110	07D065-01		1			RR @ 1X/5X
14		111	-02		1			RR @ 100x/500X
15		112	-03		1			RR @ 1X
16		113	-04		1			RR @ 5X
17		114	07D081-01		1			RR @ 1X/50X
18		115	RINSE	25ml				
19		116	V0801009	1/2/5ml				
20		117		1/2/5ml				10.25 AM 4/11/07
21		118	RINSE	25ml				
22								
23								
24								
25								CC 4/11/07

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	4/10/07
ICAL ID	V0010 10

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SVIC-11-69-1	
DCC	SVIC-11-69-2	
DCC	SVIC-11-63-1	
BFB	SVIC-11-49-3	50/250
IS/SURR.	SVIC-11-57-3	
LCS	SVIC-11-69-3	
LCS	SVIC-11-64-3	
LCS	SVIC-11-59-3	

SOLVENT	ID
METHANOL	
DATA FILE	07D 10

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: CC

Date Disposed: 4/11/07

Disposed By: CC

2 of 2

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/12/07 ☐ 5-ml Purge ☑ 25-ml Purge Book # A01 -023

BATCH CV001D1007

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDV151	BFB01014	2ml				8:57 AM
02		152	CV001D1007	1/2/5ml				9:44 AM use on BFB
03		153	CV001D1008					
04		154	V001D14L			•		
05		155	C					
06		156	X					
07		157	B	25ml				
08		158	Q	25ml				
09		159	07D065-03R	25ml	1	<2.0		
10		160	07D051-01T	1ml	25			55 out, RM
11		161	07D065-04T	5ml	5			
12		162	-05T	5ml	5			
13		163	-02I	500ml	500			
14		164	07D081-01T	500ml	50			•
15		165	07D051-01T	1ml	25			
16		166	07D065-01R	25ml	1			
17		167	-02T	250ml	100			
18		168	RINSE	25ml	1			
19		169	07D081-01R	25ml	1	<2.0		9:02 PM
20		170	RINSE	25ml	1			
21								
22								
23								
24								
25								CV 4/13/07

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	4/10/07
ICAL ID	V001D10

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC-11-69-1	
DCC	-69-2	
DCC	-63-1	
BFB	-49-3	50/250
IS/SURR.	-57-3	
LCS	-69-3	
LCS	-64-3	
LCS	-59-3	

SOLVENT	ID
METHANOL	
DATA FILE	07D12

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: CV

Date Disposed: 4/13/07

Disposed By: CV

2004-02

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D051

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D051

METHOD 314.0
PERCHLORATE

One (1) water and ten (10) soil samples were received on 04/05/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Sample D051-10 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   Sample D051-10 was spiked. %Recovery was within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D051

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD005WB	ND	1	NA	2.00	0.500	04/12/0701:13	NA	JD11031	JD11030	PCD005W	NA	NA
LCS1W	PCD005WL	24.2	1	NA	2.00	0.500	04/12/0701:54	NA	JD11033	JD11030	PCD005W	NA	NA
LCD1W	PCD005WC	24.5	1	NA	2.00	0.500	04/12/0702:14	NA	JD11034	JD11030	PCD005W	NA	NA
B11-GW01	D051-01	1980	200	NA	400	100	04/12/0702:34	NA	JD11035	JD11030	PCD005W	04/04/0711:00	04/05/07

6003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D051

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD004SB	ND	1	NA	20.0	10.0	04/11/0718:49	04/09/0711:00	JD11012	JD11011	PCD004S	NA	04/09/07
LCS1S	PCD004SL	248	1	NA	20.0	10.0	04/11/0719:29	04/09/0711:00	JD11014	JD11011	PCD004S	NA	04/09/07
LCD1S	PCD004SC	248	1	NA	20.0	10.0	04/11/0719:49	04/09/0711:00	JD11015	JD11011	PCD004S	NA	04/09/07
B11-HSAS8-20-21.5	D051-11	ND	1	7.5	21.6	10.8	04/11/0720:10	04/09/0711:00	JD11016	JD11011	PCD004S	04/04/0709:34	04/05/07
B11-HSAS8-25-26.5	D051-12	141	1	10.1	22.2	11.1	04/11/0720:30	04/09/0711:00	JD11017	JD11011	PCD004S	04/04/0709:55	04/05/07
B11-HSAS9-15-16.5	D051-03	261	1	9.8	22.2	11.1	04/11/0720:50	04/09/0711:00	JD11018	JD11011	PCD004S	04/03/0714:42	04/05/07
B11-HSAS9-20-21.5	D051-04	388	2	11.7	45.3	22.7	04/11/0721:10	04/09/0711:00	JD11019	JD11011	PCD004S	04/03/0714:48	04/05/07
B11-HSAS9-25-26.5	D051-05	364	2	12.0	45.5	22.7	04/11/0721:31	04/09/0711:00	JD11020	JD11011	PCD004S	04/03/0714:53	04/05/07
B11-HSAS10-25-26.5	D051-07	270	1	11.2	22.5	11.3	04/11/0722:31	04/09/0711:00	JD11023	JD11022	PCD004S	04/03/0711:00	04/05/07
B11-HSAS10-30-31.5	D051-08	318	1	12.3	22.8	11.4	04/11/0722:52	04/09/0711:00	JD11024	JD11022	PCD004S	04/03/0711:07	04/05/07
B11-HSAS8-5-6.5	D051-09	ND	1	3.4	20.7	10.4	04/11/0723:12	04/09/0711:00	JD11025	JD11022	PCD004S	04/04/0709:07	04/05/07
B11-HSAS8-5-6.5D	D051-10	ND	1	3.1	20.6	10.3	04/11/0723:32	04/09/0711:00	JD11026	JD11022	PCD004S	04/04/0709:07	04/05/07
B11-HSAS8-5-6.5DDUP	D051-10D	ND	1	3.1	20.6	10.3	04/11/0723:52	04/09/0711:00	JD11027	JD11022	PCD004S	04/04/0709:07	04/05/07
B11-HSAS8-5-6.5DMS	D051-10M	87.5	1	3.1	20.6	10.3	04/12/0700:13	04/09/0711:00	JD11028	JD11022	PCD004S	04/04/0709:07	04/05/07
B11-HSAS10-10-11.5	D051-06	725	5	3.9	104	52.0	04/12/0721:50	04/09/0711:00	JD12006	JD12001	PCD004S	04/03/0710:35	04/05/07

8961

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D051
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD005WB	PCD005WL	PCD005WC		
LAB FILE ID:	JD11031	JD11033	JD11034		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/12/0701:13	04/12/0701:54	04/12/0702:14	DATE RECEIVED:	NA
PREP. BATCH:	PCD005W	PCD005W	PCD005W		
CALIB. REF:	JD11030	JD11030	JD11030		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.2	97	25.0	24.5	98	1	85-115	20

8999

6

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D051
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD004SB	PCD004SL	PCD004SC		
LAB FILE ID:	JD11012	JD11014	JD11015		
DATE EXTRACTED:	04/09/0711:00	04/09/0711:00	04/09/0711:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/11/0718:49	04/11/0719:29	04/11/0719:49	DATE RECEIVED:	04/09/07
PREP. BATCH:	PCD004S	PCD004S	PCD004S		
CALIB. REF:	JD11011	JD11011	JD11011		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	248	99	250	248	99	0	85-115	20

3691

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D051
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 3.1
DILUTION FACTOR: 1 1
SAMPLE ID: B11-HSAS8-5-6.5D
LAB SAMP ID: D051-10 D051-10M
LAB FILE ID: JD11026 JD11028
DATE EXTRACTED: 04/09/0711:00 04/09/0711:00 DATE COLLECTED: 04/04/07 09:07
DATE ANALYZED: 04/11/0723:32 04/12/0700:13 DATE RECEIVED: 04/05/07
PREP. BATCH: PCD004S PCD004S
CALIB. REF: JD11022 JD11022

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	ND	103	87.5	85	80-120

8008

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D051
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 3.1

DILUTION FACTOR:	1	1		
SAMPLE ID:	B11-HSAS8-5-6.5	D		
EMAX SAMP ID:	D051-10	D051-10D		
LAB FILE ID:	JD11026	JD11027		
DATE EXTRACTED:	04/09/0711:00	04/09/0711:00	DATE COLLECTED:	04/04/07 09:07
DATE ANALYZED:	04/11/0723:32	04/11/0723:52	DATE RECEIVED:	04/05/07
PREP. BATCH:	PCD004S	PCD004S		
CALIB. REF:	JD11022	JD11022		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	ND	ND	NA	20

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD11001	IB	P	IC57D11	04/11/0714:29	1
JD11002	S-0.0	P	IC57D11	04/11/0714:49	1
JD11003	S-2.0	P	IC57D11	04/11/0715:09	1
JD11004	S-4.0	P	IC57D11	04/11/0715:30	1
JD11005	S-10.0	P	IC57D11	04/11/0715:50	1
JD11006	S-25.0	P	IC57D11	04/11/0716:14	1
JD11007	S-30.0	P	IC57D11	04/11/0716:35	1
JD11008	ICV	P	IC57D11	04/11/0716:55	1
JD11009	ICV	P	IC57D11	04/11/0717:48	1
JD11010	ICB	P	IC57D11	04/11/0718:08	1
JD11011	IPCS	P	IC57D11	04/11/0718:28	1
JD11012	PCD004SB	P	IC57D11	04/11/0718:49	1
JD11013	MRL	P	IC57D11	04/11/0719:09	1
JD11014	PCD004SL	P	IC57D11	04/11/0719:29	1
JD11015	PCD004WC	P	IC57D11	04/11/0719:49	1
JD11016	D051-11	P	IC57D11	04/11/0720:10	1
JD11017	D051-12	P	IC57D11	04/11/0720:30	1
JD11018	D051-03	P	IC57D11	04/11/0720:50	1
JD11019	D051-04	P	IC57D11	04/11/0721:10	2
JD11020	D051-05	P	IC57D11	04/11/0721:31	2
JD11021	D051-06	*	IC57D11	04/11/0721:51	2
JD11022	CCV1-15	P	IC57D11	04/11/0722:11	1
JD11023	D051-07	P	IC57D11	04/11/0722:31	1
JD11024	D051-08	P	IC57D11	04/11/0722:52	1
JD11025	D051-09	P	IC57D11	04/11/0723:12	1
JD11026	D051-10	P	IC57D11	04/11/0723:32	1
JD11027	D051-10D	P	IC57D11	04/11/0723:52	1
JD11028	D051-10M	P	IC57D11	04/12/0700:13	1
JD11029	CCV2-30	P	IC57D11	04/12/0700:33	1
JD11030	IPCS	P	IC57D11	04/12/0700:53	1
JD11031	PCD005WB	P	IC57D11	04/12/0701:13	1
JD11032	MRL	P	IC57D11	04/12/0701:34	1
JD11033	PCD005WL	P	IC57D11	04/12/0701:54	1
JD11034	PCD005WC	P	IC57D11	04/12/0702:14	1
JD11035	D051-01	P	IC57D11	04/12/0702:34	200
JD11036	D066-02	P	IC57D11	04/12/0702:55	1
JD11037	D066-03	*	IC57D11	04/12/0703:15	1
JD11038	D097-01	*	IC57D11	04/12/0703:35	1
JD11039	D097-02	*	IC57D11	04/12/0703:55	1
JD11040	D097-02D	*	IC57D11	04/12/0704:16	1
JD11041	CCV3-15	P	IC57D11	04/12/0704:36	1
JD11042	D097-02M	*	IC57D11	04/12/0704:56	1
JD11043	D105-02	P	IC57D11	04/12/0705:16	1
JD11044	RINSE	P	IC57D11	04/12/0705:37	1
JD11045	CCV4-30	P	IC57D11	04/12/0705:57	1

4-30-01

Method : c:\ezchrom\methods\ic57d11.met
Printed : Apr 11, 2007 17:32:31
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

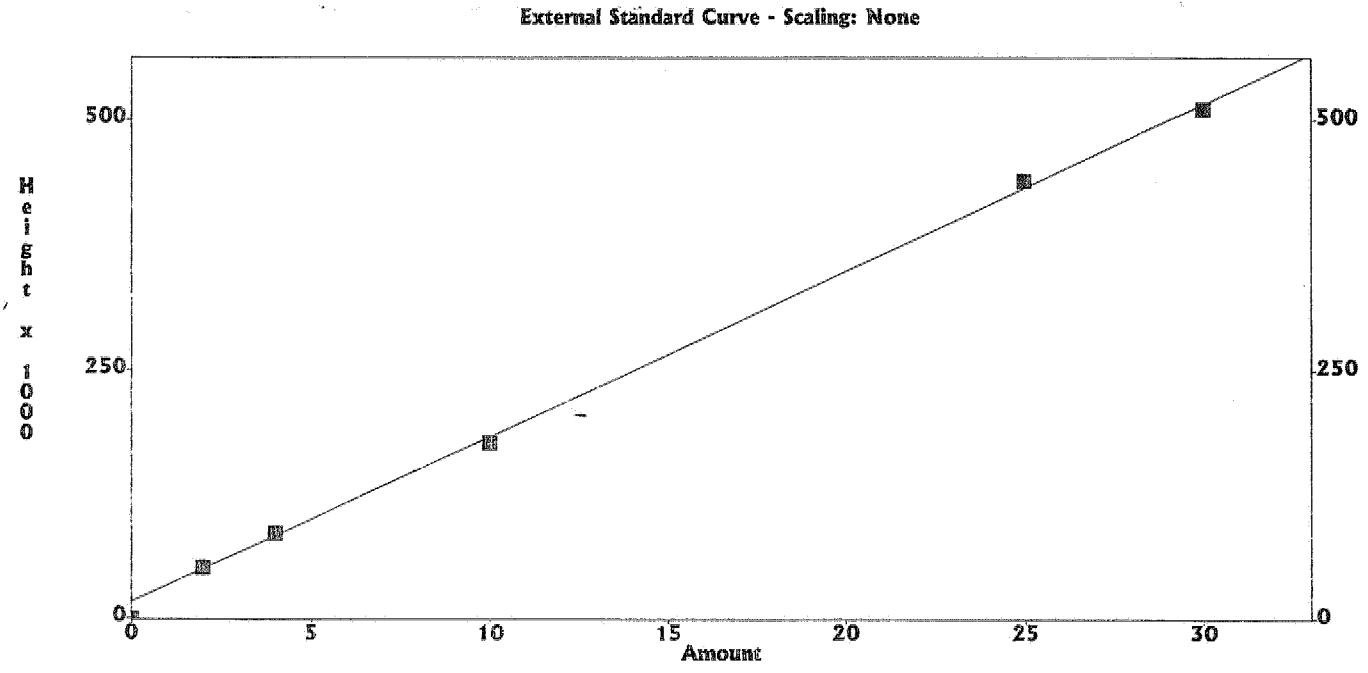
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	51511	2	25755.50	51511							0
3	86144	4	21536.00	86144							0
4	177427	10	17742.70	177427							0
5	439689	25	17587.56	439689							0
6	511110	30	17037.00	511110							0

Calib Flag: Replace

Average RF: 19931.8
RF StdDev: 3713.37
RF %RSD: 18.630

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 6.01963e-005 x Height - 1.04027
R^2 = 0.999354



4-20-07

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.1D1

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD11001	IB	P	.000	04/11/0714:29	1
JD11002	S-0.0	P	.0000	04/11/0714:49	1
JD11003	S-2.0	P	2	04/11/0715:09	1
JD11004	S-4.0	P	4	04/11/0715:30	1
JD11005	S-10.0	P	10	04/11/0715:50	1
JD11006	S-25.0	P	25	04/11/0716:14	1
JD11007	S-30.0	P	30	04/11/0716:35	1
JD11008	ICV	P	96.1% ✗	04/11/0716:55	1
JD11009	ICV	P	98.5% ✓	04/11/0717:48	1
JD11010	ICB	P	.000	04/11/0718:08	1
JD11011	IPCS	P	108%	04/11/0718:28	1
JD11012	PCD004SB	P	.000	04/11/0718:49	1
JD11013	MRL	P	96.7%	04/11/0719:09	1
JD11014	PCD004SL	P	24.8	04/11/0719:29	1
JD11015	PCD004WC	P	24.8	04/11/0719:49	1
JD11016	D051-11	P	.000	04/11/0720:10	1
JD11017	D051-12	P	12.7	04/11/0720:30	1
JD11018	D051-03	P	23.5	04/11/0720:50	1
JD11019	D051-04	P	34.3	04/11/0721:10	2
JD11020	D051-05	P	32	04/11/0721:31	2
JD11021	D051-06	*	65.3E	04/11/0721:51	2
JD11022	CCV1-15	P	95.7%	04/11/0722:11	1
JD11023	D051-07	P	24	04/11/0722:31	1
JD11024	D051-08	P	27.9	04/11/0722:52	1
JD11025	D051-09	P	.000	04/11/0723:12	1
JD11026	D051-10	P	.000	04/11/0723:32	1
JD11027	D051-10D	P	.000	04/11/0723:52	1
JD11028	D051-10M	P	8.48	04/12/0700:13	1
JD11029	CCV2-30	P	102%	04/12/0700:33	1
JD11030	IPCS	P	107%	04/12/0700:53	1
JD11031	PCD005WB	P	.000	04/12/0701:13	1
JD11032	MRL	P	89.1%	04/12/0701:34	1
JD11033	PCD005WL	P	24.2	04/12/0701:54	1
JD11034	PCD005WC	P	24.5	04/12/0702:14	1
JD11035	D051-01	P	1980	04/12/0702:34	200
JD11036	D066-02	P	15.6	04/12/0702:55	1
JD11037	D066-03	*	50.7E	04/12/0703:15	1
JD11038	D097-01	*	31.5E	04/12/0703:35	1
JD11039	D097-02	*	49.3E	04/12/0703:55	1
JD11040	D097-02D	*	49.5E	04/12/0704:16	1
JD11041	CCV3-15	P	93.3%	04/12/0704:36	1
JD11042	D097-02M	*	49.4E	04/12/0704:56	1
JD11043	D105-02	P	.000	04/12/0705:16	1
JD11044	RINSE	P	.000	04/12/0705:37	1
JD11045	CCV4-30	P	104%	04/12/0705:57	1

4-20-07

DAILY CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD12001	IPCS	P	IC57D11	04/12/0720:09	1
JD12002	PCD006WB	P	IC57D11	04/12/0720:29	1
JD12003	MRL	P	IC57D11	04/12/0720:49	1
JD12004	PCD006WL	P	IC57D11	04/12/0721:09	1
JD12005	PCD006WC	P	IC57D11	04/12/0721:30	1
JD12006	D051-06	P	IC57D11	04/12/0721:50	5
JD12007	D066-03	P	IC57D11	04/12/0722:10	5
JD12008	D097-01	P	IC57D11	04/12/0722:30	2
JD12009	D097-02	P	IC57D11	04/12/0722:51	5
JD12010	D097-02D	P	IC57D11	04/12/0723:11	5
JD12011	D097-02M	P	IC57D11	04/12/0723:31	5
JD12012	CCV5-15	P	IC57D11	04/12/0723:51	1

IC RESULT FORM CalVersion: PCHLO314.1D1

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD12001	IPCS	P	107%	04/12/0720:09	1
JD12002	PCD006WB	P	.000	04/12/0720:29	1
JD12003	MRL	P	75%	04/12/0720:49	1
JD12004	PCD006WL	P	24.8	04/12/0721:09	1
JD12005	PCD006WC	P	25.6	04/12/0721:30	1
JD12006	D051-06	P	69.7	04/12/0721:50	5
JD12007	D066-03	P	45.7	04/12/0722:10	5
JD12008	D097-01	P	31.6	04/12/0722:30	2
JD12009	D097-02	P	50.2	04/12/0722:51	5
JD12010	D097-02D	P	51.8	04/12/0723:11	5
JD12011	D097-02M	P	99.7	04/12/0723:31	5
JD12012	CCV5-15	P	104%	04/12/0723:51	1

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

* JD11.008: Bad injection; not used.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD11

Method File: IC57d11.met

Analytical Batch: PCD0045 + PCD005W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

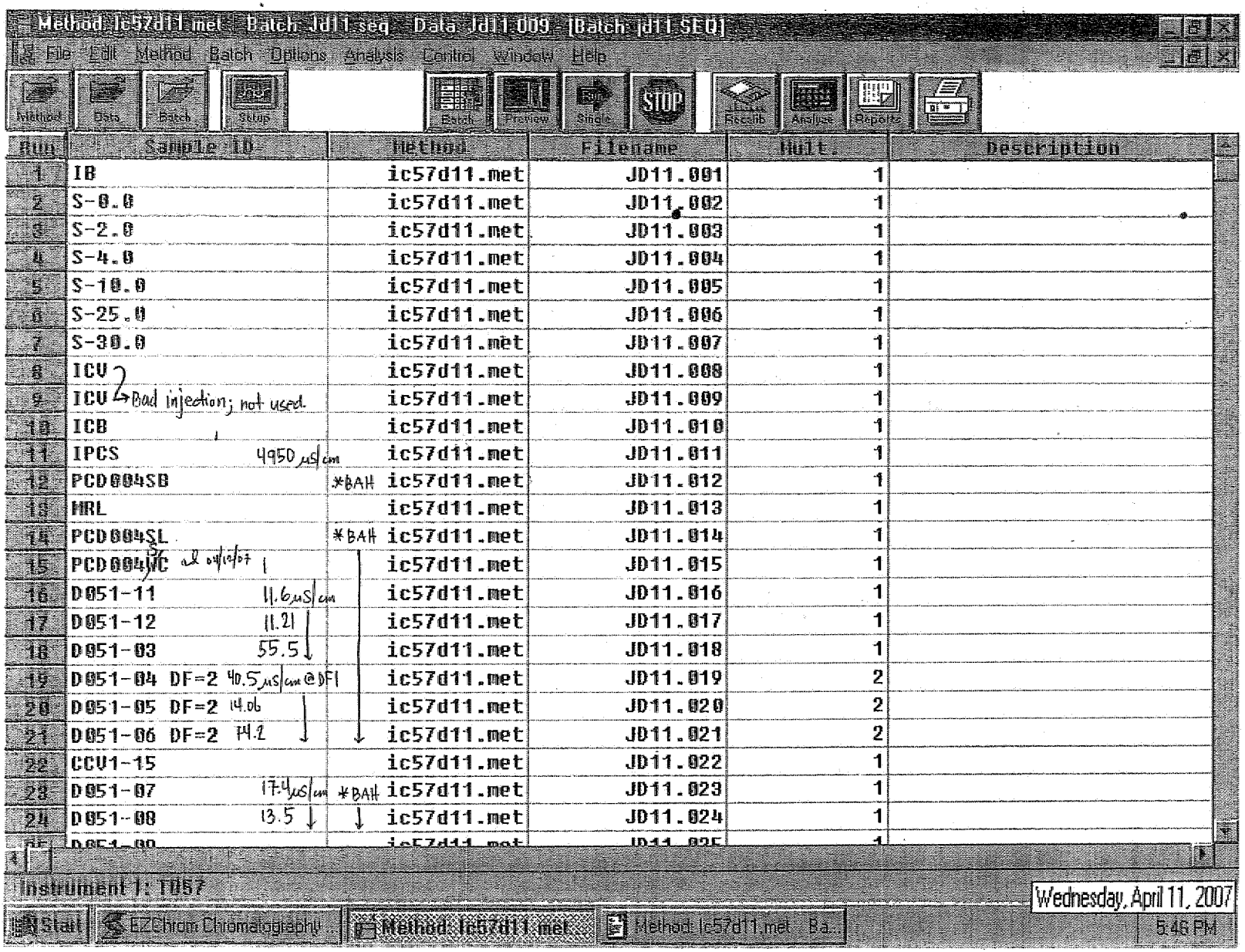
STANDARDS ID	
ICAL	SW8B - 02 - 929
ICV	↓ 930
CCV	N/A
CCV-15	SW8B - 02 - 924
CCV-30	925
LCS	932
MS	931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1407	(±) 30	25°C

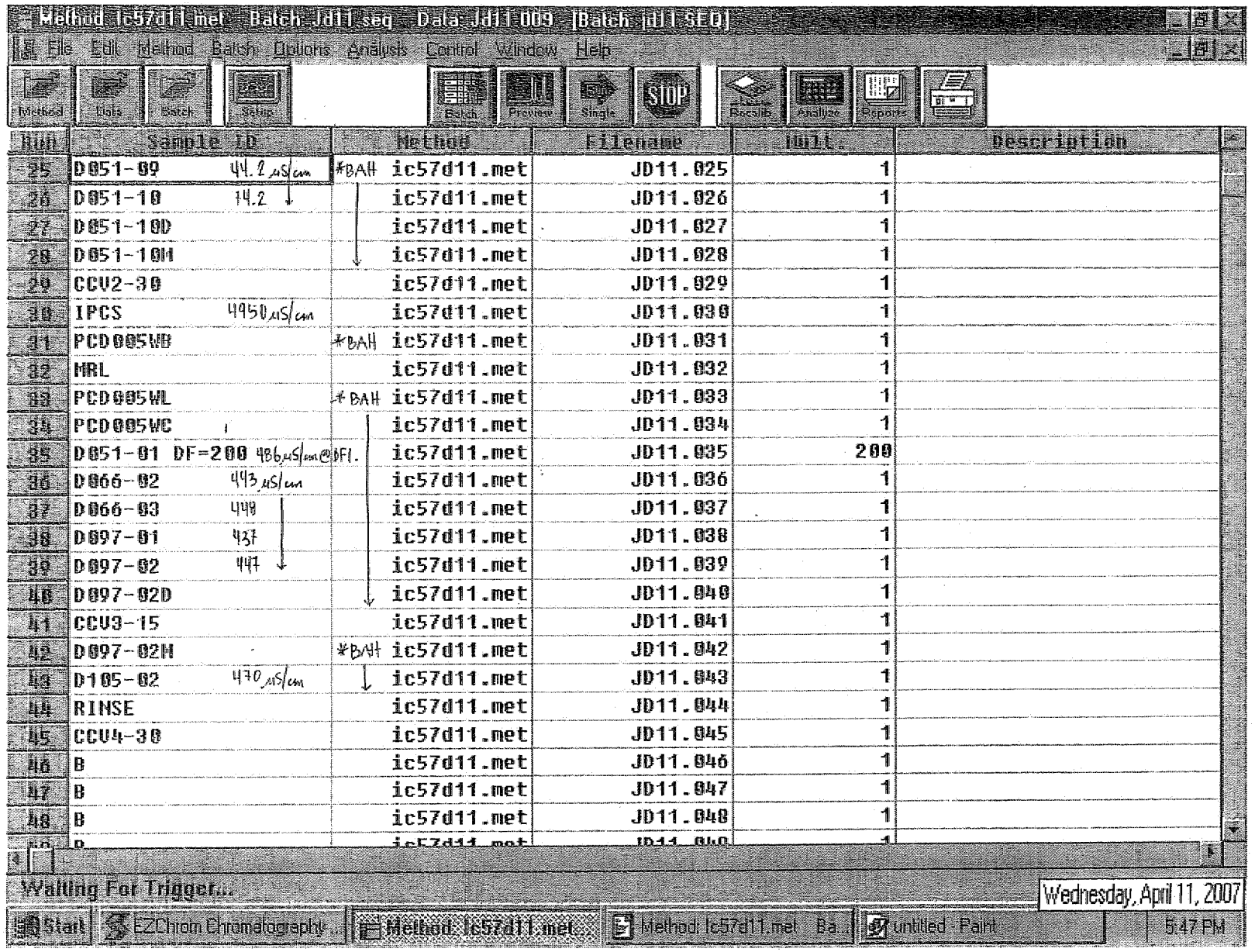
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: [signature]

Date: 04/11/07


Method: ic57d11.met Batch: jd11.seq Data: jd11.009 [Batch jd11.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d11.met | JD11.001 | 1
2 | S-0.0 | ic57d11.met | JD11.002 | 1
3 | S-2.0 | ic57d11.met | JD11.003 | 1
4 | S-4.0 | ic57d11.met | JD11.004 | 1
5 | S-10.0 | ic57d11.met | JD11.005 | 1
6 | S-25.0 | ic57d11.met | JD11.006 | 1
7 | S-30.0 | ic57d11.met | JD11.007 | 1
8 | ICV | ic57d11.met | JD11.008 | 1
9 | ICV Bad injection; not used. | ic57d11.met | JD11.009 | 1
10 | ICB | ic57d11.met | JD11.010 | 1
11 | IPCS 4950 µS/cm | ic57d11.met | JD11.011 | 1
12 | PCD004SB | *BAH ic57d11.met | JD11.012 | 1
13 | MRL | ic57d11.met | JD11.013 | 1
14 | PCD004SL | *BAH ic57d11.met | JD11.014 | 1
15 | PCD004VC all outliers | ic57d11.met | JD11.015 | 1
16 | D051-11 11.6 µS/cm | ic57d11.met | JD11.016 | 1
17 | D051-12 11.21 | ic57d11.met | JD11.017 | 1
18 | D051-03 55.5 | ic57d11.met | JD11.018 | 1
19 | D051-04 DF=2 40.5 µS/cm @DF1 | ic57d11.met | JD11.019 | 2
20 | D051-05 DF=2 14.06 | ic57d11.met | JD11.020 | 2
21 | D051-06 DF=2 14.2 | ic57d11.met | JD11.021 | 2
22 | CCV1-15 | ic57d11.met | JD11.022 | 1
23 | D051-07 17.4 µS/cm | *BAH ic57d11.met | JD11.023 | 1
24 | D051-08 13.5 | ic57d11.met | JD11.024 | 1
Instrument 1: TOC
Wednesday, April 11, 2007
Start EZChrom Chromatography... Method: ic57d11.met... Method: ic57d11.met - Ba...
5:46 PM

8629


Method: ic57d11.met Batch: jd11.seq Data: Jd11009 - [Batch: jd11.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Results Analyze Reports
Run | Sample ID | Method | Filename | Vial | Description
25 | D051-09 | 44.2 uS/cm | *BAH | ic57d11.met | JD11.025 | 1
26 | D051-10 | 14.2 | ic57d11.met | JD11.026 | 1
27 | D051-10D | ic57d11.met | JD11.027 | 1
28 | D051-10M | ic57d11.met | JD11.028 | 1
29 | CCV2-30 | ic57d11.met | JD11.029 | 1
30 | IPCS | 4950 uS/cm | ic57d11.met | JD11.030 | 1
31 | PCD005WB | *BAH | ic57d11.met | JD11.031 | 1
32 | MRL | ic57d11.met | JD11.032 | 1
33 | PCD005WL | *BAH | ic57d11.met | JD11.033 | 1
34 | PCD005WC | ic57d11.met | JD11.034 | 1
35 | D051-01 DF=200 486 uS/cm@DFI. | ic57d11.met | JD11.035 | 200
36 | D066-02 | 493 uS/cm | ic57d11.met | JD11.036 | 1
37 | D066-03 | 448 | ic57d11.met | JD11.037 | 1
38 | D097-01 | 437 | ic57d11.met | JD11.038 | 1
39 | D097-02 | 447 | ic57d11.met | JD11.039 | 1
40 | D097-02D | ic57d11.met | JD11.040 | 1
41 | CCV3-15 | ic57d11.met | JD11.041 | 1
42 | D097-02M | *BAH | ic57d11.met | JD11.042 | 1
43 | D105-02 | 470 uS/cm | ic57d11.met | JD11.043 | 1
44 | RINSE | ic57d11.met | JD11.044 | 1
45 | CCV4-30 | ic57d11.met | JD11.045 | 1
46 | B | ic57d11.met | JD11.046 | 1
47 | B | ic57d11.met | JD11.047 | 1
48 | B | ic57d11.met | JD11.048 | 1
Waiting For Trigger...
Wednesday, April 11, 2007
Start | EZChrom Chromatography... | Method: ic57d11.met... | Method: ic57d11.met Ba... | untitled - Paint | 5:47 PM

8021

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JD12
Method File: *IC57dll.met
Analytical Batch: PC0006W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

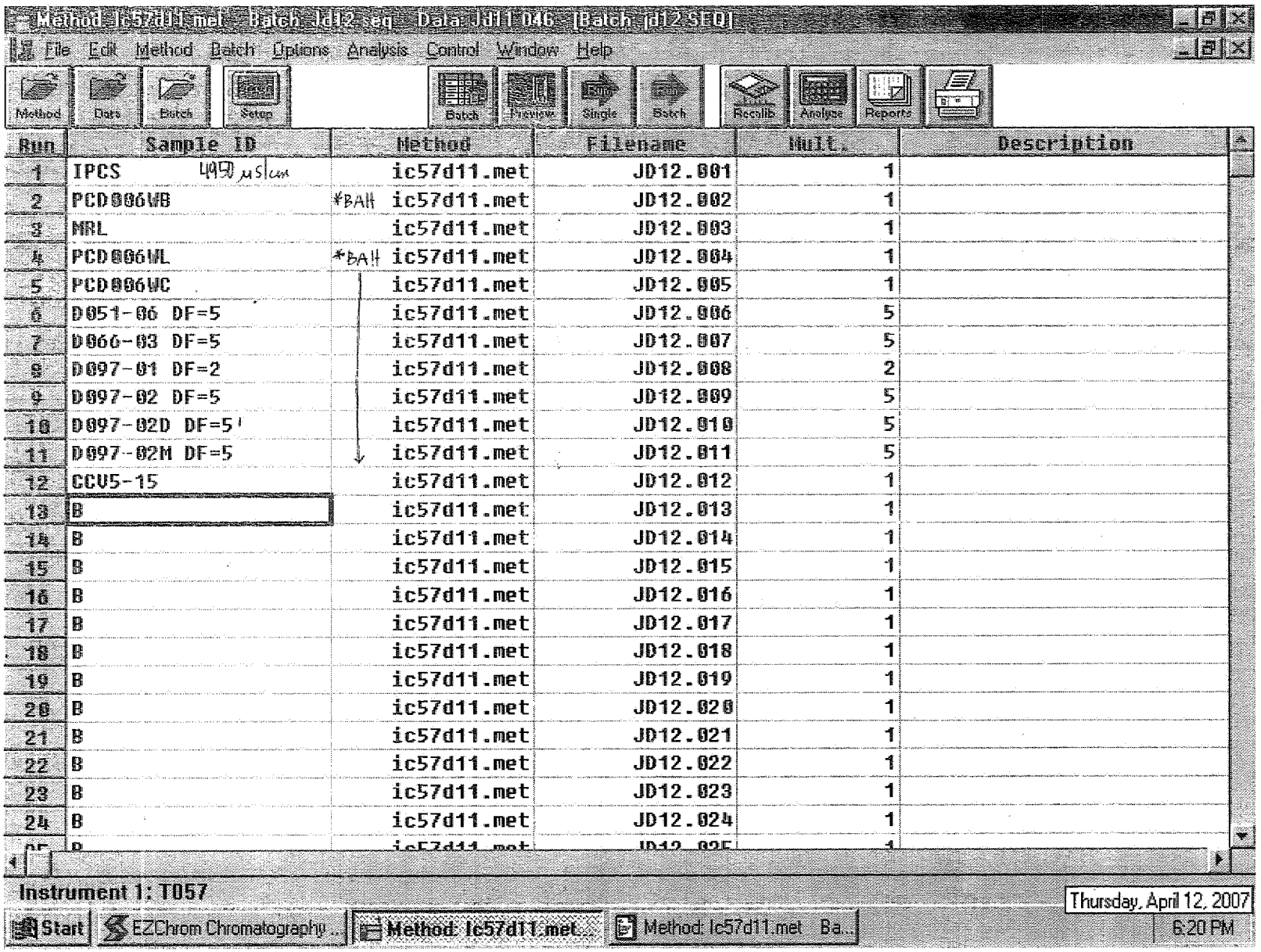
STANDARDS ID	
ICAL	SW8B - 02 - 929
ICV	↓ 930
CCV	N/A
CCV-15	SW8B - 02 - 924
CCV-30	925
LCS	932
MS	931
IPC	934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1410	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 04/12/07


Method: Ic57d11.met Batch: jd12.seq Data: Jd11046 [Batch jd12 SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 IPCS 495 µslam | ic57d11.met | JD12.001 | 1
2 PCD006WB *BAH | ic57d11.met | JD12.002 | 1
3 MRL | ic57d11.met | JD12.003 | 1
4 PCD006WL *BAH | ic57d11.met | JD12.004 | 1
5 PCD006WC | ic57d11.met | JD12.005 | 1
6 D051-06 DF=5 | ic57d11.met | JD12.006 | 5
7 D066-03 DF=5 | ic57d11.met | JD12.007 | 5
8 D097-01 DF=2 | ic57d11.met | JD12.008 | 2
9 D097-02 DF=5 | ic57d11.met | JD12.009 | 5
10 D097-02D DF=5 | ic57d11.met | JD12.010 | 5
11 D097-02M DF=5 | ic57d11.met | JD12.011 | 5
12 CCV5-15 | ic57d11.met | JD12.012 | 1
13 B | ic57d11.met | JD12.013 | 1
14 B | ic57d11.met | JD12.014 | 1
15 B | ic57d11.met | JD12.015 | 1
16 B | ic57d11.met | JD12.016 | 1
17 B | ic57d11.met | JD12.017 | 1
18 B | ic57d11.met | JD12.018 | 1
19 B | ic57d11.met | JD12.019 | 1
20 B | ic57d11.met | JD12.020 | 1
21 B | ic57d11.met | JD12.021 | 1
22 B | ic57d11.met | JD12.022 | 1
23 B | ic57d11.met | JD12.023 | 1
24 B | ic57d11.met | JD12.024 | 1
Instrument 1: T057
Thursday, April 12, 2007
Start EZChrom Chromatography... Method: Ic57d11.met... Method: Ic57d11.met Ba...
6:20 PM

8926

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 04/09/07 Time 11:00 End Date 04/09/07 Time 12:50

PREPARATION BATCH # PCD0046

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0045B	10.000g	100 ml	100 ml	
*02	SL				
*03	SC				
*04	D051 - 03				
*05	04				
*06	05				
*07	06				
*08	07				
*09	08				
*10	09				
*11	10				
*12	10D				
*13	10M				
*14	11				
*15	12				
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

Standards	ID	Amount Added (ml)	
		LCS	MS
Acetate			
Butyrate			
Lactate			
Perchlorate LCS/MS	SWGB - 02 - 931	2.5	1.0
Propionate			
Pyruvate			

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

al 04/09/07

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D105**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1003
GC/MS-VOA	METHOD 5030B/8260B	2000 – 2028
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8015
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-25-2007
EMAX Batch No.: 07D105

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/10/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LTB-040607	D105-01	04/06/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS-GW-01	D105-02	04/06/07	WATER	PERCHLORATE BY IC
				VOLATILE ORGANICS BY GC/MS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

TT_0618 –

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Emax
1835 W. 20th St.
Torrance Ca.
90501

CHAIN OF CUSTODY RECORD

07D105

DATE 4-6-07 PAGE 1 OF 1

CLIENT: LMC
PROJECT NAME: Supplemental Soil investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): J. Zimmerman, L. Margullis

TURN-AROUND TIME: Standard

PARAMETERS

	LINE ITEM	SAMPLE NO.	DATE	TIME	314.6 Perchlorate	8260B VOCs	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
01	1.	LTB-040607	4-6-07	0940		X	U	W	G	2	HCl	
02	2.	F39-HSAS-GW-01	4-6-07	0945	X		↓	↓	P	1	None	
	3.	F39-HSAS-GW-01	4-6-07	0945		X	↓	↓	G	3	HCl	
	4.											
	5.											
	6.											
	7.											
	8.											
	9.											
	10.											

LM 4-6-07

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil, M - Sediment, W - Water

CONTAINER TYPE: G - Glass Bottle/Jar, SS - Stainless Steel Sleeve, SB - Brass Sleeve, P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL, NR (None required), NaOH, H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Linda Margullis	Linda Margullis	TETRA TECH, INC.	4-10-07	0745	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 6
RECEIVED BY: George Lim	SIGNATURE: GEORGE Lim	COMPANY: EMAX	DATE: 4/10/07	TIME: 10:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: George L.	SIGNATURE: GEORGE Lim	COMPANY: EMAX	DATE: 4-10-07	TIME: 11:45	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: [signature]	SIGNATURE: INDRA PATEL	COMPANY: EMAX	DATE: 4-10-07	TIME: 11:45	T = 3.8°C

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1001

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D105
☑ EMAX Courier	SEE COC	Recepient I PATEL
☐ Client Delivery		Date 4-10-07
☐ Third Party		Time 11:45

COC Inspection

☑ ~~Client Name~~	☐ ~~Client PM/FC~~	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ ~~Address~~	☑ Tel # / Fax #	☑ ~~Courier Signature~~	☑ Analysis Required	☑ ~~Preservative (if any)~~	☑ TAT

Safety Issues

☑ ~~None~~ ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ ~~Cooler~~	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ ~~Intact~~	☐ Damaged		
Packaging	☑ ~~Bubble Pack~~	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☑ plastic Bag
Temperatures	☑ ~~Cooler~~ 3.8 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/~~COC ID~~	Discrepancy Code	Corrective Action Code
-03	007	F39-HSA5-GW01	Need one extra	R4 (8260B)
		4-6-07, 09:40	vial w/ this ID-Info	
		VOC 8260, pres HCl	Not listed on COC.	
-02	003 TO 006	Soil	Sediment at the	R5
			Bottom.	

REVIEWS

Sample Labeling _____ Date 4-10-07

SRF _____ Date 4/10/07

PM _____ Date 4/10/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Informed client.
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 07D105

2000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D105

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 04/10/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D105
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V005D26Q	1	NA	04/14/0705:25	04/14/0705:25	RDQ322	RCQ351	V005D26	Method Blank
LCS1W	V005D26L	1	NA	04/14/0703:34	04/14/0703:34	RDQ319	RCQ351	V005D26	Lab Control Sample (LCS)
LCD1W	V005D26C	1	NA	04/14/0704:11	04/14/0704:11	RDQ320	RCQ351	V005D26	LCS Duplicate
LTB-040607	D105-01	1	NA	04/14/0706:39	04/14/0706:39	RDQ324	RCQ351	V005D26	Field Sample
F39-HSAS-GW-01	D105-02	1	NA	04/14/0707:16	04/14/0707:16	RDQ325	RCQ351	V005D26	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D105	Date Extracted:	04/14/07 06:39
Sample ID:	LTB-040607	Date Analyzed:	04/14/07 06:39
Lab Samp ID:	D105-01	Dilution Factor:	1
Lab File ID:	RDQ324	Matrix :	WATER
Ext Btch ID:	V005D26	% Moisture :	NA
Calib. Ref.:	RCQ351	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	70-140
4-BROMOFLUOROBENZENE	88	70-130
TOLUENE-D8	86	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D105	Date Extracted:	04/14/07 07:16
Sample ID:	F39-HSAS-GW-01	Date Analyzed:	04/14/07 07:16
Lab Samp ID:	D105-02	Dilution Factor:	1
Lab File ID:	RDQ325	Matrix :	WATER
Ext Btch ID:	VO05D26	% Moisture :	NA
Calib. Ref.:	RCQ351	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	11	10	5.0
BENZENE	0.29J	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	1.8	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	70-140
4-BROMOFLUOROBENZENE	87	70-130
TOLUENE-D8	86	70-140

2005

QC SUMMARIES

2006

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/14/07
Batch No.	: 07D105	Date Extracted:	04/14/07 05:25
Sample ID:	MBLK1W	Date Analyzed:	04/14/07 05:25
Lab Samp ID:	V005D26Q	Dilution Factor:	1
Lab File ID:	RDQ322	Matrix :	WATER
Ext Btch ID:	V005D26	% Moisture :	NA
Calib. Ref.:	RCQ351	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	70-140
4-BROMOFLUOROBENZENE	88	70-130
TOLUENE-D8	86	70-130

2007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D105
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V005D26Q V005D26L V005D26C
LAB FILE ID: RDQ322 RDQ319 RDQ320
DATE EXTRACTED: 04/14/0705:25 04/14/0703:34 04/14/0704:11 DATE COLLECTED: NA
DATE ANALYZED: 04/14/0705:25 04/14/0703:34 04/14/0704:11 DATE RECEIVED: 04/14/07
PREP. BATCH: V005D26 V005D26 V005D26
CALIB. REF: RCQ351 RCQ351 RCQ351

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	10.1	101	10.0	9.68	97	4	60-130	30
Benzene	ND	10.0	10.9	109	10.0	10.4	104	4	70-130	30
Chlorobenzene	ND	10.0	11.2	112	10.0	10.8	108	3	70-120	30
Toluene	ND	10.0	11.3	113	10.0	10.9	109	4	70-130	30
Trichloroethene	ND	10.0	11.3	113	10.0	10.7	107	5	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	8.85	89	10.0	8.72	87	70-140
4-Bromofluorobenzene	10.0	8.48	85	10.0	8.70	87	70-130
Toluene-d8	10.0	8.44	84	10.0	8.38	84	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc — Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT — Case No.: — SAS No.: — SDG No.: 07D105
Lab File ID: RCQ345 — BFB Injection Date : 03/13/07
Instrument ID: T-005 — BFB Injection Time : 11:30
GC Column:RTX502.2ID:0.32mm (mm) — Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.15
75	30.0 - 60.0% of mass 95	42.20
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.24
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.36(7.9)1
176	95.0 - 101.0% of mass 174	81.33(100.9)1
177	5.0 - 9.0% of mass 176	4.89(6.0)2

1-Value is % mass 174 — 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V005C131	RCQ346	03/13/07	12:08
2	VSTD0.5	V005C132	RCQ347	03/13/07	12:46
3	VSTD01	V005C133	RCQ348	03/13/07	13:22
4	VSTD02	V005C134	RCQ349	03/13/07	14:00
5	VSTD05	V005C135	RCQ350	03/13/07	14:38
6	VSTD010	V005C136	RCQ351	03/13/07	15:16
7	VSTD020	V005C137	RCQ352	03/13/07	15:53
8	VSTD030	V005C138	RCQ353	03/13/07	16:31
9	VSTD040	V005C139	RCQ354	03/13/07	17:08
10	VSTD050	V005C1310	RCQ355	03/13/07	17:45
11	VSTD010	IV005C1302	RCQ359	03/13/07	20:13

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TOO5
Beginning DateTime :03/13/07 12:08
Spike Units :PPB
IC File :RCQ351

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :03/13/07 17:45
HPChem Method :VO05C13

M	IDX	Parameters	.3 12:08 RCQ346	.5 12:46 RCQ347	1 13:22 RCQ348	2 14:00 RCQ349	5 14:38 RCQ350	10 15:16 RCQ351	20 15:53 RCQ352	30 16:31 RCQ353	40 17:08 RCQ354	50 17:45 RCQ355	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	8.5154
	2	Dichlorodifluoromethane	0.285	0.240	0.300	0.262	0.291	0.276	0.266	0.265	0.266	0.258	0.271	6.46	1.6793
	3	Chloromethane	0.323	0.272	0.335	0.294	0.315	0.318	0.321	0.310	0.314	0.305	0.311	5.60	1.9305
	4	Vinyl chloride	0.317	0.270	0.338	0.310	0.334	0.325	0.306	0.311	0.304	0.296	0.311	6.31	2.0569
	5	Bromomethane	0.424	0.362	0.382	0.308	0.258	0.229	0.237	0.245	0.248	0.253	0.294	23.88	2.5660
	6	Chloroethane	0.232	0.171	0.260	0.192	0.217	0.200	0.199	0.198	0.194	0.196	0.206	12.05	2.6671
	7	Dichlorofluoromethane	0.629	0.616	0.664	0.647	0.648	0.602	0.610	0.631	0.615	0.644	0.631	3.16	2.7228
	8	Trichlorofluoromethane	0.515	0.427	0.563	0.488	0.526	0.516	0.491	0.495	0.495	0.486	0.500	6.96	2.9832
	9	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	10	Acrolein	------	------	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	1.65	3.5367
	11	1,1,2-Trichloro-1,2,2-trifluoroethane	0.257	0.251	0.261	0.257	0.260	0.250	0.249	0.252	0.240	0.249	0.252	2.48	3.5504
2	12	Acetone	------	------	0.051	0.032	0.035	0.035	0.040	0.039	0.040	0.043	0.039	14.72	3.6326
	13	1,1-Dichloroethene	0.416	0.411	0.438	0.418	0.418	0.394	0.399	0.407	0.393	0.410	0.410	3.27	3.7628
5	14	tert-Butyl alcohol	------	------	------	0.006	0.007	0.007	0.007	0.007	0.007	0.007	0.007	3.92	3.9309
	15	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	------	------	0.055	0.128	0.337	0.337	0.329	0.321	0.288	0.306	0.263	41.37	4.1573
	17	Methyl acetate	------	------	0.075	0.047	0.073	0.057	0.064	0.061	0.065	0.065	0.063	13.68	4.2552
	18	Methylene chloride	0.394	0.344	0.335	0.307	0.307	0.276	0.284	0.275	0.278	0.289	0.309	12.43	4.4219
	19	Carbon disulfide	1.058	1.082	1.143	1.042	1.063	0.973	1.030	1.038	1.012	1.088	1.053	4.40	4.3966
3	20	Acrylonitrile	0.040	0.033	0.039	0.035	0.038	0.036	0.036	0.035	0.034	0.035	0.036	6.28	4.6216
	21	tert-Butyl methyl ether (MTBE)	0.337	0.329	0.358	0.329	0.358	0.336	0.343	0.333	0.327	0.345	0.339	3.41	4.6840
	22	trans-1,2-Dichloroethene	0.442	0.425	0.446	0.441	0.438	0.415	0.419	0.423	0.408	0.416	0.427	3.13	4.8399
	23	Isopropyl ether (DIPE)	0.755	0.768	0.811	0.717	0.746	0.797	0.712	0.819	0.812	0.755	0.769	5.09	5.3641
	24	1,1-Dichloroethane	0.583	0.546	0.565	0.539	0.534	0.536	0.518	0.564	0.545	0.571	0.550	3.62	5.4670
	25	Vinyl acetate	0.289	0.277	0.286	0.234	0.271	0.273	0.270	0.282	0.282	0.293	0.276	5.96	5.5142
	26	tert-Butyl ethyl ether (ETBE)	0.416	0.427	0.466	0.466	0.497	0.473	0.493	0.487	0.485	0.506	0.472	6.23	5.9802
2	27	2-Butanone	------	0.038	0.051	0.037	0.040	0.041	0.042	0.042	0.043	0.042	0.042	9.49	6.1624
	28	2,2-Dichloropropane	0.334	0.330	0.344	0.356	0.353	0.309	0.299	0.300	0.265	0.266	0.315	10.57	6.3258
	29	cis-1,2-Dichloroethene	0.396	0.457	0.486	0.486	0.495	0.468	0.471	0.471	0.456	0.467	0.465	5.91	6.3966
2	30	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	31	Chloroform	0.562	0.548	0.573	0.559	0.555	0.529	0.534	0.533	0.525	0.541	0.546	2.93	6.6469
	32	Bromochloromethane	0.186	0.193	0.204	0.194	0.198	0.182	0.183	0.177	0.174	0.177	0.187	5.36	6.8980
2	33	Tetrahydrofuran	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	34	1,1,1-Trichloroethane	0.425	0.476	0.484	0.476	0.491	0.464	0.467	0.475	0.457	0.476	0.469	3.89	7.2832
	35	Cyclohexane	------	0.340	0.448	0.284	0.452	0.363	0.415	0.428	0.416	0.409	0.395	14.05	7.2955
	36	tert-Amyl methyl ether (TAME)	0.277	0.260	0.308	0.319	0.322	0.308	0.322	0.317	0.325	0.337	0.309	7.60	7.7999
	37	1,2-Dichloroethane-d4	0.197	0.221	0.221	0.203	0.229	0.214	0.195	0.197	0.202	0.213	0.209	5.71	7.8176
	38	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	14.4185
	39	1,1-Dichloropropene	0.193	0.180	0.198	0.197	0.196	0.189	0.186	0.191	0.186	0.196	0.191	3.16	7.5470
	40	Carbon tetrachloride	0.559	0.552	0.567	0.584	0.573	0.552	0.544	0.559	0.539	0.569	0.560	2.44	7.6962
	41	1,2-Dichloroethane	0.351	0.331	0.355	0.354	0.360	0.350	0.346	0.342	0.339	0.353	0.348	2.47	7.9769
	42	Benzene	1.377	1.359	1.426	1.456	1.439	1.382	1.368	1.403	1.353	1.434	1.400	2.64	7.9853
	43	Trichloroethene	0.451	0.427	0.459	0.465	0.463	0.446	0.443	0.457	0.440	0.465	0.452	2.79	9.0624
	44	Methylcyclohexane	------	------	0.510	0.338	0.547	0.435	0.512	0.548	0.529	0.532	0.494	14.64	9.1657
	45	1,2-Dichloropropane	0.349	0.337	0.345	0.359	0.355	0.341	0.346	0.349	0.342	0.359	0.348	2.18	9.3869
	46	Bromodichloromethane	0.414	0.427	0.446	0.459	0.453	0.440	0.439	0.443	0.435	0.459	0.441	3.20	9.8050
	47	Dibromomethane	0.159	0.156	0.169	0.183	0.171	0.173	0.174	0.158	0.171	0.179	0.169	5.44	9.8858
	48	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	49	4-Methyl-2-pentanone	------	------	0.104	0.095	0.113	0.114	0.122	0.124	0.128	0.129	0.116	10.25	10.5374
	50	cis-1,3-Dichloropropene	0.360	0.339	0.369	0.393	0.415	0.417	0.429	0.436	0.432	0.456	0.405	9.34	10.8711
	51	Toluene-d8	1.131	1.097	1.216	1.140	1.292	1.234	1.076	1.131	1.166	1.312	1.179	6.84	11.3178
	52	Toluene	0.856	0.819	0.887	0.945	0.941	0.898	0.905	0.917	0.899	0.939	0.901	4.42	11.4687
	53	Ethyl methacrylate	------	0.134	0.175	0.201	0.223	0.224	0.236	0.238	0.241	0.250	0.214	17.67	11.9385
	54	trans-1,3-Dichloropropene	------	0.198	0.244	0.267	0.292	0.290	0.307	0.314	0.315	0.335	0.285	14.93	11.8767
	55	1,1,2-Trichloroethane	0.194	0.185	0.206	0.203	0.212	0.201	0.205	0.204	0.205	0.209	0.202	3.81	12.1691
2	56	2-Hexanone	------	------	------	0.044	0.063	0.066	0.074	0.076	0.079	0.080	0.069	18.36	12.2772
	57	1,3-Dichloropropane	0.316	0.315	0.332	0.342	0.357	0.348	0.350	0.349	0.349	0.362	0.342	4.67	12.6916
	58	Tetrachloroethene	0.304	0.308	0.323	0.344	0.339	0.330	0.331	0.341	0.324	0.343	0.329	4.27	12.7734

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59	Dibromochloromethane	0.259	0.245	0.283	0.278	0.285	0.281	0.282	0.281	0.282	0.293	0.277	5.04	13.1728
60	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
61	1,2-Dibromoethane	0.157	0.160	0.176	0.189	0.205	0.197	0.200	0.198	0.197	0.202	0.188	9.34	13.5884
62	1-Chlorohexane	0.436	0.448	0.466	0.556	0.587	0.576	0.588	0.614	0.589	0.611	0.547	12.67	14.0629
63	Chlorobenzene	0.954	0.943	0.955	1.004	0.999	0.950	0.974	0.985	0.955	0.988	0.971	2.27	14.5003
64	1,1,1,2-Tetrachloroethane	0.300	0.289	0.310	0.325	0.320	0.309	0.314	0.323	0.314	0.322	0.313	3.55	14.6158
65	Ethylbenzene	1.561	1.555	1.613	1.749	1.764	1.711	1.725	1.777	1.698	1.768	1.692	5.02	14.6579
2 66	m-Xylene & p-Xylene	1.221	1.208	1.257	1.344	1.339	1.309	1.321	1.384	1.327	------	1.301	4.58	14.8308
67	o-Xylene	1.065	1.099	1.138	1.262	1.296	1.263	1.282	1.328	1.259	1.304	1.229	7.57	15.7714
68	Styrene	0.683	0.663	0.805	0.881	0.923	0.920	0.949	0.979	0.947	0.974	0.872	13.38	15.8624
69	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	20.7052
70	Bromoform	0.339	0.197	0.390	0.384	0.414	0.383	0.413	0.413	0.412	0.418	0.376	17.94	16.5265
71	Isopropylbenzene	4.237	4.158	4.635	5.067	5.042	4.746	4.970	5.236	4.882	5.080	4.805	7.58	16.6125
72	1,1,2,2-Tetrachloroethane	0.585	0.590	0.630	0.624	0.634	0.600	0.618	0.616	0.605	0.612	0.611	2.66	17.0061
73	4-Bromofluorobenzene	1.063	0.914	1.085	0.977	1.106	1.072	0.946	1.011	1.032	1.137	1.034	6.96	17.1410
74	1,2,3-Trichloropropane	------	0.061	0.093	0.106	0.112	0.103	0.111	0.107	0.106	0.105	0.100	15.80	17.3354
75	trans-1,4-Dichloro-2-butene	------	------	------	0.122	0.141	0.141	0.147	0.149	0.148	0.149	0.142	6.87	17.5498
76	n-Propylbenzene	5.179	5.200	5.606	6.098	6.217	5.910	6.145	6.507	6.101	6.267	5.923	7.62	17.5295
77	Bromobenzene	0.775	0.834	0.909	0.968	0.980	0.930	0.973	1.004	0.962	0.978	0.931	7.88	17.5236
78	2-Chlorotoluene	3.362	3.321	3.492	3.672	3.666	3.462	3.525	3.652	3.470	3.526	3.515	3.46	17.8649
79	1,3,5-Trimethylbenzene	3.334	3.447	3.647	3.968	3.889	3.694	3.763	3.935	3.726	3.816	3.722	5.50	17.9054
80	4-Chlorotoluene	3.120	3.083	3.022	3.207	3.276	3.125	3.272	3.426	3.201	3.347	3.208	3.89	17.9914
81	tert-Butylbenzene	3.407	3.385	3.502	3.935	3.916	3.755	3.873	4.054	3.799	3.913	3.754	6.34	18.7162
82	1,2,4-Trimethylbenzene	3.066	3.118	3.378	3.690	3.730	3.546	3.657	3.810	3.620	3.725	3.534	7.39	18.7945
83	sec-Butylbenzene	4.722	4.779	4.832	5.487	5.429	5.281	5.407	5.679	5.355	5.563	5.253	6.60	19.2176
84	p-Isopropyltoluene	3.414	3.479	3.587	4.213	4.296	4.214	4.271	4.475	4.273	4.427	4.065	9.97	19.5657
85	1,3-Dichlorobenzene	1.609	1.622	1.794	1.877	1.880	1.817	1.868	1.932	1.853	1.909	1.816	6.23	19.6761
86	1,4-Dichlorobenzene	1.593	1.593	1.717	1.768	1.737	1.682	1.749	1.802	1.749	1.810	1.720	4.44	19.9366
87	n-Butylbenzene	3.074	2.553	3.096	3.626	3.809	3.818	3.943	4.159	3.956	4.124	3.616	14.71	20.5341
88	1,2-Dichlorobenzene	1.530	1.513	1.522	1.585	1.589	1.503	1.511	1.541	1.498	1.521	1.531	2.09	20.7684
89	1,2-Dibromo-3-chloropropane	------	------	------	0.058	0.058	0.072	0.080	0.081	0.082	0.085	0.074	15.94	22.6765
90	1,2,4-Trichlorobenzene	0.666	0.605	0.645	0.776	0.869	0.887	0.944	0.966	0.962	1.018	0.834	18.06	24.8814
91	Hexachlorobutadiene	0.541	0.614	0.643	0.733	0.718	0.695	0.695	0.708	0.676	0.704	0.673	8.65	25.2952
92	Naphthalene	------	0.501	0.573	0.764	0.928	0.986	1.126	1.170	1.210	1.289	0.950	29.82	25.4565
93	1,2,3-Trichlorobenzene	0.602	0.559	0.575	0.682	0.746	0.737	0.768	0.778	0.778	0.817	0.704	13.32	26.0504

Spike Amount = Nominal Amount * M
Ave_%RSD : 8.2 Max_%RSD : 41.4

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
5	Bromomethane	0.00687	0.24458	0.9990
16	Iodomethane	-0.02293	0.31783	0.9964
53	Ethyl methacrylate	-0.00695	0.24395	0.9996
56	2-Hexanone	-0.01700	0.08005	0.9994
70	Bromoform	-0.00526	0.41455	0.9996
74	1,2,3-Trichloropropane	-0.00155	0.10721	0.9996
89	1,2-Dibromo-3-chloropropane	-0.00831	0.08471	0.9990
90	1,2,4-Trichlorobenzene	-0.01973	0.97697	0.9990
92	Naphthalene	-0.06112	1.21651	0.9974

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SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C13\RCQ359.D Vial: 16
Acq On : 13 Mar 2007 8:13 pm Operator: DN
Sample : IVO05C1302 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET-A/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

* Not evaluated

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	103	0.00
2	T	Dichlorodifluoromethane	10.000	10.123	-1.2	102	0.00
3	P,T	Chloromethane	10.000	10.411	-4.1	104	0.00
4	C,T	Vinyl chloride	10.000	10.642	-6.4	105	0.00
5	T	Bromomethane	10.000	10.312	-3.1	116	0.00
6	T	Chloroethane	10.000	10.173	-1.7	108	0.00
7	T	Dichlorofluoromethane	10.000	9.612	3.9	103	0.00
8	T	Trichlorofluoromethane	10.000	10.296	-3.0	103	0.00
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	100	0.00
10	T	Acrolein	20.000	18.864	5.7	98	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.867	1.3	102	0.00
12	T	Acetone	20.000	17.342	13.3	100	0.00
13	C,TM	1,1-Dichloroethene	10.000	9.579	4.2	102	0.00
14	T	tert-Butyl alcohol	50.000	43.701	12.6	88	0.00
15	T	Acetonitrile	-1.000	0.000	0.0	91	0.00
16	T	Iodomethane	10.000	10.338	-3.4	93	0.00
17	T	Methyl acetate *	10.000	0.964	90.4#	11	0.00
18	T	Methylene chloride	10.000	9.595	4.0	110	0.00
19	T	Carbon disulfide	10.000	9.674	3.3	108	0.00
20	T	Acrylonitrile	30.000	28.837	3.9	99	0.00
21	T	tert-Butyl methyl ether (MT	10.000	9.460	5.4	98	0.00
22	T	trans-1,2-Dichloroethene	10.000	9.667	3.3	102	0.00
23	T	Isopropyl ether (DIPE)	10.000	10.128	-1.3	100	0.00
24	P,T	1,1-Dichloroethane	10.000	9.926	0.7	105	0.00
25	T	Vinyl acetate	10.000	10.073	-0.7	104	0.00
26	T	tert-Butyl ethyl ether (ETB	10.000	9.857	1.4	101	0.02
27	T	2-Butanone	20.000	19.069	4.7	99	0.00
28	T	2,2-Dichloropropane	10.000	10.322	-3.2	108	0.00
29	T	cis-1,2-Dichloroethene	10.000	10.052	-0.5	103	0.00
30	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	110	0.00
31	C,T	Chloroform	10.000	9.642	3.6	102	0.00
32	T	Bromochloromethane	10.000	9.543	4.6	100	0.00
33	T	Tetrahydrofuran	-1.000	0.000	0.0	91	0.00
34	T	1,1,1-Trichloroethane	10.000	9.902	1.0	103	0.00
35	T	Cyclohexane *	10.000	0.148	98.5#	2	0.03
36	T	tert-Amyl methyl ether (TAM	10.000	9.761	2.4	101	0.00
37	S	1,2-Dichloroethane-d4	10.000	9.854	1.5	99	0.00
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	102	0.00
39	T	1,1-Dichloropropene	10.000	9.915	0.9	102	0.00
40	T	Carbon tetrachloride	10.000	9.811	1.9	102	0.00

(#) = Out of Range

2014

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C13\RCQ359.D Vial: 16
Acq On : 13 Mar 2007 8:13 pm Operator: DN
Sample : IVO05C1302 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET-A/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

* Not evaluated

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	9.791	2.1	99	0.00
42	M,T	Benzene	10.000	9.956	0.4	103	0.00
43	M,T	Trichloroethene	10.000	10.001	-0.0	103	0.00
44	T	Methylcyclohexane *	10.000	0.195	98.0#	2	-0.10
45	C,T	1,2-Dichloropropane	10.000	9.864	1.4	103	0.00
46	T	Bromodichloromethane	10.000	9.873	1.3	101	0.00
47	T	Dibromomethane	10.000	9.228	7.7	93	0.00
48	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	120	-0.02
49	T	4-Methyl-2-pentanone	20.000	19.507	2.5	102	0.00
50	T	cis-1,3-Dichloropropene	10.000	10.322	-3.2	102	0.00
51	S	Toluene-d8	10.000	10.766	-7.7	105	0.00
52	C,TM	Toluene	10.000	10.155	-1.5	104	0.00
53	T	Ethyl methacrylate	10.000	9.213	7.9	99	0.00
54	T	trans-1,3-Dichloropropene	10.000	10.199	-2.0	102	0.00
55	T	1,1,2-Trichloroethane	10.000	9.773	2.3	101	0.00
56	T	2-Hexanone	20.000	18.943	5.3	104	0.00
57	T	1,3-Dichloropropane	10.000	9.920	0.8	100	0.00
58	T	Tetrachloroethene	10.000	10.178	-1.8	104	0.00
59	T	Dibromochloromethane	10.000	9.887	1.1	100	0.00
60	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	107	0.00
61	T	1,2-Dibromoethane	10.000	10.419	-4.2	101	0.00
62	T	1-Chlorohexane	10.000	10.740	-7.4	104	0.00
63	P,M	Chlorobenzene	10.000	10.023	-0.2	105	0.00
64	T	1,1,1,2-Tetrachloroethane	10.000	10.003	-0.0	103	0.00
65	C,T	Ethylbenzene	10.000	10.245	-2.4	104	0.00
66	T	m-Xylene & p-Xylene	20.000	20.554	-2.8	104	0.00
67	T	o-Xylene	10.000	10.307	-3.1	103	0.00
68	T	Styrene	10.000	10.766	-7.7	104	0.00
69	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	101	0.00
70	P,T	Bromoform	10.000	9.262	7.4	99	0.00
71	T	Isopropylbenzene	10.000	10.300	-3.0	105	0.00
72	P,T	1,1,2,2-Tetrachloroethane	10.000	9.752	2.5	100	0.00
73	S	4-Bromofluorobenzene	10.000	10.851	-8.5	105	0.00
74	T	1,2,3-Trichloropropane	10.000	9.632	3.7	99	0.00
75	T	trans-1,4-Dichloro-2-butene	10.000	9.624	3.8	98	0.00
76	T	n-Propylbenzene	10.000	10.416	-4.2	105	0.00
77	T	Bromobenzene	10.000	10.256	-2.6	103	0.00
78	T	2-Chlorotoluene	10.000	10.183	-1.8	104	0.00
79	T	1,3,5-Trimethylbenzene	10.000	10.233	-2.3	104	0.00
80	T	4-Chlorotoluene	10.000	10.033	-0.3	104	0.00

(#) = Out of Range

2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C13\RCQ359.D Vial: 16
Acq On : 13 Mar 2007 8:13 pm Operator: DN
Sample : IVO05C1302 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET-A/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	10.000	10.341	-3.4	104	0.00
82	T	1,2,4-Trimethylbenzene	10.000	10.341	-3.4	104	0.00
83	T	sec-Butylbenzene	10.000	10.310	-3.1	103	0.00
84	T	p-Isopropyltoluene	10.000	10.525	-5.3	102	0.00
85	T	1,3-Dichlorobenzene	10.000	10.211	-2.1	103	0.00
86	T	1,4-Dichlorobenzene	10.000	10.087	-0.9	104	0.00
87	T	n-Butylbenzene	10.000	10.920	-9.2	104	0.00
88	T	1,2-Dichlorobenzene	10.000	9.964	0.4	102	0.00
89	T	1,2-Dibromo-3-chloropropane	10.000	9.091	9.1	96	0.00
90	T	1,2,4-Trichlorobenzene	10.000	9.537	4.6	103	0.00
91	T	Hexachlorobutadiene	10.000	10.664	-6.6	104	0.00
92	T	Naphthalene	10.000	9.363	6.4	110	0.00
93	T	1,2,3-Trichlorobenzene	10.000	10.899	-9.0	105	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3/14/07

2016

DAILY CALIBRATIONS

2017

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D105
Lab File ID: RDQ316
BFB Injection Date : 04/14/07
Instrument ID: T-005
BFB Injection Time : 01:43
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.98
75	30.0 - 60.0% of mass 95	45.92
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.81
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	82.89
175	5.0 - 9.0% of mass 174	6.70(8.1)1
176	95.0 - 101.0% of mass 174	79.64(96.1)1
177	5.0 - 9.0% of mass 176	4.73(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV005C1380	RDQ318	04/14/07	02:57
2	MBLK1W	V005D26Q	RDQ322	04/14/07	05:25
3	LCS1W	V005D26L	RDQ319	04/14/07	03:34
4	LCD1W	V005D26C	RDQ320	04/14/07	04:11
5	LTB-040607	D105-01	RDQ324	04/14/07	06:39
6	F39-HSAS-GW-01	D105-02	RDQ325	04/14/07	07:16

2018

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RC0351
Instrument ID: T-005
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07D105
Date Analyzed: 03/13/07
Time Analyzed: 15:16
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2368350	8.52	1826080	14.42	641602	20.71
	UPPER LIMIT	4736700	9.02	3652160	14.92	1283204	21.21
	LOWER LIMIT	1184175	8.02	913040	13.92	320801	20.21
	SAMPLE ID						
1	VSTD010	1782818	8.51	1382023	14.41	521431	20.70
2	MBLK1W	2116438	8.51	1588536	14.41	539933	20.70
3	LCS1W	1695843	8.51	1320227	14.41	521800	20.70
4	LCD1W	1831022	8.51	1443730	14.41	553124	20.70
5	LTB-040607	1981839	8.51	1487128	14.41	518262	20.70
6	F39-HSAS-GW-01	1853969	8.50	1398906	14.41	477106	20.70

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D13\RDQ318.D Vial: 4
Acq On : 14 Apr 2007 2:57 am Operator: DN
Sample : CVO05C1380 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	75	0.00
2	T	Dichlorodifluoromethane	10.000	10.358	-3.6	77	0.00
3	P,T	Chloromethane	10.000	9.709	2.9	71	0.00
4	C,T	Vinyl chloride	10.000	10.832	-8.3	78	0.00
5	T	Bromomethane	10.000	11.290	-12.9	93	0.00
6	T	Chloroethane	10.000	10.915	-9.1	85	0.00
7	T	Dichlorofluoromethane	10.000	11.141	-11.4	88	0.00
8	T	Trichlorofluoromethane	10.000	10.698	-7.0	78	0.00
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	66	0.00
10	T	Acrolein	20.000	14.724	26.4#	56	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	10.702	-7.0	81	0.00
12	T	Acetone	20.000	17.840	10.8	76	0.00
13	C,TM	1,1-Dichloroethene	10.000	9.958	0.4	78	0.00
14	T	tert-Butyl alcohol	50.000	43.332	13.3	64	0.00
15	T	Acetonitrile	-1.000	0.000	0.0	75	0.00
16	T	Iodomethane	10.000	13.184	-31.8#	88	0.00
17	T	Methyl acetate	10.000	0.955	90.5#	8	0.00
18	T	Methylene chloride	10.000	9.612	3.9	81	0.00
19	T	Carbon disulfide	10.000	8.848	11.5	72	0.00
20	T	Acrylonitrile	30.000	33.013	-10.0	83	0.00
21	T	tert-Butyl methyl ether (MT	10.000	9.647	3.5	73	0.00
22	T	trans-1,2-Dichloroethene	10.000	9.886	1.1	77	0.00
23	T	Isopropyl ether (DIPE)	10.000	9.053	9.5	66	0.00
24	P,T	1,1-Dichloroethane	10.000	9.992	0.1	77	0.00
25	T	Vinyl acetate	10.000	8.518	14.8	65	0.00
26	T	tert-Butyl ethyl ether (ETB	10.000	9.756	2.4	73	0.00
27	T	2-Butanone	20.000	22.734	-13.7	87	0.00
28	T	2,2-Dichloropropane	10.000	11.017	-10.2	85	0.00
29	T	cis-1,2-Dichloroethene	10.000	10.870	-8.7	81	0.00
30	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	85	0.00
31	C,T	Chloroform	10.000	10.830	-8.3	84	0.00
32	T	Bromochloromethane	10.000	10.561	-5.6	82	0.00
33	T	Tetrahydrofuran	-1.000	0.000	0.0	74	0.00
34	T	1,1,1-Trichloroethane	10.000	10.991	-9.9	84	0.00
35	T	Cyclohexane	10.000	0.658	93.4#	5	0.11
36	T	tert-Amyl methyl ether (TAM	10.000	9.825	1.8	74	0.00
37	S	1,2-Dichloroethane-d4	10.000	8.846	11.5	65	0.00
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	76	0.00
39	T	1,1-Dichloropropene	10.000	10.570	-5.7	81	0.00
40	T	Carbon tetrachloride	10.000	10.695	-7.0	82	0.00

(#) = Out of Range

2020

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D13\RDQ318.D Vial: 4
Acq On : 14 Apr 2007 2:57 am Operator: DN
Sample : CVO05C1380 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	10.451	-4.5	79	0.00
42	M,T	Benzene	10.000	10.777	-7.8	83	0.00
43	M,T	Trichloroethene	10.000	11.124	-11.2	85	0.00
44	T	Methylcyclohexane	10.000	0.018	99.8#	0	0.00
45	C,T	1,2-Dichloropropane	10.000	10.708	-7.1	83	0.00
46	T	Bromodichloromethane	10.000	10.957	-9.6	83	0.00
47	T	Dibromomethane	10.000	10.661	-6.6	79	0.00
48	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	142	0.14
49	T	4-Methyl-2-pentanone	20.000	21.871	-9.4	85	0.00
50	T	cis-1,3-Dichloropropene	10.000	11.070	-10.7	81	0.00
51	S	Toluene-d8	10.000	8.527	14.7	62	0.00
52	C,TM	Toluene	10.000	11.268	-12.7	86	0.00
53	T	Ethyl methacrylate	10.000	10.097	-1.0	81	0.00
54	T	trans-1,3-Dichloropropene	10.000	11.311	-13.1	84	0.00
55	T	1,1,2-Trichloroethane	10.000	11.768	-17.7	90	0.00
56	T	2-Hexanone	20.000	20.884	-4.4	86	0.00
57	T	1,3-Dichloropropane	10.000	11.372	-13.7	85	0.00
58	T	Tetrachloroethene	10.000	11.328	-13.3	85	0.00
59	T	Dibromochloromethane	10.000	11.531	-15.3	86	0.00
60	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	80	0.00
61	T	1,2-Dibromoethane	10.000	11.964	-19.6	86	0.00
62	T	1-Chlorohexane	10.000	11.804	-18.0	85	0.00
63	P,M	Chlorobenzene	10.000	11.110	-11.1	86	0.00
64	T	1,1,1,2-Tetrachloroethane	10.000	11.773	-17.7	90	0.00
65	C,T	Ethylbenzene	10.000	11.568	-15.7	87	0.00
66	T	m-Xylene & p-Xylene	20.000	22.482	-12.4	85	0.00
67	T	o-Xylene	10.000	11.588	-15.9	85	0.00
68	T	Styrene	10.000	11.546	-15.5	83	0.00
69	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	81	0.00
70	P,T	Bromoform	10.000	10.547	-5.5	92	0.00
71	T	Isopropylbenzene	10.000	10.592	-5.9	87	0.00
72	P,T	1,1,2,2-Tetrachloroethane	10.000	10.126	-1.3	84	0.00
73	S	4-Bromofluorobenzene	10.000	8.814	11.9	69	0.00
74	T	1,2,3-Trichloropropane	10.000	10.548	-5.5	88	0.00
75	T	trans-1,4-Dichloro-2-butene	10.000	9.220	7.8	76	-0.02
76	T	n-Propylbenzene	10.000	10.567	-5.7	86	0.00
77	T	Bromobenzene	10.000	10.844	-8.4	88	0.00
78	T	2-Chlorotoluene	10.000	10.101	-1.0	83	0.00
79	T	1,3,5-Trimethylbenzene	10.000	10.476	-4.8	86	0.00
80	T	4-Chlorotoluene	10.000	9.937	0.6	83	0.00

(#) = Out of Range

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D13\RDQ318.D Vial: 4
Acq On : 14 Apr 2007 2:57 am Operator: DN
Sample : CVO05C1380 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	10.000	10.742	-7.4	87	0.00
82	T	1,2,4-Trimethylbenzene	10.000	10.384	-3.8	84	0.00
83	T	sec-Butylbenzene	10.000	10.733	-7.3	87	0.00
84	T	p-Isopropyltoluene	10.000	10.707	-7.1	84	0.00
85	T	1,3-Dichlorobenzene	10.000	10.438	-4.4	85	0.00
86	T	1,4-Dichlorobenzene	10.000	10.203	-2.0	85	0.00
87	T	n-Butylbenzene	10.000	10.768	-7.7	83	0.00
88	T	1,2-Dichlorobenzene	10.000	10.339	-3.4	86	0.00
89	T	1,2-Dibromo-3-chloropropane	10.000	9.673	3.3	83	0.00
90	T	1,2,4-Trichlorobenzene	10.000	9.341	6.6	82	0.00
91	T	Hexachlorobutadiene	10.000	10.235	-2.3	81	-0.02
92	T	Naphthalene	10.000	8.372	16.3	79	0.00
93	T	1,2,3-Trichlorobenzene	10.000	10.779	-7.8	84	0.00

2022

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D13\RDQ318.D Vial: 4
Acq On : 14 Apr 2007 2:57 am Operator: DN
Sample : CVO05C1380 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	75	0.00
2	T	Dichlorodifluoromethane	0.271	0.281	-3.7	77	0.00
3	P,T	Chloromethane	0.311	0.302	2.9	71	0.00
4	C,T	Vinyl chloride	0.311	0.337	-8.4	78	0.00
5	T	Bromomethane	0.294	0.283	3.7	93	0.00
6	T	Chloroethane	0.206	0.225	-9.2	85	0.00
7	T	Dichlorofluoromethane	0.631	0.703	-11.4	88	0.00
8	T	Trichlorofluoromethane	0.500	0.535	-7.0	78	0.00
9	T	sec-Propyl alcohol	0.000	0.000	0.0	66	0.00
10	T	Acrolein	0.015	0.011	26.7#	56	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	0.252	0.270	-7.1	81	0.00
12	T	Acetone	0.039	0.035	10.3	76	0.00
13	C,TM	1,1-Dichloroethene	0.410	0.409	0.2	78	0.00
14	T	tert-Butyl alcohol	0.007	0.006	14.3	64	0.00
15	T	Acetonitrile	0.000	0.000	0.0	75	0.00
16	T	Iodomethane	0.263	0.396	-50.6#	88	0.00
17	T	Methyl acetate	0.063	0.006	90.5#	8#	0.00
18	T	Methylene chloride	0.309	0.297	3.9	81	0.00
19	T	Carbon disulfide	1.053	0.932	11.5	72	0.00
20	T	Acrylonitrile	0.036	0.039	-8.3	83	0.00
21	T	tert-Butyl methyl ether (MT	0.339	0.327	3.5	73	0.00
22	T	trans-1,2-Dichloroethene	0.427	0.423	0.9	77	0.00
23	T	Isopropyl ether (DIPE)	0.769	0.696	9.5	66	0.00
24	P,T	1,1-Dichloroethane	0.550	0.550	0.0	77	0.00
25	T	Vinyl acetate	0.276	0.235	14.9	65	0.00
26	T	tert-Butyl ethyl ether (ETB	0.472	0.460	2.5	73	0.00
27	T	2-Butanone	0.042	0.048	-14.3	87	0.00
28	T	2,2-Dichloropropane	0.315	0.348	-10.5	85	0.00
29	T	cis-1,2-Dichloroethene	0.465	0.506	-8.8	81	0.00
30	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	85	0.00
31	C,T	Chloroform	0.546	0.591	-8.2	84	0.00
32	T	Bromochloromethane	0.187	0.197	-5.3	82	0.00
33	T	Tetrahydrofuran	0.000	0.000	0.0	74	0.00
34	T	1,1,1-Trichloroethane	0.469	0.516	-10.0	84	0.00
35	T	Cyclohexane	0.395	0.026	93.4#	5#	0.11
36	T	tert-Amyl methyl ether (TAM	0.309	0.304	1.6	74	0.00
37	S	1,2-Dichloroethane-d4	0.209	0.185	11.5	65	0.00
38	I	CHLOROBENZENE-D5	1.000	1.000	0.0	76	0.00
39	T	1,1-Dichloropropene	0.191	0.202	-5.8	81	0.00
40	T	Carbon tetrachloride	0.560	0.599	-7.0	82	0.00

(#) = Out of Range

2023

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D13\RDQ318.D Vial: 4
Acq On : 14 Apr 2007 2:57 am Operator: DN
Sample : CVO05C1380 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.348	0.364	-4.6	79	0.00
42	M,T	Benzene	1.400	1.508	-7.7	83	0.00
43	M,T	Trichloroethene	0.452	0.502	-11.1	85	0.00
44	T	Methylcyclohexane	0.494	0.001	99.8#	0#	0.00
45	C,T	1,2-Dichloropropane	0.348	0.373	-7.2	83	0.00
46	T	Bromodichloromethane	0.441	0.484	-9.8	83	0.00
47	T	Dibromomethane	0.169	0.181	-7.1	79	0.00
48	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	142	0.14
49	T	4-Methyl-2-pentanone	0.116	0.127	-9.5	85	0.00
50	T	cis-1,3-Dichloropropene	0.405	0.448	-10.6	81	0.00
51	S	Toluene-d8	1.179	1.006	14.7	62	0.00
52	C,TM	Toluene	0.901	1.015	-12.7	86	0.00
53	T	Ethyl methacrylate	0.214	0.239	-11.7	81	0.00
54	T	trans-1,3-Dichloropropene	0.285	0.322	-13.0	84	0.00
55	T	1,1,2-Trichloroethane	0.202	0.238	-17.8	90	0.00
56	T	2-Hexanone	0.069	0.075	-8.7	86	0.00
57	T	1,3-Dichloropropane	0.342	0.389	-13.7	85	0.00
58	T	Tetrachloroethene	0.329	0.372	-13.1	85	0.00
59	T	Dibromochloromethane	0.277	0.319	-15.2	86	0.00
60	T	2-Ethyl-1-butanol	0.000	0.000	0.0	80	0.00
61	T	1,2-Dibromoethane	0.188	0.225	-19.7	86	0.00
62	T	1-Chlorohexane	0.547	0.646	-18.1	85	0.00
63	P,M	Chlorobenzene	0.971	1.078	-11.0	86	0.00
64	T	1,1,1,2-Tetrachloroethane	0.313	0.368	-17.6	90	0.00
65	C,T	Ethylbenzene	1.692	1.958	-15.7	87	0.00
66	T	m-Xylene & p-Xylene	1.301	1.462	-12.4	85	0.00
67	T	o-Xylene	1.229	1.425	-15.9	85	0.00
68	T	Styrene	0.872	1.007	-15.5	83	0.00
69	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	81	0.00
70	P,T	Bromoform	0.376	0.432	-14.9	92	0.00
71	T	Isopropylbenzene	4.805	5.090	-5.9	87	0.00
72	P,T	1,1,2,2-Tetrachloroethane	0.611	0.619	-1.3	84	0.00
73	S	4-Bromofluorobenzene	1.034	0.912	11.8	69	0.00
74	T	1,2,3-Trichloropropane	0.100	0.112	-12.0	88	0.00
75	T	trans-1,4-Dichloro-2-butene	0.142	0.131	7.7	76	-0.02
76	T	n-Propylbenzene	5.923	6.259	-5.7	86	0.00
77	T	Bromobenzene	0.931	1.010	-8.5	88	0.00
78	T	2-Chlorotoluene	3.515	3.550	-1.0	83	0.00
79	T	1,3,5-Trimethylbenzene	3.722	3.899	-4.8	86	0.00
80	T	4-Chlorotoluene	3.208	3.188	0.6	83	0.00

(#) = Out of Range

2024

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D13\RDQ318.D Vial: 4
Acq On : 14 Apr 2007 2:57 am Operator: DN
Sample : CVO05C1380 Inst : TO05
Misc : 10.0ppb 8260/20.0ppb KET/50.0ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05C13.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 13 18:48:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	3.754	4.032	-7.4	87	0.00
82	T	1,2,4-Trimethylbenzene	3.534	3.670	-3.8	84	0.00
83	T	sec-Butylbenzene	5.253	5.638	-7.3	87	0.00
84	T	p-Isopropyltoluene	4.065	4.352	-7.1	84	0.00
85	T	1,3-Dichlorobenzene	1.816	1.896	-4.4	85	0.00
86	T	1,4-Dichlorobenzene	1.720	1.755	-2.0	85	0.00
87	T	n-Butylbenzene	3.616	3.893	-7.7	83	0.00
88	T	1,2-Dichlorobenzene	1.531	1.583	-3.4	86	0.00
89	T	1,2-Dibromo-3-chloropropane	0.074	0.074	0.0	83	0.00
90	T	1,2,4-Trichlorobenzene	0.834	0.893	-7.1	82	0.00
91	T	Hexachlorobutadiene	0.673	0.688	-2.2	81	-0.02
92	T	Naphthalene	0.950	0.957	-0.7	79	0.00
93	T	1,2,3-Trichlorobenzene	0.704	0.759	-7.8	84	0.00

ANALYTICAL LOG

2026

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 3.13.07 ☐ 5-ml Purge ☑ 25-ml Purge

Book # A05 -036

BATCH V005C13 6

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RCQ 344	BFB05 C29	5µl	NA	NA		10:53am
02	345	30 ✓	↓				
03	346	V005C13 1 ✓	.03/.06 .15µl				8260 bas/Ket-A/TBA/ACN .3/.6/1.5/.9 ppb
04	347	2 ✓	.05/.1 .25µl				.5/1/2.5/1.5
05	348	3 ✓	.1/.2/.5µl				1/2/5/3
06	349	4 ✓	.2/.4/1µl				2/4/10/6
07	350	5 ✓	.5/1/2.5µl				5/10/25/15
08	351	6 ✓	1/2/5µl				10/20/50/30
09	352	7 ✓	2/4/10µl				20/40/100/60
10	353	8 ✓	3/6/15µl				30/60/150/80
11	354	9 ✓	4/8/20µl				40/80/200/150
12	355	10 ✓	5/10/25µl				50/100/250/150
13	356	IS/SS	25ml				
14	357	V005C30B	↓				
15	358	IV005C13 01	1/2/5µl				
16	359	02 ✓	↓				10/20/50/30 ppb
17	360	03	5µl				10ppb for 3add empds
18	361	04	↓				9:28pm
19							
20							
21							
22							
23							DN 3.14.07
24							
25							

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	3/13/07
ICAL ID	V005C13

STANDARDS

NAME	ID	CONC. (mg/L)
DCC 8260	SVIC-11.60.2	50/250
DCC Ket-AA Gases	.58.3 .60.3	250 250
DCC 3 add	.31.3	250
BFB	.58.1	50
IS/SURR. IS SS	.62-1 .62-3	250 250
LCS 8260	.63.2	50/250
LCS Ket-AA Gases	.59.2 .61.3	250 250
LCS CLP	.37.3	50

SOLVENT	ID
METHANOL	
DATA FILE	07C13

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO05	

Comments:

Analyzed By: DN

Date Disposed: 3/14/07

Disposed By: DN

2027

ANALYSIS LOG FOR VOLATILES

EMAX LABORATORIES, INC.

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4.14.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # A05 -037**

BATCH CV05243.80

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RD18315	BFB05 D25	2µL				
02	316	↓ 26 ✓	↓				1:43pm
03	317	CV05 e1379	1/2/5µL				
04	318	↓ 80 ✓	↓				
05	319	V05 D28L ✓				•	
06	320	C ✓	↓				
07	321	B	5mL				
08	322	Q ✓	↓				
09	323	07D028_24 ✓	5mL	1	<2		
10	324	07D165_01 ✓			<2		
11	325	↓ -02 ✓					
12	326	07D082_01 ✓					5x
13	327	-02 ✓					10x
14	328	-03 ✓					10x
15	329	-04 ✓					10x
16	330	-05 ✓					25x
17	331	-06 ✓					10x
18	332	-07 ✓					25x
19	333	-08 ✓					25x
20	334	-08M ✓					
21	↓ 335	↓ -09S ✓	↓	↓	↓		1:25 pm
22							
23							
24							DW 4.16.07
25							

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	3/13/07
ICAL ID	V05C13

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	8/10.11.60.3	
DCC	58.3	
DCC	60.3	
BFB	58.1	50/50
IS/SURR.	62.7	
LCS	63.2	
LCS	59.2	
LCS	61.3	

SOLVENT	ID
METHANOL	
DATA FILE	07D13

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO05	

Comments:

Analyzed By: DN

Date Disposed: 4/16/07

Disposed By: DN

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D105

8000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D105

METHOD 314.0
PERCHLORATE

One (1) water sample was received on 04/10/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at half of the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   No Duplicate sample was designated in this SDG.

5. **Matrix Spike**

   No MS sample was designated in this SDG.

6. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D105

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD005WB	ND	1	NA	2.00	0.500	04/12/0701:13	NA	JD11031	JD11030	PCD005W	NA	NA
LCS1W	PCD005WL	24.2	1	NA	2.00	0.500	04/12/0701:54	NA	JD11033	JD11030	PCD005W	NA	NA
LCD1W	PCD005WC	24.5	1	NA	2.00	0.500	04/12/0702:14	NA	JD11034	JD11030	PCD005W	NA	NA
F39-HSAS-GW-01	D105-02	ND	1	NA	2.00	0.500	04/12/0705:16	NA	JD11043	JD11041	PCD005W	04/06/0709:45	04/10/07

5555

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D105
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD005WB	PCD005WL	PCD005WC		
LAB FILE ID:	JD11031	JD11033	JD11034		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/12/0701:13	04/12/0701:54	04/12/0702:14	DATE RECEIVED:	NA
PREP. BATCH:	PCD005W	PCD005W	PCD005W		
CALIB. REF:	JD11030	JD11030	JD11030		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.2	97	25.0	24.5	98	1	85-115	20

8005

INITIAL CALIBRATION

Method : c:\ezchrom\methods\ic57d11.met
Printed : Apr 11, 2007 17:32:31
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

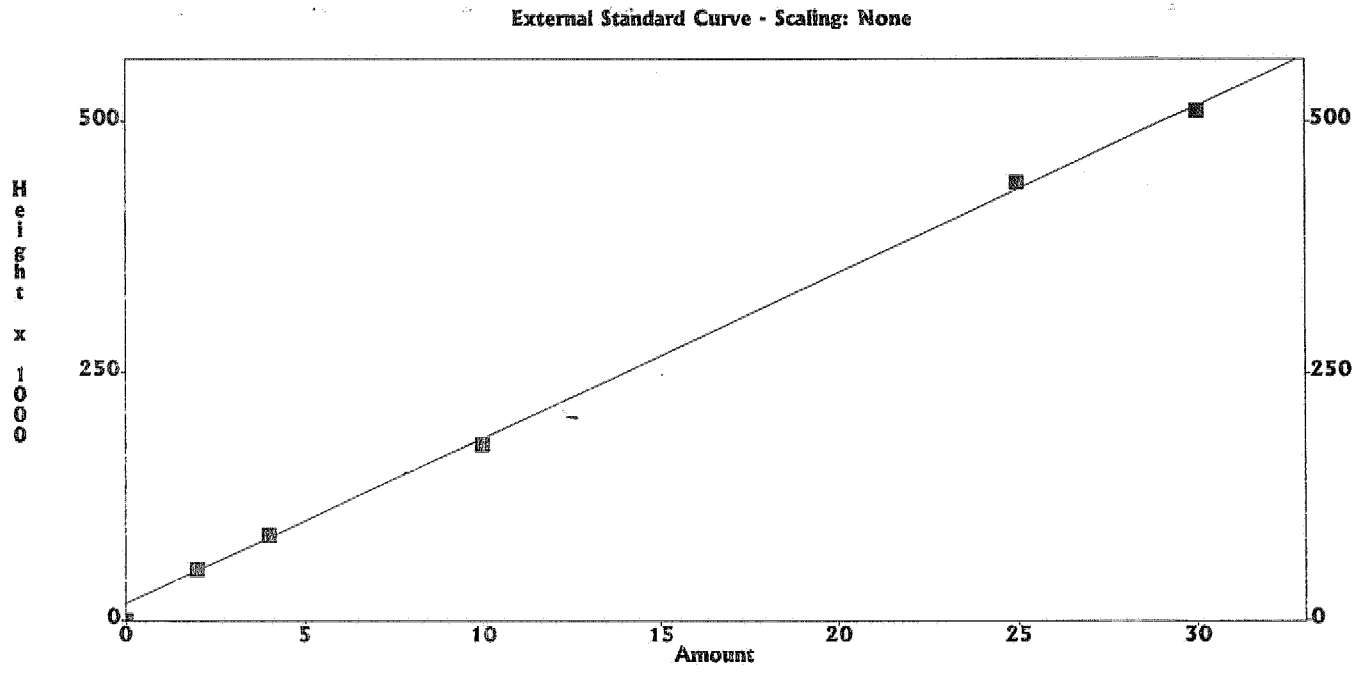
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	51511	2	25755.50	51511							0
3	86144	4	21536.00	86144							0
4	177427	10	17742.70	177427							0
5	439689	25	17587.56	439689							0
6	511110	30	17037.00	511110							0

Calib Flag: Replace

Average RF: 19931.8
RF StdDev: 3713.37
RF %RSD: 18.630

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 6.01963e-005 x Height - 1.04027
R^2 = 0.999354



4-20-07

8007

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.1D1

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD11001	IB	P	.000	04/11/0714:29	1
JD11002	S-0.0	P	.0000	04/11/0714:49	1
JD11003	S-2.0	P	2	04/11/0715:09	1
JD11004	S-4.0	P	4	04/11/0715:30	1
JD11005	S-10.0	P	10	04/11/0715:50	1
JD11006	S-25.0	P	25	04/11/0716:14	1
JD11007	S-30.0	P	30	04/11/0716:35	1
JD11008	ICV	P	96.1%	04/11/0716:55	1
JD11009	ICV	P	98.5%	04/11/0717:48	1
JD11010	ICB	P	.000	04/11/0718:08	1
JD11011	IPCS	P	108%	04/11/0718:28	1
JD11012	PCD004SB	P	.000	04/11/0718:49	1
JD11013	MRL	P	96.7%	04/11/0719:09	1
JD11014	PCD004SL	P	24.8	04/11/0719:29	1
JD11015	PCD004WC	P	24.8	04/11/0719:49	1
JD11016	D051-11	P	.000	04/11/0720:10	1
JD11017	D051-12	P	12.7	04/11/0720:30	1
JD11018	D051-03	P	23.5	04/11/0720:50	1
JD11019	D051-04	P	34.3	04/11/0721:10	2
JD11020	D051-05	P	32	04/11/0721:31	2
JD11021	D051-06	*	65.3E	04/11/0721:51	2
JD11022	CCV1-15	P	95.7%	04/11/0722:11	1
JD11023	D051-07	P	24	04/11/0722:31	1
JD11024	D051-08	P	27.9	04/11/0722:52	1
JD11025	D051-09	P	.000	04/11/0723:12	1
JD11026	D051-10	P	.000	04/11/0723:32	1
JD11027	D051-10D	P	.000	04/11/0723:52	1
JD11028	D051-10M	P	8.48	04/12/0700:13	1
JD11029	CCV2-30	P	102%	04/12/0700:33	1
JD11030	IPCS	P	107%	04/12/0700:53	1
JD11031	PCD005WB	P	.000	04/12/0701:13	1
JD11032	MRL	P	89.1%	04/12/0701:34	1
JD11033	PCD005WL	P	24.2	04/12/0701:54	1
JD11034	PCD005WC	P	24.5	04/12/0702:14	1
JD11035	D051-01	P	1980	04/12/0702:34	200
JD11036	D066-02	P	15.6	04/12/0702:55	1
JD11037	D066-03	*	50.7E	04/12/0703:15	1
JD11038	D097-01	*	31.5E	04/12/0703:35	1
JD11039	D097-02	*	49.3E	04/12/0703:55	1
JD11040	D097-02D	*	49.5E	04/12/0704:16	1
JD11041	CCV3-15	P	93.3%	04/12/0704:36	1
JD11042	D097-02M	*	49.4E	04/12/0704:56	1
JD11043	D105-02	P	.000	04/12/0705:16	1
JD11044	RINSE	P	.000	04/12/0705:37	1
JD11045	CCV4-30	P	104%	04/12/0705:57	1

4-30-01

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.1D1

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD11001	IB	P	.000	04/11/0714:29	1
JD11002	S-0.0	P	.0000	04/11/0714:49	1
JD11003	S-2.0	P	2	04/11/0715:09	1
JD11004	S-4.0	P	4	04/11/0715:30	1
JD11005	S-10.0	P	10	04/11/0715:50	1
JD11006	S-25.0	P	25	04/11/0716:14	1
JD11007	S-30.0	P	30	04/11/0716:35	1
JD11008	ICV	P	96.1%	04/11/0716:55	1
JD11009	ICV	P	98.5%	04/11/0717:48	1
JD11010	ICB	P	.000	04/11/0718:08	1
JD11011	IPCS	P	108%	04/11/0718:28	1
JD11012	PCD004SB	P	.000	04/11/0718:49	1
JD11013	MRL	P	96.7%	04/11/0719:09	1
JD11014	PCD004SL	P	24.8	04/11/0719:29	1
JD11015	PCD004SC	P	24.8	04/11/0719:49	1
JD11016	D051-11	P	.000	04/11/0720:10	1
JD11017	D051-12	P	12.7	04/11/0720:30	1
JD11018	D051-03	P	23.5	04/11/0720:50	1
JD11019	D051-04	P	34.3	04/11/0721:10	2
JD11020	D051-05	P	32	04/11/0721:31	2
JD11021	D051-06	*	65.3E	04/11/0721:51	2
JD11022	CCV1-15	P	95.7%	04/11/0722:11	1
JD11023	D051-07	P	24	04/11/0722:31	1
JD11024	D051-08	P	27.9	04/11/0722:52	1
JD11025	D051-09	P	.000	04/11/0723:12	1
JD11026	D051-10	P	.000	04/11/0723:32	1
JD11027	D051-10D	P	.000	04/11/0723:52	1
JD11028	D051-10M	P	8.48	04/12/0700:13	1
JD11029	CCV2-30	P	102%	04/12/0700:33	1
JD11030	IPCS	P	107%	04/12/0700:53	1
JD11031	PCD005WB	P	.000	04/12/0701:13	1
JD11032	MRL	P	89.1%	04/12/0701:34	1
JD11033	PCD005WL	P	24.2	04/12/0701:54	1
JD11034	PCD005WC	P	24.5	04/12/0702:14	1
JD11035	D051-01	P	1980	04/12/0702:34	200
JD11036	D066-02	P	15.6	04/12/0702:55	1
JD11037	D066-03	*	50.7E	04/12/0703:15	1
JD11038	D097-01	*	31.5E	04/12/0703:35	1
JD11039	D097-02	*	49.3E	04/12/0703:55	1
JD11040	D097-02D	*	49.5E	04/12/0704:16	1
JD11041	CCV3-15	P	93.3%	04/12/0704:36	1
JD11042	D097-02M	*	49.4E	04/12/0704:56	1
JD11043	D105-02	P	.000	04/12/0705:16	1
JD11044	RINSE	P	.000	04/12/0705:37	1
JD11045	CCV4-30	P	104%	04/12/0705:57	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

* JD11.008: Bad injection; not used.

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JD11
Method File: IC57d11.met
Analytical Batch: PCD0045 + PCD005W

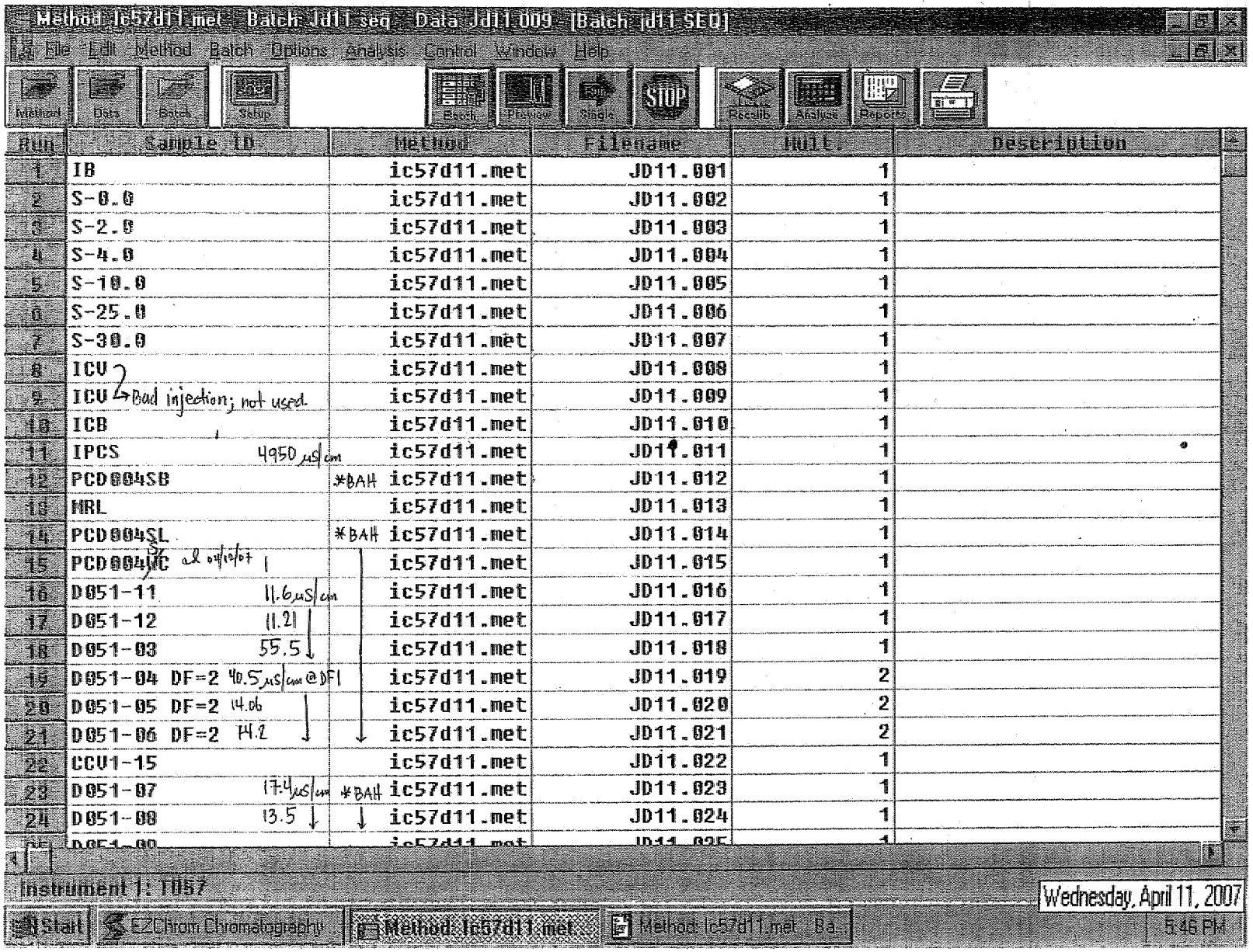
SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

STANDARDS ID	
ICAL	SW8B-02-929
ICV	↓ 930
CCV	N/A
CCV-15	SW8B-02-924
CCV-30	925
LCS	932
MS	931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

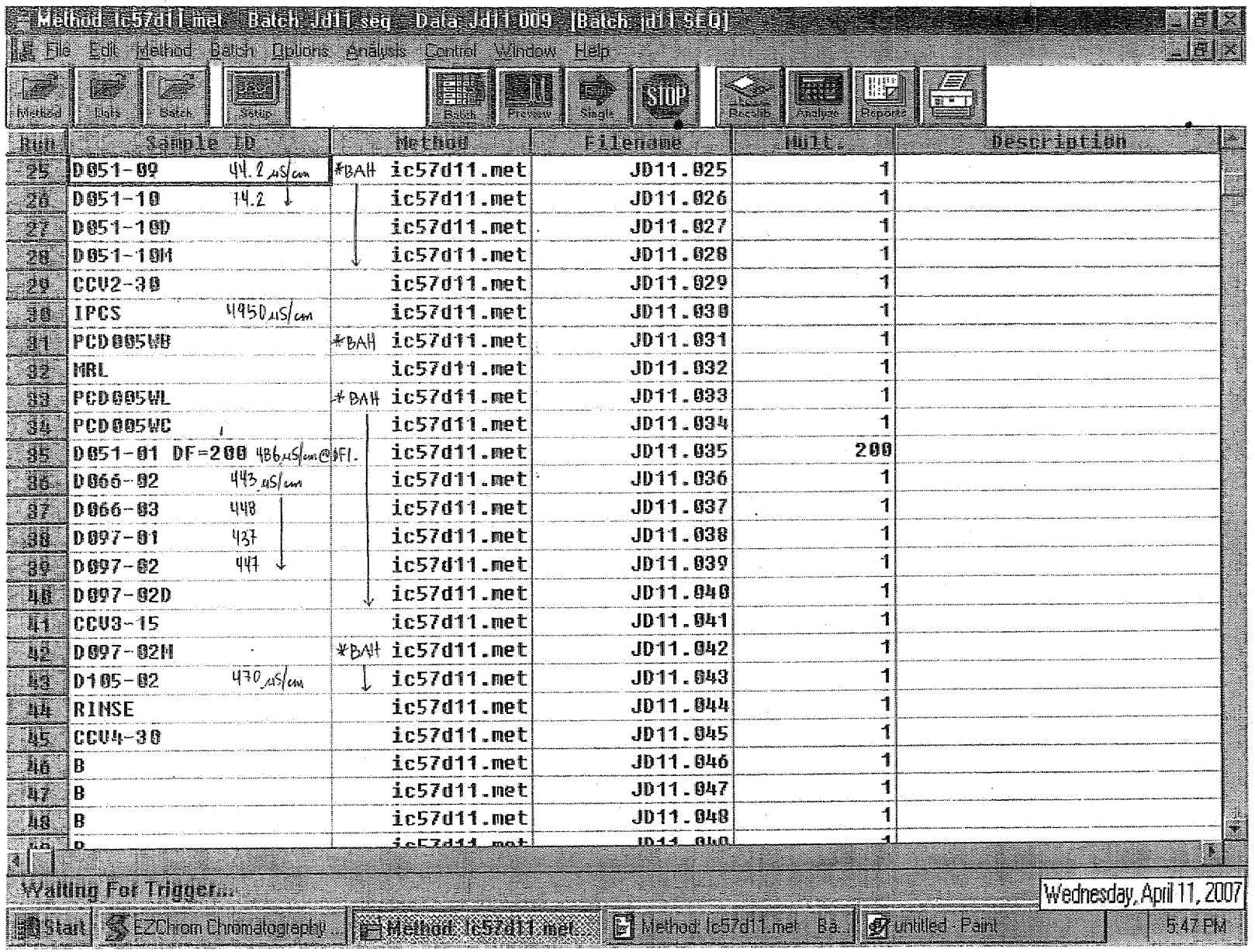
CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1407	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: [signature]
Date: 04/11/07


Method: ic57d11.met Batch: jd11.seq Data: JD11.009 [Batch: jd11.SEQ]
File Edit Method Batch Options Analysis Control Windows Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d11.met | JD11.001 | 1
2 | S-0.0 | ic57d11.met | JD11.002 | 1
3 | S-2.0 | ic57d11.met | JD11.003 | 1
4 | S-4.0 | ic57d11.met | JD11.004 | 1
5 | S-10.0 | ic57d11.met | JD11.005 | 1
6 | S-25.0 | ic57d11.met | JD11.006 | 1
7 | S-30.0 | ic57d11.met | JD11.007 | 1
8 | ICV | ic57d11.met | JD11.008 | 1
9 | ICV Bad injection; not used. | ic57d11.met | JD11.009 | 1
10 | ICB | ic57d11.met | JD11.010 | 1
11 | IPCS 4950 µS/cm | ic57d11.met | JD11.011 | 1
12 | PCD004SB | *BAH ic57d11.met | JD11.012 | 1
13 | MRL | ic57d11.met | JD11.013 | 1
14 | PCD004SL | *BAH ic57d11.met | JD11.014 | 1
15 | PCD004IC all outside | ic57d11.met | JD11.015 | 1
16 | D051-11 11.6 µS/cm | ic57d11.met | JD11.016 | 1
17 | D051-12 11.21 | ic57d11.met | JD11.017 | 1
18 | D051-03 55.5 | ic57d11.met | JD11.018 | 1
19 | D051-04 DF=2 40.5 µS/cm @DF1 | ic57d11.met | JD11.019 | 2
20 | D051-05 DF=2 14.06 | ic57d11.met | JD11.020 | 2
21 | D051-06 DF=2 14.2 | ic57d11.met | JD11.021 | 2
22 | CCV1-15 | ic57d11.met | JD11.022 | 1
23 | D051-07 17.4 µS/cm | *BAH ic57d11.met | JD11.023 | 1
24 | D051-08 13.5 | ic57d11.met | JD11.024 | 1
Instrument 1: TOC
Wednesday, April 11, 2007
Start EZChrom Chromatography Method: ic57d11.met Method: ic57d11.met Ba... 5:46 PM

89115


Method: ic57d11.met Batch: Jd11seq Data: Jd11009 [Batch: jd11SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Lists
Batch
Setup
Batch
Preview
Single
STOP
Results
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | D051-09 44.2 µS/cm | *BAH | ic57d11.met | JD11.025 | 1
26 | D051-10 14.2 | | ic57d11.met | JD11.026 | 1
27 | D051-10D | | ic57d11.met | JD11.027 | 1
28 | D051-10M | | ic57d11.met | JD11.028 | 1
29 | CCV2-30 | | ic57d11.met | JD11.029 | 1
30 | IPCS 4950 µS/cm | | ic57d11.met | JD11.030 | 1
31 | PCD005WB | *BAH | ic57d11.met | JD11.031 | 1
32 | MRL | | ic57d11.met | JD11.032 | 1
33 | PCD005WL | *BAH | ic57d11.met | JD11.033 | 1
34 | PCD005WC | | ic57d11.met | JD11.034 | 1
35 | D051-01 DF=200 486 µS/cm@9F1. | | ic57d11.met | JD11.035 | 200
36 | D066-02 443 µS/cm | | ic57d11.met | JD11.036 | 1
37 | D066-03 448 | | ic57d11.met | JD11.037 | 1
38 | D097-01 437 | | ic57d11.met | JD11.038 | 1
39 | D097-02 447 | | ic57d11.met | JD11.039 | 1
40 | D097-02D | | ic57d11.met | JD11.040 | 1
41 | CCV3-15 | | ic57d11.met | JD11.041 | 1
42 | D097-02M | *BAH | ic57d11.met | JD11.042 | 1
43 | D105-02 470 µS/cm | | ic57d11.met | JD11.043 | 1
44 | RINSE | | ic57d11.met | JD11.044 | 1
45 | CCV4-30 | | ic57d11.met | JD11.045 | 1
46 | B | | ic57d11.met | JD11.046 | 1
47 | B | | ic57d11.met | JD11.047 | 1
48 | B | | ic57d11.met | JD11.048 | 1
Waiting For Trigger...
Wednesday, April 11, 2007
Start
EZChrom Chromatography ...
Method: ic57d11.met
Method: ic57d11.met - Ba...
untitled - Paint
5:47 PM

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CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D106**

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** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-25-2007
EMAX Batch No.: 07D106

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/10/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
F40-HAS7@0.5'	D106-01	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS7@5'	D106-02	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS8@0.5'	D106-03	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS8@5'	D106-04	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS9@0.5'	D106-05	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS9@5'	D106-06	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS10@0.5'	D106-07	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F40-HAS10@5'	D106-08	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
LEB-040607	D106-09	04/06/07	WATER	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS3@0.5'	D106-10	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS3@5'	D106-11	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS2@0.5'	D106-12	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS2@5'	D106-13	04/06/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

TC-0618

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

CHAIN OF CUSTODY RECORD

07D106

DATE 4-6-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures)

LINE ITEM	SAMPLE NO.	DATE	TIME	PCB's 8082	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	F40-HAS7@0.5	4/6/07	9:00	X	U	S	G	1	NR
2.	F40-HAS7@5'	4/6/07	9:32	X	U	S	G	1	NR
3.	F40-HAS8@0.5	4/6/07	0945	X	U	S	G	1	NR
4.	F40-HAS8@5'	4/6/07	0957	X	U	S	G	1	NR
5.	F40-HAS9@0.5'	4/6/07	1010	X	U	S	G	1	NR
6.	F40-HAS9@5'	4/6/07	1020	X	U	S	G	1	NR
7.	F40-HAS10@0.5'	4/6/07	1030	X	U	S	G	1	NR
8.	F40-HAS10@5'	4/6/07	1103	X	U	S	G	1	NR
9.	LEB-040607	4/6/07	840	X	U	W	G	1	NR
10.									

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: AAH

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME
Holly A Hanke	Holly A Hanke	TETRA TECH, INC.	4-10-07	0745
RECEIVED BY: GEORGE Lim	SIGNATURE	COMPANY: EMAX	DATE: 4/10/07	TIME: 10:05
RELINQUISHED BY	SIGNATURE: GEORGE Lim	COMPANY: EMAX	DATE: 4/10/07	TIME: 11:45
RECEIVED BY: INDRA PATEL	SIGNATURE	COMPANY: EMAX	DATE: 4-10-07	TIME: 11:45

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 9 9 13

METHOD OF SHIPMENT/SHIPMENT NO.: courier

Special Shipping/Handling/Storage Requirements: T = 3.8°C

X:\GIS\ATT-MISC\COCR.CDR

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1 of 1

07D106

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4/6/07 PAGE 2 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	PCB's 8082	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
10	1. F35-HA53@0.5	4/6/07	1221	X	U	S	G	1	NR
11	2. F35-HA53@5	4/6/07	1303	X	U	S	G	1	NR
12	3. F35-HA52@0.5	4/6/07	1311	X	U	S	G	1	NR
13	4. F35-HA52@5	4/6/07	1325	X	U	S	G	1	NR
	5.								
	6.								
	7.								
	8.								
	9.								
	10.								

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Holly A. Hanke	SIGNATURE: Holly A Hanke	TETRA TECH, INC.	DATE: 4-10-07	TIME: 0745	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 4 of 13
RECEIVED BY: GEORGE CIM	SIGNATURE: George L	COMPANY: EMAX	DATE: 4/10/07	TIME: 10:05	METHOD OF SHIPMENT/SHIPMENT NO.: courier
RELINQUISHED BY: George L.	SIGNATURE: GEORGE CIM	COMPANY: EMAX	DATE: 4/10/07	TIME: 11:45	Special Shipping/Handling/Storage Requirements: T=3.8°C
RECEIVED BY: INDRA PATEL	SIGNATURE:	COMPANY: EMAX	DATE: 4.10.07	TIME: 11:45	

1502

X:\GIS\ATT-MISC\COCR.CDR

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D106
☑ EMAX Courier	SGE Cre	Recepient I PATEL
☐ Client Delivery		Date 4-10-07
☐ Third Party		Time 11:45

COC Inspection

~~☐ Client Name~~ ~~☐ Client PM/FC~~ ~~☐ Sampler Name~~ ☐ Sampling Date/Time/Location ~~☐ Sample ID~~ ~~☐ Matrix~~

~~☐ Address~~ ~~☐ Tel # / Fax #~~ ~~☐ Courier Signature~~ ~~☐ Analysis Required~~ ~~☐ Preservative (if any)~~ ☐ TAT

Safety Issues

☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	~~☐ Cooler~~	☐ Box	☐ Other		
Condition	☐ Custody Seal	~~☐ Intact~~	☐ Damaged		
Packaging	~~☐ Bubble Pack~~	☐ Styrofoam	☐ Popcorn	~~☐ Sufficient~~	~~☐ Plastic Bag~~
Temperatures	~~☐ Cooler 1~~ 3.8 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
05	005	time 10:12	cre time 10:10	R5

REVIEWS

Sample Labeling _____ Date 4-10-07

SRF _____ Date 4/10/07

PM _____ Date 4/11/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Inform client
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8082
PCBs

SDG#: 07D106

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D106

METHOD 3520C/3550B/8082
PCBs

One (1) water and twelve (12) soil samples were received on 04/10/07 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample D106-07 was spiked. All recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D106
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60D020SB	1	NA	04/17/0717:41	04/12/0711:30	SD17014A	SD17012A	CPD020S	Method Blank
LCS1S	60D020SL	1	NA	04/17/0717:58	04/12/0711:30	SD17015A	SD17012A	CPD020S	Lab Control Sample (LCS)
F40-HAS7@0.5'	D106-01	1	2.0	04/17/0718:15	04/12/0711:30	SD17016A	SD17012A	CPD020S	Field Sample
F40-HAS7@5'	D106-02	1	2.9	04/17/0718:31	04/12/0711:30	SD17017A	SD17012A	CPD020S	Field Sample
F40-HAS8@0.5'	D106-03	1	2.0	04/17/0718:48	04/12/0711:30	SD17018A	SD17012A	CPD020S	Field Sample
F40-HAS8@5'	D106-04	1	2.0	04/17/0719:05	04/12/0711:30	SD17019A	SD17012A	CPD020S	Field Sample
F40-HAS9@0.5'	D106-05	1	1.6	04/17/0719:21	04/12/0711:30	SD17020A	SD17012A	CPD020S	Field Sample
F40-HAS9@5'	D106-06	1	2.2	04/17/0719:38	04/12/0711:30	SD17021A	SD17012A	CPD020S	Field Sample
F40-HAS10@0.5'	D106-07	1	1.3	04/17/0719:55	04/12/0711:30	SD17022A	SD17012A	CPD020S	Field Sample
F40-HAS10@0.5'MS	D106-07M	1	1.3	04/17/0720:11	04/12/0711:30	SD17023A	SD17012A	CPD020S	Matrix Spike Sample (MS)
F40-HAS10@0.5'MSD	D106-07S	1	1.3	04/17/0720:28	04/12/0711:30	SD17024A	SD17012A	CPD020S	MS Duplicate (MSD)
F40-HAS10@5'	D106-08	1	3.7	04/17/0720:45	04/12/0711:30	SD17025A	SD17012A	CPD020S	Field Sample
F35-HAS3@0.5'	D106-10	1	1.8	04/17/0721:02	04/12/0711:30	SD17026A	SD17012A	CPD020S	Field Sample
F35-HAS3@5'	D106-11	1	5.1	04/17/0721:18	04/12/0711:30	SD17027A	SD17012A	CPD020S	Field Sample
F35-HAS2@0.5'	D106-12	1	2.1	04/17/0721:35	04/12/0711:30	SD17028A	SD17012A	CPD020S	Field Sample
F35-HAS2@5'	D106-13	1	4.5	04/17/0721:52	04/12/0711:30	SD17029A	SD17012A	CPD020S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CPD019WB	1	NA	04/13/0713:08	04/11/0716:00	SD13007A	SD13006A	CPD019WB	Method Blank
LCS1W	60D019WL	1	NA	04/13/0713:59	04/11/0716:00	SD13010A	SD13006A	CPD019WB	Lab Control Sample (LCS)
LCD1W	60D019WC	1	NA	04/13/0714:15	04/11/0716:00	SD13011A	SD13006A	CPD019WB	LCS Duplicate
LEB-040607	D106-09	1	NA	04/13/0717:30	04/11/0716:00	SD13021A	SD13006A	CPD019WB	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F40-HAS7@0.5'	Date Analyzed:	04/17/07 18:15
Lab Samp ID:	D106-01	Dilution Factor:	1
Lab File ID:	SD17016A	Matrix	: SOIL
Ext Btch ID:	CPD020S	% Moisture	: 2.0
Calib. Ref.:	SD17012A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(69) | 78	10-160
DECACHLOROBIPHENYL	(112) | 109	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F40-HAS7@5'	Date Analyzed:	04/17/07 18:31
Lab Samp ID:	D106-02	Dilution Factor:	1
Lab File ID:	SD17017A	Matrix	: SOIL
Ext Btch ID:	CPD020S	% Moisture	: 2.9
Calib. Ref.:	SD17012A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	21 | 21
PCB-1221	(ND) | ND	51	21 | 21
PCB-1232	(ND) | ND	51	21 | 21
PCB-1242	(ND) | ND	51	21 | 21
PCB-1248	(ND) | ND	51	21 | 21
PCB-1254	(ND) | ND	51	21 | 21
PCB-1260	(ND) | ND	51	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(67) | 76	10-160
DECACHLOROBIPHENYL	(108) | 105	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/06/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D106	Date Extracted: 04/12/07 11:30
Sample ID: F40-HAS8@0.5'	Date Analyzed: 04/17/07 18:48
Lab Samp ID: D106-03	Dilution Factor: 1
Lab File ID: SD17018A	Matrix : SOIL
Ext Btch ID: CPD020S	% Moisture : 2.0
Calib. Ref.: SD17012A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	51	20|20
PCB-1221	(ND)|ND	51	20|20
PCB-1232	(ND)|ND	51	20|20
PCB-1242	(ND)|ND	51	20|20
PCB-1248	(ND)|ND	51	20|20
PCB-1254	(ND)|ND	51	20|20
PCB-1260	(ND)|ND	51	20|20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(72)|81	10-160
DECACHLOROBIPHENYL	(107)|104	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/06/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D106	Date Extracted: 04/12/07 11:30
Sample ID: F40-HAS8@5'	Date Analyzed: 04/17/07 19:05
Lab Samp ID: D106-04	Dilution Factor: 1
Lab File ID: SD17019A	Matrix : SOIL
Ext Btch ID: CPD020S	% Moisture : 2.0
Calib. Ref.: SD17012A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(72) | 81	10-160
DECACHLOROBIPHENYL	(109) | 105	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F40-HAS9@0.5'	Date Analyzed:	04/17/07 19:21
Lab Samp ID:	D106-05	Dilution Factor:	1
Lab File ID:	SD17020A	Matrix :	SOIL
Ext Btch ID:	CPD020S	% Moisture :	1.6
Calib. Ref.:	SD17012A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(72) | 81	10-160
DECACHLOROBIPHENYL	(110) | 107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F40-HAS9@5'	Date Analyzed:	04/17/07 19:38
Lab Samp ID:	D106-06	Dilution Factor:	1
Lab File ID:	SD17021A	Matrix	: SOIL
Ext Btch ID:	CPD020S	% Moisture	: 2.2
Calib. Ref.:	SD17012A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(74) | 82	10-160
DECACHLOROBIPHENYL	(112) | 108	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/06/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D106	Date Extracted: 04/12/07 11:30
Sample ID: F40-HAS10@0.5'	Date Analyzed: 04/17/07 19:55
Lab Samp ID: D106-07	Dilution Factor: 1
Lab File ID: SD17022A	Matrix : SOIL
Ext Btch ID: CPD020S	% Moisture : 1.3
Calib. Ref.: SD17012A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	51	20|20
PCB-1221	(ND)|ND	51	20|20
PCB-1232	(ND)|ND	51	20|20
PCB-1242	(ND)|ND	51	20|20
PCB-1248	(ND)|ND	51	20|20
PCB-1254	(ND)|ND	51	20|20
PCB-1260	(ND)|ND	51	20|20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(69)|78	10-160
DECACHLOROBIPHENYL	(110)|107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F40-HAS10@5'	Date Analyzed:	04/17/07 20:45
Lab Samp ID:	D106-08	Dilution Factor:	1
Lab File ID:	SD17025A	Matrix :	SOIL
Ext Btch ID:	CPD020S	% Moisture :	3.7
Calib. Ref.:	SD17012A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(70) | 78	10-160
DECACHLOROBIPHENYL	(107) | 103	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3520C/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/11/07 16:00
Sample ID:	LEB-040607	Date Analyzed:	04/13/07 17:30
Lab Samp ID:	D106-09	Dilution Factor:	1
Lab File ID:	SD13021A	Matrix :	WATER
Ext Btch ID:	CPD019WB	% Moisture :	NA
Calib. Ref.:	SD13006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(65) | 72	30-140
DECACHLOROBIPHENYL	(95) | 95	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F35-HAS3@0.5'	Date Analyzed:	04/17/07 21:02
Lab Samp ID:	D106-10	Dilution Factor:	1
Lab File ID:	SD17026A	Matrix :	SOIL
Ext Btch ID:	CPD020S	% Moisture :	1.8
Calib. Ref.:	SD17012A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75) | 84	10-160
DECACHLOROBIPHENYL	(110) | 106	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/06/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D106	Date Extracted: 04/12/07 11:30
Sample ID: F35-HAS3@5'	Date Analyzed: 04/17/07 21:18
Lab Samp ID: D106-11	Dilution Factor: 1
Lab File ID: SD17027A	Matrix : SOIL
Ext Btch ID: CPD020S	% Moisture : 5.1
Calib. Ref.: SD17012A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(70) | 78	10-160
DECACHLOROBIPHENYL	(110) | 105	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F35-HAS2@0.5'	Date Analyzed:	04/17/07 21:35
Lab Samp ID:	D106-12	Dilution Factor:	1
Lab File ID:	SD17028A	Matrix :	SOIL
Ext Btch ID:	CPD020S	% Moisture :	2.1
Calib. Ref.:	SD17012A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(74) | 83	10-160
DECACHLOROBIPHENYL	(114) | 109	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/06/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D106	Date Extracted:	04/12/07 11:30
Sample ID:	F35-HAS2@5'	Date Analyzed:	04/17/07 21:52
Lab Samp ID:	D106-13	Dilution Factor:	1
Lab File ID:	SD17029A	Matrix :	SOIL
Ext Btch ID:	CPD020S	% Moisture :	4.5
Calib. Ref.:	SD17012A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(72) | 80	10-160
DECACHLOROBIPHENYL	(111) | 107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

METHOD 3520C/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D106	Date Extracted:	04/11/07 16:00
Sample ID:	MBLK1W	Date Analyzed:	04/13/07 13:08
Lab Samp ID:	CPD019WB	Dilution Factor:	1
Lab File ID:	SD13007A	Matrix	: WATER
Ext Btch ID:	CPD019WB	% Moisture	: NA
Calib. Ref.:	SD13006A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(70) | 76	30-130
DECACHLOROBIPHENYL	(97) | 94	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D106
METHOD: METHOD 3520C/8082

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: CPD019WB 60D019WL 60D019WC
LAB FILE ID: SD13007A SD13010A SD13011A
DATE EXTRACTED: 04/11/0716:00 04/11/0716:00 04/11/0716:00 DATE COLLECTED: NA
DATE ANALYZED: 04/13/0713:08 04/13/0713:59 04/13/0714:15 DATE RECEIVED: 04/11/07
PREP. BATCH: CPD019WB CPD019WB CPD019WB
CALIB. REF: SD13006A SD13006A SD13006A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	ND | (ND)	5.00	(3.91) | 4.30	(78) | 86	5.00	(3.60) | 4.02	(72) | 80	(8) | 7	50-130	30
PCB-1260	(ND) | ND	5.00	(4.49) | 4.38	(90) | 88	5.00	(4.43) | 4.60	(89) | 92	(1) | 5	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	0.400	(0.305) | 0.325	(76) | 81	0.400	(0.276) | 0.296	(69) | 74	30-130
Decachlorobiphenyl	0.400	(0.398) | 0.391	(100) | 98	0.400	(0.392) | 0.384	(98) | 96	40-150

5010

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/12/07
Batch No. : 07D106	Date Extracted: 04/12/07 11:30
Sample ID: MBLK1S	Date Analyzed: 04/17/07 17:41
Lab Samp ID: 60D020SB	Dilution Factor: 1
Lab File ID: SD17014A	Matrix : SOIL
Ext Btch ID: CPD020S	% Moisture : NA
Calib. Ref.: SD17012A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(66) | 74	40-130
DECACHLOROBIPHENYL	(113) | 110	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D106
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: 60D020SB 60D020SL
LAB FILE ID: SD17014A SD17015A
DATE EXTRACTED: 04/12/0711:30 04/12/0711:30 DATE COLLECTED: NA
DATE ANALYZED: 04/17/0717:41 04/17/0717:58 DATE RECEIVED: 04/12/07
PREP. BATCH: CPD020S CPD020S
CALIB. REF: SD17012A SD17012A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
PCB-1016	(ND)|ND	167	(136)|139	(82)|83	50-130
PCB-1260	(ND)|ND	167	(132)|171	(79)|103	70-150

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(9.19)|10.1	(69)|76	40-130
Decachlorobiphenyl	13.3	(14.8)|14.3	(111)|107	40-160

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D106
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: 1.3

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	F40-HAS10@0.5'				
LAB SAMP ID:	D106-07	D106-07M	D106-07S		
LAB FILE ID:	SD17022A	SD17023A	SD17024A		
DATE EXTRACTED:	04/12/0711:30	04/12/0711:30	04/12/0711:30	DATE COLLECTED:	04/06/07
DATE ANALYZED:	04/17/0719:55	04/17/0720:11	04/17/0720:28	DATE RECEIVED:	04/10/07
PREP. BATCH:	CPD020S	CPD020S	CPD020S		
CALIB. REF:	SD17012A	SD17012A	SD17012A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	169	(134) | 148	(79) | 88	169	(130) | 144	(77) | 85	(3) | 3	20-160	50
PCB-1260	(ND) | ND	169	(125) | 169	(74) | 100	169	(136) | 169	(81) | 100	(8) | 0	20-160	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.5	(10.5) | 11.4	(78) | 85	13.5	(10.1) | 11.0	(75) | 81	10-160
Decachlorobiphenyl	13.5	(15.1) | 14.6	(112) | 108	13.5	(15.3) | 14.7	(113) | 109	30-150

* : Outside of QC limits

SS22

INITIAL CALIBRATIONS

ICAL

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
LFID & Datetime: SD09036A 04/09/07 22:53
LFID & Datetime: SD09037A 04/09/07 23:10
LFID & Datetime: SD09038A 04/09/07 23:27
LFID & Datetime: SD09039A 04/09/07 23:44
LFID & Datetime: SD09040A 04/10/07 00:00
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
PCB1016-1	20.00	2187.90	1666.00	1642.17	1580.79	1531.61	1721.70	15.4
PCB1016-2	20.00	3148.95	3076.04	3019.18	2832.33	2721.77	2959.65	6.0
PCB1016-3	20.00	5538.20	5355.62	5883.07	5497.91	5321.13	5519.19	4.0
PCB1016-4	20.00	2167.65	2036.28	2404.91	2225.39	2176.28	2202.10	6.1
PCB1016-5	20.00	3088.20	3059.68	3109.94	2774.19	2528.35	2912.07	8.7
PCB1260-1	20.00	7189.30	7188.92	5964.40	5617.03	5419.05	6275.74	13.6
PCB1260-2	20.00	5953.90	6214.80	6479.77	6197.99	6032.28	6175.75	3.3
PCB1260-3	20.00	2778.20	2881.32	3025.50	2922.00	2885.90	2898.58	3.1
PCB1260-4	20.00	8597.70	8512.22	8933.55	8625.18	8452.86	8624.30	2.2
PCB1260-5	20.00	2597.85	2547.28	2798.51	2851.53	2908.71	2740.78	5.8
SURROGATE	X	1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
TCX	5.00	19372	14571	13561	13003	12581	14617	18.9
DCB	5.00	14429	14186	13995	13809	13532	13990	2.5

5024

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTOOB HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
LFID & Datetime: SD09036B 04/09/07 22:53
LFID & Datetime: SD09037B 04/09/07 23:10
LFID & Datetime: SD09038B 04/09/07 23:27
LFID & Datetime: SD09039B 04/09/07 23:44
LFID & Datetime: SD09040B 04/10/07 00:00
CONC UNIT: PPB

	CONC	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT						
COMPOUND	X	1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
PCB1016-1	20.00	2132.30	2151.32	1616.30	1508.59	1433.89	1768.48	19.6
PCB1016-2	20.00	3508.00	3430.14	3089.22	2852.57	2693.19	3114.62	11.4
PCB1016-3	20.00	6621.90	6402.30	5859.80	5467.82	5245.92	5919.55	10.0
PCB1016-4	20.00	3137.55	3233.00	2924.50	2685.75	2475.22	2891.20	10.9
PCB1016-5	20.00	2630.65	2810.30	2631.39	2349.17	2254.33	2535.17	9.0
PCB1260-1	20.00	5194.15	6114.82	5488.05	4961.55	4567.08	5265.13	11.1
PCB1260-2	20.00	6991.25	7218.16	7152.62	6778.38	6423.46	6912.77	4.7
PCB1260-3	20.00	3666.40	3816.38	3754.72	3596.03	3368.77	3640.46	4.8
PCB1260-4	20.00	9491.00	9173.70	8972.86	8640.29	8185.58	8892.68	5.6
PCB1260-5	20.00	5762.20	5371.90	5101.44	5093.82	4960.76	5258.02	6.1
SURROGATE	X	1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
TCX	5.00	17953	15371	14375	13928	13593	15044	11.7
DCB	5.00	16042	15825	15386	14903	14487	15329	4.2

KMP
4/11/07
5025

SECOND SOURCE VERIFICATION

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Columm : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD09041A 04/10/2007 00:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			428.894	14		15
PCB1260				500.0			431.983	14		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.642	1.591	1.693	25.0	14617.4	303934	20.79	-17	*	15
DCB	9.958	9.883	10.033	25.0	13990.5	351423	25.12	0		15

4/10/07

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD09041B 04/10/2007 00:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			447.208	11		15
PCB1260				500.0			466.099	7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.533	1.504	1.562	25.0	15044.1	325285	21.62	-14		15
DCB	10.808	10.765	10.851	25.0	15328.6	392054	25.58	2		15

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO08 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13006A 04/13/2007 12:52
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			444.771	11		15
PCB1260				500.0			490.613	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.642	1.591	1.693	25.0	14617.4	313812	21.47	-14		15
DCB	9.950	9.875	10.025	25.0	13990.5	326279	23.32	-7		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13006B 04/13/2007 12:52
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			483.334	3		15
PCB1260				500.0			511.732	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.525	1.496	1.554	25.0	15044.1	351457	23.36	-7		15
DCB	10.800	10.757	10.843	25.0	15328.6	352886	23.02	-8		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13031A 04/13/2007 20:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			437.892	12		15
PCB1260				500.0			448.143	10		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.642	1.591	1.693	25.0	14617.4	308641	21.11	-16	*	15
DCB	9.942	9.867	10.017	25.0	13990.5	342451	24.48	-2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13031B 04/13/2007 20:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			476.869	5		15
PCB1260				500.0			518.174	4		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.525	1.496	1.554	25.0	15044.1	350871	23.32	-7		15
DCB	10.792	10.749	10.835	25.0	15328.6	372094	24.27	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17012A 04/17/2007 17:04
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			532.910	7		15
PCB1260				500.0			477.262	5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.642	1.591	1.693	25.0	14617.4	313614	21.45	-14		15
DCB	9.892	9.817	9.967	25.0	13990.5	338142	24.17	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD090388 04/09/2007 23:27
Conc Cont LFID & Datetime: SD170128 04/17/2007 17:04
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			500.186	0		15
PCB1260				500.0			491.337	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.533	1.504	1.562	25.0	15044.1	356321	23.68	-5		15
DCB	10.783	10.740	10.826	25.0	15328.6	364034	23.75	-5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17031A 04/17/2007 22:25
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			502.540	1		15
PCB1260				500.0			503.777	1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.625	1.574	1.676	25.0	14617.4	317238	21.70	-13		15
DCB	9.858	9.783	9.933	25.0	13990.5	358898	25.65	3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO08 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17031B 04/17/2007 22:25
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			485.900	3		15
PCB1260				500.0			553.522	11		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.533	1.504	1.562	25.0	15044.1	351047	23.33	-7		15
DCB	10.767	10.724	10.810	25.0	15328.6	380231	24.81	-1		15

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A08-019

Instrument No.: 8

Analytical Sequence: SD09

Method File: 6008B26, 6008D09, 5408D09

Analytical Batch: SD09007

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6008B26	SB26	2-26-07
6008D09	SD09	4-9-07
5408D09	SD09	4-9-07

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
1660 ICAL	SS1B-05-591	100/2000
1254 ICAL	SS1B-05-55-2	100/2000

Column	(A) RTX CLPEST I	(B) RTX CLPEST II

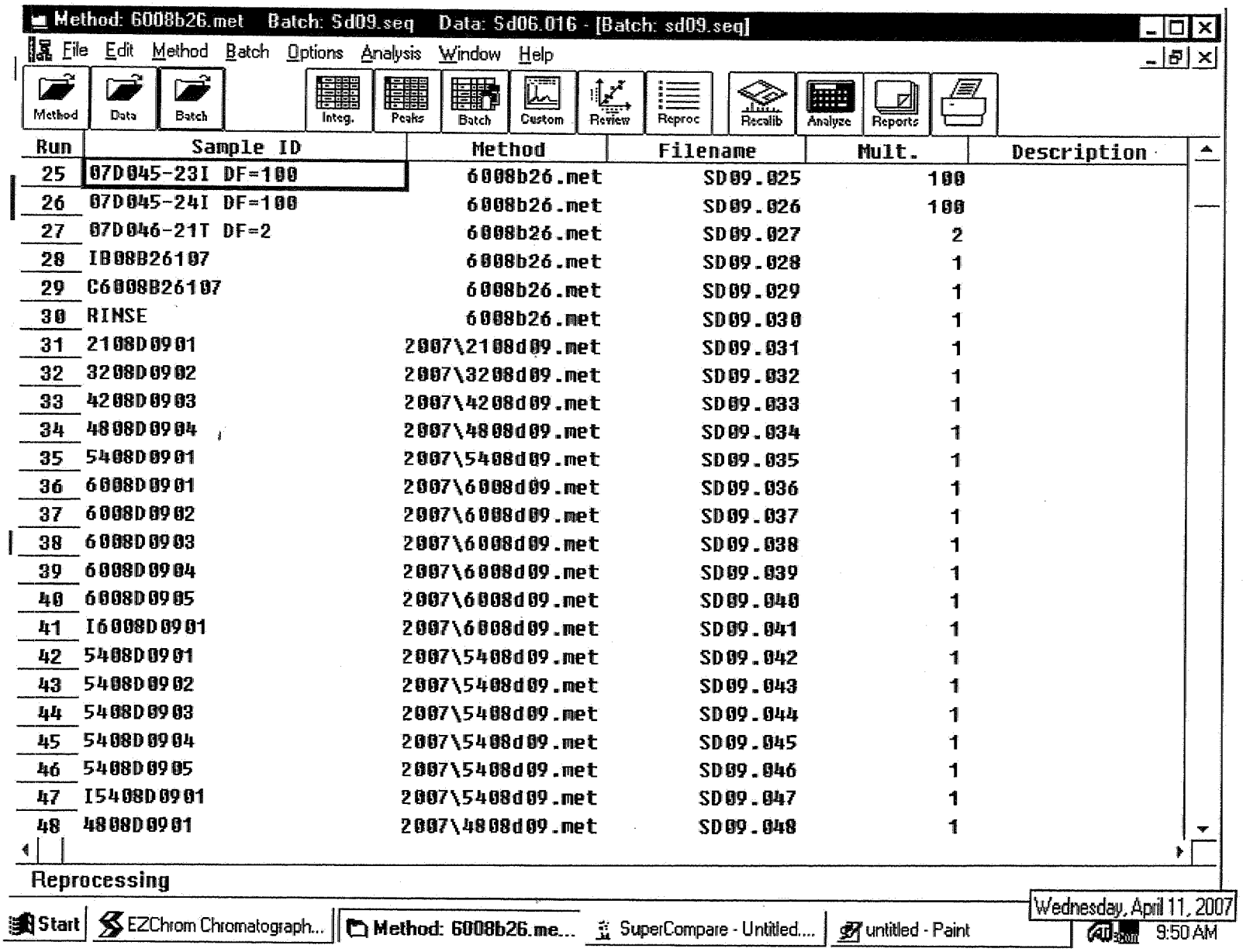
ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: EZ8 Date: 4-9-2007

Date Disposed: Disposed By:

This page is checked during data review.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Method Data Batch Integ. Peaks Batch Custom Review Reproc Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 07D045-23I DF=100 6008b26.met SD09.025 100
26 07D045-24I DF=100 6008b26.met SD09.026 100
27 07D046-21T DF=2 6008b26.met SD09.027 2
28 IB08B26107 6008b26.met SD09.028 1
29 C6008B26107 6008b26.met SD09.029 1
30 RINSE 6008b26.met SD09.030 1
31 2108D0901 2007\2108d09.met SD09.031 1
32 3208D0902 2007\3208d09.met SD09.032 1
33 4208D0903 2007\4208d09.met SD09.033 1
34 4808D0904 2007\4808d09.met SD09.034 1
35 5408D0901 2007\5408d09.met SD09.035 1
36 6008D0901 2007\6008d09.met SD09.036 1
37 6008D0902 2007\6008d09.met SD09.037 1
38 6008D0903 2007\6008d09.met SD09.038 1
39 6008D0904 2007\6008d09.met SD09.039 1
40 6008D0905 2007\6008d09.met SD09.040 1
41 I6008D0901 2007\6008d09.met SD09.041 1
42 5408D0901 2007\5408d09.met SD09.042 1
43 5408D0902 2007\5408d09.met SD09.043 1
44 5408D0903 2007\5408d09.met SD09.044 1
45 5408D0904 2007\5408d09.met SD09.045 1
46 5408D0905 2007\5408d09.met SD09.046 1
47 I5408D0901 2007\5408d09.met SD09.047 1
48 4808D0901 2007\4808d09.met SD09.048 1
Reprocessing
Start EZChrom Chromatograph... Method: 6008b26.me... SuperCompare - Untitled.... untitled - Paint
Wednesday, April 11, 2007
9:50 AM

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
PESTICIDES

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A08-019

Instrument No.: 8

Analytical Sequence: SD13

Method File: CP08B26, T008D02, 6008D09

Analytical Batch: SD13003

SOP #	Rev. #
☑ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
CP08B26	SB26	2-26-07
T008D02	SD02	4-2-07
6008D09	SD09	4-9-07

STANDARDS ID		Conc (µg/L)
Hexane	46300	N-A.
PEM	SSIC-05-35-3	100/250
PES ICAL	SSIB-05-58-1	80/160/800
1660 ICAL	SSIB-05-59-1	100/2000
TDX ICAL	SSIB-05-57-3	100/2000

Column: (A) RTX CLPEST I (B) RTX CLPEST II

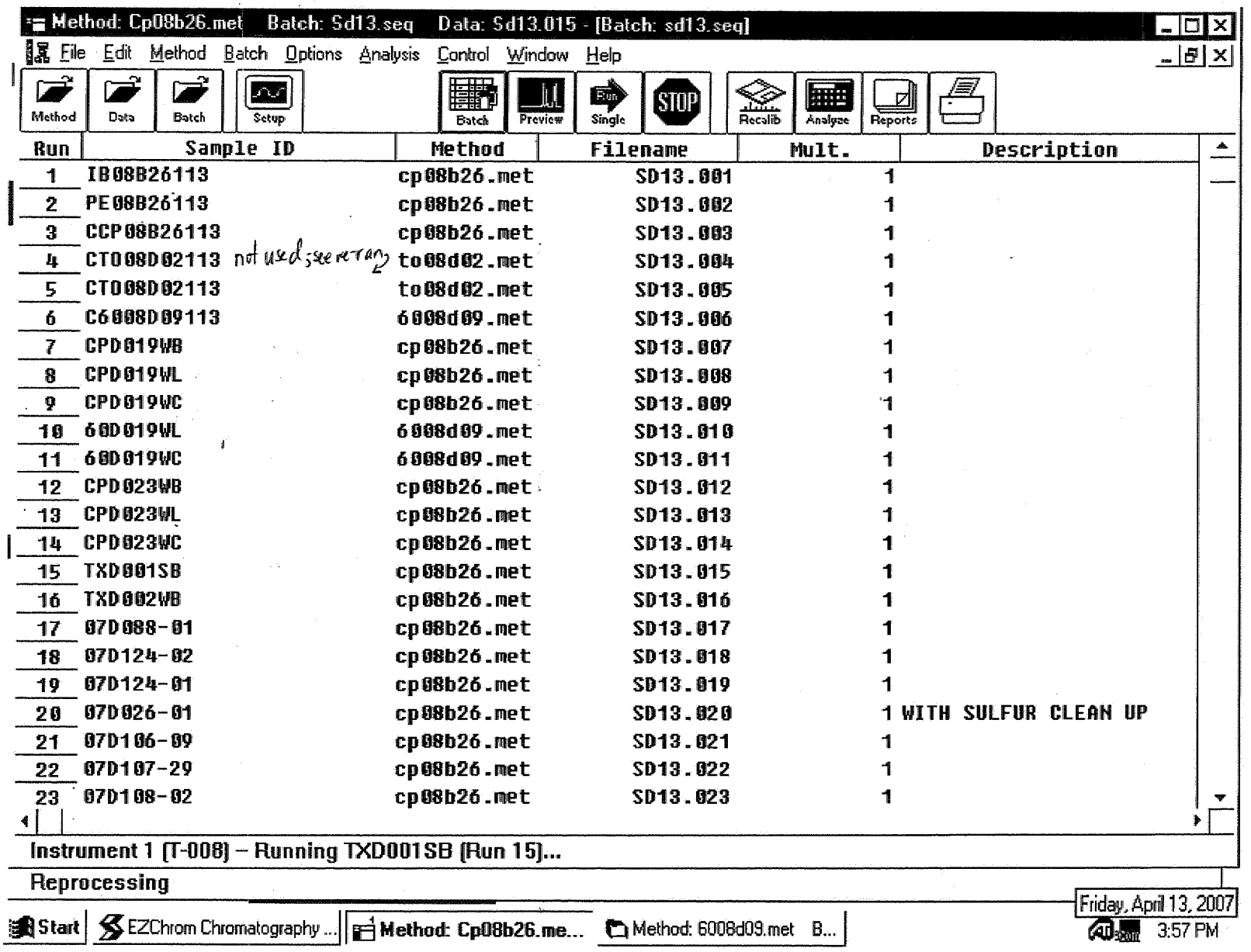
ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: EDX Date: 4/13/07

Date Disposed: Disposed By:

This page is checked during data review.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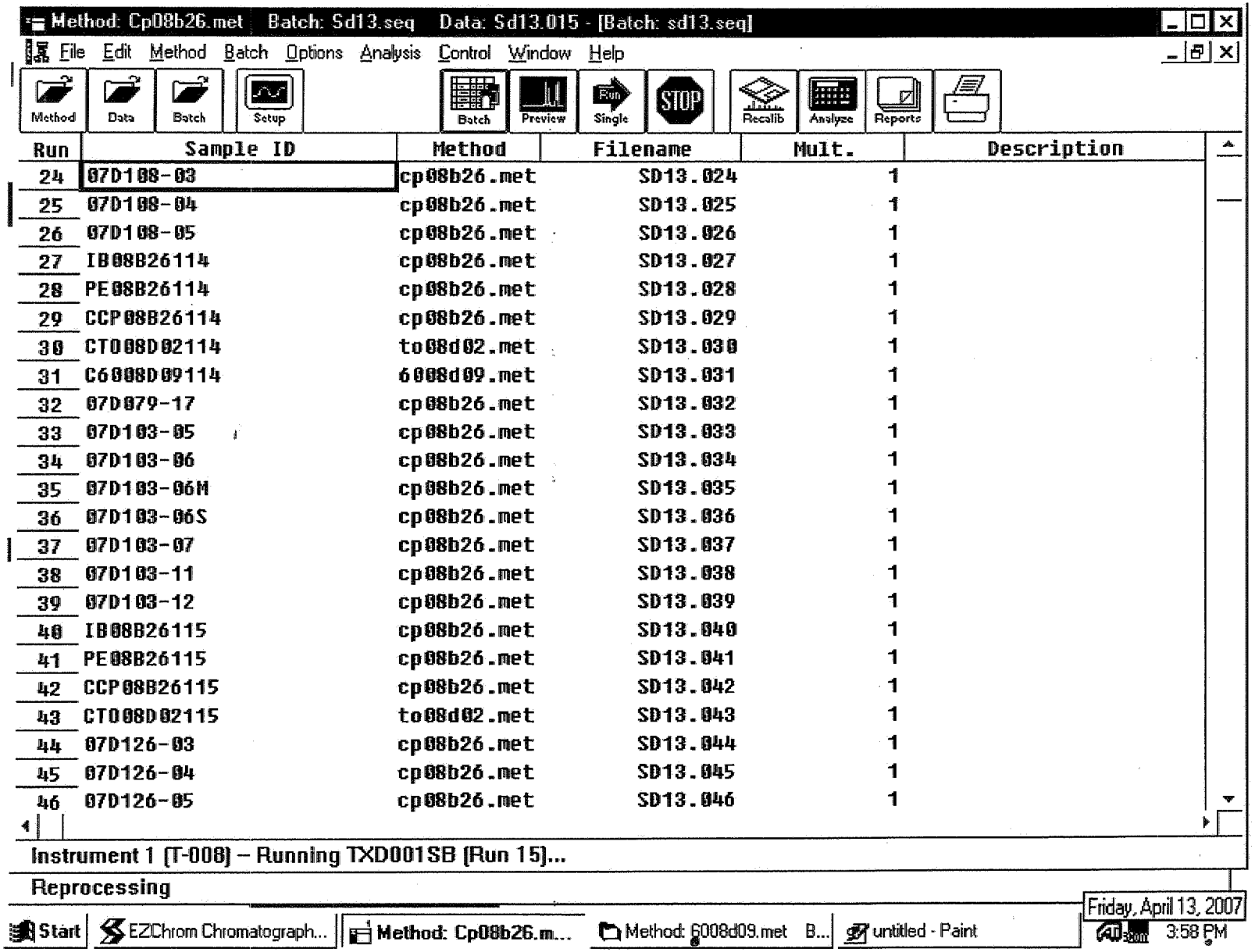
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 IB08B26113 cp08b26.met SD13.001 1
2 PE08B26113 cp08b26.met SD13.002 1
3 CCP08B26113 cp08b26.met SD13.003 1
4 CT008D02113 not used; see retry to08d02.met SD13.004 1
5 CT008D02113 to08d02.met SD13.005 1
6 C6008D09113 6008d09.met SD13.006 1
7 CPD019WB cp08b26.met SD13.007 1
8 CPD019WL cp08b26.met SD13.008 1
9 CPD019WC cp08b26.met SD13.009 1
10 60D019WL 6008d09.met SD13.010 1
11 60D019WC 6008d09.met SD13.011 1
12 CPD023WB cp08b26.met SD13.012 1
13 CPD023WL cp08b26.met SD13.013 1
14 CPD023WC cp08b26.met SD13.014 1
15 TXD001SB cp08b26.met SD13.015 1
16 TXD002WB cp08b26.met SD13.016 1
17 07D088-01 cp08b26.met SD13.017 1
18 07D124-02 cp08b26.met SD13.018 1
19 07D124-01 cp08b26.met SD13.019 1
20 07D026-01 cp08b26.met SD13.020 1 WITH SULFUR CLEAN UP
21 07D106-09 cp08b26.met SD13.021 1
22 07D107-29 cp08b26.met SD13.022 1
23 07D108-02 cp08b26.met SD13.023 1
Instrument 1 (T-008) – Running TXD001SB (Run 15)...
Reprocessing
Start EZChrom Chromatography ... Method: Cp08b26.me... Method: 6008d09.met B...
Friday, April 13, 2007
3:57 PM

5912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File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
24 07D108-03 cp08b26.met SD13.024 1
25 07D108-04 cp08b26.met SD13.025 1
26 07D108-05 cp08b26.met SD13.026 1
27 IB08B26114 cp08b26.met SD13.027 1
28 PE08B26114 cp08b26.met SD13.028 1
29 CCP08B26114 cp08b26.met SD13.029 1
30 CT008D02114 to08d02.met SD13.030 1
31 C6008D09114 6008d09.met SD13.031 1
32 07D079-17 cp08b26.met SD13.032 1
33 07D103-05 cp08b26.met SD13.033 1
34 07D103-06 cp08b26.met SD13.034 1
35 07D103-06M cp08b26.met SD13.035 1
36 07D103-06S cp08b26.met SD13.036 1
37 07D103-07 cp08b26.met SD13.037 1
38 07D103-11 cp08b26.met SD13.038 1
39 07D103-12 cp08b26.met SD13.039 1
40 IB08B26115 cp08b26.met SD13.040 1
41 PE08B26115 cp08b26.met SD13.041 1
42 CCP08B26115 cp08b26.met SD13.042 1
43 CT008D02115 to08d02.met SD13.043 1
44 07D126-03 cp08b26.met SD13.044 1
45 07D126-04 cp08b26.met SD13.045 1
46 07D126-05 cp08b26.met SD13.046 1
Instrument 1 (T-008) – Running TXD001SB (Run 15)...
Reprocessing
Start EZChrom Chromatograph... Method: Cp08b26.m... Method: 6008d09.met B... untitled - Paint
Friday, April 13, 2007
3:58 PM

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A08-019

Instrument No.: 8

Analytical Sequence: SD17

Method File: CP08B26, 6008D09, 5408D09

Analytical Batch: SD17012

SOP #	Rev. #
☑ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
CP08B26	SB26	2-26-07
~~6008D09~~ 6008D09	SD09	4-9-07
5408D09	SD09	4-9-07

EBK 4/17/07

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
PEM	SSIC-05-35-3	100/250
PES ICAL	SSIB-05-58-1	80/160/800
1660 ICAL	SSIB-05-59-1	100/2000
1254 ICAL	SSIB-05-55-1	100/2000

Column	(A) RTX CLPEST I	(B) RTX CLPEST II

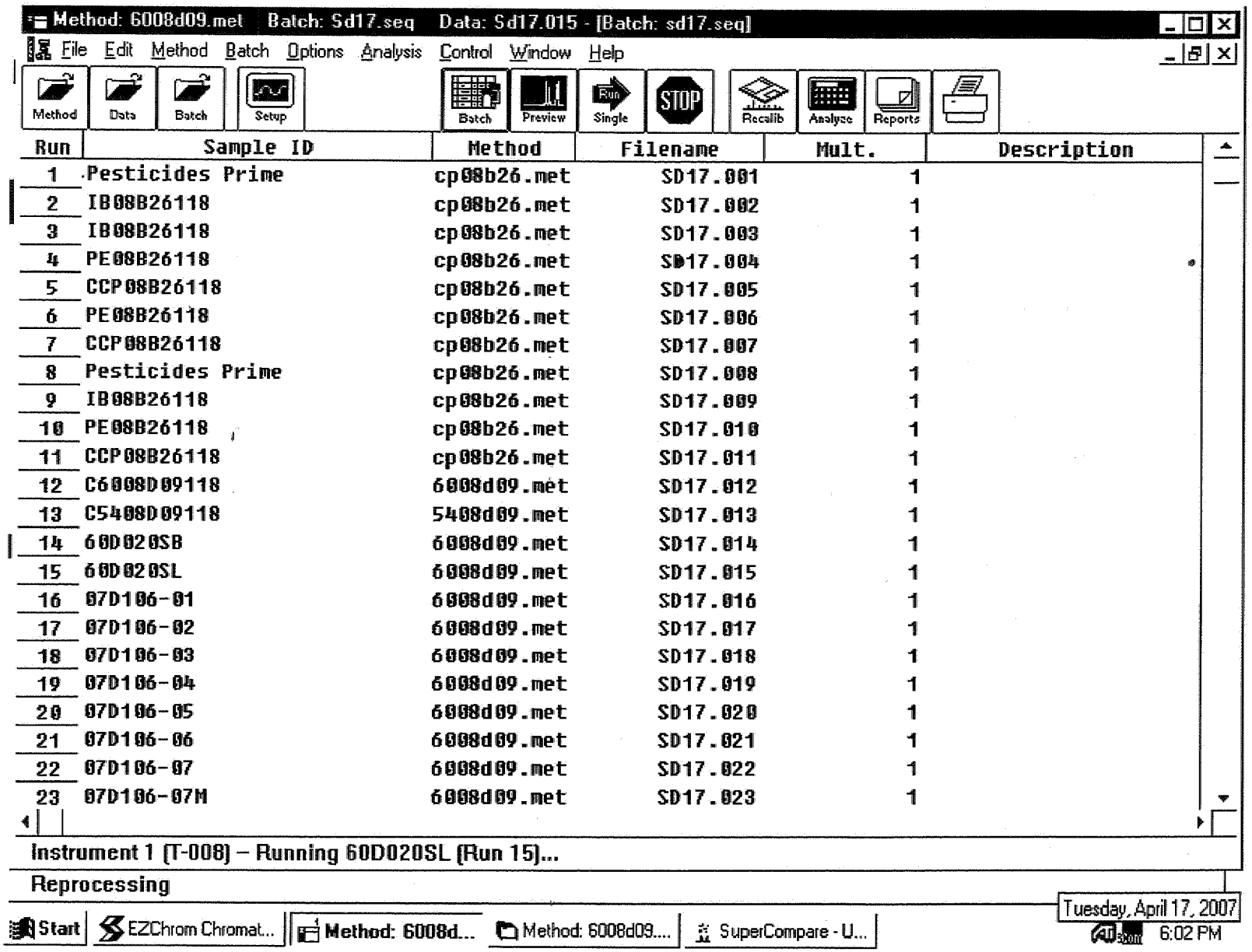
ELECTRONIC DATA ARCHIVAL

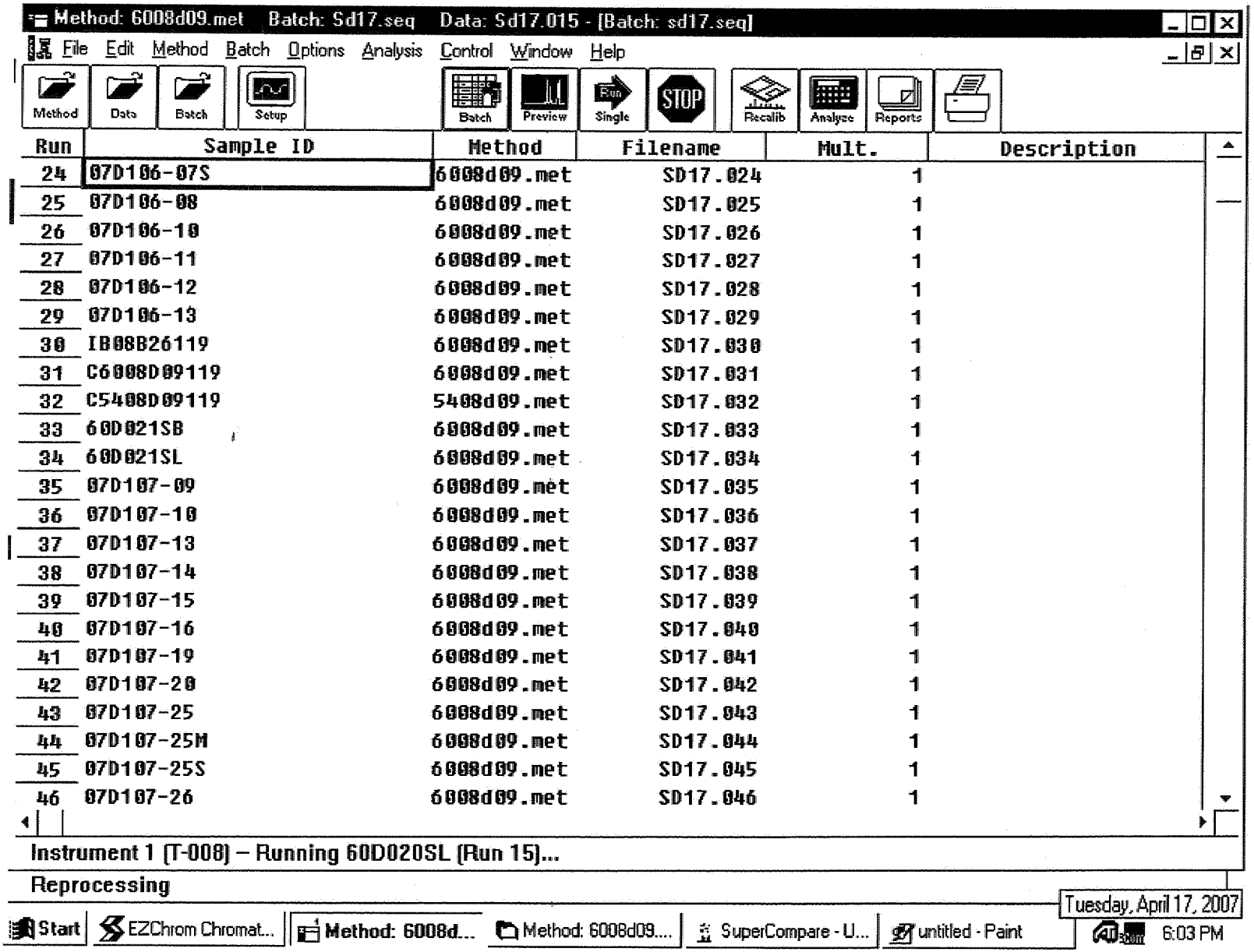
Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: EBK Date: 4/17/07

Date Disposed: Disposed By:

This page is checked during data review.


Method: 6008d09.met Batch: Sd17.seq Data: Sd17.015 - [Batch: sd17.seq]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run
Single
STOP
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | Pesticides Prime | cp08b26.met | SD17.001 | 1
2 | IB08B26118 | cp08b26.met | SD17.002 | 1
3 | IB08B26118 | cp08b26.met | SD17.003 | 1
4 | PE08B26118 | cp08b26.met | SD17.004 | 1
5 | CCP08B26118 | cp08b26.met | SD17.005 | 1
6 | PE08B26118 | cp08b26.met | SD17.006 | 1
7 | CCP08B26118 | cp08b26.met | SD17.007 | 1
8 | Pesticides Prime | cp08b26.met | SD17.008 | 1
9 | IB08B26118 | cp08b26.met | SD17.009 | 1
10 | PE08B26118 | cp08b26.met | SD17.010 | 1
11 | CCP08B26118 | cp08b26.met | SD17.011 | 1
12 | C6008D09118 | 6008d09.met | SD17.012 | 1
13 | C5408D09118 | 5408d09.met | SD17.013 | 1
14 | 60D020SB | 6008d09.met | SD17.014 | 1
15 | 60D020SL | 6008d09.met | SD17.015 | 1
16 | 07D106-01 | 6008d09.met | SD17.016 | 1
17 | 07D106-02 | 6008d09.met | SD17.017 | 1
18 | 07D106-03 | 6008d09.met | SD17.018 | 1
19 | 07D106-04 | 6008d09.met | SD17.019 | 1
20 | 07D106-05 | 6008d09.met | SD17.020 | 1
21 | 07D106-06 | 6008d09.met | SD17.021 | 1
22 | 07D106-07 | 6008d09.met | SD17.022 | 1
23 | 07D106-07M | 6008d09.met | SD17.023 | 1
Instrument 1 (T-008) – Running 60D020SL (Run 15)...
Reprocessing
Start
EZChrom Chromat...
Method: 6008d...
Method: 6008d09....
SuperCompare - U...
Tuesday, April 17, 2007
6:02 PM


Method: 6008d09.met Batch: Sd17.seq Data: Sd17.015 - [Batch: sd17.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
24 07D106-07S 6008d09.met SD17.024 1
25 07D106-08 6008d09.met SD17.025 1
26 07D106-10 6008d09.met SD17.026 1
27 07D106-11 6008d09.met SD17.027 1
28 07D106-12 6008d09.met SD17.028 1
29 07D106-13 6008d09.met SD17.029 1
30 IB08B26119 6008d09.met SD17.030 1
31 C6008D09119 6008d09.met SD17.031 1
32 C5408D09119 5408d09.met SD17.032 1
33 60D021SB 6008d09.met SD17.033 1
34 60D021SL 6008d09.met SD17.034 1
35 07D107-09 6008d09.met SD17.035 1
36 07D107-10 6008d09.met SD17.036 1
37 07D107-13 6008d09.met SD17.037 1
38 07D107-14 6008d09.met SD17.038 1
39 07D107-15 6008d09.met SD17.039 1
40 07D107-16 6008d09.met SD17.040 1
41 07D107-19 6008d09.met SD17.041 1
42 07D107-20 6008d09.met SD17.042 1
43 07D107-25 6008d09.met SD17.043 1
44 07D107-25M 6008d09.met SD17.044 1
45 07D107-25S 6008d09.met SD17.045 1
46 07D107-26 6008d09.met SD17.046 1
Instrument 1 (T-008) – Running 60D020SL (Run 15)...
Reprocessing
Start EZChrom Chromat... Method: 6008d... Method: 6008d09.... SuperCompare - U... untitled - Paint
Tuesday, April 17, 2007
6:03 PM

EXTRACTION LOG

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: SOIL Starting Date: 4/12/07 Time: 11:30 Ending Date: 4/12/07 Time: 15:00 Book # ECP-030

PREPARATION BATCH * GOD020S

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	GOD020-SB	1	30.01		10	ACID	
*02	-SL	3	30.02		10		
*03	07D106-01	3	30.00		10		
*04	-02	1	30.02		10		
*05	-03	1	30.03		10		
*06	-04	3	30.03		10		
*07	-05	3	30.01		10		
*08	-06	3	30.00		10		
*09	-07	3	30.02		10		
*10	-07M	1	30.01		10		
*11	-07S	1	30.03		10		
*12	-08	3	30.02		10		
*13	-10	3	30.01		10		
*14	-11	1	30.00		10		
*15	-12	3	30.02		10		
*16	-13	3	30.03		10		
*17		JV	4/12/07				
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SS1B-05-67-1	1.0
LCS/MS PCB	SS1B-05-67-3	+0.5
		JV 4/12/7

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	46137
NaOH	-
Silica Sand	44273

TUNING

Sonicator #	Reading
1	N/A
3	95%

Concentrator Water Bath Temp.(oC)		
1	35	35
2	35	35
3	35	35
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JV Checked By: ML

Witnessed By: SS Received By: [illegible] 4/12/07

Standard Added By: JV Disposed By:

Extract Location: SE02 #9 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W 205th St. Torrance, CA 90501

5048

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☒ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: WATER Starting Date: 4/4/07 Time: 16:00 Ending Date: 4/12/07 Time: 10:00 Book # ECP-030

PREPARATION BATCH * CPD019W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	CPD019-WB	N/A	1000	—	10		
*02	-WL*		1000	—	10		
*03	-WC*		1000	—	10		
*04	60D019-WL▲		1000	—	10		
*05	-WC▲		1000	—	10		
*06	07D079-17		1060	6	10		
*07	07D103-05		1060	7	10		
*08	-06		1060	7	10		
*09	-06M*		1060	7	10		
*10	-06S*		1060	7	10		
*11	-07		1060	7	10		
*12	-11		1060	7	10		
*13	-12		1060	7	10		
*14	07D106-09		1000	6	10		
*15	07D107-29		1000	6	10		
*16	07D126-03		1060	6	10		
*17	-04		1060	6	10		light yellow orange w/ soil sediments
*18	-05		1060	6	10		light yellow soln
*19	-08		1060	6	10		
*20							
*21							
*22					4/12/07		
*23					JM		
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SS1B-05-67-1	1.0
LCS/MS	FULL LIST (PEST*) SS1B-05-60-3	2.5
LCS (PCB▲)	SS1B-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	46331
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	—
NaOH	—
Silica Sand	—

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp.(oC)		
1	35	35
2	35	35
3	35	35
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JM Checked By: ML

Witnessed By: IZ Received By: [illegible] 4/12/07

Standard Added By: JM Disposed By:

Extract Location: SE02-1 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

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CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D107**

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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3520C/3550B/8082	5000 – 5053
HPLC	**	6000 –
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-23-2007
EMAX Batch No.: 07D107

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/10/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
BLDG309-HAS12@0.5'	D107-01	04/09/07	SOIL	HOLD
BLDG309-HAS12@2'	D107-02	04/09/07	SOIL	HOLD
BLDG309-HAS5@0.5'	D107-03	04/09/07	SOIL	HOLD
BLDG309-HAS5@2'	D107-04	04/09/07	SOIL	HOLD
BLDG309-HAS6@0.5'	D107-05	04/09/07	SOIL	HOLD
BLDG309-HAS6@2'	D107-06	04/09/07	SOIL	HOLD
BLDG309-HAS7@0.5'	D107-07	04/09/07	SOIL	HOLD
BLDG309-HAS7@2'	D107-08	04/09/07	SOIL	HOLD
BLDG309-HAS2@2'	D107-09	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS2@0.5'	D107-10	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS8@2'	D107-11	04/09/07	SOIL	HOLD
BLDG309-HAS8@0.5'	D107-12	04/09/07	SOIL	HOLD
BLDG309-HAS1@2'	D107-13	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS1@0.5'	D107-14	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS3@0.5'	D107-15	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS3@2'	D107-16	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS9@0.5'	D107-17	04/09/07	SOIL	HOLD
BLDG309-HAS9@2'	D107-18	04/09/07	SOIL	HOLD
BLDG309-HAS4@0.5'	D107-19	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)

Sample ID	Control #	Col Date	Matrix	Analysis
BLDG309-HAS4@2'	D107-20	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
BLDG309-HAS11@1'	D107-21	04/09/07	SOIL	HOLD
BLDG309-HAS11@0.5'	D107-22	04/09/07	SOIL	HOLD
BLDG309-HAS10@1.5'	D107-23	04/09/07	SOIL	HOLD
BLDG309-HAS10@0.5'	D107-24	04/09/07	SOIL	HOLD
F35-HAS4@0.5'	D107-25	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS4@5'	D107-26	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS1@0.5'	D107-27	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F35-HAS1@1.5'	D107-28	04/09/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
LEB-040907	D107-29	04/09/07	WATER	POLYCHLORINATED BIPHENYLS (PCBS)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

TT_0618

07D107

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4/9/07 PAGE 1 OF 3

CLIENT: LMC
PROJECT NAME: Basement Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: * held pending approval from

LINE ITEM	SAMPLE NO.	DATE	TIME	PCB's 8082	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	
1.	Bldg 309-HAS12@0.5'	4/9/07	931	X	U	S	G	1	NR	* see above
2.	Bldg 309-HAS12@2'	4/9/07	934	X	U	S	G	1	NR	* see above
3.	Bldg 309-HAS5@0.5'	4/9/07	935	X	U	S	G	1	NR	* see above
4.	Bldg 309 HAS5@2'	4/9/07	938	X	U	S	G	1	NR	* see above
5.	Bldg 309-HAS6@0.5'	4/9/07	940	X	U	S	G	1	NR	* see above
6.	Bldg 309-HAS6@2'	4/9/07	941	X	U	S	G	1	NR	* see above
7.	Bldg 309 HAS7@0.5'	4/9/07	943	X	U	S	G	1	NR	* see above
8.	Bldg 309 HAS7@2'	4/9/07	945	X	U	S	G	1	NR	* see above
9.	Bldg 309 HAS2@2'	4/9/07	1036	X	U	S	G	1	NR	
10.	Bldg 309 HAS2@0.5'	4/9/07	1034	X	U	S	G	1	NR	

FILTERING: ☐ FILTERED ☑ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Holly Hanke	Holly A Hanke	TETRA TECH, INC.	4/9/07	1552	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10/29
RECEIVED BY: GEORGE Lim	SIGNATURE	COMPANY: EMAX	DATE 4/10/07	TIME 10:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY	SIGNATURE: GEORGE Lim	COMPANY: EMAX	DATE 4/10/07	TIME 11:45	Special Shipping/Handling/Storage Requirements: T=2.5C
RECEIVED BY: INDRA PATEL	SIGNATURE	COMPANY: EMAX	DATE 4-10-07	TIME 11:45	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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07D107

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4/9/07 PAGE 2 OF 3

CLIENT: LMC
PROJECT NAME: Beaumont CA Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A H

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: * hold pending approval from Brenda Meyer

PARAMETERS

	LINE ITEM	SAMPLE NO.	DATE	TIME	PCB 8082	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
11	1.	Bldg 309 - HAS8 @ 2'	4/9/07	952	X	U	S	G	1	NR	* see above
12	2.	Bldg 309 - HAS8 @ 0.5'	4/9/07	948	X	U	S	G	1	NR	* see above
13	3.	Bldg 309 - HAS1 @ 2	4/9/07	1033	X	U	S	G	1	NR	
14	4.	Bldg 309 - HAS1 @ 0.5'	4/9/07	1031	X	U	S	G	1	NR	
15	5.	Bldg 309 - HAS3 @ 0.5'	4/9/07	1039	X	U	S	G	1	NR	
16	6.	Bldg 309 - HAS3 @ 2'	4/9/07	1045	X	U	S	G	1	NR	
17	7.	Bldg 309 - HAS9 @ 0.5	4/9/07	954	X	U	S	G	1	NR	* see above
18	8.	Bldg 309 - HAS9 @ 2'	4/9/07	958	X	U	S	G	1	NR	* see above
19	9.	Bldg 309 HAS4 @ 0.5	4/9/07	1048	X	U	S	G	1	NR	
20	10.	Bldg 309 HAS4 @ 2'	4/9/07	1054	X	U	S	G	1	NR	

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil, M - Sediment, W - Water

CONTAINER TYPE: G - Glass Bottle/Jar, SS - Stainless Steel Sleeve, SB - Brass Sleeve, P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL, NR (None required), NaOH, H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Holly Hanke	Holly A H	TETRA TECH, INC.	4/9/07	1552	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10/29
RECEIVED BY: GEORGE Lim	SIGNATURE: George Lim	COMPANY: EMAX	DATE: 4/10/07	TIME: 10:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: George Lim	SIGNATURE: GEORGE Lim	COMPANY: EMAX	DATE: 4/10/07	TIME: 11:45	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: INDRA PATEL	SIGNATURE: [signature]	COMPANY: EMAX	DATE: 4-10-07	TIME: 11:45	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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07 D107

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4/9/07 PAGE 3 OF 3

CLIENT: LMC
PROJECT NAME: Beaumont site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A. Hanks

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: * hold pending approval from Brenda Meyer

LINE ITEM	SAMPLE NO.	DATE	TIME	PCB's 8082	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	
21 1.	Bldg 309-HAS11@1'	4/9/07	1030	X	U	S	G	1	NR	* see above
22 2.	Bldg 309-HAS11@0.5'	4/9/07	1022	X	U	S	G	1	NR	* see above
23 3.	Bldg 309-HAS10@1.5'	4/9/07	1018	X	U	S	G	1	NR	* see above
24 4.	Bldg 309-HAS10@0.5'	4/9/07	1000	X	U	S	G	1	NR	* see above
25 5.	F35-HAS4@0.5'	4/9/07	1215	X	U	S	G	1	NR	
26 6.	F35-HAS4@5'	4/9/07	1243	X	U	S	G	1	NR	
27 7.	F35-HAS1@0.5'	4/9/07	1249	X	U	S	G	1	NR	
28 8.	F35-HAS1@1.5'	4/9/07	1339	X	U	S	G	1	NR	
29 9.	LEB-040907	4/9/07	920	X	U	S	G	1	NR	
10.										

FILTERING: ☐ FILTERED ☑ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 9/29
Holly A Hanks	Holly A Hanks	TETRA TECH, INC.	4/9/07	1552	
RECEIVED BY: GEORGE Lim	SIGNATURE	COMPANY: EMAX	DATE 4/10/07	TIME 10:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY	SIGNATURE: GEORGE Lim	COMPANY: EMAX	DATE 4/10/07	TIME 11:45	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: INDRA PATEL	SIGNATURE	COMPANY: EMAX	DATE 4.10.07	TIME 11:45	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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Ye Myint

From: Ye Myint
Sent: Friday, April 13, 2007 7:15 PM
To: 'Wilson, Michael -- Tetra Tech'
Subject: Logins for samples received 4/10/07

Hi Mike,

Attached please find the logins for SDGs: 07D105, 07D106,07D107.

Some samples in SDG 07D107 for PCBs were put on hold as instructed in the COCs. Please let me know if you have any questions regarding the discrepancies/corrective actions and logins. Thanks.

Ye Myint
Project Manager
EMAX Laboratories, Inc.
1835 W 205th. St.
Torrance, CA 90501
Phone: (310) 618-8889 x121
Fax: (310) 618-0818
E-mail: ymyint@emaxlabs.com

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D107
☑ EMAX Courier	Set Core	Recepient I. PATEL
☐ Client Delivery		Date 4-10-07
☐ Third Party		Time 11:45

COC Inspection

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☑ Courier Signature	☑ Analysis Required	☑ Preservative (if any)	☑ TAT

Safety Issues

☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☑ Plastic Bag
Temperatures	☑ Cooler 1 2.5 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
029	029	MATRIX-WATER	COC Reads MATRIX-SOIL	R5

REVIEWS

Sample Labeling _____ Date 4-10-07

SRF _____ Date 4/10/07

PM _____ Date 4/11/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Analyze as water
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8082
PCBs

SDG#: 07D107

5000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D107

METHOD 3520C/3550B/8082
PCBs

One (1) water and twelve (12) soil samples were received on 04/10/07 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample D107-25 was spiked. All recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D107
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60D021SB	1	NA	04/17/0722:58	04/12/0711:30	SD17033A	SD17031A	60D021S	Method Blank
LCS1S	60D021SL	1	NA	04/17/0723:15	04/12/0711:30	SD17034A	SD17031A	60D021S	Lab Control Sample (LCS)
BLDG309-HAS2@2'	D107-09	1	1.8	04/17/0723:32	04/12/0711:30	SD17035A	SD17031A	60D021S	Field Sample
BLDG309-HAS2@0.5'	D107-10	1	1.7	04/17/0723:48	04/12/0711:30	SD17036A	SD17031A	60D021S	Field Sample
BLDG309-HAS1@2'	D107-13	1	2.1	04/18/0700:05	04/12/0711:30	SD17037A	SD17031A	60D021S	Field Sample
BLDG309-HAS1@0.5'	D107-14	1	1.8	04/18/0700:22	04/12/0711:30	SD17038A	SD17031A	60D021S	Field Sample
BLDG309-HAS3@0.5'	D107-15	1	2.2	04/18/0700:39	04/12/0711:30	SD17039A	SD17031A	60D021S	Field Sample
BLDG309-HAS3@2'	D107-16	1	2.6	04/18/0700:55	04/12/0711:30	SD17040A	SD17031A	60D021S	Field Sample
BLDG309-HAS4@0.5'	D107-19	1	4.2	04/18/0701:12	04/12/0711:30	SD17041A	SD17031A	60D021S	Field Sample
BLDG309-HAS4@2'	D107-20	1	4.9	04/18/0701:29	04/12/0711:30	SD17042A	SD17031A	60D021S	Field Sample
F35-HAS4@0.5'	D107-25	1	2.6	04/18/0701:45	04/12/0711:30	SD17043A	SD17031A	60D021S	Field Sample
F35-HAS4@0.5'MS	D107-25M	1	2.6	04/18/0702:02	04/12/0711:30	SD17044A	SD17031A	60D021S	Matrix Spike Sample (MS)
F35-HAS4@0.5'MSD	D107-25S	1	2.6	04/18/0702:19	04/12/0711:30	SD17045A	SD17031A	60D021S	MS Duplicate (MSD)
F35-HAS4@5'	D107-26	1	6.2	04/18/0702:35	04/12/0711:30	SD17046A	SD17031A	60D021S	Field Sample
F35-HAS1@0.5'	D107-27	1	3.2	04/18/0702:52	04/12/0711:30	SD17047A	SD17031A	60D021S	Field Sample
F35-HAS1@1.5'	D107-28	1	3.2	04/18/0703:09	04/12/0711:30	SD17048A	SD17031A	60D021S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CPD019WB	1	NA	04/13/0713:08	04/11/0716:00	SD13007A	SD13006A	60D019W	Method Blank
LCS1W	60D019WL	1	NA	04/13/0713:59	04/11/0716:00	SD13010A	SD13006A	60D019W	Lab Control Sample (LCS)
LCD1W	60D019WC	1	NA	04/13/0714:15	04/11/0716:00	SD13011A	SD13006A	60D019W	LCS Duplicate
LEB-040907	D107-29	1	NA	04/13/0717:47	04/11/0716:00	SD13022A	SD13006A	60D019W	Field Sample

FN - Filename
% Moist - Percent Moisture

USSN

SAMPLE RESULTS

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/09/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D107	Date Extracted:	04/12/07 11:30
Sample ID:	BLDG309-HAS2@2'	Date Analyzed:	04/17/07 23:32
Lab Samp ID:	D107-09	Dilution Factor:	1
Lab File ID:	SD17035A	Matrix	: SOIL
Ext Btch ID:	60D021S	% Moisture	: 1.8
Calib. Ref.:	SD17031A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(73) | 81	10-160
DECACHLOROBIPHENYL	(113) | 104	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: BLDG309-HAS2@0.5'	Date Analyzed: 04/17/07 23:48
Lab Samp ID: D107-10	Dilution Factor: 1
Lab File ID: SD17036A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 1.7
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(78) | 86	10-160
DECACHLOROBIPHENYL	(113) | 108	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/09/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D107	Date Extracted:	04/12/07 11:30
Sample ID:	BLDG309-HAS1@2'	Date Analyzed:	04/18/07 00:05
Lab Samp ID:	D107-13	Dilution Factor:	1
Lab File ID:	SD17037A	Matrix :	SOIL
Ext Btch ID:	60D021S	% Moisture :	2.1
Calib. Ref.:	SD17031A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76) | 84	10-160
DECACHLOROBIPHENYL	(115) | 108	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: BLDG309-HAS1@0.5'	Date Analyzed: 04/18/07 00:22
Lab Samp ID: D107-14	Dilution Factor: 1
Lab File ID: SD17038A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 1.8
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(78) | 86	10-160
DECACHLOROBIPHENYL	(118) | 108	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: BLDG309-HAS3@0.5'	Date Analyzed: 04/18/07 00:39
Lab Samp ID: D107-15	Dilution Factor: 1
Lab File ID: SD17039A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 2.2
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	20 | 20
PCB-1221	(ND) | ND	51	20 | 20
PCB-1232	(ND) | ND	51	20 | 20
PCB-1242	(ND) | ND	51	20 | 20
PCB-1248	(ND) | ND	51	20 | 20
PCB-1254	(ND) | ND	51	20 | 20
PCB-1260	(ND) | ND	51	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79) | 87	10-160
DECACHLOROBIPHENYL	(112) | 108	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: BLDG309-HAS3@2'	Date Analyzed: 04/18/07 00:55
Lab Samp ID: D107-16	Dilution Factor: 1
Lab File ID: SD17040A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 2.6
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	21 | 21
PCB-1221	(ND) | ND	51	21 | 21
PCB-1232	(ND) | ND	51	21 | 21
PCB-1242	(ND) | ND	51	21 | 21
PCB-1248	(ND) | ND	51	21 | 21
PCB-1254	(ND) | ND	51	21 | 21
PCB-1260	(ND) | ND	51	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75) | 83	10-160
DECACHLOROBIPHENYL	(111) | 107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: BLDG309-HAS4@0.5'	Date Analyzed: 04/18/07 01:12
Lab Samp ID: D107-19	Dilution Factor: 1
Lab File ID: SD17041A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 4.2
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79) | 84	10-160
DECACHLOROBIPHENYL	(112) | 104	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: BLDG309-HAS4@2'	Date Analyzed: 04/18/07 01:29
Lab Samp ID: D107-20	Dilution Factor: 1
Lab File ID: SD17042A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 4.9
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76) | 83	10-160
DECACHLOROBIPHENYL	(114) | 106	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: F35-HAS4@0.5'	Date Analyzed: 04/18/07 01:45
Lab Samp ID: D107-25	Dilution Factor: 1
Lab File ID: SD17043A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 2.6
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	21 | 21
PCB-1221	(ND) | ND	51	21 | 21
PCB-1232	(ND) | ND	51	21 | 21
PCB-1242	(ND) | ND	51	21 | 21
PCB-1248	(ND) | ND	51	21 | 21
PCB-1254	(ND) | ND	51	21 | 21
PCB-1260	(ND) | ND	51	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79) | 87	10-160
DECACHLOROBIPHENYL	(112) | 107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/09/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D107	Date Extracted:	04/12/07 11:30
Sample ID:	F35-HAS4@5'	Date Analyzed:	04/18/07 02:35
Lab Samp ID:	D107-26	Dilution Factor:	1
Lab File ID:	SD17046A	Matrix :	SOIL
Ext Btch ID:	60D021S	% Moisture :	6.2
Calib. Ref.:	SD17031A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75) | 83	10-160
DECACHLOROBIPHENYL	(113) | 108	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/09/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/10/07
Batch No.	: 07D107	Date Extracted:	04/12/07 11:30
Sample ID:	F35-HAS1@0.5'	Date Analyzed:	04/18/07 02:52
Lab Samp ID:	D107-27	Dilution Factor:	1
Lab File ID:	SD17047A	Matrix :	SOIL
Ext Btch ID:	60D021S	% Moisture :	3.2
Calib. Ref.:	SD17031A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76) | 84	10-160
DECACHLOROBIPHENYL	(116) | 111	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: F35-HAS1@1.5'	Date Analyzed: 04/18/07 03:09
Lab Samp ID: D107-28	Dilution Factor: 1
Lab File ID: SD17048A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : 3.2
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(70) | 78	10-160
DECACHLOROBIPHENYL	(112) | 107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/09/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/10/07
Batch No. : 07D107	Date Extracted: 04/11/07 16:00
Sample ID: LEB-040907	Date Analyzed: 04/13/07 17:47
Lab Samp ID: D107-29	Dilution Factor: 1
Lab File ID: SD13022A	Matrix : WATER
Ext Btch ID: 60D019W	% Moisture : NA
Calib. Ref.: SD13006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(68) | 72	30-140
DECACHLOROBIPHENYL	(103) | 98	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D107	Date Extracted: 04/11/07 16:00
Sample ID: MBLK1W	Date Analyzed: 04/13/07 13:08
Lab Samp ID: CPD019WB	Dilution Factor: 1
Lab File ID: SD13007A	Matrix : WATER
Ext Btch ID: 60D019W	% Moisture : NA
Calib. Ref.: SD13006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(70) | 76	30-130
DECACHLOROBIPHENYL	(97) | 94	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D107
METHOD: METHOD 3520C/8082

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	CPD019WB	60D019WL	60D019WC		
LAB FILE ID:	SD13007A	SD13010A	SD13011A		
DATE EXTRACTED:	04/11/0716:00	04/11/0716:00	04/11/0716:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/13/0713:08	04/13/0713:59	04/13/0714:15	DATE RECEIVED:	04/11/07
PREP. BATCH:	60D019W	60D019W	60D019W		
CALIB. REF:	SD13006A	SD13006A	SD13006A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5.00	(3.91) | 4.30	(78) | 86	5.00	(3.60) | 4.02	(72) | 80	(8) | 7	50-130	30
PCB-1260	(ND) | ND	5.00	(4.49) | 4.38	(90) | 88	5.00	(4.43) | 4.60	(89) | 92	(1) | 5	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	0.400	(0.305) | 0.325	(76) | 81	0.400	(0.276) | 0.296	(69) | 74	30-130
Decachlorobiphenyl	0.400	(0.398) | 0.391	(100) | 98	0.400	(0.392) | 0.384	(98) | 96	40-150

5019

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/12/07
Batch No. : 07D107	Date Extracted: 04/12/07 11:30
Sample ID: MBLK1S	Date Analyzed: 04/17/07 22:58
Lab Samp ID: 60D021SB	Dilution Factor: 1
Lab File ID: SD17033A	Matrix : SOIL
Ext Btch ID: 60D021S	% Moisture : NA
Calib. Ref.: SD17031A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(68) | 75	40-130
DECACHLOROBIPHENYL	(113) | 109	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D107
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: 60D021SB 60D021SL
LAB FILE ID: SD17033A SD17034A
DATE EXTRACTED: 04/12/0711:30 04/12/0711:30 DATE COLLECTED: NA
DATE ANALYZED: 04/17/0722:58 04/17/0723:15 DATE RECEIVED: 04/12/07
PREP. BATCH: 60D021S 60D021S
CALIB. REF: SD17031A SD17031A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
PCB-1016	(ND) | ND	167	(119) | 147	(71) | 88	50-130
PCB-1260	(ND) | ND	167	(125) | 176	(75) | 106	70-150

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(9.82) | 10.6	(74) | 80	40-130
Decachlorobiphenyl	13.3	(15.1) | 14.5	(113) | 109	40-160

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D107
METHOD: METHOD 3550B/8082

MATRIX: SOIL
% MOISTURE: 2.6

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	F35-HAS4@0.5'				
LAB SAMP ID:	D107-25	D107-25M	D107-25S		
LAB FILE ID:	SD17043A	SD17044A	SD17045A		
DATE EXTRACTED:	04/12/0711:30	04/12/0711:30	04/12/0711:30	DATE COLLECTED:	04/09/07
DATE ANALYZED:	04/18/0701:45	04/18/0702:02	04/18/0702:19	DATE RECEIVED:	04/10/07
PREP. BATCH:	60D021S	60D021S	60D021S		
CALIB. REF:	SD17031A	SD17031A	SD17031A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	171	(147) | 146	(86) | 85	171	(123) | 140	(72) | 82	(18) | 4	20-160	50
PCB-1260	(ND) | ND	171	(122) | 166	(71) | 97	171	(117) | 163	(68) | 95	(4) | 2	20-160	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.7	(10.5) | 11.3	(77) | 83	13.7	(10.2) | 11.0	(75) | 80	10-160
Decachlorobiphenyl	13.7	(15.4) | 14.8	(113) | 108	13.7	(15.0) | 14.3	(110) | 105	30-150

* : Outside of QC limits

5922

INITIAL CALIBRATIONS

ICAL

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
LFID & Datetime: SD09036A 04/09/07 22:53
LFID & Datetime: SD09037A 04/09/07 23:10
LFID & Datetime: SD09038A 04/09/07 23:27
LFID & Datetime: SD09039A 04/09/07 23:44
LFID & Datetime: SD09040A 04/10/07 00:00
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
PCB1016-1	20.00	2187.90	1666.00	1642.17	1580.79	1531.61	1721.70	15.4
PCB1016-2	20.00	3148.95	3076.04	3019.18	2832.33	2721.77	2959.65	6.0
PCB1016-3	20.00	5538.20	5355.62	5883.07	5497.91	5321.13	5519.19	4.0
PCB1016-4	20.00	2167.65	2036.28	2404.91	2225.39	2176.28	2202.10	6.1
PCB1016-5	20.00	3088.20	3059.68	3109.94	2774.19	2528.35	2912.07	8.7
PCB1260-1	20.00	7189.30	7188.92	5964.40	5617.03	5419.05	6275.74	13.6
PCB1260-2	20.00	5953.90	6214.80	6479.77	6197.99	6032.28	6175.75	3.3
PCB1260-3	20.00	2778.20	2881.32	3025.50	2922.00	2885.90	2898.58	3.1
PCB1260-4	20.00	8597.70	8512.22	8933.55	8625.18	8452.86	8624.30	2.2
PCB1260-5	20.00	2597.85	2547.28	2798.51	2851.53	2908.71	2740.78	5.8
SURROGATE	X	1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
TCX	5.00	19372	14571	13561	13003	12581	14617	18.9
DCB	5.00	14429	14186	13995	13809	13532	13990	2.5

4/10/07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO08 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
LFID & Datetime: SD090368 04/09/07 22:53
LFID & Datetime: SD09037B 04/09/07 23:10
LFID & Datetime: SD09038B 04/09/07 23:27
LFID & Datetime: SD09039B 04/09/07 23:44
LFID & Datetime: SD09040B 04/10/07 00:00
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
PCB1016-1	20.00	2132.30	2151.32	1616.30	1508.59	1433.89	1768.48	19.6
PCB1016-2	20.00	3508.00	3430.14	3089.22	2852.57	2693.19	3114.62	11.4
PCB1016-3	20.00	6621.90	6402.30	5859.80	5467.82	5245.92	5919.55	10.0
PCB1016-4	20.00	3137.55	3233.00	2924.50	2685.75	2475.22	2891.20	10.9
PCB1016-5	20.00	2630.65	2810.30	2631.39	2349.17	2254.33	2535.17	9.0
PCB1260-1	20.00	5194.15	6114.82	5488.05	4961.55	4567.08	5265.13	11.1
PCB1260-2	20.00	6991.25	7218.16	7152.62	6778.38	6423.46	6912.77	4.7
PCB1260-3	20.00	3666.40	3816.38	3754.72	3596.03	3368.77	3640.46	4.8
PCB1260-4	20.00	9491.00	9173.70	8972.86	8640.29	8185.58	8892.68	5.6
PCB1260-5	20.00	5762.20	5371.90	5101.44	5093.82	4960.76	5258.02	6.1
SURROGATE	X	1.00X	2.50X	5.00X	7.50X	10.00X	MEAN	%RSD
TCX	5.00	17953	15371	14375	13928	13593	15044	11.7
DCB	5.00	16042	15825	15386	14903	14487	15329	4.2

4/10/07
5025

SECOND SOURCE VERIFICATION

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD09041A 04/10/2007 00:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			428.894	14		15
PCB1260				500.0			431.983	14		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.642	1.591	1.693	25.0	14617.4	303934	20.79	-17	*	15
DCB	9.958	9.883	10.033	25.0	13990.5	351423	25.12	0		15

4/10/07

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD09041B 04/10/2007 00:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			447.208	11		15
PCB1260				500.0			466.099	7		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.533	1.504	1.562	25.0	15044.1	325285	21.62	-14		15
DCB	10.808	10.765	10.851	25.0	15328.6	392054	25.58	2		15

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13006A 04/13/2007 12:52
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			444.771	11		15
PCB1260				500.0			490.613	2		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.642	1.591	1.693	25.0	14617.4	313812	21.47	-14		15
DCB	9.950	9.875	10.025	25.0	13990.5	326279	23.32	-7		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13006B 04/13/2007 12:52
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			483.334	3		15
PCB1260				500.0			511.732	2		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.525	1.496	1.554	25.0	15044.1	351457	23.36	-7		15
DCB	10.800	10.757	10.843	25.0	15328.6	352886	23.02	-8		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD13031A 04/13/2007 20:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			437.892	12		15
PCB1260				500.0			448.143	10		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.642	1.591	1.693	25.0	14617.4	308641	21.11	-16	*	15
DCB	9.942	9.867	10.017	25.0	13990.5	342451	24.48	-2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD090388 04/09/2007 23:27
Conc Cont LFID & Datetime: SD130318 04/13/2007 20:17
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			476.869	5		15
PCB1260				500.0			518.174	4		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.525	1.496	1.554	25.0	15044.1	350871	23.32	-7		15
DCB	10.792	10.749	10.835	25.0	15328.6	372094	24.27	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Columm : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17031A 04/17/2007 22:25
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			502.540	1		15
PCB1260				500.0			503.777	1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.625	1.574	1.676	25.0	14617.4	317238	21.70	-13		15
DCB	9.858	9.783	9.933	25.0	13990.5	358898	25.65	3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17031B 04/17/2007 22:25
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			485.900	3		15
PCB1260				500.0			553.522	11		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.533	1.504	1.562	25.0	15044.1	351047	23.33	-7		15
DCB	10.767	10.724	10.810	25.0	15328.6	380231	24.81	-1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Columm : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038A 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17050A 04/18/2007 03:42
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			525.513	5		15
PCB1260				500.0			518.583	4		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	1.625	1.574	1.676	25.0	14617.4	323980	22.16	-11		15
DCB	9.858	9.783	9.933	25.0	13990.5	366712	26.21	5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT008 HP-5890
GC Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: SD09038B 04/09/2007 23:27
Conc Cont LFID & Datetime: SD17050B 04/18/2007 03:42
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				500.0			490.637	2		15
PCB1260				500.0			534.143	7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	1.525	1.496	1.554	25.0	15044.1	355837	23.65	-5		15
DCB	10.767	10.724	10.810	25.0	15328.6	396368	25.86	3		15

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A08-019

Instrument No.: 8

Analytical Sequence: SD09

Method File: 6008B26, 6008D09, 5408D09

Analytical Batch: SD09007

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6008B26	SB26	2-26-07
6008D09	SD09	4-9-07
5408D09	SD09	4-9-07

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
1660 ICAL	SS1B-05-59-1	100/2000
1254 ICAL	SS1B-05-55-2	100/2000

Column	(A) RTX CLPEST I	(B) RTX CLPEST II

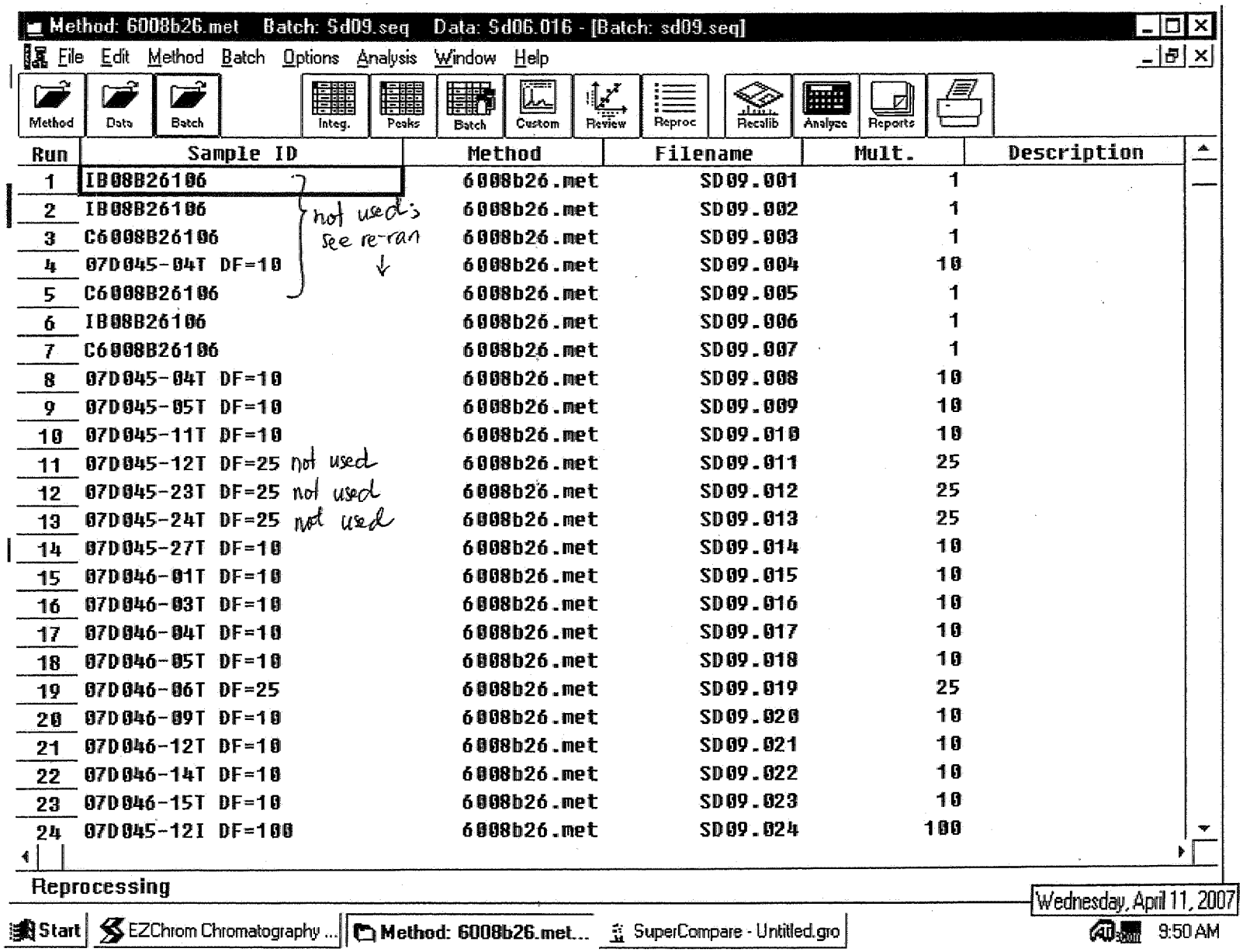
ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC_4_Pesticides	
☐	

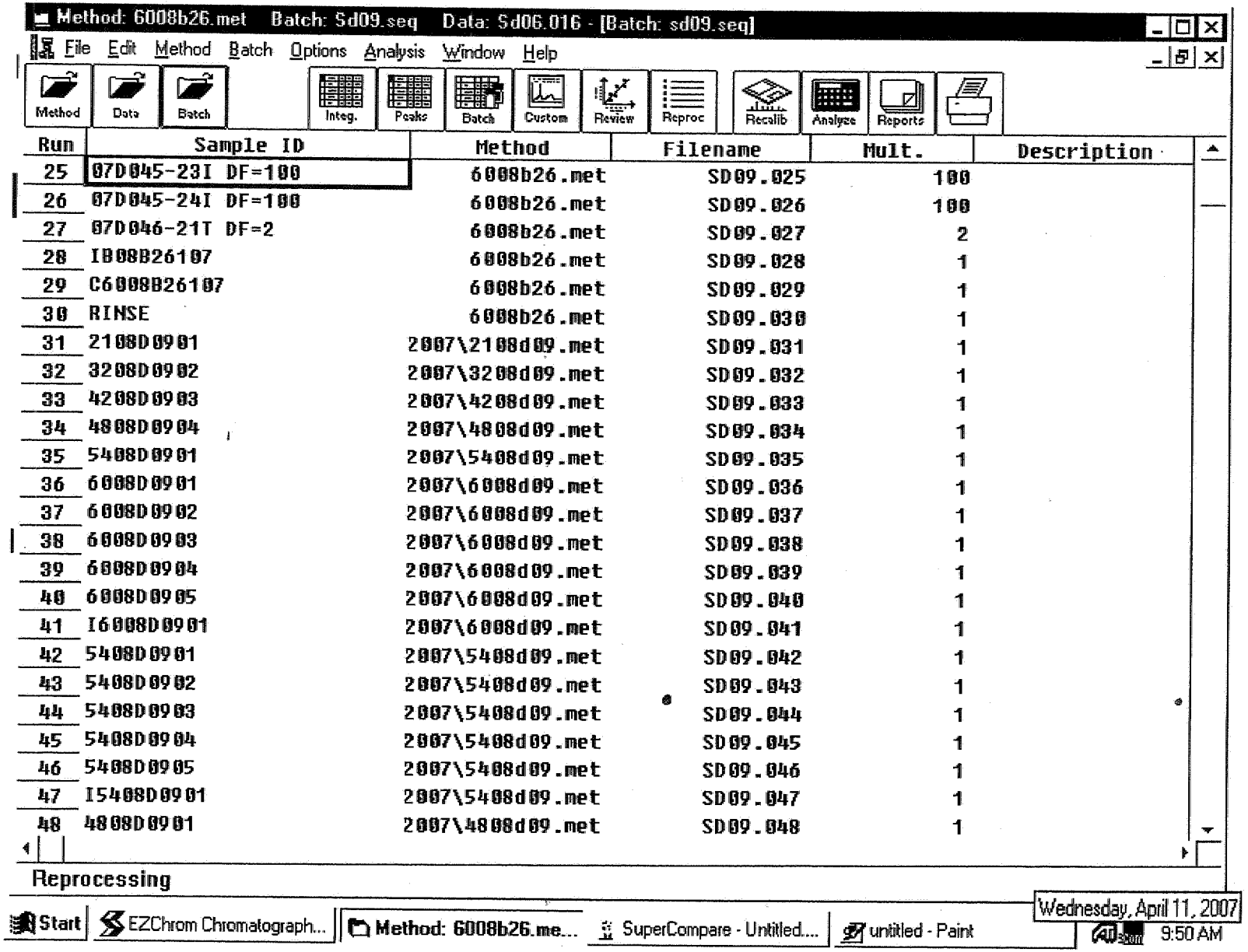
Analyzed By: EB Date: 4-9-2007

Date Disposed: Disposed By:

This page is checked during data review.


Method: 6008b26.met Batch: Sd09.seq Data: Sd06.016 - [Batch: sd09.seq]
File Edit Method Batch Options Analysis Window Help
Method Data Batch Integ. Peaks Batch Custom Review Reproc Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 IB08B26106 6008b26.met SD09.001 1
2 IB08B26106 6008b26.met SD09.002 1
3 C6008B26106 6008b26.met SD09.003 1
4 07D045-04T DF=10 6008b26.met SD09.004 10
5 C6008B26106 6008b26.met SD09.005 1
6 IB08B26106 6008b26.met SD09.006 1
7 C6008B26106 6008b26.met SD09.007 1
8 07D045-04T DF=10 6008b26.met SD09.008 10
9 07D045-05T DF=10 6008b26.met SD09.009 10
10 07D045-11T DF=10 6008b26.met SD09.010 10
11 07D045-12T DF=25 6008b26.met SD09.011 25
12 07D045-23T DF=25 6008b26.met SD09.012 25
13 07D045-24T DF=25 6008b26.met SD09.013 25
14 07D045-27T DF=10 6008b26.met SD09.014 10
15 07D046-01T DF=10 6008b26.met SD09.015 10
16 07D046-03T DF=10 6008b26.met SD09.016 10
17 07D046-04T DF=10 6008b26.met SD09.017 10
18 07D046-05T DF=10 6008b26.met SD09.018 10
19 07D046-06T DF=25 6008b26.met SD09.019 25
20 07D046-09T DF=10 6008b26.met SD09.020 10
21 07D046-12T DF=10 6008b26.met SD09.021 10
22 07D046-14T DF=10 6008b26.met SD09.022 10
23 07D046-15T DF=10 6008b26.met SD09.023 10
24 07D045-12I DF=100 6008b26.met SD09.024 100
not used's see re-ran
not used
not used
not used
Reprocessing
Wednesday, April 11, 2007
Start EZChrom Chromatography ... Method: 6008b26.met... SuperCompare - Untitled.gro
9:50 AM

5 of 9



Method: 6008b26.met Batch: Sd09.seq Data: Sd06.016 - [Batch: sd09.seq]

File Edit Method Batch Options Analysis Window Help

Method Data Batch Integ. Peaks Batch Custom Review Reproc Recalib Analyze Reports

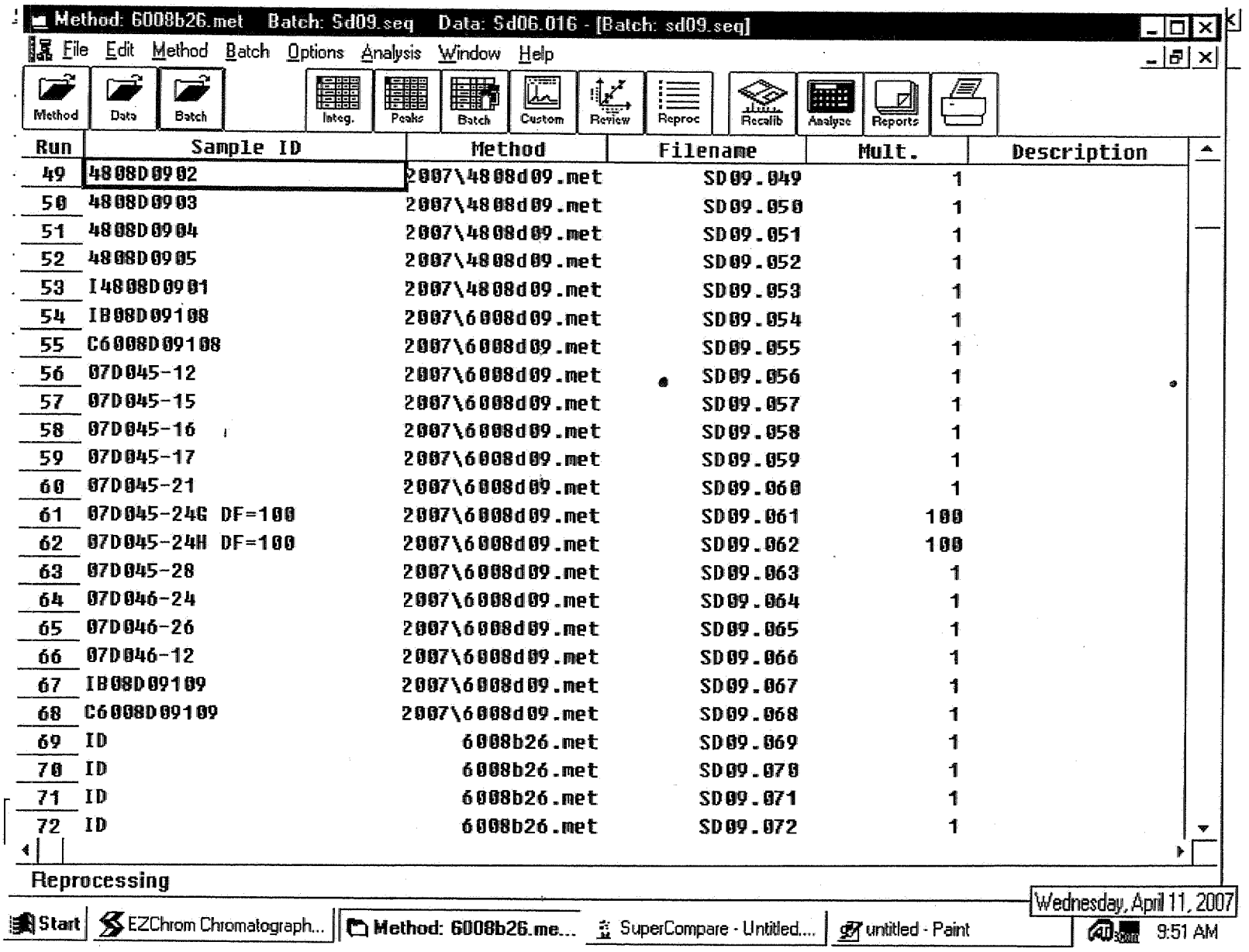
Run	Sample ID	Method	Filename	Mult.	Description
25	07D045-23I DF=100	6008b26.met	SD09.025	100	
26	07D045-24I DF=100	6008b26.met	SD09.026	100	
27	07D046-21T DF=2	6008b26.met	SD09.027	2	
28	IB08B26107	6008b26.met	SD09.028	1	
29	C6008B26107	6008b26.met	SD09.029	1	
30	RINSE	6008b26.met	SD09.030	1	
31	2108D0901	2007\2108d09.met	SD09.031	1	
32	3208D0902	2007\3208d09.met	SD09.032	1	
33	4208D0903	2007\4208d09.met	SD09.033	1	
34	4808D0904	2007\4808d09.met	SD09.034	1	
35	5408D0901	2007\5408d09.met	SD09.035	1	
36	6008D0901	2007\6008d09.met	SD09.036	1	
37	6008D0902	2007\6008d09.met	SD09.037	1	
38	6008D0903	2007\6008d09.met	SD09.038	1	
39	6008D0904	2007\6008d09.met	SD09.039	1	
40	6008D0905	2007\6008d09.met	SD09.040	1	
41	I6008D0901	2007\6008d09.met	SD09.041	1	
42	5408D0901	2007\5408d09.met	SD09.042	1	
43	5408D0902	2007\5408d09.met	SD09.043	1	
44	5408D0903	2007\5408d09.met	SD09.044	1	
45	5408D0904	2007\5408d09.met	SD09.045	1	
46	5408D0905	2007\5408d09.met	SD09.046	1	
47	I5408D0901	2007\5408d09.met	SD09.047	1	
48	4808D0901	2007\4808d09.met	SD09.048	1	

Reprocessing

Start EZChrom Chromatograph... Method: 6008b26.me... SuperCompare - Untitled.... untitled - Paint

Wednesday, April 11, 2007 9:50 AM

5041


Method: 6008b26.met Batch: Sd09.seq Data: Sd06.016 - [Batch: sd09.seq]
File Edit Method Batch Options Analysis Window Help
Method
Data
Batch
Integ.
Peaks
Batch
Custom
Review
Reproc
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | 4808D0902 | 2007\4808d09.met | SD09.049 | 1
50 | 4808D0903 | 2007\4808d09.met | SD09.050 | 1
51 | 4808D0904 | 2007\4808d09.met | SD09.051 | 1
52 | 4808D0905 | 2007\4808d09.met | SD09.052 | 1
53 | I4808D0901 | 2007\4808d09.met | SD09.053 | 1
54 | IB08D09108 | 2007\6008d09.met | SD09.054 | 1
55 | C6008D09108 | 2007\6008d09.met | SD09.055 | 1
56 | 07D045-12 | 2007\6008d09.met | SD09.056 | 1
57 | 07D045-15 | 2007\6008d09.met | SD09.057 | 1
58 | 07D045-16 | 2007\6008d09.met | SD09.058 | 1
59 | 07D045-17 | 2007\6008d09.met | SD09.059 | 1
60 | 07D045-21 | 2007\6008d09.met | SD09.060 | 1
61 | 07D045-24G DF=100 | 2007\6008d09.met | SD09.061 | 100
62 | 07D045-24H DF=100 | 2007\6008d09.met | SD09.062 | 100
63 | 07D045-28 | 2007\6008d09.met | SD09.063 | 1
64 | 07D046-24 | 2007\6008d09.met | SD09.064 | 1
65 | 07D046-26 | 2007\6008d09.met | SD09.065 | 1
66 | 07D046-12 | 2007\6008d09.met | SD09.066 | 1
67 | IB08D09109 | 2007\6008d09.met | SD09.067 | 1
68 | C6008D09109 | 2007\6008d09.met | SD09.068 | 1
69 | ID | 6008b26.met | SD09.069 | 1
70 | ID | 6008b26.met | SD09.070 | 1
71 | ID | 6008b26.met | SD09.071 | 1
72 | ID | 6008b26.met | SD09.072 | 1
Reprocessing
Start
EZChrom Chromatograph...
Method: 6008b26.me...
SuperCompare - Untitled....
untitled - Paint
Wednesday, April 11, 2007
9:51 AM

Sd09

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A08-019

Instrument No.: 8

Analytical Sequence: SD17

Method File: CP08B26, 6008D09, 5408D09

Analytical Batch: SD17012

SOP #	Rev. #
☑ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
CP08B26	SB26	2-26-07
EBK 4/17/07 6008D09	SD09	4-9-07
5408 D09	SD09	4-9-07

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
PEM	SSIC-05-35-3	100/250
PES ICAL	SSIB-05-58-1	80/160/800
1660 ICAL	SSIB-05-59-1	100/2000
1254 ICAL	SSIB-05-55-1	100/2000

Column: (A) RTX CLPEST I (B) RTX CLPEST II

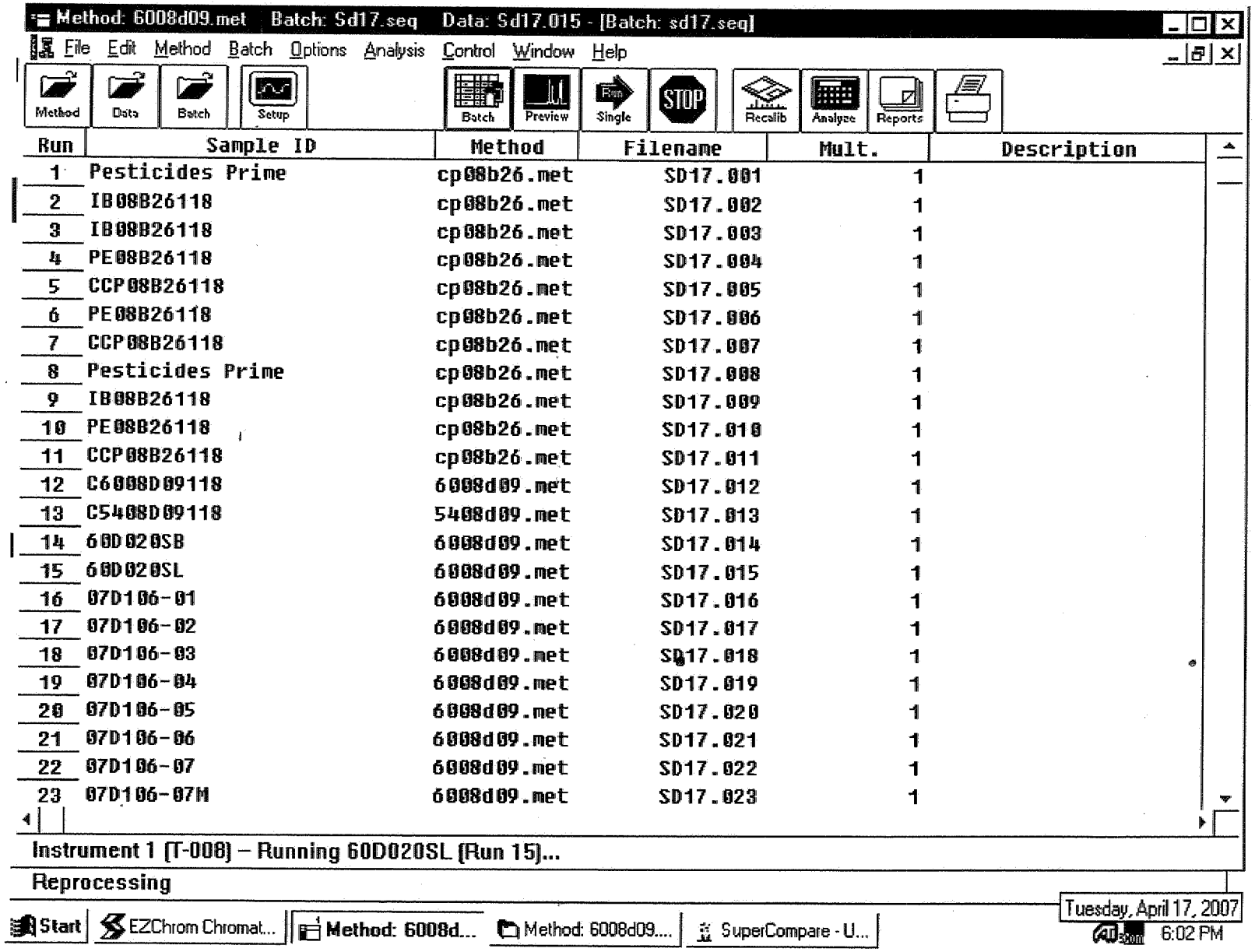
ELECTRONIC DATA ARCHIVAL

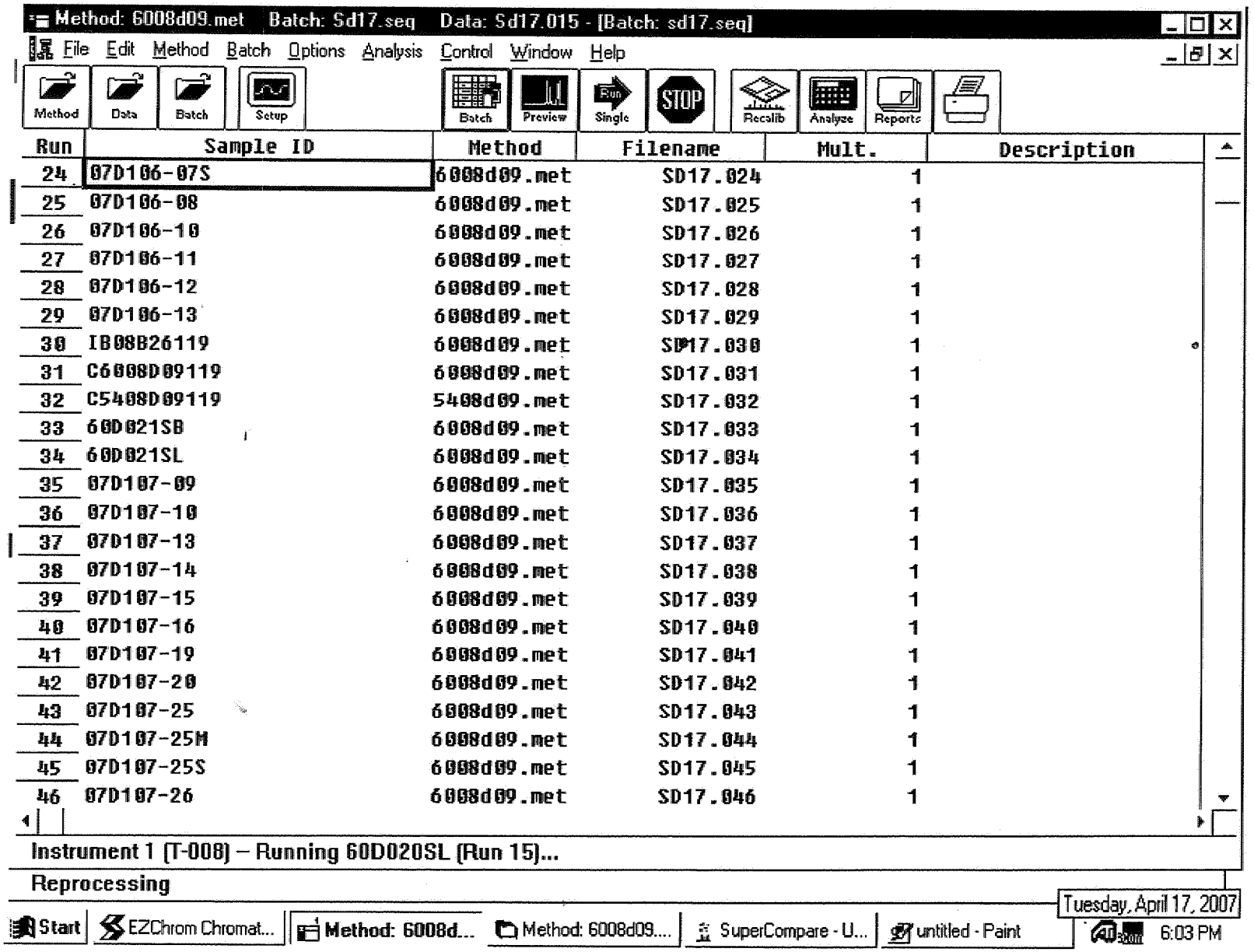
Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: EBK Date: 4/17/07

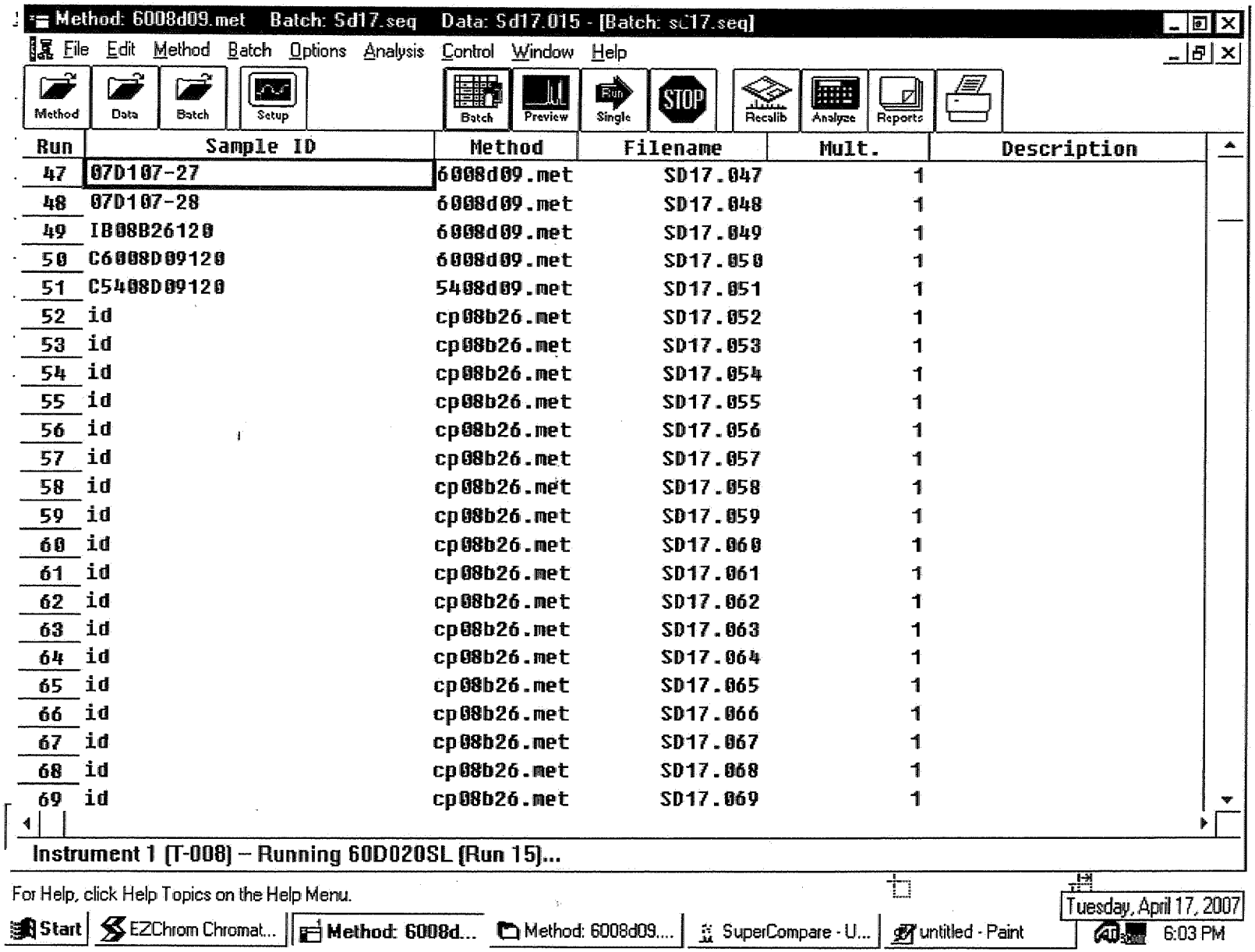
Date Disposed: Disposed By:

This page is checked during data review.


Method: 6008d09.met Batch: Sd17.seq Data: Sd17.015 - [Batch: sd17.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 Pesticides Prime cp08b26.met SD17.001 1
2 IB08B26118 cp08b26.met SD17.002 1
3 IB08B26118 cp08b26.met SD17.003 1
4 PE08B26118 cp08b26.met SD17.004 1
5 CCP08B26118 cp08b26.met SD17.005 1
6 PE08B26118 cp08b26.met SD17.006 1
7 CCP08B26118 cp08b26.met SD17.007 1
8 Pesticides Prime cp08b26.met SD17.008 1
9 IB08B26118 cp08b26.met SD17.009 1
10 PE08B26118 cp08b26.met SD17.010 1
11 CCP08B26118 cp08b26.met SD17.011 1
12 C6008D09118 6008d09.met SD17.012 1
13 C5408D09118 5408d09.met SD17.013 1
14 60D020SB 6008d09.met SD17.014 1
15 60D020SL 6008d09.met SD17.015 1
16 07D106-01 6008d09.met SD17.016 1
17 07D106-02 6008d09.met SD17.017 1
18 07D106-03 6008d09.met SD17.018 1
19 07D106-04 6008d09.met SD17.019 1
20 07D106-05 6008d09.met SD17.020 1
21 07D106-06 6008d09.met SD17.021 1
22 07D106-07 6008d09.met SD17.022 1
23 07D106-07M 6008d09.met SD17.023 1
Instrument 1 (T-008) – Running 60D020SL (Run 15)...
Reprocessing
Start EZChrom Chromat... Method: 6008d... Method: 6008d09.... SuperCompare - U...
Tuesday, April 17, 2007
6:02 PM


Method: 6008d09.met Batch: Sd17.seq Data: Sd17.015 - [Batch: sd17.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
24 07D106-07S 6008d09.met SD17.024 1
25 07D106-08 6008d09.met SD17.025 1
26 07D106-10 6008d09.met SD17.026 1
27 07D106-11 6008d09.met SD17.027 1
28 07D106-12 6008d09.met SD17.028 1
29 07D106-13 6008d09.met SD17.029 1
30 IB08B26119 6008d09.met SD17.030 1
31 C6008D09119 6008d09.met SD17.031 1
32 C5408D09119 5408d09.met SD17.032 1
33 60D021SB 6008d09.met SD17.033 1
34 60D021SL 6008d09.met SD17.034 1
35 07D107-09 6008d09.met SD17.035 1
36 07D107-10 6008d09.met SD17.036 1
37 07D107-13 6008d09.met SD17.037 1
38 07D107-14 6008d09.met SD17.038 1
39 07D107-15 6008d09.met SD17.039 1
40 07D107-16 6008d09.met SD17.040 1
41 07D107-19 6008d09.met SD17.041 1
42 07D107-20 6008d09.met SD17.042 1
43 07D107-25 6008d09.met SD17.043 1
44 07D107-25M 6008d09.met SD17.044 1
45 07D107-25S 6008d09.met SD17.045 1
46 07D107-26 6008d09.met SD17.046 1
Instrument 1 (T-008) – Running 60D020SL (Run 15)...
Reprocessing
Start EZChrom Chromat... Method: 6008d... Method: 6008d09.... SuperCompare - U... untitled - Paint
Tuesday, April 17, 2007
6:03 PM

S-95


Method: 6008d09.met Batch: Sd17.seq Data: Sd17.015 - [Batch: sd17.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
47 07D107-27 6008d09.met SD17.047 1
48 07D107-28 6008d09.met SD17.048 1
49 IB08B26120 6008d09.met SD17.049 1
50 C6008D09120 6008d09.met SD17.050 1
51 C5408D09120 5408d09.met SD17.051 1
52 id cp08b26.met SD17.052 1
53 id cp08b26.met SD17.053 1
54 id cp08b26.met SD17.054 1
55 id cp08b26.met SD17.055 1
56 id cp08b26.met SD17.056 1
57 id cp08b26.met SD17.057 1
58 id cp08b26.met SD17.058 1
59 id cp08b26.met SD17.059 1
60 id cp08b26.met SD17.060 1
61 id cp08b26.met SD17.061 1
62 id cp08b26.met SD17.062 1
63 id cp08b26.met SD17.063 1
64 id cp08b26.met SD17.064 1
65 id cp08b26.met SD17.065 1
66 id cp08b26.met SD17.066 1
67 id cp08b26.met SD17.067 1
68 id cp08b26.met SD17.068 1
69 id cp08b26.met SD17.069 1
Instrument 1 (T-008) – Running 60D020SL (Run 15)...
For Help, click Help Topics on the Help Menu.
Start EZChrom Chromat... Method: 6008d... Method: 6008d09.... SuperCompare - U... untitled - Paint
Tuesday, April 17, 2007
6:03 PM

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
PESTICIDES

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A08-019

Instrument No.: 8

Analytical Sequence: SD13

Method File: CP08B26, T008D02, 6008D09

Analytical Batch: SD13003

SOP #	Rev. #
☑ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
CP08B26	SB26	2-26-07
T008D02	SD02	4-2-07
6008D09	SD09	4-9-07

STANDARDS ID		Conc (µg/L)
Hexane	46300	N-A.
PEM	SSIC-05-35-3	100/250
PES ICAL	SSIB-05-58-1	80/160/800
1660 ICAL	SSIB-05-59-1	100/2000
TOX ICAL	SSIB-05-57-3	100/2000

Column	(A) RTX CLPEST I	(B) RTX CLPEST II

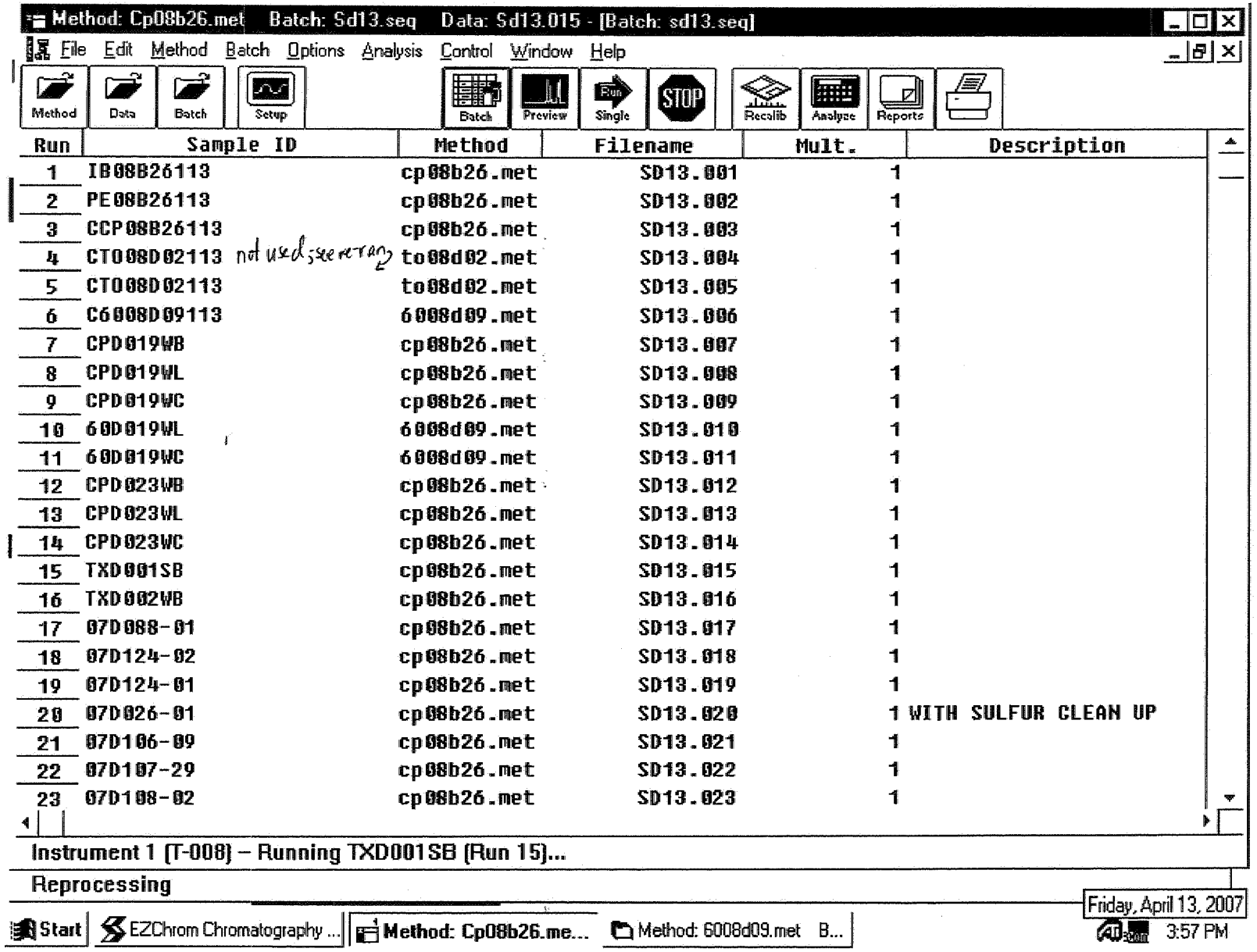
ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: BX Date: 4/13/07

Date Disposed: Disposed By:

This page is checked during data review.


Method: Cp08b26.met Batch: Sd13.seq Data: Sd13.015 - [Batch: sd13.seq]
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Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 IB08B26113 cp08b26.met SD13.001 1
2 PE08B26113 cp08b26.met SD13.002 1
3 CCP08B26113 cp08b26.met SD13.003 1
4 CT008D02113 not used; see next to08d02.met SD13.004 1
5 CT008D02113 to08d02.met SD13.005 1
6 C6008D09113 6008d09.met SD13.006 1
7 CPD019WB cp08b26.met SD13.007 1
8 CPD019WL cp08b26.met SD13.008 1
9 CPD019WC cp08b26.met SD13.009 1
10 60D019WL 6008d09.met SD13.010 1
11 60D019WC 6008d09.met SD13.011 1
12 CPD023WB cp08b26.met SD13.012 1
13 CPD023WL cp08b26.met SD13.013 1
14 CPD023WC cp08b26.met SD13.014 1
15 TXD001SB cp08b26.met SD13.015 1
16 TXD002WB cp08b26.met SD13.016 1
17 07D088-01 cp08b26.met SD13.017 1
18 07D124-02 cp08b26.met SD13.018 1
19 07D124-01 cp08b26.met SD13.019 1
20 07D026-01 cp08b26.met SD13.020 1 WITH SULFUR CLEAN UP
21 07D106-09 cp08b26.met SD13.021 1
22 07D107-29 cp08b26.met SD13.022 1
23 07D108-02 cp08b26.met SD13.023 1
Instrument 1 (T-008) – Running TXD001SB (Run 15)...
Reprocessing
Start EZChrom Chromatography ... Method: Cp08b26.me... Method: 6008d09.met B...
Friday, April 13, 2007
3:57 PM

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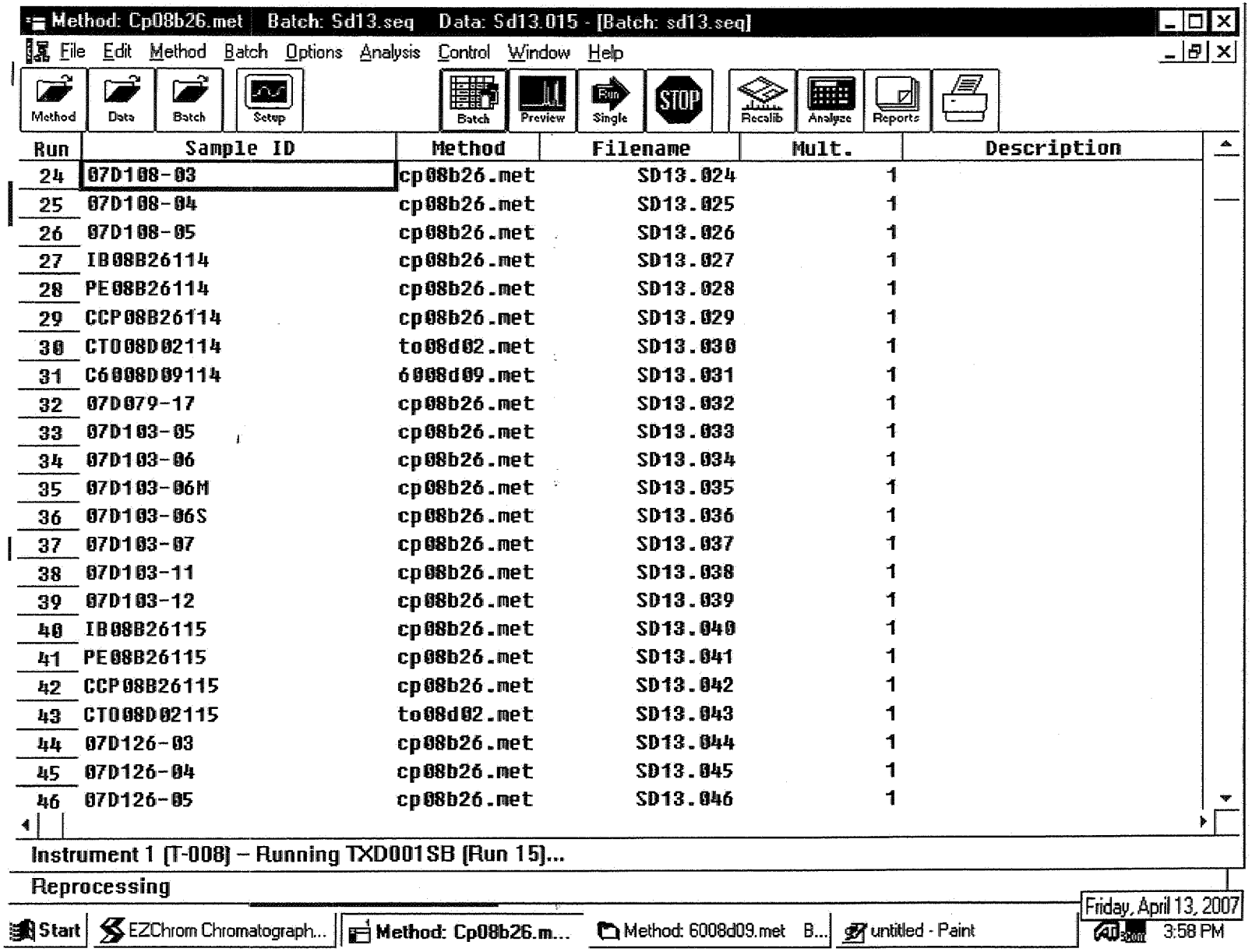
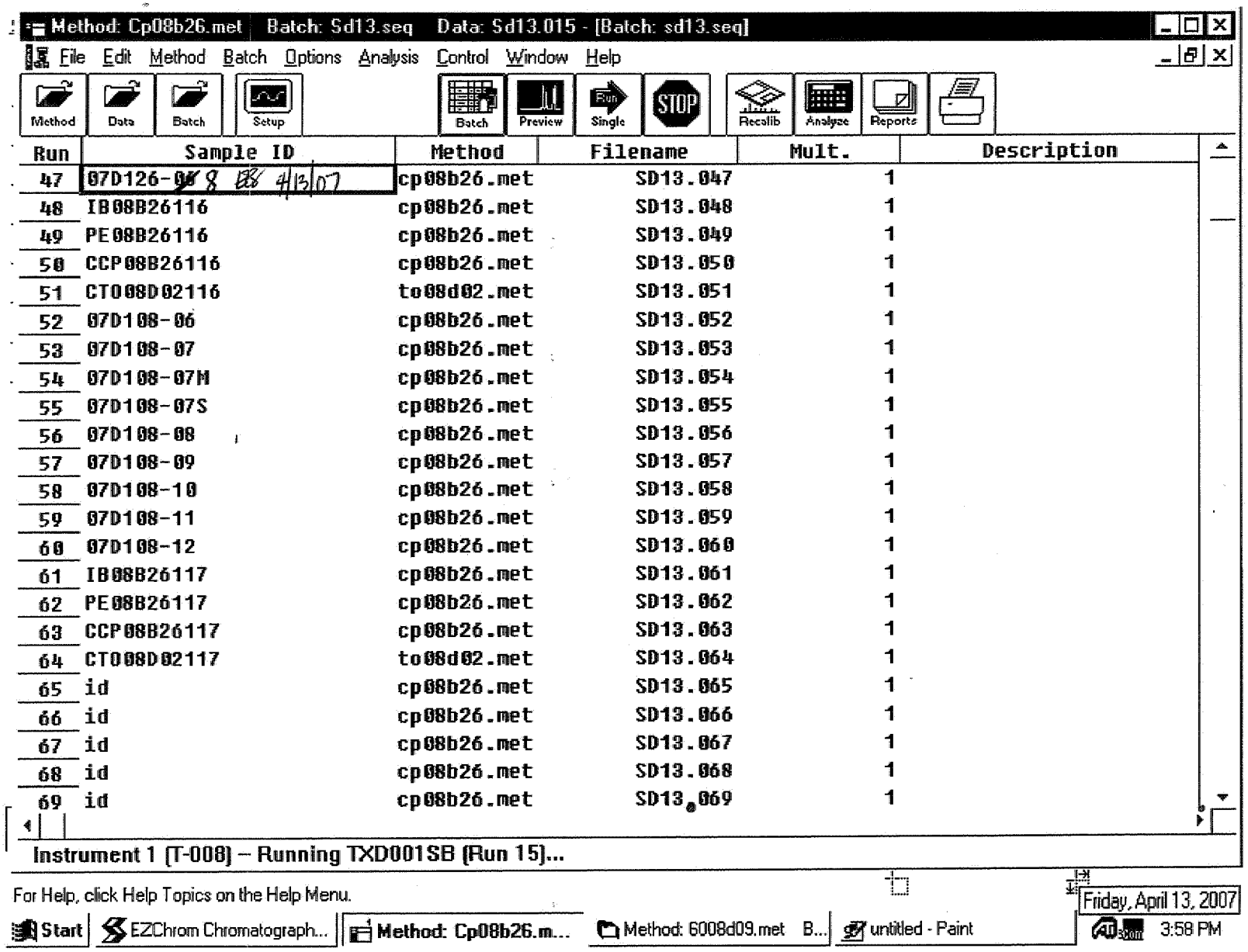

Method: Cp08b26.met Batch: Sd13.seq Data: Sd13.015 - [Batch: sd13.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
24 07D108-03 cp08b26.met SD13.024 1
25 07D108-04 cp08b26.met SD13.025 1
26 07D108-05 cp08b26.met SD13.026 1
27 IB08B26114 cp08b26.met SD13.027 1
28 PE08B26114 cp08b26.met SD13.028 1
29 CCP08B26114 cp08b26.met SD13.029 1
30 CT008D02114 to08d02.met SD13.030 1
31 C6008D09114 6008d09.met SD13.031 1
32 07D079-17 cp08b26.met SD13.032 1
33 07D103-05 cp08b26.met SD13.033 1
34 07D103-06 cp08b26.met SD13.034 1
35 07D103-06M cp08b26.met SD13.035 1
36 07D103-06S cp08b26.met SD13.036 1
37 07D103-07 cp08b26.met SD13.037 1
38 07D103-11 cp08b26.met SD13.038 1
39 07D103-12 cp08b26.met SD13.039 1
40 IB08B26115 cp08b26.met SD13.040 1
41 PE08B26115 cp08b26.met SD13.041 1
42 CCP08B26115 cp08b26.met SD13.042 1
43 CT008D02115 to08d02.met SD13.043 1
44 07D126-03 cp08b26.met SD13.044 1
45 07D126-04 cp08b26.met SD13.045 1
46 07D126-05 cp08b26.met SD13.046 1
Instrument 1 (T-008) – Running TXD001SB (Run 15)...
Reprocessing
Start EZChrom Chromatograph... Method: Cp08b26.m... Method: 6008d09.met B... untitled - Paint
Friday, April 13, 2007
3:58 PM

6 of 9


Method: Cp08b26.met Batch: Sd13.seq Data: Sd13.015 - [Batch: sd13.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
47 07D126-08 8 DB 4/13/07 cp08b26.met SD13.047 1
48 IB08B26116 cp08b26.met SD13.048 1
49 PE08B26116 cp08b26.met SD13.049 1
50 CCP08B26116 cp08b26.met SD13.050 1
51 CT008D02116 to08d02.met SD13.051 1
52 07D108-06 cp08b26.met SD13.052 1
53 07D108-07 cp08b26.met SD13.053 1
54 07D108-07M cp08b26.met SD13.054 1
55 07D108-07S cp08b26.met SD13.055 1
56 07D108-08 cp08b26.met SD13.056 1
57 07D108-09 cp08b26.met SD13.057 1
58 07D108-10 cp08b26.met SD13.058 1
59 07D108-11 cp08b26.met SD13.059 1
60 07D108-12 cp08b26.met SD13.060 1
61 IB08B26117 cp08b26.met SD13.061 1
62 PE08B26117 cp08b26.met SD13.062 1
63 CCP08B26117 cp08b26.met SD13.063 1
64 CT008D02117 to08d02.met SD13.064 1
65 id cp08b26.met SD13.065 1
66 id cp08b26.met SD13.066 1
67 id cp08b26.met SD13.067 1
68 id cp08b26.met SD13.068 1
69 id cp08b26.met SD13.069 1
Instrument 1 (T-008) – Running TXD001SB (Run 15)...
For Help, click Help Topics on the Help Menu.
Start EZChrom Chromatograph... Method: Cp08b26.m... Method: 6008d09.met B... untitled - Paint
Friday, April 13, 2007
3:58 PM

5959

EXTRACTION LOG

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: SOIL Starting Date: 4/12/07 Time: 11:30 Ending Date: 4/12/07 Time: 15:00 Book # ECP-030

PREPARATION BATCH # GOD02/S

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	GOD02/-SB	1	30.00		10	ACID	
*02	-SL	1	30.03		10		
*03	07D107-09	3	30.01		10		
*04	-10	3	30.02		10		
*05	-13	1	30.01		10		
*06	-14	3	30.00		10		
*07	-15	3	30.01		10		
*08	-16	1	30.02		10		
*09	-19	3	30.01		10		
*10	-20	3	30.03		10		
*11	-25	1	30.01		10		
*12	-25M	3	30.00		10		
*13	-25S	3	30.01		10		
*14	-26	1	30.01		10		
*15	-27	3	30.03		10		
*16	-28	3	30.02		10		
*17			JV	4/12/07			
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SSIB-05-67-1	1.0
LCS/MS PCB	SSIB-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46350
Na_2SO_4	460806/9
H_2SO_4	46137
NaOH	-
Silica Sand	44273

TUNING

Sonicator #	Reading
1	N/A
3	95%

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3	35	35
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JV Checked By: ML

Witnessed By: SS Received By: 4/12/07

Standard Added By: JV Disposed By:

Extract Location: SE02 #9 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☒ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: WATER Starting Date: 4/11/07 Time: 16:00 Ending Date: 4/12/07 Time: 10:00 Book # ECP-030

PREPARATION BATCH # CPD019W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	CPD019-WB	N/A	1000	–	10		
*02	-WL ★		1000	–	10		
*03	-WC ★		1000	–	10		
*04	60D019-WL ▲		1000	–	10		
*05	-WC ▲		1000	–	10		
*06	07D079-17		1060	6	10		
*07	07D103-05		1060	7	10		
*08	-06		1060	7	10		
*09	-06M ★		1060	7	10		
*10	-06S ★		1060	7	10		
*11	-07		1060	7	10		
*12	-11		1060	7	10		
*13	-12		1060	7	10		
*14	07D106-09		1000	6	10		
*15	07D107-29		1000	6	10		
*16	07D126-03		1060	6	10		
*17	-04		1060	6	10		light yellow orange w/ fine sediments
*18	-05		1060	6	10		light yellow soln
*19	-08		1060	6	10		
*20							
*21							
*22					4/12/07		
*23					JM		
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SSIB-05-67-1	1.0
LCS/MS FINAL EXT (PEST ★)	SSIB-05-60-3	2.5
LCS (PCB ▲)	SSIB-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	46331
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	–
NaOH	–
Silica Sand	–

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp.(oC)		
1	35	35
2	35	35
3	35	35
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JM Checked By: ML

Witnessed By: IZ Received By: 4/12/07

Standard Added By: JM Disposed By:

Extract Location: SE02-1 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5953

Supplemental Soil Investigation Report
Historical Operational Areas A, B, C, D, F, G, and H
Lockheed Martin Corporation, Beaumont Site 1
Beaumont, California



Volume II

Prepared for:

LOCKHEED MARTIN

TETRA TECH

348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408

TC# 19967-05 / May 2008

Appendix F (continued)

Laboratory Data Packages

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D134**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1006
GC/MS-VOA	METHOD 5030B/8260B (WATER) METHOD 5035/8260B (SOIL)	2000 – 2029 2030 – 2081
GC/MS-SVOA	METHOD 3520C/3550B/8270C METHOD 3520C/3550B/8270C SIM	3000 – 3038 3039 – 3069
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	METHOD 8330	6000 – 6036
METALS	METHOD 3010A/3050B/6010B METHOD 7470A/7471A	7000 – 7031 7032 – 7049
WET	METHOD 314.0	8000 – 8026
OTHERS	**	9000 –

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-01-2007
EMAX Batch No.: 07D134

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/11/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
A6-HAS1@0.5	D134-01	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS SEMIVOLATILE ORGANICS BY GCMS PERCHLORATE BY IC 1,4-DIOXANE BY 8270 SIM METALS CAM MERCURY
A6-HAS1@5	D134-02	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS SEMIVOLATILE ORGANICS BY GCMS PERCHLORATE BY IC 1,4-DIOXANE BY 8270 SIM METALS CAM MERCURY
A6-HAS101@0.5	D134-03	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS SEMIVOLATILE ORGANICS BY GCMS PERCHLORATE BY IC 1,4-DIOXANE BY 8270 SIM METALS CAM MERCURY
LEB-041007	D134-04	04/10/07	WATER	VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				1,4-DIOXANE BY 8270 SIM
D26-HAS-16-0.5	D134-05	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
D26-HAS-16-5	D134-06	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
D26-HAS-116-0.5	D134-07	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
LTB-041007	D134-08	04/10/07	WATER	VOLATILE ORGANICS BY GC/MS
D26-HAS-15-0.5	D134-09	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
D26-HAS-15-5	D134-10	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
D26-HAS-14-0.5	D134-11	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES
D26-HAS-14-5	D134-12	04/10/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				NITROAROMATICS & NITRAMINES

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

070134

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391
TT_0618

SHIP TO: EMAX

DATE 4/10/07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Myer
TC #: 19967-02
SAMPLERS (Signatures)

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	8270 SVOC	8140 Perchlorate	1,4 Dioxane	Title 22 metals	explosives 8330	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	A6-HAS1@0.5	4/10/07	845	X	X	X	X	X		U	S	G	5	ice
2.	A6-HAS1@5		900	X	X	X	X	X				G	5	ice
3.	A6-HAS101@05		845	X	X	X	X	X				G	5	ice
4.	LEB@041007		830	X	X	X	X	X	X	U	W	G/P	8	ice HNO3 HCl
5.														
6.														
7.														
8.														
9.														
10.														

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME
Christopher Lim		TETRA TECH, INC.		
RECEIVED BY: GEORGE Lim	SIGNATURE	COMPANY EMAX	DATE 4/11/07	TIME 10:30
RELINQUISHED BY GEORGE Lim	SIGNATURE	COMPANY EMAX	DATE 4/11/07	TIME 11:40
RECEIVED BY V Luna	SIGNATURE	COMPANY emax	DATE 4/11/07	TIME 1140

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 23 of 53

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements: T= 3.8°C

X:\GIS\ATT-MISC\COCR.CDR

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1902

070134

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4/10/07 PAGE 2 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Mayo
TC #: 19967-02
SAMPLERS (Signatures)

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE No.	DATE	TIME	8260 VOC	3540 Perchlorate	8330 explosives	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
5	1 D26-HAS-16-0.5	4/10/07	1010	X	X	X	U	S	G	4	ICE
6	2 D26-HAS-16-5		1045	X	X	X				4	
7	3 D26-HAS-116-0.5		1015	X	X	X				4	
8	4 LTB-041007		830	X			U	W	G	2	HCl
9	5 D26-HAS-15-0.5		1055	X	X	X	U	S	G	4	ICE
10	6 D26-HAS-15-5		1135	X	X	X				4	
11	7 D26-HAS-14-0.5		1230	X	X	X				4	
12	8 D26-HAS-14-5		1300	X	X	X				4	
9.											
10.											

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 30 of 53
Christopher Lim		TETRA TECH, INC.			
RECEIVED BY: GEORGE LIM		COMPANY: EMAX	DATE: 4/11/07	TIME: 10:30	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM		COMPANY: EMAX	DATE: 4/11/07	TIME: 11:40	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA		COMPANY: emax	DATE: 4/11/07	TIME: 1140	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1003

X:\GIS\ATT-MISC\COCR.CDR

Ye Myint

From: Ye Myint
Sent: Friday, April 13, 2007 7:18 PM
To: 'Wilson, Michael -- Tetra Tech'
Subject: Login for samples received 4/11/07

Mike,

Attached please find the login for 07D134.

Login was defaulted to COCs regarding the sample IDs (inconsistent between COC and labels). Please let me know if you need any corrections.

Logins for samples we received today will be e-mailed on Monday, next week. Thanks.

Ye Myint
Project Manager
EMAX Laboratories, Inc.
1835 W 205th. St.
Torrance, CA 90501
Phone: (310) 618-8889 x121
Fax: (310) 618-0818
E-mail: ymyint@emaxlabs.com

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 070134
☑ EMAX Courier	SEE COC	Recepient JONLUNA
☐ Client Delivery		Date 4-11-07
☐ Third Party		Time 1140

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT

Safety Issues

☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures	☑ Cooler 1 3.8 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/~~COC ID~~	Discrepancy Code	Corrective Action Code
01 - 03			A2	R2
05 - 07			A2	R2
09 - 12			A2	R2
-09		D26-HSA-15-0.5	B3	R5
-10		D26-HSA-15-5	B3	R5
-11		D26-HSA-14-0.5	B3	R5
-12		D26-HSA-14-5	B3	R5

REVIEWS

Sample Labeling _____ Date 4/11/07

SRF _____ Date 4/11/07

PM _____ Date 4/11/07

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC	E1	Preservative needed; sample has no preservative	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label (ALL ENCORES)	E2	Preservative not needed but sample is preserved	R2	Proceed as indicated in COC
A3	Analysis is inconsistent in COC vis-à-vis label	F1	Not enough quantity of samples	R3	Refer to attached instruction
B1	Sample ID is not indicated in COC	F2	Bubble is> 6mm	R4	Cancel the analysis
B2	Sample ID is not indicated in label	G1	Temperature is out of range (4 +_ 2°C)	R5	Default to IDs in COC.
B3	Sample ID is inconsistent in COC vis-à-vis label	G2	Out of Holding Time	R6	
C1	Wrong container	G3	>20 % solid particle		
C2	Broken container	H1			
C3	Leaking container	H2			
D1	Date and/or time is not indicated in COC				
D2	Date and/or time is not indicated in label				
D3	Date and/or time is inconsistent in COC vis-à-vis label				

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 07D134

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 04/11/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D134
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067D28Q	1	NA	04/17/0703:22	04/17/0703:22	RDC326	RBC096	V067D28	Method Blank
LCS1W	V067D28L	1	NA	04/17/0701:31	04/17/0701:31	RDC323	RBC096	V067D28	Lab Control Sample (LCS)
LCD1W	V067D28C	1	NA	04/17/0702:08	04/17/0702:08	RDC324	RBC096	V067D28	LCS Duplicate
LTB-041007	D134-08	1	NA	04/17/0703:59	04/17/0703:59	RDC327	RBC096	V067D28	Field Sample
LEB-041007	D134-04	1	NA	04/17/0707:04	04/17/0707:04	RDC332	RBC096	V067D28	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 07:04
Sample ID: LEB-041007	Date Analyzed: 04/17/07 07:04
Lab Samp ID: D134-04	Dilution Factor: 1
Lab File ID: RDC332	Matrix : WATER
Ext Btch ID: V067D28	% Moisture : NA
Calib. Ref.: RBC096	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	0.53J	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	70-140
4-BROMOFLUOROBENZENE	117	70-130
TOLUENE-D8	104	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 03:59
Sample ID: LTB-041007	Date Analyzed: 04/17/07 03:59
Lab Samp ID: D134-08	Dilution Factor: 1
Lab File ID: RDC327	Matrix : WATER
Ext Btch ID: V067D28	% Moisture : NA
Calib. Ref.: RBC096	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	106	70-140
4-BROMOFLUOROBENZENE	116	70-130
TOLUENE-D8	103	70-140

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D134	Date Extracted:	04/17/07 03:22
Sample ID:	MBLK1W	Date Analyzed:	04/17/07 03:22
Lab Samp ID:	V067D28Q	Dilution Factor:	1
Lab File ID:	RDC326	Matrix	: WATER
Ext Btch ID:	V067D28	% Moisture	: NA
Calib. Ref.:	RBC096	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	70-140
4-BROMOFLUOROBENZENE	118	70-130
TOLUENE-D8	101	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V067D28Q	V067D28L	V067D28C		
LAB FILE ID:	RDC326	RDC323	RDC324		
DATE EXTRACTED:	04/17/0703:22	04/17/0701:31	04/17/0702:08	DATE COLLECTED:	NA
DATE ANALYZED:	04/17/0703:22	04/17/0701:31	04/17/0702:08	DATE RECEIVED:	04/17/07
PREP. BATCH:	V067D28	V067D28	V067D28		
CALIB. REF:	RBC096	RBC096	RBC096		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	11.8	118	10.0	10.5	105	12	60-130	30
Benzene	ND	10.0	11.3	113	10.0	10.1	101	12	70-130	30
Chlorobenzene	ND	10.0	10.9	109	10.0	9.70	97	12	70-120	30
Toluene	ND	10.0	10.6	106	10.0	9.32	93	13	70-130	30
Trichloroethene	ND	10.0	10.7	107	10.0	9.31	93	13	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	11.4	114	10.0	11.2	112	70-140
4-Bromofluorobenzene	10.0	10.6	106	10.0	10.8	108	70-130
Toluene-d8	10.0	9.92	99	10.0	9.78	98	70-130

INITIAL CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D134

Lab File ID: RBC090 BFB Injection Date : 02/08/07

Instrument ID: T-067 BFB Injection Time : 13:18

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.40
75	30.0 - 60.0% of mass 95	40.39
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.63
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	67.08
175	5.0 - 9.0% of mass 174	4.77(7.1)1
176	95.0 - 101.0% of mass 174	66.72(99.5)1
177	5.0 - 9.0% of mass 176	4.52(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V067B081	RBC091	02/08/07	13:55
2	VSTD0.5	V067B082	RBC092	02/08/07	14:32
3	VSTD01	V067B083	RBC093	02/08/07	15:09
4	VSTD02	V067B084	RBC094	02/08/07	15:46
5	VSTD05	V067B085	RBC095	02/08/07	16:23
6	VSTD010	V067B086	RBC096	02/08/07	17:00
7	VSTD020	V067B087	RBC097	02/08/07	17:37
8	VSTD030	V067B088	RBC098	02/08/07	18:14
9	VSTD040	V067B089	RBC099	02/08/07	18:52
10	VSTD050	V067B0810	RBC100	02/08/07	19:29
11	VSTD010	IV067B081	RBC103	02/08/07	21:20

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :02/08/07 13:55
Spike Units :PPB
IC File :RBC096

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :02/08/07 19:29
HPChem Method :VO67B08

M	IDX	Parameters	.3 13:55 RBC091	.5 14:32 RBC092	1 15:09 RBC093	2 15:46 RBC094	5 16:23 RBC095	10 17:00 RBC096	20 17:37 RBC097	30 18:14 RBC098	40 18:52 RBC099	50 19:29 RBC100	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	10.1404
	2	Dichlorodifluoromethane	0.176	0.196	0.228	0.228	0.233	0.261	0.234	0.222	0.233	0.220	0.223	10.33	3.5300
	3	Dichlorotetrafluoroethane	0.295	0.285	0.315	0.334	0.312	0.380	0.332	0.325	0.325	0.305	0.321	8.14	3.7445
	4	Chloromethane	0.208	0.229	0.249	0.259	0.268	0.299	0.273	0.261	0.271	0.259	0.258	9.72	4.0156
	5	Vinyl chloride	0.198	0.224	0.258	0.265	0.260	0.277	0.231	0.194	0.170	0.147	0.222	19.65	4.1690
	6	Bromomethane	0.209	0.269	0.229	0.224	0.209	0.230	0.212	0.203	0.220	0.213	0.222	8.44	4.9018
	7	Chloroethane	0.104	0.108	0.119	0.132	0.138	0.151	0.138	0.131	0.139	0.135	0.129	11.33	5.0061
	8	Dichlorofluoromethane	0.480	0.470	0.462	0.537	0.496	0.479	0.461	0.460	0.479	0.460	0.478	4.96	5.0508
	9	Trichlorofluoromethane	0.233	0.267	0.305	0.318	0.337	0.365	0.339	0.323	0.335	0.320	0.314	12.15	5.3859
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	11	Acrolein	------	------	0.012	0.013	0.015	0.017	0.015	0.016	0.017	0.017	0.015	12.83	5.9484
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.197	0.192	0.196	0.234	0.216	0.210	0.204	0.208	0.215	0.205	0.208	5.90	5.9504
2	13	Acetone	------	------	0.038	0.035	0.032	0.029	0.025	0.027	0.029	0.029	0.030	14.18	6.0191
	14	1,1-Dichloroethene	0.366	0.362	0.373	0.431	0.408	0.410	0.389	0.385	0.398	0.379	0.390	5.58	6.2364
5	15	tert-Butyl alcohol	------	------	0.009	0.010	0.010	0.011	0.009	0.010	0.010	0.010	0.010	6.29	6.2816
	16	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	17	Methyl acetate	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	18	Iodomethane	0.264	0.273	0.289	0.380	0.402	0.436	0.438	0.446	0.478	0.457	0.386	21.10	6.7041
	19	Methylene chloride	0.585	0.490	0.426	0.444	0.367	0.387	0.348	0.348	0.369	0.355	0.412	18.67	6.8635
3	20	Acrylonitrile	0.028	0.030	0.033	0.037	0.036	0.040	0.035	0.036	0.039	0.039	0.035	11.30	6.9856
	21	Carbon disulfide	1.110	1.091	1.099	1.267	1.161	1.184	1.141	1.136	1.162	1.121	1.147	4.49	6.9946
	22	tert-Butyl methyl ether (MTBE)	0.316	0.330	0.362	0.417	0.362	0.403	0.356	0.372	0.400	0.401	0.372	8.99	7.0050
	23	trans-1,2-Dichloroethene	0.393	0.381	0.389	0.453	0.435	0.448	0.433	0.435	0.451	0.427	0.424	6.34	7.2403
	24	Isopropyl ether (DIPE)	0.805	0.785	0.831	0.959	0.887	0.937	0.872	0.908	0.967	0.932	0.888	7.22	7.5308
	25	Vinyl acetate	------	0.242	0.254	0.274	0.270	0.313	0.296	0.317	0.349	0.350	0.296	13.23	7.6874
	26	1,1-Dichloroethane	0.535	0.526	0.532	0.611	0.559	0.568	0.536	0.526	0.550	0.527	0.547	4.88	7.7765
	27	tert-Butyl ethyl ether (ETBE)	0.547	0.534	0.579	0.652	0.606	0.649	0.575	0.607	0.644	0.644	0.604	7.21	8.0506
2	28	2-Butanone	------	------	0.054	0.042	0.046	0.051	0.044	0.049	0.053	0.055	0.049	9.82	8.2403
	29	2,2-Dichloropropane	0.375	0.355	0.357	0.406	0.409	0.404	0.387	0.392	0.393	0.381	0.386	4.96	8.4900
	30	cis-1,2-Dichloroethene	0.436	0.434	0.455	0.514	0.495	0.458	0.490	0.450	0.453	0.447	0.463	5.82	8.5526
2	31	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Chloroform	0.496	0.467	0.501	0.571	0.527	0.546	0.513	0.522	0.529	0.524	0.520	5.45	8.7536
	33	Bromochloromethane	0.201	0.212	0.228	0.257	0.231	0.239	0.219	0.225	0.234	0.229	0.228	6.74	8.9979
	34	1,1,1-Trichloroethane	0.380	0.378	0.400	0.450	0.435	0.441	0.420	0.422	0.434	0.416	0.418	5.89	9.2899
	35	Cyclohexane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	36	1,1-Dichloropropene	0.123	0.131	0.132	0.152	0.146	0.150	0.145	0.147	0.151	0.139	0.142	7.08	9.4865
	37	tert-Amyl methyl ether (TAME)	0.462	0.474	0.505	0.583	0.526	0.576	0.517	0.548	0.585	0.579	0.535	8.57	9.5505
	38	1,2-Dichloroethane-d4	------	------	------	0.203	0.202	0.246	0.191	0.190	------	------	0.206	11.10	9.6834
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	15.6902
	40	Carbon tetrachloride	0.415	0.420	0.426	0.476	0.463	0.451	0.431	0.431	0.430	0.417	0.436	4.78	9.6578
	41	1,2-Dichloroethane	0.260	0.265	0.284	0.306	0.300	0.302	0.273	0.278	0.282	0.279	0.283	5.47	9.8052
	42	Benzene	1.475	1.398	1.392	1.510	1.498	1.454	1.379	1.377	1.410	1.351	1.424	3.91	9.8752
	43	Trichloroethene	0.367	0.357	0.374	0.431	0.424	0.414	0.399	0.405	0.416	0.405	0.399	6.24	10.7093
	44	Methylcyclohexane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	45	1,2-Dichloropropane	0.377	0.373	0.375	0.423	0.411	0.408	0.384	0.388	0.393	0.389	0.392	4.31	10.9611
	46	Bromodichloromethane	0.363	0.399	0.394	0.438	0.434	0.440	0.407	0.422	0.435	0.425	0.416	5.92	11.3513
	47	Dibromomethane	0.151	0.167	0.171	0.188	0.181	0.186	0.164	0.172	0.179	0.177	0.174	6.37	11.4824
	48	2-Chloroethyl vinyl ether	------	------	0.024	0.031	0.033	0.040	0.037	0.044	0.047	------	0.037	21.88	11.6711
2	49	4-Methyl-2-pentanone	------	------	0.147	0.141	0.154	0.166	0.144	0.157	0.167	0.176	0.157	7.88	11.7183
	50	cis-1,3-Dichloropropene	0.346	0.342	0.374	0.426	0.440	0.452	0.420	0.450	0.468	0.462	0.418	11.34	12.1824
	51	Toluene-d8	------	------	------	1.217	1.339	1.482	1.319	1.307	1.308	------	1.328	6.49	12.6627
	52	Toluene	1.494	1.480	1.456	1.623	1.611	1.550	1.457	1.504	1.481	1.433	1.509	4.33	12.8155
	53	Ethyl methacrylate	------	0.131	0.146	0.181	0.186	0.211	0.190	0.213	0.223	0.230	0.190	17.71	12.8724
	54	trans-1,3-Dichloropropene	0.218	0.226	0.229	0.282	0.286	0.308	0.287	0.307	0.320	0.319	0.278	14.17	13.0344

TO67

2/20/07

2	55	2-Hexanone	------	------	0.087	0.076	0.081	0.089	0.078	0.088	0.096	0.102	0.087	10.26	13.2487
	56	1,1,2-Trichloroethane	0.198	0.191	0.208	0.225	0.221	0.225	0.198	0.210	0.217	0.217	0.211	5.65	13.3755
	57	1,3-Dichloropropane	0.306	0.327	0.346	0.366	0.356	0.370	0.332	0.351	0.364	0.363	0.348	5.91	13.8477
	58	Tetrachloroethene	0.285	0.282	0.285	0.317	0.318	0.307	0.294	0.294	0.292	0.288	0.296	4.43	14.0770
	59	Dibromochloromethane	0.228	0.232	0.245	0.278	0.276	0.291	0.262	0.277	0.291	0.288	0.267	8.97	14.4971
	60	1,2-Dibromoethane	0.174	0.190	0.199	0.220	0.218	0.226	0.205	0.222	0.229	0.232	0.211	9.05	14.9246
	61	1-Chlorohexane	0.456	0.445	0.477	0.577	0.603	0.610	0.608	0.631	0.628	0.618	0.565	13.28	15.0348
	62	Chlorobenzene	0.933	0.901	0.884	0.981	0.981	0.972	0.914	0.938	0.947	0.918	0.937	3.60	15.7751
	63	1,1,1,2-Tetrachloroethane	0.255	0.260	0.280	0.311	0.305	0.307	0.280	0.290	0.290	0.283	0.286	6.59	15.8212
	64	Ethylbenzene	1.553	1.500	1.514	1.719	1.737	1.736	1.657	1.688	1.686	1.564	1.635	5.70	15.8168
2	65	m-Xylene & p-Xylene	1.142	1.136	1.122	1.287	1.303	1.300	1.251	1.273	1.606	------	1.269	11.55	15.9740
	66	o-Xylene	1.126	1.111	1.137	1.305	1.314	1.349	1.269	1.305	1.303	1.286	1.250	7.14	16.9877
	67	Styrene	0.639	0.674	0.721	0.844	0.895	0.944	0.904	0.955	0.965	0.972	0.851	14.93	17.0577
	68	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	22.4694
	69	Isopropylbenzene	5.162	5.148	5.159	6.129	5.635	5.434	5.360	5.284	5.267	4.963	5.354	6.13	17.7801
	70	Bromoform	0.396	0.389	0.441	0.500	0.450	0.446	0.410	0.418	0.422	0.424	0.430	7.41	17.9633
	71	1,1,2,2-Tetrachloroethane	0.867	0.811	0.869	0.956	0.849	0.862	0.765	0.767	0.779	0.793	0.832	7.23	18.1808
	72	4-Bromofluorobenzene	------	------	------	1.344	1.321	1.471	1.318	1.279	------	------	1.347	5.43	18.4356
	73	1,2,3-Trichloropropane	------	0.103	0.135	0.156	0.136	0.136	0.118	0.121	0.124	0.122	0.128	11.66	18.5542
	74	trans-1,4-Dichloro-2-butene	------	------	0.051	0.080	0.082	0.095	0.089	0.096	0.104	0.111	0.088	20.57	18.6557
	75	n-Propylbenzene	5.578	5.440	5.711	6.984	6.759	6.598	6.747	6.661	6.562	------	6.338	9.27	18.7542
	76	Bromobenzene	1.061	1.033	1.038	1.160	1.060	1.026	0.989	0.975	0.985	------	1.036	5.42	18.9876
	77	1,3,5-Trimethylbenzene	3.411	3.417	3.490	4.316	4.074	4.000	4.007	3.966	4.008	3.845	3.853	8.04	19.1315
	78	2-Chlorotoluene	4.226	4.148	4.067	4.347	3.961	3.788	3.730	3.725	3.688	3.560	3.924	6.72	19.2745
	79	4-Chlorotoluene	3.050	3.024	2.950	3.770	3.482	3.373	3.240	3.259	3.218	3.088	3.245	7.60	19.3713
	80	tert-Butylbenzene	3.159	3.086	3.214	3.788	3.604	3.527	3.536	3.474	3.491	3.348	3.423	6.38	20.0386
	81	1,2,4-Trimethylbenzene	2.872	2.895	3.054	3.692	3.663	3.639	3.667	3.700	3.748	3.602	3.453	10.40	20.1503
	82	sec-Butylbenzene	4.196	4.138	4.448	5.593	5.505	5.593	5.750	5.776	5.885	5.409	5.229	13.13	20.5852
	83	p-Isopropyltoluene	2.425	2.414	2.548	3.321	3.445	3.627	3.889	3.936	4.085	3.905	3.359	19.70	20.9204
	84	1,3-Dichlorobenzene	1.891	1.771	1.810	2.089	1.946	1.938	1.939	1.933	1.948	1.908	1.917	4.48	21.2734
	85	1,4-Dichlorobenzene	1.625	1.600	1.598	1.851	1.767	1.803	1.763	1.768	1.823	1.790	1.739	5.45	21.5400
	86	n-Butylbenzene	1.323	1.505	1.703	2.357	2.646	3.071	3.425	3.661	3.804	3.737	2.723	35.30	21.9958
	87	1,2-Dichlorobenzene	1.493	1.448	1.509	1.679	1.580	1.586	1.551	1.552	1.593	1.547	1.554	4.07	22.5439
	88	1,2-Dibromo-3-chloropropane	------	------	0.048	0.066	0.070	0.077	0.074	0.080	0.084	0.087	0.073	16.98	24.6273
	89	1,2,4-Trichlorobenzene	------	0.310	0.335	0.426	0.445	0.522	0.554	0.608	0.633	0.648	0.498	25.25	27.0431
	90	Hexachlorobutadiene	------	0.289	0.287	0.375	0.395	0.425	0.468	0.470	0.468	0.450	0.403	18.17	27.3939
	91	Naphthalene	------	0.450	0.403	0.447	0.456	0.584	0.630	0.738	0.814	0.877	0.600	29.40	27.7928
	92	1,2,3-Trichlorobenzene	------	0.256	0.278	0.330	0.349	0.411	0.410	0.455	0.476	0.490	0.384	22.18	28.4680

Spike Amount = Nominal Amount * M
Ave_%RSD : 10 Max_%RSD : 35.3

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
5	Vinyl chloride	0.00539	0.18328	0.9767*
18	Iodomethane	-0.00990	0.45813	0.9992
19	Methylene chloride	0.00765	0.35632	0.9994
48	2-Chloroethyl vinyl ether	-0.00286	0.04430	0.9958
53	Ethyl methacrylate	-0.00676	0.21966	0.9981
74	trans-1,4-Dichloro-2-butene	-0.00641	0.10395	0.9972
83	p-Isopropyltoluene	-0.08131	3.94991	0.9993
86	n-Butylbenzene	-0.12951	3.66342	0.9975
88	1,2-Dibromo-3-chloropropane	-0.00440	0.08377	0.9986
89	1,2,4-Trichlorobenzene	-0.02812	0.62072	0.9973
90	Hexachlorobutadiene	-0.01361	0.46223	0.9994
91	Naphthalene	-0.04277	0.78649	0.9903*
92	1,2,3-Trichlorobenzene	-0.01907	0.46711	0.9975

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
5	Vinyl chloride	-0.00289	0.28943	-0.02898	0.9993
91	Naphthalene	-0.00613	0.48479	0.08051	0.9997

2/20/17

PROGRAM: ICALMAX

Input: R:\CAL\8260\2007\V067B08\RBC096.ICL Output: R:\CAL\8260\2007\V067B08\RBC096.MAX

IDX	Parameter	x0	x1	x2	CCF2	MaxMinAmtRatio	MaxMinRespRatio	MaxMinRRF	MaxMinConc
5	Vinyl chloride	-0.00289	0.28943	-0.02898	0.9993	4.99362	0.71976	0.14414	49.9
91	Naphthalene	-0.00613	0.48479	0.08051	0.9997	-3.01074	-0.73592	0.24443	-30.1

0192

2/12/08

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B08\RBC103.D Vial: 14
Acq On : 8 Feb 2007 9:20 pm Operator: CGM
Sample : IVO67B081 Inst : TO67
Misc : 20ppb Ket-AA/10ppb 8260/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	117	0.00
2	T	Dichlorodifluoromethane	10.000	10.143	-1.4	102	0.00
3	T	Dichlorotetrafluoroethane	10.000	11.241	-12.4	111	0.00
4	P,T	Chloromethane	10.000	10.267	-2.7	104	0.00
5	C,T	Vinyl chloride	10.000	9.412	5.9	103	0.00
6	T	Bromomethane	10.000	9.998	0.0	113	0.00
7	T	Chloroethane	10.000	10.547	-5.5	106	0.00
8	T	Dichlorofluoromethane	10.000	9.621	3.8	113	0.00
9	T	Trichlorofluoromethane	10.000	10.268	-2.7	104	0.00
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	33	0.05
11	T	Acrolein	20.000	21.293	-6.5	110	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	10.249	-2.5	119	0.00
13	T	Acetone	20.000	18.383	8.1	114	0.00
14	C,TM	1,1-Dichloroethene	10.000	11.811	-18.1	132	0.00
15	T	tert-Butyl alcohol	50.000	49.790	0.4	108	0.00
16	T	Acetonitrile	-1.000	0.000	0.0	1024	0.00
17	T	Methyl acetate	-1.000	0.000	0.0	105	0.00
18	T	Iodomethane	10.000	10.535	-5.4	127	0.00
19	T	Methylene chloride	10.000	10.761	-7.6	118	0.00
20	T	Acrylonitrile	30.000	32.386	-8.0	111	0.00
21	T	Carbon disulfide	10.000	10.890	-8.9	124	0.00
22	T	tert-Butyl methyl ether (MT	10.000	9.914	0.9	107	0.00
23	T	trans-1,2-Dichloroethene	10.000	11.083	-10.8	123	0.00
24	T	Isopropyl ether (DIPE)	10.000	9.892	1.1	110	0.00
25	T	Vinyl acetate	10.000	9.331	6.7	104	0.00
26	P,T	1,1-Dichloroethane	10.000	10.740	-7.4	121	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	9.611	3.9	105	0.00
28	T	2-Butanone	20.000	18.798	6.0	106	0.00
29	T	2,2-Dichloropropane	10.000	9.740	2.6	109	0.00
30	T	cis-1,2-Dichloroethene	10.000	10.765	-7.7	128	0.00
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	123	0.00
32	C,T	Chloroform	10.000	10.232	-2.3	114	0.00
33	T	Bromochloromethane	10.000	10.435	-4.4	116	0.00
34	T	1,1,1-Trichloroethane	10.000	10.233	-2.3	114	0.00
35	T	Cyclohexane	-1.000	0.000	0.0	86	-0.02
36	T	1,1-Dichloropropene	10.000	10.366	-3.7	115	0.00
37	T	tert-Amyl methyl ether (TAM	10.000	10.066	-0.7	110	0.00
38	S	1,2-Dichloroethane-d4	10.000	9.132	8.7	90	0.00
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	115	0.00
40	T	Carbon tetrachloride	10.000	10.671	-6.7	118	0.00

(#) = Out of Range

ar 2/20/17

2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B08\RBC103.D Vial: 14
Acq On : 8 Feb 2007 9:20 pm Operator: CGM
Sample : IVO67B081 Inst : TO67
Misc : 20ppb Ket-AA/10ppb 8260/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	10.430	-4.3	112	0.00
42	M,T	Benzene	10.000	11.168	-11.7	126	0.00
43	M,T	Trichloroethene	10.000	10.683	-6.8	118	0.00
44	T	Methylcyclohexane	-1.000	0.000	0.0	118	0.13
45	C,T	1,2-Dichloropropane	10.000	10.284	-2.8	113	0.00
46	T	Bromodichloromethane	10.000	10.411	-4.1	113	0.00
47	T	Dibromomethane	10.000	10.316	-3.2	110	0.00
48	T	2-Chloroethyl vinyl ether	10.000	8.403	16.0	98	0.00
49	T	4-Methyl-2-pentanone	20.000	20.190	-1.0	109	0.00
50	T	cis-1,3-Dichloropropene	10.000	11.302	-13.0	120	0.00
51	S	Toluene-d8	10.000	9.958	0.4	102	0.00
52	C,TM	Toluene	10.000	10.444	-4.4	117	0.00
53	T	Ethyl methacrylate	10.000	9.715	2.9	112	0.00
54	T	trans-1,3-Dichloropropene	10.000	11.324	-13.2	117	0.00
55	T	2-Hexanone	20.000	19.380	3.1	109	0.00
56	T	1,1,2-Trichloroethane	10.000	10.081	-0.8	109	0.00
57	T	1,3-Dichloropropane	10.000	10.295	-2.9	111	-0.02
58	T	Tetrachloroethene	10.000	10.657	-6.6	118	0.00
59	T	Dibromochloromethane	10.000	10.298	-3.0	108	0.00
60	T	1,2-Dibromoethane	10.000	10.553	-5.5	113	0.00
61	T	1-Chlorohexane	10.000	10.439	-4.4	111	0.00
62	P,M	Chlorobenzene	10.000	10.363	-3.6	115	0.00
63	T	1,1,1,2-Tetrachloroethane	10.000	10.443	-4.4	112	0.00
64	C,T	Ethylbenzene	10.000	10.510	-5.1	114	0.00
65	T	m-Xylene & p-Xylene	20.000	20.249	-1.2	113	0.00
66	T	o-Xylene	10.000	10.123	-1.2	108	0.00
67	T	Styrene	10.000	10.871	-8.7	112	0.00
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	112	0.00
69	T	Isopropylbenzene	10.000	9.953	0.5	110	-0.02
70	P,T	Bromoform	10.000	10.142	-1.4	109	0.00
71	P,T	1,1,2,2-Tetrachloroethane	10.000	9.805	2.0	106	-0.02
72	S	4-Bromofluorobenzene	10.000	9.795	2.1	100	-0.02
73	T	1,2,3-Trichloropropane	10.000	10.113	-1.1	107	-0.02
74	T	trans-1,4-Dichloro-2-butene	10.000	9.731	2.7	111	-0.02
75	T	n-Propylbenzene	10.000	10.118	-1.2	109	0.00
76	T	Bromobenzene	10.000	9.829	1.7	111	-0.02
77	T	1,3,5-Trimethylbenzene	10.000	10.447	-4.5	113	0.00
78	T	2-Chlorotoluene	10.000	9.625	3.8	112	0.00
79	T	4-Chlorotoluene	10.000	10.070	-0.7	108	0.00
80	T	tert-Butylbenzene	10.000	10.210	-2.1	111	0.00

(#) = Out of Range

2/28/07

2016

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B08\RBC103.D Vial: 14
Acq On : 8 Feb 2007 9:20 pm Operator: CGM
Sample : IVO67B081 Inst : TO67
Misc : 20ppb Ket-AA/10ppb 8260/50ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	10.535	-5.4	112	0.00
82	T	sec-Butylbenzene	10.000	10.662	-6.6	112	0.00
83	T	p-Isopropyltoluene	10.000	9.486	5.1	113	0.00
84	T	1,3-Dichlorobenzene	10.000	9.947	0.5	110	0.00
85	T	1,4-Dichlorobenzene	10.000	10.181	-1.8	110	0.00
86	T	n-Butylbenzene	10.000	8.527	14.7	109	-0.02
87	T	1,2-Dichlorobenzene	10.000	9.953	0.5	109	0.00
88	T	1,2-Dibromo-3-chloropropane	10.000	9.263	7.4	106	0.00
89	T	1,2,4-Trichlorobenzene	10.000	8.389	16.1	106	0.00
90	T	Hexachlorobutadiene	10.000	9.052	9.5	107	0.00
91	T	Naphthalene	10.000	9.784	2.2	105	0.00
92	T	1,2,3-Trichlorobenzene	10.000	8.489	15.1	103	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/20/17
2017

DAILY CALIBRATION

2018

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RDC320
Instrument ID: T-067
GC Column:RTX502.2ID:0.32mm (mm)

Contract: LMC BEAUMONT SITE 1
SAS No.: SDG No.: 07D134
BFB Injection Date : 04/16/07
BFB Injection Time : 23:40
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.63
75	30.0 - 60.0% of mass 95	42.17
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	66.56
175	5.0 - 9.0% of mass 174	4.98(7.5)1
176	95.0 - 101.0% of mass 174	63.62(95.6)1
177	5.0 - 9.0% of mass 176	3.88(6.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV067B08179	RDC321	04/17/07	00:17
2	MBLK1W	V067D28Q	RDC326	04/17/07	03:22
3	LCS1W	V067D28L	RDC323	04/17/07	01:31
4	LCD1W	V067D28C	RDC324	04/17/07	02:08
5	LTB-041007	D134-08	RDC327	04/17/07	03:59
6	LEB-041007	D134-04	RDC332	04/17/07	07:04

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBC096
Instrument ID: T-067
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07D134
Date Analyzed: 02/08/07
Time Analyzed: 17:00
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2895527	10.15	2436195	15.69	753049	22.46
	UPPER LIMIT	5791054	10.65	4872390	16.19	1506098	22.96
	LOWER LIMIT	1447764	9.65	1218098	15.19	376525	21.96
	SAMPLE ID						
1	VSTD010	2805577	10.13	2383964	15.68	711326	22.46
2	MBLK1W	3271554	10.13	2527738	15.68	585091	22.46
3	LCS1W	2768398	10.13	2296405	15.69	662400	22.46
4	LCD1W	3100147	10.13	2576516	15.69	732999	22.46
5	LTB-041007	3014466	10.14	2302340	15.68	548454	22.46
6	LEB-041007	2803982	10.13	2109054	15.67	479344	22.45

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDC321.D Vial: 3
Acq On : 17 Apr 2007 12:17 am Operator: CGM
Sample : CVO67B08179 Inst : TO67
Misc : 10ppb Ket-AA/5ppb 8260/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	97	-0.02
2	T	Dichlorodifluoromethane	10.000	11.070	-10.7	92	0.00
3	T	Dichlorotetrafluoroethane	10.000	0.000	NT 100.0#	0	-3.73#
4	P,T	Chloromethane	10.000	9.318	6.8	78	0.01
5	C,T	Vinyl chloride	10.000	9.677	3.2	87	0.01
6	T	Bromomethane	10.000	8.469	15.3	79	0.00
7	T	Chloroethane	10.000	10.576	-5.8	88	0.00
8	T	Dichlorofluoromethane	10.000	10.300	-3.0	100	0.00
9	T	Trichlorofluoromethane	10.000	12.069	-20.7#	101	0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	17	0.09
11	T	Acrolein	20.000	16.187	19.1	69	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.731	2.7	93	0.00
13	T	Acetone	20.000	19.545	2.3	100	0.01
14	C,TM	1,1-Dichloroethene	10.000	10.153	-1.5	94	0.00
15	T	tert-Butyl alcohol	50.000	44.934	10.1	81	0.01
16	T	Acetonitrile	-1.000	0.000	0.0	249	0.00
17	T	Methyl acetate	-1.000	0.000	0.0	159	0.01
18	T	Iodomethane	10.000	7.831	21.7#	78	0.00
19	T	Methylene chloride	10.000	10.250	-2.5	93	0.00
20	T	Acrylonitrile	30.000	34.108	-13.7	96	0.00
21	T	Carbon disulfide	10.000	8.404	16.0	79	0.01
22	T	tert-Butyl methyl ether (MT	10.000	9.670	3.3	86	0.00
23	T	trans-1,2-Dichloroethene	10.000	10.015	-0.2	92	0.00
24	T	Isopropyl ether (DIPE)	10.000	10.154	-1.5	93	0.00
25	T	Vinyl acetate	10.000	9.454	5.5	87	0.00
26	P,T	1,1-Dichloroethane	10.000	9.816	1.8	92	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	9.406	5.9	85	0.00
28	T	2-Butanone	20.000	18.964	5.2	88	0.00
29	T	2,2-Dichloropropane	10.000	8.975	10.3	83	0.00
30	T	cis-1,2-Dichloroethene	10.000	9.984	0.2	98	0.00
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	104	0.00
32	C,T	Chloroform	10.000	10.848	-8.5	100	0.01
33	T	Bromochloromethane	10.000	10.690	-6.9	98	0.00
34	T	1,1,1-Trichloroethane	10.000	10.143	-1.4	93	-0.02
35	T	Cyclohexane	-1.000	0.000	0.0	60	-0.02
36	T	1,1-Dichloropropene	10.000	9.907	0.9	91	-0.02
37	T	tert-Amyl methyl ether (TAM	10.000	8.995	10.1	81	0.00
38	S	1,2-Dichloroethane-d4	10.000	11.598	-16.0	94	-0.02
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	98	0.00
40	T	Carbon tetrachloride	10.000	9.950	0.5	94	0.00

(#) = Out of Range

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDC321.D
Acq On : 17 Apr 2007 12:17 am
Sample : CV067B08179
Misc : 10ppb Ket-AA/5ppb 8260/25ppb TBA
MS Integration Params: LSCINT.P

Vial: 3
Operator: CGM
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	11.699	-17.0	107	0.00
42	M,T	Benzene	10.000	9.723	2.8	93	0.00
43	M,T	Trichloroethene	10.000	9.808	1.9	93	0.00
44	T	Methylcyclohexane	-1.000	0.000	0.0	91	-0.02
45	C,T	1,2-Dichloropropane	10.000	10.076	-0.8	95	-0.02
46	T	Bromodichloromethane	10.000	11.164	-11.6	103	0.00
47	T	Dibromomethane	10.000	10.752	-7.5	98	-0.02
48	T	2-Chloroethyl vinyl ether	10.000	4.488	55.1#	41	0.00
49	T	4-Methyl-2-pentanone	20.000	17.231	13.8	79	0.00
50	T	cis-1,3-Dichloropropene	10.000	9.892	1.1	89	-0.02
51	S	Toluene-d8	10.000	9.827	1.7	86	0.00
52	C,TM	Toluene	10.000	9.924	0.8	95	0.00
53	T	Ethyl methacrylate	10.000	9.131	8.7	90	0.00
54	T	trans-1,3-Dichloropropene	10.000	10.521	-5.2	93	0.00
55	T	2-Hexanone	20.000	15.432	22.8#	74	0.00
56	T	1,1,2-Trichloroethane	10.000	10.990	-9.9	101	-0.02
57	T	1,3-Dichloropropane	10.000	10.703	-7.0	98	-0.02
58	T	Tetrachloroethene	10.000	9.543	4.6	90	0.00
59	T	Dibromochloromethane	10.000	10.942	-9.4	98	0.00
60	T	1,2-Dibromoethane	10.000	10.410	-4.1	95	-0.02
61	T	1-Chlorohexane	10.000	9.441	5.6	86	0.00
62	P,M	Chlorobenzene	10.000	10.038	-0.4	95	0.00
63	T	1,1,1,2-Tetrachloroethane	10.000	10.560	-5.6	96	0.00
64	C,T	Ethylbenzene	10.000	10.078	-0.8	93	-0.02
65	T	m-Xylene & p-Xylene	20.000	19.073	4.6	91	0.00
66	T	o-Xylene	10.000	9.809	1.9	89	0.00
67	T	Styrene	10.000	10.112	-1.1	89	0.00
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	94	0.00
69	T	Isopropylbenzene	10.000	9.483	5.2	88	-0.02
70	P,T	Bromoform	10.000	10.763	-7.6	98	-0.02
71	P,T	1,1,2,2-Tetrachloroethane	10.000	10.853	-8.5	99	-0.02
72	S	4-Bromofluorobenzene	10.000	10.298	-3.0	89	-0.02
73	T	1,2,3-Trichloropropane	10.000	10.903	-9.0	97	-0.02
74	T	trans-1,4-Dichloro-2-butene	10.000	9.255	7.4	89	-0.02
75	T	n-Propylbenzene	10.000	9.600	4.0	87	-0.02
76	T	Bromobenzene	10.000	9.555	4.5	91	-0.02
77	T	1,3,5-Trimethylbenzene	10.000	9.685	3.1	88	0.00
78	T	2-Chlorotoluene	10.000	9.714	2.9	95	-0.02
79	T	4-Chlorotoluene	10.000	9.210	7.9	84	0.00
80	T	tert-Butylbenzene	10.000	9.353	6.5	86	0.00

(#) = Out of Range

2022

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDC321.D Vial: 3
Acq On : 17 Apr 2007 12:17 am Operator: CGM
Sample : CVO67B08179 Inst : TO67
Misc : 10ppb Ket-AA/5ppb 8260/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	9.643	3.6	86	-0.02
82	T	sec-Butylbenzene	10.000	9.559	4.4	84	-0.02
83	T	p-Isopropyltoluene	10.000	8.110	18.9	81	0.00
84	T	1,3-Dichlorobenzene	10.000	9.398	6.0	88	0.00
85	T	1,4-Dichlorobenzene	10.000	9.410	5.9	86	-0.02
86	T	n-Butylbenzene	10.000	6.547	34.5#	70	-0.02
87	T	1,2-Dichlorobenzene	10.000	9.634	3.7	89	0.00
88	T	1,2-Dibromo-3-chloropropane	10.000	9.060	9.4	88	0.00
89	T	1,2,4-Trichlorobenzene	10.000	6.961	30.4#	73	0.00
90	T	Hexachlorobutadiene	10.000	8.179	18.2	81	-0.02
91	T	Naphthalene	10.000	7.835	21.6#	68	-0.02
92	T	1,2,3-Trichlorobenzene	10.000	7.497	25.0#	76	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDC321.D Vial: 3
Acq On : 17 Apr 2007 12:17 am Operator: CGM
Sample : CVO67B08179 Inst : TO67
Misc : 10ppb Ket-AA/5ppb 8260/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	97	-0.02
2	T	Dichlorodifluoromethane	0.223	0.247	-10.8	92	0.00
3	T	Dichlorotetrafluoroethane	0.321	0.000	100.0#	0#	-3.73#
4	P,T	Chloromethane	0.258	0.240	7.0	78	0.01
5	C,T	Vinyl chloride	0.222	0.250	-12.6	87	0.01
6	T	Bromomethane	0.222	0.188	15.3	79	0.00
7	T	Chloroethane	0.129	0.137	-6.2	88	0.00
8	T	Dichlorofluoromethane	0.478	0.493	-3.1	100	0.00
9	T	Trichlorofluoromethane	0.314	0.379	-20.7#	101	0.01
10	T	sec-Propyl alcohol	0.000	0.000	0.0	17#	0.09
11	T	Acrolein	0.015	0.012	20.0	69	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	0.208	0.202	2.9	93	0.00
13	T	Acetone	0.030	0.030	0.0	100	0.01
14	C,TM	1,1-Dichloroethene	0.390	0.396	-1.5	94	0.00
15	T	tert-Butyl alcohol	0.010	0.009	10.0	81	0.01
16	T	Acetonitrile	0.000	0.000	0.0	249#	0.00
17	T	Methyl acetate	0.000	0.000	0.0	159#	0.01
18	T	Iodomethane	0.386	0.349	9.6	78	0.00
19	T	Methylene chloride	0.412	0.373	9.5	93	0.00
20	T	Acrylonitrile	0.035	0.040	-14.3	96	0.00
21	T	Carbon disulfide	1.147	0.964	16.0	79	0.01
22	T	tert-Butyl methyl ether (MT	0.372	0.360	3.2	86	0.00
23	T	trans-1,2-Dichloroethene	0.424	0.425	-0.2	92	0.00
24	T	Isopropyl ether (DIPE)	0.888	0.902	-1.6	93	0.00
25	T	Vinyl acetate	0.296	0.280	5.4	87	0.00
26	P,T	1,1-Dichloroethane	0.547	0.537	1.8	92	0.00
27	T	tert-Butyl ethyl ether (ETB	0.604	0.568	6.0	85	0.00
28	T	2-Butanone	0.049	0.047	4.1	88	0.00
29	T	2,2-Dichloropropane	0.386	0.346	10.4	83	0.00
30	T	cis-1,2-Dichloroethene	0.463	0.463	0.0	98	0.00
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	104	0.00
32	C,T	Chloroform	0.520	0.564	-8.5	100	0.01
33	T	Bromochloromethane	0.228	0.243	-6.6	98	0.00
34	T	1,1,1-Trichloroethane	0.418	0.424	-1.4	93	-0.02
35	T	Cyclohexane	0.000	0.000	0.0	60	-0.02
36	T	1,1-Dichloropropene	0.142	0.140	1.4	91	-0.02
37	T	tert-Amyl methyl ether (TAM	0.535	0.482	9.9	81	0.00
38	S	1,2-Dichloroethane-d4	0.206	0.239	-16.0	94	-0.02
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	98	0.00
40	T	Carbon tetrachloride	0.436	0.434	0.5	94	0.00

(#) = Out of Range

2024

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDC321.D Vial: 3
Acq On : 17 Apr 2007 12:17 am Operator: CGM
Sample : CVO67B08179 Inst : TO67
Misc : 10ppb Ket-AA/5ppb 8260/25ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.283	0.331	-17.0	107	0.00
42	M,T	Benzene	1.424	1.385	2.7	93	0.00
43	M,T	Trichloroethene	0.399	0.391	2.0	93	0.00
44	T	Methylcyclohexane	0.000	0.000	0.0	91	-0.02
45	C,T	1,2-Dichloropropane	0.392	0.395	-0.8	95	-0.02
46	T	Bromodichloromethane	0.416	0.464	-11.5	103	0.00
47	T	Dibromomethane	0.174	0.187	-7.5	98	-0.02
48	T	2-Chloroethyl vinyl ether	0.037	0.017	54.1#	41#	0.00
49	T	4-Methyl-2-pentanone	0.157	0.135	14.0	79	0.00
50	T	cis-1,3-Dichloropropene	0.418	0.413	1.2	89	-0.02
51	S	Toluene-d8	1.328	1.305	1.7	86	0.00
52	C,TM	Toluene	1.509	1.497	0.8	95	0.00
53	T	Ethyl methacrylate	0.190	0.194	-2.1	90	0.00
54	T	trans-1,3-Dichloropropene	0.278	0.293	-5.4	93	0.00
55	T	2-Hexanone	0.087	0.067	23.0#	74	0.00
56	T	1,1,2-Trichloroethane	0.211	0.232	-10.0	101	-0.02
57	T	1,3-Dichloropropane	0.348	0.373	-7.2	98	-0.02
58	T	Tetrachloroethene	0.296	0.283	4.4	90	0.00
59	T	Dibromochloromethane	0.267	0.292	-9.4	98	0.00
60	T	1,2-Dibromoethane	0.211	0.220	-4.3	95	-0.02
61	T	1-Chlorohexane	0.565	0.534	5.5	86	0.00
62	P,M	Chlorobenzene	0.937	0.941	-0.4	95	0.00
63	T	1,1,1,2-Tetrachloroethane	0.286	0.302	-5.6	96	0.00
64	C,T	Ethylbenzene	1.635	1.648	-0.8	93	-0.02
65	T	m-Xylene & p-Xylene	1.269	1.210	4.6	91	0.00
66	T	o-Xylene	1.250	1.226	1.9	89	0.00
67	T	Styrene	0.851	0.861	-1.2	89	0.00
68	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	94	0.00
69	T	Isopropylbenzene	5.354	5.077	5.2	88	-0.02
70	P,T	Bromoform	0.430	0.462	-7.4	98	-0.02
71	P,T	1,1,2,2-Tetrachloroethane	0.832	0.903	-8.5	99	-0.02
72	S	4-Bromofluorobenzene	1.347	1.387	-3.0	89	-0.02
73	T	1,2,3-Trichloropropane	0.128	0.139	-8.6	97	-0.02
74	T	trans-1,4-Dichloro-2-butene	0.088	0.090	-2.3	89	-0.02
75	T	n-Propylbenzene	6.338	6.084	4.0	87	-0.02
76	T	Bromobenzene	1.036	0.990	4.4	91	-0.02
77	T	1,3,5-Trimethylbenzene	3.853	3.732	3.1	88	0.00
78	T	2-Chlorotoluene	3.924	3.812	2.9	95	-0.02
79	T	4-Chlorotoluene	3.245	2.989	7.9	84	0.00
80	T	tert-Butylbenzene	3.423	3.201	6.5	86	0.00

(#) = Out of Range

2025

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDC321.D
Acq On : 17 Apr 2007 12:17 am
Sample : CVO67B08179
Misc : 10ppb Ket-AA/5ppb 8260/25ppb TBA
MS Integration Params: LSCINT.P

Vial: 3
Operator: CGM
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67B08.M (RTE Integrator)
Title : METHOD 8260 25ml
Last Update : Mon Feb 19 12:02:20 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	3.453	3.330	3.6	86	-0.02
82	T	sec-Butylbenzene	5.229	4.999	4.4	84	-0.02
83	T	p-Isopropyltoluene	3.359	3.122	7.1	81	0.00
84	T	1,3-Dichlorobenzene	1.917	1.802	6.0	88	0.00
85	T	1,4-Dichlorobenzene	1.739	1.636	5.9	86	-0.02
86	T	n-Butylbenzene	2.723	2.269	16.7	70	-0.02
87	T	1,2-Dichlorobenzene	1.554	1.497	3.7	89	0.00
88	T	1,2-Dibromo-3-chloropropane	0.073	0.071	2.7	88	0.00
89	T	1,2,4-Trichlorobenzene	0.498	0.404	18.9	73	0.00
90	T	Hexachlorobutadiene	0.403	0.364	9.7	81	-0.02
91	T	Naphthalene	0.600	0.423	29.5#	68	-0.02
92	T	1,2,3-Trichlorobenzene	0.384	0.331	13.8	76	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: ☐ 5-ml Purge ☑ 25-ml Purge

Book # A67 -028

BATCH CV067B08179

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RDC319	BFBG7D27	2µL				
02	320	↓ 28 ✓	↓		•		23:40
03	321	CV067B08179 ✓	2/5/1µL				
04	322	↓ 180					
05	323	V067D27L - CGM 4/23/07		1.0			
06	324	C					
07	325	B	25mL				
08	326	↓ Q ✓					
09	327	07D134-08 ✓			<2		
10	328	07D137-03 ✓			↓		10X
11	329	07D142-06 ✓			7		1X
12	330	↓ -07 ✓	↓	↓	↓		
13	331	Rinse					
14	332	07D134-04 ✓	25mL	1.0	22		
15	333	07D137-01 ✓					
16	334	↓ -02					
17	335	-04					
18	336	-05					
19	337	-06					
20	338	-03M					
21	339	↓ -03S	↓	↓	↓		
22							
23							
24							
25							CGM 4/16/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/8/07
ICAL ID	V067B08

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SVIC-11-58-3	250
DCC	-69-2	50/250
DCC	-69-1	250
BFB	-58-1	50
IS/SURR.	-70-3	250
LCS	-59-2	250
LCS	-63-2	50-1000
LCS	-69-3	250

SOLVENT	ID
METHANOL	
DATA FILE	07D16

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 4/17/07

Disposed By: CGM

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 2/8/07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # A67 -027**

BATCH V067B086

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RBC090	BFBC7B07 ✓	2µL				Ket/AA 8260 FBA
02	091	V067B081 ✓	.05/.15/.05µL			•	0.6 0.3 1.5 ppb
03	092	2 ✓	.1/.25/.05µL				1 0.5 2.5
04	093	3 ✓	.2/.5/.1µL				2 1 5
05	094	4 ✓	.4/1/.2µL				4 2 10
06	095	5 ✓	1/2.5/.5µL				10 5 25
07	096	6 ✓	2/5/1µL				20 10 50
08	097	7 ✓	4/10/2µL				40 20 100
09	098	8 ✓	6/15/3µL				60 30 150
10	099	9 ✓	8/20/4µL				80 40 200
11	100	10 ✓	10/25/5µL				100 50 250
12	101	15/55 check					
13	102	V067B07B					
14	103	V067B081 ✓	2/5/1µL				20 10 50
15	104	2	2/5/1µL				20 10 50
16	105	Rinse					
17	106	Rinse					
18							
19							
20							
21							
22							
23							
24							
25							CGM 2/8/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/8/07
ICAL ID	V067B08

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SV1C-11-63-1	250
DCC 8260	SV1C-11-60-1	50/250
DCC Gases Freon 114	SV1C-11-60-3 SV1C-11-64-1	250 250
BFB	SV1C-11-49-3	50
IS/SURR.	SV1C-11-62-2	250
LCS Ket/AA	SV1C-11-59-3	250
LCS 8260	SV1C-11-63-2	50-1000
LCS Gases Freon 114	SV1C-11-61-3 SV1C-11-64-2	250 250
SOLVENT 1S	SV1C.11.62.1 ID	250
METHANOL SS	SV1C.11.62.3	250
DATA FILE	07B08	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Freon 114 - Dichlorotetrafluoroethane

Analyzed By: CGM

Date Disposed: 2/9/07

Disposed By: CGM

2629

2629

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 07D134

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Ten (10) soil samples were received on 04/11/07 for Volatile Organic analysis by Method 5035/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D134
Instrument ID : T-003

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V003D17B	1	NA	04/17/0701:18	04/17/0701:18	RDB204	RCB260	V003D17	Method Blank
LCS1S	V003D17L	1	NA	04/17/0700:03	04/17/0700:03	RDB202	RCB260	V003D17	Lab Control Sample (LCS)
LCD1S	V003D17C	1	NA	04/17/0700:41	04/17/0700:41	RDB203	RCB260	V003D17	LCS Duplicate
A6-HAS1@0.5	D134-01	1.0	4.9	04/17/0703:48	04/17/0703:48	RDB208	RCB260	V003D17	Field Sample
A6-HAS1@5	D134-02	.78	10.2	04/17/0704:25	04/17/0704:25	RDB209	RCB260	V003D17	Field Sample
A6-HAS101@0.5	D134-03	1.0	12.8	04/17/0705:02	04/17/0705:02	RDB210	RCB260	V003D17	Field Sample
D26-HAS-16-0.5	D134-05	.91	3.4	04/17/0705:40	04/17/0705:40	RDB211	RCB260	V003D17	Field Sample
D26-HAS-16-5	D134-06	1.2	0.7	04/17/0706:17	04/17/0706:17	RDB212	RCB260	V003D17	Field Sample
D26-HAS-116-0.5	D134-07	.91	3.4	04/17/0706:54	04/17/0706:54	RDB213	RCB260	V003D17	Field Sample
D26-HAS-15-5	D134-10	1.1	1.0	04/17/0708:09	04/17/0708:09	RDB215	RCB260	V003D17	Field Sample
D26-HAS-14-0.5	D134-11	.91	2.8	04/17/0708:46	04/17/0708:46	RDB216	RCB260	V003D17	Field Sample
D26-HAS-14-5	D134-12	1.0	1.4	04/17/0709:24	04/17/0709:24	RDB217	RCB260	V003D17	Field Sample
MBLK2S	V003D22B	1	NA	04/20/0717:53	04/20/0717:53	RDB275	RCB260	V003D22	Method Blank
LCS2S	V003D22L	1	NA	04/20/0716:38	04/20/0716:38	RDB273	RCB260	V003D22	Lab Control Sample (LCS)
LCD2S	V003D22C	1	NA	04/20/0717:16	04/20/0717:16	RDB274	RCB260	V003D22	LCS Duplicate
D26-HAS-15-0.5	D134-09R	.96	2.1	04/20/0719:08	04/20/0719:08	RDB277	RCB260	V003D22	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 03:48
Sample ID: A6-HAS1@0.5	Date Analyzed: 04/17/07 03:48
Lab Samp ID: D134-01	Dilution Factor: 1.0
Lab File ID: RDB208	Matrix : SOIL
Ext Btch ID: VO03D17	% Moisture : 4.9
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.3	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.3	2.1
1,1,2-TRICHLOROETHANE	ND	5.3	2.1
1,1-DICHLOROETHANE	ND	5.3	2.1
1,1-DICHLOROETHENE	ND	5.3	2.1
1,2-DICHLOROETHANE	ND	5.3	2.1
1,2-DICHLOROPROPANE	ND	5.3	2.1
2-BUTANONE	ND	11	5.3
2-HEXANONE	ND	11	5.3
4-METHYL-2-PENTANONE	ND	11	5.3
ACETONE	ND	11	5.3
BENZENE	ND	5.3	2.1
BROMODICHLOROMETHANE	ND	5.3	2.1
BROMOFORM	ND	5.3	2.1
BROMOMETHANE	ND	11	2.1
CARBON DISULFIDE	ND	5.3	2.1
CARBON TETRACHLORIDE	ND	5.3	2.1
CHLOROBENZENE	ND	5.3	2.1
CHLOROETHANE	ND	5.3	2.1
CHLOROFORM	ND	5.3	2.1
CHLOROMETHANE	ND	11	2.1
CIS-1,2-DICHLOROETHENE	ND	5.3	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.3	2.1
DIBROMOCHLOROMETHANE	ND	5.3	2.1
ETHYLBENZENE	ND	5.3	2.1
M/P-XYLENES	ND	11	2.1
MTBE	ND	5.3	2.1
METHYLENE CHLORIDE	ND	11	2.1
O-XYLENE	ND	5.3	2.1
STYRENE	ND	5.3	2.1
TETRACHLOROETHENE	ND	5.3	2.1
TOLUENE	ND	5.3	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.3	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.3	2.1
TRICHLOROETHENE	ND	5.3	2.1
VINYL CHLORIDE	ND	5.3	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	115	60-160
4-BROMOFLUOROBENZENE	105	70-150
TOLUENE-D8	104	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 04:25
Sample ID: A6-HAS1@5	Date Analyzed: 04/17/07 04:25
Lab Samp ID: D134-02	Dilution Factor: .78
Lab File ID: RDB209	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : 10.2
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.3	1.7
1,1,2,2-TETRACHLOROETHANE	ND	4.3	1.7
1,1,2-TRICHLOROETHANE	ND	4.3	1.7
1,1-DICHLOROETHANE	ND	4.3	1.7
1,1-DICHLOROETHENE	ND	4.3	1.7
1,2-DICHLOROETHANE	ND	4.3	1.7
1,2-DICHLOROPROPANE	ND	4.3	1.7
2-BUTANONE	ND	8.7	4.3
2-HEXANONE	ND	8.7	4.3
4-METHYL-2-PENTANONE	ND	8.7	4.3
ACETONE	ND	8.7	4.3
BENZENE	ND	4.3	1.7
BROMODICHLOROMETHANE	ND	4.3	1.7
BROMOFORM	ND	4.3	1.7
BROMOMETHANE	ND	8.7	1.7
CARBON DISULFIDE	ND	4.3	1.7
CARBON TETRACHLORIDE	ND	4.3	1.7
CHLOROBENZENE	ND	4.3	1.7
CHLOROETHANE	ND	4.3	1.7
CHLOROFORM	ND	4.3	1.7
CHLOROMETHANE	ND	8.7	1.7
CIS-1,2-DICHLOROETHENE	ND	4.3	1.7
CIS-1,3-DICHLOROPROPENE	ND	4.3	1.7
DIBROMOCHLOROMETHANE	ND	4.3	1.7
ETHYLBENZENE	ND	4.3	1.7
M/P-XYLENES	ND	8.7	1.7
MTBE	ND	4.3	1.7
METHYLENE CHLORIDE	ND	8.7	1.7
O-XYLENE	ND	4.3	1.7
STYRENE	ND	4.3	1.7
TETRACHLOROETHENE	ND	4.3	1.7
TOLUENE	ND	4.3	1.7
TRANS-1,2-DICHLOROETHENE	ND	4.3	1.7
TRANS-1,3-DICHLOROPROPENE	ND	4.3	1.7
TRICHLOROETHENE	ND	4.3	1.7
VINYL CHLORIDE	ND	4.3	1.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	119	60-160
4-BROMOFLUOROBENZENE	104	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 05:02
Sample ID: A6-HAS101@0.5	Date Analyzed: 04/17/07 05:02
Lab Samp ID: D134-03	Dilution Factor: 1.0
Lab File ID: RDB210	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : 12.8
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.7	2.3
1,1,2,2-TETRACHLOROETHANE	ND	5.7	2.3
1,1,2-TRICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHENE	ND	5.7	2.3
1,2-DICHLOROETHANE	ND	5.7	2.3
1,2-DICHLOROPROPANE	ND	5.7	2.3
2-BUTANONE	ND	11	5.7
2-HEXANONE	ND	11	5.7
4-METHYL-2-PENTANONE	ND	11	5.7
ACETONE	ND	11	5.7
BENZENE	ND	5.7	2.3
BROMODICHLOROMETHANE	ND	5.7	2.3
BROMOFORM	ND	5.7	2.3
BROMOMETHANE	ND	11	2.3
CARBON DISULFIDE	ND	5.7	2.3
CARBON TETRACHLORIDE	ND	5.7	2.3
CHLOROBENZENE	ND	5.7	2.3
CHLOROETHANE	ND	5.7	2.3
CHLOROFORM	ND	5.7	2.3
CHLOROMETHANE	ND	11	2.3
CIS-1,2-DICHLOROETHENE	ND	5.7	2.3
CIS-1,3-DICHLOROPROPENE	ND	5.7	2.3
DIBROMOCHLOROMETHANE	ND	5.7	2.3
ETHYLBENZENE	ND	5.7	2.3
M/P-XYLENES	ND	11	2.3
MTBE	ND	5.7	2.3
METHYLENE CHLORIDE	ND	11	2.3
O-XYLENE	ND	5.7	2.3
STYRENE	ND	5.7	2.3
TETRACHLOROETHENE	ND	5.7	2.3
TOLUENE	ND	5.7	2.3
TRANS-1,2-DICHLOROETHENE	ND	5.7	2.3
TRANS-1,3-DICHLOROPROPENE	ND	5.7	2.3
TRICHLOROETHENE	ND	5.7	2.3
VINYL CHLORIDE	ND	5.7	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	124	60-160
4-BROMOFLUOROBENZENE	97	70-150
TOLUENE-D8	99	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 05:40
Sample ID: D26-HAS-16-0.5	Date Analyzed: 04/17/07 05:40
Lab Samp ID: D134-05	Dilution Factor: .91
Lab File ID: RDB211	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : 3.4
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.7	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.7	1.9
1,1,2-TRICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHENE	ND	4.7	1.9
1,2-DICHLOROETHANE	ND	4.7	1.9
1,2-DICHLOROPROPANE	ND	4.7	1.9
2-BUTANONE	ND	9.4	4.7
2-HEXANONE	ND	9.4	4.7
4-METHYL-2-PENTANONE	ND	9.4	4.7
ACETONE	ND	9.4	4.7
BENZENE	ND	4.7	1.9
BROMODICHLOROMETHANE	ND	4.7	1.9
BROMOFORM	ND	4.7	1.9
BROMOMETHANE	ND	9.4	1.9
CARBON DISULFIDE	ND	4.7	1.9
CARBON TETRACHLORIDE	ND	4.7	1.9
CHLOROBENZENE	ND	4.7	1.9
CHLOROETHANE	ND	4.7	1.9
CHLOROFORM	ND	4.7	1.9
CHLOROMETHANE	ND	9.4	1.9
CIS-1,2-DICHLOROETHENE	ND	4.7	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.7	1.9
DIBROMOCHLOROMETHANE	ND	4.7	1.9
ETHYLBENZENE	ND	4.7	1.9
M/P-XYLENES	ND	9.4	1.9
MTBE	ND	4.7	1.9
METHYLENE CHLORIDE	ND	9.4	1.9
O-XYLENE	ND	4.7	1.9
STYRENE	ND	4.7	1.9
TETRACHLOROETHENE	ND	4.7	1.9
TOLUENE	ND	4.7	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.7	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.7	1.9
TRICHLOROETHENE	ND	4.7	1.9
VINYL CHLORIDE	ND	4.7	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	60-160
4-BROMOFLUOROBENZENE	110	70-150
TOLUENE-D8	103	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 06:17
Sample ID: D26-HAS-16-5	Date Analyzed: 04/17/07 06:17
Lab Samp ID: D134-06	Dilution Factor: 1.2
Lab File ID: RDB212	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : 0.7
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.0	2.4
1,1,2,2-TETRACHLOROETHANE	ND	6.0	2.4
1,1,2-TRICHLOROETHANE	ND	6.0	2.4
1,1-DICHLOROETHANE	ND	6.0	2.4
1,1-DICHLOROETHENE	ND	6.0	2.4
1,2-DICHLOROETHANE	ND	6.0	2.4
1,2-DICHLOROPROPANE	ND	6.0	2.4
2-BUTANONE	ND	12	6.0
2-HEXANONE	ND	12	6.0
4-METHYL-2-PENTANONE	ND	12	6.0
ACETONE	ND	12	6.0
BENZENE	ND	6.0	2.4
BROMODICHLOROMETHANE	ND	6.0	2.4
BROMOFORM	ND	6.0	2.4
BROMOMETHANE	ND	12	2.4
CARBON DISULFIDE	ND	6.0	2.4
CARBON TETRACHLORIDE	ND	6.0	2.4
CHLOROBENZENE	ND	6.0	2.4
CHLOROETHANE	ND	6.0	2.4
CHLOROFORM	ND	6.0	2.4
CHLOROMETHANE	ND	12	2.4
CIS-1,2-DICHLOROETHENE	ND	6.0	2.4
CIS-1,3-DICHLOROPROPENE	ND	6.0	2.4
DIBROMOCHLOROMETHANE	ND	6.0	2.4
ETHYLBENZENE	ND	6.0	2.4
M/P-XYLENES	ND	12	2.4
MTBE	ND	6.0	2.4
METHYLENE CHLORIDE	ND	12	2.4
O-XYLENE	ND	6.0	2.4
STYRENE	ND	6.0	2.4
TETRACHLOROETHENE	ND	6.0	2.4
TOLUENE	ND	6.0	2.4
TRANS-1,2-DICHLOROETHENE	ND	6.0	2.4
TRANS-1,3-DICHLOROPROPENE	ND	6.0	2.4
TRICHLOROETHENE	ND	6.0	2.4
VINYL CHLORIDE	ND	6.0	2.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	60-160
4-BROMOFLUOROBENZENE	120	70-150
TOLUENE-D8	105	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 06:54
Sample ID: D26-HAS-116-0.5	Date Analyzed: 04/17/07 06:54
Lab Samp ID: D134-07	Dilution Factor: .91
Lab File ID: RDB213	Matrix : SOIL
Ext Btch ID: VOO3D17	% Moisture : 3.4
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.7	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.7	1.9
1,1,2-TRICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHENE	ND	4.7	1.9
1,2-DICHLOROETHANE	ND	4.7	1.9
1,2-DICHLOROPROPANE	ND	4.7	1.9
2-BUTANONE	ND	9.4	4.7
2-HEXANONE	ND	9.4	4.7
4-METHYL-2-PENTANONE	ND	9.4	4.7
ACETONE	ND	9.4	4.7
BENZENE	ND	4.7	1.9
BROMODICHLOROMETHANE	ND	4.7	1.9
BROMOFORM	ND	4.7	1.9
BROMOMETHANE	ND	9.4	1.9
CARBON DISULFIDE	ND	4.7	1.9
CARBON TETRACHLORIDE	ND	4.7	1.9
CHLOROBENZENE	ND	4.7	1.9
CHLOROETHANE	ND	4.7	1.9
CHLOROFORM	ND	4.7	1.9
CHLOROMETHANE	ND	9.4	1.9
CIS-1,2-DICHLOROETHENE	ND	4.7	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.7	1.9
DIBROMOCHLOROMETHANE	ND	4.7	1.9
ETHYLBENZENE	ND	4.7	1.9
M/P-XYLENES	ND	9.4	1.9
MTBE	ND	4.7	1.9
METHYLENE CHLORIDE	ND	9.4	1.9
O-XYLENE	ND	4.7	1.9
STYRENE	ND	4.7	1.9
TETRACHLOROETHENE	ND	4.7	1.9
TOLUENE	ND	4.7	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.7	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.7	1.9
TRICHLOROETHENE	ND	4.7	1.9
VINYL CHLORIDE	ND	4.7	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	120	60-160
4-BROMOFLUOROBENZENE	111	70-150
TOLUENE-D8	105	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/20/07 19:08
Sample ID: D26-HAS-15-0.5	Date Analyzed: 04/20/07 19:08
Lab Samp ID: D134-09R	Dilution Factor: .96
Lab File ID: RDB277	Matrix : SOIL
Ext Btch ID: V003D22	% Moisture : 2.1
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.9	2.0
1,1,2,2-TETRACHLOROETHANE	ND	4.9	2.0
1,1,2-TRICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHENE	ND	4.9	2.0
1,2-DICHLOROETHANE	ND	4.9	2.0
1,2-DICHLOROPROPANE	ND	4.9	2.0
2-BUTANONE	ND	9.8	4.9
2-HEXANONE	ND	9.8	4.9
4-METHYL-2-PENTANONE	ND	9.8	4.9
ACETONE	ND	9.8	4.9
BENZENE	ND	4.9	2.0
BROMODICHLOROMETHANE	ND	4.9	2.0
BROMOFORM	ND	4.9	2.0
BROMOMETHANE	ND	9.8	2.0
CARBON DISULFIDE	ND	4.9	2.0
CARBON TETRACHLORIDE	ND	4.9	2.0
CHLOROBENZENE	ND	4.9	2.0
CHLOROETHANE	ND	4.9	2.0
CHLOROFORM	ND	4.9	2.0
CHLOROMETHANE	ND	9.8	2.0
CIS-1,2-DICHLOROETHENE	ND	4.9	2.0
CIS-1,3-DICHLOROPROPENE	ND	4.9	2.0
DIBROMOCHLOROMETHANE	ND	4.9	2.0
ETHYLBENZENE	ND	4.9	2.0
M/P-XYLENES	ND	9.8	2.0
MTBE	ND	4.9	2.0
METHYLENE CHLORIDE	ND	9.8	2.0
O-XYLENE	ND	4.9	2.0
STYRENE	ND	4.9	2.0
TETRACHLOROETHENE	ND	4.9	2.0
TOLUENE	ND	4.9	2.0
TRANS-1,2-DICHLOROETHENE	ND	4.9	2.0
TRANS-1,3-DICHLOROPROPENE	ND	4.9	2.0
TRICHLOROETHENE	ND	4.9	2.0
VINYL CHLORIDE	ND	4.9	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	119	60-160
4-BROMOFLUOROBENZENE	98	70-150
TOLUENE-D8	96	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 08:09
Sample ID: D26-HAS-15-5	Date Analyzed: 04/17/07 08:09
Lab Samp ID: D134-10	Dilution Factor: 1.1
Lab File ID: RDB215	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : 1.0
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	ND	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	124	60-160
4-BROMOFLUOROBENZENE	111	70-150
TOLUENE-D8	104	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/17/07 08:46
Sample ID:	D26-HAS-14-0.5	Date Analyzed:	04/17/07 08:46
Lab Samp ID:	D134-11	Dilution Factor:	.91
Lab File ID:	RDB216	Matrix	: SOIL
Ext Btch ID:	V003D17	% Moisture	: 2.8
Calib. Ref.:	RCB260	Instrument ID	: T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.7	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.7	1.9
1,1,2-TRICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHENE	ND	4.7	1.9
1,2-DICHLOROETHANE	ND	4.7	1.9
1,2-DICHLOROPROPANE	ND	4.7	1.9
2-BUTANONE	ND	9.4	4.7
2-HEXANONE	ND	9.4	4.7
4-METHYL-2-PENTANONE	ND	9.4	4.7
ACETONE	ND	9.4	4.7
BENZENE	ND	4.7	1.9
BROMODICHLOROMETHANE	ND	4.7	1.9
BROMOFORM	ND	4.7	1.9
BROMOMETHANE	ND	9.4	1.9
CARBON DISULFIDE	ND	4.7	1.9
CARBON TETRACHLORIDE	ND	4.7	1.9
CHLOROBENZENE	ND	4.7	1.9
CHLOROETHANE	ND	4.7	1.9
CHLOROFORM	ND	4.7	1.9
CHLOROMETHANE	ND	9.4	1.9
CIS-1,2-DICHLOROETHENE	ND	4.7	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.7	1.9
DIBROMOCHLOROMETHANE	ND	4.7	1.9
ETHYLBENZENE	ND	4.7	1.9
M/P-XYLENES	ND	9.4	1.9
MTBE	ND	4.7	1.9
METHYLENE CHLORIDE	ND	9.4	1.9
O-XYLENE	ND	4.7	1.9
STYRENE	ND	4.7	1.9
TETRACHLOROETHENE	ND	4.7	1.9
TOLUENE	ND	4.7	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.7	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.7	1.9
TRICHLOROETHENE	ND	4.7	1.9
VINYL CHLORIDE	ND	4.7	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	124	60-160
4-BROMOFLUOROBENZENE	112	70-150
TOLUENE-D8	107	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/10/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/11/07
Batch No. : 07D134	Date Extracted: 04/17/07 09:24
Sample ID: D26-HAS-14-5	Date Analyzed: 04/17/07 09:24
Lab Samp ID: D134-12	Dilution Factor: 1.0
Lab File ID: RDB217	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : 1.4
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.1	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.1	2.0
1,1,2-TRICHLOROETHANE	ND	5.1	2.0
1,1-DICHLOROETHANE	ND	5.1	2.0
1,1-DICHLOROETHENE	ND	5.1	2.0
1,2-DICHLOROETHANE	ND	5.1	2.0
1,2-DICHLOROPROPANE	ND	5.1	2.0
2-BUTANONE	ND	10	5.1
2-HEXANONE	ND	10	5.1
4-METHYL-2-PENTANONE	ND	10	5.1
ACETONE	ND	10	5.1
BENZENE	ND	5.1	2.0
BROMODICHLOROMETHANE	ND	5.1	2.0
BROMOFORM	ND	5.1	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.1	2.0
CARBON TETRACHLORIDE	ND	5.1	2.0
CHLOROBENZENE	ND	5.1	2.0
CHLOROETHANE	ND	5.1	2.0
CHLOROFORM	ND	5.1	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.1	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.1	2.0
DIBROMOCHLOROMETHANE	ND	5.1	2.0
ETHYLBENZENE	ND	5.1	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.1	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.1	2.0
STYRENE	ND	5.1	2.0
TETRACHLOROETHENE	ND	5.1	2.0
TOLUENE	ND	5.1	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.1	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.1	2.0
TRICHLOROETHENE	ND	5.1	2.0
VINYL CHLORIDE	ND	5.1	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	124	60-160
4-BROMOFLUOROBENZENE	118	70-150
TOLUENE-D8	106	70-140

QC SUMMARIES

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/17/07
Batch No. : 07D134	Date Extracted: 04/17/07 01:18
Sample ID: MBLK1S	Date Analyzed: 04/17/07 01:18
Lab Samp ID: V003D17B	Dilution Factor: 1
Lab File ID: RDB204	Matrix : SOIL
Ext Btch ID: V003D17	% Moisture : NA
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	70-140
4-BROMOFLUOROBENZENE	105	70-130
TOLUENE-D8	101	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V003D17B	V003D17L	V003D17C		
LAB FILE ID:	RDB204	RDB202	RDB203		
DATE EXTRACTED:	04/17/0701:18	04/17/0700:03	04/17/0700:41	DATE COLLECTED:	NA
DATE ANALYZED:	04/17/0701:18	04/17/0700:03	04/17/0700:41	DATE RECEIVED:	04/17/07
PREP. BATCH:	V003D17	V003D17	V003D17		
CALIB. REF:	RCB260	RCB260	RCB260		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	20.3	101	20.0	21.1	105	4	60-130	50
Benzene	ND	20.0	20.4	102	20.0	19.1	96	6	70-130	50
Chlorobenzene	ND	20.0	21.1	106	20.0	20.6	103	3	70-130	50
Toluene	ND	20.0	20.2	101	20.0	19.6	98	3	70-130	50
Trichloroethene	ND	20.0	20.7	104	20.0	19.9	100	4	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	44.9	90	50.0	45.5	91	70-140
4-Bromofluorobenzene	50.0	50.7	101	50.0	47.4	95	70-130
Toluene-d8	50.0	50.9	102	50.0	49.7	99	70-130

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/20/07
Batch No. : 07D134	Date Extracted: 04/20/07 17:53
Sample ID: MBLK2S	Date Analyzed: 04/20/07 17:53
Lab Samp ID: V003D22B	Dilution Factor: 1
Lab File ID: RDB275	Matrix : SOIL
Ext Btch ID: V003D22	% Moisture : NA
Calib. Ref.: RCB260	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	104	70-140
4-BROMOFLUOROBENZENE	93	70-130
TOLUENE-D8	95	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2S				
LAB SAMP ID:	V003D22B	V003D22L	V003D22C		
LAB FILE ID:	RDB275	RDB273	RDB274		
DATE EXTRACTED:	04/20/0717:53	04/20/0716:38	04/20/0717:16	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0717:53	04/20/0716:38	04/20/0717:16	DATE RECEIVED:	04/20/07
PREP. BATCH:	V003D22	V003D22	V003D22		
CALIB. REF:	RCB260	RCB260	RCB260		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	22.0	110	20.0	25.6	128	15	60-130	50
Benzene	ND	20.0	20.8	104	20.0	23.2	116	11	70-130	50
Chlorobenzene	ND	20.0	21.2	106	20.0	21.9	109	3	70-130	50
Toluene	ND	20.0	20.7	103	20.0	22.6	113	9	70-130	50
Trichloroethene	ND	20.0	20.4	102	20.0	21.7	109	6	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	50.6	101	50.0	57.2	114	70-140
4-Bromofluorobenzene	50.0	47.5	95	50.0	46.8	94	70-130
Toluene-d8	50.0	47.5	95	50.0	49.5	99	70-130

INITIAL CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D134

Lab File ID: RCB255 BFB Injection Date : 03/15/07

Instrument ID: T-003 BFB Injection Time : 12:25

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	27.89
75	30.0 - 60.0% of mass 95	58.50
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.67
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	73.57
175	5.0 - 9.0% of mass 174	6.27(8.5)1
176	95.0 - 101.0% of mass 174	72.56(98.6)1
177	5.0 - 9.0% of mass 176	5.07(7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD02	V003C151	RCB256	03/15/07	13:04
2	VSTD05	V003C152	RCB257	03/15/07	13:42
3	VSTD010	V003C153	RCB258	03/15/07	14:20
4	VSTD020	V003C154	RCB259	03/15/07	14:58
5	VSTD050	V003C155	RCB260	03/15/07	15:35
6	VSTD080	V003C156	RCB261	03/15/07	16:13
7	VSTD100	V003C157	RCB262	03/15/07	16:51
8	VSTD200	V003C158	RCB263	03/15/07	17:29
9	VSTD300	V003C159	RCB264	03/15/07	18:06
10	VSTD050	IV003C151	RCB267	03/15/07	20:38

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TOO3
Beginning DateTime :03/15/07 13:04
Spike Units :PPB
IC File :RCB260

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :03/15/07 18:06
HPChem Method :VOO3C15

M	IDX	Parameters	2 13:04 RCB256	5 13:42 RCB257	10 14:20 RCB258	20 14:58 RCB259	50 15:35 RCB260	80 16:13 RCB261	100 16:51 RCB262	200 17:29 RCB263	300 18:06 RCB264	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	11.0516
	2	Dichlorodifluoromethane	0.326	0.344	0.346	0.351	0.318	0.349	0.298	0.288	0.268	0.321	9.43	3.2803
	3	Dichlorotetrafluoroethane	0.193	0.223	0.255	0.265	0.242	0.268	0.222	0.239	0.229	0.237	10.05	3.4751
	4	Chloromethane	0.514	0.443	0.469	0.453	0.402	0.463	0.393	0.444	0.450	0.448	7.97	3.7062
	5	Vinyl chloride	0.283	0.313	0.290	0.262	0.197	0.184	0.153	------	------	0.240	25.57	3.8974
	6	Bromomethane	0.245	0.226	0.233	0.235	0.209	0.232	0.194	0.187	0.153	0.213	14.05	4.6556
	7	Chloroethane	0.202	0.201	0.188	0.200	0.179	0.197	0.166	0.154	0.132	0.180	13.67	4.7794
	8	Dichlorofluoromethane	0.662	0.713	0.731	0.726	0.576	0.627	0.513	0.535	0.457	0.616	16.36	4.8471
	9	Trichlorofluoromethane	0.353	0.397	0.392	0.405	0.368	0.396	0.337	0.323	0.285	0.362	11.26	5.2136
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
4	11	Acrolein	0.043	0.047	0.047	0.052	0.041	0.051	0.042	0.043	0.039	0.045	9.94	5.8839
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.276	0.280	0.288	0.286	0.234	0.249	0.215	0.218	0.197	0.249	13.95	5.9120
4	13	Acetone	0.175	0.148	0.142	0.154	0.113	0.136	0.109	0.109	0.106	0.133	18.40	5.9962
	14	1,1-Dichloroethene	0.699	0.706	0.719	0.680	0.540	0.576	0.499	0.521	------	0.618	14.96	6.1960
5	15	tert-Butyl alcohol	0.024	0.024	0.024	0.027	0.023	0.031	0.022	0.026	0.025	0.025	10.43	6.3495
	16	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	17	Iodomethane	0.450	0.480	0.501	0.480	0.405	0.418	0.364	0.348	------	0.431	13.09	6.7068
	18	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	19	Methylene chloride	0.875	0.741	0.698	0.654	0.515	0.552	0.484	0.505	0.458	0.609	23.15	6.9439
	20	Carbon disulfide	1.173	1.273	1.322	1.313	1.093	1.149	1.019	1.062	0.934	1.149	11.79	7.0264
5	21	Acrylonitrile	0.110	0.118	0.113	0.125	0.099	0.119	0.100	0.101	0.096	0.109	9.57	7.1189
	22	tert-Butyl methyl ether (MTBE)	0.416	0.478	0.533	0.587	0.527	0.660	0.540	0.623	0.585	0.550	13.49	7.2031
	23	trans-1,2-Dichloroethene	0.601	0.668	0.682	0.674	0.555	0.591	0.520	0.550	0.495	0.593	11.66	7.4243
	24	Isopropyl ether (DIPE)	1.225	1.306	1.394	1.406	1.225	1.338	1.186	1.246	1.164	1.277	6.92	7.8915
	25	Vinyl acetate	0.482	0.526	0.635	0.676	0.650	0.787	0.700	0.778	0.724	0.662	15.70	8.0385
	26	1,1-Dichloroethane	0.630	0.729	0.753	0.770	0.652	0.692	0.611	0.636	0.575	0.672	10.04	8.0798
	27	tert-Butyl ethyl ether (ETBE)	0.522	0.557	0.634	0.652	0.652	0.789	0.686	0.790	0.772	0.673	14.45	8.5305
4	28	2-Butanone	0.168	0.181	0.166	0.185	0.155	0.188	0.155	0.157	0.152	0.167	8.27	8.7204
	29	2,2-Dichloropropane	0.253	0.254	0.287	0.275	0.267	0.315	0.289	0.351	0.314	0.289	11.18	8.9763
	30	cis-1,2-Dichloroethene	0.687	0.685	0.752	0.719	0.624	0.650	0.596	0.627	0.571	0.657	8.96	9.0456
	31	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Chloroform	0.704	0.753	0.809	0.750	0.633	0.656	0.589	0.608	0.550	0.672	12.88	9.2982
	33	Bromochloromethane	0.361	0.388	0.394	0.359	0.308	0.328	0.290	0.318	0.299	0.338	11.39	9.5657
	34	Tetrahydrofuran	0.121	0.104	0.109	0.104	0.088	0.109	0.088	0.095	0.092	0.101	11.14	9.6598
	35	1,1,1-Trichloroethane	0.422	0.473	0.528	0.557	0.511	0.518	0.477	0.509	0.451	0.494	8.52	9.9603
	36	1,1-Dichloropropene	0.168	0.183	0.193	0.186	0.164	0.170	0.157	0.164	0.149	0.170	8.30	10.2079
	37	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	38	tert-Amyl methyl ether (TAME)	0.386	0.419	0.486	0.479	0.504	0.583	0.519	0.591	0.582	0.506	14.35	10.3763
	39	1,2-Dichloroethane-d4	0.476	0.489	0.534	0.510	0.492	0.502	0.464	------	------	0.495	4.61	10.4417
	40	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	16.9292
	41	Carbon tetrachloride	0.329	0.421	0.450	0.486	0.440	0.434	0.399	0.459	0.355	0.419	11.99	10.3978
	42	1,2-Dichloroethane	0.684	0.741	0.738	0.703	0.606	0.610	0.555	0.621	0.502	0.640	12.89	10.5943
	43	Benzene	1.267	1.517	1.484	1.422	1.250	1.207	1.125	1.264	1.016	1.284	12.87	10.6603
	44	Trichloroethene	0.381	0.415	0.445	0.417	0.376	0.357	0.340	0.378	0.306	0.379	11.22	11.6641
	45	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	46	1,2-Dichloropropane	0.393	0.447	0.471	0.446	0.409	0.400	0.384	0.441	0.370	0.418	8.24	11.9464
	47	Bromodichloromethane	0.475	0.560	0.599	0.574	0.534	0.520	0.489	0.559	0.461	0.530	8.93	12.3592
	48	Dibromomethane	0.276	0.302	0.312	0.285	0.261	0.250	0.229	0.249	0.201	0.263	13.47	12.4632
	49	2-Chloroethyl vinyl ether	0.112	0.128	0.147	0.136	0.144	0.157	0.145	0.183	0.171	0.147	14.62	12.7901
4	50	4-Methyl-2-pentanone	0.371	0.428	0.418	0.440	0.396	0.425	0.381	0.416	0.357	0.404	7.08	12.8545
	51	cis-1,3-Dichloropropene	0.306	0.371	0.460	0.470	0.485	0.505	0.480	0.561	0.483	0.458	16.46	13.2689
	52	Toluene-d8	------	1.218	1.288	1.245	1.290	1.240	1.193	------	------	1.246	3.08	13.7679

	53	Toluene	1.473	1.568	1.692	1.541	1.408	1.347	1.270	1.359	1.125	1.420	11.99	13.9194
	54	Ethyl methacrylate	0.314	0.372	0.437	0.421	0.409	0.441	0.394	0.448	0.404	0.404	10.34	14.1043
	55	trans-1,3-Dichloropropene	0.248	0.305	0.365	0.373	0.412	0.436	0.405	0.487	0.433	0.385	18.87	14.1869
4	56	2-Hexanone	0.246	0.280	0.280	0.294	0.265	0.300	0.258	0.276	0.247	0.272	7.07	14.4708
	57	1,1,2-Trichloroethane	0.312	0.334	0.374	0.336	0.313	0.310	0.282	0.314	0.270	0.316	9.66	14.5286
	58	1,3-Dichloropropane	0.517	0.537	0.601	0.548	0.521	0.525	0.486	0.531	0.471	0.527	7.06	15.0190
	59	Tetrachloroethene	0.344	0.350	0.379	0.340	0.318	0.306	0.291	0.316	0.273	0.324	10.09	15.2418
	60	Dibromochloromethane	0.288	0.321	0.396	0.387	0.375	0.382	0.345	0.387	0.341	0.358	10.19	15.6447
	61	1,2-Dibromoethane	0.298	0.324	0.358	0.331	0.307	0.320	0.286	0.310	0.277	0.312	7.88	16.0888
	62	1-Chlorohexane	0.490	0.539	0.631	0.592	0.571	0.551	0.524	0.558	0.498	0.550	8.09	16.3381
	63	Chlorobenzene	0.982	0.991	1.101	0.991	0.918	0.879	0.815	0.840	0.738	0.917	12.12	17.0183
	64	1,1,1,2-Tetrachloroethane	0.293	0.327	0.365	0.350	0.337	0.332	0.300	0.312	0.273	0.321	9.10	17.0844
	65	Ethylbenzene	1.731	1.796	2.051	1.847	1.682	1.600	1.474	1.480	1.261	1.658	14.18	17.1009
2	66	m-Xylene & p-Xylene	1.414	1.524	1.690	1.525	1.366	1.296	1.175	1.121	------	1.389	13.74	17.2772
	67	o-Xylene	1.311	1.486	1.689	1.557	1.431	1.400	1.278	1.303	1.151	1.401	11.60	18.3474
	68	Styrene	0.884	0.955	1.112	1.050	0.986	0.955	0.879	0.895	0.813	0.948	9.78	18.4217
	69	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	24.2002
	70	Isopropylbenzene	3.121	3.136	3.731	3.316	3.277	2.877	2.871	2.663	2.341	3.037	13.33	19.2439
	71	Bromoform	0.413	0.430	0.539	0.510	0.535	0.522	0.499	0.510	0.463	0.491	9.27	19.3364
	72	1,1,2,2-Tetrachloroethane	0.867	0.815	0.950	0.825	0.809	0.809	0.758	0.758	0.719	0.812	8.34	19.6699
	73	4-Bromofluorobenzene	------	1.024	1.133	1.037	1.150	1.045	1.068	------	------	1.076	4.92	19.9245
	74	1,2,3-Trichloropropane	0.191	0.217	0.243	0.207	0.193	0.192	0.182	0.183	0.173	0.198	10.80	20.0694
	75	trans-1,4-Dichloro-2-butene	------	0.166	0.230	0.188	0.212	0.227	0.219	0.236	0.237	0.214	11.68	20.2199
	76	n-Propylbenzene	4.298	4.333	5.083	4.507	4.352	3.825	3.848	3.618	3.101	4.107	14.03	20.3286
	77	Bromobenzene	0.838	0.860	1.003	0.882	0.858	0.787	0.776	0.748	0.683	0.826	11.12	20.5020
	78	1,3,5-Trimethylbenzene	2.603	2.748	3.269	2.906	2.849	2.553	2.540	2.389	2.116	2.664	12.40	20.7678
	79	2-Chlorotoluene	2.265	2.161	2.542	2.260	2.164	1.968	1.894	1.828	1.611	2.077	13.45	20.8603
	80	4-Chlorotoluene	2.846	2.752	3.195	2.840	2.696	2.405	2.416	2.270	2.042	2.607	13.54	20.9824
	81	tert-Butylbenzene	2.198	2.246	2.618	2.411	2.285	2.092	2.046	1.973	1.778	2.183	11.35	21.7947
	82	1,2,4-Trimethylbenzene	2.685	2.829	3.227	2.952	2.817	2.541	2.473	2.390	2.146	2.673	12.15	21.9152
	83	sec-Butylbenzene	3.497	3.634	4.206	3.842	3.633	3.384	3.179	3.100	2.711	3.465	12.66	22.4337
	84	p-Isopropyltoluene	2.668	2.794	3.296	3.000	2.907	2.668	2.530	2.498	2.173	2.726	11.89	22.8348
	85	1,3-Dichlorobenzene	1.600	1.653	1.792	1.647	1.547	1.447	1.376	1.355	1.224	1.516	11.81	23.1287
	86	1,4-Dichlorobenzene	1.621	1.596	1.784	1.631	1.507	1.435	1.355	1.356	1.209	1.499	11.85	23.3913
	87	n-Butylbenzene	2.602	2.926	3.456	3.122	3.033	2.838	2.664	2.721	2.299	2.851	11.74	23.8733
	88	1,2-Dichlorobenzene	1.564	1.589	1.700	1.539	1.430	1.366	1.274	1.293	1.147	1.433	12.45	24.2597
	89	1,2-Dibromo-3-chloropropane	0.130	0.156	0.168	0.169	0.157	0.185	0.149	0.173	0.163	0.161	9.79	25.8232
	90	1,2,4-Trichlorobenzene	0.998	1.130	1.261	1.110	1.115	1.105	0.979	1.100	0.963	1.085	8.56	27.6195
	91	Hexachlorobutadiene	0.851	0.891	0.936	0.906	0.797	0.785	0.666	0.751	0.645	0.803	12.83	27.8919
	92	Naphthalene	0.960	1.128	1.355	1.046	1.336	1.345	1.241	1.555	1.490	1.273	15.57	28.1544
	93	1,2,3-Trichlorobenzene	1.003	1.031	1.138	1.009	0.997	1.004	0.884	0.976	0.854	0.989	8.32	28.6662

Spike Amount = Nominal Amount * M

Ave_%RSD : 11.6 Max_%RSD : 25.6

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15

Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
5	Vinyl chloride	0.01035	0.17423	0.9815*
8	Dichlorofluoromethane	0.02098	0.51050	0.9917*
13	Acetone	0.01748	0.11067	0.9953
19	Methylene chloride	0.02505	0.48369	0.9969
25	Vinyl acetate	-0.01592	0.74175	0.9985
51	cis-1,3-Dichloropropene	-0.01029	0.50936	0.9976
55	trans-1,3-Dichloropropene	-0.01220	0.44607	0.9976
92	Naphthalene	-0.03606	1.45318	0.9965

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995

Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
5	Vinyl chloride	0.00212	0.27256	-0.06015	0.9978
8	Dichlorofluoromethane	0.00676	0.63052	-0.02866	0.9975

cr 3/19/97

2052

PROGRAM: ICALMAX

Input: R:\CAL\8260\2007\V003C15\RCB260.ICL Output: R:\CAL\8260\2007\V003C15\RCB260.MAX

IDX	Parameter	x0	x1	x2	CCF2	MaxMinAmtRatio	MaxMinRespRatio	MaxMinRRF	MaxMinConc
5	Vinyl chloride	0.00212	0.27256	-0.06015	0.9978	2.26567	0.31089	0.13722	113.3
8	Dichlorofluoromethane	0.00676	0.63052	-0.02866	0.9975	11.00000	3.47462	0.31587	550.0

2953

3/20/07

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C15\RCB267.D Vial: 15
Acq On : 15 Mar 2007 8:38 pm Operator: CGM
Sample : IVO03C151 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	50.000	49.667	0.7	107	0.00
3	T	Dichlorotetrafluoroethane	50.000	49.681	0.6	104	0.00
4	P,T	Chloromethane	50.000	47.738	4.5	113	0.00
5	C,T	Vinyl chloride	50.000	40.442	19.1	99	0.00
6	T	Bromomethane	50.000	48.711	2.6	106	0.00
7	T	Chloroethane	50.000	49.648	0.7	106	0.00
8	T	Dichlorofluoromethane	50.000	46.388	7.2	105	0.01
9	T	Trichlorofluoromethane	50.000	49.552	0.9	104	0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	93	-0.02
11	T	Acrolein	200.000	224.539	-12.3	131	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	50.000	47.551	4.9	108	0.00
13	T	Acetone	200.000	229.033	-14.5	123	0.01
14	C,T	1,1-Dichloroethene	50.000	54.604	-9.2	133	0.01
15	T	tert-Butyl alcohol	250.000	291.375	-16.6	136	0.00
16	T	Acetonitrile	-1.000	0.000	0.0	113	0.00
17	T	Iodomethane	50.000	51.621	-3.2	117	0.01
18	T	Methyl acetate	-1.000	0.000	0.0	98	0.00
19	T	Methylene chloride	50.000	59.001	-18.0	123	0.01
20	T	Carbon disulfide	50.000	51.094	-2.2	114	0.00
21	T	Acrylonitrile	250.000	273.320	-9.3	128	0.00
22	T	tert-Butyl methyl ether (MT	50.000	54.640	-9.3	121	0.00
23	T	trans-1,2-Dichloroethene	50.000	54.086	-8.2	123	0.00
24	T	Isopropyl ether (DIPE)	50.000	51.850	-3.7	115	0.00
25	T	Vinyl acetate	50.000	52.688	-5.4	125	0.00
26	P,T	1,1-Dichloroethane	50.000	54.895	-9.8	120	0.00
27	T	tert-Butyl ethyl ether (ETB	50.000	53.349	-6.7	117	0.00
28	T	2-Butanone	200.000	219.542	-9.8	126	0.00
29	T	2,2-Dichloropropane	50.000	53.564	-7.1	124	0.00
30	T	cis-1,2-Dichloroethene	50.000	51.921	-3.8	116	0.00
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	181	0.00
32	C,T	Chloroform	50.000	51.030	-2.1	115	0.00
33	T	Bromochloromethane	50.000	50.695	-1.4	118	0.00
34	T	Tetrahydrofuran	50.000	54.607	-9.2	133	0.00
35	T	1,1,1-Trichloroethane	50.000	54.642	-9.3	112	0.01
36	T	1,1-Dichloropropene	50.000	51.317	-2.6	114	0.00
37	T	Cyclohexane	-1.000	0.000	0.0	112	0.00
38	T	tert-Amyl methyl ether (TAM	50.000	53.963	-7.9	115	0.00
39	S	1,2-Dichloroethane-d4	50.000	49.722	0.6	106	0.00
40	I	CHLOROBENZENE-D5	50.000	50.000	0.0	107	0.00

(#) = Out of Range

3/19/07

2055

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C15\RCB267.D Vial: 15
Acq On : 15 Mar 2007 8:38 pm Operator: CGM
Sample : IVO03C151 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	50.000	54.109	-8.2	110	0.00
42	T	1,2-Dichloroethane	50.000	51.227	-2.5	116	0.00
43	T	Benzene	50.000	55.150	-10.3	121	0.00
44	T	Trichloroethene	50.000	51.480	-3.0	111	0.00
45	T	Methylcyclohexane	-1.000	0.000	0.0	124	0.00
46	C,T	1,2-Dichloropropane	50.000	52.528	-5.1	115	0.00
47	T	Bromodichloromethane	50.000	52.570	-5.1	112	0.00
48	T	Dibromomethane	50.000	50.786	-1.6	109	0.00
49	T	2-Chloroethyl vinyl ether	50.000	55.300	-10.6	121	0.00
50	T	4-Methyl-2-pentanone	200.000	220.033	-10.0	120	0.00
51	T	cis-1,3-Dichloropropene	50.000	55.057	-10.1	121	0.01
52	S	Toluene-d8	50.000	50.829	-1.7	105	0.00
53	C,T	Toluene	50.000	51.490	-3.0	111	0.00
54	T	Ethyl methacrylate	50.000	57.558	-15.1	122	0.01
55	T	trans-1,3-Dichloropropene	50.000	51.972	-3.9	117	0.00
56	T	2-Hexanone	200.000	227.876	-13.9	125	0.00
57	T	1,1,2-Trichloroethane	50.000	49.471	1.1	107	0.00
58	T	1,3-Dichloropropane	50.000	51.474	-2.9	111	0.00
59	T	Tetrachloroethene	50.000	50.670	-1.3	110	0.00
60	T	Dibromochloromethane	50.000	53.470	-6.9	109	0.00
61	T	1,2-Dibromoethane	50.000	49.928	0.1	108	0.00
62	T	1-Chlorohexane	50.000	49.238	1.5	101	0.00
63	P	Chlorobenzene	50.000	50.638	-1.3	108	0.00
64	T	1,1,1,2-Tetrachloroethane	50.000	50.597	-1.2	103	0.00
65	C,T	Ethylbenzene	50.000	50.507	-1.0	106	0.00
66	T	m-Xylene & p-Xylene	100.000	98.709	1.3	107	0.00
67	T	o-Xylene	50.000	51.184	-2.4	107	0.00
68	T	Styrene	50.000	52.285	-4.6	107	0.00
69	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	112	0.00
70	T	Isopropylbenzene	50.000	50.076	-0.2	104	0.00
71	P,T	Bromoform	50.000	53.038	-6.1	109	0.00
72	P,T	1,1,2,2-Tetrachloroethane	50.000	52.405	-4.8	118	0.00
73	S	4-Bromofluorobenzene	50.000	49.372	1.3	104	0.00
74	T	1,2,3-Trichloropropane	50.000	50.939	-1.9	117	0.00
75	T	trans-1,4-Dichloro-2-butene	50.000	53.585	-7.2	121	0.00
76	T	n-Propylbenzene	50.000	50.591	-1.2	107	0.00
77	T	Bromobenzene	50.000	49.741	0.5	107	0.00
78	T	1,3,5-Trimethylbenzene	50.000	51.865	-3.7	109	0.00
79	T	2-Chlorotoluene	50.000	50.044	-0.1	108	0.00
80	T	4-Chlorotoluene	50.000	50.263	-0.5	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C15\RCB267.D Vial: 15
Acq On : 15 Mar 2007 8:38 pm Operator: CGM
Sample : IVO03C151 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	50.000	51.501	-3.0	110	0.00
82	T	1,2,4-Trimethylbenzene	50.000	51.719	-3.4	110	0.00
83	T	sec-Butylbenzene	50.000	50.988	-2.0	109	0.00
84	T	p-Isopropyltoluene	50.000	52.299	-4.6	110	0.00
85	T	1,3-Dichlorobenzene	50.000	50.610	-1.2	111	0.00
86	T	1,4-Dichlorobenzene	50.000	51.176	-2.4	114	0.01
87	T	n-Butylbenzene	50.000	53.332	-6.7	112	0.00
88	T	1,2-Dichlorobenzene	50.000	50.767	-1.5	114	0.00
89	T	1,2-Dibromo-3-chloropropane	50.000	56.149	-12.3	129	0.00
90	T	1,2,4-Trichlorobenzene	50.000	53.637	-7.3	117	0.00
91	T	Hexachlorobutadiene	50.000	49.259	1.5	111	0.00
92	T	Naphthalene	50.000	50.585	-1.2	120	0.00
93	T	1,2,3-Trichlorobenzene	50.000	52.895	-5.8	118	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3/19/07
2057

DAILY CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D134
Lab File ID: RDB199 BFB Injection Date : 04/16/07
Instrument ID: T-003 BFB Injection Time : 22:11
GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	30.74
75	30.0 - 60.0% of mass 95	59.69
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.45
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	96.13
175	5.0 - 9.0% of mass 174	7.76(8.1)1
176	95.0 - 101.0% of mass 174	93.56(97.3)1
177	5.0 - 9.0% of mass 176	6.24(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV003C1557	RDB200	04/16/07	22:49
2	MBLK1S	V003D17B	RDB204	04/17/07	01:18
3	LCS1S	V003D17L	RDB202	04/17/07	00:03
4	LCD1S	V003D17C	RDB203	04/17/07	00:41
5	A6-HAS1@0.5	D134-01	RDB208	04/17/07	03:48
6	A6-HAS1@5	D134-02	RDB209	04/17/07	04:25
7	A6-HAS101@0.5	D134-03	RDB210	04/17/07	05:02
8	D26-HAS-16-0.5	D134-05	RDB211	04/17/07	05:40
9	D26-HAS-16-5	D134-06	RDB212	04/17/07	06:17
10	D26-HAS-116-0.5	D134-07	RDB213	04/17/07	06:54
11	D26-HAS-15-5	D134-10	RDB215	04/17/07	08:09
12	D26-HAS-14-0.5	D134-11	RDB216	04/17/07	08:46
13	D26-HAS-14-5	D134-12	RDB217	04/17/07	09:24

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RCB260
Instrument ID: T-003
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D134
Date Analyzed: 03/15/07
Time Analyzed: 15:35
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2480687	11.05	2315356	16.93	1120785	24.20
	UPPER LIMIT	4961374	11.55	4630712	17.43	2241570	24.70
	LOWER LIMIT	1240344	10.55	1157678	16.43	560393	23.70
	SAMPLE ID						
1	VSTD050	1830921	11.03	1754477	16.90	957048	24.17
2	MBLK1S	2303103	11.04	2135838	16.90	951056	24.17
3	LCS1S	2168799	11.03	2013476	16.90	974630	24.17
4	LCD1S	2040322	11.03	1943898	16.90	1038963	24.17
5	A6-HAS1@0.5	1982391	11.04	1826381	16.91	770342	24.17
6	A6-HAS1@5	1981272	11.04	1889893	16.91	834267	24.17
7	A6-HAS101@0.5	1897157	11.03	1809870	16.90	862832	24.17
8	D26-HAS-16-0.5	1904111	11.03	1771888	16.90	715292	24.17
9	D26-HAS-16-5	1901537	11.03	1708212	16.90	584199	24.17
10	D26-HAS-116-0.5	1908966	11.04	1665096	16.90	636675	24.17
11	D26-HAS-15-5	1955343	11.03	1747372	16.90	663750	24.17
12	D26-HAS-14-0.5	1923768	11.04	1676731	16.90	624212	24.16
13	D26-HAS-14-5	1869434	11.03	1681425	16.90	598475	24.17

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDB200.D
Acq On : 16 Apr 2007 10:49 pm
Sample : CVO03C1557
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA
MS Integration Params: 524INT.P

Vial: 3
Operator: CGM
Inst : TO03
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	74	-0.02
2	T	Dichlorodifluoromethane	50.000	48.514	3.0	72	0.00
3	T	Dichlorotetrafluoroethane	50.000	0.000	100.0#	0	-3.47#
4	P,T	Chloromethane	50.000	53.235	-6.5	88	-0.02
5	C,T	Vinyl chloride	50.000	54.739	-9.5	86	0.00
6	T	Bromomethane	50.000	63.838	-27.7#	96	-0.02
7	T	Chloroethane	50.000	47.795	4.4	71	0.00
8	T	Dichlorofluoromethane	50.000	59.046	-18.1	91	0.00
9	T	Trichlorofluoromethane	50.000	63.300	-26.6#	92	0.00
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	76	-0.02
11	T	Acrolein	200.000	164.667	17.7	67	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	50.000	55.402	-10.8	87	0.00
13	T	Acetone	200.000	203.058	-1.5	76	0.00
14	C,T	1,1-Dichloroethene	50.000	47.887	4.2	81	0.00
15	T	tert-Butyl alcohol	250.000	191.856	23.3#	62	-0.02
16	T	Acetonitrile	-1.000	0.000	0.0	72	-0.02
17	T	Iodomethane	50.000	32.683	34.6#	51	-0.02
18	T	Methyl acetate	-1.000	0.000	0.0	69	-0.02
19	T	Methylene chloride	50.000	54.355	-8.7	79	0.00
20	T	Carbon disulfide	50.000	38.525	23.0#	60	-0.02
21	T	Acrylonitrile	250.000	219.157	12.3	71	-0.02
22	T	tert-Butyl methyl ether (MT	50.000	44.005	12.0	68	-0.02
23	T	trans-1,2-Dichloroethene	50.000	43.833	12.3	69	-0.02
24	T	Isopropyl ether (DIPE)	50.000	44.677	10.6	69	-0.02
25	T	Vinyl acetate	50.000	45.996	8.0	76	0.00
26	P,T	1,1-Dichloroethane	50.000	49.137	1.7	75	-0.02
27	T	tert-Butyl ethyl ether (ETB	50.000	43.788	12.4	67	-0.02
28	T	2-Butanone	200.000	175.093	12.5	70	-0.02
29	T	2,2-Dichloropropane	50.000	46.037	7.9	74	-0.02
30	T	cis-1,2-Dichloroethene	50.000	46.400	7.2	72	-0.02
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	74	-0.02
32	C,T	Chloroform	50.000	52.898	-5.8	83	-0.02
33	T	Bromochloromethane	50.000	45.874	8.3	74	-0.02
34	T	Tetrahydrofuran	50.000	41.645	16.7	70	-0.02
35	T	1,1,1-Trichloroethane	50.000	57.275	-14.5	82	0.00
36	T	1,1-Dichloropropene	50.000	48.374	3.3	74	-0.02
37	T	Cyclohexane	-1.000	0.000	0.0	72	-0.02
38	T	tert-Amyl methyl ether (TAM	50.000	44.413	11.2	66	-0.02
39	S	1,2-Dichloroethane-d4	50.000	44.050	11.9	65	-0.02
40	I	CHLOROBENZENE-D5	50.000	50.000	0.0	76	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDB200.D
Acq On : 16 Apr 2007 10:49 pm
Sample : CVO03C1557
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA
MS Integration Params: 524INT.P

Vial: 3
Operator: CGM
Inst : TO03
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	50.000	40.203	19.6	58	-0.02
42	T	1,2-Dichloroethane	50.000	42.942	14.1	69	-0.02
43	T	Benzene	50.000	46.188	7.6	72	-0.02
44	T	Trichloroethene	50.000	52.828	-5.7	81	-0.02
45	T	Methylcyclohexane	-1.000	0.000	0.0	75	-0.03
46	C,T	1,2-Dichloropropane	50.000	43.259	13.5	67	-0.02
47	T	Bromodichloromethane	50.000	39.506	21.0#	59	-0.03
48	T	Dibromomethane	50.000	36.277	27.4#	55	-0.02
49	T	2-Chloroethyl vinyl ether	50.000	27.363	45.3#	42	-0.02
50	T	4-Methyl-2-pentanone	200.000	192.531	3.7	74	-0.02
51	T	cis-1,3-Dichloropropene	50.000	31.590	36.8#	49	-0.02
52	S	Toluene-d8	50.000	50.476	-1.0	74	-0.03
53	C,T	Toluene	50.000	50.309	-0.6	77	-0.02
54	T	Ethyl methacrylate	50.000	49.561	0.8	74	-0.02
55	T	trans-1,3-Dichloropropene	50.000	35.250	29.5#	56	-0.03
56	T	2-Hexanone	200.000	201.760	-0.9	78	-0.03
57	T	1,1,2-Trichloroethane	50.000	48.640	2.7	74	-0.03
58	T	1,3-Dichloropropane	50.000	38.306	23.4#	59	-0.02
59	T	Tetrachloroethene	50.000	56.573	-13.1	87	-0.03
60	T	Dibromochloromethane	50.000	41.112	17.8	60	-0.03
61	T	1,2-Dibromoethane	50.000	28.243	43.5#	44	-0.03
62	T	1-Chlorohexane	50.000	40.098	19.8	59	-0.03
63	P	Chlorobenzene	50.000	50.997	-2.0	77	-0.03
64	T	1,1,1,2-Tetrachloroethane	50.000	50.145	-0.3	72	-0.03
65	C,T	Ethylbenzene	50.000	50.301	-0.6	75	-0.03
66	T	m-Xylene & p-Xylene	100.000	97.878	2.1	75	-0.03
67	T	o-Xylene	50.000	50.554	-1.1	75	-0.03
68	T	Styrene	50.000	49.509	1.0	72	-0.03
69	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	85	-0.03
70	T	Isopropylbenzene	50.000	45.377	9.2	72	-0.03
71	P,T	Bromoform	50.000	40.881	18.2	64	-0.05
72	P,T	1,1,2,2-Tetrachloroethane	50.000	44.675	10.7	77	-0.03
73	S	4-Bromofluorobenzene	50.000	47.371	5.3	76	-0.03
74	T	1,2,3-Trichloropropane	50.000	39.606	20.8#	69	-0.03
75	T	trans-1,4-Dichloro-2-butene	50.000	31.091	37.8#	54	-0.05
76	T	n-Propylbenzene	50.000	42.229	15.5	68	-0.03
77	T	Bromobenzene	50.000	52.054	-4.1	86	-0.03
78	T	1,3,5-Trimethylbenzene	50.000	44.864	10.3	72	-0.05
79	T	2-Chlorotoluene	50.000	44.322	11.4	73	-0.03
80	T	4-Chlorotoluene	50.000	44.841	10.3	74	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDB200.D
Acq On : 16 Apr 2007 10:49 pm
Sample : CVO03C1557
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA
MS Integration Params: 524INT.P

Vial: 3
Operator: CGM
Inst : TO03
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	50.000	46.993	6.0	77	-0.03
82	T	1,2,4-Trimethylbenzene	50.000	41.544	16.9	67	-0.03
83	T	sec-Butylbenzene	50.000	41.348	17.3	67	-0.05
84	T	p-Isopropyltoluene	50.000	39.949	20.1#	64	-0.03
85	T	1,3-Dichlorobenzene	50.000	49.917	0.2	84	-0.03
86	T	1,4-Dichlorobenzene	50.000	49.139	1.7	84	-0.03
87	T	n-Butylbenzene	50.000	34.428	31.1#	55	-0.03
88	T	1,2-Dichlorobenzene	50.000	49.795	0.4	85	-0.03
89	T	1,2-Dibromo-3-chloropropane	50.000	45.113	9.8	79	-0.02
90	T	1,2,4-Trichlorobenzene	50.000	42.948	14.1	71	-0.03
91	T	Hexachlorobutadiene	50.000	59.579	-19.2	103	-0.03
92	T	Naphthalene	50.000	43.407	13.2	78	-0.03
93	T	1,2,3-Trichlorobenzene	50.000	44.963	10.1	76	-0.05

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDB200.D
Acq On : 16 Apr 2007 10:49 pm
Sample : CVO03C1557
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA
MS Integration Params: 524INT.P

Vial: 3
Operator: CGM
Inst : TO03
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	74	-0.02
2	T	Dichlorodifluoromethane	0.321	0.311	3.1	72	0.00
3	T	Dichlorotetrafluoroethane	0.237	0.000	100.0#	0#	-3.47#
4	P,T	Chloromethane	0.448	0.477	-6.5	88	-0.02
5	C,T	Vinyl chloride	0.240	0.228	5.0	86	0.00
6	T	Bromomethane	0.213	0.272	-27.7#	96	-0.02
7	T	Chloroethane	0.180	0.172	4.4	71	0.00
8	T	Dichlorofluoromethane	0.616	0.711	-15.4	91	0.00
9	T	Trichlorofluoromethane	0.362	0.458	-26.5#	92	0.00
10	T	sec-Propyl alcohol	0.000	0.000	0.0	76	-0.02
11	T	Acrolein	0.045	0.037	17.8	67	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	0.249	0.276	-10.8	87	0.00
13	T	Acetone	0.133	0.117	12.0	76	0.00
14	C,T	1,1-Dichloroethene	0.618	0.592	4.2	81	0.00
15	T	tert-Butyl alcohol	0.025	0.019	24.0#	62	-0.02
16	T	Acetonitrile	0.000	0.000	0.0	72	-0.02
17	T	Iodomethane	0.431	0.282	34.6#	51	-0.02
18	T	Methyl acetate	0.000	0.000	0.0	69	-0.02
19	T	Methylene chloride	0.609	0.551	9.5	79	0.00
20	T	Carbon disulfide	1.149	0.885	23.0#	60	-0.02
21	T	Acrylonitrile	0.109	0.096	11.9	71	-0.02
22	T	tert-Butyl methyl ether (MT	0.550	0.484	12.0	68	-0.02
23	T	trans-1,2-Dichloroethene	0.593	0.520	12.3	69	-0.02
24	T	Isopropyl ether (DIPE)	1.277	1.141	10.6	69	-0.02
25	T	Vinyl acetate	0.662	0.666	-0.6	76	0.00
26	P,T	1,1-Dichloroethane	0.672	0.660	1.8	75	-0.02
27	T	tert-Butyl ethyl ether (ETB	0.673	0.589	12.5	67	-0.02
28	T	2-Butanone	0.167	0.147	12.0	70	-0.02
29	T	2,2-Dichloropropane	0.289	0.266	8.0	74	-0.02
30	T	cis-1,2-Dichloroethene	0.657	0.609	7.3	72	-0.02
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	74	-0.02
32	C,T	Chloroform	0.672	0.711	-5.8	83	-0.02
33	T	Bromochloromethane	0.338	0.310	8.3	74	-0.02
34	T	Tetrahydrofuran	0.101	0.084	16.8	70	-0.02
35	T	1,1,1-Trichloroethane	0.494	0.566	-14.6	82	0.00
36	T	1,1-Dichloropropene	0.170	0.165	2.9	74	-0.02
37	T	Cyclohexane	0.000	0.000	0.0	72	-0.02
38	T	tert-Amyl methyl ether (TAM	0.506	0.449	11.3	66	-0.02
39	S	1,2-Dichloroethane-d4	0.495	0.436	11.9	65	-0.02
40	I	CHLOROBENZENE-D5	1.000	1.000	0.0	76	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDB200.D Vial: 3
Acq On : 16 Apr 2007 10:49 pm Operator: CGM
Sample : CVO03C1557 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.419	0.337	19.6	58	-0.02
42	T	1,2-Dichloroethane	0.640	0.550	14.1	69	-0.02
43	T	Benzene	1.284	1.186	7.6	72	-0.02
44	T	Trichloroethene	0.379	0.401	-5.8	81	-0.02
45	T	Methylcyclohexane	0.000	0.000	0.0	75	-0.03
46	C,T	1,2-Dichloropropane	0.418	0.362	13.4	67	-0.02
47	T	Bromodichloromethane	0.530	0.419	20.9#	59	-0.03
48	T	Dibromomethane	0.263	0.191	27.4#	55	-0.02
49	T	2-Chloroethyl vinyl ether	0.147	0.080	45.6#	42#	-0.02
50	T	4-Methyl-2-pentanone	0.404	0.388	4.0	74	-0.02
51	T	cis-1,3-Dichloropropene	0.458	0.312	31.9#	49#	-0.02
52	S	Toluene-d8	1.246	1.257	-0.9	74	-0.03
53	C,T	Toluene	1.420	1.429	-0.6	77	-0.02
54	T	Ethyl methacrylate	0.404	0.401	0.7	74	-0.02
55	T	trans-1,3-Dichloropropene	0.385	0.302	21.6#	56	-0.03
56	T	2-Hexanone	0.272	0.274	-0.7	78	-0.03
57	T	1,1,2-Trichloroethane	0.316	0.308	2.5	74	-0.03
58	T	1,3-Dichloropropane	0.527	0.403	23.5#	59	-0.02
59	T	Tetrachloroethene	0.324	0.367	-13.3	87	-0.03
60	T	Dibromochloromethane	0.358	0.294	17.9	60	-0.03
61	T	1,2-Dibromoethane	0.312	0.176	43.6#	44#	-0.03
62	T	1-Chlorohexane	0.550	0.441	19.8	59	-0.03
63	P	Chlorobenzene	0.917	0.935	-2.0	77	-0.03
64	T	1,1,1,2-Tetrachloroethane	0.321	0.322	-0.3	72	-0.03
65	C,T	Ethylbenzene	1.658	1.668	-0.6	75	-0.03
66	T	m-Xylene & p-Xylene	1.389	1.360	2.1	75	-0.03
67	T	o-Xylene	1.401	1.416	-1.1	75	-0.03
68	T	Styrene	0.948	0.939	0.9	72	-0.03
69	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	85	-0.03
70	T	Isopropylbenzene	3.037	2.756	9.3	72	-0.03
71	P,T	Bromoform	0.491	0.402	18.1	64	-0.05
72	P,T	1,1,2,2-Tetrachloroethane	0.812	0.726	10.6	77	-0.03
73	S	4-Bromofluorobenzene	1.076	1.020	5.2	76	-0.03
74	T	1,2,3-Trichloropropane	0.198	0.157	20.7#	69	-0.03
75	T	trans-1,4-Dichloro-2-butene	0.214	0.133	37.9#	54	-0.05
76	T	n-Propylbenzene	4.107	3.469	15.5	68	-0.03
77	T	Bromobenzene	0.826	0.860	-4.1	86	-0.03
78	T	1,3,5-Trimethylbenzene	2.664	2.390	10.3	72	-0.05
79	T	2-Chlorotoluene	2.077	1.841	11.4	73	-0.03
80	T	4-Chlorotoluene	2.607	2.338	10.3	74	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D16\RDB200.D
Acq On : 16 Apr 2007 10:49 pm
Sample : CVO03C1557
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA
MS Integration Params: 524INT.P

Vial: 3
Operator: CGM
Inst : TO03
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	2.183	2.052	6.0	77	-0.03
82	T	1,2,4-Trimethylbenzene	2.673	2.221	16.9	67	-0.03
83	T	sec-Butylbenzene	3.465	2.865	17.3	67	-0.05
84	T	p-Isopropyltoluene	2.726	2.178	20.1#	64	-0.03
85	T	1,3-Dichlorobenzene	1.516	1.513	0.2	84	-0.03
86	T	1,4-Dichlorobenzene	1.499	1.473	1.7	84	-0.03
87	T	n-Butylbenzene	2.851	1.963	31.1#	55	-0.03
88	T	1,2-Dichlorobenzene	1.433	1.427	0.4	85	-0.03
89	T	1,2-Dibromo-3-chloropropane	0.161	0.146	9.3	79	-0.02
90	T	1,2,4-Trichlorobenzene	1.085	0.932	14.1	71	-0.03
91	T	Hexachlorobutadiene	0.803	0.957	-19.2	103	-0.03
92	T	Naphthalene	1.273	1.226	3.7	78	-0.03
93	T	1,2,3-Trichlorobenzene	0.989	0.889	10.1	76	-0.05

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D134

Lab File ID: RDB270 BFB Injection Date : 04/20/07

Instrument ID: T-003 BFB Injection Time : 14:47

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.28
75	30.0 - 60.0% of mass 95	51.27
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.19
173	Less than 2.0% of mass 174	0.27(0.3)1
174	Greater than 50% of mass 95	82.24
175	5.0 - 9.0% of mass 174	6.70(8.1)1
176	95.0 - 101.0% of mass 174	80.77(98.2)1
177	5.0 - 9.0% of mass 176	5.47(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV003C1565	RDB271	04/20/07	15:25
2	MBLK2S	V003D22B	RDB275	04/20/07	17:53
3	LCS2S	V003D22L	RDB273	04/20/07	16:38
4	LCD2S	V003D22C	RDB274	04/20/07	17:16
5	D26-HAS-15-0.5	D134-09R	RDB277	04/20/07	19:08

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RCB260
Instrument ID: T-003
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D134
Date Analyzed: 03/15/07
Time Analyzed: 15:35
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2480687	11.05	2315356	16.93	1120785	24.20
	UPPER LIMIT	4961374	11.55	4630712	17.43	2241570	24.70
	LOWER LIMIT	1240344	10.55	1157678	16.43	560393	23.70
	SAMPLE ID						
1	VSTD050	2445726	11.06	2441011	16.92	1499804	24.19
2	MBLK2S	2015545	11.05	2090045	16.92	1220833	24.20
3	LCS2S	2348392	11.06	2487946	16.92	1479355	24.19
4	LCD2S	2062638	11.05	2089034	16.92	1238873	24.18
5	D26-HAS-15-0.5	2041751	11.05	2136584	16.92	1121894	24.20

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D20\RDB271.D Vial: 2
Acq On : 20 Apr 2007 3:25 pm Operator: CGM
Sample : CVO03C1565 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	50.000	65.652	-31.3#	130	0.02
3	T	Dichlorotetrafluoroethane	50.000	0.673	98.7#	1	0.18
4	P,T	Chloromethane	50.000	49.417	1.2	109	0.02
5	C,T	Vinyl chloride	50.000	43.003	14.0	96	0.02
6	T	Bromomethane	50.000	46.788	6.4	94	0.02
7	T	Chloroethane	50.000	57.658	-15.3	114	0.02
8	T	Dichlorofluoromethane	50.000	35.084	29.8#	74	0.04
9	T	Trichlorofluoromethane	50.000	67.611	-35.2#	131	0.04
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	48	0.00
11	T	Acrolein	200.000	170.637	14.7	92	0.03
12	T	1,1,2-Trichloro-1,2,2-trifl	50.000	49.498	1.0	104	0.03
13	T	Acetone	200.000	203.649	-1.8	102	0.03
14	C,T	1,1-Dichloroethene	50.000	52.252	-4.5	118	0.03
15	T	tert-Butyl alcohol	250.000	244.638	2.1	106	0.01
16	T	Acetonitrile	-1.000	0.000	0.0	113	0.01
17	T	Iodomethane	50.000	46.339	7.3	97	0.03
18	T	Methyl acetate	-1.000	0.000	0.0	117	0.01
19	T	Methylene chloride	50.000	60.788	-21.6#	117	0.03
20	T	Carbon disulfide	50.000	49.816	0.4	103	0.03
21	T	Acrylonitrile	250.000	244.391	2.2	106	0.03
22	T	tert-Butyl methyl ether (MT	50.000	58.567	-17.1	120	0.01
23	T	trans-1,2-Dichloroethene	50.000	55.296	-10.6	116	0.01
24	T	Isopropyl ether (DIPE)	50.000	53.759	-7.5	111	0.01
25	T	Vinyl acetate	50.000	54.535	-9.1	120	0.02
26	P,T	1,1-Dichloroethane	50.000	56.233	-12.5	114	0.01
27	T	tert-Butyl ethyl ether (ETB	50.000	66.551	-33.1#	135	0.02
28	T	2-Butanone	200.000	208.269	-4.1	111	0.00
29	T	2,2-Dichloropropane	50.000	60.175	-20.3#	129	0.02
30	T	cis-1,2-Dichloroethene	50.000	53.475	-7.0	111	0.00
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	141	0.02
32	C,T	Chloroform	50.000	50.071	-0.1	105	0.02
33	T	Bromochloromethane	50.000	57.033	-14.1	123	0.02
34	T	Tetrahydrofuran	50.000	56.315	-12.6	127	0.00
35	T	1,1,1-Trichloroethane	50.000	54.097	-8.2	103	0.02
36	T	1,1-Dichloropropene	50.000	53.735	-7.5	110	0.02
37	T	Cyclohexane	-1.000	0.000	0.0	125	0.00
38	T	tert-Amyl methyl ether (TAM	50.000	64.327	-28.7#	127	0.00
39	S	1,2-Dichloroethane-d4	50.000	50.533	-1.1	100	0.00
40	I	CHLOROBENZENE-D5	50.000	50.000	0.0	105	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D20\RDB271.D Vial: 2
Acq On : 20 Apr 2007 3:25 pm Operator: CGM
Sample : CVO03C1565 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	50.000	52.968	-5.9	106	0.00
42	T	1,2-Dichloroethane	50.000	46.969	6.1	105	0.02
43	T	Benzene	50.000	52.484	-5.0	114	0.00
44	T	Trichloroethene	50.000	51.036	-2.1	109	0.00
45	T	Methylcyclohexane	-1.000	0.000	0.0	119	0.00
46	C,T	1,2-Dichloropropane	50.000	52.707	-5.4	113	0.00
47	T	Bromodichloromethane	50.000	48.225	3.5	101	0.00
48	T	Dibromomethane	50.000	48.949	2.1	104	0.00
49	T	2-Chloroethyl vinyl ether	50.000	52.036	-4.1	112	0.00
50	T	4-Methyl-2-pentanone	200.000	194.088	3.0	104	0.00
51	T	cis-1,3-Dichloropropene	50.000	58.867	-17.7	128	0.00
52	S	Toluene-d8	50.000	47.946	4.1	98	0.00
53	C,T	Toluene	50.000	49.463	1.1	105	0.00
54	T	Ethyl methacrylate	50.000	53.861	-7.7	112	0.01
55	T	trans-1,3-Dichloropropene	50.000	54.947	-9.9	122	0.01
56	T	2-Hexanone	200.000	195.101	2.4	106	0.00
57	T	1,1,2-Trichloroethane	50.000	46.651	6.7	99	0.00
58	T	1,3-Dichloropropane	50.000	51.996	-4.0	111	0.00
59	T	Tetrachloroethene	50.000	54.688	-9.4	118	0.00
60	T	Dibromochloromethane	50.000	51.712	-3.4	104	0.00
61	T	1,2-Dibromoethane	50.000	51.895	-3.8	111	0.00
62	T	1-Chlorohexane	50.000	47.337	5.3	96	0.00
63	P	Chlorobenzene	50.000	50.126	-0.3	106	-0.01
64	T	1,1,1,2-Tetrachloroethane	50.000	49.556	0.9	99	0.00
65	C,T	Ethylbenzene	50.000	50.736	-1.5	105	0.00
66	T	m-Xylene & p-Xylene	100.000	98.236	1.8	105	0.00
67	T	o-Xylene	50.000	50.811	-1.6	105	0.00
68	T	Styrene	50.000	52.181	-4.4	106	0.00
69	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	134	-0.01
70	T	Isopropylbenzene	50.000	41.442	17.1	103	0.00
71	P,T	Bromoform	50.000	46.578	6.8	114	0.00
72	P,T	1,1,2,2-Tetrachloroethane	50.000	41.198	17.6	111	0.00
73	S	4-Bromofluorobenzene	50.000	46.668	6.7	117	0.00
74	T	1,2,3-Trichloropropane	50.000	39.381	21.2#	108	0.00
75	T	trans-1,4-Dichloro-2-butene	50.000	48.594	2.8	131	0.00
76	T	n-Propylbenzene	50.000	42.571	14.9	108	0.00
77	T	Bromobenzene	50.000	45.437	9.1	117	0.00
78	T	1,3,5-Trimethylbenzene	50.000	42.520	15.0	106	0.00
79	T	2-Chlorotoluene	50.000	42.829	14.3	110	0.00
80	T	4-Chlorotoluene	50.000	42.498	15.0	110	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D20\RDB271.D Vial: 2
Acq On : 20 Apr 2007 3:25 pm Operator: CGM
Sample : CVO03C1565 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	50.000	43.957	12.1	112	0.00
82	T	1,2,4-Trimethylbenzene	50.000	43.250	13.5	110	0.00
83	T	sec-Butylbenzene	50.000	42.481	15.0	108	0.00
84	T	p-Isopropyltoluene	50.000	44.519	11.0	112	0.00
85	T	1,3-Dichlorobenzene	50.000	45.758	8.5	120	0.00
86	T	1,4-Dichlorobenzene	50.000	46.980	6.0	125	0.00
87	T	n-Butylbenzene	50.000	46.433	7.1	117	-0.01
88	T	1,2-Dichlorobenzene	50.000	46.710	6.6	125	-0.01
89	T	1,2-Dibromo-3-chloropropane	50.000	45.838	8.3	126	0.00
90	T	1,2,4-Trichlorobenzene	50.000	57.052	-14.1	149	0.00
91	T	Hexachlorobutadiene	50.000	58.986	-18.0	159	0.00
92	T	Naphthalene	50.000	68.443	-36.9#	196	0.00
93	T	1,2,3-Trichlorobenzene	50.000	55.621	-11.2	148	-0.02

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D20\RDB271.D Vial: 2
Acq On : 20 Apr 2007 3:25 pm Operator: CGM
Sample : CVO03C1565 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	0.321	0.421	-31.2#	130	0.02
3	T	Dichlorotetrafluoroethane	0.237	0.003	98.7#	1#	0.18
4	P,T	Chloromethane	0.448	0.442	1.3	109	0.02
5	C,T	Vinyl chloride	0.240	0.192	20.0	96	0.02
6	T	Bromomethane	0.213	0.199	6.6	94	0.02
7	T	Chloroethane	0.180	0.207	-15.0	114	0.02
8	T	Dichlorofluoromethane	0.616	0.435	29.4#	74	0.04
9	T	Trichlorofluoromethane	0.362	0.489	-35.1#	131	0.04
10	T	sec-Propyl alcohol	0.000	0.000	0.0	48#	0.00
11	T	Acrolein	0.045	0.039	13.3	92	0.03
12	T	1,1,2-Trichloro-1,2,2-trifl	0.249	0.247	0.8	104	0.03
13	T	Acetone	0.133	0.117	12.0	102	0.03
14	C,T	1,1-Dichloroethene	0.618	0.645	-4.4	118	0.03
15	T	tert-Butyl alcohol	0.025	0.024	4.0	106	0.01
16	T	Acetonitrile	0.000	0.000	0.0	113	0.01
17	T	Iodomethane	0.431	0.399	7.4	97	0.03
18	T	Methyl acetate	0.000	0.000	0.0	117	0.01
19	T	Methylene chloride	0.609	0.613	-0.7	117	0.03
20	T	Carbon disulfide	1.149	1.144	0.4	103	0.03
21	T	Acrylonitrile	0.109	0.107	1.8	106	0.03
22	T	tert-Butyl methyl ether (MT	0.550	0.644	-17.1	120	0.01
23	T	trans-1,2-Dichloroethene	0.593	0.656	-10.6	116	0.01
24	T	Isopropyl ether (DIPE)	1.277	1.373	-7.5	111	0.01
25	T	Vinyl acetate	0.662	0.793	-19.8	120	0.02
26	P,T	1,1-Dichloroethane	0.672	0.756	-12.5	114	0.01
27	T	tert-Butyl ethyl ether (ETB	0.673	0.895	-33.0#	135	0.02
28	T	2-Butanone	0.167	0.174	-4.2	111	0.00
29	T	2,2-Dichloropropane	0.289	0.348	-20.4#	129	0.02
30	T	cis-1,2-Dichloroethene	0.657	0.702	-6.8	111	0.00
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	141	0.02
32	C,T	Chloroform	0.672	0.673	-0.1	105	0.02
33	T	Bromochloromethane	0.338	0.386	-14.2	123	0.02
34	T	Tetrahydrofuran	0.101	0.114	-12.9	127	0.00
35	T	1,1,1-Trichloroethane	0.494	0.535	-8.3	103	0.02
36	T	1,1-Dichloropropene	0.170	0.183	-7.6	110	0.02
37	T	Cyclohexane	0.000	0.000	0.0	125	0.00
38	T	tert-Amyl methyl ether (TAM	0.506	0.650	-28.5#	127	0.00
39	S	1,2-Dichloroethane-d4	0.495	0.501	-1.2	100	0.00
40	I	CHLOROBENZENE-D5	1.000	1.000	0.0	105	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D20\RDB271.D Vial: 2
Acq On : 20 Apr 2007 3:25 pm Operator: CGM
Sample : CVO03C1565 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.419	0.444	-6.0	106	0.00
42	T	1,2-Dichloroethane	0.640	0.601	6.1	105	0.02
43	T	Benzene	1.284	1.347	-4.9	114	0.00
44	T	Trichloroethene	0.379	0.387	-2.1	109	0.00
45	T	Methylcyclohexane	0.000	0.000	0.0	119	0.00
46	C,T	1,2-Dichloropropane	0.418	0.441	-5.5	113	0.00
47	T	Bromodichloromethane	0.530	0.511	3.6	101	0.00
48	T	Dibromomethane	0.263	0.257	2.3	104	0.00
49	T	2-Chloroethyl vinyl ether	0.147	0.153	-4.1	112	0.00
50	T	4-Methyl-2-pentanone	0.404	0.392	3.0	104	0.00
51	T	cis-1,3-Dichloropropene	0.458	0.589	-28.6#	128	0.00
52	S	Toluene-d8	1.246	1.194	4.2	98	0.00
53	C,T	Toluene	1.420	1.405	1.1	105	0.00
54	T	Ethyl methacrylate	0.404	0.436	-7.9	112	0.01
55	T	trans-1,3-Dichloropropene	0.385	0.478	-24.2#	122	0.01
56	T	2-Hexanone	0.272	0.265	2.6	106	0.00
57	T	1,1,2-Trichloroethane	0.316	0.295	6.6	99	0.00
58	T	1,3-Dichloropropane	0.527	0.548	-4.0	111	0.00
59	T	Tetrachloroethene	0.324	0.354	-9.3	118	0.00
60	T	Dibromochloromethane	0.358	0.370	-3.4	104	0.00
61	T	1,2-Dibromoethane	0.312	0.324	-3.8	111	0.00
62	T	1-Chlorohexane	0.550	0.521	5.3	96	0.00
63	P	Chlorobenzene	0.917	0.919	-0.2	106	-0.01
64	T	1,1,1,2-Tetrachloroethane	0.321	0.318	0.9	99	0.00
65	C,T	Ethylbenzene	1.658	1.682	-1.4	105	0.00
66	T	m-Xylene & p-Xylene	1.389	1.364	1.8	105	0.00
67	T	o-Xylene	1.401	1.423	-1.6	105	0.00
68	T	Styrene	0.948	0.989	-4.3	106	0.00
69	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	134	-0.01
70	T	Isopropylbenzene	3.037	2.517	17.1	103	0.00
71	P,T	Bromoform	0.491	0.458	6.7	114	0.00
72	P,T	1,1,2,2-Tetrachloroethane	0.812	0.669	17.6	111	0.00
73	S	4-Bromofluorobenzene	1.076	1.004	6.7	117	0.00
74	T	1,2,3-Trichloropropane	0.198	0.156	21.2#	108	0.00
75	T	trans-1,4-Dichloro-2-butene	0.214	0.208	2.8	131	0.00
76	T	n-Propylbenzene	4.107	3.497	14.9	108	0.00
77	T	Bromobenzene	0.826	0.751	9.1	117	0.00
78	T	1,3,5-Trimethylbenzene	2.664	2.265	15.0	106	0.00
79	T	2-Chlorotoluene	2.077	1.779	14.3	110	0.00
80	T	4-Chlorotoluene	2.607	2.216	15.0	110	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D20\RDB271.D Vial: 2
Acq On : 20 Apr 2007 3:25 pm Operator: CGM
Sample : CVO03C1565 Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03C15.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Fri Mar 16 10:56:40 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	2.183	1.919	12.1	112	0.00
82	T	1,2,4-Trimethylbenzene	2.673	2.313	13.5	110	0.00
83	T	sec-Butylbenzene	3.465	2.944	15.0	108	0.00
84	T	p-Isopropyltoluene	2.726	2.427	11.0	112	0.00
85	T	1,3-Dichlorobenzene	1.516	1.387	8.5	120	0.00
86	T	1,4-Dichlorobenzene	1.499	1.409	6.0	125	0.00
87	T	n-Butylbenzene	2.851	2.648	7.1	117	-0.01
88	T	1,2-Dichlorobenzene	1.433	1.339	6.6	125	-0.01
89	T	1,2-Dibromo-3-chloropropane	0.161	0.148	8.1	126	0.00
90	T	1,2,4-Trichlorobenzene	1.085	1.238	-14.1	149	0.00
91	T	Hexachlorobutadiene	0.803	0.948	-18.1	159	0.00
92	T	Naphthalene	1.273	1.953	-53.4#	196	0.00
93	T	1,2,3-Trichlorobenzene	0.989	1.100	-11.2	148	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 3/15/07 ☑ 5-ml Purge ☐ 25-ml Purge

Book # A03 -030

BATCH VO03C15.5

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RCB254	BFB03C22	2µL	NA	NA	NA	
02	255	↓ 23 ✓	2µL				Ket/AA 8260 TBA
03	256	V003C151 ✓	.16/2/.04µL				8 2 10 ppb
04	257	2 ✓	4/5/1µL				20 5 25
05	258	3 ✓	8/10/2µL				40 10 50
06	259	4 ✓	16/20/4µL				80 20 100
07	260	5 ✓	4/5/1µL				200 50 250
08	261	6 ✓	64/8/1.6µL				320 80 400
09	262	7 ✓	8/10/2µL				400 100 500
10	263	8 ✓	16/20/4µL				800 200 1000
11	264	↓ 9 ✓	24/30/6µL				1200 300 1500
12	265	IS/SS check					
13	266	V003C23B					
14	267	IV003C151 ✓	4/5/1µL				200 50 250
15	268	↓ 2	16/2/4µL				80 20 100
16	269	Rinse					
17	↓ 270	Rinse					
18							
19							
20							
21							
22							
23							
24							
25							CGM 3/15/07

Instrument No.	03
INITIAL CALIBRATION REFERENCE	
DATE	3/15/07
ICAL ID	V003C15

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SVIC-11-58-3	250
DCC 8260	SVIC-11-69-2	50/250
DCC Gases	SVIC-11-69-1	250
BFB	SVIC-11-58-1	50
IS/SURR	SVIC-11-70-3	250
LCS Ket/AA	SVIC-11-59-2	250
LCS 8260	SVIC-11-63-2	50-1000
LCS Gases	SVIC-11-69-3	250
SOLVENT IS	SVIC-11-70-1 ID	250
METHANOL SS	SVIC-11-70-2	250
DATA FILE	07C15	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO03	

Comments:

Freon 114 1° SVIC-11-64-1 250 ppm

Freon 114 2° SVIC-11-64-2 250 ppm

Analyzed By: CGM

Date Disposed: 3/16/07

Disposed By: CGM

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EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/16/07 ☑ 5-ml Purge ☐ 25-ml Purge

Book # A03 -030

BATCH CV0Ø3C1557

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RDB198	BFBØ3D16	2µL				
02	199	17					22:11
03	200	CV0Ø3~~K13~~ C15 57 CGM 4/16/07	4/5/1µL				
04	201	58					
05	202	V0Ø3D17L	1.6/2.4µL	1.0			
06	203	C					
07	204	B	5.0g				
08	205	Q					
09	206	07D148-01				✓	for re-analysis, DCC did not meet criteria
10	207	-02				✓	
11	208	07D134-01	4.8g	1.0		✓	
12	209	-02	6.4g	0.78		✓	
13	210	-03	5.0g	1.0		✓	
14	211	-05	5.5g	0.91		✓	
15	212	-06	4.2g	1.2		✓	
16	213	-07	5.5g	0.91		✓	
17	214	-09X	5.2g	0.96		✓	
18	215	-10	4.5g	1.1		✓	
19	216	-11	5.5g	0.91		✓	
20	217	-12	5.0g	1.0		✓	
21							
22							
23							
24							
25							CGM 4/16/07

Instrument No.	03
INITIAL CALIBRATION REFERENCE	
DATE	3/15/07
ICAL ID	V0Ø3C15

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC-11-58-3	250
DCC	-69-2	50/250
DCC	-69-1	250
BFB	-58-1	50
IS/SURR.	-70-3	250
LCS	-59-2	250
LCS	-63-2	50-1000
LCS	-69-3	250

SOLVENT	ID
METHANOL	
DATA FILE	07D16

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO03	

Comments:

Analyzed By: CGM

Date Disposed: 4/17/07

Disposed By: CGM

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EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/20/07 ☑ 5-ml Purge ☐ 25-ml Purge

Book # A03 -030

BATCH

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDB270	BFB@3D22	2ML				
02		271	CV0@3C1565	4/5/1ML				
03		272	↓ CC	↓				
04		273	V0@3D22L	1.6/2.4ML	1.0			
05		274	↓ C	↓	↓			
06		275	B	5.0g				
07		276	↓ Q	↓	↓			
08		277	07D134-09R	5.2g	CGM 4/20 0.96		✓	
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								CGM 4/20/07

Instrument No.	03
INITIAL CALIBRATION REFERENCE	
DATE	3/15/07
ICAL ID	V0@3C15
STANDARDS	
NAME	ID / CONC (mg/L)
DCC	SVIC-11-58-3 / 250
DCC	-69-2 / 50/250
DCC	-69-1 / 250
BFB	-58-1 / 50
IS/SURR.	-70-3 / 250
LCS	-59-2 / 250
LCS	-69-2 / 50-100
LCS	-69-3 / 250
SOLVENT	ID
METHANOL	
DATA FILE	07D20
Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO03 pages 65-76	4/23/07

Comments:

Analyzed By: CGM

Date Disposed: 4/23/07

Disposed By: CGM

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EXTRACTION LOGS

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-016

Matrix: SOIL STARTING DATE 4/16/07 13:20 Ending Date 4/16/07 13:40

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.
BLANK	30.1	35.1	5.0	1.00
07D134-01	31.5	36.3	4.8	1.04
07D134-02	31.6	38.0	6.4	0.78
07D134-03	31.7	36.7	5.0	1.00
07D134-05	31.7	37.2	5.5	0.91
07D134-06	31.6	35.8	4.2	1.19
07D134-07	31.5	37.0	5.5	0.91
07D134-09	31.6	36.8	5.2	0.96
07D134-10	31.7	36.2	4.5	1.11
07D134-11	31.5	37.0	5.5	0.91
07D134-12	31.6	36.6	5.0	1.00

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20		
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML VOLUME METRIC FLASK.

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: LGM

Extract Received By: CM

Extract Location	N/A

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-016

Matrix: SOIL STARTING DATE 4/20/07 14:50 Ending Date 4/20/07 15:30

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.
VPD004SB	31.4	36.4	5.0	1.00
VPD004SQ	31.2	36.2	5.0	1.00
07D230-01	32.6	38.6	6.0	0.83
07D230-02	32.7	38.4	5.7	0.88
07D230-03	32.8	38.6	5.8	0.86
07D230-04	32.8	38.8	6.0	0.83
07D230-01R	32.5	38.7	6.2	0.81
07D230-02R	32.7	38.7	6.0	0.83
07D230-03R	32.5	37.9	5.4	0.93
07D230-04R	32.7	38.5	5.8	0.86
07D134-09R	31.6	36.8	5.2	0.96
07D190-01	31.6	35.5	3.9	1.28
07D190-02	31.7	36.4	4.7	1.06
07D190-03	31.6	36.9	5.3	0.94
07D190-04	31.6	36.6	5.0	1.00

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20	SW1A-02-1377	1.0G
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML

VO;LUME METRIC FLASK.

D134 AND D190 ARE UNPRESERVED

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: CGM

Extract Received By: CM

Extract Location	N\A \VW05

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 07D134

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

One (1) water and three (3) soil samples were received on 04/11/07 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D134
Instrument ID : T-052

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVD017WB	1	NA	04/19/0715:55	04/16/0717:00	RDK073	RBK053	SVD017W	Method Blank
LCS1W	SVD017WL	1	NA	04/19/0716:14	04/16/0717:00	RDK074	RBK053	SVD017W	Lab Control Sample (LCS)
LCD1W	SVD017WC	1	NA	04/19/0716:33	04/16/0717:00	RDK075	RBK053	SVD017W	LCS Duplicate
LEB-041007	D134-04	.94	NA	04/19/0718:09	04/16/0717:00	RDK080	RBK053	SVD017W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVD018SB	1	NA	04/19/0718:28	04/17/0715:00	RDK081	RBK053	SVD018S	Method Blank
LCS1S	SVD018SL	1	NA	04/19/0718:47	04/17/0715:00	RDK082	RBK053	SVD018S	Lab Control Sample (LCS)
LCD1S	SVD018SC	1	NA	04/19/0719:06	04/17/0715:00	RDK083	RBK053	SVD018S	LCS Duplicate
A6-HAS1@0.5	D134-01	1	4.9	04/19/0720:04	04/17/0715:00	RDK086	RBK053	SVD018S	Field Sample
A6-HAS1@5	D134-02	1	10.2	04/19/0720:23	04/17/0715:00	RDK087	RBK053	SVD018S	Field Sample
A6-HAS101@0.5	D134-03	1	12.8	04/19/0720:42	04/17/0715:00	RDK088	RBK053	SVD018S	Field Sample

FN - Filename
% Moist - Percent Moisture

2005

SAMPLE RESULTS

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/17/07 15:00
Sample ID:	A6-HAS1@0.5	Date Analyzed:	04/19/07 20:04
Lab Samp ID:	D134-01	Dilution Factor:	1
Lab File ID:	RDK086	Matrix	: SOIL
Ext Btch ID:	SVD018S	% Moisture	: 4.9
Calib. Ref.:	RBK053	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	350	180
1,2-DICHLOROBENZENE	ND	350	180
1,3-DICHLOROBENZENE	ND	350	180
1,4-DICHLOROBENZENE	ND	350	180
2,4,5-TRICHLOROPHENOL	ND	350	180
2,4,6-TRICHLOROPHENOL	ND	350	190
2,4-DICHLOROPHENOL	ND	350	180
2,4-DIMETHYLPHENOL	ND	350	180
2,4-DINITROPHENOL	ND	690	180
2,4-DINITROTOLUENE	ND	350	180
2,6-DINITROTOLUENE	ND	350	180
2-CHLORONAPHTHALENE	ND	350	180
2-CHLOROPHENOL	ND	350	180
2-METHYLNAPHTHALENE	ND	350	180
2-METHYLPHENOL	ND	350	180
2-NITROANILINE	ND	350	180
2-NITROPHENOL	ND	350	180
3,3'-DICHLOROBENZIDINE	ND	350	180
3-NITROANILINE	ND	350	180
4,6-DINITRO-2-METHYLPHENOL	ND	690	180
4-BROMOPHENYL-PHENYL ETHER	ND	350	180
4-CHLORO-3-METHYLPHENOL	ND	350	180
4-CHLOROANILINE	ND	350	180
4-CHLOROPHENYL-PHENYL ETHER	ND	350	180
4-METHYLPHENOL (1)	ND	350	180
4-NITROANILINE	ND	350	180
4-NITROPHENOL	ND	690	180
ACENAPHTHENE	ND	350	180
ACENAPHTHYLENE	ND	350	180
ANTHRACENE	ND	350	180
BENZO(A)ANTHRACENE	ND	350	180
BENZO(A)PYRENE	ND	350	180
BENZO(B)FLUORANTHENE	ND	350	180
BENZO(K)FLUORANTHENE	ND	350	180
BENZO(G,H,I)PERYLENE	ND	350	180
BIS(2-CHLOROETHOXY)METHANE	ND	350	180
BIS(2-CHLOROETHYL)ETHER	ND	350	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	350	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	350	180
BUTYLBENZYLPHTHALATE	ND	350	180
CHRYSENE	ND	350	180
DI-N-BUTYLPHTHALATE	ND	350	180
DI-N-OCTYLPHTHALATE	ND	350	180
DIBENZO(A,H)ANTHRACENE	ND	350	180
DIBENZOFURAN	ND	350	180
DIETHYLPHTHALATE	ND	350	180
DIMETHYLPHTHALATE	ND	350	180
FLUORANTHENE	ND	350	180
FLUORENE	ND	350	180
HEXACHLOROBENZENE	ND	350	180
HEXACHLOROBUTADIENE	ND	350	200
HEXACHLOROCYCLOPENTADIENE	ND	350	180
HEXACHLOROETHANE	ND	350	180
INDENO(1,2,3-CD)PYRENE	ND	350	180
ISOPHORONE	ND	350	180
N-NITROSO-DI-N-PROPYLAMINE	ND	350	180
N-NITROSODIPHENYLAMINE (2)	ND	350	180
NAPHTHALENE	ND	350	180
NITROBENZENE	ND	350	180
PENTACHLOROPHENOL	ND	690	180
PHENANTHRENE	ND	350	180
PHENOL	ND	350	180
PYRENE	ND	350	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	84	20-140
2-FLUOROBIPHENYL	79	30-130
2-FLUOROPHENOL	62	20-130
NITROBENZENE-D5	81	20-130
PHENOL-D5	75	20-130
TERPHENYL-D14	76	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/17/07 15:00
Sample ID:	A6-HAS1@5	Date Analyzed:	04/19/07 20:23
Lab Samp ID:	D134-02	Dilution Factor:	1
Lab File ID:	RDK087	Matrix :	SOIL
Ext Btch ID:	SVD018S	% Moisture :	10.2
Calib. Ref.:	RBK053	Instrument ID :	T-052

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	200
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	730	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	730	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	730	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	730	190
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	73	20-140
2-FLUOROBIPHENYL	81	30-130
2-FLUOROPHENOL	80	20-130
NITROBENZENE-D5	76	20-130
PHENOL-D5	93	20-130
TERPHENYL-D14	73	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/17/07 15:00
Sample ID:	A6-HAS101@0.5	Date Analyzed:	04/19/07 20:42
Lab Samp ID:	D134-03	Dilution Factor:	1
Lab File ID:	RDK088	Matrix	: SOIL
Ext Btch ID:	SVD018S	% Moisture	: 12.8
Calib. Ref.:	RBK053	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	380	190
1,2-DICHLOROBENZENE	ND	380	190
1,3-DICHLOROBENZENE	ND	380	190
1,4-DICHLOROBENZENE	ND	380	190
2,4,5-TRICHLOROPHENOL	ND	380	190
2,4,6-TRICHLOROPHENOL	ND	380	210
2,4-DICHLOROPHENOL	ND	380	190
2,4-DIMETHYLPHENOL	ND	380	190
2,4-DINITROPHENOL	ND	760	190
2,4-DINITROTOLUENE	ND	380	190
2,6-DINITROTOLUENE	ND	380	190
2-CHLORONAPHTHALENE	ND	380	190
2-CHLOROPHENOL	ND	380	190
2-METHYLNAPHTHALENE	ND	380	190
2-METHYLPHENOL	ND	380	190
2-NITROANILINE	ND	380	190
2-NITROPHENOL	ND	380	190
3,3'-DICHLOROBENZIDINE	ND	380	190
3-NITROANILINE	ND	380	190
4,6-DINITRO-2-METHYLPHENOL	ND	760	190
4-BROMOPHENYL-PHENYL ETHER	ND	380	190
4-CHLORO-3-METHYLPHENOL	ND	380	190
4-CHLOROANILINE	ND	380	190
4-CHLOROPHENYL-PHENYL ETHER	ND	380	190
4-METHYLPHENOL (1)	ND	380	190
4-NITROANILINE	ND	380	190
4-NITROPHENOL	ND	760	190
ACENAPHTHENE	ND	380	190
ACENAPHTHYLENE	ND	380	190
ANTHRACENE	ND	380	190
BENZO(A)ANTHRACENE	ND	380	190
BENZO(A)PYRENE	ND	380	190
BENZO(B)FLUORANTHENE	ND	380	190
BENZO(K)FLUORANTHENE	ND	380	190
BENZO(G,H,I)PERYLENE	ND	380	190
BIS(2-CHLOROETHOXY)METHANE	ND	380	190
BIS(2-CHLOROETHYL)ETHER	ND	380	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	380	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	380	190
BUTYLBENZYLPHTHALATE	ND	380	190
CHRYSENE	ND	380	190
DI-N-BUTYLPHTHALATE	ND	380	190
DI-N-OCTYLPHTHALATE	ND	380	190
DIBENZO(A,H)ANTHRACENE	ND	380	190
DIBENZOFURAN	ND	380	190
DIETHYLPHTHALATE	ND	380	190
DIMETHYLPHTHALATE	ND	380	190
FLUORANTHENE	ND	380	190
FLUORENE	ND	380	190
HEXACHLOROBENZENE	ND	380	190
HEXACHLOROBUTADIENE	ND	380	220
HEXACHLOROCYCLOPENTADIENE	ND	380	190
HEXACHLOROETHANE	ND	380	190
INDENO(1,2,3-CD)PYRENE	ND	380	190
ISOPHORONE	ND	380	190
N-NITROSO-DI-N-PROPYLAMINE	ND	380	190
N-NITROSODIPHENYLAMINE (2)	ND	380	190
NAPHTHALENE	ND	380	190
NITROBENZENE	ND	380	190
PENTACHLOROPHENOL	ND	760	200
PHENANTHRENE	ND	380	190
PHENOL	ND	380	190
PYRENE	ND	380	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	79	20-140
2-FLUOROBIPHENYL	85	30-130
2-FLUOROPHENOL	83	20-130
NITROBENZENE-D5	87	20-130
PHENOL-D5	96	20-130
TERPHENYL-D14	73	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/16/07 17:00
Sample ID:	LEB-041007	Date Analyzed:	04/19/07 18:09
Lab Samp ID:	D134-04	Dilution Factor:	.94
Lab File ID:	RDK080	Matrix	: WATER
Ext Btch ID:	SVD017W	% Moisture	: NA
Calib. Ref.:	RBK053	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	74	30-150
2-FLUOROBIPHENYL	77	30-130
2-FLUOROPHENOL	111	20-130
NITROBENZENE-D5	73	30-130
PHENOL-D5	119	30-130
TERPHENYL-D14	82	30-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARIES

METHOD 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/16/07
Batch No.	: 07D134	Date Extracted:	04/16/07 17:00
Sample ID:	MBLK1W	Date Analyzed:	04/19/07 15:55
Lab Samp ID:	SVD017WB	Dilution Factor:	1
Lab File ID:	RDK073	Matrix	: WATER
Ext Btch ID:	SVD017W	% Moisture	: NA
Calib. Ref.:	RBK053	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5.0
1,2-DICHLOROBENZENE	ND	10	5.0
1,3-DICHLOROBENZENE	ND	10	5.0
1,4-DICHLOROBENZENE	ND	10	5.0
2,4,5-TRICHLOROPHENOL	ND	10	5.0
2,4,6-TRICHLOROPHENOL	ND	10	5.0
2,4-DICHLOROPHENOL	ND	10	5.0
2,4-DIMETHYLPHENOL	ND	10	5.0
2,4-DINITROPHENOL	ND	20	5.0
2,4-DINITROTOLUENE	ND	10	5.0
2,6-DINITROTOLUENE	ND	10	5.0
2-CHLORONAPHTHALENE	ND	10	5.0
2-CHLOROPHENOL	ND	10	5.0
2-METHYLNAPHTHALENE	ND	10	5.0
2-METHYLPHENOL	ND	10	5.0
2-NITROANILINE	ND	10	5.0
2-NITROPHENOL	ND	10	5.0
3,3'-DICHLOROBENZIDINE	ND	10	5.0
3-NITROANILINE	ND	10	5.0
4,6-DINITRO-2-METHYLPHENOL	ND	20	5.0
4-BROMOPHENYL-PHENYL ETHER	ND	10	5.0
4-CHLORO-3-METHYLPHENOL	ND	10	5.0
4-CHLOROANILINE	ND	10	5.0
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5.0
4-METHYLPHENOL (1)	ND	10	5.0
4-NITROANILINE	ND	10	5.0
4-NITROPHENOL	ND	20	5.0
ACENAPHTHENE	ND	10	5.0
ACENAPHTHYLENE	ND	10	5.0
ANTHRACENE	ND	10	5.0
BENZO(A)ANTHRACENE	ND	10	5.0
BENZO(A)PYRENE	ND	10	5.0
BENZO(B)FLUORANTHENE	ND	10	5.0
BENZO(K)FLUORANTHENE	ND	10	5.0
BENZO(G,H,I)PERYLENE	ND	10	5.0
BIS(2-CHLOROETHOXY)METHANE	ND	10	5.0
BIS(2-CHLOROETHYL)ETHER	ND	10	5.0
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5.0
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5.0
BUTYLBENZYLPHTHALATE	ND	10	5.0
CHRYSENE	ND	10	5.0
DI-N-BUTYLPHTHALATE	ND	10	5.0
DI-N-OCTYLPHTHALATE	ND	10	5.0
DIBENZO(A,H)ANTHRACENE	ND	10	5.0
DIBENZOFURAN	ND	10	5.0
DIETHYLPHTHALATE	ND	10	5.0
DIMETHYLPHTHALATE	ND	10	5.0
FLUORANTHENE	ND	10	5.0
FLUORENE	ND	10	5.0
HEXACHLOROBENZENE	ND	10	5.0
HEXACHLOROBUTADIENE	ND	10	5.0
HEXACHLOROCYCLOPENTADIENE	ND	10	5.0
HEXACHLOROETHANE	ND	10	5.0
INDENO(1,2,3-CD)PYRENE	ND	10	5.0
ISOPHORONE	ND	10	5.0
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5.0
N-NITROSODIPHENYLAMINE (2)	ND	10	5.0
NAPHTHALENE	ND	10	5.0
NITROBENZENE	ND	10	5.0
PENTACHLOROPHENOL	ND	20	5.0
PHENANTHRENE	ND	10	5.0
PHENOL	ND	10	5.0
PYRENE	ND	10	5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	65	40-140
2-FLUOROBIPHENYL	53	40-130
2-FLUOROPHENOL	50	30-130
NITROBENZENE-D5	47	40-130
PHENOL-D5	49	30-130
TERPHENYL-D14	79	50-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 3520C/8270C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVD017WB	SVD017WL	SVD017WC		
LAB FILE ID:	RDK073	RDK074	RDK075		
DATE EXTRACTED:	04/16/0717:00	04/16/0717:00	04/16/0717:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0715:55	04/19/0716:14	04/19/0716:33	DATE RECEIVED:	04/16/07
PREP. BATCH:	SVD017W	SVD017W	SVD017W		
CALIB. REF:	RBK053	RBK053	RBK053		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80.0	48.1	60	80.0	50.6	63	5	30-130	30
1,4-Dichlorobenzene	ND	80.0	47.0	59	80.0	51.8	65	10	30-130	30
2,4-Dinitrotoluene	ND	80.0	69.7	87	80.0	58.3	73	18	40-130	30
2-Chlorophenol	ND	80.0	53.0	66	80.0	46.5	58	13	30-130	30
4-Chloro-3-Methylphenol	ND	80.0	54.5	68	80.0	48.3	60	12	40-130	30
4-Nitrophenol	ND	80.0	58.8	74	80.0	34.7	43	51*	30-130	30
Acenaphthene	ND	80.0	56.8	71	80.0	56.8	71	0	40-130	30
n-Nitroso-di-n-propylamine	ND	80.0	64.0	80	80.0	60.9	76	5	30-130	30
Pentachlorophenol	ND	80.0	52.6	66	80.0	49.2	61	7	30-130	30
Phenol	ND	80.0	58.6	73	80.0	45.0	56	26	20-130	30
Pyrene	ND	80.0	56.1	70	80.0	50.1	63	11	50-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	149	99	150	120	80	40-140
2-Fluorobiphenyl	50.0	40.9	82	50.0	38.4	77	40-130
2-Fluorophenol	150	102	68	150	78.8	53	30-130
Nitrobenzene-d5	50.0	37.2	74	50.0	36.0	72	40-130
Phenol-d5	150	120	80	150	80.1	53	30-130
Terphenyl-d14	50.0	41.1	82	50.0	32.4	65	50-130

METHOD 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D134	Date Extracted:	04/17/07 15:00
Sample ID	: MBLK1S	Date Analyzed:	04/19/07 18:28
Lab Samp ID	: SVD018SB	Dilution Factor:	1
Lab File ID	: RDK081	Matrix	: SOIL
Ext Btch ID	: SVD018S	% Moisture	: NA
Calib. Ref.	: RBK053	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	84	40-130
2-FLUOROBIPHENYL	91	30-130
2-FLUOROPHENOL	72	30-130
NITROBENZENE-D5	76	30-130
PHENOL-D5	76	30-130
TERPHENYL-D14	74	40-130

(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 3550B/8270C

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVD018SB	SVD018SL	SVD018SC		
LAB FILE ID:	RDK081	RDK082	RDK083		
DATE EXTRACTED:	04/17/0715:00	04/17/0715:00	04/17/0715:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0718:28	04/19/0718:47	04/19/0719:06	DATE RECEIVED:	04/17/07
PREP. BATCH:	SVD018S	SVD018S	SVD018S		
CALIB. REF:	RBK053	RBK053	RBK053		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2670	2400	90	2670	2300	86	4	30-130	50
1,4-Dichlorobenzene	ND	2670	2220	83	2670	2060	77	7	30-130	50
2,4-Dinitrotoluene	ND	2670	2470	92	2670	2460	92	0	30-130	50
2-Chlorophenol	ND	2670	2170	81	2670	1990	75	9	30-130	50
4-Chloro-3-Methylphenol	ND	2670	2070	78	2670	2000	75	4	30-130	50
4-Nitrophenol	ND	2670	1970	74	2670	2030	76	3	20-130	50
Acenaphthene	ND	2670	2280	85	2670	2120	80	7	30-130	50
n-Nitroso-di-n-propylamine	ND	2670	2250	85	2670	2110	79	6	30-130	50
Pentachlorophenol	ND	2670	1880	71	2670	1850	69	2	20-130	50
Phenol	ND	2670	2330	88	2670	2230	84	4	30-130	50
Pyrene	ND	2670	1900	71	2670	1920	72	1	30-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	4770	95	5000	4660	93	40-130
2-Fluorobiphenyl	1670	1550	93	1670	1470	88	30-130
2-Fluprophenol	5000	3990	80	5000	3650	73	30-130
Nitrobenzene-d5	1670	1480	88	1670	1430	85	30-130
Phenol-d5	5000	4680	94	5000	4380	88	30-130
Terphenyl-d14	1670	1290	77	1670	1380	83	40-130

INITIAL CALIBRATIONS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBK048
Instrument ID: T-052

Project: ICAL
SDG No.: 07D134
DFTPP Injection Date: 02/06/07
DFTPP Injection Time: 16:14

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.06
68	Less than 2% of mass 69	0.00(0.0)1
69	Relative abundance of mass 198	48.83
70	Less than 2.0% of mass 69	0.15(0.3)1
127	40.0 - 60.0% of mass 198	43.23
197	Less than 1.0% of mass 198	0.32
198	Base Peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.58
275	10.0 - 30.0% of mass 198	19.85
365	Greater than 1.00% of mass 198	2.10
441	Present, but less than mass 443	14.65
442	Greater than 40.0% of mass 198	91.42
443	17.0 - 23.0% of mass 442	19.61(21.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SSTD05	SV52B061	RBK049	02/06/07	16:50
2	SSTD010	SV52B062	RBK050	02/06/07	17:09
3	SSTD020	SV52B063	RBK051	02/06/07	17:28
4	SSTD040	SV52B064	RBK052	02/06/07	17:47
5	SSTD050	SV52B065	RBK053	02/06/07	18:05
6	SSTD080	SV52B066	RBK054	02/06/07	18:24
7	SSTD100	SV52B067	RBK055	02/06/07	18:43
8	SSTD120	SV52B068	RBK056	02/06/07	19:01
9	SSTD160	SV52B069	RBK057	02/06/07	19:20
10	SSTD050	ISV52B061	RBK058	02/06/07	19:39

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO52
Beginning DateTime :02/06/07 16:50
Spike Units :PPM
IC File :RBK053

Column Spec :ZB-5MS ID :0.18MM
Ending DateTime :02/06/07 19:20
HPChem Method :SV52B06

IDX	Parameters	5 16:50 RBK049	10 17:09 RBK050	20 17:28 RBK051	40 17:47 RBK052	50 18:05 RBK053	80 18:24 RBK054	100 18:43 RBK055	120 19:01 RBK056	160 19:20 RBK057	Av_RRF	%_RSD	Av_Rt_M
1	1,4-Dichlorobenzene-d4	1	1	1	1	1	1	1	1	1	1	0	2.6833
2	N-Nitrosodimethylamine	1.025	1.114	0.896	1.001	0.907	0.967	0.881	0.985	1.024	0.978	7.65	1.2695
3	Pyridine	1.748	1.984	1.652	1.660	1.234	1.363	1.422	1.572	------	1.579	15.05	1.2833
4	2-Fluorophenol	1.319	1.593	1.444	1.267	1.505	1.238	1.486	1.450	1.466	1.419	8.33	1.8278
5	Phenol	1.621	1.906	1.603	1.476	1.515	1.654	1.637	1.736	1.854	1.667	8.59	2.4204
6	Aniline	2.146	2.015	1.860	1.865	1.819	1.793	1.745	1.728	1.758	1.859	7.45	2.4546
7	Bis(2-chloroethyl)ether	1.356	1.352	1.333	1.390	1.211	1.151	1.435	1.298	1.045	1.286	9.78	2.4991
8	Phenol-d5	1.693	1.799	1.712	1.654	1.692	1.675	1.677	1.698	1.635	1.693	2.73	2.4111
9	2-Chlorophenol	1.458	1.536	1.449	1.416	1.347	1.422	1.347	1.494	1.336	1.423	4.90	2.5296
10	1,3-Dichlorobenzene	1.403	1.469	1.352	1.359	1.460	1.315	1.320	1.353	1.284	1.368	4.66	2.6408
11	1,4-Dichlorobenzene	1.488	1.445	1.367	1.418	1.429	1.430	1.274	1.260	1.407	1.391	5.54	2.6982
12	Benzyl alcohol	0.901	0.894	0.907	0.924	0.863	0.827	0.817	0.844	0.829	0.867	4.63	2.7981
13	1,2-Dichlorobenzene-d4	0.890	0.963	0.868	0.832	0.852	0.854	0.820	0.822	0.770	0.852	6.31	2.8018
14	1,2-Dichlorobenzene	1.486	1.499	1.362	1.382	1.299	1.322	1.137	1.146	1.189	1.314	10.28	2.8139
15	2-Methylphenol	1.124	1.096	1.019	0.982	1.098	1.094	0.952	0.960	0.870	1.022	8.50	2.8759
16	Bis(2-chloroisopropyl)ether	3.908	3.847	3.547	3.522	3.828	3.589	3.618	3.839	3.323	3.669	5.35	2.9055
17	4-Methylphenol	1.590	1.521	1.598	1.460	1.518	1.560	1.544	1.611	------	1.550	3.26	3.0073
18	N-Nitroso-di-n-propylamine	0.781	0.847	0.824	0.786	0.779	0.755	0.749	0.913	0.799	0.804	6.40	3.0268
19	Hexachloroethane	0.660	0.698	0.631	0.650	0.649	0.675	0.647	0.658	0.594	0.651	4.41	3.0796
20	Naphthalene-d8	1	1	1	1	1	1	1	1	1	1	0	3.7454
21	Nitrobenzene-d5	0.330	0.365	0.345	0.322	0.349	0.330	0.336	0.327	0.324	0.336	4.22	3.1324
22	Nitrobenzene	0.322	0.337	0.344	0.319	0.346	0.286	0.328	0.281	0.293	0.317	7.85	3.1491
23	Isophorone	0.614	0.591	0.597	0.527	0.579	0.551	0.557	0.540	0.540	0.566	5.34	3.3602
24	2-Nitrophenol	0.193	0.207	0.216	0.203	0.204	0.216	0.194	0.205	0.215	0.206	4.17	3.4130
25	2,4-Dimethylphenol	0.305	0.323	0.294	0.267	0.292	0.285	0.314	0.286	0.289	0.295	5.64	3.4620
26	bis(2-Chloroethoxy)methane	0.482	0.493	0.493	0.457	0.485	0.437	0.476	0.433	0.452	0.468	5.00	3.5574
27	Benzoic Acid	0.165	0.196	0.224	0.238	0.253	0.263	0.244	0.251	0.258	0.232	13.97	3.6037
28	2,4-Dichlorophenol	0.295	0.281	0.292	0.271	0.289	0.268	0.286	0.251	0.255	0.276	5.86	3.6222
29	1,2,4-Trichlorobenzene	0.288	0.291	0.289	0.260	0.272	0.265	0.267	0.255	0.255	0.271	5.37	3.6954
30	Naphthalene	1.094	1.046	0.968	0.912	1.023	0.848	0.923	0.968	0.797	0.953	9.94	3.7648
31	4-Chloroaniline	0.497	0.512	0.461	0.415	0.490	0.423	0.459	0.411	0.421	0.454	8.54	3.8250
32	Hexachlorobutadiene	0.162	0.157	0.153	0.140	0.143	0.150	0.142	0.131	0.121	0.144	9.03	3.8787
33	4-Chloro-3-methylphenol	0.294	0.319	0.331	0.300	0.290	0.301	0.269	0.290	0.263	0.295	7.23	4.2787
34	2-Methylnaphthalene	0.639	0.659	0.631	0.586	0.577	0.581	0.530	0.505	0.553	0.585	8.79	4.4046
35	Acenaphthene-d10	1	1	1	1	1	1	1	1	1	1	0	5.3889
36	Hexachlorocyclopentadiene	0.197	0.208	0.219	0.262	0.257	0.280	0.281	0.277	0.247	0.248	12.94	4.5472
37	2,4,6-Trichlorophenol	0.381	0.366	0.386	0.393	0.372	0.379	0.406	0.405	0.378	0.385	3.61	4.6713
38	2,4,5-Trichlorophenol	0.379	0.348	0.350	0.407	0.405	0.315	0.401	0.410	0.408	0.380	9.12	4.7000
39	2-Fluorobiphenyl	1.319	1.281	1.187	1.228	1.200	1.146	1.148	1.213	1.120	1.205	5.39	4.7630
40	2-Chloronaphthalene ●	1.213	1.162	1.137	1.128	1.110	1.230	1.164	1.099	1.180	1.158	3.84	4.8602
41	2-Nitroaniline	0.380	0.397	0.379	0.390	0.429	0.458	0.411	0.451	0.432	0.414	7.21	4.9759
42	Dimethylphthalate	1.319	1.227	1.197	1.266	1.236	1.237	1.327	1.281	1.256	1.261	3.39	5.1796
43	Acenaphthylene	2.014	1.832	1.827	1.828	1.816	1.903	1.891	1.755	1.821	1.854	3.97	5.2519
44	2,6-Dinitrotoluene	0.239	0.251	0.270	0.281	0.311	0.328	0.288	0.339	0.329	0.293	12.32	5.2269
45	3-Nitroaniline	0.363	0.384	0.406	0.393	0.395	0.385	0.448	0.396	0.366	0.393	6.35	5.3769
46	Acenaphthene	1.120	1.044	0.929	0.966	1.006	0.885	1.035	0.989	0.949	0.991	7.06	5.4241
47	2,4-Dinitrophenol	0.072	0.098	0.130	0.170	0.177	0.193	0.201	0.201	------	0.155	31.90	5.4698
48	4-Nitrophenol	0.124	0.138	0.148	0.152	0.150	0.183	0.195	0.175	0.186	0.161	15.07	5.5565
49	Dibenzofuran	1.726	1.696	1.561	1.574	1.656	1.587	1.625	1.556	1.566	1.616	3.89	5.5917
50	2,4-Dinitrotoluene	0.371	0.380	0.363	0.395	0.393	0.413	0.410	0.427	0.450	0.400	6.96	5.6046
51	Diethylphthalate	1.355	1.350	1.291	1.294	1.323	1.309	1.391	1.395	1.250	1.329	3.64	5.8704
52	Fluorene	1.183	1.214	1.181	1.208	1.118	1.056	1.176	1.202	1.065	1.156	5.26	5.9213
53	4-Chlorophenyl-phenylether	0.522	0.511	0.500	0.481	0.509	0.484	0.541	0.516	0.474	0.504	4.26	5.9417
54	4-Nitroaniline	0.373	0.425	0.421	0.445	0.412	0.416	0.421	0.425	0.389	0.414	5.14	5.9796
55	4,6-Dinitro-2-methylphenol	0.127	0.162	0.189	0.201	0.202	0.241	0.253	0.235	0.258	0.208	21.22	5.9972
56	Azobenzene	1.437	1.541	1.323	1.445	1.495	1.508	1.533	1.491	1.508	1.476	4.55	6.1000
57	2,4,6-Tribromophenol	0.266	0.301	0.304	0.314	0.339	0.337	0.340	0.315	0.297	0.313	7.73	6.1500
58	Phenanthrene-d10	1	1	1	1	1	1	1	1	1	1	0	6.8232
59	N-Nitrosodiphenylamine	0.653	0.649	0.618	0.615	0.638	0.654	0.569	0.634	0.619	0.628	4.27	6.0676
60	4-Bromophenyl-phenylether	0.279	0.293	0.276	0.290	0.261	0.292	0.251	0.271	0.243	0.273	6.60	6.4130
61	Hexachlorobenzene	0.448	0.415	0.381	0.407	0.417	0.377	0.393	0.405	0.401	0.405	5.26	6.4417
62	Pentachlorophenol	0.235	0.257	0.274	0.305	0.301	0.286	0.301	0.313	0.285	0.284	8.85	6.6389
63	Phenanthrene	1.405	1.337	1.204	1.285	1.284	1.139	1.263	1.262	1.211	1.266	6.13	6.8500
64	Anthracene	1.406	1.352	1.249	1.271	1.263	1.112	1.257	1.251	1.245	1.267	6.34	6.8991
65	Carbazole	1.422	1.342	1.283	1.217	1.249	1.329	1.148	1.182	1.146	1.258	7.54	7.0676
66	Di-n-butylphthalate	1.914	1.857	1.750	1.759	1.867	1.716	1.846	1.863	1.622	1.799	5.19	7.4657
67	Fluoranthene	1.239	1.211	1.108	1.132	1.164	1.081	1.130	1.102	1.109	1.142	4.65	8.0000
68	Chrysene-d12	1	1	1	1	1	1	1	1	1	1	0	9.3991
69	Benzidine	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------
70	Pyrene	1.520	1.497	1.406	1.485	1.439	1.446	1.590	1.520	1.612	1.502	4.55	8.2139
71	Terphenyl-d14	0.977	1.020	0.944	0.986	0.971	0.993	1.062	1.037	0.976	0.996	3.69	8.4055
72	Butylbenzylphthalate	0.805	0.854	0.828	0.898	0.885	0.962	0.959	0.913	1.046	0.906	8.28	8.9222
73	3,3'-Dichlorobenzidine	0.374	0.404	0.394	0.449	0.437	0.497	0.478	0.429	0.434	0.433	9.09	9.3935
74	Benzo(a)anthracene	1.140	1.134	1.061	1.120	1.093	1.141	1.147	1.103	1.159	1.122	2.77	9.3880
75	Chrysene	1.151	1.155	1.069	1.079	1.049	1.220	1.128	1.097	1.076	1.114	4.89	9.4259
76	bis(2-Ethylhexyl)phthalate	1.119	1.213	1.185	1.281	1.288	1.409	1.409	1.349	1.455	1.301	8.76	9.5074
77	Perylene-d12	1	1	1	1	1	1	1	1	1	1	0	10.6796
78	Di-n-octylphthalate	1.898	2.118	2.280	2.258	2.373	2.211	2.295	2.267	2.234	2.215	6.19	10.1148
79	Benzo(b)fluoranthene	1.157	1.106	1.126	1.130	1.217	1.244	1.261	1.185	------	1.178	4.91	10.3615
80	Benzo(k)fluoranthene	1.200	1.324	1.402	1.216	1.231	1.061	1.047	1.097	------	1.197	10.49	10.3885
81	Benzo(a)pyrene	1.200	1.080	1.188	1.135	1.154	1.123	1.120	1.099	1.053	1.128	4.24	10.6343
82	Indeno(1,2,3-cd)pyrene	1.085	1.213	1.322	1.311	1.370	1.375	1.378	1.423	1.390	1.319	8.09	11.4852
83	Dibenzo(a,h)anthracene	0.824	0.930	1.027	1.074	1.103	1.059	1.123	1.125	1.072	1.038	9.61	11.5046
84	Benzo(g,h,i)perylene	1.147	1.151	1.201	1.177	1.215	1.175	1.155	1.237	1.232	1.188	2.93	11.6676

Ave_%RSD : 7.7 Max_%RSD : 31.9

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
47	2,4-Dinitrophenol	-0.02274	0.20363	0.9979
55	4,6-Dinitro-2-methylphenol	-0.02211	0.25007	0.9970

KMD
2/7/07

3015

Quantitation Limit from Lowest Initial Calibration Concentration

Instrument ID :TO52 Column Spec :ZB-5MS ID :0.18MM
Beginning DateTime :02/06/07 16:50 Ending DateTime :02/06/07 19:20
IC File :RBK053 HPChem Method :SV52B06

WATER Init. Vol. (ml) : 1000 Final Vol. (ml) : 1
SOIL Init. Weight (gm) : 30 Final Vol. (ml) : 1

IDX	Parameters	ON COL MG/L	WATER UG/L	SOIL MG/KG	R_FILE
1	1,4-Dichlorobenzene-d4	IntSTD	IntSTD	IntSTD	IntSTD
2	N-Nitrosodimethylamine	5	5	.1667	RBK049
3	Pyridine	5	5	.1667	RBK049
4	2-Fluorophenol	5	5	.1667	RBK049
5	Phenol	5	5	.1667	RBK049
6	Aniline	5	5	.1667	RBK049
7	Bis(2-chloroethyl)ether	5	5	.1667	RBK049
8	Phenol-d5	5	5	.1667	RBK049
9	2-Chlorophenol	5	5	.1667	RBK049
10	1,3-Dichlorobenzene	5	5	.1667	RBK049
11	1,4-Dichlorobenzene	5	5	.1667	RBK049
12	Benzyl alcohol	5	5	.1667	RBK049
13	1,2-Dichlorobenzene-d4	5	5	.1667	RBK049
14	1,2-Dichlorobenzene	5	5	.1667	RBK049
15	2-Methylphenol	5	5	.1667	RBK049
16	Bis(2-chloroisopropyl)ether	5	5	.1667	RBK049
17	4-Methylphenol	5	5	.1667	RBK049
18	N-Nitroso-di-n-propylamine	5	5	.1667	RBK049
19	Hexachloroethane	5	5	.1667	RBK049
20	Naphthalene-d8	IntSTD	IntSTD	IntSTD	IntSTD
21	Nitrobenzene-d5	5	5	.1667	RBK049
22	Nitrobenzene	5	5	.1667	RBK049
23	Isophorone	5	5	.1667	RBK049
24	2-Nitrophenol	5	5	.1667	RBK049
25	2,4-Dimethylphenol	5	5	.1667	RBK049
26	bis(2-Chloroethoxy)methane	5	5	.1667	RBK049
27	Benzoic Acid	5	5	.1667	RBK049
28	2,4-Dichlorophenol	5	5	.1667	RBK049
29	1,2,4-Trichlorobenzene	5	5	.1667	RBK049
30	Naphthalene	5	5	.1667	RBK049
31	4-Chloroaniline	5	5	.1667	RBK049
32	Hexachlorobutadiene	5	5	.1667	RBK049
33	4-Chloro-3-methylphenol	5	5	.1667	RBK049
34	2-Methylnaphthalene	5	5	.1667	RBK049
35	Acenaphthene-d10	IntSTD	IntSTD	IntSTD	IntSTD
36	Hexachlorocyclopentadiene	5	5	.1667	RBK049
37	2,4,6-Trichlorophenol	5	5	.1667	RBK049
38	2,4,5-Trichlorophenol	5	5	.1667	RBK049
39	2-Fluorobiphenyl	5	5	.1667	RBK049
40	2-Chloronaphthalene	5	5	.1667	RBK049
41	2-Nitroaniline	5	5	.1667	RBK049
42	Dimethylphthalate	5	5	.1667	RBK049
43	Acenaphthylene	5	5	.1667	RBK049
44	2,6-Dinitrotoluene	5	5	.1667	RBK049
45	3-Nitroaniline	5	5	.1667	RBK049
46	Acenaphthene	5	5	.1667	RBK049
47	2,4-Dinitrophenol	5	5	.1667	RBK049
48	4-Nitrophenol	5	5	.1667	RBK049
49	Dibenzofuran	5	5	.1667	RBK049
50	2,4-Dinitrotoluene	5	5	.1667	RBK049
51	Diethylphthalate	5	5	.1667	RBK049
52	Fluorene	5	5	.1667	RBK049
53	4-Chlorophenyl-phenylether	5	5	.1667	RBK049
54	4-Nitroaniline	5	5	.1667	RBK049
55	4,6-Dinitro-2-methylphenol	5	5	.1667	RBK049
56	Azobenzene	5	5	.1667	RBK049
57	2,4,6-Tribromophenol	5	5	.1667	RBK049
58	Phenanthrene-d10	IntSTD	IntSTD	IntSTD	IntSTD
59	N-Nitrosodiphenylamine	5	5	.1667	RBK049
60	4-Bromophenyl-phenylether	5	5	.1667	RBK049
61	Hexachlorobenzene	5	5	.1667	RBK049
62	Pentachlorophenol	5	5	.1667	RBK049
63	Phenanthrene	5	5	.1667	RBK049
64	Anthracene	5	5	.1667	RBK049
65	Carbazole	5	5	.1667	RBK049
66	Di-n-butylphthalate	5	5	.1667	RBK049
67	Fluoranthene	5	5	.1667	RBK049
68	Chrysene-d12	IntSTD	IntSTD	IntSTD	IntSTD
69	Benzidine	5	5	.1667	RBK049
70	Pyrene	5	5	.1667	RBK049
71	Terphenyl-d14	5	5	.1667	RBK049
72	Butylbenzylphthalate	5	5	.1667	RBK049
73	3,3'-Dichlorobenzidine	5	5	.1667	RBK049
74	Benzo(a)anthracene	5	5	.1667	RBK049
75	Chrysene	5	5	.1667	RBK049
76	bis(2-Ethylhexyl)phthalate	5	5	.1667	RBK049
77	Perylene-d12	IntSTD	IntSTD	IntSTD	IntSTD
78	Di-n-octylphthalate	5	5	.1667	RBK049
79	Benzo(b)fluoranthene	5	5	.1667	RBK049
80	Benzo(k)fluoranthene	5	5	.1667	RBK049
81	Benzo(a)pyrene	5	5	.1667	RBK049
82	Indeno(1,2,3-cd)pyrene	5	5	.1667	RBK049
83	Dibenzo(a,h)anthracene	5	5	.1667	RBK049
84	Benzo(g,h,i)perylene	5	5	.1667	RBK049

KMD
2/7/07

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO52
IC_Beginning DateTime :02/06/07 16:50
Spike Amount :50 PPM
CC/CV File :RBK058
IC File :RBK053

Column Spec :ZB-5MS ID :0.18MM
IC_Ending DateTime :02/06/07 19:20
HPChem Method :SV52B06
Date_Time :02/06/07 19:39

IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
1	1,4-Dichlorobenzene-d4	40.000	0	170608	1	1	2.683	2.683	0				
2	N-Nitrosodimethylamine	47.159	-5.7	196659	0.922	0.978	1.267	1.270	7.65				
3	Pyridine	39.097	-21.8	263396	1.235	1.579	1.283	1.283	15.05				
4	2-Fluorophenol												
5	Phenol	53.290	6.6	378910	1.777	1.667	2.417	2.420	8.59				
6	Aniline	47.090	-5.8	373337	1.751	1.859	2.450	2.455	7.45				
7	Bis(2-chloroethyl)ether	44.239	-11.5	242604	1.138	1.286	2.492	2.499	9.78				
8	Phenol-d5												
9	2-Chlorophenol	47.160	-5.7	286225	1.342	1.423	2.525	2.530	4.90				
10	1,3-Dichlorobenzene	53.769	7.5	313785	1.471	1.368	2.642	2.641	4.66				
11	1,4-Dichlorobenzene	53.595	7.2	317990	1.491	1.391	2.700	2.698	5.54				
12	Benzyl alcohol	49.596	-0.8	183478	0.860	0.867	2.792	2.798	4.63				
13	1,2-Dichlorobenzene-d4												
14	1,2-Dichlorobenzene	49.180	-1.6	275527	1.292	1.314	2.808	2.814	10.28				
15	2-Methylphenol	51.352	2.7	223736	1.049	1.022	2.875	2.876	8.50				
16	Bis(2-chloroisopropyl)ether	51.161	2.3	800582	3.754	3.669	2.908	2.905	5.35				
17	4-Methylphenol	49.728	-0.5	328820	1.542	1.550	3.008	3.007	3.26				
18	N-Nitroso-di-n-propylamine	52.977	6.0	181590	0.851	0.804	3.025	3.027	6.40				
19	Hexachloroethane	51.086	2.2	141913	0.665	0.651	3.083	3.080	4.41				
20	Naphthalene-d8	40.000	0	614944	1	1	3.742	3.745	0				
21	Nitrobenzene-d5												
22	Nitrobenzene	46.621	-6.8	227431	0.296	0.317	3.142	3.149	7.85				
23	Isophorone	49.010	-2.0	426620	0.555	0.566	3.358	3.360	5.34				
24	2-Nitrophenol	46.583	-6.8	147476	0.192	0.206	3.408	3.413	4.17				
25	2,4-Dimethylphenol	46.492	-7.0	210860	0.274	0.295	3.458	3.462	5.64				
26	bis(2-Chloroethoxy)methane	49.678	-0.6	357205	0.465	0.468	3.558	3.557	5.00				
27	Benzoic Acid	53.567	7.1	191406	0.249	0.232	3.608	3.604	13.97				
28	2,4-Dichlorophenol	49.080	-1.8	208541	0.271	0.276	3.625	3.622	5.86				
29	1,2,4-Trichlorobenzene	47.985	-4.0	200219	0.260	0.271	3.692	3.695	5.37				
30	Naphthalene	52.777	5.6	773410	1.006	0.953	3.767	3.765	9.94				
31	4-Chloroaniline	50.471	0.9	352460	0.459	0.454	3.825	3.825	8.54				
32	Hexachlorobutadiene	49.296	-1.4	109286	0.142	0.144	3.883	3.879	9.03				
33	4-Chloro-3-methylphenol	46.069	-7.9	209088	0.272	0.295	4.275	4.279	7.23				
34	2-Methylnaphthalene	47.809	-4.4	429624	0.559	0.585	4.400	4.405	8.79				
35	Acenaphthene-d10	40.000	0	281013	1	1	5.392	5.389	0				
36	Hexachlorocyclopentadiene	51.087	2.2	88867	0.253	0.248	4.550	4.547	12.94				
37	2,4,6-Trichlorophenol	46.870	-6.3	126834	0.361	0.385	4.667	4.671	3.61				
38	2,4,5-Trichlorophenol	52.786	5.6	140985	0.401	0.380	4.700	4.700	9.12				
39	2-Fluorobiphenyl												
40	2-Chloronaphthalene	47.340	-5.3	385185	1.097	1.158	4.858	4.860	3.84				
41	2-Nitroaniline	46.982	-6.0	136699	0.389	0.414	4.975	4.976	7.21				
42	Dimethylphthalate	49.046	-1.9	434355	1.237	1.261	5.175	5.180	3.39				
43	Acenaphthylene	46.242	-7.5	602323	1.715	1.854	5.250	5.252	3.97				
44	2,6-Dinitrotoluene	48.184	-3.6	99163	0.282	0.293	5.225	5.227	12.32				
45	3-Nitroaniline	46.300	-7.4	127780	0.364	0.393	5.375	5.377	6.35				
46	Acenaphthene	49.385	-1.2	343993	0.979	0.991	5.425	5.424	7.06				
47	2,4-Dinitrophenol	45.880	-8.2	59245	0.169	0.155	5.475	5.470	31.90	-0.0227	0.2036		0.9979
48	4-Nitrophenol	43.326	-13.3	49127	0.140	0.161	5.550	5.556	15.07				
49	Dibenzofuran	46.532	-6.9	528408	1.504	1.616	5.592	5.592	3.89				
50	2,4-Dinitrotoluene	49.884	-0.2	140255	0.399	0.400	5.600	5.605	6.96				
51	Diethylphthalate	47.813	-4.4	446320	1.271	1.329	5.867	5.870	3.64				
52	Fluorene	50.408	0.8	409352	1.165	1.156	5.925	5.921	5.26				
53	4-Chlorophenyl-phenylether	46.027	-7.9	163009	0.464	0.504	5.942	5.942	4.26				
54	4-Nitroaniline	48.464	-3.1	140991	0.401	0.414	5.975	5.980	5.14				
55	4,6-Dinitro-2-methylphenol	41.526	-16.9	66741	0.190	0.208	5.992	5.997	21.22	-0.0221	0.2501		0.9970
56	Azobenzene	50.593	1.2	524540	1.493	1.476	6.100	6.100	4.55				
57	2,4,6-Tribromophenol												
58	Phenanthrene-d10	40.000	0	331958	1	1	6.825	6.823	0				
59	N-Nitrosodiphenylamine	51.289	2.6	267107	0.644	0.628	6.067	6.068	4.27				
60	4-Bromophenyl-phenylether	52.381	4.8	118538	0.286	0.273	6.417	6.413	6.60				
61	Hexachlorobenzene	52.351	4.7	175831	0.424	0.405	6.442	6.442	5.26				
62	Pentachlorophenol	51.507	3.0	121495	0.293	0.284	6.642	6.639	8.85				
63	Phenanthrene	49.952	-0.1	524662	1.264	1.266	6.850	6.850	6.13				
64	Anthracene	51.994	4.0	546901	1.318	1.267	6.900	6.899	6.34				
65	Carbazole	46.624	-6.8	486610	1.173	1.258	7.067	7.068	7.54				
66	Di-n-butylphthalate	50.206	0.4	749740	1.807	1.799	7.467	7.466	5.19				
67	Fluoranthene	49.391	-1.2	468039	1.128	1.142	8.000	8.000	4.65				
68	Chrysene-d12	40.000	0	281624	1	1	9.400	9.399	0				
69	Benzidine												
70	Pyrene	48.470	-3.1	512490	1.456	1.502	8.217	8.214	4.55				
71	Terphenyl-d14												
72	Butylbenzylphthalate	50.491	1.0	321922	0.914	0.906	8.925	8.922	8.28				
73	3,3'-Dichlorobenzidine	48.661	-2.7	148278	0.421	0.433	9.392	9.394	9.09				
74	Benzo(a)anthracene	47.624	-4.8	376195	1.069	1.122	9.383	9.388	2.77				
75	Chrysene	43.013	-14.0	337258	0.958	1.114	9.425	9.426	4.89				
76	bis(2-Ethylhexyl)phthalate	48.834	-2.3	447272	1.271	1.301	9.508	9.507	8.76				
77	Perylene-d12	40.000	0	263207	1	1	10.683	10.680	0				
78	Di-n-octylphthalate	50.453	0.9	735313	2.235	2.215	10.117	10.115	6.19				
79	Benzo(b)fluoranthene	49.333	-1.3	382511	1.163	1.178	10.367	10.361	4.91				
80	Benzo(k)fluoranthene	49.411	-1.2	389296	1.183	1.197	10.392	10.389	10.49				
81	Benzo(a)pyrene	48.365	-3.3	358980	1.091	1.128	10.633	10.634	4.24				
82	Indeno(1,2,3-cd)pyrene	50.489	1.0	438088	1.332	1.319	11.483	11.485	8.09				
83	Dibenzo(a,h)anthracene	51.724	3.4	353142	1.073	1.038	11.500	11.505	9.61				
84	Benzo(g,h,i)perylene	48.986	-2.0	382846	1.164	1.188	11.667	11.668	2.93				

2/7/07

3018

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07B06\RBK058.D Vial: 12
Acq On : 6 FEB 2007 19:39 Operator: KV
Sample : ISV52B061 50PPM Inst : TO52
Misc : ICV Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0	103	0.00
2	T	N-Nitrosodimethylamine	50.000	47.159	6	105	0.00
3	T	Pyridine	50.000	39.098	22	104	0.00
4	S	2-Fluorophenol	50.000	0.000	100#	0	-1.83#
5	T	Phenol	50.000	53.290	-7	121	0.00
6	T	Aniline	50.000	47.090	6	100	0.00
7	T	Bis(2-chloroethyl)ether	50.000	44.240	12	97	0.00
8	S	Phenol-d5	50.000	0.000	100#	0	-2.41#
9	T	2-Chlorophenol	50.000	47.161	6	103	0.00
10	T	1,3-Dichlorobenzene	50.000	53.770	-8	104	0.00
11	C	1,4-Dichlorobenzene	50.000	53.595	-7	108	0.00
12	T	Benzyl alcohol	50.000	49.596	1	103	0.00
13	S	1,2-Dichlorobenzene-d4	50.000	0.000	100#	0	-2.80#
14	T	1,2-Dichlorobenzene	50.000	49.180	2	103	0.00
15	T	2-Methylphenol	50.000	51.352	-3	99	0.00
16	T	Bis(2-chloroisopropyl)ether	50.000	51.161	-2	102	0.00
17	T	4-Methylphenol	50.000	49.728	1	105	0.00
18	P	N-Nitroso-di-n-propylamine	50.000	52.977	-6	113	0.00
19	T	Hexachloroethane	50.000	51.087	-2	106	0.00
20	I	Naphthalene-d8	40.000	40.000	0	108	0.00
21	S	Nitrobenzene-d5	50.000	0.000	100#	0	-3.13#
22	T	Nitrobenzene	50.000	46.621	7	92	0.00
23	T	Isophorone	50.000	49.011	2	103	0.00
24	C	2-Nitrophenol	50.000	46.583	7	101	0.00
25	T	2,4-Dimethylphenol	50.000	46.493	7	101	0.00
26	T	bis(2-Chloroethoxy)methane	50.000	49.678	1	103	0.00
27	T	Benzoic Acid	50.000	53.567	-7	106	0.00
28	C	2,4-Dichlorophenol	50.000	49.081	2	101	0.00
29	T	1,2,4-Trichlorobenzene	50.000	47.986	4	103	0.00
30	T	Naphthalene	50.000	52.778	-6	106	0.00
31	T	4-Chloroaniline	50.000	50.471	-1	101	0.00
32	C	Hexachlorobutadiene	50.000	49.296	1	107	0.00
33	C	4-Chloro-3-methylphenol	50.000	46.069	8	101	0.00
34	T	2-Methylnaphthalene	50.000	47.809	4	104	0.00
35	I	Acenaphthene-d10	40.000	40.000	0	105	0.00
36	P	Hexachlorocyclopentadiene	50.000	51.088	-2	103	0.00
37	C	2,4,6-Trichlorophenol	50.000	46.871	6	102	0.00
38	T	2,4,5-Trichlorophenol	50.000	52.787	-6	104	0.00
39	S	2-Fluorobiphenyl	50.000	0.000	100#	0	-4.76#

(#) = Out of Range

3019

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07B06\RBK058.D
Acq On : 6 FEB 2007 19:39
Sample : ISV52B061 50PPM
Misc : ICV
MS Integration Params: RTEINT.P

Vial: 12
Operator: KV
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40	T	2-Chloronaphthalene	50.000	47.341	5	104	0.00
41	T	2-Nitroaniline	50.000	46.982	6	95	0.00
42	T	Dimethylphthalate	50.000	49.046	2	105	0.00
43	T	Acenaphthylene	50.000	46.242	8	99	0.00
44	T	2,6-Dinitrotoluene	50.000	48.184	4	95	0.00
45	T	3-Nitroaniline	50.000	46.301	7	97	0.00
46	C	Acenaphthene	50.000	49.385	1	102	0.00
47	P	2,4-Dinitrophenol	50.000	45.880	8	100	0.00
48	P	4-Nitrophenol	50.000	43.327	13	98	0.00
49	T	Dibenzofuran	50.000	46.532	7	95	0.00
50	T	2,4-Dinitrotoluene	50.000	49.884	0	107	0.00
51	T	Diethylphthalate	50.000	47.814	4	101	0.00
52	T	Fluorene	50.000	50.408	-1	109	0.00
53	T	4-Chlorophenyl-phenylether	50.000	46.027	8	96	0.00
54	T	4-Nitroaniline	50.000	48.464	3	102	0.00
55	T	4,6-Dinitro-2-methylphenol	50.000	41.526	17	99	0.00
56	T	Azobenzene	50.000	50.593	-1	105	0.00
57	S	2,4,6-Tribromophenol	50.000	0.000	100#	0	-6.15#
58	I	Phenanthrene-d10	40.000	40.000	0	101	0.00
59	C	N-Nitrosodiphenylamine	50.000	51.290	-3	102	0.00
60	T	4-Bromophenyl-phenylether	50.000	52.381	-5	111	0.00
61	T	Hexachlorobenzene	50.000	52.352	-5	103	0.00
62	C	Pentachlorophenol	50.000	51.507	-3	98	0.00
63	T	Phenanthrene	50.000	49.953	0	100	0.00
64	T	Anthracene	50.000	51.994	-4	106	0.00
65	T	Carbazole	50.000	46.624	7	95	0.00
66	T	Di-n-butylphthalate	50.000	50.206	-0	98	0.00
67	C	Fluoranthene	50.000	49.391	1	98	0.00
68	I	Chrysene-d12	40.000	40.000	0	103	0.00
69	T	Benzidine	-1.000	0.000	0	0	0.00
70	T	Pyrene	50.000	48.470	3	104	0.00
71	S	Terphenyl-d14	50.000	0.000	100#	0	-8.41#
72	T	Butylbenzylphthalate	50.000	50.491	-1	106	0.00
73	T	3,3'-Dichlorobenzidine	50.000	48.662	3	99	0.00
74	T	Benzo(a)anthracene	50.000	47.625	5	100	0.00
75	T	Chrysene	50.000	43.013	14	94	0.00
76	T	bis(2-Ethylhexyl)phthalate	50.000	48.835	2	101	0.00
77	I	Perylene-d12	40.000	40.000	0	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07B06\RBK058.D Vial: 12
Acq On : 6 FEB 2007 19:39 Operator: KV
Sample : ISV52B061 50PPM Inst : TO52
Misc : ICV Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78	C	Di-n-octylphthalate	50.000	50.454	-1	102	0.00
79	T	Benzo(b)fluoranthene	50.000	49.334	1	104	0.00
80	T	Benzo(k)fluoranthene	50.000	49.411	1	105	0.00
81	C	Benzo(a)pyrene	50.000	48.366	3	103	0.00
82	T	Indeno(1,2,3-cd)pyrene	50.000	50.489	-1	106	0.00
83	T	Dibenzo(a,h)anthracene	50.000	51.724	-3	106	0.00
84	T	Benzo(g,h,i)perylene	50.000	48.987	2	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

DAILY CALIBRATIONS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDK068
Instrument ID: T-052

Project: LMC BEAUMONT SITE 1
SDG No.: 07D134
DFTPP Injection Date: 04/19/07
DFTPP Injection Time: 14:15

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.69
68	Less than 2% of mass 69	0.00(0.0)1
69	Relative abundance of mass 198	50.83
70	Less than 2.0% of mass 69	0.16(0.3)1
127	40.0 - 60.0% of mass 198	43.05
197	Less than 1.0% of mass 198	0.00
198	Base Peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.27
275	10.0 - 30.0% of mass 198	18.92
365	Greater than 1.00% of mass 198	1.78
441	Present, but less than mass 443	15.78
442	Greater than 40.0% of mass 198	85.99
443	17.0 - 23.0% of mass 442	16.12(18.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SSTD050	CSV52B0620A	RDK070	04/19/07	14:51
2	MBLK1W	SVD017WB	RDK073	04/19/07	15:55
3	LCS1W	SVD017WL	RDK074	04/19/07	16:14
4	LCD1W	SVD017WC	RDK075	04/19/07	16:33
5	LEB-041007	D134-04	RDK080	04/19/07	18:09
6	MBLK1S	SVD018SB	RDK081	04/19/07	18:28
7	LCS1S	SVD018SL	RDK082	04/19/07	18:47
8	LCD1S	SVD018SC	RDK083	04/19/07	19:06
9	A6-HAS1@0.5	D134-01	RDK086	04/19/07	20:04
10	A6-HAS1@5	D134-02	RDK087	04/19/07	20:23
11	A6-HAS101@0.5	D134-03	RDK088	04/19/07	20:42

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBK053
Instrument ID: T-052

Project:LMC BEAUMONT SITE 1
SDG No.: 07D134
Date Analyzed: 02/06/07
Time Analyzed: 18:05

		IS1(DCB)		IS2(NPT)		IS3(ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	164841	2.68	571929	3.74	267730	5.39
	UPPER LIMIT	329682	3.18	1143858	4.24	535460	5.89
	LOWER LIMIT	82421	2.18	285965	3.24	133865	4.89
	SAMPLE ID						
1	SSTD050	163002	2.70	612024	3.77	260552	5.43
2	MBLK1W	149203	2.70	594217	3.77	252398	5.43
3	LCS1W	161909	2.71	631924	3.78	256767	5.43
4	LCD1W	149782	2.70	594870	3.77	269555	5.43
5	LEB-041007	100409	2.70	585163	3.77	271557	5.43
6	MBLK1S	177672	2.70	646396	3.77	260818	5.42
7	LCS1S	161830	2.71	613032	3.78	254561	5.43
8	LCD1S	171384	2.71	625170	3.78	253731	5.43
9	A6-HAS1@0.5	171972	2.70	625715	3.76	267842	5.42
10	A6-HAS1@5	162714	2.70	641336	3.77	273440	5.43
11	A6-HAS101@0.5	157409	2.70	609940	3.77	269402	5.43

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBK053
Instrument ID: T-052

Project:LMC BEAUMONT SITE 1
SDG No.: 07D134
Date Analyzed: 02/06/07
Time Analyzed: 18:05

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	328290		6.82		274413		9.40		242030		10.68	
	UPPER LIMIT	656580		7.32		548826		9.90		484060		11.18	
	LOWER LIMIT	164145		6.32		137207		8.90		121015		10.18	
	SAMPLE ID												
1	SSTD050	350313		6.87		311959		9.46		[illegible]		10.74	
2	MBLK1W	345816		6.87		317218		9.45		[illegible]		10.74	
3	LCS1W	358445		6.87		312562		9.46		[illegible]		10.75	
4	LCD1W	364012		6.87		337595		9.46		[illegible]		10.74	
5	LEB-041007	369639		6.86		349833		9.45		[illegible]		10.74	
6	MBLK1S	349904		6.86		317228		9.44		[illegible]		10.74	
7	LCS1S	346342		6.87		308568		9.46		[illegible]		10.75	
8	LCD1S	353315		6.87		303384		9.46		[illegible]		10.75	
9	A6-HAS1@0.5	371177		6.86		310898		9.44		[illegible]		10.74	
10	A6-HAS1@5	360664		6.87		317257		9.45		[illegible]		10.74	
11	A6-HAS101@0.5	357659		6.86		325790		9.45		[illegible]		10.74	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDK070.D
Acq On : 19 APR 2007 14:51
Sample : CSV52B0620A
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: KV
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0	99	0.00
2	T	N-Nitrosodimethylamine	50.000	52.490	-5	112	0.00
3	T	Pyridine	50.000	51.352	-3	130	0.00
4	S	2-Fluorophenol	50.000	50.223	-0	94	0.00
5	T	Phenol	50.000	47.821	4	104	0.00
6	T	Aniline	50.000	53.688	-7	109	0.00
7	T	Bis(2-chloroethyl)ether	50.000	56.509	-13	119	0.00
8	S	Phenol-d5	50.000	52.148	-4	103	0.00
9	T	2-Chlorophenol	50.000	50.240	-0	105	0.00
10	T	1,3-Dichlorobenzene	50.000	52.281	-5	97	0.00
11	C	1,4-Dichlorobenzene	50.000	53.816	-8	104	0.00
12	T	Benzyl alcohol	50.000	50.705	-1	101	0.00
13	S	1,2-Dichlorobenzene-d4	50.000	51.205	-2	101	0.00
14	T	1,2-Dichlorobenzene	50.000	54.133	-8	108	0.00
15	T	2-Methylphenol	50.000	49.702	1	91	0.00
16	T	Bis(2-chloroisopropyl)ether	50.000	50.459	-1	96	0.00
17	T	4-Methylphenol	50.000	52.432	-5	106	0.00
18	P	N-Nitroso-di-n-propylamine	50.000	51.658	-3	105	0.00
19	T	Hexachloroethane	50.000	52.332	-5	104	0.00
20	I	Naphthalene-d8	40.000	40.000	0	107	0.00
21	S	Nitrobenzene-d5	50.000	51.346	-3	106	0.00
22	T	Nitrobenzene	50.000	48.569	3	95	0.00
23	T	Isophorone	50.000	50.607	-1	106	0.00
24	C	2-Nitrophenol	50.000	45.414	9	98	0.00
25	T	2,4-Dimethylphenol	50.000	49.559	1	107	0.00
26	T	bis(2-Chloroethoxy)methane	50.000	47.242	6	97	0.00
27	T	Benzoic Acid	50.000	52.126	-4	102	0.00
28	C	2,4-Dichlorophenol	50.000	47.580	5	98	0.00
29	T	1,2,4-Trichlorobenzene	50.000	51.420	-3	110	0.00
30	T	Naphthalene	50.000	50.462	-1	101	0.00
31	T	4-Chloroaniline	50.000	50.592	-1	100	0.00
32	C	Hexachlorobutadiene	50.000	53.863	-8	116	0.00
33	C	4-Chloro-3-methylphenol	50.000	49.281	1	107	0.00
34	T	2-Methylnaphthalene	50.000	49.204	2	107	0.00
35	I	Acenaphthene-d10	40.000	40.000	0	97	0.00
36	P	Hexachlorocyclopentadiene	50.000	64.820	-30#	121	0.00
37	C	2,4,6-Trichlorophenol	50.000	56.793	-14	114	0.00
38	T	2,4,5-Trichlorophenol	50.000	51.278	-3	94	0.00
39	S	2-Fluorobiphenyl	50.000	51.456	-3	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDK070.D
Acq On : 19 APR 2007 14:51
Sample : CSV52B0620A
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: KV
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40	T	2-Chloronaphthalene	50.000	53.718	-7	109	0.00
41	T	2-Nitroaniline	50.000	49.959	0	94	0.00
42	T	Dimethylphthalate	50.000	51.014	-2	101	0.00
43	T	Acenaphthylene	50.000	50.401	-1	100	0.00
44	T	2,6-Dinitrotoluene	50.000	56.301	-13	103	0.00
45	T	3-Nitroaniline	50.000	50.906	-2	98	0.00
46	C	Acenaphthene	50.000	52.785	-6	101	0.00
47	P	2,4-Dinitrophenol	50.000	50.283	-1	103	0.00
48	P	4-Nitrophenol	50.000	48.094	4	100	0.00
49	T	Dibenzofuran	50.000	48.202	4	92	0.00
50	T	2,4-Dinitrotoluene	50.000	49.617	1	98	0.00
51	T	Diethylphthalate	50.000	51.395	-3	100	0.00
52	T	Fluorene	50.000	50.644	-1	102	0.00
53	T	4-Chlorophenyl-phenylether	50.000	54.334	-9	105	0.00
54	T	4-Nitroaniline	50.000	47.310	5	92	0.00
55	T	4,6-Dinitro-2-methylphenol	50.000	47.155	6	105	0.00
56	T	Azobenzene	50.000	52.171	-4	100	0.00
57	S	2,4,6-Tribromophenol	50.000	51.212	-2	92	0.00
58	I	Phenanthrene-d10	40.000	40.000	0	107	0.00
59	C	N-Nitrosodiphenylamine	50.000	44.819	10	94	0.00
60	T	4-Bromophenyl-phenylether	50.000	48.086	4	107	0.00
61	T	Hexachlorobenzene	50.000	48.241	4	100	0.00
62	C	Pentachlorophenol	50.000	49.382	1	99	0.00
63	T	Phenanthrene	50.000	48.061	4	101	0.00
64	T	Anthracene	50.000	48.953	2	105	0.00
65	T	Carbazole	50.000	42.424	15	91	0.00
66	T	Di-n-butylphthalate	50.000	49.272	1	101	0.00
67	C	Fluoranthene	50.000	50.040	-0	105	0.00
68	I	Chrysene-d12	40.000	40.000	0	114	0.00
69	T	Benzidine	-1.000	0.000	0	0	0.00
70	T	Pyrene	50.000	44.521	11	106	0.00
71	S	Terphenyl-d14	50.000	41.861	16	98	0.00
72	T	Butylbenzylphthalate	50.000	38.410	23#	89	0.00
73	T	3,3'-Dichlorobenzidine	50.000	45.683	9	103	0.00
74	T	Benzo(a)anthracene	50.000	46.888	6	109	0.00
75	T	Chrysene	50.000	48.115	4	116	0.00
76	T	bis(2-Ethylhexyl)phthalate	50.000	41.435	17	95	0.00
77	I	Perylene-d12	40.000	40.000	0	125	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDK070.D Vial: 3
Acq On : 19 APR 2007 14:51 Operator: KV
Sample : CSV52B0620A Inst : TO52
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78	C	Di-n-octylphthalate	50.000	42.161	16	98	0.00
79	T	Benzo(b)fluoranthene	50.000	54.112	-8	131	0.00
80	T	Benzo(k)fluoranthene	50.000	43.725	13	106	0.00
81	C	Benzo(a)pyrene	50.000	53.515	-7	131	0.00
82	T	Indeno(1,2,3-cd)pyrene	50.000	52.474	-5	126	0.00
83	T	Dibenzo(a,h)anthracene	50.000	54.834	-10	129	0.00
84	T	Benzo(g,h,i)perylene	50.000	51.270	-3	125	0.00

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDK070.D
Acq On : 19 APR 2007 14:51
Sample : CSV52B0620A
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: KV
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	99	0.00
2	T	N-Nitrosodimethylamine	0.978	1.026	-5	112	0.00
3	T	Pyridine	1.579	1.622	-3	130	0.00
4	S	2-Fluorophenol	1.419	1.425	-0	94	0.00
5	T	Phenol	1.667	1.594	4	104	0.00
6	T	Aniline	1.859	1.996	-7	109	0.00
7	T	Bis(2-chloroethyl)ether	1.286	1.453	-13	119	0.00
8	S	Phenol-d5	1.693	1.766	-4	103	0.00
9	T	2-Chlorophenol	1.423	1.430	-0	105	0.00
10	T	1,3-Dichlorobenzene	1.368	1.431	-5	97	0.00
11	C	1,4-Dichlorobenzene	1.391	1.497	-8	104	0.00
12	T	Benzyl alcohol	0.867	0.880	-1	101	0.00
13	S	1,2-Dichlorobenzene-d4	0.852	0.873	-2	101	0.00
14	T	1,2-Dichlorobenzene	1.314	1.422	-8	108	0.00
15	T	2-Methylphenol	1.022	1.015	1	91	0.00
16	T	Bis(2-chloroisopropyl)ether	3.669	3.702	-1	96	0.00
17	T	4-Methylphenol	1.550	1.626	-5	106	0.00
18	P	N-Nitroso-di-n-propylamine	0.804	0.830	-3	105	0.00
19	T	Hexachloroethane	0.651	0.682	-5	104	0.00
20	I	Naphthalene-d8	1.000	1.000	0	107	0.00
21	S	Nitrobenzene-d5	0.336	0.345	-3	106	0.00
22	T	Nitrobenzene	0.317	0.308	3	95	0.00
23	T	Isophorone	0.566	0.573	-1	106	0.00
24	C	2-Nitrophenol	0.206	0.187	9	98	0.00
25	T	2,4-Dimethylphenol	0.295	0.292	1	107	0.00
26	T	bis(2-Chloroethoxy)methane	0.468	0.442	6	97	0.00
27	T	Benzoic Acid	0.232	0.242	-4	102	0.00
28	C	2,4-Dichlorophenol	0.276	0.263	5	98	0.00
29	T	1,2,4-Trichlorobenzene	0.271	0.279	-3	110	0.00
30	T	Naphthalene	0.953	0.962	-1	101	0.00
31	T	4-Chloroaniline	0.454	0.460	-1	100	0.00
32	C	Hexachlorobutadiene	0.144	0.155	-8	116	0.00
33	C	4-Chloro-3-methylphenol	0.295	0.291	1	107	0.00
34	T	2-Methylnaphthalene	0.585	0.575	2	107	0.00
35	I	Acenaphthene-d10	1.000	1.000	0	97	0.00
36	P	Hexachlorocyclopentadiene	0.248	0.321	-29#	121	0.00
37	C	2,4,6-Trichlorophenol	0.385	0.438	-14	114	0.00
38	T	2,4,5-Trichlorophenol	0.380	0.390	-3	94	0.00
39	S	2-Fluorobiphenyl	1.205	1.240	-3	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDK070.D
Acq On : 19 APR 2007 14:51
Sample : CSV52B0620A
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: KV
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Chloronaphthalene	1.158	1.244	-7	109	0.00
41	T	2-Nitroaniline	0.414	0.414	0	94	0.00
42	T	Dimethylphthalate	1.261	1.286	-2	101	0.00
43	T	Acenaphthylene	1.854	1.869	-1	100	0.00
44	T	2,6-Dinitrotoluene	0.293	0.330	-13	103	0.00
45	T	3-Nitroaniline	0.393	0.400	-2	98	0.00
46	C	Acenaphthene	0.991	1.047	-6	101	0.00
47	P	2,4-Dinitrophenol	0.155	0.187	-21#	103	0.00
48	P	4-Nitrophenol	0.161	0.155	4	100	0.00
49	T	Dibenzofuran	1.616	1.558	4	92	0.00
50	T	2,4-Dinitrotoluene	0.400	0.397	1	98	0.00
51	T	Diethylphthalate	1.329	1.366	-3	100	0.00
52	T	Fluorene	1.156	1.171	-1	102	0.00
53	T	4-Chlorophenyl-phenylether	0.504	0.548	-9	105	0.00
54	T	4-Nitroaniline	0.414	0.392	5	92	0.00
55	T	4,6-Dinitro-2-methylphenol	0.208	0.218	-5	105	0.00
56	T	Azobenzene	1.476	1.540	-4	100	0.00
57	S	2,4,6-Tribromophenol	0.313	0.320	-2	92	0.00
58	I	Phenanthrene-d10	1.000	1.000	0	107	0.00
59	C	N-Nitrosodiphenylamine	0.628	0.563	10	94	0.00
60	T	4-Bromophenyl-phenylether	0.273	0.262	4	107	0.00
61	T	Hexachlorobenzene	0.405	0.390	4	100	0.00
62	C	Pentachlorophenol	0.284	0.281	1	99	0.00
63	T	Phenanthrene	1.266	1.217	4	101	0.00
64	T	Anthracene	1.267	1.241	2	105	0.00
65	T	Carbazole	1.258	1.067	15	91	0.00
66	T	Di-n-butylphthalate	1.799	1.773	1	101	0.00
67	C	Fluoranthene	1.142	1.143	-0	105	0.00
68	I	Chrysene-d12	1.000	1.000	0	114	0.00
69	T	Benzidine	0.000	0.000#	0	0#	0.00
70	T	Pyrene	1.502	1.337	11	106	0.00
71	S	Terphenyl-d14	0.996	0.834	16	98	0.00
72	T	Butylbenzylphthalate	0.906	0.696	23#	89	0.00
73	T	3,3'-Dichlorobenzidine	0.433	0.395	9	103	0.00
74	T	Benzo(a)anthracene	1.122	1.052	6	109	0.00
75	T	Chrysene	1.114	1.072	4	116	0.00
76	T	bis(2-Ethylhexyl)phthalate	1.301	1.078	17	95	0.00
77	I	Perylene-d12	1.000	1.000	0	125	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDK070.D
Acq On : 19 APR 2007 14:51
Sample : CSV52B0620A
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: KV
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52B06.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Wed Feb 07 09:34:38 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	C	Di-n-octylphthalate	2.215	1.868	16	98	0.00
79	T	Benzo(b)fluoranthene	1.178	1.275	-8	131	0.00
80	T	Benzo(k)fluoranthene	1.197	1.047	13	106	0.00
81	C	Benzo(a)pyrene	1.128	1.207	-7	131	0.00
82	T	Indeno(1,2,3-cd)pyrene	1.319	1.384	-5	126	0.00
83	T	Dibenzo(a,h)anthracene	1.038	1.138	-10	129	0.00
84	T	Benzo(g,h,i)perylene	1.188	1.218	-3	125	0.00

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
SEMIVOLATILES

SOP ☑ EMAX-8270 Rev. No. 3 ☐ EMAX-8270SIM Rev. No. 1 ☐ EMAX-CLPSVOA ☐ EMAX-M8270SIM Rev. No. 1 ☐ Book #A52- 013

Method File: SV52B06 Tune File: DFTPP Start Date/Time: 4/19/07 14:15 End Date/Time: 4/20/07 2:07

ANALYTICAL BATCH SV52B06A

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
	RDK067	IB52B0620				
	68	DFTS2B0620				
	69	CSV52B0620				2 Analytes out
	70	CSV52B0620A				
	71	5ppm std				
	72	CSV52B06A20				Benzidine
SVD017W	73	SVD017WB	NA		x	
	74	WL				
	75	WC				
	76	MDLV -01				3520c - 5ppm
	77	02				-10ppm
	78	03				-20ppm
	79	04				-40ppm
	80	07D134 -04				
SVD018S	81	SVD018SB	NA	x		
	82	SL				
	83	SC				
	84	MDLV - 05				3550B - 5 / *20ppm
	85	06				-10/*40ppm
	86	07D134 - 01				
	87	02				
	88	03				
	89	07D144 - 11				
	90	11M				
	91	11S				
	92	01				Need dilu
	93	02				
	94	03				
	95	04				
	96	05				

Instrument No:	52

INITIAL CALIBRATION REFERENCE	
Date	2/6/07
ICAL ID	SV52B06 & SV52B06A

Standards		
Name	ID	Conc. (mg/L)
DFTPP	SS2B-05-2-3	50
DCC	SS2C-05-20-1	50
INT. STD.	SS2B-05-4-1	2000
Benzidine	SS2C-05-18-3	50

Solvent	ID
CH_2Cl_2	47010

DATA FILE	07D19

Electronic Data Archival	
Location	Date
HPCHEM_SVOA/T052	

Comments:
* conc. for benzidine / benzoic acid / pyridine.

Analyzed By: MV
Date Disposed: 4/20/07
Disposed by: SM

This page is checked during data review.

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
SEMIVOLATILES

SOP ☑ EMAX-8270 Rev. No. 3 ☐ EMAX-8270SIM Rev. No. 1 ☐ EMAX-CLPSVOA ☐ EMAX-M8270SIM Rev. No. 1 ☐

Book #A52- 013

Method File: SV52B05 Tune File: DFTPP

Start Date/Time: 4/19/07 14:15 End Date/Time: 4/20/07 2:07

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
SVD0185	RDK097	07D144-06	NA	✓		
	98	07				
	99	08				
	100	09				
	101	10				
	102	21				
	103	22				
SVD017W	104	07D167-01				Inhouse QC
	105	Meth. chloride				

SU 4/20/07

Instrument No:	52

INITIAL CALIBRATION REFERENCE

Date	2/6/07
ICAL ID	SV52B06 & SV52B06A

Standards

Name	ID	Conc. (mg/L)
DFTPP	SS2B-05-2-3	50
DCC	SS2C-05-20-1	50
INT. STD.	SS2B-05-4-1	2000
Benzidine	SS2C-05-18-3	50

Solvent	ID	
CH_2Cl_2	470101	

DATA FILE	07D19

Electronic Data Archival

Location	Date
HPCHEM_SVOA/T052	

Comments:

Analyzed By: [illegible]

Date Disposed: 4/20/07

Disposed by: SU

This page is checked during data review.

ANALYTICAL BATCH CSV52B06 20A

3034

ANALYSIS RUN LOG FOR SEMIVOLATILES

SOP ☑ EMAX-8270 Rev. No. 3 ☐ EMAX-8270SIM Rev. No. 0 ☐ EMAX-CLPSVOA ☐ EMAX-M8270SIM Rev. No. 1 ☐ Book #A52- 012

Method File: SV52B06 **Tune File:** DFTPP **Start Date/Time:** 2/6/07 16:14 **End Date/Time:** 2/6/07 21:51

ANALYTICAL BATCH SV52B06

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
NA	RBK047	IB52B06C1	NA			
	048	DFT52B06C1				
	049	SV52B06 1				5ppm
	050	2				10
	051	3				20
	052	4				40
	053	5				50
	054	6				80
	055	7				100
	056	8				120
	057	9				160
	058	ISV52B06 1				ICV
	059	SV52B06A 1				5ppm Benzidine
	060	2				10
	061	3				50
	062	4				100
	063	5				120
	064	6				160
	065	ISV52B06A 1				ICV
						KV
						2/6/07

Instrument No:	52

INITIAL CALIBRATION REFERENCE	
Date	2/6/07
ICAL ID	SV52B06 & SV52B06A

Standards		
Name	ID	Conc. (mg/L)
DFTPP	SS2B-05-2-3	50
DCC	SS2C-05-4-1	50
INT. STD.	SS2B-05-4-1	2000
ICV	SS2C-05-3-1	50

Solvent	ID	
CH_2Cl_2		

DATA FILE	07B06

Electronic Data Archival	
Location	Date
HPCHEM_SVOA/T052	2/7/07

Comments:

Benzidine ICAL : SS2C-05-2-1 50ppm

↓ ICV : SS2C-05-2-2 ↓

Analyzed By: KV

Date Disposed: NA

Disposed by: NA

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOG

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
SEMIVOLATILES

EXTRACTION LOG FOR SEMIVOLATILES

SOP ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 2 ☒ EMAX-3520 Rev. No.: 2 ☐ EMAX-CLP-SVOA ☐ Book # ESV-035

Matrix: WATER Init.Start Date/Time: 4/16/07 17:00 End Date/Time: 4/17/07 11:00 Final Start Date/Time: 4/17/07 13:30 End Date/Time: 4/18/07 7:30

PREPARATION BATCH: * SVD017 W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean [G] [F] [A] [C] EXTRACTOR	Notes
*01	SVD017 – WB	N/A	1000	–	1	15	
*02	– WL *		1000	–	1	39	
*03	– WC *		1000	–	1	13	
*04	MDL verif – 01 *		1000	–	1	38	5ppm (0.025 ml)
*05	– 02 *		1000	–	1	32	10ppm (0.05 ml)
*06	– 03 ▲		1000	–	1	34	20ppm (0.1 ml)
*07	– 04 ▲		1000	–	1	1	40ppm (0.2 ml)
*08	07D167 – 01		1000	–	1		ARROWHEAD OC H2O (SW1A-03-494)
*09	07D119 – 02		1060	8	1	28	yellow soln.
*10	– 03		1060	8	1	24	
*11	– 04		1060	8	1	4	
*12	– 05		1060	8	1	21	Yellow soln.
*13	– 06		1050	8	1	30	
*14	– 07		1050	8	1	10	Yellow orange soln.
*15	– 07M		1060	8	1	35	
*16	– 07S		1060	8	1	36	
*17	– 08		1060	8	1	5	Yellow soln.
*18	– 09		1060	8	1	2	
*19	– 10		1060	8	1	26	clear Yellow soln.
*20	– 11		1060	8	1	6	
*21	– 12		1060	8	1	37	cloudy yellow soln.
*22	– 13		1060	8	1	3	
*23	– 14		1060	8	1	43	Yellow orange soln
*24	07D134 – 04		1060	6	1	44	
*25							
*26							
*27							
*28							

4/18/07 JM

Standards	ID	Amount Added (ml)
Surrogate	SS2A-05-5	1.0
LCS/MS FULL LIST *	SS2A-05-1	0.4
MDL verif ▲	SS2C-05-3-1	see below

Reagent	Lot# / ID
CH_2Cl_2	47010
Na_2SO_4	46080619
H_2SO_4	46137
NaOH	SP1B-01-387
Silica Sand	

TUNING

Sonicator #	Reading
	N/A

Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Comments: Thermometer ID = T_1

Prepared By: JM Witnessed By: SS

Standard Added By: JM

Checked By: ML

Extract Received by: Sa 4/18/07 Location: SE03-10

Disposed by: Disposed on:

3037

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
SEMIVOLATILES

EXTRACTION LOG FOR SEMIVOLATILES

SOP ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 2 ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-CLP-SVOA ☐ Book # BSV-035

Matrix: S/L Init.Start Date/Time: 4/17/07 15:00 End Date/Time: Final Start Date/Time: End Date/Time: 4/17/07 17:45

PREPARATION BATCH: * SVD0818

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [C]	Notes
*01	SVD0818 - SB	1	30.00		1		
*02	- SL	3	30.03		1		
*03	- SC	3	30.01		1		
*04	07D132 - 01	1	30.03		1		
*05	- 02	3	30.02		1		
*06	- 03	3	30.03		1		
*07	07D144 - 01	1	30.03		1		
*08	- 02	3	30.02		1		
*09	- 03	3	30.01		1		
*10	- 04	3	30.00		1		
*11	- 05	3	30.01		1		
*12	- 06	1	30.01		1		
*13	- 07	3	30.03		1		
*14	- 08	3	30.02		1		
*15	- 09	1	30.03		1		
*16	- 10	1	30.02		1		
*17	- 11	1	30.01		1		*Benzoic acid
*18	- 11M	3	30.03		1		Benzidine
*19	- 11S	3	30.00		1		Phynidine
*20	- 21	3	30.02		1		
*21	- 22	3	30.01		1		
*22	-MDL VERIF - 05	1	30.00		1		**(5ppm 0.025ml) *(20 ppm 0.075ml)
*23	- 06	1	30.01		1		**(10ppm 0.05 ml) *(40 ppm 0.15 ml)
*24		JV	4/17/7				
*25							
*26							
*27							
*28							

Standards	ID	Amount Added (ml)
Surrogate	SS2A-05-5	1.0
LCS/MS **	SS2A-05-1	0.4 (FULL LIST)
MDL VERIF.*	SS2C-05-3-1	See below

Reagent	Lot# / ID
CH_2Cl_2	47010
Na_2SO_4	260806 19
H_2SO_4	-
NaOH	-
Silica Sand	253356 08

TUNING

Sonicator #	Reading
1	N/A
3	95

Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1	35	35
2	35	35
3	35	35
4	35	35
5		
6		

Comments: Thermometer ID = T_1

Prepared By: JV Witnessed By: JM

Standard Added By: JV

Checked By: ML

Extract Received by: SM 4/17/07 Location: SE03#2

Disposed by: Disposed on:

3038

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 07D134

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 3520C/3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

One (1) water and three (3) soil samples were received on 04/11/07 for 1,4-Dioxane analysis by Method 3520C/3550B/8270C SIM in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D134
Instrument ID : T-048

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVD019WB	1	NA	04/19/0717:17	04/17/0716:30	RDZ099	RDZ083	SVD019W	Method Blank
LCS1W	SVD019WL	1	NA	04/19/0717:28	04/17/0716:30	RDZ100	RDZ083	SVD019W	Lab Control Sample (LCS)
LCD1W	SVD019WC	1	NA	04/19/0717:38	04/17/0716:30	RDZ101	RDZ083	SVD019W	LCS Duplicate
LEB-041007	D134-04	.94	NA	04/19/0717:49	04/17/0716:30	RDZ102	RDZ083	SVD019W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVD020SB	1	NA	04/19/0718:00	04/18/0710:50	RDZ103	RDZ083	SVD020S	Method Blank
LCS1S	SVD020SL	1	NA	04/19/0718:10	04/18/0710:50	RDZ104	RDZ083	SVD020S	Lab Control Sample (LCS)
LCD1S	SVD020SC	1	NA	04/19/0718:21	04/18/0710:50	RDZ105	RDZ083	SVD020S	LCS Duplicate
A6-HAS1@0.5	D134-01	1	4.9	04/19/0718:31	04/18/0710:50	RDZ106	RDZ083	SVD020S	Field Sample
A6-HAS1@5	D134-02	1	10.2	04/19/0718:42	04/18/0710:50	RDZ107	RDZ083	SVD020S	Field Sample
A6-HAS101@0.5	D134-03	1	12.8	04/19/0718:53	04/18/0710:50	RDZ108	RDZ083	SVD020S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/18/07 10:50
Sample ID:	A6-HAS1@0.5	Date Analyzed:	04/19/07 18:31
Lab Samp ID:	D134-01	Dilution Factor:	1
Lab File ID:	RDZ106	Matrix	: SOIL
Ext Btch ID:	SVD020S	% Moisture	: 4.9
Calib. Ref.:	RDZ083	Instrument ID	: T-048

PARAMETERS	RESULTS (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)
1,4-DIOXANE	ND	53	21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	71	30-130

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/18/07 10:50
Sample ID:	A6-HAS1@5	Date Analyzed:	04/19/07 18:42
Lab Samp ID:	D134-02	Dilution Factor:	1
Lab File ID:	RDZ107	Matrix :	SOIL
Ext Btch ID:	SVD020S	% Moisture :	10.2
Calib. Ref.:	RDZ083	Instrument ID :	T-048

PARAMETERS	RESULTS (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)
1,4-DIOXANE	ND	56	22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	62	30-130

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/18/07 10:50
Sample ID:	A6-HAS101@0.5	Date Analyzed:	04/19/07 18:53
Lab Samp ID:	D134-03	Dilution Factor:	1
Lab File ID:	RDZ108	Matrix :	SOIL
Ext Btch ID:	SVD020S	% Moisture :	12.8
Calib. Ref.:	RDZ083	Instrument ID :	T-048

PARAMETERS	RESULTS (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)
1,4-DIOXANE	ND	57	23

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	60	30-130

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/17/07 16:30
Sample ID:	LEB-041007	Date Analyzed:	04/19/07 17:49
Lab Samp ID:	D134-04	Dilution Factor:	.94
Lab File ID:	RDZ102	Matrix :	WATER
Ext Btch ID:	SVD019W	% Moisture :	NA
Calib. Ref.:	RDZ083	Instrument ID :	T-048

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	0.94	0.56

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	69	30-130

QC SUMMARIES

METHOD 3520C/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D134	Date Extracted:	04/17/07 16:30
Sample ID:	MBLK1W	Date Analyzed:	04/19/07 17:17
Lab Samp ID:	SVD019WB	Dilution Factor:	1
Lab File ID:	RDZ099	Matrix :	WATER
Ext Btch ID:	SVD019W	% Moisture :	NA
Calib. Ref.:	RDZ083	Instrument ID :	T-048

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,4-DIOXANE	ND	1.0	0.60

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	55	30-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 3520C/8270C SIM

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVD019WB	SVD019WL	SVD019WC		
LAB FILE ID:	RDZ099	RDZ100	RDZ101		
DATE EXTRACTED:	04/17/0716:30	04/17/0716:30	04/17/0716:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0717:17	04/19/0717:28	04/19/0717:38	DATE RECEIVED:	04/17/07
PREP. BATCH:	SVD019W	SVD019W	SVD019W		
CALIB. REF:	RDZ083	RDZ083	RDZ083		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	40.0	25.6	64	40.0	27.1	68	5	30-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	40.0	26.5	66	40.0	26.6	66	30-130

METHOD 3550B/8270C SIM
SEMI VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/18/07
Batch No.	: 07D134	Date Extracted:	04/18/07 10:50
Sample ID:	MBLK1S	Date Analyzed:	04/19/07 18:00
Lab Samp ID:	SVD020SB	Dilution Factor:	1
Lab File ID:	RDZ103	Matrix :	SOIL
Ext Btch ID:	SVD020S	% Moisture :	NA
Calib. Ref.:	RDZ083	Instrument ID :	T-048

PARAMETERS	RESULTS (ug/Kg)	RL (ug/Kg)	MDL (ug/Kg)
1,4-DIOXANE	ND	50	20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	122	30-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 3550B/8270C SIM

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVD020SB	SVD020SL	SVD020SC		
LAB FILE ID:	RDZ103	RDZ104	RDZ105		
DATE EXTRACTED:	04/18/0710:50	04/18/0710:50	04/18/0710:50	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0718:00	04/19/0718:10	04/19/0718:21	DATE RECEIVED:	04/18/07
PREP. BATCH:	SVD020S	SVD020S	SVD020S		
CALIB. REF:	RDZ083	RDZ083	RDZ083		

ACCESSION:

PARAMETER	BLNK RSLT (ug/Kg)	SPIKE AMT (ug/Kg)	BS RSLT (ug/Kg)	BS % REC	SPIKE AMT (ug/Kg)	BSD RSLT (ug/Kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,4-Dioxane	ND	1330	997	75	1330	770	58	26	30-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/Kg)	BS RSLT (ug/Kg)	BS % REC	SPIKE AMT (ug/Kg)	BSD RSLT (ug/Kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	1330	1070	80	1330	895	67	30-130

INITIAL CALIBRATIONS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Project: ICAL
Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D134
Lab File ID: RDZ078 BFB Injection Date : 04/13/07
Instrument ID: T-048 BFB Injection Time : 09:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.96
75	30.0 - 60.0% of mass 95	34.92
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.49
173	Less than 2.0% of mass 174	0.00(0.0)1
174	50.0- 100.0% of mass 95	76.16
175	5.0 - 9.0% of mass 174	5.11(6.7)1
176	95.0 - 101.0% of mass 174	74.34(97.6)1
177	5.0 - 9.0% of mass 176	4.74(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SSTD0.5	SV48D131	RDZ079	04/13/07	09:53
2	SSTD01	SV48D132	RDZ080	04/13/07	10:04
3	SSTD005	SV48D133	RDZ081	04/13/07	10:15
4	SSTD010	SV48D134	RDZ082	04/13/07	10:25
5	SSTD020	SV48D135	RDZ083	04/13/07	10:36
6	SSTD030	SV48D136	RDZ084	04/13/07	10:46
7	SSTD040	SV48D137	RDZ085	04/13/07	10:57
8	SSTD020	ISV48D131	RDZ086	04/13/07	11:25

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO48

Beginning DateTime :04/13/07 09:53

Spike Units :PPM

IC File :RDZ083

Column Spec :ZB-5MS ID :0.18MM

Ending DateTime :04/13/07 10:57

HPChem Method :SV48D13

		.5	1	5	10	20	30	40			
		09:53	10:04	10:15	10:25	10:36	10:46	10:57			
IDX	Parameters	RDZ079	RDZ080	RDZ081	RDZ082	RDZ083	RDZ084	RDZ085	Av_RRF	%_RSD	Av_Rt_M
1	1,4-Dioxane-d8	1	1	1	1	1	1	1	1	0	1.5143
2	1,4-Dioxane	3.382	2.720	3.607	3.172	3.680	3.066	3.161	3.255	10.18	1.5371
3	Bromobenzene	2.564	2.055	2.767	2.345	2.486	2.195	2.221	2.376	10.32	3.1293

Ave_%RSD : 10.3 Max_%RSD : 10.3

Quantitation Limit from Lowest Initial Calibration Concentration

Instrument ID :TO48 Column Spec :ZB-5MS ID :0.18MM

Beginning DateTime :04/13/07 09:53 Ending DateTime :04/13/07 10:57

IC File :RDZ083 HPChem Method :SV48D13

WATER Init. Vol. (ml) : 1000 Final Vol. (ml) : 1

SOIL Init. Weight (gm) : 30 Final Vol. (ml) : 1

IDX	Parameters	ON_COL MG/L	WATER UG/L	SOIL MG/KG	R_FILE
1	1,4-Dioxane-d8	IntSTD	IntSTD	IntSTD	IntSTD
2	1,4-Dioxane	.5	.5	.01667	RDZ079
3	Bromobenzene	.5	.5	.01667	RDZ079

4/13/07

SECOND SOURCE VERIFICATION

CONTINUE_CALIBRATION - CALIBRATION VERIFICATION

Instrument ID :TO48
IC_Beginning DateTime :04/13/07 09:53
Spike Amount :20 PPM
CC/CV File :RDZ086
IC File :RDZ083

Column Spec :ZB-5MS ID :0.18MM
IC_Ending DateTime :04/13/07 10:57
HPChem Method :SV48D13
Date_Time :04/13/07 11:25

M	IDX	Parameters	CC_Con	CC%_D	CC_Resp	CCRRF	AvRRF	CC_Rtm	AvRtm	%_RSD	Co_X0	Co_X1	Co_X2	Co_Cor
	1	1,4-Dioxane-d8	20.000	0	140333	1	1	1.515	1.514	0				
	2	1,4-Dioxane	18.773	-6.1	428827	3.056	3.255	1.535	1.537	10.18				
	3	Bromobenzene	17.377	-13.1	289705	2.064	2.376	3.130	3.129	10.32				

4/13/07

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D13\RDZ086.D Vial: 10
Acq On : 13 APR 2007 11:25 Operator: KV
Sample : ISV48D131 20PPM Inst : TO48
Misc : ICV Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV48D13.M (RTE Integrator)
Title : DIOXANE 8270C SHIMADZU GCMS-QP5000
Last Update : Fri Apr 13 11:21:04 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dioxane-d8	20.000	20.000	0.0	129	0.00
2	T	1,4-Dioxane	20.000	18.774	6.1	107	0.00
3	S	Bromobenzene	20.000	17.377	13.1	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

DAILY CALIBRATIONS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RDZ097
Instrument ID: T-048

Project: LMC BEAUMONT SITE 1
SAS No.: SDG No.: 07D134
BFB Injection Date : 04/19/07
BFB Injection Time : 15:40

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.73
75	30.0 - 60.0% of mass 95	36.16
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.67
173	Less than 2.0% of mass 174	0.32(0.4)1
174	50.0- 100.0% of mass 95	72.45
175	5.0 - 9.0% of mass 174	5.31(7.3)1
176	95.0 - 101.0% of mass 174	70.81(97.7)1
177	5.0 - 9.0% of mass 176	4.38(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SSTD020	CSV48D1302	RDZ098	04/19/07	16:50
2	MBLK1W	SVD019WB	RDZ099	04/19/07	17:17
3	LCS1W	SVD019WL	RDZ100	04/19/07	17:28
4	LCD1W	SVD019WC	RDZ101	04/19/07	17:38
5	LEB-041007	D134-04	RDZ102	04/19/07	17:49
6	MBLK1S	SVD020SB	RDZ103	04/19/07	18:00
7	LCS1S	SVD020SL	RDZ104	04/19/07	18:10
8	LCD1S	SVD020SC	RDZ105	04/19/07	18:21
9	A6-HAS1@0.5	D134-01	RDZ106	04/19/07	18:31
10	A6-HAS1@5	D134-02	RDZ107	04/19/07	18:42
11	A6-HAS101@0.5	D134-03	RDZ108	04/19/07	18:53

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDZ083
Instrument ID: T-048

Project:LMC BEAUMONT SITE 1
SDG No.: 07D134
Date Analyzed: 04/13/07
Time Analyzed: 10:36

		IS1(DD8) AREA #	RT #
	12 HOUR STD	108473	1.52
	UPPER LIMIT	216946	2.02
	LOWER LIMIT	54237	1.02
	SAMPLE ID		
1	SSTD020	166814	1.51
2	MBLK1W	173785	1.51
3	LCS1W	164058	1.51
4	LCD1W	141031	1.51
5	LEB-041007	140804	1.51
6	MBLK1S	95997	1.51
7	LCS1S	136573	1.51
8	LCD1S	151794	1.51
9	A6-HAS1@0.5	129482	1.51
10	A6-HAS1@5	138569	1.51
11	A6-HAS101@0.5	116415	1.51

IS1 (DD8) = 1,4-Dioxane-d8

AREA UPPER LIMIT = +100% of internal satndard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDZ098.D Vial: 3
Acq On : 19 APR 2007 16:50 Operator: SG
Sample : CSV48D1302 Inst : TO48
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV48D13.M (RTE Integrator)
Title : DIOXANE 8270C SHIMADZU GCMS-QP5000
Last Update : Fri Apr 13 11:22:25 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dioxane-d8	20.000	20.000	0.0	154	-0.01
2	T	1,4-Dioxane	20.000	17.093	14.5	116	0.00
3	S	Bromobenzene	20.000	18.276	8.6	134	0.00

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\07D19\RDZ098.D Vial: 3
Acq On : 19 APR 2007 16:50 Operator: SG
Sample : CSV48D1302 Inst : TO48
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV48D13.M (RTE Integrator)
Title : DIOXANE 8270C SHIMADZU GCMS-QP5000
Last Update : Fri Apr 13 11:22:25 2007
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dioxane-d8	1.000	1.000	0.0	154	-0.01
2	T	1,4-Dioxane	3.255	2.782	14.5	116	0.00
3	S	Bromobenzene	2.376	2.171	8.6	134	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ANALYTICAL LOG

ANALYSIS RUN LOG FOR SEMIVOLATILES

SOP ☐ EMAX-8270 Rev. No. 3 ☐ EMAX-8270SIM Rev. No. 0 ☐ EMAX-CLPSVOA ☑ EMAX-M8270SIM Rev. No. 1 ☐ Book #A48- 015

Method File: SV48D13 Tune File: BFB Start Date/Time: 4/13/07 9:30 End Date/Time: 4/13/07 12:39

ANALYTICAL BATCH CSV48D1301

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
NA	KD2077	IB48D1301	NA			
	78	BFB48D1301				
	79	SV48D13 1				0.5 ppm
	80	2				1
	81	3				5
	82	4				10
	83	5				20
	84	6				30
	85	7				40
	86	ISV48D131				20 ppm ICV
	87	CSV48D1301				
SVD010W	88	SVD010WB	NA		x	
	89	WL				
	90	WC				
	91	07D075-01				

Instrument No:	48

INITIAL CALIBRATION REFERENCE	
Date	4/13/07
ICAL ID	SV48D13

Standards		
KV 4/13/07 Name	ID	Conc. (mg/L)
DFTPP BFB	SS2C-05-15-3	50
DCC	SS2C-05-16-3	20
INT. STD.	~~SS2B-05-~~ KV 4/13/07	
ICV	SS2C-05-16-2	20
IS	SS2A-04-4	1000

Solvent	ID
CH_2Cl_2	46331

DATA FILE	07D13

Electronic Data Archival	
Location	Date
HPCHEM_SVOA/T048	

Comments:

Analyzed By: KV

Date Disposed:

Disposed by:

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

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ANALYSIS RUN LOG FOR SEMIVOLATILES

SOP ☐ EMAX-8270 Rev. No. 3 ☐ EMAX-8270SIM Rev. No. 0 ☐ EMAX-CLPSVOA ☒ EMAX-M8270SIM Rev. No. 1 ☐ Book #A48- 015

Method File: SV48D13 Tune File: BFB Start Date/Time: 4/19/07 15:40 End Date/Time: 4/19/07 20:19

ANALYTICAL BATCH CSV48D1302

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
	RDZ095	IB48C3006				Ucel lot #020201A
	096	IB48D1302				
	097	BFB48D1302				
	098	CSV48D1302				
SVD019W	099	SVD019WB	NA		X	
	100	WL				
	101	WC				
	102	07D134-04				
SVD020S	103	SVD020SB	NA	X		
	104	SL				
	105	SC				
	106	07D134-01				
	107	-02				
	108	-03				
SVD021S	109	SVD021SB	NA	X		
	110	SL				
	111	SC				
	112	07D175-01				
	113	-02				
	114	-03				
	115	-04				
	116	Blank			X	
SVD017W	117	07D116-01	NA		X	QC

SV 4/19/07

Instrument No:	48

INITIAL CALIBRATION REFERENCE	
Date	4/13/07
ICAL ID	SV48D13

Standards		
Name	ID	Conc. (mg/L)
DFTPP		
DCC	SS2C-05-16-3	20
INT. STD.	SS2A-04-4	1000
BFB	SS2C-05-15-3	50

Solvent	ID	
CH_2Cl_2		

DATA FILE	07D19

Electronic Data Archival	
Location	Date
HPCHEM_SVOA/T048	

Comments:

Analyzed By: SU

Date Disposed: 4/20/07

Disposed by: SU

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W 205th St. Torrance, CA 90501

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EXTRACTION LOG

EMAX LABORATORIES, INC.

EXTRACTION LOG
for
SEMIVOLATILES

EXTRACTION LOG FOR SEMIVOLATILES

SOP ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3510 Rev. No.: 1 ☒ EMAX-3550 Rev. No.: 2 ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-CLP-SVOA ☐ Book # ESV-035

Matrix: Soil Init.Start Date/Time: 04/18/07 10:50 End Date/Time: Final Start Date/Time: End Date/Time: 04/18/07 11:50

PREPARATION BATCH: * SVD020 S

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [C]	Notes
*01	SVD020 - SB		30.00		2		
*02	- SL		30.00		2		
*03	- SC		30.01		2		
*04	07D134 -01		30.01		2		
*05	-02		30.03		2		
*06	-03		30.04		2		
*07							
*08							
*09							
*10							
*11							
*12							
*13							
*14							
*15							
*16						SS	
*17						04/18/07	
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							

Standards	ID	Amount Added (ml)
Surrogate	SS2B-05-7-2	0.1
LCS/MS (1,4 DIOX)	SS2B-05-8-2	1.0

Reagent	Lot# / ID
CH_2Cl_2	47010
Na_2SO_4	46080619
H_2SO_4	—
NaOH	—
Silica Sand	44273

TUNING

Sonicator #	Reading
	N/A

Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1	35	35
2		
3		
4		
5		
6		

Comments: Thermometer ID = T_1

Prepared By: SS Witnessed By: YK

Standard Added By: SS

SS 4/18/07 Checked By: ~~YK~~ JM

Extract Received by: [illegible] 4/18/07 Location: SE01-WALL#5

Disposed by: Disposed on:

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EMAX LABORATORIES, INC.

EXTRACTION LOG
for
SEMIVOLATILES

EXTRACTION LOG FOR SEMIVOLATILES

SOP ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 2 ☒ EMAX-3520 Rev. No.: 2 ☐ EMAX-CLP-SVOA ☐

Book # ESV-035

Matrix: WATER Init.Start Date/Time: 4/17/07 16:30 End Date/Time: Final Start Date/Time: End Date/Time: 4/18/07 10:30

PREPARATION BATCH: * SVD019W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [C]	Notes
*01	SVD019 – WB	N/A	1000		2		
*02	– WL		1000		2		
*03	– WC		1000		2		
*04	07D134 – 04		1060		2		
*05							
*06							
*07							
*08							
*09							
*10					4/18/07		
*11					JM		
*12							
*13							
*14							
*15							
*16							
*17							
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							

Standards	ID	Amount Added (ml)
Surrogate	SS2B-05-7-2	0.1
LCS/MS (SI 4DVOX)	SS2B-05-8-2	1.0

Reagent	Lot# / ID
CH_2Cl_2	47010
Na_2SO_4	46080619
H_2SO_4	–
NaOH	–
Silica Sand	–

TUNING

Sonicator #	Reading
	N/A

Concentrator	Water Bath Temperature Setting (°C)	Thermometer Reading (°C)
1	35	35
2		
3		
4		
5		
6		

Comments: Thermometer ID = T_1

Prepared By: JM Witnessed By: IZ

Standard Added By: JM

Checked By: ML

Extract Received by: JM 4/18/07 Location: SE01-4W-5

Disposed by: Disposed on:

3069

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 8330
EXPLOSIVES

SDG#: 07D134

6000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 8330
EXPLOSIVES

One (1) water sample and seven (7) soil samples were received on 04/11/07 for Explosives analysis by Method 8330 in accordance with USEPA SW846 3rd edition, and EMAX-8330.

1. Holding Time

Analytical holding time was met. Water sample extraction was started and completed on 04/17/07. Soil sample extraction was started on 04/19/07 and completed on 04/20/07.

2. Calibration

Initial calibration was 5 points. %RSDs were within 20%. All continuing calibrations of the primary column were carried out within 10-sample intervals and the recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate recovery

All surrogate recoveries were within QC limits.

5. Lab Control Sample / Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample D134-12 was spiked. All recoveries were within QC limits.

7. Sample Analysis

Sample analyses were within QC requirements. Quantitation is from the primary column. All positive results above RL were confirmed by Phenyl-Hexyl column and the confirmation is presumptive because it was based on retention time window.

Soil samples were air-dried prior to extraction; hence, no moisture correction was applied to RL, MDL, and results.

LAB CHRONICLE
EXPLOSIVES

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D134
Instrument ID : T081

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	EXD002WB	1	NA	04/20/0711:18	04/17/0711:30	XD20003A	XD20002A	EXD002W	Method Blank
LCS1W	EXD002WL	1	NA	04/20/0711:46	04/17/0711:30	XD20004A	XD20002A	EXD002W	Lab Control Sample (LCS)
LCD1W	EXD002WC	1	NA	04/20/0712:14	04/17/0711:30	XD20005A	XD20002A	EXD002W	LCS Duplicate
LEB-041007	D134-04	1	NA	04/20/0712:42	04/17/0711:30	XD20006A	XD20002A	EXD002W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	EXD004SB	1	NA	04/20/0723:24	04/19/0715:00	XD20029A	XD20025A	EXD004S	Method Blank
LCS1S	EXD004SL	1	NA	04/20/0723:52	04/19/0715:00	XD20030A	XD20025A	EXD004S	Lab Control Sample (LCS)
D26-HAS-16-0.5	D134-05	1	NA	04/21/0700:20	04/19/0715:00	XD20031A	XD20025A	EXD004S	Field Sample
D26-HAS-16-5	D134-06	1	NA	04/21/0700:48	04/19/0715:00	XD20032A	XD20025A	EXD004S	Field Sample
D26-HAS-116-0.5	D134-07	1	NA	04/21/0701:15	04/19/0715:00	XD20033A	XD20025A	EXD004S	Field Sample
D26-HAS-15-0.5	D134-09	1	NA	04/21/0701:43	04/19/0715:00	XD20034A	XD20025A	EXD004S	Field Sample
D26-HAS-15-5	D134-10	1	NA	04/21/0702:11	04/19/0715:00	XD20035A	XD20025A	EXD004S	Field Sample
D26-HAS-14-0.5	D134-11	1	NA	04/21/0704:59	04/19/0715:00	XD20041A	XD20036A	EXD004S	Field Sample
D26-HAS-14-5	D134-12	1	NA	04/21/0703:35	04/19/0715:00	XD20038A	XD20036A	EXD004S	Field Sample
D26-HAS-14-5MS	D134-12M	1	NA	04/21/0704:03	04/19/0715:00	XD20039A	XD20036A	EXD004S	Matrix Spike Sample (MS)
D26-HAS-14-5MSD	D134-12S	1	NA	04/21/0704:31	04/19/0715:00	XD20040A	XD20036A	EXD004S	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/17/07 11:30
Sample ID:	LEB-041007	Date Analyzed:	04/20/07 12:42
Lab Samp ID:	D134-04	Dilution Factor:	1
Lab File ID:	XD20006A	Matrix :	WATER
Ext Btch ID:	EXD002W	% Moisture :	NA
Calib. Ref.:	XD20002A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TNB	ND	1.0	0.20
1,3-DNB	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TNT	ND	1.0	0.20
4-AM-2,6-DNT	ND	1.0	0.20
2-AM-4,6-DNT	ND	1.0	0.20
2,6-DNT	ND	1.0	0.20
2,4-DNT	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	112	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID	: D26-HAS-16-0.5	Date Analyzed:	04/21/07 00:20
Lab Samp ID	: D134-05	Dilution Factor:	1
Lab File ID	: XD20031A	Matrix :	SOIL
Ext Btch ID	: EXD004S	% Moisture :	NA
Calib. Ref.	: XD20025A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID:	D26-HAS-16-5	Date Analyzed:	04/21/07 00:48
Lab Samp ID:	D134-06	Dilution Factor:	1
Lab File ID:	XD20032A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20025A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	114	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID:	D26-HAS-116-0.5	Date Analyzed:	04/21/07 01:15
Lab Samp ID:	D134-07	Dilution Factor:	1
Lab File ID:	XD20033A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20025A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	118	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID:	D26-HAS-15-0.5	Date Analyzed:	04/21/07 01:43
Lab Samp ID:	D134-09	Dilution Factor:	1
Lab File ID:	XD20034A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20025A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	110	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID:	D26-HAS-15-5	Date Analyzed:	04/21/07 02:11
Lab Samp ID:	D134-10	Dilution Factor:	1
Lab File ID:	XD20035A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20025A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	113	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID:	D26-HAS-14-0.5	Date Analyzed:	04/21/07 04:59
Lab Samp ID:	D134-11	Dilution Factor:	1
Lab File ID:	XD20041A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/10/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
Batch No.	: 07D134	Date Extracted:	04/19/07 15:00
Sample ID	: D26-HAS-14-5	Date Analyzed:	04/21/07 03:35
Lab Samp ID	: D134-12	Dilution Factor:	1
Lab File ID	: XD20038A	Matrix :	SOIL
Ext Btch ID	: EXD004S	% Moisture :	NA
Calib. Ref.	: XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	113	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

QC SUMMARIES

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D134	Date Extracted:	04/17/07 11:30
Sample ID:	MBLK1W	Date Analyzed:	04/20/07 11:18
Lab Samp ID:	EXD002WB	Dilution Factor:	1
Lab File ID:	XD20003A	Matrix :	WATER
Ext Btch ID:	EXD002W	% Moisture :	NA
Calib. Ref.:	XD20002A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TNB	ND	1.0	0.20
1,3-DNB	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TNT	ND	1.0	0.20
4-AM-2,6-DNT	ND	1.0	0.20
2-AM-4,6-DNT	ND	1.0	0.20
2,6-DNT	ND	1.0	0.20
2,4-DNT	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	104	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 8330

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	EXD002WB	EXD002WL	EXD002WC		
LAB FILE ID:	XD20003A	XD20004A	XD20005A		
DATE EXTRACTED:	04/17/0711:30	04/17/0711:30	04/17/0711:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0711:18	04/20/0711:46	04/20/0712:14	DATE RECEIVED:	04/17/07
PREP. BATCH:	EXD002W	EXD002W	EXD002W		
CALIB. REF:	XD20002A	XD20002A	XD20002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	4.00	3.50	87	4.00	4.00	100	13	70-130	30
RDX	ND	4.00	3.18	79	4.00	3.61	90	13	60-130	30
1,3,5-TNB	ND	4.00	3.44	86	4.00	4.10	102	17	70-130	30
1,3-DNB	ND	4.00	3.18	80	4.00	3.76	94	17	70-130	30
Tetryl	ND	4.00	3.57	89	4.00	4.00	100	11	70-130	30
Nitrobenzene	ND	4.00	3.04	76	4.00	3.65	91	18	70-130	30
2,4,6-TNT	ND	4.00	3.91	98	4.00	4.60	115	16	70-130	30
4-AM-2,6-DNT	ND	4.00	3.96	99	4.00	4.67	117	16	70-130	30
2-AM-4,6-DNT	ND	4.00	3.45	86	4.00	4.01	100	15	70-130	30
2,6-DNT	ND	4.00	3.99	100	4.00	4.61	115	14	70-130	30
2,4-DNT	ND	4.00	3.57	89	4.00	4.12	103	14	70-130	30
2-Nitrotoluene	ND	4.00	3.78	94	4.00	4.35	109	14	70-130	30
3-Nitrotoluene	ND	4.00	3.22	80	4.00	3.85	96	18	70-130	30
4-Nitrotoluene	ND	4.00	3.55	89	4.00	4.46	111	23	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
3,4-Dinitrotoluene	4.00	3.98	99	4.00	4.12	103	70-130

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/19/07
Batch No. : 07D134	Date Extracted: 04/19/07 15:00
Sample ID: MBLK1S	Date Analyzed: 04/20/07 23:24
Lab Samp ID: EXD004SB	Dilution Factor: 1
Lab File ID: XD20029A	Matrix : SOIL
Ext Btch ID: EXD004S	% Moisture : NA
Calib. Ref.: XD20025A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	114	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 8330

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	EXD004SB	EXD004SL		
LAB FILE ID:	XD20029A	XD20030A		
DATE EXTRACTED:	04/19/0715:00	04/19/0715:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0723:24	04/20/0723:52	DATE RECEIVED:	04/19/07
PREP. BATCH:	EXD004S	EXD004S		
CALIB. REF:	XD20025A	XD20025A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
HMX	ND	2000	2230	112	70-130
RDX	ND	2000	2280	114	70-130
1,3,5-TNB	ND	2000	2200	110	70-130
1,3-DNB	ND	2000	2180	109	70-130
Tetryl	ND	2000	2000	100	70-130
Nitrobenzene	ND	2000	2250	112	70-140
2,4,6-TNT	ND	2000	2240	112	70-130
4-AM-2,6-DNT	ND	2000	2330	116	70-130
2-AM-4,6-DNT	ND	2000	2080	104	70-130
2,6-DNT	ND	2000	2370	119	70-130
2,4-DNT	ND	2000	2140	107	70-130
2-Nitrotoluene	ND	2000	2130	107	70-130
3-Nitrotoluene	ND	2000	2040	102	70-130
4-Nitrotoluene	ND	2000	2120	106	70-140

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
3,4-Dinitrotoluene	2000	2190	109	70-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 8330

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	D26-HAS-14-5				
LAB SAMP ID:	D134-12	D134-12M	D134-12S		
LAB FILE ID:	XD20038A	XD20039A	XD20040A		
DATE EXTRACTED:	04/19/0715:00	04/19/0715:00	04/19/0715:00	DATE COLLECTED:	04/10/07
DATE ANALYZED:	04/21/0703:35	04/21/0704:03	04/21/0704:31	DATE RECEIVED:	04/11/07
PREP. BATCH:	EXD004S	EXD004S	EXD004S		
CALIB. REF:	XD20036A	XD20036A	XD20036A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2100	105	2000	2280	114	8	70-130	50
RDX	ND	2000	2140	107	2000	2300	115	7	70-130	50
1,3,5-TNB	ND	2000	2130	106	2000	2240	112	5	70-130	50
1,3-DNB	ND	2000	2050	103	2000	2220	111	8	70-130	50
Tetryl	ND	2000	1840	92	2000	2130	107	15	60-130	50
Nitrobenzene	ND	2000	2180	109	2000	2330	117	7	70-130	50
2,4,6-TNT	ND	2000	2170	108	2000	2400	120	10	70-130	50
4-AM-2,6-DNT	ND	2000	2180	109	2000	2380	119	9	70-140	50
2-AM-4,6-DNT	ND	2000	1980	99	2000	2130	107	8	70-130	50
2,6-DNT	ND	2000	2260	113	2000	2380	119	5	70-130	50
2,4-DNT	ND	2000	2010	101	2000	2180	109	8	70-130	50
2-Nitrotoluene	ND	2000	1970	99	2000	2180	109	10	70-130	50
3-Nitrotoluene	ND	2000	1970	98	2000	2030	101	3	70-130	50
4-Nitrotoluene	ND	2000	1990	100	2000	2120	106	6	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
3,4-Dinitrotoluene	2000	2200	110	2000	2100	105	70-130

INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
LFID & Datetime: XK07007A 11/07/06 15:49
LFID & Datetime: XK07008A 11/07/06 16:17
LFID & Datetime: XK07009A 11/07/06 16:45
LFID & Datetime: XK07010A 11/07/06 17:13
LFID & Datetime: XK07011A 11/07/06 17:41
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	5.00X	10.00X	20.00X	40.00X	MEAN	%RSD
HMX	20.00	63.30	67.03	70.21	66.86	65.96	66.67	3.7
RDX	20.00	64.50	77.77	81.21	84.11	87.36	78.99	11.2
1,3,5-TNB	20.00	203.40	200.75	200.34	198.50	200.00	200.60	0.9
1,3-DNB	20.00	266.90	278.05	283.40	281.07	279.93	277.87	2.3
Tetryl	20.00	175.05	159.39	162.93	161.20	161.16	163.95	3.9
Nitrobenzene	20.00	185.50	193.76	204.62	203.85	204.42	198.43	4.3
2,4,6-TNT	20.00	198.95	195.38	204.12	198.61	200.18	199.45	1.6
4-AM-2,6-DNT	20.00	133.60	133.05	144.07	142.46	141.77	138.99	3.8
2-AM-4,6-DNT	20.00	187.85	208.41	219.07	210.99	216.13	208.49	5.9
2,6-DNT	20.00	123.65	113.18	126.07	122.71	125.39	122.20	4.3
2,4-DNT	20.00	270.15	264.61	283.30	270.28	275.07	272.68	2.6
2-Nitrotoluene	20.00	128.30	123.45	122.43	127.32	132.62	126.82	3.2
4-Nitrotoluene	20.00	117.85	116.14	111.73	116.10	121.93	116.75	3.1
3-Nitrotoluene	20.00	158.15	142.26	143.49	147.15	151.20	148.45	4.3
SURROGATE	X	1.00X	5.00X	10.00X	20.00X	40.00X	MEAN	%RSD
3,4-Dinitrotoluene	20.00	107.25	113.94	118.23	117.76	117.37	114.91	4.0

EX81K07.MET

11/13/06

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XK07012A 11/07/2006 18:08
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.308	4.258	4.358	400.0	66.700	26924	403.82	1		15
RDX	6.375	6.237	6.513	400.0	79.000	33328	421.93	5		15
1,3,5-TNB	8.633	8.480	8.786	400.0	200.600	80697	402.28	1		15
1,3-DNB	10.517	10.288	10.746	400.0	277.900	112256	403.99	1		15
Tetryl	11.208	10.920	11.496	400.0	163.900	64398	392.80	-2		15
Nitrobenzene	12.175	11.774	12.576	400.0	198.400	82442	415.47	4		15
2,4,6-TNT	13.583	13.182	13.984	400.0	199.400	78108	391.62	-2		15
4-AM-2,6-DNT	14.150	13.645	14.655	400.0	139.000	56985	409.99	2		15
2-AM-4,6-DNT	14.717	14.169	15.265	400.0	208.500	80301	385.16	-4		15
2,6-DNT	15.825	15.362	16.288	400.0	122.200	48068	393.35	-2		15
2,4-DNT	16.442	15.965	16.919	400.0	272.700	109592	401.90	0		15
2-Nitrotoluene	19.625	19.034	20.216	400.0	126.800	48117	379.40	-5		15
4-Nitrotoluene	21.317	20.660	21.974	400.0	116.700	45806	392.35	-2		15
3-Nitrotoluene	22.767	22.015	23.519	400.0	148.400	56334	379.49	-5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.042	12.667	13.417	400.0	114.900	46110	401.27	0		15

EX81K07.MET

11/10/06

INITIAL CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
LFID & Datetime: XK07007A 11/07/06 15:49
LFID & Datetime: XK07008A 11/07/06 16:17
LFID & Datetime: XK07009A 11/07/06 16:45
LFID & Datetime: XK07010A 11/07/06 17:13
LFID & Datetime: XK07011A 11/07/06 17:41
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	5.00X	10.00X	20.00X	40.00X	MEAN	%RSD
HMX	20.00	63.30	67.03	70.21	66.86	65.96	66.67	3.7
RDX	20.00	64.50	77.77	81.21	84.11	87.36	78.99	11.2
1,3,5-TNB	20.00	203.40	200.75	200.34	198.50	200.00	200.60	0.9
1,3-DNB	20.00	266.90	278.05	283.40	281.07	279.93	277.87	2.3
Tetryl	20.00	175.05	159.39	162.93	161.20	161.16	163.95	3.9
Nitrobenzene	20.00	185.50	193.76	204.62	203.85	204.42	198.43	4.3
2,4,6-TNT	20.00	198.95	195.38	204.12	198.61	200.18	199.45	1.6
4-AM-2,6-DNT	20.00	133.60	133.05	144.07	142.46	141.77	138.99	3.8
2-AM-4,6-DNT	20.00	187.85	208.41	219.07	210.99	216.13	208.49	5.9
2,6-DNT	20.00	123.65	113.18	126.07	122.71	125.39	122.20	4.3
2,4-DNT	20.00	270.15	264.61	283.30	270.28	275.07	272.68	2.6
2-Nitrotoluene	20.00	128.30	123.45	122.43	127.32	132.62	126.82	3.2
4-Nitrotoluene	20.00	117.85	116.14	111.73	116.10	121.93	116.75	3.1
3-Nitrotoluene	20.00	158.15	142.26	143.49	147.15	151.20	148.45	4.3
SURROGATE	X	1.00X	5.00X	10.00X	20.00X	40.00X	MEAN	%RSD
3,4-Dinitrotoluene	20.00	107.25	113.94	118.23	117.76	117.37	114.91	4.0

EX81K07.MET

11/13/06

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Columm : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20002A 04/20/2007 10:50
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.292	4.242	4.342	400.0	66.700	28090	421.30	5		15
RDX	6.342	6.204	6.480	400.0	79.000	35273	446.56	12		15
1,3,5-TNB	8.567	8.414	8.720	400.0	200.600	84433	420.91	5		15
1,3-DNB	10.492	10.263	10.721	400.0	277.900	114294	411.32	3		15
Tetryl	10.900	10.612	11.188	400.0	163.900	65892	401.91	0		15
Nitrobenzene	12.192	11.791	12.593	400.0	198.400	81034	408.37	2		15
2,4,6-TNT	13.308	12.907	13.709	400.0	199.400	81218	407.21	2		15
4-AM-2,6-DNT	13.825	13.320	14.330	400.0	139.000	63929	459.95	15		15
2-AM-4,6-DNT	14.425	13.877	14.973	400.0	208.500	87155	418.03	5		15
2,6-DNT	15.558	15.095	16.021	400.0	122.200	55615	455.11	14		15
2,4-DNT	16.258	15.781	16.735	400.0	272.700	111386	408.48	2		15
2-Nitrotoluene	19.333	18.742	19.924	400.0	126.800	52932	417.36	4		15
4-Nitrotoluene	21.042	20.385	21.699	400.0	116.700	47927	410.51	3		15
3-Nitrotoluene	22.467	21.715	23.219	400.0	148.400	59338	399.72	-0		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	12.925	12.550	13.300	400.0	114.900	49518	430.93	8		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20013A 04/20/2007 15:57
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.275	4.225	4.325	400.0	66.700	26720	400.76	0		15
RDX	6.325	6.187	6.463	400.0	79.000	33678	426.36	7		15
1,3,5-TNB	8.558	8.405	8.711	400.0	200.600	80386	400.73	0		15
1,3-DNB	10.492	10.263	10.721	400.0	277.900	109614	394.48	-1		15
Tetryl	10.917	10.629	11.205	400.0	163.900	65007	396.51	-1		15
Nitrobenzene	12.192	11.791	12.593	400.0	198.400	79436	400.32	0		15
2,4,6-TNT	13.317	12.916	13.718	400.0	199.400	77817	390.16	-2		15
4-AM-2,6-DNT	13.850	13.345	14.355	400.0	139.000	60504	435.31	9		15
2-AM-4,6-DNT	14.442	13.894	14.990	400.0	208.500	82647	396.41	-1		15
2,6-DNT	15.575	15.112	16.038	400.0	122.200	53716	439.57	10		15
2,4-DNT	16.275	15.798	16.752	400.0	272.700	108331	397.28	-1		15
2-Nitrotoluene	19.342	18.751	19.933	400.0	126.800	53162	419.18	5		15
4-Nitrotoluene	21.008	20.351	21.665	400.0	116.700	47253	404.74	1		15
3-Nitrotoluene	22.467	21.715	23.219	400.0	148.400	59044	397.74	-1		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	12.933	12.558	13.308	400.0	114.900	46555	405.14	1		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Columm : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20025A 04/20/2007 21:32
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.300	4.250	4.350	400.0	66.700	26827	402.36	1		15
RDX	6.358	6.220	6.496	400.0	79.000	34092	431.60	8		15
1,3,5-TNB	8.600	8.447	8.753	400.0	200.600	80740	402.50	1		15
1,3-DNB	10.558	10.329	10.787	400.0	277.900	109354	393.54	-2		15
Tetryl	10.992	10.704	11.280	400.0	163.900	64374	392.65	-2		15
Nitrobenzene	12.258	11.857	12.659	400.0	198.400	80537	405.87	1		15
2,4,6-TNT	13.383	12.982	13.784	400.0	199.400	79461	398.41	-0		15
4-AM-2,6-DNT	13.950	13.445	14.455	400.0	139.000	59988	431.60	8		15
2-AM-4,6-DNT	14.567	14.019	15.115	400.0	208.500	83180	398.96	-0		15
2,6-DNT	15.658	15.195	16.121	400.0	122.200	53065	434.24	9		15
2,4-DNT	16.375	15.898	16.852	400.0	272.700	104886	384.65	-4		15
2-Nitrotoluene	19.425	18.834	20.016	400.0	126.800	51495	406.03	2		15
4-Nitrotoluene	21.125	20.468	21.782	400.0	116.700	45928	393.39	-2		15
3-Nitrotoluene	22.558	21.806	23.310	400.0	148.400	58505	394.11	-1		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	13.008	12.633	13.383	400.0	114.900	46321	403.11	1		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20036A 04/21/2007 02:39
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.292	4.242	4.342	400.0	66.700	26106	391.55	-2		15
RDX	6.358	6.220	6.496	400.0	79.000	33213	420.48	5		15
1,3,5-TNB	8.592	8.439	8.745	400.0	200.600	79102	394.33	-1		15
1,3-DNB	10.550	10.321	10.779	400.0	277.900	108394	390.09	-2		15
Tetryl	10.983	10.695	11.271	400.0	163.900	62853	383.37	-4		15
Nitrobenzene	12.242	11.841	12.643	400.0	198.400	78069	393.43	-2		15
2,4,6-TNT	13.383	12.982	13.784	400.0	199.400	78152	391.84	-2		15
4-AM-2,6-DNT	13.983	13.478	14.488	400.0	139.000	58745	422.66	6		15
2-AM-4,6-DNT	14.592	14.044	15.140	400.0	208.500	80819	387.64	-3		15
2,6-DNT	15.683	15.220	16.146	400.0	122.200	52248	427.56	7		15
2,4-DNT	16.417	15.940	16.894	400.0	272.700	103454	379.39	-5		15
2-Nitrotoluene	19.500	18.909	20.091	400.0	126.800	50778	400.38	0		15
4-Nitrotoluene	21.242	20.585	21.899	400.0	116.700	45797	392.27	-2		15
3-Nitrotoluene	22.675	21.923	23.427	400.0	148.400	57829	389.56	-3		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	13.008	12.633	13.383	400.0	114.900	44586	388.01	-3		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20048A 04/21/2007 08:14
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.283	4.233	4.333	400.0	66.700	26725	400.83	0		15
RDX	6.333	6.195	6.471	400.0	79.000	33872	428.82	7		15
1,3,5-TNB	8.558	8.405	8.711	400.0	200.600	80254	400.08	0		15
1,3-DNB	10.483	10.254	10.712	400.0	277.900	108485	390.42	-2		15
Tetryl	10.908	10.620	11.196	400.0	163.900	64382	392.70	-2		15
Nitrobenzene	12.183	11.782	12.584	400.0	198.400	80153	403.93	1		15
2,4,6-TNT	13.308	12.907	13.709	400.0	199.400	78135	391.76	-2		15
4-AM-2,6-DNT	13.842	13.337	14.347	400.0	139.000	61564	442.94	11		15
2-AM-4,6-DNT	14.442	13.894	14.990	400.0	208.500	83130	398.73	-0		15
2,6-DNT	15.575	15.112	16.038	400.0	122.200	53584	438.49	10		15
2,4-DNT	16.292	15.815	16.769	400.0	272.700	106859	391.88	-2		15
2-Nitrotoluene	19.383	18.792	19.974	400.0	126.800	51851	408.84	2		15
4-Nitrotoluene	21.083	20.426	21.740	400.0	116.700	46704	400.04	0		15
3-Nitrotoluene	22.525	21.773	23.277	400.0	148.400	59723	402.32	1		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	12.933	12.558	13.308	400.0	114.900	46422	403.98	1		15

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS RUN LOG
for
HPLC

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Prep Batch: EXD002W, EXD003S, EXD004S

Samples: 07D134, 07D166, 07D144

Book #:	A81 -8
Instrument No.:	81
Analytical Sequence:	XD20
Method File:	EX81K07
Analytical Batch:	XD20002

SOP #	Rev. #
☐ EMAX-8310	4
☑ EMAX-8330	3
☐ EMAX-8332	0
☐ EMAX-	

STANDARDS ID	CONC. (µg/L)
ICAL	
ICV	
DCC SHIC-04-20-2	400 ppb

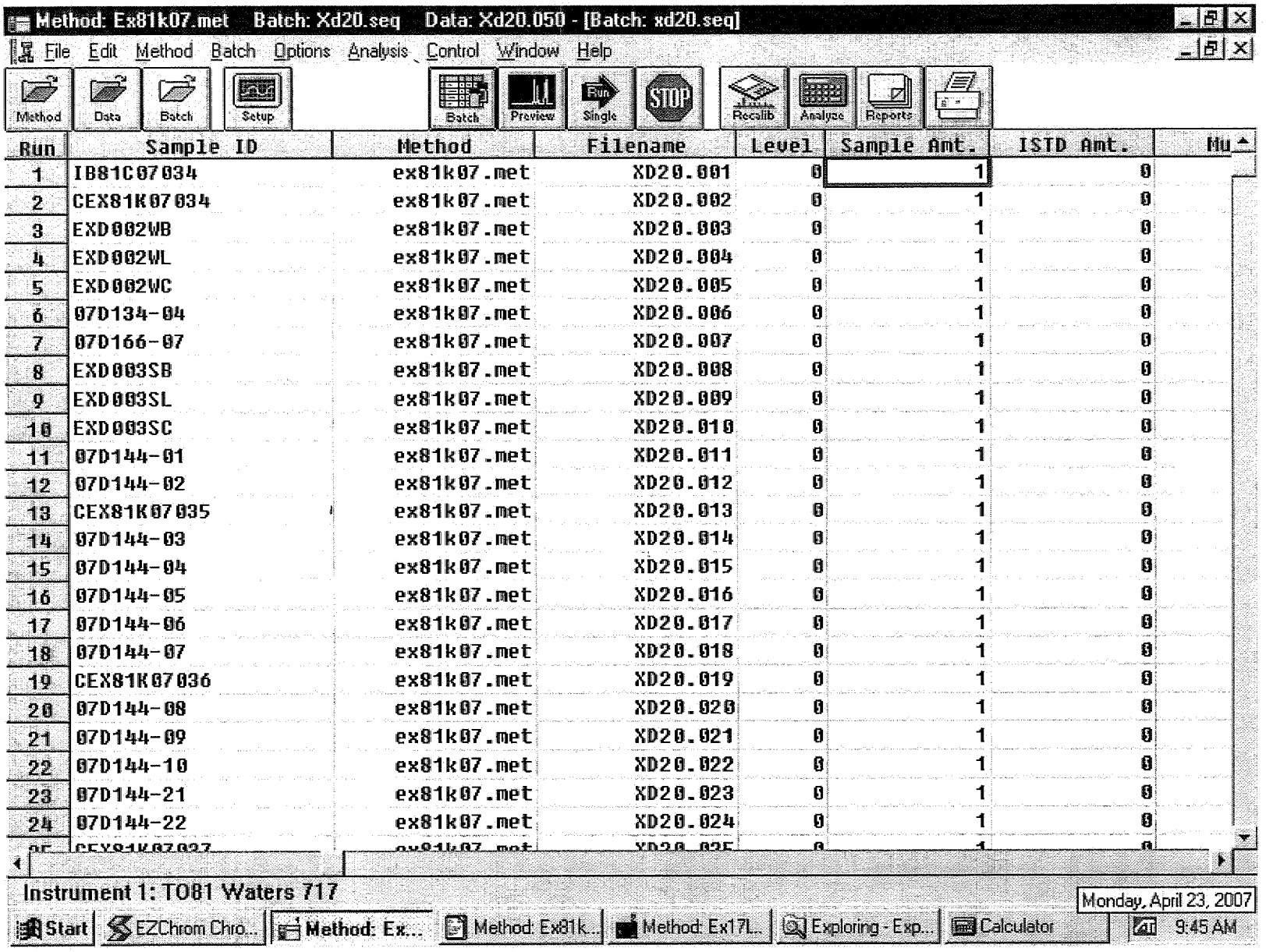
SOLVENT	ID
Acetonitrile	
Methanol	46111
Water	46089

Data File	

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_5_HPLC	
☐	

Analyzed By: KS

Date: 4/20/07



Method: Ex81k07.met Batch: Xd20.seq Data: Xd20.050 - [Batch: xd20.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Level	Sample Amt.	ISTD Amt.	Mu
1	IB81C07034	ex81k07.met	XD20.001	0	1	0	
2	CEX81K07034	ex81k07.met	XD20.002	0	1	0	
3	EXD002WB	ex81k07.met	XD20.003	0	1	0	
4	EXD002WL	ex81k07.met	XD20.004	0	1	0	
5	EXD002WC	ex81k07.met	XD20.005	0	1	0	
6	07D134-04	ex81k07.met	XD20.006	0	1	0	
7	07D166-07	ex81k07.met	XD20.007	0	1	0	
8	EXD003SB	ex81k07.met	XD20.008	0	1	0	
9	EXD003SL	ex81k07.met	XD20.009	0	1	0	
10	EXD003SC	ex81k07.met	XD20.010	0	1	0	
11	07D144-01	ex81k07.met	XD20.011	0	1	0	
12	07D144-02	ex81k07.met	XD20.012	0	1	0	
13	CEX81K07035	ex81k07.met	XD20.013	0	1	0	
14	07D144-03	ex81k07.met	XD20.014	0	1	0	
15	07D144-04	ex81k07.met	XD20.015	0	1	0	
16	07D144-05	ex81k07.met	XD20.016	0	1	0	
17	07D144-06	ex81k07.met	XD20.017	0	1	0	
18	07D144-07	ex81k07.met	XD20.018	0	1	0	
19	CEX81K07036	ex81k07.met	XD20.019	0	1	0	
20	07D144-08	ex81k07.met	XD20.020	0	1	0	
21	07D144-09	ex81k07.met	XD20.021	0	1	0	
22	07D144-10	ex81k07.met	XD20.022	0	1	0	
23	07D144-21	ex81k07.met	XD20.023	0	1	0	
24	07D144-22	ex81k07.met	XD20.024	0	1	0	
25	CEX81K07037	ex81k07.met	XD20.025	0	1	0	

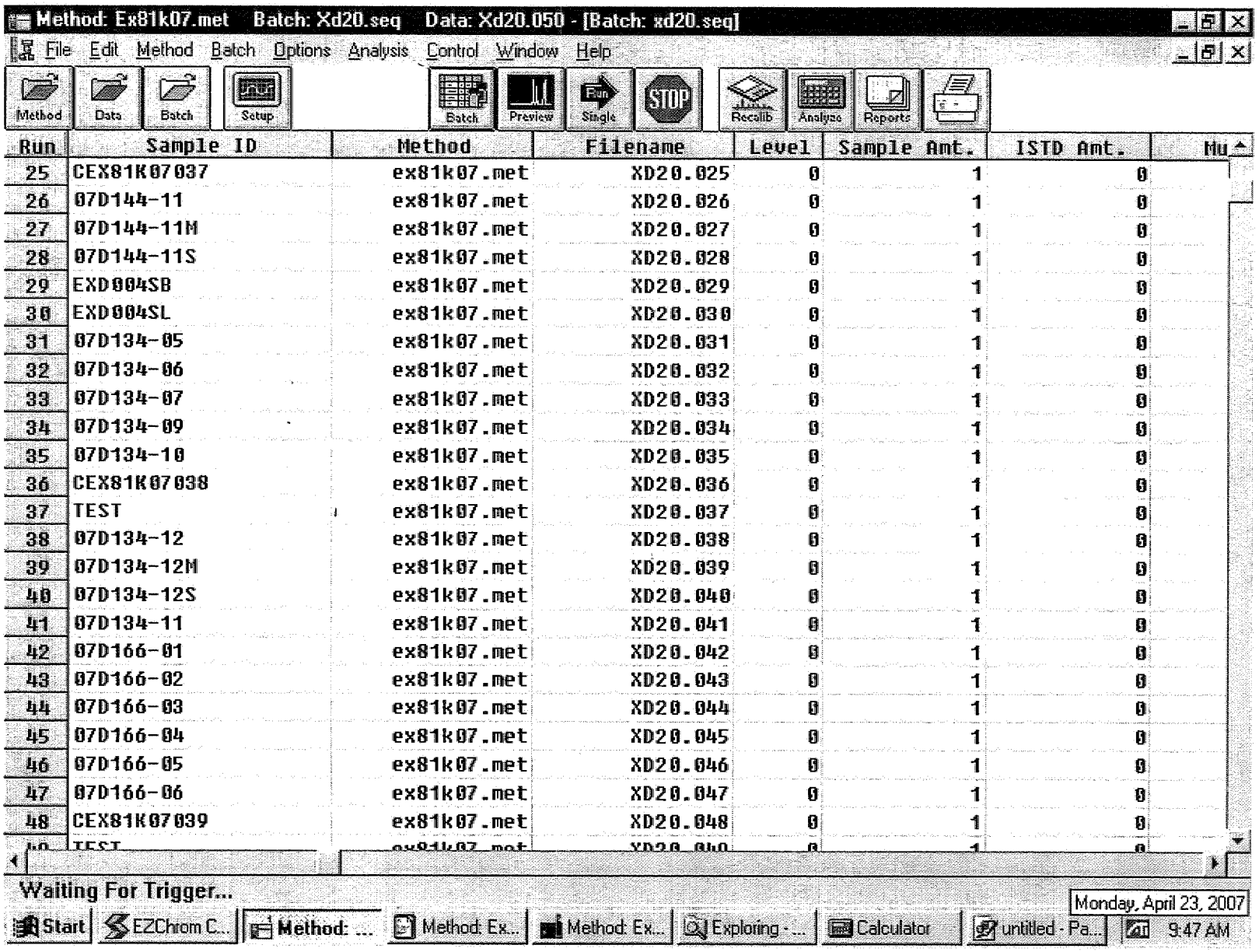
Instrument 1: TO81 Waters 717

Monday, April 23, 2007

Start | EZChrom Chro... | Method: Ex... | Method: Ex81k... | Method: Ex17L... | Exploring - Exp... | Calculator | 9:45 AM

KS
4/23/07

6031



KS
4/23/07

6032

ANALYSIS RUN LOG FOR HPLC

SOP ☑ EMAX-8330 Rev. No: 2 ☐ EMAX-8310 Rev. No: 4 ☐ EMAX-8332 Rev. No: 0 ☐ Book # A81-007

Starting Date: 11/7/06 Time: 15:21 Ending Date: 11/7/06 Time: 18:08

ANALYTICAL BATCH: NA

Preparation Batch	Data File Name	Lab Sample ID	DF	Matrix (W)	Matrix (S)	Notes
NA	XK07.006	IB81K001				
	.007	EX81K0702 20PPB				
	.008	02 100PPB				
	.009	03 200PPB				8330 ICAL
	.010	04 400PPB				
	011	05 800PPB				
	.012	IEX81K0701 400PPB				8330 ICV

KS 11/7/06

Instrument Number	81
INITIAL CALIBRATION REFERENCE	
Date	11/7/06
Method	EX81K07
Mid Point	XK07.009
ICAL ID	SH1C-04-12-2
ICV ID	SH1C-04-12-3
DCC ID	—
Solvents ID	
Acetonitrile	—
Methanol	45035
Water	46089

Electronic Data Archival

Location	Date
☐ EZC_5_HPLC	
☐	

Comments:

Analyzed By: KS / KP

Disposed on: 11/9/06 By: KS

This page is checked during the data review process.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOGS

EXTRACTION LOG FOR EXPLOSIVES

SOP: ☑ EMAX-8330 Rev.No.: 3 ☐

Matrix: WATER Start Date: 4/17/07 Time: 11:30 End Date: 4/17/07 Time: 13:00 Book # EEX-013

PREPARATION BATCH: EXD0021W

Sample Prep ID	Lab Sample ID	Sample Amount (g) (ml)	Extract Volume (ml)	Notes
*01	EXD002 -1WB	200	4	
*02	-1WL	200	4	
*03	-1WC	200	4	
*04	07D134 -04	200	4	
*05	07D166 -07	200	4	
*06		JV 4/17/07		
*07				
*08				
*09				
*10				
*11				
*12				
*13				
*14				
*15				
*16				
*17				
*18				
*19				
*20				
*21				
*22				
*23				
*24				
*25				
*26				

Standards	ID	Amount Added (ml)
Surrogate	SHIC-04-11-3	0.08
LCS/MS	SHIC-04-17-3	0.08

Reagent	Lot# / ID
Acetonitrile	45026
NaCl	46354704
$CaCl_2$	SPIB-01-394
Silica Sand	-

SDG #	Extract Location
	SE04 #2

Comments:

Prepared By: JV

Standard Added By: JV Witnessed By: JM

Checked By: JML Extract Received By: RA 4/17/07

Disposed By: Disposal Date:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOG FOR EXPLOSIVES

SOP: ☑ EMAX-8330 Rev.No.: 3 ☐

Matrix: SOIL Start Date: 4/19/07 Time: 15:00 End Date: 4/20/07 Time: 9:00 Book # EEX-013

PREPARATION BATCH: EXD0046

Sample Prep ID	Lab Sample ID	Sample Amount (g) ml)	Extract Volume (ml)	Notes
*01	EXD004 - SB	2.01	20	
*02	↓ -SL	2.00	20	
*03	07D134 -05	2.01	20	
*04	-06	2.03	20	
*05	-07	2.02	20	
*06	-09	2.01	20	
*07	-10	2.02	20	
*08	-11	2.03	20	
*09	-12	2.02	20	
*10	-12M	2.01	20	
*11	-12S	2.03	20	
*12	07D166 -01	2.02	20	
*13	-02	2.03	20	
*14	-03	2.01	20	
*15	-04	2.02	20	
*16	-05	2.03	20	
*17	-06	2.02	20	
*18		JV 4/19/07		
*19				
*20				
*21				
*22				
*23				
*24				
*25				
*26				

Standards	ID	Amount Added (ml)
Surrogate	SHIC-04-11-3	0.08
LCS/MS	SHIC-04-19-3	0.08

Reagent	Lot# / ID
Acetonitrile	45026
NaCl	
$CaCl_2$	SPIB-01-394
Silica Sand	44273

SDG #	Extract Location
	SEC# 2

Comments:

Prepared By: JV

Standard Added By: JV Witnessed By: YK

Checked By: ML Extract Received By: NA 4/20/07

Disposed By: Disposal Date:

MAXI LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METALS / MERCURY

SDG#: 07D134

7000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 3010A/3050B/6010B
METALS BY ICP

One (1) water and three (3) soil samples were received on 04/11/07 for Metals analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Samples D173-05 and D157-09 from another SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed aecording to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
METALS BY ICP

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
SDG NO. : 07D134
Instrument ID : T-ID8

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPD029SB	1	NA	04/19/0712:40	04/16/0716:45	ID8D014013	ID8D014011	IPD029S	Method Blank
LCS1S	IPD029SL	1	NA	04/19/0712:45	04/16/0716:45	ID8D014014	ID8D014011	IPD029S	Lab Control Sample (LCS)
LCD1S	IPD029SC	1	NA	04/19/0712:49	04/16/0716:45	ID8D014015	ID8D014011	IPD029S	LCS Duplicate
IMP-SL-1AS	D173-05A	1	NA	04/19/0713:40	04/16/0716:45	ID8D014026	ID8D014022	IPD029S	Analytical Spike Sample
IMP-SL-1	D173-05	1	NA	04/19/0713:44	04/16/0716:45	ID8D014027	ID8D014022	IPD029S	Field Sample
IMP-SL-1DL	D173-05J	5	NA	04/19/0713:49	04/16/0716:45	ID8D014028	ID8D014022	IPD029S	Diluted Sample
A6-HAS1@0.5	D134-01	1	4.9	04/19/0714:41	04/16/0716:45	ID8D014039	ID8D014034	IPD029S	Field Sample
A6-HAS1@5	D134-02	1	10.2	04/19/0714:46	04/16/0716:45	ID8D014040	ID8D014034	IPD029S	Field Sample
A6-HAS101@0.5	D134-03	1	12.8	04/19/0714:51	04/16/0716:45	ID8D014041	ID8D014034	IPD029S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPD026WB	1	NA	04/18/0715:40	04/16/0712:00	ID8D013013	ID8D013011	IPD026W	Method Blank
LCS1W	IPD026WL	1	NA	04/18/0715:45	04/16/0712:00	ID8D013014	ID8D013011	IPD026W	Lab Control Sample (LCS)
LCD1W	IPD026WC	1	NA	04/18/0715:49	04/16/0712:00	ID8D013015	ID8D013011	IPD026W	LCS Duplicate
MW1-5AS	D157-09A	1	NA	04/18/0716:26	04/16/0712:00	ID8D013023	ID8D013019	IPD026W	Analytical Spike Sample
MW1-5	D157-09	1	NA	04/18/0716:31	04/16/0712:00	ID8D013024	ID8D013019	IPD026W	Field Sample
MW1-5DL	D157-09J	5	NA	04/18/0716:36	04/16/0712:00	ID8D013025	ID8D013019	IPD026W	Diluted Sample
LEB-041007	D134-04	1	NA	04/18/0717:52	04/16/0712:00	ID8D013041	ID8D013031	IPD026W	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3010A/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	04/10/07 08:30
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
SDG NO.	: 07D134	Date Extracted:	04/16/07 12:00
Sample ID:	LEB-041007	Date Analyzed:	04/18/07 17:52
Lab Samp ID:	D134-04	Dilution Factor:	1
Lab File ID:	ID8D013041	Matrix :	WATER
Ext Btch ID:	IPD026W	% Moisture :	NA
Calib. Ref.:	ID8D013031	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	0.100	0.0400
Arsenic	ND	0.0100	0.00500
Barium	ND	0.0100	0.00200
Beryllium	ND	0.0100	0.00100
Cadmium	ND	0.0100	0.00200
Chromium	ND	0.0100	0.00500
Cobalt	ND	0.0100	0.00500
Copper	ND	0.0100	0.00500
Lead	ND	0.0100	0.00300
Molybdenum	ND	0.0500	0.0100
Nickel	ND	0.0100	0.0100
Selenium	ND	0.0100	0.00500
Silver	ND	0.0100	0.00500
Thallium	ND	0.0100	0.00500
Vanadium	ND	0.0100	0.00500
Zinc	ND	0.0100	0.00500

METHOD 3010A/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/16/07
SDG NO.	: 07D134	Date Extracted:	04/16/07 12:00
Sample ID:	MBLK1W	Date Analyzed:	04/18/07 15:40
Lab Samp ID:	IPD026WB	Dilution Factor:	1
Lab File ID:	ID8D013013	Matrix :	WATER
Ext Btch ID:	IPD026W	% Moisture :	NA
Calib. Ref.:	ID8D013011	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	0.100	0.0400
Arsenic	ND	0.0100	0.00500
Barium	ND	0.0100	0.00200
Beryllium	ND	0.0100	0.00100
Cadmium	ND	0.0100	0.00200
Chromium	ND	0.0100	0.00500
Cobalt	ND	0.0100	0.00500
Copper	ND	0.0100	0.00500
Lead	ND	0.0100	0.00300
Molybdenum	ND	0.0500	0.0100
Nickel	ND	0.0100	0.0100
Selenium	ND	0.0100	0.00500
Silver	ND	0.0100	0.00500
Thallium	ND	0.0100	0.00500
Vanadium	ND	0.0100	0.00500
Zinc	0.00680J	0.0100	0.00500

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPD026WB	IPD026WL	IPD026WC		
LAB FILE ID:	ID8D013013	ID8D013014	ID8D013015		
DATIME EXTRCTD:	04/16/0712:00	04/16/0712:00	04/16/0712:00	DATE COLLECTED:	NA
DATIME ANALYZD:	04/18/0715:40	04/18/0715:45	04/18/0715:49	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD026W	IPD026W	IPD026W		
CALIB. REF:	ID8D013011	ID8D013011	ID8D013011		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	5	4.97	99	5	4.95	99	0	80-120	20
Arsenic	ND	1	1.06	106	1	1.02	102	4	80-120	20
Barium	ND	1	.958	96	1	.928	93	3	80-120	20
Beryllium	ND	1	1.05	105	1	1.02	102	3	80-120	20
Cadmium	ND	1	.995	99	1	.975	97	2	80-120	20
Chromium	ND	1	1.02	102	1	.983	98	3	80-120	20
Cobalt	ND	1	.989	99	1	.969	97	2	80-120	20
Copper	ND	1	1.01	101	1	.989	99	2	80-120	20
Lead	ND	1	.989	99	1	.97	97	2	80-120	20
Molybdenum	ND	1	.99	99	1	.978	98	1	80-120	20
Nickel	ND	1	.977	98	1	.954	95	2	80-120	20
Selenium	ND	1	1.09	109	1	1.04	104	5	80-120	20
Silver	ND	1	1.06	106	1	1.12	112	5	80-120	20
Thallium	ND	1	1.03	103	1	.994	99	3	80-120	20
Vanadium	ND	1	1.05	105	1	1	100	4	80-120	20
Zinc	.0068J	1	1.03	102	1	1.01	100	2	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	5		
SAMPLE ID:	MW1-5	MW1-5DL		
EMAX SAMP ID:	D157-09	D157-09J		
LAB FILE ID:	ID8D013024	ID8D013025		
DATE EXTRACTED:	04/16/0712:00	04/16/0712:00	DATE COLLECTED:	04/12/07 11:40
DATE ANALYZED:	04/18/0716:31	04/18/0716:36	DATE RECEIVED:	04/13/07
PREP. BATCH:	IPD026W	IPD026W		
CALIB. REF:	ID8D013019	ID8D013019		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	0.00746J	ND	NA	10
Barium	0.0139	0.0158J	NA	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	0.124	0.133	7	10
Cobalt	ND	ND	0	10
Copper	ND	ND	0	10
Lead	ND	ND	0	10
Molybdenum	0.586	0.606	3	10
Nickel	ND	ND	0	10
Selenium	0.164	0.144	13*	10
Silver	ND	ND	0	10
Thallium	ND	ND	0	10
Vanadium	ND	ND	0	10
Zinc	0.00651J	ND	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	MW1-5			
CONTROL NO.:	D157-09	D157-09A		
LAB FILE ID:	ID8D013024	ID8D013023		
DATIME EXTRCTD:	04/16/0712:00	04/16/0712:00	DATE COLLECTED:	04/12/07 11:40
DATIME ANALYZD:	04/18/0716:31	04/18/0716:26	DATE RECEIVED:	04/13/07
PREP. BATCH:	IPD026W	IPD026W		
CALIB. REF:	ID8D013019	ID8D013019		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Antimony	ND	5	5.17	103	75-125
Arsenic	.00746J	1	1.12	111	75-125
Barium	.0139	1	.966	95	75-125
Beryllium	ND	1	.95	95	75-125
Cadmium	ND	1	.965	97	75-125
Chromium	.124	1	1.05	93	75-125
Cobalt	ND	1	.971	97	75-125
Copper	ND	1	.97	97	75-125
Lead	ND	1	.929	93	75-125
Molybdenum	.586	1	1.59	100	75-125
Nickel	ND	1	.949	95	75-125
Selenium	.164	1	1.4	124	75-125
Silver	ND	1	1.16	116	75-125
Thallium	ND	1	.906	91	75-125
Vanadium	ND	1	1.01	101	75-125
Zinc	.00651J	1	1.03	103	75-125

METHOD 3050B/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	04/10/07 08:45
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
SDG NO.	: 07D134	Date Extracted:	04/16/07 16:45
Sample ID:	A6-HAS1@0.5	Date Analyzed:	04/19/07 14:41
Lab Samp ID:	D134-01	Dilution Factor:	1
Lab File ID:	ID8D014039	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	4.9
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10.5	2.10
Arsenic	3.04	1.05	0.421
Barium	52.8	1.05	0.210
Beryllium	ND	1.05	0.210
Cadmium	ND	1.05	0.526
Chromium	7.57	2.10	1.05
Cobalt	4.84	2.10	1.05
Copper	5.42	2.10	0.526
Lead	2.76	1.05	0.210
Molybdenum	ND	5.26	0.526
Nickel	5.67	2.10	1.05
Selenium	ND	1.05	0.526
Silver	ND	2.10	0.526
Thallium	ND	1.05	0.526
Vanadium	20.1	2.10	0.526
Zinc	26.3	2.10	0.526

METHOD 3050B/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	04/10/07 09:00
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
SDG NO.	: 07D134	Date Extracted:	04/16/07 16:45
Sample ID:	A6-HAS1@5	Date Analyzed:	04/19/07 14:46
Lab Samp ID:	D134-02	Dilution Factor:	1
Lab File ID:	ID8D014040	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	10.2
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.1	2.23
Arsenic	5.87	1.11	0.445
Barium	123	1.11	0.223
Beryllium	0.587J	1.11	0.223
Cadmium	ND	1.11	0.557
Chromium	25.8	2.23	1.11
Cobalt	10.5	2.23	1.11
Copper	14.4	2.23	0.557
Lead	5.59	1.11	0.223
Molybdenum	ND	5.57	0.557
Nickel	16.1	2.23	1.11
Selenium	1.04J	1.11	0.557
Silver	ND	2.23	0.557
Thallium	0.767J	1.11	0.557
Vanadium	52.3	2.23	0.557
Zinc	58.9	2.23	0.557

METHOD 3050B/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	04/10/07 08:45
Project	: LMC BEAUMONT SITE 1	Date Received:	04/11/07
SDG NO.	: 07D134	Date Extracted:	04/16/07 16:45
Sample ID:	A6-HAS101@0.5	Date Analyzed:	04/19/07 14:51
Lab Samp ID:	D134-03	Dilution Factor:	1
Lab File ID:	ID8D014041	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	12.8
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.5	2.29
Arsenic	8.11	1.15	0.459
Barium	165	1.15	0.229
Beryllium	0.674J	1.15	0.229
Cadmium	ND	1.15	0.573
Chromium	31.9	2.29	1.15
Cobalt	12.5	2.29	1.15
Copper	17.4	2.29	0.573
Lead	6.68	1.15	0.229
Molybdenum	ND	5.73	0.573
Nickel	20.7	2.29	1.15
Selenium	1.10J	1.15	0.573
Silver	ND	2.29	0.573
Thallium	0.744J	1.15	0.573
Vanadium	63.8	2.29	0.573
Zinc	73.1	2.29	0.573

METHOD 3050B/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/16/07
SDG NO.	: 07D134	Date Extracted:	04/16/07 16:45
Sample ID:	MBLK1S	Date Analyzed:	04/19/07 12:40
Lab Samp ID:	IPD029SB	Dilution Factor:	1
Lab File ID:	ID8D014013	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	NA
Calib. Ref.:	ID8D014011	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10.0	2.00
Arsenic	ND	1.00	0.400
Barium	ND	1.00	0.200
Beryllium	ND	1.00	0.200
Cadmium	ND	1.00	0.500
Chromium	ND	2.00	1.00
Cobalt	ND	2.00	1.00
Copper	ND	2.00	0.500
Lead	ND	1.00	0.200
Molybdenum	ND	5.00	0.500
Nickel	ND	2.00	1.00
Selenium	ND	1.00	0.500
Silver	ND	2.00	0.500
Thallium	ND	1.00	0.500
Vanadium	ND	2.00	0.500
Zinc	0.869J	2.00	0.500

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPD029SB	IPD029SL	IPD029SC		
LAB FILE ID:	ID8D014013	ID8D014014	ID8D014015		
DATIME EXTRCTD:	04/16/0716:45	04/16/0716:45	04/16/0716:45	DATE COLLECTED:	NA
DATIME ANALYZD:	04/19/0712:40	04/19/0712:45	04/19/0712:49	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD029S	IPD029S	IPD029S		
CALIB. REF:	ID8D014011	ID8D014011	ID8D014011		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	487	97	500	488	98	0	80-120	20
Arsenic	ND	100	101	101	100	100	100	1	80-120	20
Barium	ND	100	96.4	96	100	97.2	97	1	80-120	20
Beryllium	ND	100	106	106	100	107	107	1	80-120	20
Cadmium	ND	100	100	100	100	101	101	1	80-120	20
Chromium	ND	100	98.3	98	100	98.3	98	0	80-120	20
Cobalt	ND	100	102	102	100	103	103	1	80-120	20
Copper	ND	100	104	104	100	103	103	1	80-120	20
Lead	ND	100	99.8	100	100	100	100	1	80-120	20
Molybdenum	ND	100	101	101	100	101	101	0	80-120	20
Nickel	ND	100	100	100	100	100	100	0	80-120	20
Selenium	ND	100	99.3	99	100	99.8	100	0	80-120	20
Silver	ND	100	99.4	99	100	98.8	99	1	80-120	20
Thallium	ND	100	102	102	100	103	103	0	80-120	20
Vanadium	ND	100	104	104	100	103	103	1	80-120	20
Zinc	.869J	100	103	102	100	103	102	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	IMP-SL-1	IMP-SL-1DL		
EMAX SAMP ID:	D173-05	D173-05J		
LAB FILE ID:	ID8D014027	ID8D014028		
DATE EXTRACTED:	04/16/0716:45	04/16/0716:45	DATE COLLECTED:	04/16/07 12:52
DATE ANALYZED:	04/19/0713:44	04/19/0713:49	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD029S	IPD029S		
CALIB. REF:	ID8D014022	ID8D014022		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	8.53J	ND	NA	10
Arsenic	2.81	4.19J	NA	10
Barium	359	364	1	10
Beryllium`	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	251	254	1	10
Cobalt	ND	ND	0	10
Copper`	18800	19600	4	10
Lead`	194	200	3	10
Molybdenum	2.75J	2.60J	NA	10
Nickel	2870	2910	1	10
Selenium	1.96	ND	NA	10
Silver	14.3	14.5	1	10
Thallium	ND	ND	0	10
Vanadium	1.13J	ND	NA	10
Zinc	393	391	1	10

` : Analyzed DF 10/50 on 04/19/07 16:42/16:47 | File ID ID8D014065/066

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: AECOM
PROJECT: IMPRESSION POLISHING
SDG NO.: 07D173
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	IMP-SL-1			
CONTROL NO.:	D173-05	D173-05A		
LAB FILE ID:	ID8D014027	ID8D014026		
DATIME EXTRCTD:	04/16/0716:45	04/16/0716:45	DATE COLLECTED:	04/16/07 12:52
DATIME ANALYZD:	04/19/0713:44	04/19/0713:40	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD029S	IPD029S		
CALIB. REF:	ID8D014022	ID8D014022		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	8.53J	500	483	95	75-125
Arsenic	2.81	100	101	98	75-125
Barium	359	100	439	80	75-125
Beryllium^	ND	1000	1010	101	75-125
Cadmium	.209J	100	98.3	98	75-125
Chromium	251	100	338	87	75-125
Cobalt	.82J	100	102	101	75-125
Copper^	18800	1000	19100	25*	75-125
Lead^	194	1000	1130	94	75-125
Molybdenum	2.75J	100	104	101	75-125
Nickel	2870	100	2870	-5*	75-125
Selenium	1.96	100	97.5	96	75-125
Silver	14.3	100	112	97	75-125
Thallium	ND	100	98.6	99	75-125
Vanadium	1.13	100	102	101	75-125
Zinc	393	100	480	86	75-125

^: Analyzed at DF 10 on 04/19/07 16:42/16:38 | File ID ID8D014065/064

TRACE-LOW ICP QC CHECK TABLE

QC	ICV HIGH	ICV	CCV	ICSAB	ICSA
Limit%	95-105	90-110	90-110	80-120	80-120
Comp	mg/L	mg/L	mg/L	mg/L	mg/L
Al	10	5	5	500	500
Sb	1	0.5	0.5	1	0
As	1	0.5	0.5	1	0
Ba	1	0.5	0.5	0.5	0
Be	1	0.5	0.5	0.5	0
B	1	0.5	0.5	0.5	0
Cd	1	0.5	0.5	1	0
Ca	100	50	50	500	500
Cr	1	0.5	0.5	0.5	0
Co	1	0.5	0.5	0.5	0
Cu	1	0.5	0.5	0.5	0
Fe	10	5	5	200	200
Pb	1	0.5	0.5	0.5	0
Li	1	0.5	0.5	0.5	0
Mg	100	50	50	500	500
Mn	1	0.5	0.5	0.5	0
Mo	1	0.5	0.5	1	0
Ni	1	0.5	0.5	1	0
K	100	50	50	75	0
Se	1	0.5	0.5	1	0
Si	1	0.5	0.5	1	0
Ag	1	0.5	0.5	1	0
Na	100	50	50	75	0
Sr	1	0.5	0.5	0.5	0
Tl	1	0.5	0.5	1	0
Sn	1	0.5	0.5	1	0
Ti	1	0.5	0.5	1	0
U	10	5	5	1	0
V	1	0.5	0.5	0.5	0
Zn	1	0.5	0.5	1	0

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* METALS BY ICP

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/18/07 14:44

End Date: 4/18/07 20:14

Comments:

BC

Book #: AD8-001

Instrument No.: D8

Analytical Batch: 1087013

Analytical Sequence: S-L6010D07(V11)

Method File: L6010D07(V11)

SOP #	Rev. #
☑ EMAX-6010	5
☐ EMAX-200.7	0
☐ EMAX-	

STANDARDS ID	
S0	SM1B10-71-01
S1	NA
S2	SM1B10-78-01
S3	NA
S4	NA
S5	SM1B10-77-04
S6	NA
ICV	SM1B10-73-01
CCV	10-72-04
ICSA	10-73-03
ICSAB	10-80-02
CRI/MRL	10-84-02
SB	10-78-02

Analyzed By: CAC

Date: 4/18/07

7016

SEQUENCE FILE : ID8D013

4-18	19-33	34-43	44-53	54-63
LFID	LSID	TIME	DATE	DF
ID8D013001	Blank	14:44	04/18/07	1.000
ID8D013002	S2	14:49	04/18/07	1.000
ID8D013003	S5	14:53	04/18/07	1.000
ID8D013004	S8	14:58	04/18/07	1.000
ID8D013005	ICV	15:03	04/18/07	1.000
ID8D013006	ICB	15:07	04/18/07	1.000
ID8D013007	MRL8D12	15:12	04/18/07	1.000
ID8D013008	MRL8D12A	15:16	04/18/07	1.000
ID8D013009	ICSAI	15:21	04/18/07	1.000
ID8D013010	ICSABI	15:26	04/18/07	1.000
ID8D013011	CCV1	15:31	04/18/07	1.000
ID8D013012	CCB1	15:35	04/18/07	1.000
ID8D013013	IPD026WB	15:40	04/18/07	1.000
ID8D013014	IPD026WL	15:45	04/18/07	1.000
ID8D013015	IPD026WC	15:49	04/18/07	1.000
ID8D013016	D156-01A	15:54	04/18/07	1.000
ID8D013017	D156-01	15:58	04/18/07	1.000
ID8D013018	D156-01J	16:03	04/18/07	5.000
ID8D013019	CCV2	16:07	04/18/07	1.000
ID8D013020	CCB2	16:12	04/18/07	1.000
ID8D013021	D157-09M	16:17	04/18/07	1.000
ID8D013022	D157-09S	16:21	04/18/07	1.000
ID8D013023	D157-09A	16:26	04/18/07	1.000
ID8D013024	D157-09	16:31	04/18/07	1.000
ID8D013025	D157-09J	16:36	04/18/07	5.000
ID8D013026	D157-01	16:41	04/18/07	1.000
ID8D013027	D157-02	16:45	04/18/07	1.000
ID8D013028	D157-03	16:50	04/18/07	1.000
ID8D013029	D157-04	16:55	04/18/07	1.000
ID8D013030	D157-05	16:59	04/18/07	1.000
ID8D013031	CCV3	17:04	04/18/07	1.000
ID8D013032	CCB3	17:08	04/18/07	1.000
ID8D013033	D157-06	17:13	04/18/07	1.000
ID8D013034	D157-07	17:18	04/18/07	1.000
ID8D013035	D157-08	17:23	04/18/07	1.000
ID8D013036	D157-10	17:27	04/18/07	1.000
ID8D013037	D157-11	17:32	04/18/07	1.000
ID8D013038	D157-12	17:37	04/18/07	1.000
ID8D013039	D157-13	17:42	04/18/07	1.000
ID8D013040	D480-01	17:47	04/18/07	1.000
ID8D013041	D134-04	17:52	04/18/07	1.000
ID8D013042	D479-01	17:56	04/18/07	1.000
ID8D013043	CCV4	18:01	04/18/07	1.000
ID8D013044	CCB4	18:06	04/18/07	1.000
ID8D013045	D478-01	18:10	04/18/07	1.000
ID8D013046	D164-01	18:16	04/18/07	1.000
ID8D013047	BLANK	18:21	04/18/07	1.000
ID8D013048	CCV5	18:26	04/18/07	1.000
ID8D013049	CCB5	18:30	04/18/07	1.000
ID8D013050	D098-01A	18:37	04/18/07	10.000
ID8D013051	D098-01	18:41	04/18/07	10.000
ID8D013052	D098-01J	18:46	04/18/07	50.000
ID8D013053	D113-03A	18:51	04/18/07	10.000
ID8D013054	D113-03	18:55	04/18/07	10.000
ID8D013055	D113-03J	19:00	04/18/07	50.000

ID8D013056	D098-01J	19:04	04/18/07	10.000
ID8D013057	ICSAF	19:09	04/18/07	1.000
ID8D013058	ICSABF	19:14	04/18/07	1.000
ID8D013059	CCV6	19:18	04/18/07	1.000
ID8D013060	CCB6	19:24	04/18/07	1.000
ID8D013061	IPD024WB	19:31	04/18/07	1.000
ID8D013062	IPD024WL	19:35	04/18/07	1.000
ID8D013063	IPD024WC	19:40	04/18/07	1.000
ID8D013064	D113-02	19:44	04/18/07	1.000
ID8D013065	D113-03M	19:49	04/18/07	1.000
ID8D013066	D113-03S	19:54	04/18/07	1.000
ID8D013067	D113-03A	19:58	04/18/07	1.000
ID8D013068	D113-03	20:03	04/18/07	1.000
ID8D013069	D113-03J	20:07	04/18/07	5.000
ID8D013070	CCV7	20:12	04/18/07	1.000
ID8D013071	CCB7	20:16	04/18/07	1.000

SDG : 07D124 UNIT : %

SUMMARY of ICV and CCV : ID8D013

DATE : 04/18/07 INST : EMA

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	93	95	97	96	99	100	95	99	96	96	96	101	96	98	94	98	94	96	97	97	97	96	98	99
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D12A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	98	----	----	----	----	----	----	99	----	----	----	98	----	103	----	----	----	----	----	----	----	----	----	----
ICSABI	95	98	97	100	98	105	98	95	95	96	101	94	93	98	92	103	93	109	99	107	107	95	97	98
CCV1	96	92	97	96	98	100	97	98	95	95	96	99	95	98	92	100	95	94	98	97	95	96	99	98
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	98	95	99	99	100	103	99	101	99	98	98	101	97	101	97	104	97	98	101	101	100	99	104	100
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	93	92	99	97	98	105	96	101	98	95	98	100	94	99	97	101	94	101	101	99	103	97	103	98
CCB3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-13	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D480-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D479-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	95	93	99	96	99	107	97	100	99	95	103	101	94	100	95	101	95	99	101	100	103	96	102	99
CCB4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D478-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	96	94	100	97	100	105	98	100	98	97	105	101	95	100	94	102	96	100	101	100	102	98	102	99
CCB5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	97	----	----	----	----	----	----	94	----	----	----	95	----	99	----	----	----	----	----	----	----	----	----	----
ICSABF	93	99	99	100	99	103	98	95	97	97	108	94	93	97	92	106	94	113	101	109	110	97	100	97
CCV6	96	94	102	98	100	103	98	102	100	97	103	101	95	99	97	104	96	102	103	102	102	100	105	99
CCB6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	97	94	99	97	99	103	98	98	99	97	106	100	96	99	93	103	96	100	101	101	100	99	103	99
CCB7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

0726

SDG : 070714 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : ID8D013 (WATER) DATE : 04/18/07 INST : EMA

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-10.9	-.640	.180	.600	.050	-6.63	.000	12.5	-.060	.110	-.440	1.61	.750	-17.1	.200	.120	-.140	106	-.310	-.170	-246	.420	.120	-.760
MRL8D12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D12A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	----	-7.08	-7.98	.310	-.150	22.9	3.32	----	5.05	-.070	2.63	----	-14.5	----	1.47	-.940	-2.04	147	16.1	.470	-43.7	-6.74	-1.37	6.02
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	6.91	.340	-.660	.000	.000	-8.12	.020	2180	-.150	.080	-.120	-1.09	.120	23.6	.800	.270	-.100	76.6	1.41	-.180	-305	.440	-.210	-.710
IPD026WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	.360	2.11	-.690	.330	.070	-8.71	.020	-9.16	.120	.070	.130	-1.33	.340	11.8	.270	.130	-.060	106	-.910	-.350	-372	-.870	-.270	.260
D157-09M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB3	1.37	.700	-.740	.220	.030	10.9	.030	6.98	-.170	-.080	-.290	-3.46	-.060	6.55	.100	.170	.040	98.4	1.33	.330	1419	-.480	-.320	2.90
D157-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-13	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D480-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D479-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB4	5.71	.190	-.300	-.260	-.030	13.8	-.020	4.76	-.010	.040	1.41	-1.21	-.070	33.3	-.230	.180	.020	150	2.62	.220	3163	.210	-.360	4.34
D478-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB5	3.21	-.180	-.390	.290	.040	2.47	-.010	12.7	-.040	.110	-.060	1.08	.000	9.90	-.130	.260	.010	212	.480	-.130	2401	-.010	-.010	.710
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

T2GL

D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	----	-7.54	-9.34	-.110	-.100	23.5	3.39	----	5.05	-.070	3.10	----	-20.9	----	.550	-.920	-1.95	182	14.4	.470	1133	-8.02	-1.00	5.63
ICSABF	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB6	1.72	1.35	.750	.380	-.170	-5.41	-.030	-.890	.020	.120	-.180	-.370	.180	18.3	-.340	.220	.030	73.9	.000	-.010	183	-.360	.090	-.380
IPD024WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB7	-3.26	2.61	1.19	.630	-.060	-6.56	.040	3.12	.020	.000	-.140	.210	-.090	-7.84	.720	.160	-.190	161	.780	-.180	355	.330	.100	-.300

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7622

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* METALS BY ICP

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/19/07 11:44

End Date: 4/19/07 18:02

Comments:

dk

Book #: AD8-001

Instrument No.: D8

Analytical Batch: 1D8D014

Analytical Sequence: S-6010D07 (V12)

Method File: 6010D07 (V12)

SOP #	Rev. #
☑ EMAX-6010	5
☐ EMAX-200.7	0
☐ EMAX-	

STANDARDS ID	
S0	SMIB10-71-01
S1	NA
S2	SMIB10-78-01
S3	NA
S4	NA
S5	SMIB10-77-04
S6	NA
ICV	SMIB10-73-01
CCV	10-72-04
ICSA	10-73-03
ICSAB	10-80-02
CRI/MRL	10-84-02
S8	10-78-02

Analyzed By: CJC

Date: 4/19/07

7023

SEQUENCE FILE : ID8D014

4-18 LFID	19-33 LSID	34-43 TIME	44-53 DATE	54-63 DF
ID8D014001	Blank	11:44	04/19/07	1.000
ID8D014002	S2	11:49	04/19/07	1.000
ID8D014003	S5	11:53	04/19/07	1.000
ID8D014004	S8	11:58	04/19/07	1.000
ID8D014005	ICV	12:03	04/19/07	1.000
ID8D014006	ICB	12:07	04/19/07	1.000
ID8D014007	MRL8D14	12:12	04/19/07	1.000
ID8D014008	MRL8D14A	12:17	04/19/07	1.000
ID8D014009	ICSAI	12:21	04/19/07	1.000
ID8D014010	ICSABI	12:26	04/19/07	1.000
ID8D014011	CCV1	12:31	04/19/07	1.000
ID8D014012	CCB1	12:35	04/19/07	1.000
ID8D014013	IPD029SB	12:40	04/19/07	1.000
ID8D014014	IPD029SL	12:45	04/19/07	1.000
ID8D014015	IPD029SC	12:49	04/19/07	1.000
ID8D014016	D098-01A	12:54	04/19/07	20.000
ID8D014017	D098-01	12:58	04/19/07	20.000
ID8D014018	D098-01J	13:03	04/19/07	100.000
ID8D014019	BLANK	13:07	04/19/07	1.000
ID8D014020	ICSAF	13:12	04/19/07	1.000
ID8D014021	ICSABF	13:17	04/19/07	1.000
ID8D014022	CCV2	13:22	04/19/07	1.000
ID8D014023	CCB2	13:26	04/19/07	1.000
ID8D014024	D173-05M	13:31	04/19/07	1.000
ID8D014025	D173-05S	13:35	04/19/07	1.000
ID8D014026	D173-05A	13:40	04/19/07	1.000
ID8D014027	D173-05	13:44	04/19/07	1.000
ID8D014028	D173-05J	13:49	04/19/07	5.000
ID8D014029	D173-01	13:54	04/19/07	1.000
ID8D014030	D173-02	13:59	04/19/07	1.000
ID8D014031	D173-03	14:04	04/19/07	1.000
ID8D014032	D173-04	14:08	04/19/07	1.000
ID8D014033	BLANK	14:13	04/19/07	1.000
ID8D014034	CCV3	14:18	04/19/07	1.000
ID8D014035	CCB3	14:22	04/19/07	1.000
ID8D014036	D173-06	14:27	04/19/07	10.000
ID8D014037	D173-07	14:32	04/19/07	1.000
ID8D014038	D173-08	14:36	04/19/07	10.000
ID8D014039	D134-01	14:41	04/19/07	1.000
ID8D014040	D134-02	14:46	04/19/07	1.000
ID8D014041	D134-03	14:51	04/19/07	1.000
ID8D014042	D164-01	14:55	04/19/07	1.000
ID8D014043	D164-02	15:00	04/19/07	1.000
ID8D014044	D164-03	15:04	04/19/07	1.000
ID8D014045	D164-04	15:09	04/19/07	1.000
ID8D014046	CCV4	15:14	04/19/07	1.000
ID8D014047	CCB4	15:18	04/19/07	1.000
ID8D014048	D164-05	15:23	04/19/07	1.000
ID8D014049	D164-06	15:28	04/19/07	1.000
ID8D014050	D164-07	15:32	04/19/07	1.000
ID8D014051	D164-08	15:37	04/19/07	1.000
ID8D014052	D164-09	15:41	04/19/07	1.000
ID8D014053	D157-09A	15:46	04/19/07	10.000
ID8D014054	D157-09	15:50	04/19/07	10.000
ID8D014055	D157-09J	15:55	04/19/07	50.000

ID8D014056	D157-07	16:00	04/19/07	10.000
ID8D014057	D157-08	16:04	04/19/07	10.000
ID8D014058	CCV5	16:09	04/19/07	1.000
ID8D014059	CCB5	16:14	04/19/07	1.000
ID8D014060	D157-10	16:18	04/19/07	10.000
ID8D014061	D157-11	16:23	04/19/07	10.000
ID8D014062	CCV6	16:28	04/19/07	1.000
ID8D014063	CCB6	16:32	04/19/07	1.000
ID8D014064	D173-05A	16:38	04/19/07	10.000
ID8D014065	D173-05	16:42	04/19/07	10.000
ID8D014066	D173-05J	16:47	04/19/07	50.000
ID8D014067	CCV7	16:52	04/19/07	1.000
ID8D014068	CCB7	16:56	04/19/07	1.000
ID8D014069	D173-05M	17:01	04/19/07	10.000
ID8D014070	D173-05S	17:06	04/19/07	10.000
ID8D014071	D173-06	17:10	04/19/07	1.000
ID8D014072	D173-08	17:15	04/19/07	1.000
ID8D014073	D157-12	17:20	04/19/07	10.000
ID8D014074	BLANK	17:25	04/19/07	1.000
ID8D014075	D173-03	17:30	04/19/07	10.000
ID8D014076	CCV8	17:34	04/19/07	1.000
ID8D014077	CCB8	17:44	04/19/07	1.000
ID8D014078	BLANK	17:48	04/19/07	1.000
ID8D014079	D157-11	17:53	04/19/07	50.000
ID8D014080	CCV9	17:58	04/19/07	1.000
ID8D014081	CCB9	18:02	04/19/07	1.000

S701

SDG : 07D174 UNIT : % SUMMARY of ICV and CCV : ID8D014 DATE : 04/19/07 INST : EM

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	92	97	98	95	98	101	95	99	95	96	95	99	96	98	95	97	94	96	98	97	98	95	97	98
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D14A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	94	----	----	----	----	----	----	96	----	----	----	95	----	100	----	----	----	----	----	----	----	----	----	----
ICSABI	91	99	99	101	98	104	98	94	93	97	100	91	94	98	93	103	94	109	101	105	107	96	95	98
CCV1	94	95	101	100	101	104	99	100	96	99	96	97	96	101	98	101	97	98	105	98	99	100	102	100
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	95	----	----	----	----	----	----	97	----	----	----	96	----	101	----	----	----	----	----	----	----	----	----	----
ICSABF	95	100	101	103	100	105	100	97	95	99	104	96	95	100	94	106	96	113	102	107	111	97	98	100
CCV2	96	95	100	99	100	102	99	102	97	99	101	100	97	102	97	103	98	99	103	99	99	99	101	102
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	96	96	101	101	102	105	99	101	96	99	99	99	97	102	98	103	98	100	105	99	102	101	103	101
CCB3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	95	94	99	98	99	102	98	100	95	97	100	99	95	100	96	102	97	100	101	98	101	98	101	99
CCB4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	96	95	101	101	101	105	99	100	95	99	101	99	96	100	98	102	98	102	104	97	103	101	104	100	
CCB5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	96	95	102	102	102	107	99	100	95	99	101	98	96	101	98	102	98	103	105	97	104	102	105	99	
CCB6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	96	94	100	98	99	102	97	100	95	97	102	100	95	99	95	101	96	101	102	97	102	98	103	100	
CCB7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV8	96	94	101	100	100	104	98	100	94	98	101	98	96	100	97	101	97	102	103	96	103	101	104	99	
CCB8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV9	94	93	99	99	100	102	97	99	94	98	101	96	95	100	96	101	96	101	102	97	102	100	100	99	
CCB9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

SDG : 077174 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : ID8D014 (SOIL) DATE : 04/19/07 INST : EMA

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-1.31	1.20	-.250	-.340	-.250	-2.58	-.030	.620	.080	-.120	-.230	3.02	-.240	-59.0	-.050	.090	-.060	38.9	1.44	-.080	1.67	.620	-.540	-.180
MRL8D14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D14A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	----	-7.21	4.91	.100	-.260	22.8	2.97	----	4.86	-.030	2.66	----	-17.1	----	2.03	-2.42	-3.57	-35.7	15.8	.680	375	-4.48	-1.48	6.79
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	1.93	1.09	-.350	-.490	-.080	-4.16	-.050	-3.20	.130	-.100	-.370	-1.28	.150	1.73	-1.12	.040	.200	25.5	1.58	-.130	-35.5	.970	-.390	-1.04
IPD029SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	----	-7.53	6.99	-.310	-.020	24.5	3.00	----	4.89	-.160	2.37	----	-14.6	----	.360	-2.18	-3.73	-57.5	15.2	.350	178	-4.52	-1.49	5.85
ICSABF	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	-1.99	.460	.510	-.540	-.140	-3.70	-.030	8.98	.170	-.020	.170	7.08	.190	-13.9	-.040	.220	.100	43.7	1.55	.160	-77.8	.150	-.530	1.48
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB3	7.43	.300	.360	-.020	-.210	-1.94	-.060	.970	.320	-.040	.090	4.92	-.570	-34.9	.470	.080	.100	-101	.680	.020	-152	.510	-.040	.140
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB4	1.70	1.02	1.45	.080	-.230	-3.83	-.060	-11.9	.050	-.070	-.290	6.24	.000	-62.2	.280	-.060	-.100	57.0	2.07	.010	-294	-.370	-.130	-1.20
D164-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB5	3.68	.610	.650	-.290	-.280	.090	-.040	-5.10	.210	-.120	.110	5.47	-.050	-20.0	.570	.020	-.090	50.4	2.00	-.250	-46.7	-.050	-.320	-1.04
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB6	26.4	.670	-.460	-.460	-.250	2.80	-.010	-.700	.070	-.250	.080	5.60	.030	-39.2	-.650	.190	.010	79.8	1.15	.070	211	.750	-.260	20.0
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB7	1.63	1.80	-.650	.120	-.270	-1.58	-.040	-1.43	.220	-.100	.040	3.13	-.140	-52.6	-1.43	.030	.140	145	1.91	.010	-204	.400	-.470	-.950
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB8	4.37	.240	-1.37	-.460	-.270	.160	-.030	-7.57	.230	-.050	.110	3.86	.090	-39.9	-1.18	-.080	.050	6.78	-.150	-.290	-277	.220	.060	.800
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB9	3.74	1.14	-.090	.100	-.300	-2.08	-.060	1.47	.130	-.100	.070	2.35	-.460	-7.08	1.18	.250	.520	54.5	1.16	-.110	-209	.540	-.260	5.06

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

T023

DIGESTION LOG FOR ICP METALS

SOP ☐ EMAX-3005 Rev. No.4 ☑ EMAX-3010 Rev. No. 3 ☐ EMAX-3050 Rev. No. 3 ☐ EMAX-CLP-TAL ☐ Book # EIP-059

Matrix: WATER Start Date: 4-16-07 Time: 12:00 Temp: 90°C Ending Date: 4-16-07 Time: 16:00 Temp.: 90 °C

BATCH: IPD026-WB 7020

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Turbidity <1 NTU	Sample Amount (g | ml)	pH	Extract Volume (ml)	Digestate Description: Color	Digestate Description: Clarity
01	IPD026-WB					50	-	50		
02	-WL					50	-	50		
03	-WC					50	-	50		
04	D157-01					50	<2	50		
05	-02					50		50		
06	-03					50		50		
07	-04					50		50		
08	-05					50		50		
09	-06					50		50		
10	-07					50		50		
11	-08					50		50		
12	-09					50		50		
13	-09					50		50		
14	-09					50		50		
15	-10					50		50		
16	-11					50		50		
17	-12					50		50		
18	-13					50		50		
19	D156-01					50		50		
20	D480-01					50		50		
21	D134-04					50		50		
22	D479-01					50		50		
23	D478-01					50		50		
24	D164-01					50	↓	50		
25										

4-16-07 mc

Standards	ID	Amount Added (ml)
LCS -1	SMIA - 10 - 50	0.5
LCS -2	SMIA - 10 - 51	0.5
LCS -3	SMIA - 10 - 52	0.5
MS		

Reagent	Lot# / ID	Amount Added (ml)
HNO_3	SWIA -03 - 477	1.5+1.5
HCl	SWIA - 03 - 429	2.5
H_2O_2	N/A	
HNO3 (1:1)	N/A	

Digestate Location	ICP
Extract Location	

Legend:

Texture	Cs = Coarse	Md = Medium	Fn = Fine
Clarity	Cr = Clear	Cy = Cloudy	Td = Turbid
Artifacts	Rk = rocks	Sl = Shale	Vg=Vegetation
Color	Bu = blue	Bk = Black	Bn = Brown
	Gn = Green	Og = Orange	Rd = Red
	Yw = Yellow	Cl = Colorless	

Comments: Samples for Methods 200.7 or 200.8 Analyses

If turbidity ≤ 1 NTU no digestion is required unless otherwise required by the project

Prepared By: mc Standard Added By: mc

Witnessed By: JEE Extracts Rcvd. By: JEE 4/16/17

Checked By: JEE

Date Disposed: Disposed by:

EMAX LABORATORIES, INC.

DIGESTION LOG FOR ICP METALS

SOP ☐ EMAX-3005 Rev. No.4 ☐ EMAX-3010 Rev. No. 3 ☑ EMAX-3050 Rev. No. 3 ☐ EMAX-CLP-TAL ☐ Book # EIP-059

Matrix: MC 4/SOIL Start Date: 4/16/7 Time: 16:45 Temp: 90°C Ending Date: 4/16/7 Time: 20:45 Temp.: 90 °C

BATCH: IPD029-S

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Turbidity <1 NTU	Sample Amount (g | ml)	pH	Extract Volume (ml)	Digestate Description: Color	Digestate Description: Clarity
01	IPD029-SB					–	N/A	100		
02	-SL					–		100		
03	-SC					–		100		
04	D173-01					1.001		100		
05	-02					1.002		100		
06	-03					1.003		100		
07	-04					1.002		100		
08	-05					1.001		100		
09	-05M					1.003		100		
10	-05S					1.003		100		
11	-06					1.002		100		
12	-07					1.001		100		
13	-08					1.002		100		
14	D164-01					1.003		100		
15	-02					1.002		100		
16	-03					1.003		100		
17	-04					1.002		100		
18	-05					1.003		100		
19	-06					1.002		100		
20	-07					1.000		100		
21	-08					1.003		100		
22	-09					1.001		100		
23	D134-01					1.003		100		
24	-02					1.001		100		
25	-03					1.002		100		

Standards	ID	Amount Added (ml)
LCS -1	SM1A-10-50	1.0
LCS -2	SM1A-10-51	1.0
LCS -3	SM1A-10-52	1.0
MS		

Reagent	Lot# / ID	Amount Added (ml)
HNO_3	SW1A-03-477	10.0
HCl	SW1A-03-429	10.0
H_2O_2	SW1A-03-404	10.0
HNO3 (1:1)	SM5B-02-64	10.0

Digestate Location	ICP
Extract Location	

Legend:

Texture	Cs = Coarse	Md = Medium	Fn = Fine
Clarity	Cr = Clear	Cy = Cloudy	Td = Turbid
Artifacts	Rk = rocks	Sl = Shale	Vg=Vegetation
Color	Bu = blue	Bk = Black	Bn = Brown
	Gn = Green	Og = Orange	Rd = Red
	Yw = Yellow	Cl = Colorless	

Comments: Samples for Methods 200.7 or 200.8 Analyses

If turbidity ≤ 1 NTU no digestion is required unless otherwise required by the project

Prepared By: MC/NT Standard Added By: MC/NT

Witnessed By: JEE Extracts Rcvd. By: JEE 4/17/7

Checked By: JEE

Date Disposed: Disposed by:

7031

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D134

METHOD 7470A/7471A
MERCURY BY COLD VAPOR

One (1) water and three (3) soil samples were received on 04/11/07 for Mercury analysis by Method 7470A/7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Samples D134-01 and D113-03 from another SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

MS/MSD sample was not designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D134
Instrument ID : TI047

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HGD010WB	1	NA	04/16/0714:59	04/16/0711:30	M47D012010	M47D012008	HGD010W	Method Blank
LCS1W	HGD010WL	1	NA	04/16/0715:02	04/16/0711:30	M47D012011	M47D012008	HGD010W	Lab Control Sample (LCS)
LCD1W	HGD010WC	1	NA	04/16/0715:04	04/16/0711:30	M47D012012	M47D012008	HGD010W	LCS Duplicate
115987-0017AAS	D113-03A	1	NA	04/16/0715:06	04/16/0711:30	M47D012013	M47D012008	HGD010W	Analytical Spike Sample
115987-0017A	D113-03	1	NA	04/16/0715:08	04/16/0711:30	M47D012014	M47D012008	HGD010W	Field Sample
115987-0017ADL	D113-03J	5	NA	04/16/0715:10	04/16/0711:30	M47D012015	M47D012008	HGD010W	Diluted Sample
LEB-041007	D134-04	1	NA	04/16/0715:25	04/16/0711:30	M47D012022	M47D012020	HGD010W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGD011SB	1	NA	04/17/0711:41	04/16/0717:30	M47D013010	M47D013008	HGD011S	Method Blank
LCS1S	HGD011SL	1	NA	04/17/0711:43	04/16/0717:30	M47D013011	M47D013008	HGD011S	Lab Control Sample (LCS)
LCD1S	HGD011SC	1	NA	04/17/0711:45	04/16/0717:30	M47D013012	M47D013008	HGD011S	LCS Duplicate
A6-HAS1@0.5AS	D134-01A	1	4.9	04/17/0711:47	04/16/0717:30	M47D013013	M47D013008	HGD011S	Analytical Spike Sample
A6-HAS1@0.5	D134-01	1	4.9	04/17/0711:49	04/16/0717:30	M47D013014	M47D013008	HGD011S	Field Sample
A6-HAS1@0.5DL	D134-01J	5	4.9	04/17/0711:51	04/16/0717:30	M47D013015	M47D013008	HGD011S	Diluted Sample
A6-HAS1@5	D134-02	1	10.2	04/17/0711:53	04/16/0717:30	M47D013016	M47D013008	HGD011S	Field Sample
A6-HAS101@0.5	D134-03	1	12.8	04/17/0711:56	04/16/0717:30	M47D013017	M47D013008	HGD011S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 7470A
MERCURY BY COLD VAPOR

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D134

Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGD010WB	ND	1	NA	0.500	0.100	04/16/0714:59	04/16/0711:30	M47D012010	M47D012008	HGD010W	NA	04/16/07
LCS1W	HGD010WL	5.23	1	NA	0.500	0.100	04/16/0715:02	04/16/0711:30	M47D012011	M47D012008	HGD010W	NA	04/16/07
LCD1W	HGD010WC	5.19	1	NA	0.500	0.100	04/16/0715:04	04/16/0711:30	M47D012012	M47D012008	HGD010W	NA	04/16/07
LEB-041007	D134-04	ND	1	NA	0.500	0.100	04/16/0715:25	04/16/0711:30	M47D012022	M47D012020	HGD010W	04/10/07	04/11/07

TCEQ

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGD010WB	HGD010WL	HGD010WC		
LAB FILE ID:	M47D012010	M47D012011	M47D012012		
DATIME EXTRCTD:	04/16/0711:30	04/16/0711:30	04/16/0711:30	DATE COLLECTED:	NA
DATIME ANALYZD:	04/16/0714:59	04/16/0715:02	04/16/0715:04	DATE RECEIVED:	04/16/07
PREP. BATCH:	HGD010W	HGD010W	HGD010W		
CALIB. REF:	M47D012008	M47D012008	M47D012008		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	5.00	5.23	105	5.00	5.19	104	1	80-120	20

7935

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	115987-0017A	115987-0017ADL		
EMAX SAMP ID:	D113-03	D113-03J		
LAB FILE ID:	M47D012014	M47D012015		
DATE EXTRACTED:	04/16/0711:30	04/16/0711:30	DATE COLLECTED:	04/10/07
DATE ANALYZED:	04/16/0715:08	04/16/0715:10	DATE RECEIVED:	04/11/07
PREP. BATCH:	HGD010W	HGD010W		
CALIB. REF:	M47D012008	M47D012008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7035

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	115987-0017A			
CONTROL NO.:	D113-03	D113-03A		
LAB FILE ID:	M47D012014	M47D012013		
DATIME EXTRCTD:	04/16/0711:30	04/16/0711:30	DATE COLLECTED:	04/10/07
DATIME ANALYZD:	04/16/0715:08	04/16/0715:06	DATE RECEIVED:	04/11/07
PREP. BATCH:	HGD010W	HGD010W		
CALIB. REF:	M47D012008	M47D012008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Mercury	ND	2.00	2.18	109	85-115

7037

METHOD 7471A
MERCURY BY COLD VAPOR

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D134

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGD011SB	ND	1	NA	0.100	0.0330	04/17/0711:41	04/16/0717:30	M47D013010	M47D013008	HGD011S	NA	04/16/07
LCS1S	HGD011SL	0.903	1	NA	0.100	0.0330	04/17/0711:43	04/16/0717:30	M47D013011	M47D013008	HGD011S	NA	04/16/07
LCD1S	HGD011SC	0.893	1	NA	0.100	0.0330	04/17/0711:45	04/16/0717:30	M47D013012	M47D013008	HGD011S	NA	04/16/07
A6-HAS1@0.5AS	D134-01A	0.380	1	4.9	0.105	0.0347	04/17/0711:47	04/16/0717:30	M47D013013	M47D013008	HGD011S	04/10/07	04/11/07
A6-HAS1@0.5	D134-01	ND	1	4.9	0.105	0.0347	04/17/0711:49	04/16/0717:30	M47D013014	M47D013008	HGD011S	04/10/07	04/11/07
A6-HAS1@0.5DL	D134-01J	ND	5	4.9	0.526	0.174	04/17/0711:51	04/16/0717:30	M47D013015	M47D013008	HGD011S	04/10/07	04/11/07
A6-HAS1@5	D134-02	ND	1	10.2	0.111	0.0367	04/17/0711:53	04/16/0717:30	M47D013016	M47D013008	HGD011S	04/10/07	04/11/07
A6-HAS101@0.5	D134-03	ND	1	12.8	0.115	0.0378	04/17/0711:56	04/16/0717:30	M47D013017	M47D013008	HGD011S	04/10/07	04/11/07

TO38

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGD011SB	HGD011SL	HGD011SC		
LAB FILE ID:	M47D013010	M47D013011	M47D013012		
DATIME EXTRCTD:	04/16/0717:30	04/16/0717:30	04/16/0717:30	DATE COLLECTED:	NA
DATIME ANALYZD:	04/17/0711:41	04/17/0711:43	04/17/0711:45	DATE RECEIVED:	04/16/07
PREP. BATCH:	HGD011S	HGD011S	HGD011S		
CALIB. REF:	M47D013008	M47D013008	M47D013008		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	0.833	0.903	108	0.833	0.893	107	1	80-120	20

TS03

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	A6-HAS1@0.5	A6-HAS1@0.5DL		
EMAX SAMP ID:	D134-01	D134-01J		
LAB FILE ID:	M47D013014	M47D013015		
DATE EXTRACTED:	04/16/0717:30	04/16/0717:30	DATE COLLECTED:	04/10/07
DATE ANALYZED:	04/17/0711:49	04/17/0711:51	DATE RECEIVED:	04/11/07
PREP. BATCH:	HGD011S	HGD011S		
CALIB. REF:	M47D013008	M47D013008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7019

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D134
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	4.9
DILTN FACTR:	1	1		
SAMPLE ID:	A6-HAS1@0.5			
CONTROL NO.:	D134-01	D134-01A		
LAB FILE ID:	M47D013014	M47D013013		
DATIME EXTRCTD:	04/16/0717:30	04/16/0717:30	DATE COLLECTED:	04/10/07
DATIME ANALYZD:	04/17/0711:49	04/17/0711:47	DATE RECEIVED:	04/11/07
PREP. BATCH:	HGD011S	HGD011S		
CALIB. REF:	M47D013008	M47D013008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	0.350	0.380	109	85-115

7D134

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
MERCURY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/16/07 **Start Time:** 14:36

End Date: 4/16/07 **End Time:** 15:48

Book #: A47-51

Instrument No.: 47

Analytical Sequence/Batch: M47D012

Method File: Hg

Comments:

QC OK

Except:

D094-01M out of QC limit (STLC)

SOP #	Rev. #
☑ EMAX-7470	3
☐ EMAX-7471	3
☐ EMAX-CLP-245.5	
☐ EMAX-CLP-245.1	
☐ EMAX-	

STANDARDS ID	
S1	BLANK
S2	SM3B-07-355
S3	
S4	
S5	
S6	
ICV	SM3B-07-356
CCV	
LCS	
Analytical Spike	SM3B-07-346

Analyzed By: NT

Date: 4/16/07

"M47D012"

EMAX1fid	EMAX1sid	conc	Raw_resp	rsd/rf	adatetime	DF
M47D012000	STD1REP1	0	5131		04/16/0714:36	1
M47D012001	STD2REP1	.2	19134		04/16/0714:38	1
M47D012002	STD3REP1	1	81279		04/16/0714:40	1
M47D012003	STD4REP1	2	174120		04/16/0714:42	1
M47D012004	STD5REP1	5	399170		04/16/0714:44	1
M47D012005	STD6REP1	10	804640		04/16/0714:46	1
M47D012006	ICV	2.09	172186	0	04/16/0714:51	1
M47D012007	ICB	-.107	-3597	0	04/16/0714:53	1
M47D012008	CCV1	5.01	404898	0	04/16/0714:55	1
M47D012009	CCB1	-.038	1882	0	04/16/0714:57	1
M47D012010	HGD010WB	-.053	691	0	04/16/0714:59	1
M47D012011	HGD010WL	5.23	422678	0	04/16/0715:02	1
M47D012012	HGD010WC	5.19	419575	0	04/16/0715:04	1
M47D012013	D113-03A	2.18	179096	0	04/16/0715:06	1
M47D012014	D113-03	-.04	1740	0	04/16/0715:08	1
M47D012015	D113-03J	.003	5225	0	04/16/0715:10	5
M47D012016	D113-03M	5.52	446095	0	04/16/0715:12	1
M47D012017	D113-03S	5.4	436420	0	04/16/0715:14	1
M47D012018	D113-01	-.004	4600	0	04/16/0715:16	1
M47D012019	D113-02	.123	14765	0	04/16/0715:18	1
M47D012020	CCV2	5.06	409204	0	04/16/0715:21	1
M47D012021	CCB2	-.009	4249	0	04/16/0715:23	1
M47D012022	D134-04	-.093	-2456	0	04/16/0715:25	1
M47D012023	D156-01	-.03	2547	0	04/16/0715:27	1
M47D012024	WTD002SB	-.07	-608	0	04/16/0715:29	1
M47D012025	D094-01A	2.04	168235	0	04/16/0715:31	1
M47D012026	D094-01	-.075	-1031	0	04/16/0715:33	1
M47D012027	D094-01J	-.08	-1410	0	04/16/0715:35	5
M47D012028	D094-01M	3.66	297209	0	04/16/0715:38	1
M47D012029	D094-01S	3.8	308386	0	04/16/0715:40	1
M47D012030	D093-01	-.064	-190	0	04/16/0715:42	1
M47D012031	D114-01	-.037	2020	0	04/16/0715:44	1
M47D012032	CCV3	4.93	398890	0	04/16/0715:46	1
M47D012033	CCB3	-.078	-1274	0	04/16/0715:48	1
**********	**********	**********	**********	**********	**********	***
EMAX1fid	EMAX1sid	Xint	Yint	rrf	adatetime	DF
M47D012000	BLANK	-6.289659E-02	5022.53	.9998617	04/16/0715:48	1

RunProt: HGCOM

RunFold: M47D012 Seq: 6 Batch:

Prnt: R/T On Pump: On

Rev: 4.2 14:46:51 16 Apr 2007 Xmit: Off Gas: 0.35 LPM

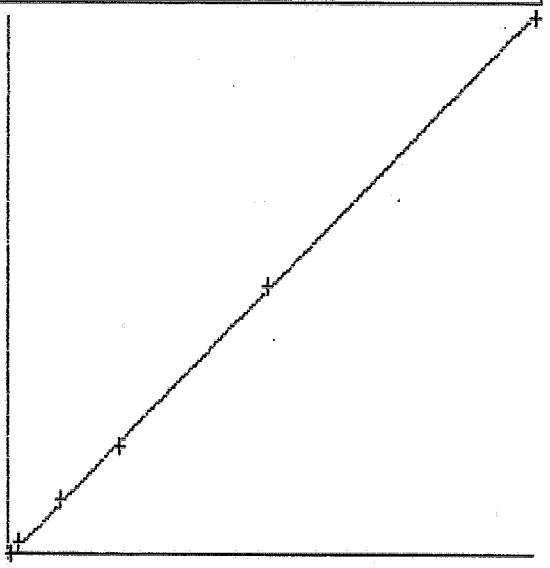
State: Idle User: MT A/S: On

CALIBRATION: Line proto: HGCOM

	Hg Conc.	Calc.	Dev.	Accepted ->linear
S1	.000	.002	.002	Quadratic
S2	.200	.178	-.022	Wtdlinear
S3	1.00	.956	-.044	
S4	2.00	2.12	.118	Accept
S5	5.00	4.94	-.065	
S6	10.0	10.0	.012	

A .0000000 r .999862

B 1.25194e-5 C -6.20404e-2



	Mean		SD	
S1	5131	0	SD	5131
S2	19134	0	%RSD	19134
S3	81279	0	%RSD	81279
S4	174120	0	%RSD	174120
S5	399170	0	%RSD	399170
S6	804640	0	%RSD	804640

New cal coefficients stored

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
MERCURY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/17/07 **Start Time:** 11:21

End Date: 4/17/07 **End Time:** 12:12

Comments:

QC OK

Book #: A47-51

Instrument No.: 47

Analytical Sequence/Batch: M47D013

Method File: Hg

SOP #	Rev. #
☐ EMAX-7470	3
☑ EMAX-7471	3
☐ EMAX-CLP-245.5	
☐ EMAX-CLP-245.1	
☐ EMAX-	

STANDARDS ID	
S1	SM3B-07-357
S2	↓
S3	↓
S4	↓
S5	↓
S6	↓
ICV	SM3B-07-358
CCV	↓
LCS	↓
Analytical Spike	
SM3B-07-345	

Analyzed By: NT

Date: 4/17/07

"M47D013"

EMAX1fid	EMAX1sid	conc	Raw resp	rsd/rf	adatetime	DF
M47D013000	STD1REP1	0	9233		04/17/0711:21	1
M47D013001	STD2REP1	.2	33992		04/17/0711:23	1
M47D013002	STD3REP1	1	149585		04/17/0711:25	1
M47D013003	STD4REP1	2	283436		04/17/0711:27	1
M47D013004	STD5REP1	5	676753		04/17/0711:29	1
M47D013005	STD6REP1	10	1328815		04/17/0711:31	1
M47D013006	ICV	2.08	287870	0	04/17/0711:33	1
M47D013007	ICB	-.125	-2812	0	04/17/0711:35	1
M47D013008	CCV1	5.27	709090	0	04/17/0711:37	1
M47D013009	CCB1	-.101	327	0	04/17/0711:39	1
M47D013010	HGD011SB	-.081	3008	0	04/17/0711:41	1
M47D013011	HGD011SL	5.42	728005	0	04/17/0711:43	1
M47D013012	HGD011SC	5.36	720104	0	04/17/0711:45	1
M47D013013	D134-01A	2.17	300244	0	04/17/0711:47	1
M47D013014	D134-01	-.043	7951	0	04/17/0711:49	1
M47D013015	D134-01J	-.082	2870	0	04/17/0711:51	5
M47D013016	D134-02	-.077	3519	0	04/17/0711:53	1
M47D013017	D134-03	-.099	579	0	04/17/0711:56	1
M47D013018	D120-05	-.009	12431	0	04/17/0711:57	1
M47D013019	D148-01	.01	14999	0	04/17/0711:59	1
M47D013020	CCV2	5.26	707333	0	04/17/0712:02	1
M47D013021	CCB2	-.052	6834	0	04/17/0712:04	1
M47D013022	D148-02	.049	20043	0	04/17/0712:06	1
M47D013023	D151-01	.503	79971	0	04/17/0712:08	1
M47D013024	CCV3	5.25	706544	0	04/17/0712:10	1
M47D013025	CCB3	-.105	-242	0	04/17/0712:12	1
**********	**********	**********	**********	**********	**********	***
EMAX1fid	EMAX1sid	Xint	Yint	rrf	adatetime	DF
M47D013000	BLANK	-.1037634	13681.52	.9999479	04/17/0712:12	1

RunProt: HGCOM

RunFold: M47D013 Seq: 6 Batch:

Prnt: R/T On Pump: On

Rev: 4.2 11:31:26 17 Apr 2007 Xmit: Off Gas: 0.35 LPM

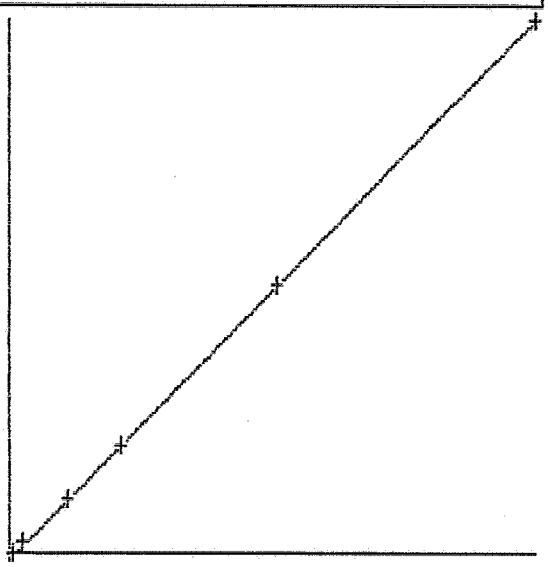
State: Idle User: MT A/S: On

CALIBRATION: Line proto: HGCOM

	Hg Conc.	Calc.	Dev.	Accepted ->linear
S1	.000	-.033	-.033	Quadratic
S2	.200	.154	-.046	Wtdlinear
S3	1.00	1.03	.031	C
S4	2.00	2.05	.046	Accept o
S5	5.00	5.03	.029	n
S6	10.0	9.97	-.026	c

A .0000000 r .999948

B 7.58341e-6 C -1.03436e-1



Relative Absorbance

	Mean		SD	
S1	9233	0	SD	9233
S2	33992	0	%RSD	33992
S3	149585	0	%RSD	149585
S4	283436	0	%RSD	283436
S5	676753	0	%RSD	676753
S6	1328815	0	%RSD	1328815

New cal coefficients stored

DIGESTION LOG FOR MERCURY

SOP ☑ EMAX-7470 Rev. No.3 ☐ EMAX-7471 Rev. No.3 ☐ EMAX-CLP-245.5 ☐ EMAX-CLP-245.1 ☐

Matrix: Water Start Date: 4/16/07 Time: 11:30 Ending Date: 4/16/07 Time: 14:00 Book # E47-053

BATCH: HGD010W

	Sample Prep ID	Lab Sample ID	Matrix Description Color	Matrix Description Texture / Clarity	Matrix Description Artifacts	Sample Amount (g | ml)	Dry Weight	pH	Extract Volume (ml)	Matrix Description Color	Matrix Description Clarity
01		J-0	Cr	Cr	N/A	0	N/A	N/A	75	Cr	Cr
02		0.2				0.2					
03		1				1					
04		2				2					
05		5				5					
06		10				10					
07		ICV				2					
08		ICB				0					
09		CCV				5					
10		CCB				0					
11		HGD010WB				50					
12		WL									
13		WC									
14		D113-01						<2			
15		02						<2			
16		03						<2			
17		03M						<2			
18		035						<2			
19		D134-04						<2			
20		D156-01						<2			
21		WTD0025B			STLC	5		<2			
22		D094-01	Og	Td				<2			
23		01M						<2			
24		015						<2			
25		D093-01						<2			
26		D114-01						<2			
27											
28		NT	4/16/07								

Standards	ID	Conc. (µg/L)	Amount Added (ml)
ICAL	SM3B-07-355	50	0.2,1,2,5,10
ICV	SM3B-07-356		2
CCV/MS			5
LCS			5

Reagent	Lot# / ID
HNO_3	SW1A-03-444
HCl	N/A
H_2SO_4	SW1A-03-441
$KMnO_4$	SM5B-02-59
$K_2S_2O_8$	60
$NH_2OH.HCl$	62
$SnCl_2$	63

Temp of Digestion Bath: 95 °C

Legend

Color			
Bu = blue	Cs = Coarse	Cr = Clear	Rk = rocks
Bk = black	Md = Medium	Cy = Cloudy	Sl = Shale
Bn = Brown	Fn = Fine	Td = Turbid	Vg=Vegetation
Gn = Green			
Og = Orange			
Rd = Red			
Yw = Yellow			

Comments:

Prepared By: NT

Standard Added By: NT Witnessed By: MC

Checked By:

Disposed By: Date Disposed:

7018

EMAX LABORATORIES, INC.

DIGESTION LOG FOR MERCURY

SOP ☐ EMAX-7470 Rev. No.3 ☑ EMAX-7471 Rev. No.3 ☐ EMAX-CLP-245.5 ☐ EMAX-CLP-245.1 ☐

Matrix: Soil Start Date: 4/16/07 Time: 17:30 Ending Date: 4/16/07 Time: 18:30 Book # E47-053

BATCH: HGD011S

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Sample Amount (g | ml)	Dry Weight	pH	Extract Volume (ml)	Matrix Description: Color	Matrix Description: Clarity
01	S-0	Cr	Cr	N/A	0	N/A	N/A	100	Cr	Cr
02	0.2				0.2					
03	1				1					
04	2				2					
05	5				5					
06	10				10					
07	ICV				2					
08	ICB				0					
09	CCV				5					
10	CCB				0					
11	HGD011SB				0.600g					
12	SL				0.600					
13	SC				0.600					
14	D120-05	Bn	Fn		0.602					
15	D134-01				0.603					
16	02				0.603					
17	03				0.602					
18	D148-01				0.601					
19	02				0.604					
20	D151-01				0.604					
21										
22										
23										
24						NT	4/16/07			
25										
26										
27										
28										

Standards	ID	Conc. (µg/L)	Amount Added (ml)
ICAL	SM3B-07-357	100	0.2,1,2,5,10
ICV	SM3B-07-358		2
CCV/MS			5
LCS			5
Reagent	Lot# / ID		
HNO_3 } aqua	SW1A-03-444		
HCl } regia	SW1A-03-445		
H_2SO_4	N/A		
$KMnO_4$	SM5B-02-59		
$K_2S_2O_8$	N/A		
$NH_2OH.HCl$	SM5B-02-62		
$SnCl_2$	63		

Temp of Digestion Bath: 95 °C

Legend

Color

Bu = blue	Cs = Coarse	Cr = Clear	Rk = rocks
Bk = black	Md = Medium	Cy = Cloudy	Sl = Shale
Bn = Brown	Fn = Fine	Td = Turbid	Vg=Vegetation
Gn = Green			
Og = Orange			
Rd = Red			
Yw = Yellow			

Comments:

Prepared By: NT

Standard Added By: NT Witnessed By: JEE

Checked By:

Disposed By: Date Disposed:

7049

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D134

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAYMONT SITE 1

SDG: 07D134

METHOD 314.0
PERCHLORATE

One (1) water and ten (10) soil samples were received on 04/11/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at half of the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control sample results were within QC limits.

4. Duplicate

No Duplicate sample was designated in this SDG.

5. Matrix Spike

No MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D134

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD008SB	ND	1	NA	20.0	10.0	04/18/0704:01	04/17/0709:45	JD17033	JD17032	PCD008S	NA	04/17/07
LCS1S	PCD008SL	254	1	NA	20.0	10.0	04/18/0704:42	04/17/0709:45	JD17035	JD17032	PCD008S	NA	04/17/07
LCD1S	PCD008SC	250	1	NA	20.0	10.0	04/18/0705:02	04/17/0709:45	JD17036	JD17032	PCD008S	NA	04/17/07
A6-HAS1@0.5	D134-01	ND	1	4.9	21.0	10.5	04/18/0705:22	04/17/0709:45	JD17037	JD17032	PCD008S	04/10/0708:45	04/11/07
A6-HAS1@5	D134-02	ND	1	10.2	22.3	11.1	04/18/0705:42	04/17/0709:45	JD17038	JD17032	PCD008S	04/10/0709:00	04/11/07
A6-HAS101@0.5	D134-03	ND	1	12.8	22.9	11.5	04/18/0706:03	04/17/0709:45	JD17039	JD17032	PCD008S	04/10/0708:45	04/11/07
D26-HAS-16-0.5	D134-05	ND	1	3.4	20.7	10.4	04/18/0706:23	04/17/0709:45	JD17040	JD17032	PCD008S	04/10/0710:10	04/11/07
D26-HAS-16-5	D134-06	ND	1	0.7	20.1	10.1	04/18/0706:43	04/17/0709:45	JD17041	JD17032	PCD008S	04/10/0710:45	04/11/07
D26-HAS-116-0.5	D134-07	ND	1	3.4	20.7	10.4	04/18/0707:03	04/17/0709:45	JD17042	JD17032	PCD008S	04/10/0710:15	04/11/07
D26-HAS-15-0.5	D134-09	ND	1	2.1	20.4	10.2	04/18/0707:44	04/17/0709:45	JD17044	JD17043	PCD008S	04/10/0710:55	04/11/07
D26-HAS-15-5	D134-10	ND	1	1.0	20.2	10.1	04/18/0708:04	04/17/0709:45	JD17045	JD17043	PCD008S	04/10/0711:35	04/11/07
D26-HAS-14-0.5	D134-11	ND	1	2.8	20.6	10.3	04/18/0708:24	04/17/0709:45	JD17046	JD17043	PCD008S	04/10/0712:30	04/11/07
D26-HAS-14-5	D134-12	ND	1	1.4	20.3	10.1	04/18/0708:45	04/17/0709:45	JD17047	JD17043	PCD008S	04/10/0713:00	04/11/07

8963

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D134

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD007WB	ND	1	NA	2.00	0.500	04/17/0720:36	NA	JD17011	JD17010	PCD007W	NA	NA
LCS1W	PCD007WL	24.5	1	NA	2.00	0.500	04/17/0721:16	NA	JD17013	JD17010	PCD007W	NA	NA
LCD1W	PCD007WC	24.9	1	NA	2.00	0.500	04/17/0721:36	NA	JD17014	JD17010	PCD007W	NA	NA
LEB-041007	D134-04	ND	1	NA	2.00	0.500	04/18/0701:19	NA	JD17025	JD17021	PCD007W	04/10/0708:30	04/11/07

8004

QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD007WB	PCD007WL	PCD007WC		
LAB FILE ID:	JD17011	JD17013	JD17014		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/17/0720:36	04/17/0721:16	04/17/0721:36	DATE RECEIVED:	NA
PREP. BATCH:	PCD007W	PCD007W	PCD007W		
CALIB. REF:	JD17010	JD17010	JD17010		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.5	98	25.0	24.9	100	2	85-115	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D134
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD008SB	PCD008SL	PCD008SC		
LAB FILE ID:	JD17033	JD17035	JD17036		
DATE EXTRACTED:	04/17/0709:45	04/17/0709:45	04/17/0709:45	DATE COLLECTED:	NA
DATE ANALYZED:	04/18/0704:01	04/18/0704:42	04/18/0705:02	DATE RECEIVED:	04/17/07
PREP. BATCH:	PCD008S	PCD008S	PCD008S		
CALIB. REF:	JD17032	JD17032	JD17032		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	254	102	250	250	100	2	85-115	20

8607

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

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JD17075	RINSE	P	IC57D17	04/19/0702:42	1
JD17076	CCV7-30	P	IC57D17	04/19/0703:03	1
JD17077	D146-04R	P	IC57D17	04/19/0710:01	1
JD17078	D146-03R	P	IC57D17	04/19/0710:22	1
JD17079	CCV8-15	P	IC57D17	04/19/0710:42	1

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

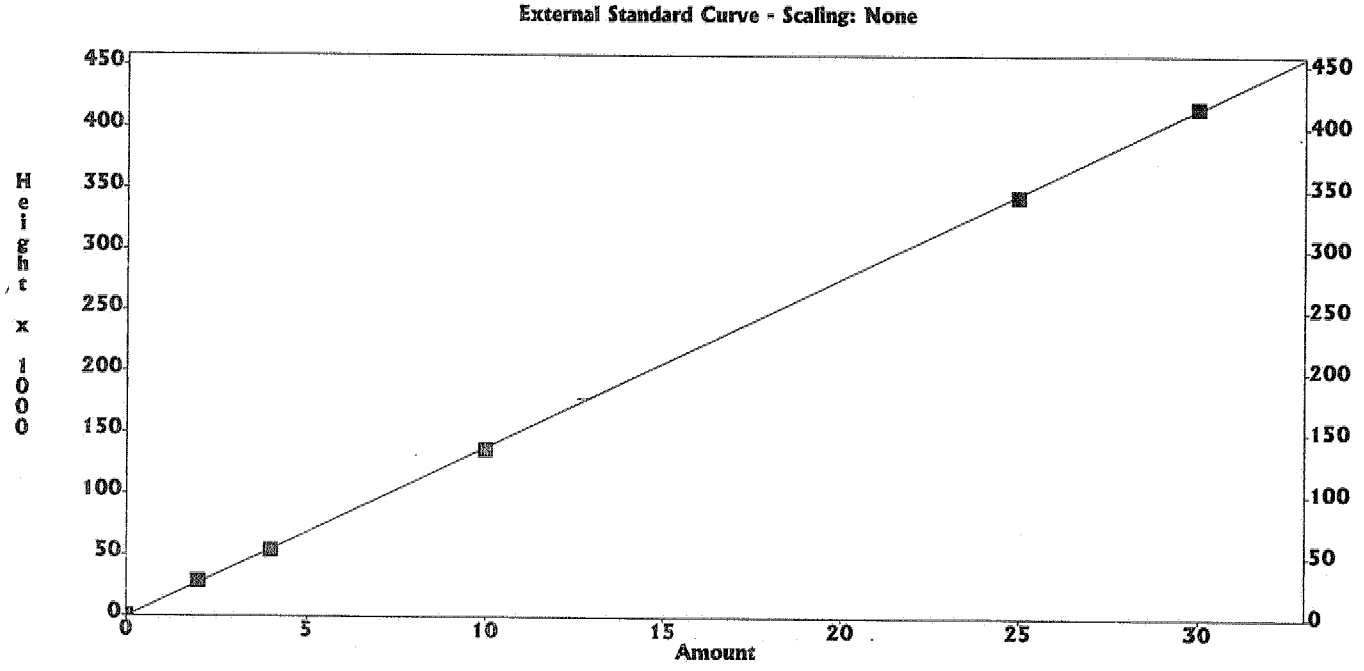
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8011

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

KW 6-24-07

JD17075	RINSE	P	.000	04/19/0702:42	1
JD17076	CCV7-30	P	102%	04/19/0703:03	1
JD17077	D146-04R	P	.000	04/19/0710:01	1
JD17078	D146-03R	P	.000	04/19/0710:22	1
JD17079	CCV8-15	P	101%	04/19/0710:42	1

DAILY CALIBRATION

IC PULSE HEIGHT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	ND	04/17/0716:54	1
JD17002	S-0.0	P	ND	04/17/0717:15	1
JD17003	S-2.0	P	28539	04/17/0717:35	1
JD17004	S-4.0	P	53704	04/17/0717:55	1
JD17005	S-10.0	P	136299	04/17/0718:16	1
JD17006	S-25.0	P	344109	04/17/0718:36	1
JD17007	S-30.0	P	416712	04/17/0718:56	1
JD17008	ICV	P	338222	04/17/0719:16	1
JD17009	ICB	P	ND	04/17/0719:43	1
JD17010	IPCS	P	280352	04/17/0720:15	1
JD17011	PCD007WB	P	ND	04/17/0720:36	1
JD17012	MRL	P	25155	04/17/0720:56	1
JD17013	PCD007WL	P	338804	04/17/0721:16	1
JD17014	PCD007WC	P	344385	04/17/0721:36	1
JD17015	D146-01	P	ND	04/17/0721:57	1
JD17016	D146-02	P	ND	04/17/0722:17	1
JD17017	D146-03	P	ND	04/17/0722:37	1
JD17018	D146-04	P	ND	04/17/0722:57	1
JD17019	D138-01	P	ND	04/17/0723:18	1
JD17020	RINSE	P	ND	04/17/0723:38	1
JD17021	CCV1-30	P	429502	04/17/0723:58	1
JD17022	D138-02	P	141884	04/18/0700:18	1
JD17023	D155-01	P	ND	04/18/0700:39	1
JD17024	D155-02	P	94785	04/18/0700:59	1
JD17025	D134-04	P	ND	04/18/0701:19	1
JD17026	D165-06	P	ND	04/18/0701:39	1
JD17027	D165-08	P	ND	04/18/0702:00	1
JD17028	D165-08D	P	ND	04/18/0702:20	1
JD17029	D165-08M	P	136113	04/18/0702:40	1
JD17030	RINSE	P	ND	04/18/0703:00	1
JD17031	CCV2-15	P	198959	04/18/0703:21	1
JD17032	IPCS	P	286265	04/18/0703:41	1
JD17033	PCD008SB	P	ND	04/18/0704:01	1
JD17034	MRL	P	25961	04/18/0704:21	1
JD17035	PCD008SL	P	351649	04/18/0704:42	1
JD17036	PCD008SC	P	345732	04/18/0705:02	1
JD17037	D134-01	P	ND	04/18/0705:22	1
JD17038	D134-02	P	ND	04/18/0705:42	1
JD17039	D134-03	P	ND	04/18/0706:03	1
JD17040	D134-05	P	ND	04/18/0706:23	1
JD17041	D134-06	P	ND	04/18/0706:43	1
JD17042	D134-07	P	ND	04/18/0707:03	1
JD17043	CCV3-30	P	432856	04/18/0707:24	1
JD17044	D134-09	P	ND	04/18/0707:44	1
JD17045	D134-10	P	ND	04/18/0708:04	1
JD17046	D134-11	P	ND	04/18/0708:24	1
JD17047	D134-12	P	ND	04/18/0708:45	1
JD17048	D165-02	*	822022	04/18/0709:05	1
JD17049	CCV4-15	P	193219	04/18/0717:56	1
JD17050	D165-03	P	ND	04/18/0718:16	1
JD17051	D165-04	P	ND	04/18/0718:36	1
JD17052	D165-09	P	41816	04/18/0718:56	1
JD17053	D165-09D	P	40678	04/18/0719:17	1
JD17054	D165-09M	P	170555	04/18/0719:37	1
JD17055	D165-10	P	82179	04/18/0719:57	1
JD17056	D165-11	P	ND	04/18/0720:17	1
JD17057	D165-02	P	329611	04/18/0720:38	20
JD17058	D165-04	P	257949	04/18/0720:58	200
JD17059	CCV5-30	P	418260	04/18/0721:18	1
JD17060	IPCS	P	277387	04/18/0721:38	1
JD17061	PCD009WB	P	ND	04/18/0721:59	1
JD17062	MRL	P	24729	04/18/0722:19	1
JD17063	PCD009WL	P	338424	04/18/0722:39	1
JD17064	PCD009WC	P	340365	04/18/0723:00	1
JD17065	D138-01R	P	ND	04/18/0723:20	1
JD17066	D146-01	P	ND	04/18/0723:40	10
JD17067	D146-02	P	ND	04/19/0700:00	10
JD17068	D146-03	P	ND	04/19/0700:21	10
JD17069	D146-04	P	ND	04/19/0700:41	10
JD17070	D146-01	P	ND	04/19/0701:01	25
JD17071	CCV6-15	P	196152	04/19/0701:21	1
JD17072	D146-02	P	ND	04/19/0701:42	25
JD17073	D146-03	P	ND	04/19/0702:02	25
JD17074	D146-04	P	ND	04/19/0702:22	25

RW 4-24-07

JD17075	RINSE	P	ND	04/19/0702:42	1
JD17076	CCV7-30	P	423895	04/19/0703:03	1
JD17077	D146-04R	P	ND	04/19/0710:01	1
JD17078	D146-03R	P	ND	04/19/0710:22	1
JD17079	CCV8-15	P	209599	04/19/0710:42	1

---------- Con = A + B * PulseHeight----------

coef A :	.0786
coef B :	.00007209
coef CCF :	1.0

---------- PulseHeight = C + D * Con ----------

coef C :	-1072
coef D :	13870
coef CCF :	1.0

pw 4-24-07

JD17075	RINSE	P	.000	04/19/0702:42	1
JD17076	CCV7-30	P	102%	04/19/0703:03	1
JD17077	D146-04R	P	.000	04/19/0710:01	1
JD17078	D146-03R	P	.000	04/19/0710:22	1
JD17079	CCV8-15	P	101%	04/19/0710:42	1

4-24-07

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 -18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: * IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev.#
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

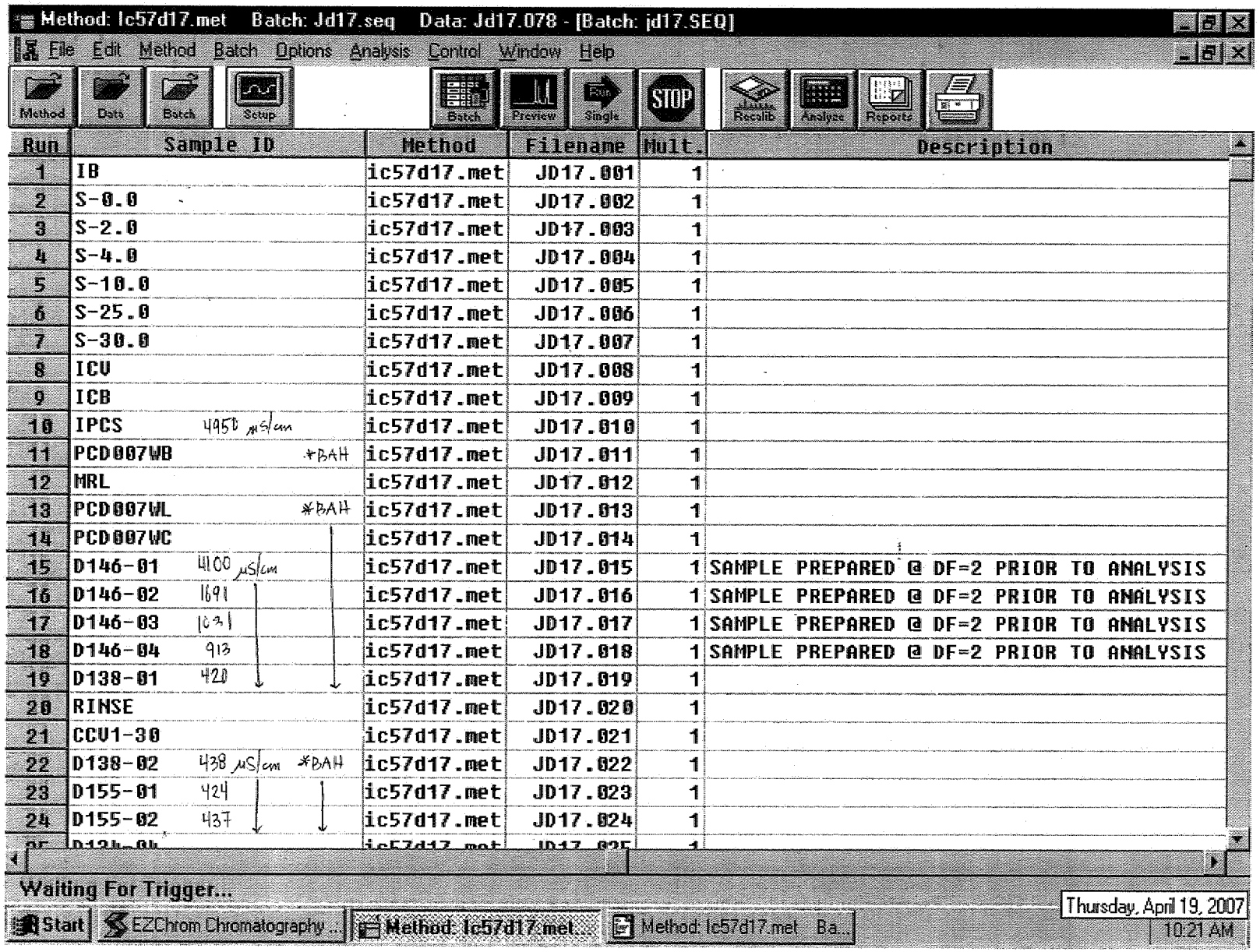
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	938
LCS	936
MS	931
IPC	934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: al

Date: 04/17/07



Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

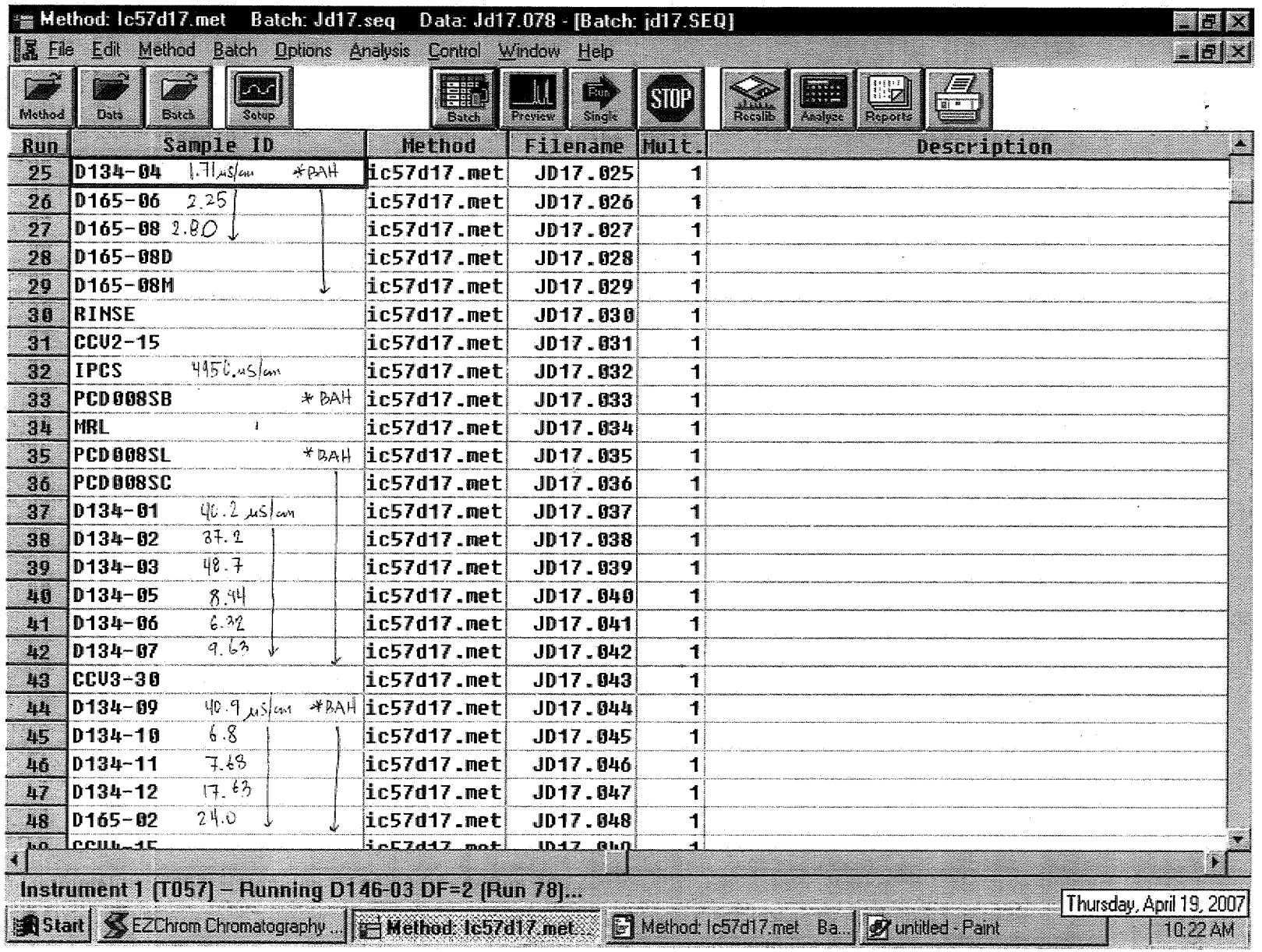
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyse Reports

Run	Sample ID	Method	Filename	Mult.	Description
1	IB	ic57d17.met	JD17.001	1	
2	S-0.0	ic57d17.met	JD17.002	1	
3	S-2.0	ic57d17.met	JD17.003	1	
4	S-4.0	ic57d17.met	JD17.004	1	
5	S-10.0	ic57d17.met	JD17.005	1	
6	S-25.0	ic57d17.met	JD17.006	1	
7	S-30.0	ic57d17.met	JD17.007	1	
8	ICV	ic57d17.met	JD17.008	1	
9	ICB	ic57d17.met	JD17.009	1	
10	IPCS 4950 µS/cm	ic57d17.met	JD17.010	1	
11	PCD007WB *BAH	ic57d17.met	JD17.011	1	
12	MRL	ic57d17.met	JD17.012	1	
13	PCD007WL *BAH	ic57d17.met	JD17.013	1	
14	PCD007WC	ic57d17.met	JD17.014	1	
15	D146-01 4100 µS/cm	ic57d17.met	JD17.015	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16	D146-02 1691	ic57d17.met	JD17.016	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17	D146-03 1031	ic57d17.met	JD17.017	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18	D146-04 913	ic57d17.met	JD17.018	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19	D138-01 420	ic57d17.met	JD17.019	1	
20	RINSE	ic57d17.met	JD17.020	1	
21	CCV1-30	ic57d17.met	JD17.021	1	
22	D138-02 438 µS/cm *BAH	ic57d17.met	JD17.022	1	
23	D155-01 424	ic57d17.met	JD17.023	1	
24	D155-02 437	ic57d17.met	JD17.024	1	

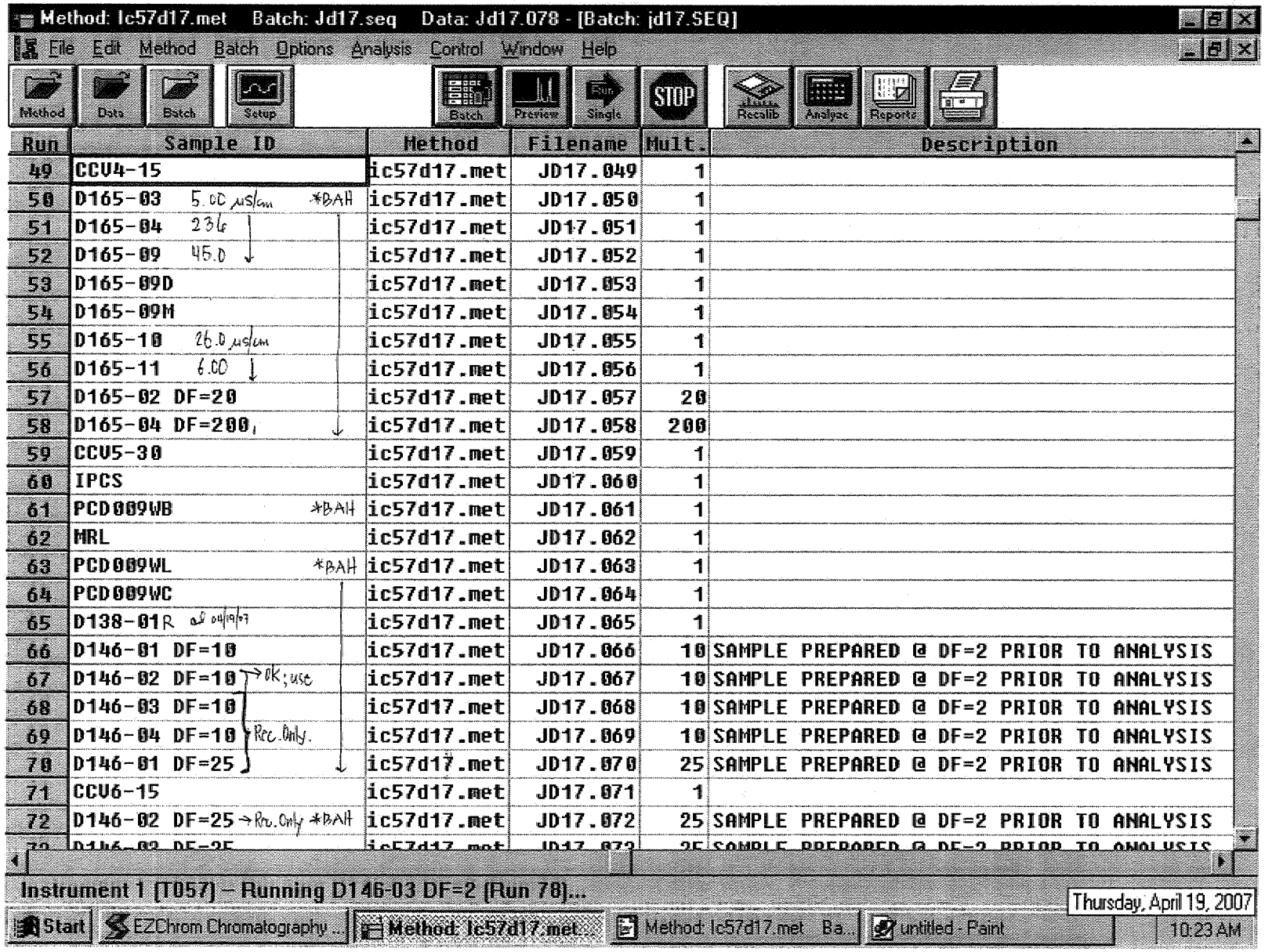
Waiting For Trigger...

Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba...

Thursday, April 19, 2007 10:21 AM


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µs/cm *BAH lc57d17.met JD17.025 1
26 D165-06 2.25 lc57d17.met JD17.026 1
27 D165-08 2.80 lc57d17.met JD17.027 1
28 D165-08D lc57d17.met JD17.028 1
29 D165-08M lc57d17.met JD17.029 1
30 RINSE lc57d17.met JD17.030 1
31 CCV2-15 lc57d17.met JD17.031 1
32 IPCS 4950.µs/cm lc57d17.met JD17.032 1
33 PCD008SB *BAH lc57d17.met JD17.033 1
34 MRL lc57d17.met JD17.034 1
35 PCD008SL *BAH lc57d17.met JD17.035 1
36 PCD008SC lc57d17.met JD17.036 1
37 D134-01 46.2 µs/cm lc57d17.met JD17.037 1
38 D134-02 37.2 lc57d17.met JD17.038 1
39 D134-03 48.7 lc57d17.met JD17.039 1
40 D134-05 8.94 lc57d17.met JD17.040 1
41 D134-06 6.32 lc57d17.met JD17.041 1
42 D134-07 9.63 lc57d17.met JD17.042 1
43 CCV3-30 lc57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *BAH lc57d17.met JD17.044 1
45 D134-10 6.8 lc57d17.met JD17.045 1
46 D134-11 7.68 lc57d17.met JD17.046 1
47 D134-12 17.63 lc57d17.met JD17.047 1
48 D165-02 24.0 lc57d17.met JD17.048 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8922



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

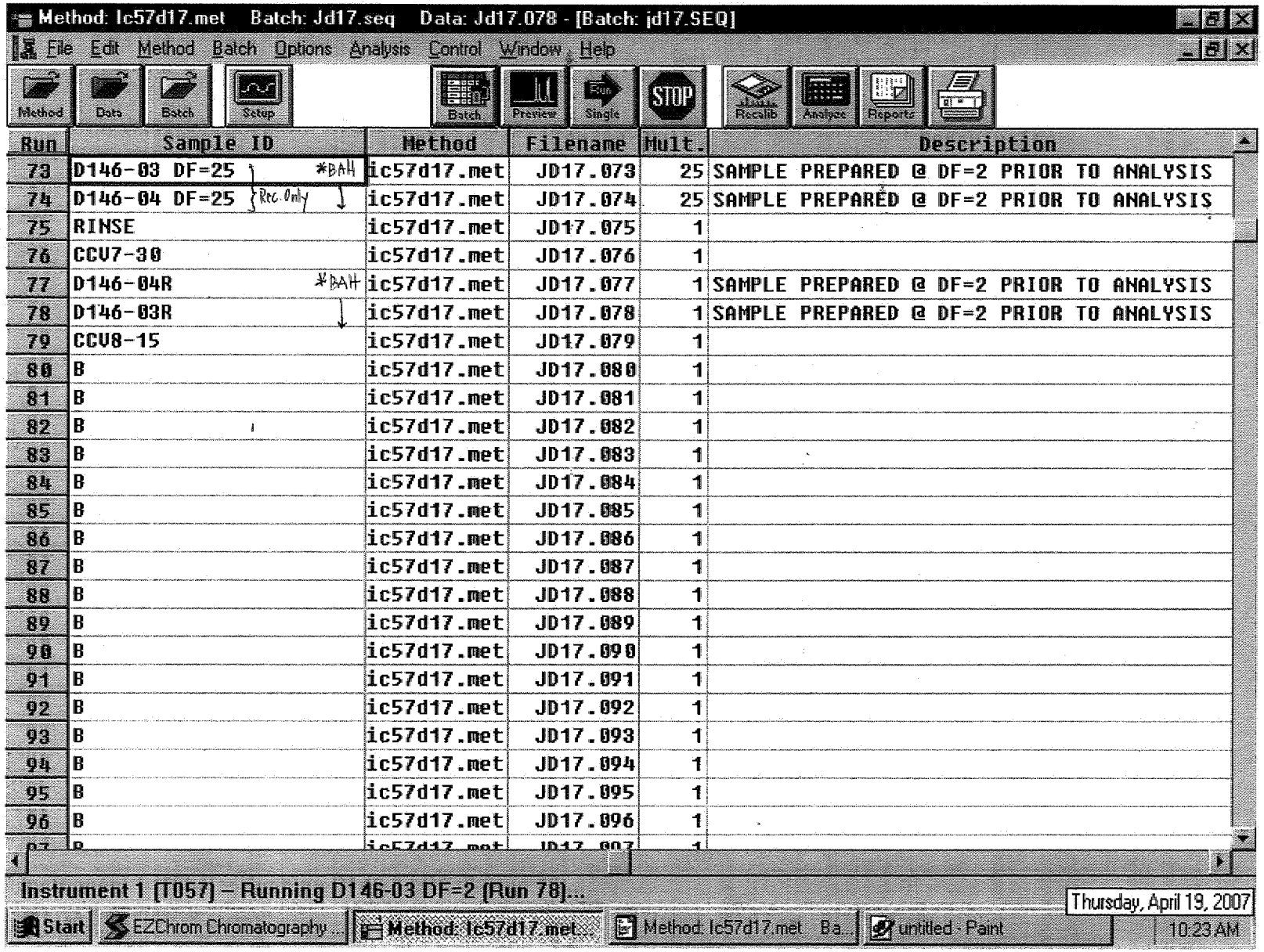
Run	Sample ID	Method	Filename	Mult.	Description
49	CCV4-15	ic57d17.met	JD17.049	1	
50	D165-03 5.00 µs/cm *BAH	ic57d17.met	JD17.050	1	
51	D165-04 236	ic57d17.met	JD17.051	1	
52	D165-09 45.0	ic57d17.met	JD17.052	1	
53	D165-09D	ic57d17.met	JD17.053	1	
54	D165-09M	ic57d17.met	JD17.054	1	
55	D165-10 26.0 µs/cm	ic57d17.met	JD17.055	1	
56	D165-11 6.00	ic57d17.met	JD17.056	1	
57	D165-02 DF=20	ic57d17.met	JD17.057	20	
58	D165-04 DF=200,	ic57d17.met	JD17.058	200	
59	CCV5-30	ic57d17.met	JD17.059	1	
60	IPCS	ic57d17.met	JD17.060	1	
61	PCD009WB *BAH	ic57d17.met	JD17.061	1	
62	MRL	ic57d17.met	JD17.062	1	
63	PCD009WL *BAH	ic57d17.met	JD17.063	1	
64	PCD009WC	ic57d17.met	JD17.064	1	
65	D138-01R ad 04/19/07	ic57d17.met	JD17.065	1	
66	D146-01 DF=10	ic57d17.met	JD17.066	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67	D146-02 DF=10 → ok; use	ic57d17.met	JD17.067	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68	D146-03 DF=10	ic57d17.met	JD17.068	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69	D146-04 DF=10 Rec. Only.	ic57d17.met	JD17.069	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70	D146-01 DF=25	ic57d17.met	JD17.070	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71	CCV6-15	ic57d17.met	JD17.071	1	
72	D146-02 DF=25 → Rec. Only *BAH	ic57d17.met	JD17.072	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
73	D146-03 DF=25	ic57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS

Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...

Thursday, April 19, 2007

Start | EZChrom Chromatography ... | Method: Ic57d17.met... | Method: Ic57d17.met Ba... | untitled - Paint | 10:23 AM

8023


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D146-03 DF=25 *BAH | lc57d17.met | JD17.073 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 | D146-04 DF=25 Rec. Only | lc57d17.met | JD17.074 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 | RINSE | lc57d17.met | JD17.075 | 1 |
76 | CCV7-30 | lc57d17.met | JD17.076 | 1 |
77 | D146-04R *BAH | lc57d17.met | JD17.077 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 | D146-03R | lc57d17.met | JD17.078 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 | CCV8-15 | lc57d17.met | JD17.079 | 1 |
80 | B | lc57d17.met | JD17.080 | 1 |
81 | B | lc57d17.met | JD17.081 | 1 |
82 | B | lc57d17.met | JD17.082 | 1 |
83 | B | lc57d17.met | JD17.083 | 1 |
84 | B | lc57d17.met | JD17.084 | 1 |
85 | B | lc57d17.met | JD17.085 | 1 |
86 | B | lc57d17.met | JD17.086 | 1 |
87 | B | lc57d17.met | JD17.087 | 1 |
88 | B | lc57d17.met | JD17.088 | 1 |
89 | B | lc57d17.met | JD17.089 | 1 |
90 | B | lc57d17.met | JD17.090 | 1 |
91 | B | lc57d17.met | JD17.091 | 1 |
92 | B | lc57d17.met | JD17.092 | 1 |
93 | B | lc57d17.met | JD17.093 | 1 |
94 | B | lc57d17.met | JD17.094 | 1 |
95 | B | lc57d17.met | JD17.095 | 1 |
96 | B | lc57d17.met | JD17.096 | 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8921

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 04/17/07 Time 09:45 End Date 04/17/07 Time 12:00

PREPARATION BATCH # _____

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0085B	10.000g	100ml	100ml	
*02	SL				
*03	SC				
*04	D134 - 01				
*05	02				
*06	03				
*07	05				
*08	06				
*09	07				
*10	09				
*11	10				
*12	11				
*13	12				
*14	D165 - 02				
*15	03				
*16	04				
*17	09				
*18	09D				
*19	09M				
*20	10				
*21	11				
*22					
*23					
*24		ad 04/17/07			
*25					

Standards	ID	Amount Added (ml)	
Acetate			
Butyrate			
Lactate			
Perchlorate LCS/MS	SW 8B-02-931	LCS 2.5	MS 1.0
Propionate			
Pyruvate			

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments: _____

Prepared By: ad

Standard Added By: ad

Checked By: _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D164**

SECTION		PAGE
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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	METHOD 3010A/3050B/6010B	7000 – 7053
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-03-2007
EMAX Batch No.: 07D164

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/13/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
C23-SS1	D164-01	04/11/07	SOIL	BERYLLIUM
C23-SS2	D164-02	04/11/07	SOIL	BERYLLIUM
C23-SS3	D164-03	04/11/07	SOIL	BERYLLIUM
C23-SS4	D164-04	04/11/07	SOIL	BERYLLIUM
C23-SS5	D164-05	04/11/07	SOIL	BERYLLIUM
C23-SS6	D164-06	04/11/07	SOIL	BERYLLIUM
C23-SS7	D164-07	04/11/07	SOIL	BERYLLIUM
C23-SS8	D164-08	04/11/07	SOIL	BERYLLIUM
C23-SS107	D164-09	04/11/07	SOIL	BERYLLIUM
LEB-041107	D164-10	04/11/07	WATER	BERYLLIUM

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

07D164

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391
TT 0618

SHIP TO: EMAX

DATE 4/11/07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A. Hanke

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	Beryllium 6010	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	C23-SS1	4/11/07	1112	X	U	S	G	1	NR
2.	C23-SS2	4/11/07	1115	X					
3.	C23-SS3	4/11/07	1118	X					
4.	C23-SS4	4/11/07	1125	X					
5.	C23-SS5	4/11/07	1128	X					
6.	C23-SS6	4/11/07	1133	X					
7.	C23-SS7	4/11/07	1141	X					
8.	C23-SS8	4/11/07	1135	X					
9.	C23-SS107	4/11/07	1153	X					
10.	LEB-041107	4/11/07	1110	X	U	W	P	1	NR

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: T = 3.7°C

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Holly Hanke	SIGNATURE: Holly A. Hanke	TETRA TECH, INC.	4/11/07	1400	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10 of 17
RECEIVED BY: GEORGE LIM	SIGNATURE:	COMPANY: EMAX	4/13/07	13:25	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM	SIGNATURE:	COMPANY: EMAX	4/13/07	15:28	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA	SIGNATURE:	COMPANY: EMAX	4/13/07	1528	

DISTRIBUTION: White and Pink = Tetra Tech, Inc; Canary = Laboratory

1991

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 070164
☒ EMAX Courier	SEE BC	Recepient JONLUNA
☐ Client Delivery		Date 4-13-07
☐ Third Party		Time 1528

COC Inspection

☒ Client Name ☒ Client PM/FC ☒ Sampler Name ☒ Sampling Date/Time/Location ☒ Sample ID ☒ Matrix
☒ Address ☒ Tel # / Fax # ☒ Courier Signature ☒ Analysis Required ☐ Preservative (if any) ☒ TAT

Safety Issues
☒ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☒ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☒ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☒ Sufficient	☐ _____
Temperatures	☒ Cooler 1 3.7 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
10	10		H1	R5

REVIEWS

Sample Labeling _____ Date 4/13/07

SRF _____ Date 4/16/07

PM _____ Date 4/16/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	Sample preserved with HNO_3, but COC says not required (NR)
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Proceed w/ analysis as preserved sample.
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3010A/3050B/6010B
BERYLLIUM BY TRACE ICP

SDG#: 07D164

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D164

METHOD 3010A/3050B/6010B
BERYLLIUM BY TRACE ICP

One (1) water and nine (9) soil samples were received on 04/13/07 for Beryllium analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution/Post-Analytical Spike**

   Samples D157-09 and D173-05 from other SDGs were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
BERYLLIUM BY TRACE ICP

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D164
Instrument ID : T-ID8

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPD029SB	1	NA	04/19/0712:40	04/16/0716:45	ID8D014013	ID8D014011	IPD029S	Method Blank
LCS1S	IPD029SL	1	NA	04/19/0712:45	04/16/0716:45	ID8D014014	ID8D014011	IPD029S	Lab Control Sample (LCS)
LCD1S	IPD029SC	1	NA	04/19/0712:49	04/16/0716:45	ID8D014015	ID8D014011	IPD029S	LCS Duplicate
IMP-SL-1AS	D173-05A	10	NA	04/19/0716:38	04/16/0716:45	ID8D014064	ID8D014062	IPD029S	Analytical Spike Sample
IMP-SL-1	D173-05	10	NA	04/19/0716:42	04/16/0716:45	ID8D014065	ID8D014062	IPD029S	Field Sample
IMP-SL-1DL	D173-05J	50	NA	04/19/0716:47	04/16/0716:45	ID8D014066	ID8D014062	IPD029S	Diluted Sample
C23-SS1	D164-01	1	1.0	04/19/0714:55	04/16/0716:45	ID8D014042	ID8D014034	IPD029S	Field Sample
C23-SS2	D164-02	1	0.9	04/19/0715:00	04/16/0716:45	ID8D014043	ID8D014034	IPD029S	Field Sample
C23-SS3	D164-03	1	0.8	04/19/0715:04	04/16/0716:45	ID8D014044	ID8D014034	IPD029S	Field Sample
C23-SS4	D164-04	1	3.3	04/19/0715:09	04/16/0716:45	ID8D014045	ID8D014034	IPD029S	Field Sample
C23-SS5	D164-05	1	1.9	04/19/0715:23	04/16/0716:45	ID8D014048	ID8D014046	IPD029S	Field Sample
C23-SS6	D164-06	1	1.1	04/19/0715:28	04/16/0716:45	ID8D014049	ID8D014046	IPD029S	Field Sample
C23-SS7	D164-07	1	0.9	04/19/0715:32	04/16/0716:45	ID8D014050	ID8D014046	IPD029S	Field Sample
C23-SS8	D164-08	1	0.6	04/19/0715:37	04/16/0716:45	ID8D014051	ID8D014046	IPD029S	Field Sample
C23-SS107	D164-09	1	0.7	04/19/0715:41	04/16/0716:45	ID8D014052	ID8D014046	IPD029S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPD026WB	1	NA	04/18/0715:40	04/16/0712:00	ID8D013013	ID8D013011	IPD026W	Method Blank
LCS1W	IPD026WL	1	NA	04/18/0715:45	04/16/0712:00	ID8D013014	ID8D013011	IPD026W	Lab Control Sample (LCS)
LCD1W	IPD026WC	1	NA	04/18/0715:49	04/16/0712:00	ID8D013015	ID8D013011	IPD026W	LCS Duplicate
MW1-5AS	D157-09A	1	NA	04/18/0716:26	04/16/0712:00	ID8D013023	ID8D013019	IPD026W	Analytical Spike Sample
MW1-5	D157-09	1	NA	04/18/0716:31	04/16/0712:00	ID8D013024	ID8D013019	IPD026W	Field Sample
MW1-5DL	D157-09J	5	NA	04/18/0716:36	04/16/0712:00	ID8D013025	ID8D013019	IPD026W	Diluted Sample
LEB-041107	D164-10	1	NA	04/18/0718:16	04/16/0712:00	ID8D013046	ID8D013043	IPD026W	Field Sample

FN - Filename
% Moist - Percent Moisture

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METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:12
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS1	Date Analyzed:	04/19/07 14:55
Lab Samp ID:	D164-01	Dilution Factor:	1
Lab File ID:	ID8D014042	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	1.0
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.679J	1.01	0.202

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:15
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS2	Date Analyzed:	04/19/07 15:00
Lab Samp ID:	D164-02	Dilution Factor:	1
Lab File ID:	ID8D014043	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	0.9
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.339J	1.01	0.202

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:18
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS3	Date Analyzed:	04/19/07 15:04
Lab Samp ID:	D164-03	Dilution Factor:	1
Lab File ID:	ID8D014044	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	0.8
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.362J	1.01	0.202

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:25
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS4	Date Analyzed:	04/19/07 15:09
Lab Samp ID:	D164-04	Dilution Factor:	1
Lab File ID:	ID8D014045	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	3.3
Calib. Ref.:	ID8D014034	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.336J	1.03	0.207

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:28
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS5	Date Analyzed:	04/19/07 15:23
Lab Samp ID:	D164-05	Dilution Factor:	1
Lab File ID:	ID8D014048	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	1.9
Calib. Ref.:	ID8D014046	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.479J	1.02	0.204

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:33
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS6	Date Analyzed:	04/19/07 15:28
Lab Samp ID:	D164-06	Dilution Factor:	1
Lab File ID:	ID8D014049	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	1.1
Calib. Ref.:	ID8D014046	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.461J	1.01	0.202

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:41
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS7	Date Analyzed:	04/19/07 15:32
Lab Samp ID:	D164-07	Dilution Factor:	1
Lab File ID:	ID8D014050	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	0.9
Calib. Ref.:	ID8D014046	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.303J	1.01	0.202

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:35
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS8	Date Analyzed:	04/19/07 15:37
Lab Samp ID:	D164-08	Dilution Factor:	1
Lab File ID:	ID8D014051	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	0.6
Calib. Ref.:	ID8D014046	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	ND	1.01	0.201

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:53
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	C23-SS107	Date Analyzed:	04/19/07 15:41
Lab Samp ID:	D164-09	Dilution Factor:	1
Lab File ID:	ID8D014052	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	0.7
Calib. Ref.:	ID8D014046	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	0.658J	1.01	0.201

METHOD 3010A/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	04/11/07 11:10
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 12:00
Sample ID:	LEB-041107	Date Analyzed:	04/18/07 18:16
Lab Samp ID:	D164-10	Dilution Factor:	1
Lab File ID:	ID8D013046	Matrix :	WATER
Ext Btch ID:	IPD026W	% Moisture :	NA
Calib. Ref.:	ID8D013043	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Beryllium	ND	0.0100	0.00100

METHOD 3010A/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/16/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 12:00
Sample ID:	MBLK1W	Date Analyzed:	04/18/07 15:40
Lab Samp ID:	IPD026WB	Dilution Factor:	1
Lab File ID:	ID8D013013	Matrix :	WATER
Ext Btch ID:	IPD026W	% Moisture :	NA
Calib. Ref.:	ID8D013011	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Beryllium	ND	0.0100	0.00100

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D164
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPD026WB	IPD026WL	IPD026WC		
LAB FILE ID:	ID8D013013	ID8D013014	ID8D013015		
DATIME EXTRCTD:	04/16/0712:00	04/16/0712:00	04/16/0712:00	DATE COLLECTED:	NA
DATIME ANALYZD:	04/18/0715:40	04/18/0715:45	04/18/0715:49	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD026W	IPD026W	IPD026W		
CALIB. REF:	ID8D013011	ID8D013011	ID8D013011		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Beryllium	ND	1	1.05	105	1	1.02	102	3	80-120	20

METHOD 3050B/6010B
BERYLLIUM BY TRACE ICP

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/16/07
SDG NO.	: 07D164	Date Extracted:	04/16/07 16:45
Sample ID:	MBLK1S	Date Analyzed:	04/19/07 12:40
Lab Samp ID:	IPD029SB	Dilution Factor:	1
Lab File ID:	ID8D014013	Matrix :	SOIL
Ext Btch ID:	IPD029S	% Moisture :	NA
Calib. Ref.:	ID8D014011	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Beryllium	ND	1.00	0.200

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D164
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPD029SB	IPD029SL	IPD029SC		
LAB FILE ID:	ID8D014013	ID8D014014	ID8D014015		
DATIME EXTRCTD:	04/16/0716:45	04/16/0716:45	04/16/0716:45	DATE COLLECTED:	NA
DATIME ANALYZD:	04/19/0712:40	04/19/0712:45	04/19/0712:49	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD029S	IPD029S	IPD029S		
CALIB. REF:	ID8D014011	ID8D014011	ID8D014011		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Beryllium	ND	100	106	106	100	107	107	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D164
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	MW1-5	MW1-5DL		
EMAX SAMP ID:	D157-09	D157-09J		
LAB FILE ID:	ID8D013024	ID8D013025		
DATE EXTRACTED:	04/16/0712:00	04/16/0712:00	DATE COLLECTED:	04/12/07 11:40
DATE ANALYZED:	04/18/0716:31	04/18/0716:36	DATE RECEIVED:	04/13/07
PREP. BATCH:	IPD026W	IPD026W		
CALIB. REF:	ID8D013019	ID8D013019		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Beryllium	ND	ND	0	10

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D164
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	10	50		
SAMPLE ID:	IMP-SL-1	IMP-SL-1DL		
EMAX SAMP ID:	D173-05	D173-05J		
LAB FILE ID:	ID8D014065	ID8D014066		
DATE EXTRACTED:	04/16/0716:45	04/16/0716:45	DATE COLLECTED:	04/16/07 12:52
DATE ANALYZED:	04/19/0716:42	04/19/0716:47	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD029S	IPD029S		
CALIB. REF:	ID8D014062	ID8D014062		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Beryllium	ND	ND	0	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D164
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	MW1-5			
CONTROL NO.:	D157-09	D157-09A		
LAB FILE ID:	ID8D013024	ID8D013023		
DATIME EXTRCTD:	04/16/0712:00	04/16/0712:00	DATE COLLECTED:	04/12/07 11:40
DATIME ANALYZD:	04/18/0716:31	04/18/0716:26	DATE RECEIVED:	04/13/07
PREP. BATCH:	IPD026W	IPD026W		
CALIB. REF:	ID8D013019	ID8D013019		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Beryllium	ND	1	.95	95	75-125

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D164
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILTN FACTR:	10	10		
SAMPLE ID:	IMP-SL-1			
CONTROL NO.:	D173-05	D173-05A		
LAB FILE ID:	ID8D014065	ID8D014064		
DATIME EXTRCTD:	04/16/0716:45	04/16/0716:45	DATE COLLECTED:	04/16/07 12:52
DATIME ANALYZD:	04/19/0716:42	04/19/0716:38	DATE RECEIVED:	04/16/07
PREP. BATCH:	IPD029S	IPD029S		
CALIB. REF:	ID8D014062	ID8D014062		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Beryllium	ND	1000	1010	101	75-125

TRACE-LOW ICP QC CHECK TABLE

QC	ICV HIGH	ICV	CCV	ICSAB	ICSA
Limit%	95-105	90-110	90-110	80-120	80-120
Comp	mg/L	mg/L	mg/L	mg/L	mg/L
Al	10	5	5	500	500
Sb	1	0.5	0.5	1	0
As	1	0.5	0.5	1	0
Ba	1	0.5	0.5	0.5	0
Be	1	0.5	0.5	0.5	0
B	1	0.5	0.5	0.5	0
Cd	1	0.5	0.5	1	0
Ca	100	50	50	500	500
Cr	1	0.5	0.5	0.5	0
Co	1	0.5	0.5	0.5	0
Cu	1	0.5	0.5	0.5	0
Fe	10	5	5	200	200
Pb	1	0.5	0.5	0.5	0
Li	1	0.5	0.5	0.5	0
Mg	100	50	50	500	500
Mn	1	0.5	0.5	0.5	0
Mo	1	0.5	0.5	1	0
Ni	1	0.5	0.5	1	0
K	100	50	50	75	0
Se	1	0.5	0.5	1	0
Si	1	0.5	0.5	1	0
Ag	1	0.5	0.5	1	0
Na	100	50	50	75	0
Sr	1	0.5	0.5	0.5	0
Tl	1	0.5	0.5	1	0
Sn	1	0.5	0.5	1	0
Ti	1	0.5	0.5	1	0
U	10	5	5	1	0
V	1	0.5	0.5	0.5	0
Zn	1	0.5	0.5	1	0

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* METALS BY ICP

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/18/07 14:44

End Date: 4/18/07 20:14

Comments:

8c

Book #: AD8-001

Instrument No.: D8

Analytical Batch: 1087013

Analytical Sequence: S6010D07(V11)

Method File: 6010D07(V11)

SOP #	Rev. #
☑ EMAX-6010	5
☐ EMAX-200.7	0
☐ EMAX-	

STANDARDS ID	
S0	SM1B10·71-01
S1	NA
S2	SM1B10·78-01
S3	NA
S4	NA
S5	SM1B10·77-04
S6	NA
ICV	SM1B10·73.01
CCV	10-72-04
ICSA	10-73-03
ICSAB	10-80-02
CRI/MRL	10-84-02
S8	10-78-02

Analyzed By: CMC

Date: 4/18/07

SEQUENCE FILE : ID8D013

4-18	19-33	34-43	44-53	54-63
LFID	LSID	TIME	DATE	DF
ID8D013001	Blank	14:44	04/18/07	1.000
ID8D013002	S2	14:49	04/18/07	1.000
ID8D013003	S5	14:53	04/18/07	1.000
ID8D013004	S8	14:58	04/18/07	1.000
ID8D013005	ICV	15:03	04/18/07	1.000
ID8D013006	ICB	15:07	04/18/07	1.000
ID8D013007	MRL8D12	15:12	04/18/07	1.000
ID8D013008	MRL8D12A	15:16	04/18/07	1.000
ID8D013009	ICSAI	15:21	04/18/07	1.000
ID8D013010	ICSABI	15:26	04/18/07	1.000
ID8D013011	CCV1	15:31	04/18/07	1.000
ID8D013012	CCB1	15:35	04/18/07	1.000
ID8D013013	IPD026WB	15:40	04/18/07	1.000
ID8D013014	IPD026WL	15:45	04/18/07	1.000
ID8D013015	IPD026WC	15:49	04/18/07	1.000
ID8D013016	D156-01A	15:54	04/18/07	1.000
ID8D013017	D156-01	15:58	04/18/07	1.000
ID8D013018	D156-01J	16:03	04/18/07	5.000
ID8D013019	CCV2	16:07	04/18/07	1.000
ID8D013020	CCB2	16:12	04/18/07	1.000
ID8D013021	D157-09M	16:17	04/18/07	1.000
ID8D013022	D157-09S	16:21	04/18/07	1.000
ID8D013023	D157-09A	16:26	04/18/07	1.000
ID8D013024	D157-09	16:31	04/18/07	1.000
ID8D013025	D157-09J	16:36	04/18/07	5.000
ID8D013026	D157-01	16:41	04/18/07	1.000
ID8D013027	D157-02	16:45	04/18/07	1.000
ID8D013028	D157-03	16:50	04/18/07	1.000
ID8D013029	D157-04	16:55	04/18/07	1.000
ID8D013030	D157-05	16:59	04/18/07	1.000
ID8D013031	CCV3	17:04	04/18/07	1.000
ID8D013032	CCB3	17:08	04/18/07	1.000
ID8D013033	D157-06	17:13	04/18/07	1.000
ID8D013034	D157-07	17:18	04/18/07	1.000
ID8D013035	D157-08	17:23	04/18/07	1.000
ID8D013036	D157-10	17:27	04/18/07	1.000
ID8D013037	D157-11	17:32	04/18/07	1.000
ID8D013038	D157-12	17:37	04/18/07	1.000
ID8D013039	D157-13	17:42	04/18/07	1.000
ID8D013040	D480-01	17:47	04/18/07	1.000
ID8D013041	D134-04	17:52	04/18/07	1.000
ID8D013042	D479-01	17:56	04/18/07	1.000
ID8D013043	CCV4	18:01	04/18/07	1.000
ID8D013044	CCB4	18:06	04/18/07	1.000
ID8D013045	D478-01	18:10	04/18/07	1.000
ID8D013046	D164-10	18:16	04/18/07	1.000
ID8D013047	BLANK	18:21	04/18/07	1.000
ID8D013048	CCV5	18:26	04/18/07	1.000
ID8D013049	CCB5	18:30	04/18/07	1.000
ID8D013050	D098-01A	18:37	04/18/07	10.000
ID8D013051	D098-01	18:41	04/18/07	10.000
ID8D013052	D098-01J	18:46	04/18/07	50.000
ID8D013053	D113-03A	18:51	04/18/07	10.000
ID8D013054	D113-03	18:55	04/18/07	10.000
ID8D013055	D113-03J	19:00	04/18/07	50.000

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ID8D013056	D098-01J	19:04	04/18/07	50.000
ID8D013057	ICSAF	19:09	04/18/07	1.000
ID8D013058	ICSABF	19:14	04/18/07	1.000
ID8D013059	CCV6	19:18	04/18/07	1.000
ID8D013060	CCB6	19:24	04/18/07	1.000
ID8D013061	IPD024WB	19:31	04/18/07	1.000
ID8D013062	IPD024WL	19:35	04/18/07	1.000
ID8D013063	IPD024WC	19:40	04/18/07	1.000
ID8D013064	D113-02	19:44	04/18/07	1.000
ID8D013065	D113-03M	19:49	04/18/07	1.000
ID8D013066	D113-03S	19:54	04/18/07	1.000
ID8D013067	D113-03A	19:58	04/18/07	1.000
ID8D013068	D113-03	20:03	04/18/07	1.000
ID8D013069	D113-03J	20:07	04/18/07	5.000
ID8D013070	CCV7	20:12	04/18/07	1.000
ID8D013071	CCB7	20:16	04/18/07	1.000

SDG : 07D164 UNIT : % SUMMARY of ICV and CCV : ID8D013 DATE : 04/18/07 INST : EMAXT

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	93	95	97	96	99	100	95	99	96	96	96	101	96	98	94	98	94	96	97	97	97	96	98	99
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D12A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	98	----	----	----	----	----	----	99	----	----	----	98	----	103	----	----	----	----	----	----	----	----	----	----
ICSABI	95	98	97	100	98	105	98	95	95	96	101	94	93	98	92	103	93	109	99	107	107	95	97	98
CCV1	96	92	97	96	98	100	97	98	95	95	96	99	95	98	92	100	95	94	98	97	95	96	99	98
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	98	95	99	99	100	103	99	101	99	98	98	101	97	101	97	104	97	98	101	101	100	99	104	100
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	93	92	99	97	98	105	96	101	98	95	98	100	94	99	97	101	94	101	101	99	103	97	103	98
CCB3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-13	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D480-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D479-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	95	93	99	96	99	107	97	100	99	95	103	101	94	100	95	101	95	99	101	100	103	96	102	99
CCB4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D478-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	96	94	100	97	100	105	98	100	98	97	105	101	95	100	94	102	96	100	101	100	102	98	102	99
CCB5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	97	----	----	----	----	----	----	94	----	----	----	95	----	99	----	----	----	----	----	----	----	----	----	----
ICSABF	93	99	99	100	99	103	98	95	97	97	108	94	93	97	92	106	94	113	101	109	110	97	100	97
CCV6	96	94	102	98	100	103	98	102	100	97	103	101	95	99	97	104	96	102	103	102	102	100	105	99
CCB6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	97	94	99	97	99	103	98	98	99	97	106	100	96	99	93	103	96	100	101	101	100	99	103	99
CCB7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7929

SDG : D7D164 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : ID8D013 (WATER) DATE : 04/18/07 INST : EMAX1

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-10.9	-.640	.180	.600	.050	-6.63	.000	12.5	-.060	.110	-.440	1.61	.750	-17.1	.200	.120	-.140	106	-.310	-.170	-246	.420	.120	-.760
MRL8D12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D12A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	----	-7.08	-7.98	.310	-.150	22.9	3.32	----	5.05	-.070	2.63	----	-14.5	----	1.47	-.940	-2.04	147	16.1	.470	-43.7	-6.74	-1.37	6.02
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	6.91	.340	-.660	.000	.000	-8.12	.020	2180	-.150	.080	-.120	-1.09	.120	23.6	.800	.270	-.100	76.6	1.41	-.180	-305	.440	-.210	-.710
IPD026WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD026WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D156-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	.360	2.11	-.690	.330	.070	-8.71	.020	-9.16	.120	.070	.130	-1.33	.340	11.8	.270	.130	-.060	106	-.910	-.350	-372	-.870	-.270	.260
D157-09M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB3	1.37	.700	-.740	.220	.030	10.9	.030	6.98	-.170	-.080	-.290	-3.46	-.060	6.55	.100	.170	.040	98.4	1.33	.330	1419	-.480	-.320	2.90
D157-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-13	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D480-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D479-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB4	5.71	.190	-.300	-.260	-.030	13.8	-.020	4.76	-.010	.040	1.41	-1.21	-.070	33.3	-.230	.180	.020	150	2.62	.220	3163	.210	-.360	4.34
D478-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB5	3.21	-.180	-.390	.290	.040	2.47	-.010	12.7	-.040	.110	-.060	1.08	.000	9.90	-.130	.260	.010	212	.480	-.130	2401	-.010	-.010	.710
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	----	-7.54	-9.34	-.110	-.100	23.5	3.39	----	5.05	-.070	3.10	----	-20.9	----	.550	-.920	-1.95	182	14.4	.470	1133	-8.02	-1.00	5.63
ICSABF	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB6	1.72	1.35	.750	.380	-.170	-5.41	-.030	-.890	.020	.120	-.180	-.370	.180	18.3	-.340	.220	.030	73.9	.000	-.010	183	-.360	.090	-.380
IPD024WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD024WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D113-03J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB7	-3.26	2.61	1.19	.630	-.060	-6.56	.040	3.12	.020	.000	-.140	.210	-.090	-7.84	.720	.160	-.190	161	.780	-.180	355	.330	.100	-.300

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

1023

	Pos ID	Type	Samplename	Comment	Data File	Type*	Diln Factor	CorrFact	Check	Check Table	Fail Action
1	1	Unk	S0		ID8D013001			1	☐		Continue
2	2	Unk	S2		ID8D013002			1	☐		Continue
3	3	Unk	S5		ID8D013003			1	☐		Continue
4	4	Unk	S8		ID8D013004			1	☐		Continue
5	5	QC	ICV		ID8D013005			1	☒	ICV	Continue
6	6	QC	ICB		ID8D013006			1	☒	CCB1	Continue
7	7	Unk	MRL8D12		ID8D013007			1	☐		Continue
8	8	Unk	MRL8D12A		ID8D013008			1	☐		Continue
9	9	QC	ICSAI		ID8D013009			1	☒	ICSA	Continue
10	10	QC	ICSABI		ID8D013010			1	☒	ICSAB	Continue
11	11	QC	CCV1		ID8D013011			1	☒	CCV	Continue
12	12	QC	CCB1		ID8D013012			1	☒	CCB1	Continue
13	13	Unk	IPD026WB		ID8D013013			1	☐		Continue
14	14	Unk	IPD026WL		ID8D013014			1	☐		Continue
15	15	Unk	IPD026WC		ID8D013015			1	☐		Continue
16	16	Unk	D156-01A		ID8D013016			1	☐		Continue
17	17	Unk	D156-01		ID8D013017			1	☐		Continue
18	18	Unk	D156-01J		ID8D013018			1	☐		Continue
19	19	QC	CCV2		ID8D013019			1	☒	CCV	Continue
20	20	QC	CCB2		ID8D013020			1	☒	CCB1	Continue
21	21	Unk	D157-09M		ID8D013021			1	☐		Continue
22	22	Unk	D157-09S		ID8D013022			1	☐		Continue
23	23	Unk	D157-09A		ID8D013023			1	☐		Continue
24	24	Unk	D157-09		ID8D013024			1	☐		Continue
25	25	QC	D157-09J		ID8D013025			1	☒	feiec	Continue
26	26	QC	D157-01		ID8D013026			1	☒	feiec	Continue
27	27	Unk	D157-02		ID8D013027			1	☐		Continue
28	28	Unk	D157-03		ID8D013028			1	☐		Continue
29	29	Unk	D157-04		ID8D013029			1	☐		Continue
30	30	Unk	D157-05		ID8D013030			1	☐		Continue
31	31	QC	CCV3		ID8D013031			1	☒	CCV	Continue
32	32	QC	CCB3		ID8D013032			1	☒	CCB1	Continue
33	33	Unk	D157-06		ID8D013033			1	☐		Continue
34	34	Unk	D157-07		ID8D013034			1	☐		Continue
35	35	Unk	D157-08		ID8D013035			1	☐		Continue
36	36	Unk	D157-10		ID8D013036			1	☐		Continue
37	37	Unk	D157-11		ID8D013037			1	☐		Continue
38	38	Unk	D157-12		ID8D013038			1	☐		Continue
39	39	QC	D157-13		ID8D013039			1	☒	feiec	Continue
40	40	QC	D480-01		ID8D013040			1	☒	feiec	Continue
41	41	Unk	D134-04		ID8D013041			1	☐		Continue
42	42	Unk	D479-01		ID8D013042			1	☐		Continue
43	43	QC	CCV4		ID8D013043			1	☒	CCV	Continue
44	44	QC	CCB4		ID8D013044			1	☒	CCB1	Continue
45	45	Unk	D478-01		ID8D013045			1	☐		Continue
46	46	Unk	D164-~~01~~ 10	[illegible] 4/23/07	ID8D013046			1	☐		Continue

00:05

Sequence Sample List (S_6011D07(v11))

04/19/07 09:00:05

7029

	Pos ID	Type	Samplename	Comment	Data File	Type*	Dilln Factor	CorrFact	Check	Check Table	Fail Action
47	47	Unk	BLANK		ID8D013047			1	☐		Continue
48	48	QC	CCV5		ID8D013048			1	☒	CCV	Continue
49	49	QC	CCB5		ID8D013049			1	☒	CCB1	Continue
50	50	Unk	D098-01A	10X	ID8D013050			1	☐		Continue
51	51	Unk	D098-01	10X	ID8D013051			1	☐		Continue
52	52	Unk	D098-01J	50X	ID8D013052			1	☐		Continue
53	53	Unk	D113-03A	10X	ID8D013053			1	☐		Continue
54	54	Unk	D113-03	10X	ID8D013054			1	☐		Continue
55	55	Unk	D113-03J	50X	ID8D013055			1	☐		Continue
56	56	Unk	D098-01J	50X	ID8D013056			1	☐		Continue
57	57	QC	ICSAF		ID8D013057			1	☒	ICSA	Continue
58	58	QC	ICSABF		ID8D013058			1	☒	ICSAB	Continue
59	59	QC	CCV6		ID8D013059			1	☒	CCV	Continue
60	60	QC	CCB6		ID8D013060			1	☒	CCB1	Continue
61	61	QC	IPD024WB		ID8D013061			1	☒	CCB1	Continue
62	62	QC	IPD024WL		ID8D013062			1	☒	LCS	Continue
63	63	QC	IPD024WC		ID8D013063			1	☒	LCS	Continue
64	64	Unk	D113-02		ID8D013064			1	☐		Continue
65	65	Unk	D113-03M		ID8D013065			1	☐		Continue
66	66	Unk	D113-03S		ID8D013066			1	☐		Continue
67	67	Unk	D113-03A		ID8D013067			1	☐		Continue
68	68	Unk	D113-03		ID8D013068			1	☐		Continue
69	69	Unk	D113-03J		ID8D013069			1	☐		Continue
70	70	QC	CCV7		ID8D013070			1	☒	CCV	Continue
71	71	QC	CCB7		ID8D013071			1	☒	CCB1	Continue

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ID8D013 Section 1 of 3

INDX	LSID	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	LSID
1	Blank	.00097	.00003	-.00003	.00023	-.00008	.00145	-.00066	.00021	.00001	-.00069	Blank
2	S2				.59882	.91863	.09440	2.7720		.13018	.78878	S2
3	S5		.00708	.00372								S5
4	S8	.17556							2.0603			S8
5	ICV	4.6640	.47706	.48392	.47812	.49362	.50159	.47684	49.436	.47882	.47989	ICV
6	ICB	-.01087	-.00064	.00018	.00060	.00005	-.00663	.00000	.01247	-.00006	.00011	ICB
7	MRL8D12	.17351	.04800	.03001	.01010	.00387	-.00713	.00519	1.0422	.01026	.00973	MRL8D12
8	MRL8D12A	.18317	.05053	.03170	.01099	.00424	-.00684	.00540	1.1024	.01103	.01029	MRL8D12A
9	ICSAI	487.69	-.00708	-.00798	.00031	-.00015	.02294	.00332	496.98	.00505	-.00007	ICSAI
10	ICSABI	473.29	.98498	.97374	.50239	.49147	.52545	.98094	472.68	.47691	.48097	ICSABI
11	CCV1	4.7779	.46247	.48371	.47843	.48803	.49978	.48394	48.910	.47720	.47726	CCV1
12	CCB1	.00691	.00034	-.00066	.00000	.00000	-.00812	.00002	2.1796*	-.00015	.00008	CCB1
13	IPD026WB	-.00298	-.00086	-.00008	.00085	-.00001	-.00859	.00003	.01204	.00005	.00006	IPD026WB
14	IPD026WL	9.9667	4.9659	1.0559	.95817	1.0536	1.0729	.99480	51.781	1.0154	.98948	IPD026WL
15	IPD026WC	9.7913	4.9459	1.0171	.92766	1.0204	1.0606	.97479	50.990	.98282	.96921	IPD026WC
16	D156-01A	9.7147	4.8370	1.0117	.96211	.99809	1.4142	.95298	148.25	.95692	.95302	D156-01A
17	D156-01	.03303	.01005	.00023	.05009	-.00008	.36780	.00003	110.24	.00086	.00185	D156-01
18	D156-01J	.00114	.00475	.00084	.00965	-.00020	.05924	.00002	21.150	.00033	.00053	D156-01J
19	CCV2	4.8848	.47309	.49671	.49590	.50158	.51450	.49605	50.375	.49719	.48917	CCV2
20	CCB2	.00036	.00211	-.00069	.00033	.00007	-.00871	.00002	-.00916	.00012	.00007	CCB2
21	D157-09M	11.104	5.4807	1.1789	1.0087	.99874	42.071	1.0001	485.22	1.0943	1.0088	D157-09M
22	D157-09S	11.029	5.4660	1.1807	1.0035	.99314	41.764	.99386	481.03	1.0934	1.0016	D157-09S
23	D157-09A	10.768	5.1712	1.1174	.96566	.94988	41.074	.96517	465.68	1.0518	.97070	D157-09A
24	D157-09	-.01332	.00078	.00746	.01385	-.00434	41.347	.00001	427.27	.12415	-.00122	D157-09
25	D157-09J	.00376	.00329	.00123*	.00317*	-.00078	8.7002*	-.00002	92.811	.02669	-.00048	D157-09J
26	D157-01	.00218	.00128	.00344*	.12548*	-.00004	.89478*	.00004	162.38	.01220	.00004	D157-01
27	D157-02	.00115	-.00049	.00315	.01059	-.00059	5.4617	.00002	542.25	.00722	.00004	D157-02
28	D157-03	.00981	-.00014	.00161	.01316	-.00087	6.7743	.00004	514.95	.01843	-.00043	D157-03
29	D157-04	.01312	.00058	.00240	.01386	-.00073	6.9803	.00009	519.83	.01924	-.00045	D157-04
30	D157-05	-.00064	.00019	.00314	.01638	-.00037	3.4811	.00002	607.10	.02704	-.00007	D157-05
31	CCV3	4.6658	.46217	.49437	.48601	.49063	.52647	.48059	50.431	.48994	.47523	CCV3
32	CCB3	.00137	.00070	-.00074	.00022	.00003	.01094	.00003	.00698	-.00017	-.00008	CCB3
33	D157-06	.00330	-.00208	.00180	.01698	-.00050	3.5464	.00004	602.58	.02756	-.00045	D157-06
34	D157-07	.00667	-.00364	.00414	.01513	-.00313	30.156	.00009	485.83	.15165	-.00014	D157-07
35	D157-08	-.00341	-.00382	.00357	.01335	-.00219	20.265	.00002	462.61	.09600	-.00081	D157-08
36	D157-10	.20197	-.00580	.00612	.01507	-.00429	40.688	.00007	416.92	.05507	-.00143	D157-10
37	D157-11	.03284	-.00628	.00759	.01460	-.00576	56.748	-.00005	443.63	.23328	-.00110	D157-11
38	D157-12	.00603	-.00262	.00222	.01600	-.00134	12.331	-.00003	592.13	.09787	-.00037	D157-12
39	D157-13	.00267	-.00400	.00170*	.01518*	-.00164	14.500*	-.00002	541.72	.06005	-.00083	D157-13
40	D480-01	.07922	.00578	.00314*	.08397*	-.00015	.22671*	.00082	61.152	.01450	.01830*	D480-01
41	D134-04	.00581	.00020	.00092	.00014	.00007	.02651	.00002	.04029	.00039	-.00002	D134-04
42	D479-01	.02955	.01233	.00251	.07536	-.00011	.22668	.00172	61.443	.00470	.04125	D479-01
43	CCV4	4.7552	.46599	.49680	.48030	.49316	.53270	.48345	49.825	.49342	.47707	CCV4
44	CCB4	.00571	.00019	-.00030	-.00026	-.00003	.01378	-.00002	.00476	-.00001	.00004	CCB4
45	D478-01	.05511	.00296	-.00011	.00675	-.00065	5.4751	-.00006	411.99	.00234	-.00037	D478-01
46	D164-10	.00636	-.00117	-.00053	.00077	-.00006	.02391	.00000	.05216	.00006	.00004	D164-10
47	BLANK	.00681	.00057	.00000	-.00016	-.00004	.00798	.00000	.00433	-.00004	.00016	BLANK
48	CCV5	4.8128	.46970	.49785	.48444	.49779	.52261	.48845	49.973	.48970	.48325	CCV5
49	CCB5	.00321	-.00018	-.00039	.00029	.00004	.00247	-.00001	.01267	-.00004	.00011	CCB5
50	D098-01A	9.6424	4.7967	1.0310	.92588	1.0210	1.0762	.96340	56.249	.98867	.96844	D098-01A
51	D098-01	.00602	.00446	.00586	.00301	.00004	.04815	-.00004	6.1415	-.00002	.00123	D098-01
52	D098-01J	-.00242	.00174	-.00061	.00084	.00004	-.00132	.00002	.00098	.00013	.00029	D098-01J
53	D113-03A	9.5967	4.8312	1.0195	.92590	1.0245	1.1018	.96476	54.260	.99066	.97085	D113-03A
54	D113-03	.00233	.00380	.00128	.00180	-.00012	.05302	-.00001	3.6220	.00005	.00048	D113-03
55	D113-03J	.00324	.00156	.00047	.00065	-.00013	.00790	.00001	1.0677	-.00007	.00000	D113-03J

56	D098-01J	.00429	.00054	.00126	.00079	-.00021	.00434	-.00005	1.0830	.00005	.00011	D098-01J
57	ICSAF	484.07	-.00754	-.00934	-.00011	-.00010	.02350	.00339	470.19	.00505	-.00007	ICSAF
58	ICSABF	467.18	.98852	.99292	.49905	.49495	.51660	.97683	472.76	.48475	.48424	ICSABF
59	CCV6	4.7780	.47056	.50756	.49052	.50242	.51693	.48856	50.921	.49970	.48527	CCV6
60	CCB6	.00172	.00135	.00075	.00038	-.00017	-.00541	-.00003	-.00089	.00002	.00012	CCB6
61	IPD024WB	-.00199	.00009	.00199	.00013	-.00019	-.00556	-.00003	-.01267	-.00017	-.00013	IPD024WB
62	IPD024WL	9.4585	4.8525	.97937	.92969	1.0268	.99056	.98048	50.291	.98922	.99501	IPD024WL
63	IPD024WC	9.4938	4.8192	1.0048	.95159	1.0493	.98183	.99389	50.663	1.0154	1.0131	IPD024WC
64	D113-02	.06425	.00225	.00084	.02192	.00118	.19883	.00042	23.563	.00052	.00668	D113-02
65	D113-03M	10.480	5.0629	1.1092	.97961	1.0579	1.6817	1.0052	84.842	1.0202	1.0153	D113-03M
66	D113-03S	10.645	5.1604	1.1176	.98765	1.0688	1.7093	1.0197	85.839	1.0199	1.0275	D113-03S
67	D113-03A	10.208	4.9548	1.0638	.93675	1.0138	1.5412	.97488	75.894	.97575	.98053	D113-03A
68	D113-03	.01195	.00882	.00044	.01078	.00004	.47518	.00022	28.485	.00039	.00321	D113-03
69	D113-03J	-.00265	.00512	.00028	.00280	-.00008	.08332	.00000	5.5616	-.00009	.00072	D113-03J
70	CCV7	4.8664	.47221	.49543	.48549	.49540	.51483	.48942	49.197	.49336	.48369	CCV7
71	CCB7	-.00326	.00261	.00119	.00063	-.00006	-.00656	.00004	.00312	.00002	.00000	CCB7
INDX	LSID	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	LSID

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ID8B013 Section 2 of 3

INDX	LSID	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	LSID
1	Blank	.01529	.00001	.00007	-.00003	-.00003	.00002	-.00089	-.00120	.00002	.00015	Blank
2	S2	2.8020		.19597		.09843		.70271			.16188	S2
3	S5						.61539			.00367		S5
4	S8		.06337		.26927				1.5614			S8
5	ICV	.48099	5.0342	.48241	49.075	.47065	.48817	.47193	47.759	.48490	.48544	ICV
6	ICB	-.00044	.00161	.00075	-.01714	.00020	.00012	-.00014	.10638*	-.00031	-.00017	ICB
7	MRL8D12	.00971	.03207	.02471	.94692	.00966	.04650	.01966	1.0744	.02916	.00978	MRL8D12
8	MRL8D12A	.01005	.03544	.02555	1.0415	.01107	.04873	.02052	1.0977	.03111	.01058	MRL8D12A
9	ICSAI	.00263	196.57	-.01445	514.61	.00147	-.00094	-.00204	.14690	.01613	.00047	ICSAI
10	ICSABI	.50649	188.14	.93494	489.69	.46208	1.0322	.93396	81.541	.98853	1.0708	ICSABI
11	CCV1	.48099	4.9393	.47344	49.208	.45826	.49963	.47417	46.938	.49134	.48741	CCV1
12	CCB1	-.00012	-.00109	.00012	.02362	.00080	.00027	-.00010	.07664	.00141	-.00018	CCB1
13	IPD026WB	-.00021	.00155	-.00002	-.00838	.00103	.00015	.00005	.03885	-.00009	.00010	IPD026WB
14	IPD026WL	1.0118	10.633	.98906	51.147	.99985	.98995	.97734	51.112	1.0925	1.0600	IPD026WL
15	IPD026WC	.98928	10.339	.96987	51.416	.94479	.97765	.95383	50.419	1.0440	1.1163	IPD026WC
16	D156-01A	.96828	10.068	.94358	67.035	1.1058	.98608	.93381	55.390	1.0165	1.0064	D156-01A
17	D156-01	.00131	.00849	-.00009	20.080	.19365	.01719	.00398	5.9409	-.00049	-.00028	D156-01
18	D156-01J	-.00023	.00275	.00022	3.9149	.03658	.00320	.00091	1.1039	-.00053	-.00030	D156-01J
19	CCV2	.49163	5.0563	.48507	50.494	.48264	.51757	.48537	49.235	.50651	.50516	CCV2
20	CCB2	.00013	-.00133	.00034	.01178	.00027	.00013	-.00006	.10581*	-.00091	-.00035	CCB2
21	D157-09M	.99722	10.177	.96425	468.68	.97785	1.6291	.98799	87.620	1.4667	1.0470	D157-09M
22	D157-09S	.98860	10.088	.95593	464.10	.97073	1.6252	.98069	87.808	1.4748	.98953	D157-09S
23	D157-09A	.96964	9.6187	.92888	452.58	.92062	1.5852	.94883	84.532	1.4011	1.1594	D157-09A
24	D157-09	.00336	-.04321	-.00201	417.15	-.00184	.58602	.00138	10.956	.16418	.00228	D157-09
25	D157-09J	.00099	-.02731	.00028	87.805	-.00061	.12112	-.00022	2.2033	.02871*	.00493	D157-09J
26	D157-01	.00085	-.00308	-.00048	36.466	.00087	.02021	.00103	3.2458	.00201*	.00252	D157-01
27	D157-02	.00046	-.01532	-.00278	52.056	.00047	.10360	.00183	1.8368	.00000	.00043	D157-02
28	D157-03	.00103	-.00781	-.00255	59.496	.00019	.09767	.00162	2.5926	.00969	.00093	D157-03
29	D157-04	.00102	-.00712	-.00289	60.132	.00063	.09937	.00161	2.7215	.00918	.00095	D157-04
30	D157-05	.00218	-.01520	-.00307	62.786	.00039	.11486	.00106	3.1957	-.00023	-.00006	D157-05
31	CCV3	.48922	5.0055	.46816	49.420	.48370	.50533	.47193	50.297	.50456	.49572	CCV3
32	CCB3	-.00029	-.00346	-.00006	.00655	.00010	.00017	.00004	.09838	.00133	.00033	CCB3
33	D157-06	.00240	-.00832	-.00365	64.071	.00081	.11649	.00101	3.2203	.00150	-.00023	D157-06
34	D157-07	.00443	-.02649	-.00242	595.16	.00018	.36173	.00151	8.6808	.16586	-.00040	D157-07
35	D157-08	.00071	-.03963	-.00241	389.90	-.00159	.40662	.00063	6.1415	.09251	-.00006	D157-08
36	D157-10	.00192	-.03481	-.00235	155.16	-.00044	.51781	.00179	5.3902	.03624	-.00027	D157-10
37	D157-11	.00345	.00909	-.00220	1418.3	-.00496	.67911	.00428	20.105	.33800	-.00012	D157-11
38	D157-12	.00137	-.04699	-.00322	301.86	-.00045	.27257	.00039	4.5776	.07908	-.00051	D157-12
39	D157-13	.00207	-.02276	-.00297*	110.66	.00049	.27981	.00099	2.6421	.03317*	-.00023	D157-13
40	D480-01	53.829	1.3676	12.033*	27.484	.59111	.00140	29.832	6.9625	-.00067	.00126	D480-01
41	D134-04	.00054	.00311	.00088	-.00637	-.00014	.00018	.00015	.08972	.00126	.00027	D134-04
42	D479-01	36.850	.39135	5.4010	31.395	1.2445	.00064	64.423	8.6796	-.00048	.00203	D479-01
43	CCV4	.51516	5.0312	.47235	49.795	.47306	.50366	.47439	49.697	.50578	.49863	CCV4
44	CCB4	.00141	-.00121	-.00007	.03333	-.00023	.00018	.00002	.14992*	.00262	.00022	CCB4
45	D478-01	.16046	.00608	-.00418	1332.6	-.00034	.01145	.04164	567.48	.00253	-.00030	D478-01
46	D164-10	.00002	.01731	.00012	-.00498	.00070	.00004	.00285	.59394	.00087	-.00029	D164-10
47	BLANK	.00036	-.00260	.00065	-.03536	-.00093	.00000	-.00007	.36013	.00121	-.00022	BLANK
48	CCV5	.52364	5.0286	.47739	49.861	.47250	.51233	.47978	50.030	.50610	.50085	CCV5
49	CCB5	-.00006	.00108	.00000	.00990	-.00013	.00026	.00001	.21177*	.00048	-.00013	CCB5
50	D098-01A	1.0475	10.657	.95552	55.790	1.0205	.98857	.95282	52.946	1.0185	1.0068	D098-01A
51	D098-01	.00037	.49405	.00041	8.3711	.06751	.00012	.00156	.74648	.00196	.00019	D098-01
52	D098-01J	.00026	-.00102	.00010	-.00891	-.00099	.00015	.00001	.09443	.00146	.00012	D098-01J
53	D113-03A	1.0574	10.282	.95514	54.624	.98280	.99764	.95218	53.343	1.0156	1.0143	D113-03A
54	D113-03	.00016	-.00172	.00035	5.3225	.00925	.00027	.00131	.64945	.00000	-.00009	D113-03
55	D113-03J	-.00003	.00271	.00054	1.1145	.00075	.00012	.00051	.13238	.00007	-.00009	D113-03J

INDX	LSID	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	LSID
56	D098-01J	.00055	.08411	.00052	1.4182	.01124	.00006	.00034	.15539	.00069	.00003	D098-01J
57	ICSAF	.00310	190.03	-.02093	496.76	.00055	-.00092	-.00195	.18151	.01440	.00047	ICSAF
58	ICSABF	.53868	188.64	.93080	487.02	.46137	1.0591	.93757	84.983	1.0065	1.0934	ICSABF
59	CCV6	.51700	5.0569	.47663	49.701	.48638	.52161	.48227	51.154	.51644	.50880	CCV6
60	CCB6	-.00018	-.00037	.00018	.01829	-.00034	.00022	.00003	.07390	.00000	-.00001	CCB6
61	IPD024WB	-.00002	-.00302	.00025	-.03317	-.00055	.00018	-.00009	.07548	.00091	-.00029	IPD024WB
62	IPD024WL	1.0947	10.190	.97467	49.749	.94835	1.0422	.97388	49.880	.95106	.99523	IPD024WL
63	IPD024WC	1.1000	10.427	.98768	49.037	.99102	1.0479	.99188	50.368	.97707	1.0171	IPD024WC
64	D113-02	.00238	.00337	.00076	39.629	.09541	.00052	.01996	5.1963	.00583	-.00023	D113-02
65	D113-03M	1.0862	10.574	.98414	101.36	1.0786	1.0206	1.0029	68.134	1.1137	1.1057	D113-03M
66	D113-03S	1.1131	10.666	.99919	102.96	1.0811	1.0354	1.0160	68.807	1.1219	1.1075	D113-03S
67	D113-03A	1.0611	10.234	.95789	89.936	1.0084	.99247	.96804	64.356	1.0798	.99513	D113-03A
68	D113-03	.00091	.00412	.00049	42.556	.06691	.00042	.01184	5.2927	.00508	.00003	D113-03
69	D113-03J	.00053	-.00139	.00062	8.2254	.01357	.00017	.00236	1.0529	.00107	.00006	D113-03J
70	CCV7	.52952	4.9770	.47770	49.435	.46343	.51588	.47918	49.817	.50746	.50389	CCV7
71	CCB7	-.00014	.00021	-.00009	-.00784	.00072	.00016	-.00019	.16098*	.00078	-.00018	CCB7

ID8D013 Section 2 of 3

INDX	LSID	Na	Tl	V	Zn	LSID
1	Blank	.03146	-.00065	-.00036	.00221	Blank
2	S2		.11125	.10006		S2
3	S5				.87380	S5
4	S8	3.8005				S8
5	ICV	48.359	.47979	.49050	.49264	ICV
6	ICB	-.24614*	.00042	.00012	-.00076	ICB
7	MRL8D12	.66392	.05933	.00946	.02291	MRL8D12
8	MRL8D12A	.68051	.06138	.00998	.02111	MRL8D12A
9	ICSAI	-.04369	-.00674	-.00137	.00602	ICSAI
10	ICSABI	80.433	.94749	.48461	.98030	ICSABI
11	CCV1	47.402	.48084	.49322	.49044	CCV1
12	CCB1	-.30467*	.00044	-.00021	-.00071	CCB1
13	IPD026WB	-.42716	-.00089	.00014	.00680	IPD026WB
14	IPD026WL	51.112	1.0255	1.0471	1.0251	IPD026WL
15	IPD026WC	50.479	.99408	1.0011	1.0054	IPD026WC
16	D156-01A	122.43	.96863	.98765	.97801	D156-01A
17	D156-01	79.481	-.00012	.00178	.00763	D156-01
18	D156-01J	14.332	-.00034	.00040	.00305	D156-01J
19	CCV2	49.789	.49555	.51843	.50198	CCV2
20	CCB2	-.37200*	-.00087	-.00027	.00026	CCB2
21	D157-09M	2835.7	.93405	1.0626	1.0872	D157-09M
22	D157-09S	2532.1	.93327	1.0658	1.0652	D157-09S
23	D157-09A	2489.6	.90627	1.0142	1.0333	D157-09A
24	D157-09	2466.9	-.00149	-.00082	.00651	D157-09
25	D157-09J	878.06	-.00125	-.00055	.00144	D157-09J
26	D157-01	81.762	.00001	.00299	.00262	D157-01
27	D157-02	277.18	-.00057	.00204	.00180	D157-02
28	D157-03	569.41	.00067	.00186	.00351	D157-03
29	D157-04	571.52	-.00055	.00191	.00579	D157-04
30	D157-05	245.94	-.00129	.00068	.00448	D157-05
31	CCV3	51.446	.48374	.51438	.48876	CCV3
32	CCB3	1.4194*	-.00048	-.00032	.00290	CCB3
33	D157-06	252.26	-.00152	.00041	.00326	D157-06
34	D157-07	2709.9	-.00153	.00073	.03898	D157-07
35	D157-08	2004.3	-.00150	-.00014	.00259	D157-08
36	D157-10	2139.9	.00007	-.00052	.00570	D157-10
37	D157-11	3305.6	-.00165	-.00102	.01996	D157-11
38	D157-12	1741.5	-.00263	-.00139	.00383	D157-12
39	D157-13	647.07	-.00034	-.00061	.00646	D157-13
40	D480-01	214.46	-.00101	.00570	1.1820	D480-01
41	D134-04	3.3053	-.00037	-.00060	.00215	D134-04
42	D479-01	365.93	-.00021	.00195	2.5946	D479-01
43	CCV4	51.280	.48235	.51028	.49582	CCV4
44	CCB4	3.1629*	.00021	-.00036	.00434	CCB4
45	D478-01	3514.6	-.00175	.00056	.03438	D478-01
46	D164-10	2.4451	.00010	-.00003	.00243	D164-10
47	BLANK	4.4802	-.00092	-.00024	.00082	BLANK
48	CCV5	51.133	.49050	.51199	.49616	CCV5
49	CCB5	2.4009*	-.00001	-.00001	.00071	CCB5
50	D098-01A	130.54	.99128	1.0279	.99556	D098-01A
51	D098-01	96.941	-.00051	.00020	.00187	D098-01
52	D098-01J	1.3587	.00029	.00014	-.00007	D098-01J
53	D113-03A	128.55	.99076	1.0268	1.0557	D113-03A
54	D113-03	79.054	-.00013	.00026	.06765	D113-03
55	D113-03J	16.248	-.00078	-.00013	.01381	D113-03J

56	D098-01J	16.980	-.00123	-.00036	.00080	D098-01J
57	ICSAF	1.1328	-.00802	-.00100	.00563	ICSAF
58	ICSABF	82.781	.96738	.49892	.97251	ICSABF
59	CCV6	51.228	.49835	.52701	.49502	CCV6
60	CCB6	.18279*	-.00036	.00009	-.00038	CCB6
61	IPD024WB	.07825	-.00067	.00014	-.00093	IPD024WB
62	IPD024WL	50.551	1.0090	1.0202	.99818	IPD024WL
63	IPD024WC	50.929	1.0275	1.0608	1.0179	IPD024WC
64	D113-02	344.39	.00085	.00136	.00697	D113-02
65	D113-03M	732.70	.98902	1.0805	1.7122	D113-03M
66	D113-03S	730.32	.98916	1.0755	1.7407	D113-03S
67	D113-03A	605.86	.96901	1.0177	1.5545	D113-03A
68	D113-03	573.51	.00062	.00024	.57372	D113-03
69	D113-03J	119.58	.00008	.00013	.10840	D113-03J
70	CCV7	50.101	.49566	.51406	.49333	CCV7
71	CCB7	.35487*	.00033	.00010	-.00030	CCB7
INDX	LSID	Na	Tl	V	Zn	LSID

ID8D013 Section 3 of 3

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* METALS BY ICP

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/19/07 11:44

End Date: 4/19/07 18:02

Comments:

dlc

Book #: AD8-001

Instrument No.: D8

Analytical Batch: 1D8D014

Analytical Sequence: E-6010D07 (V12)

Method File: 6010D07 (V12)

SOP #	Rev. #
☑ EMAX-6010	5
☐ EMAX-200.7	0
☐ EMAX-	

STANDARDS ID	
S0	SMIB10-71-01
S1	NA
S2	SMIB10-78-01
S3	NA
S4	NA
S5	SMIB10-77-04
S6	NA
ICV	SMIB10-73-01
CCV	10-72-04
ICSA	10-73-03
ICSAB	10-80-02
CRI/MRL	10-84-02
S8	10-78-02

Analyzed By: CJC

Date: 4/19/07

7037

SEQUENCE FILE : ID8D014

4-18 LFID	19-33 LSID	34-43 TIME	44-53 DATE	54-63 DF
ID8D014001	Blank	11:44	04/19/07	1.000
ID8D014002	S2	11:49	04/19/07	1.000
ID8D014003	S5	11:53	04/19/07	1.000
ID8D014004	S8	11:58	04/19/07	1.000
ID8D014005	ICV	12:03	04/19/07	1.000
ID8D014006	ICB	12:07	04/19/07	1.000
ID8D014007	MRL8D14	12:12	04/19/07	1.000
ID8D014008	MRL8D14A	12:17	04/19/07	1.000
ID8D014009	ICSAI	12:21	04/19/07	1.000
ID8D014010	ICSABI	12:26	04/19/07	1.000
ID8D014011	CCV1	12:31	04/19/07	1.000
ID8D014012	CCB1	12:35	04/19/07	1.000
ID8D014013	IPD029SB	12:40	04/19/07	1.000
ID8D014014	IPD029SL	12:45	04/19/07	1.000
ID8D014015	IPD029SC	12:49	04/19/07	1.000
ID8D014016	D098-01A	12:54	04/19/07	20.000
ID8D014017	D098-01	12:58	04/19/07	20.000
ID8D014018	D098-01J	13:03	04/19/07	100.000
ID8D014019	BLANK	13:07	04/19/07	1.000
ID8D014020	ICSAF	13:12	04/19/07	1.000
ID8D014021	ICSABF	13:17	04/19/07	1.000
ID8D014022	CCV2	13:22	04/19/07	1.000
ID8D014023	CCB2	13:26	04/19/07	1.000
ID8D014024	D173-05M	13:31	04/19/07	1.000
ID8D014025	D173-05S	13:35	04/19/07	1.000
ID8D014026	D173-05A	13:40	04/19/07	1.000
ID8D014027	D173-05	13:44	04/19/07	1.000
ID8D014028	D173-05J	13:49	04/19/07	5.000
ID8D014029	D173-01	13:54	04/19/07	1.000
ID8D014030	D173-02	13:59	04/19/07	1.000
ID8D014031	D173-03	14:04	04/19/07	1.000
ID8D014032	D173-04	14:08	04/19/07	1.000
ID8D014033	BLANK	14:13	04/19/07	1.000
ID8D014034	CCV3	14:18	04/19/07	1.000
ID8D014035	CCB3	14:22	04/19/07	1.000
ID8D014036	D173-06	14:27	04/19/07	10.000
ID8D014037	D173-07	14:32	04/19/07	1.000
ID8D014038	D173-08	14:36	04/19/07	10.000
ID8D014039	D134-01	14:41	04/19/07	1.000
ID8D014040	D134-02	14:46	04/19/07	1.000
ID8D014041	D134-03	14:51	04/19/07	1.000
ID8D014042	D164-01	14:55	04/19/07	1.000
ID8D014043	D164-02	15:00	04/19/07	1.000
ID8D014044	D164-03	15:04	04/19/07	1.000
ID8D014045	D164-04	15:09	04/19/07	1.000
ID8D014046	CCV4	15:14	04/19/07	1.000
ID8D014047	CCB4	15:18	04/19/07	1.000
ID8D014048	D164-05	15:23	04/19/07	1.000
ID8D014049	D164-06	15:28	04/19/07	1.000
ID8D014050	D164-07	15:32	04/19/07	1.000
ID8D014051	D164-08	15:37	04/19/07	1.000
ID8D014052	D164-09	15:41	04/19/07	1.000
ID8D014053	D157-09A	15:46	04/19/07	10.000
ID8D014054	D157-09	15:50	04/19/07	10.000
ID8D014055	D157-09J	15:55	04/19/07	50.000

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ID8D014056	D157-07	16:00	04/19/07	10.000
ID8D014057	D157-08	16:04	04/19/07	10.000
ID8D014058	CCV5	16:09	04/19/07	1.000
ID8D014059	CCB5	16:14	04/19/07	1.000
ID8D014060	D157-10	16:18	04/19/07	10.000
ID8D014061	D157-11	16:23	04/19/07	10.000
ID8D014062	CCV6	16:28	04/19/07	1.000
ID8D014063	CCB6	16:32	04/19/07	1.000
ID8D014064	D173-05A	16:38	04/19/07	10.000
ID8D014065	D173-05	16:42	04/19/07	10.000
ID8D014066	D173-05J	16:47	04/19/07	50.000
ID8D014067	CCV7	16:52	04/19/07	1.000
ID8D014068	CCB7	16:56	04/19/07	1.000
ID8D014069	D173-05M	17:01	04/19/07	10.000
ID8D014070	D173-05S	17:06	04/19/07	10.000
ID8D014071	D173-06	17:10	04/19/07	1.000
ID8D014072	D173-08	17:15	04/19/07	1.000
ID8D014073	D157-12	17:20	04/19/07	10.000
ID8D014074	BLANK	17:25	04/19/07	1.000
ID8D014075	D173-03	17:30	04/19/07	10.000
ID8D014076	CCV8	17:34	04/19/07	1.000
ID8D014077	CCB8	17:44	04/19/07	1.000
ID8D014078	BLANK	17:48	04/19/07	1.000
ID8D014079	D157-11	17:53	04/19/07	50.000
ID8D014080	CCV9	17:58	04/19/07	1.000
ID8D014081	CCB9	18:02	04/19/07	1.000

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SDG : 070164 UNIT : % SUMMARY of ICV and CCV : ID8D014 DATE : 04/19/07 INST : EM

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	92	97	98	95	98	101	95	99	95	96	95	99	96	98	95	97	94	96	98	97	98	95	97	98
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D14A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	94	----	----	----	----	----	----	96	----	----	----	95	----	100	----	----	----	----	----	----	----	----	----	----
ICSABI	91	99	99	101	98	104	98	94	93	97	100	91	94	98	93	103	94	109	101	105	107	96	95	98
CCV1	94	95	101	100	101	104	99	100	96	99	96	97	96	101	98	101	97	98	105	98	99	100	102	100
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	95	----	----	----	----	----	----	97	----	----	----	96	----	101	----	----	----	----	----	----	----	----	----	----
ICSABF	95	100	101	103	100	105	100	97	95	99	104	96	95	100	94	106	96	113	102	107	111	97	98	100
CCV2	96	95	100	99	100	102	99	102	97	99	101	100	97	102	97	103	98	99	103	99	99	99	101	102
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	96	96	101	101	102	105	99	101	96	99	99	99	97	102	98	103	98	100	105	99	102	101	103	101
CCB3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	95	94	99	98	99	102	98	100	95	97	100	99	95	100	96	102	97	100	101	98	101	98	101	99
CCB4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	96	95	101	101	101	105	99	100	95	99	101	99	96	100	98	102	98	102	104	97	103	101	104	100	
CCB5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	96	95	102	102	102	107	99	100	95	99	101	98	96	101	98	102	98	103	105	97	104	102	105	99	
CCB6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	96	94	100	98	99	102	97	100	95	97	102	100	95	99	95	101	96	101	102	97	102	98	103	100	
CCB7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV8	96	94	101	100	100	104	98	100	94	98	101	98	96	100	97	101	97	102	103	96	103	101	104	99	
CCB8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV9	94	93	99	99	100	102	97	99	94	98	101	96	95	100	96	101	96	101	102	97	102	100	100	99	
CCB9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

1102

SDG : 07D164 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : ID8D014 (SOIL) DATE : 04/19/07 INST : EMA

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-1.31	1.20	-.250	-.340	-.250	-2.58	-.030	.620	.080	-.120	-.230	3.02	-.240	-59.0	-.050	.090	-.060	38.9	1.44	-.080	1.67	.620	-.540	-.180
MRL8D14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D14A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	----	-7.21	4.91	.100	-.260	22.8	2.97	----	4.86	-.030	2.66	----	-17.1	----	2.03	-2.42	-3.57	-35.7	15.8	.680	375	-4.48	-1.48	6.79
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	1.93	1.09	-.350	-.490	-.080	-4.16	-.050	-3.20	.130	-.100	-.370	-1.28	.150	1.73	-1.12	.040	.200	25.5	1.58	-.130	-35.5	.970	-.390	-1.04
IPD029SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD029SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D098-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAF	----	-7.53	6.99	-.310	-.020	24.5	3.00	----	4.89	-.160	2.37	----	-14.6	----	.360	-2.18	-3.73	-57.5	15.2	.350	178	-4.52	-1.49	5.85
ICSABF	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	-1.99	.460	.510	-.540	-.140	-3.70	-.030	8.98	.170	-.020	.170	7.08	.190	-13.9	-.040	.220	.100	43.7	1.55	.160	-77.8	.150	-.530	1.48
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB3	7.43	.300	.360	-.020	-.210	-1.94	-.060	.970	.320	-.040	.090	4.92	-.570	-34.9	.470	.080	.100	-101	.680	.020	-152	.510	-.040	.140
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D134-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB4	1.70	1.02	1.45	.080	-.230	-3.83	-.060	-11.9	.050	-.070	-.290	6.24	.000	-62.2	.280	-.060	-.100	57.0	2.07	.010	-294	-.370	-.130	-1.20
D164-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D164-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-09J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

D157-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB5	3.68	.610	.650	-.290	-.280	.090	-.040	-5.10	.210	-.120	.110	5.47	-.050	-20.0	.570	.020	-.090	50.4	2.00	-.250	-46.7	-.050	-.320	-1.04
D157-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB6	26.4	.670	-.460	-.460	-.250	2.80	-.010	-.700	.070	-.250	.080	5.60	.030	-39.2	-.650	.190	.010	79.8	1.15	.070	211	.750	-.260	20.0
D173-05A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB7	1.63	1.80	-.650	.120	-.270	-1.58	-.040	-1.43	.220	-.100	.040	3.13	-.140	-52.6	-1.43	.030	.140	145	1.91	.010	-204	.400	-.470	-.950
D173-05M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-05S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D173-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB8	4.37	.240	-1.37	-.460	-.270	.160	-.030	-7.57	.230	-.050	.110	3.86	.090	-39.9	-1.18	-.080	.050	6.78	-.150	-.290	-277	.220	.060	.800
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D157-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB9	3.74	1.14	-.090	.100	-.300	-2.08	-.060	1.47	.130	-.100	.070	2.35	-.460	-7.08	1.18	.250	.520	54.5	1.16	-.110	-209	.540	-.260	5.06

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

5h9Z

	Pos ID	Type	Samplename	Comment	Data File	Type*	Dilln Factor	CorrFact	Check	Check Table	Fail Action
1	1	Unk	S2		ID8D014001			1	☐		Continue
2	2	Unk	S5		ID8D014002			1	☐		Continue
3	3	Unk	S8		ID8D014003			1	☐		Continue
4	4	Unk	S9		ID8D014004			1	☐		Continue
5	5	QC	ICV		ID8D014005			1	☒	ICV	Continue
6	6	QC	ICB		ID8D014006			1	☒	CCB1	Continue
7	7	Unk	MRL8D14		ID8D014007			1	☐		Continue
8	8	Unk	MRL8D14A		ID8D014008			1	☐		Continue
9	9	QC	ICSAI		ID8D014009			1	☒	ICSA	Continue
10	10	QC	ICSABI		ID8D014010			1	☒	ICSAB	Continue
11	11	QC	CCV1		ID8D014011			1	☒	CCV	Continue
12	12	QC	CCB1		ID8D014012			1	☒	CCB1	Continue
13	13	QC	IPD029SB		ID8D014013			1	☒	CCB1	Continue
14	14	QC	IPD029SL		ID8D014014			1	☒	LCS	Continue
15	15	QC	IPD029SC		ID8D014015			1	☒	LCS	Continue
16	16	Unk	D098-01A	20X	ID8D014016			1	☐		Continue
17	17	Unk	D098-01	20X	ID8D014017			1	☐		Continue
18	18	Unk	D098-01J	100X	ID8D014018			1	☐		Continue
19	19	Unk	BLANK		ID8D014019			1	☐		Continue
20	20	QC	ICSAF		ID8D014020			1	☒	ICSA	Continue
21	21	QC	ICSABF		ID8D014021			1	☒	ICSAB	Continue
22	22	QC	CCV2		ID8D014022			1	☒	CCV	Continue
23	23	QC	CCB2		ID8D014023			1	☒	CCB1	Continue
24	24	Unk	D173-05M		ID8D014024			1	☐		Continue
25	25	Unk	D173-05S		ID8D014025			1	☐		Continue
26	26	Unk	D173-05A		ID8D014026			1	☐		Continue
27	27	Unk	D173-05		ID8D014027			1	☐		Continue
28	28	Unk	D173-05J		ID8D014028			1	☐		Continue
29	29	Unk	D173-01		ID8D014029			1	☐		Continue
30	30	Unk	D173-02		ID8D014030			1	☐		Continue
31	31	Unk	D173-03		ID8D014031			1	☐		Continue
32	32	Unk	D173-04		ID8D014032			1	☐		Continue
33	33	Unk	BLANK		ID8D014033			1	☐		Continue
34	34	QC	CCV3		ID8D014034			1	☒	CCV	Continue
35	35	QC	CCB3		ID8D014035			1	☒	CCB1	Continue
36	36	Unk	D173-06		ID8D014036			1	☐		Continue
37	37	Unk	D173-07		ID8D014037			1	☐		Continue
38	38	Unk	D173-08		ID8D014038			1	☐		Continue
39	39	Unk	D134-01		ID8D014039			1	☐		Continue
40	40	Unk	D134-02		ID8D014040			1	☐		Continue
41	41	Unk	D134-03		ID8D014041			1	☐		Continue
42	42	Unk	D164-01		ID8D014042			1	☐		Continue
43	43	Unk	D164-02		ID8D014043			1	☐		Continue
44	44	Unk	D164-03		ID8D014044			1	☐		Continue
45	45	Unk	D164-04		ID8D014045			1	☐		Continue
46	46	QC	CCV4		ID8D014046			1	☒	CCV	Continue

	Pos ID	Type	Samplename	Comment	Data File	Type*	Diln Factor	CorrFact	Check	Check Table	Fail Action
47	47	QC	CCB4		ID8D014047			1	☒	CCB1	Continue
48	48	Unk	D164-05		ID8D014048			1	☐		Continue
49	49	Unk	D164-06		ID8D014049			1	☐		Continue
50	50	Unk	D164-07		ID8D014050			1	☐		Continue
51	51	Unk	D164-08		ID8D014051			1	☐		Continue
52	52	Unk	D164-09		ID8D014052			1	☐		Continue
53	53	Unk	D157-09A	10X	ID8D014053			1	☐		Continue
54	54	Unk	D157-09	10X	ID8D014054			1	☐		Continue
55	55	Unk	D157-09J	50X	ID8D014055			1	☐		Continue
56	56	Unk	D157-07	10X	ID8D014056			1	☐		Continue
57	57	Unk	D157-08	10X	ID8D014057			1	☐		Continue
58	58	QC	CCV5		ID8D014058			1	☒	CCV	Continue
59	59	QC	CCB5		ID8D014059			1	☒	CCB1	Continue
60	60	Unk	D157-10	10X	ID8D014060			1	☐		Continue
61	61	Unk	D157-11	10X	ID8D014061			1	☐		Continue
62	62	QC	CCV6		ID8D014062			1	☒	CCV	Continue
63	63	QC	CCB6		ID8D014063			1	☒	CCB1	Continue
64	64	Unk	D173-05A	10X	ID8D014064			1	☐		Continue
65	65	Unk	D173-05	10X	ID8D014065			1	☐		Continue
66	66	Unk	D173-05J	50X	ID8D014066			1	☐		Continue
67	67	QC	CCV7		ID8D014067			1	☒	CCV	Continue
68	68	QC	CCB7		ID8D014068			1	☒	CCB1	Continue
69	69	Unk	D173-05M	10X	ID8D014069			1	☐		Continue
70	70	Unk	D173-05S	10X	ID8D014070			1	☐		Continue
71	71	Unk	D173-06		ID8D014071			1	☐		Continue
72	72	Unk	D173-08		ID8D014072			1	☐		Continue
73	73	Unk	D157-12	10X	ID8D014073			1	☐		Continue
74	74	Unk	BLANK		ID8D014074			1	☐		Continue
75	75	Unk	D173-03	10X	ID8D014075			1	☐		Continue
76	76	QC	CCV8		ID8D014076			1	☒	CCV	Continue
77	77	QC	CCB8		ID8D014077			1	☒	CCB1	Continue
78	78	Unk	BLANK		ID8D014078			1	☐		Continue
79	79	Unk	D157-11	50X	ID8D014079			1	☐		Continue
80	80	QC	CCV9		ID8D014080			1	☒	CCV	Continue
81	81	QC	CCB9		ID8D014081			1	☒	CCB1	Continue

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INDX	LSID	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	LSID
1	Blank	.00102	.00002	-.00001	.00058	.00010	.00099	-.00063	.00014	.00001	-.00066	Blank
2	S2				.59427	.91473	.09477	2.9986		.14438	.84763	S2
3	S5		.00706	.00363								S5
4	S8	.17970							1.8522			S8
5	ICV	4.5788	.48602	.48952	.47563	.49136	.50370	.47364	49.552	.47427	.47915	ICV
6	ICB	-.00131	.00120	-.00025	-.00034	-.00025	-.00258	-.00003	.00062	.00008	-.00012	ICB
7	MRL8D14	.17521	.05042	.02897	.00978	.00372	-.00319	.00521	1.0340	.01036	.00986	MRL8D14
8	MRL8D14A	.17250	.04890	.03042	.00942	.00382	-.00363	.00505	1.0084	.01018	.00955	MRL8D14A
9	ICSAI	471.42	-.00721	.00491	.00010	-.00026	.02276	.00297	481.37	.00486	-.00003	ICSAI
10	ICSABI	455.83	.98758	.98875	.50361	.49098	.51930	.97854	470.38	.46708	.48711	ICSABI
11	CCV1	4.7134	.47701	.50579	.50159	.50291	.52095	.49378	49.972	.47927	.49280	CCV1
12	CCB1	.00193	.00109	-.00035	-.00049	-.00008	-.00416	-.00005	-.00320	.00013	-.00010	CCB1
13	IPD029SB	.00360	.00074	-.00003	-.00026	-.00017	-.00408	-.00002	.01780	.00006	-.00022	IPD029SB
14	IPD029SL	9.5447	4.8720	1.0102	.96432	1.0568	.99860	.99964	51.340	.98272	1.0196	IPD029SL
15	IPD029SC	9.4207	4.8755	1.0047	.97152	1.0668	1.0017	1.0062	51.229	.98348	1.0286	IPD029SC
16	D098-01A	9.3701	4.7887	1.0052	.93671	1.0220	1.0513	.96156	52.183	.94630	.97408	D098-01A
17	D09B-01	.00243	.00571	.00289	.00067	-.00032	.01692	-.00002	2.6066	.00011	.00058	D098-01
18	D098-01J	.00276	.00275	-.00023	.00000	-.00010	.00033	-.00001	.56334	.00025	.00006	D098-01J
19	BLANK	.00069	.00131	-.00040	-.00138	-.00027	-.00401	.00001	-.00386	.00018	-.00016	BLANK
20	ICSAF	476.42	-.00753	.00699	-.00031	-.00002	.02455	.00300	485.80	.00489	-.00016	ICSAF
21	ICSABF	476.06	1.0038	1.0149	.51432	.49971	.52540	.99708	483.16	.47731	.49312	ICSABF
22	CCV2	4.8188	.47567	.50174	.49434	.50102	.51183	.49677	50.982	.48583	.49295	CCV2
23	CCB2	-.00199	.00046	.00051	-.00054	-.00014	-.00370	-.00003	.00898	.00017	-.00002	CCB2
24	D173-05M	27.691	4.7095	.98500	4.8713	.99089	7.4736	.95566	59.119	3.6865	.98811	D173-05M
25	D173-05S	27.604	4.6308	.97023	4.8381	.98183	7.4288	.94469	58.539	3.6658	.97748	D173-05S
26	D173-05A	25.792	4.8290	1.0107	4.3918	1.0279	6.7767	.98302	59.334	3.3785	1.0223	D173-05A
27	D173-05	15.929	.08534	.02808	3.5919	.00174	5.8848	.00209	9.3310	2.5081	.00820	D173-05
28	D173-05J	3.1733	.01963	.00838	.72768	-.00010	1.2132	.00039	1.8946	.50814	.00144	D173-05J
29	D173-01	12.934	.02474	.00179	.00988	.00432	.70232	.00300	1.2171	.03333	-.00577	D173-01
30	D173-02	14.953	.02819	-.00099	.00762	.00522	.81588	.00360	1.4055	.07556	-.00619	D173-02
31	D173-03	1.3153	.03280	.00041	.00557	-.00044	.76447	.00131	1.3770	.02498	.03384	D173-03
32	D173-04	7.4218	.04210	.00763	.01175	-.00012	.06198	-.00005	.30873	2.9229	.00041	D173-04
33	BLANK	.00059	.00093	.00111	-.00060	-.00023	-.00119	-.00004	.00443	.00005	.00002	BLANK
34	CCV3	4.8039	.47975	.50682	.50267	.50768	.52402	.49679	50.497	.48062	.49602	CCV3
35	CCB3	.00743	.00030	.00036	-.00002	-.00021	-.00194	-.00006	.00097	.00032	-.00004	CCB3
36	D173-06	215.66	.00855	.01140	.23161	.00166	.78948	.01105	23.183	.63423	.01499	D173-06
37	D173-07	24.849	.00357	.00089	.89646	-.00038	.02375	-.00016	11.288	.17798	.00019	D173-07
38	D173-08	6.9192	.09252	.02745	.12900	-.00030	1.4886	.00128	8.6302	9.5997	.00542	D173-08
39	D134-01	51.449	-.00861	.02890	.50182	.00180	.01588	.00095	35.311	.07199	.04600	D134-01
40	D134-02	154.68	-.01930	.05273	1.1016	.00527	.03197	.00285	85.251	.23173	.09447	D134-02
41	D134-03	174.34	-.02195	.07073	1.4422	.00588	.02341	.00372	214.85	.27781	.10902	D134-03
42	D164-01	113.16	-.02446	.00971	1.1846	.00672	.02288	.00217	19.823	.04336	.04911	D164-01
43	D164-02	102.17	-.01966	.00926	1.0272	.00336	.01471	.00177	21.692	.04177	.04321	D164-02
44	D164-03	133.59	-.02792	.03448	1.4015	.00359	.02152	.00265	25.369	.05770	.05757	D164-03
45	D164-04	94.276	-.01947	.00782	1.0741	.00325	.02321	.00171	26.469	.04113	.04039	D164-04
46	CCV4	4.7747	.46762	.49359	.49064	.49505	.50871	.48758	49.900	.47574	.48709	CCV4
47	CCB4	.00170	.00102	.00145	.00008	-.00023	-.00383	-.00006	-.01194	.00005	-.00007	CCB4
48	D164-05	143.42	-.02917	.01494	1.7227	.00470	.02774	.00312	30.087	.06272	.06072	D164-05
49	D164-06	126.26	-.02607	.01577	1.2742	.00456	.01621	.00222	22.869	.05040	.05258	D164-06
50	D164-07	101.65	-.02306	.01155	1.0805	.00300	.02060	.00191	21.534	.04173	.04242	D164-07
51	D164-08	96.352	-.02456	.00687	.88743	.00180	.01622	.00186	17.215	.03770	.04549	D164-08
52	D164-09	101.64	-.02358	.00530	1.0160	.00653	.02033	.00191	20.678	.05080	.04769	D164-09
53	D157-09A	9.9244	4.7850	1.0042	.92681	.98955	4.9507	.95566	91.424	.93451	.97336	D157-09A
54	D157-09	.00806	.00301	-.00046	.00157	-.00039	4.1337	-.00005	45.542	.01288	-.00036	D157-09
55	D157-09J	.00362	.00175	.00059	.00021	-.00047	.82266	-.00005	9.2582	.00273	-.00021	D157-09J

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INDX	LSID	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	LSID
56	D157-07	.00852	.00234	.00263	.00126	-.00048	2.9516	-.00003	50.189	.01501	-.00018	D157-07
57	D157-08	.00900	.00129	.00081	.00108	-.00038	1.9762	-.00002	47.701	.00950	-.00022	D157-08
58	CCV5	4.8187	.47312	.50386	.50596	.50310	.52304	.49431	50.055	.47472	.49260	CCV5
59	CCB5	.00368	.00061	.00065	-.00029	-.00028	.00009	-.00004	-.00510	.00021	-.00012	CCB5
60	D157-10	.00895	.00028	.00302	.00151	-.00045	4.0177	-.00006	42.444	.00567	-.00034	D157-10
61	D157-11	.01532	.00042	.00017	.00106	-.00063	5.5324	-.00003	46.131	.02311	-.00023	D157-11
62	CCV6	4.7971	.47432	.50828	.50844	.50768	.53266	.49475	50.100	.47291	.49558	CCV6
63	CCB6	.02645	.00067	-.00046	-.00046	-.00025	.00280	-.00001	-.00070	.00007	-.00025	CCB6
64	D173-05A	10.879	4.7836	.99093	1.2811	1.0082	1.6098	.95315	50.099	1.1654	.96868	D173-05A
65	D173-05	1.5414	.01271	.00476	.35576	-.00008	.58689	.00018	.92096	.24715	.00084	D173-05
66	D173-05J	.31074	.00297	.00040	.07263	-.00010	.11922	.00010	.18988	.05091	.00002	D173-05J
67	CCV7	4.8091	.46939	.50077	.49035	.49602	.51226	.48515	49.916	.47276	.48280	CCV7
68	CCB7	.00163	.00180	-.00065	.00012	-.00027	-.00158	-.00004	-.00143	.00022	-.00010	CCB7
69	D173-05M	2.5787	.47562	.10079	.49269	.09882	.74982	.09340	5.8676	.36641	.09753	D173-05M
70	D173-05S	2.5735	.47270	.10024	.48851	.09818	.74345	.09312	5.8417	.36525	.09683	D173-05S
71	D173-06	1664.9	.07707	.10647	2.2822	.01980	7.9072	.11810	216.00	5.9084	.15030	D173-06
72	D173-08	70.409	.78583	.22448	1.2013	.00065	14.510	.00527	82.320	82.000	.10305	D173-08
73	D157-12	.00170	.00016	.00022	.00102	-.00028	1.1492	-.00006	60.282	.00969	-.00013	D157-12
74	BLANK	.01177	.00096	-.00069	-.00038	-.00025	.00960	-.00004	-.01595	-.00005	-.00011	BLANK
75	D173-03	.13587	.00442	-.00069	.00033	-.00019	.08360	.00022	.15243	.00259	.00261	D173-03
76	CCV8	4.7768	.46986	.50345	.49842	.50217	.52205	.48984	49.889	.46828	.48993	CCV8
77	CCB8	.00437	.00024	-.00137	-.00046	-.00027	.00016	-.00003	-.00757	.00023	-.00005	CCB8
78	BLANK	.00480	.00037	-.00221	-.00046	-.00012	-.00077	-.00002	-.01523	-.00008	-.00010	BLANK
79	D157-11	.00632	.00050	.00180	.00075	-.00017	1.0730	-.00007	9.5869	.00498	-.00017	D157-11
80	CCV9	4.6758	.46570	.49508*	.49703*	.49998	.51201*	.48699*	49.295	.46851	.48790*	CCV9
81	CCB9	.00374	.00114	-.00009	.00010	-.00030	-.00208	-.00006	.00147	.00013	-.00010	CCB9

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INDX	LSID	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	LSID
1	Blank	.01660	-.00003	.00016	.00000	.00006	.00022	-.00100	-.00075	.00002	.00013	Blank
2	S2	3.1376		.21141		.09688		.72602			.17533	S2
3	S5						.66985			.00368		S5
4	S8		.05565		.26704				1.3005			S8
5	ICV	.47607	4.9473	.47956	49.217	.47382	.48583	.47073	48.082	.49137	.48638	ICV
6	ICB	-.00023	.00302	-.00024	-.05903	-.00005	.00009	-.00006	.03892	.00144	-.00008	ICB
7	MRL8D14	.00943	.03413	.02432	1.0111	.01071	.04653	.01988	.96407	.03201	.00985	MRL8D14
8	MRL8D14A	.00949	.03790	.02359	.96894	.00879	.04518	.01941	1.0700	.03002	.00965	MRL8D14A
9	ICSAI	.00266	190.71	-.01708	499.92	.00203	-.00242	-.00357	-.03572	.01585	.00068	ICSAI
10	ICSABI	.49777	182.67	.93986	491.08	.46541	1.0341	.93712	81.503	1.0051	1.0506	ICSABI
11	CCV1	.48195	4.8519	.48111	50.586	.48785	.50712	.48635	49.188	.52601	.48888	CCV1
12	CCB1	-.00037	-.00128	.00015	.00173	-.00112	.00004	.00020	.02549	.00158	-.00013	CCB1
13	IPD029SB	.00001	.00492	-.00033	-.08175	-.00048	-.00008	.00012	.08306	.00180	-.00003	IPD029SB
14	IPD029SL	1.0419	10.279	.99752	51.079	.99979	1.0107	1.0022	49.381	.99285	.99395	IPD029SL
15	IPD029SC	1.0349	10.091	1.0038	51.097	1.0099	1.0145	1.0030	49.044	.99761	.98820	IPD029SC
16	D098-01A	.97934	10.033	.95423	53.436	.99664	.96774	.95117	50.098	1.0142	.95789	D098-01A
17	D098-01	-.00028	.21017	-.00039	3.6048	.03066	.00053	.00073	.35255	.00162	-.00007	D098-01
18	D098-01J	.00352	.04932	.00034	.74697	.00568	.00002	.00024	.04791	.00174	-.00016	D098-01J
19	BLANK	-.00037	.00506	-.00033	-.02920	.00040	-.00016	.00004	-.05318	-.00023	.00009	BLANK
20	ICSAF	.00237	192.35	-.01458	503.17	.00036	-.00218	-.00373	-.05749	.01515	.00035	ICSAF
21	ICSABF	.51859	191.08	.95250	498.83	.46912	1.0608	.95960	84.698	1.0223	1.0714	ICSABF
22	CCV2	.50312	5.0169	.48574	50.857	.48266	.51736	.49019	49.463	.51735	.49602	CCV2
23	CCB2	.00017	.00708	.00019	-.01388	-.00004	.00022	.00010	.04375	.00155	.00016	CCB2
24	D173-05M	*****	58.910	3.3002	49.270	1.0381	1.0108	32.439	52.722	.95191	.95122	D173-05M
25	D173-05S	*****	58.960	3.2777	49.038	1.0342	1.0010	32.162	52.387	.92958	.95096	D173-05S
26	D173-05A	*****	53.345	2.9723	50.439	1.0630	1.0408	28.663	53.396	.97469	1.1155	D173-05A
27	D173-05	*****	43.301	2.0919	.95331	.09765	.02752	28.712	3.1438	.01961	.14343	D173-05
28	D173-05J	36.584	8.8951	.40275	.16002	.01995	.00519	5.8233	.58182	.00366	.02897	D173-05J
29	D173-01	10.021	5.0702	.02945	.34241	.04434	-.00644	42.782	1.6744	.00084	-.00032	D173-01
30	D173-02	11.404	5.8197	.03494	.34525	.04801	-.00638	48.234	1.9286	.00175	-.00007	D173-02
31	D173-03	1.1238	.63077	.05340	.24678	.00688	.00054	173.00	.07654	.00078	-.00069	D173-03
32	D173-04	.55547	.24290	.08225	.07634	.00311	.00432	.19400	.68178	.00213	-.00022	D173-04
33	BLANK	.00009	.00281	.00030	.01752	.00118	-.00009	.00004	-.02349	.00024	-.00017	BLANK
34	CCV3	.49625	4.9284	.48554	50.785	.49000	.51343	.49074	49.891	.52354	.49267	CCV3
35	CCB3	.00009	.00492	-.00057	-.03486	.00047	.00008	.00010	-.10132*	.00068	.00002	CCB3
36	D173-06	24.266	62.258	.30617	2.2948	.63851	.01455	4.8859	.78867	.00749	.06570	D173-06
37	D173-07	.54082	.27299	.27245	.06307	.00586	.00309	.21160	.05885	.00404	.00122	D173-07
38	D173-08	56.834	15.340	.44340	1.9402	.08409	.00113	57.361	.04325	.00048	.00194	D173-08
39	D134-01	.05156	98.792	.02629	26.836	1.8264	.00388	.05393	19.136	.00317	-.00174	D134-01
40	D134-02	.12904	214.84	.05020	75.731	3.6272	.00167	.14501	37.686	.00937	-.00379	D134-02
41	D134-03	.15132	247.04	.05826	95.971	4.2176	.00359	.18026	37.715	.00963	-.00470	D134-03
42	D164-01	-.04338	188.69	.04259	53.566	2.7723	-.00048	.02514	71.201	.00912	-.00282	D164-01
43	D164-02	-.02688	165.91	.04077	45.756	2.5092	.00029	.02455	61.599	.00759	-.00249	D164-02
44	D164-03	-.03484	214.07	.06681	59.205	3.2922	-.00039	.02571	78.266	.00902	-.00407	D164-03
45	D164-04	-.02426	158.56	.04252	43.935	2.3889	.00037	.02123	58.278	.00804	-.00224	D164-04
46	CCV4	.49784	4.9443	.47727	49.807	.47943	.51058	.48391	49.814	.50405	.49124	CCV4
47	CCB4	-.00029	.00624	.00000	-.06218	.00028	-.00006	-.00010	.05705	.00207	.00001	CCB4
48	D164-05	-.02278	218.06	.06082	60.184	3.4541	.00053	.03506	85.357	.01102	-.00258	D164-05
49	D164-06	-.03359	200.32	.05490	55.861	3.0347	-.00038	.02240	75.411	.01137	-.00293	D164-06
50	D164-07	-.03356	167.63	.04385	46.797	2.3933	.00029	.02110	62.996	.00684	-.00278	D164-07
51	D164-08	-.03981	179.13	.06067	49.739	2.4415	-.00029	.01986	66.086	.00821	-.00285	D164-08
52	D164-09	-.03413	177.15	.04243	50.044	2.4782	.00016	.02106	66.566	.00961	-.00254	D164-09
53	D157-09A	1.0127	10.012	.94315	89.108	.94707	1.0276	.95949	58.364	1.0189	.97056	D157-09A
54	D157-09	.00042	-.00864	-.00034	43.032	.00079	.05740	.00032	1.0541	.01235	-.00010	D157-09
55	D157-09J	.00005	.00022	-.00010	8.6248	.00062	.01125	.00014	.31855	.00296	.00001	D157-09J

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INDX	LSID	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	LSID
56	D157-07	.00065	-.00742	-.00040	59.673	.00122	.03401	.00013	.75117	.01515	-.00009	D157-07
57	D157-08	.00011	-.00294	.00050	39.493	.00047	.03853	-.00005	.52066	.00764	.00001	D157-08
58	CCV5	.50367	4.9405	.48087	50.220	.48758	.50879	.48837	50.949	.51997	.48617	CCV5
59	CCB5	.00011	.00547	-.00005	-.02005	.00057	.00002	-.00009	.05038	.00200	-.00025	CCB5
60	D157-10	.00040	-.00309	.00053	15.890	-.00047	.04977	-.00011	.45324	.00285	-.00012	D157-10
61	D157-11	.00059	-.01938	-.00005	148.26	.00027	.06426	.00024	1.5973	.02542	.00004	D157-11
62	CCV6	.50473	4.8970	.48192	50.707	.49036	.50949	.49038	51.355	.52670	.48578	CCV6
63	CCB6	.00008	.00560	.00003	-.03922	-.00065	.00019	.00001	.07984	.00115	.00007	CCB6
64	D173-05A	19.086	14.056	1.1324	49.429	.96348	.97045	3.6987	50.444	.99573	.95544	D173-05A
65	D173-05	18.835	4.3997	.19427	.11284	.01022	.00271	2.8416	.34056	.00295	.01384	D173-05
66	D173-05J	3.9172	.91160	.04007	-.02811	.00116	.00046	.57858	.11061	.00243	.00251	D173-05J
67	CCV7	.51123	5.0017	.47467	49.703	.47647	.50665	.48242	50.600	.50948	.48692	CCV7
68	CCB7	.00004	.00313	-.00014	-.05256	-.00143	.00003	.00014	.14486*	.00191	.00001	CCB7
69	D173-05M	20.877	5.7576	.31411	4.8450	.10548	.09480	3.2407	4.8454	.09903	.09325	D173-05M
70	D173-05S	20.698	5.7723	.31432	4.9269	.10788	.09477	3.2251	4.8084	.09844	.09347	D173-05S
71	D173-06	*****	557.39	3.2587	21.532	6.0004	.14951	47.054	8.7971	.05767	.68153	D173-06
72	D173-08	*****	143.17	4.9251	18.330	.81798	.01425	433.74	.88850	.01251	.01632	D173-08
73	D157-12	.00149	-.00360	.00029	29.194	-.00006	.02491	.00025	.28463	.00732	-.00012	D157-12
74	BLANK	.00019	.00272	-.00030	-.03911	-.00041	-.00010	-.00002	-.08373	.00088	.00001	BLANK
75	D173-03	.11352	.06498	.00523	-.05929	.00057	.00010	19.122	.03408	.00008	-.00006	D173-03
76	CCV8	.50734	4.8889	.47811	50.007	.48599	.50665	.48605	51.005	.51609	.48178	CCV8
77	CCB8	.00011	.00386	.00009	-.03990	-.00118	-.00008	.00005	.00678	-.00015	-.00029	CCB8
78	BLANK	.00012	.00441	.00031	-.03674	.00115	-.00017	.00012	-.05933	.00058	.00010	BLANK
79	D157-11	.00022	-.00410	.00000	29.585	-.00098	.01280	.00006	.12364	.00507	.00021	D157-11
80	CCV9	.50431	4.7785	.47517*	49.871	.47939	.50272	.48166	50.434	.51206*	.48288	CCV9
81	CCB9	.00007	.00235	-.00046	-.00708	.00118	.00025	.00052	.05448	.00116*	-.00011	CCB9

ID8D014 Section 2 of 3

INDX	LSID	Na	Tl	V	Zn	LSID
1	Blank	.01984	-.00078	-.00007	.00254	Blank
2	S2		.12149	.08462		S2
3	S5				.94497	S5
4	S8	3.3651				S8
5	ICV	48.825	.47646	.48491	.49064	ICV
6	ICB	.00167	.00062	-.00054	-.00018	ICB
7	MRL8D14	.85515	.05991	.00919	.01992	MRL8D14
8	MRL8D14A	.83266	.05844	.00872	.01935	MRL8D14A
9	ICSAI	.37462	-.00448	-.00148	.00679	ICSAI
10	ICSABI	80.254	.95978	.47711	.97586	ICSABI
11	CCV1	49.334	.49995	.50967	.50139	CCV1
12	CCB1	-.03546	.00097	-.00039	-.00104	CCB1
13	IPD029SB	-.04566	.00023	-.00016	.00869	IPD029SB
14	IPD029SL	50.854	1.0238	1.0415	1.0265	IPD029SL
15	IPD029SC	50.488	1.0271	1.0313	1.0325	IPD029SC
16	D098-01A	89.380	.98939	.99787	1.0064	D098-01A
17	D098-01	40.545	.00112	-.00031	.00002	D098-01
18	D098-01J	7.9452	.00038	-.00044	.00427	D098-01J
19	BLANK	-.16391	.00058	-.00014	.01418	BLANK
20	ICSAF	.17765	-.00452	-.00149	.00585	ICSAF
21	ICSABF	83.065	.96891	.49223	.99573	ICSABF
22	CCV2	49.606	.49307	.50748	.51059	CCV2
23	CCB2	-.07780	.00015	-.00053	.00148	CCB2
24	D173-05M	118.64	.94594	.99129	5.2718	D173-05M
25	D173-05S	117.87	.94028	.99035	5.1865	D173-05S
26	D173-05A	112.11	.98628	1.0227	4.7953	D173-05A
27	D173-05	62.461	.00058	.01130	3.9312	D173-05
28	D173-05J	12.289	.00095	.00226	.78142	D173-05J
29	D173-01	464.62	-.00059	.00729	42.678	D173-01
30	D173-02	515.89	-.00019	.00753	47.710	D173-02
31	D173-03	2.6425	-.00112	.00232	.08387	D173-03
32	D173-04	402.76	.00021	.00067	.11846	D173-04
33	BLANK	.09334	.00068	-.00025	-.00035	BLANK
34	CCV3	50.911	.50484	.51548	.50301	CCV3
35	CCB3	-.15150*	.00051	-.00004	.00014	CCB3
36	D173-06	1.4680	-.00087	.03093	1.1371	D173-06
37	D173-07	.86918	-.00093	.00154	.03849	D173-07
38	D173-08	7.8471	-.00151	.00338	1.4891	D173-08
39	D134-01	1.1578	.00286	.19095	.25046	D134-01
40	D134-02	1.3433	.00689	.46951	.52936	D134-02
41	D134-03	1.6973	.00649	.55619	.63755	D134-03
42	D164-01	.85128	.01397	.29515	.70590	D164-01
43	D164-02	1.0311	.01144	.25608	.60873	D164-02
44	D164-03	1.1692	.00685	.33860	.78485	D164-03
45	D164-04	.93368	.01188	.24136	.60144	D164-04
46	CCV4	50.328	.49163	.50570	.49473	CCV4
47	CCB4	-.29416*	-.00037	-.00013	-.00120	CCB4
48	D164-05	.99165	.01562	.34434	.85685	D164-05
49	D164-06	.87782	.01302	.31281	.73826	D164-06
50	D164-07	.80505	.01010	.25772	.62723	D164-07
51	D164-08	.88467	.01382	.28541	.64128	D164-08
52	D164-09	.80148	.01318	.27356	.63836	D164-09
53	D157-09A	570.71	.94492	1.0125	.99938	D157-09A
54	D157-09	544.92	.00013	-.00050	.00141	D157-09
55	D157-09J	115.26	.00088	-.00052	.00534	D157-09J

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56	D157-07	523.87	.00062	-.00067	.00379	D157-07
57	D157-08	337.78	.00130	-.00057	.08456	D157-08
58	CCV5	51.636	.50434	.52165	.49762	CCV5
59	CCB5	-.04670	-.00005	-.00032	-.00104	CCB5
60	D157-10	377.96	.00069	-.00041	.00055	D157-10
61	D157-11	1290.7	-.00026	-.00063	.00155	D157-11
62	CCV6	52.097	.51030	.52401	.49705	CCV6
63	CCB6	.21059*	.00075	-.00026	.02001*	CCB6
64	D173-05A	56.804	.99045	1.0036	1.3347	D173-05A
65	D173-05	5.9996	.00120	.00109	.37667	D173-05
66	D173-05J	1.0301	.00101	.00005	.07584	D173-05J
67	CCV7	51.041	.49242	.51608	.49756	CCV7
68	CCB7	-.20362*	.00040	-.00047	-.00095	CCB7
69	D173-05M	11.443	.09894	.09899	.51307	D173-05M
70	D173-05S	11.327	.09808	.09871	.50988	D173-05S
71	D173-06	17.486	-.02310	.30340	10.986	D173-06
72	D173-08	83.648	.00178	.03762	15.221	D173-08
73	D157-12	284.08	.00045	-.00046	.00265	D157-12
74	BLANK	-.07370	.00008	-.00057	.00062	BLANK
75	D173-03	.01949	-.00047	.00002	.00788	D173-03
76	CCV8	51.334	.50404	.51856	.49330	CCV8
77	CCB8	-.27710*	.00022	.00006	.00080	CCB8
78	BLANK	-.28999	.00041	-.00019	-.00060	BLANK
79	D157-11	313.81	.00060	-.00063	.00003	D157-11
80	CCV9	50.862	.49860	.50099	.49274	CCV9
81	CCB9	-.20935	.00054	-.00026	.00506	CCB9
INDX	LSID	Na	Tl	V	Zn	LSID

1951

EMAX LABORATORIES, INC.

DIGESTION LOG FOR ICP METALS

SOP ☐ EMAX-3005 Rev. No.4 ☑ EMAX-3010 Rev. No. 3 ☐ EMAX-3050 Rev. No. 3 ☐ EMAX-CLP-TAL ☐ Book # EIP-059

Matrix: WATER Start Date: 4-16-07 Time: 12:00 Temp: 90°C Ending Date: 4-16-07 Time: 16:00 Temp.: 90 °C

BATCH: IPD026-WB

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Turbidity <1 NTU	Sample Amount (g | ml)	pH	Extract Volume (ml)	Digestate Description: Color	Digestate Description: Clarity
01	IPD026-WB					50	-	50		
02	-WL					50	-	50		
03	-WC					50	-	50		
04	D157-01					50	<2	50		
05	-02					50		50		
06	-03					50		50		
07	-04					50		50		
08	-05					50		50		
09	-06					50		50		
10	-07					50		50		
11	-08					50		50		
12	-09					50		50		
13	-09					50		50		
14	-09					50		50		
15	-10					50		50		
16	-11					50		50		
17	-12					50		50		
18	-13					50		50		
19	D156-01					50		50		
20	D480-01					50		50		
21	D134-04					50		50		
22	D479-01					50		50		
23	D478-01 mc 4/16/07					50		50		
24	D164-01					50	↓1	50		
25			4-16-07 mc							

Standards	ID	Amount Added (ml)
LCS -1	SMIA - 10 - 50	0.5
LCS -2	SMIA - 10 - 51	0.5
LCS -3	SMIA - 10 - 52	0.5
MS		

Reagent	Lot# / ID	Amount Added (ml)
HNO_3	SWIA-03-477	1.5+1.5
HCl	SWIA-03-429	2.5
H_2O_2	N/A	
HNO3 (1:1)	N/A	

Digestate Location	ICP
Extract Location	

Legend:

Texture	Cs = Coarse	Md = Medium	Fn = Fine
Clarity	Cr = Clear	Cy = Cloudy	Td = Turbid
Artifacts	Rk = rocks	Sl = Shale	Vg=Vegetation
Color	Bu = blue	Bk = Black	Bn = Brown
	Gn = Green	Og = Orange	Rd = Red
	Yw = Yellow	Cl = Colorless	

Comments: Samples for Methods 200.7 or 200.8 Analyses

If turbidity ≤ 1 NTU no digestion is required unless otherwise required by the project

Prepared By: MC Standard Added By: MC

Witnessed By: JEE Extracts Rcvd. By: JEE 4/16/7

Checked By: JEE

Date Disposed: Disposed by:

1052

DIGESTION LOG FOR ICP METALS

SOP ☐ EMAX-3005 Rev. No.4 ☐ EMAX-3010 Rev. No. 3 ☑ EMAX-3050 Rev. No. 3 ☐ EMAX-CLP-TAL ☐ Book # EIP-059

Matrix: MC/SOIL Start Date: 4/16/17 Time: 16:45 Temp: 90°C Ending Date: 4/16/17 Time: 20:45 Temp.: 90 °C

BATCH: IPD029-S

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Turbidity <1 NTU	Sample Amount (g | ml)	pH	Extract Volume (ml)	Digestate Description: Color	Digestate Description: Clarity
01	IPD029-SB					—	N/A	100		
02	-SL					—		100		
03	-SC					—		100		
04	D173-01					1.001		100		
05	-02					1.002		100		
06	-03					1.003		100		
07	-04					1.002		100		
08	-05					1.001		100		
09	-05M					1.003		100		
10	-05S					1.003		100		
11	-06					1.002		100		
12	-07					1.001		100		
13	-08					1.002		100		
14	D164-01					1.003		100		
15	-02					1.002		100		
16	-03					1.003		100		
17	-04					1.002		100		
18	-05					1.003		100		
19	-06					1.002		100		
20	-07					1.000		100		
21	-08					1.003		100		
22	-09					1.001		100		
23	D134-01					1.003		100		
24	-02					1.001		100		
25	-03					1.002		100		

Standards	ID	Amount Added (ml)
LCS -1	SM1A-10-50	1.0
LCS -2	SM1A-10-51	1.0
LCS -3	SM1A-10-52	1.0
MS		

Reagent	Lot# / ID	Amount Added (ml)
HNO_3	SW1A-03-477	10.0
HCl	SW1A-03-429	10.0
H_2O_2	SW1A-03-404	10.0
HNO3 (1:1)	SM5B-02-64	10.0

Digestate Location	ICP
Extract Location	

Legend:

Texture	Cs = Coarse	Md = Medium	Fn = Fine
Clarity	Cr = Clear	Cy = Cloudy	Td = Turbid
Artifacts	Rk = rocks	Sl = Shale	Vg=Vegetation
Color	Bu = blue	Bk = Black	Bn = Brown
	Gn = Green	Og = Orange	Rd = Red
	Yw = Yellow	Cl = Colorless	

Comments: Samples for Methods 200.7 or 200.8 Analyses

If turbidity ≤ 1 NTU no digestion is required unless otherwise required by the project

Prepared By: MC/NT Standard Added By: MC/NT

Witnessed By: JEE Extracts Rcvd. By: JEE 4/17/17

Checked By: JEE

Date Disposed: Disposed by:

1053

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D165**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	METHOD 5030B/8260B (WATER) METHOD 5035/8260B (SOIL)	2000 – 2046 2047 – 2083
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8026
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-30-2007
EMAX Batch No.: 07D165

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/13/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
C22-HSAS22-11-12.5	D165-01	04/12/07	SOIL	VOLATILE ORGANICS BY GC/MS
C22-HSAS22-30-31.5	D165-02	04/12/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS22-60-61.5	D165-03	04/12/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS22-12.5-14	D165-04	04/12/07	SOIL	PERCHLORATE BY IC
LTB-041207	D165-05	04/12/07	WATER	VOLATILE ORGANICS BY GC/MS
LEB-041207	D165-06	04/12/07	WATER	PERCHLORATE BY IC
LTB-041307	D165-07	04/13/07	WATER	VOLATILE ORGANICS BY GC/MS
LEB-041307	D165-08	04/13/07	WATER	PERCHLORATE BY IC
C22-HSAS25-13-14.5	D165-09	04/13/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS25-25-26.5	D165-10	04/13/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS25-46-46.5	D165-11	04/13/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS25-13-14.5MS	D165-09M	04/13/07	SOIL	PERCHLORATE BY IC
				VOLATILE ORGANICS BY GC/MS
C22-HSAS25-13-14.5MSD	D165-09S	04/13/07	SOIL	VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
C22-HSAS25-13-14.5DUP	D165-09D	04/13/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

070165

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

TT- 0618-

SHIP TO: Emax

DATE 4/12/07 PAGE 1 OF 1

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures)

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	C22-HSAS22-11-12.5	4/12/07	0956	X		U	S	P	3	NR
2.	C22-HSAS22-30-31.5		1047	X				P	3	
3.	C22-HSAS22-60-61.5		1137	X				P	3	
4.	C22-HSAS22-12.5-14		959		X			G	1	
2	C22-HSAS22 30-31.5		1043		X			G	1	
3	C22-HSAS22-60-61.5		1137		X			G	1	
5	LTB-041207		0830	X			W	G	2	
6	LEB-041207		0900		X		W	P	1	
~~9.~~										
~~10.~~										

1) T = 3.0°C
2) T = 3.9°C

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Holly Hook		TETRA TECH, INC.	4-12-07	1700	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 15 of 15
RECEIVED BY: GEORGE LIM	SIGNATURE	COMPANY: EMAX	DATE 4/13/07	TIME 13:25	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM	SIGNATURE	COMPANY: EMAX	DATE 4/13/07	TIME 15:28	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: LUNA	SIGNATURE	COMPANY: Emax	DATE 4-13-07	TIME 15:28	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1902

X:\GIS\ATT-MISC\COCR.CDR

070165

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4/13/07 PAGE 1 OF ____

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Mayer
TC #: 19967-02
SAMPLERS (Signatures): J. Zimmerman, H. Hanke, L. Margulis

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
7	LTB-041307	4/13/07	0800	X		U	W	G	2	NR	
8	LEB-041307	4/13/07	0845		X	U	W	P	1	NR	
9	C22-HSAS25 (13-14.5')	4/13/07	0903	X		U	S	P	6	NR	3 DUP
10	C22-HSAS25 (13-14.5')	4/13/07	0903		X	U	S	G	2	NR	1 DUP
11	C22-HSAS25 25-26.5'	4/13/07	0935	X	X	U	S	6/P	1/3	NR	
12	C22-HSAS25 45-46.5'	4/13/07	1034	X	X	U	S	6/P	1/3	NR	
	7.	4/13/07									
	8.	4/13/07									
	9.										
	10.										

4-13-07 L. Margulis

TURN-AROUND TIME: Standard

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Brenda Margulis	SIGNATURE: Brenda Margulis	TETRA TECH, INC.	DATE: 4-13-07	TIME: 11:58	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 18
RECEIVED BY: GEORGE LIM	SIGNATURE:	COMPANY: EMAX	DATE: 4/13/07	TIME: 13:25	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM	SIGNATURE:	COMPANY: EMAX	DATE: 4/13/07	TIME: 15:28	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: V-LUNA	SIGNATURE:	COMPANY:	DATE:	TIME:	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1003

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D1465
☒ EMAX Courier	SEE GC	Recepient JON LUNA
☐ Client Delivery		Date 4-13-07
☐ Third Party		Time 1528

COC Inspection

☒ Client Name ☒ Client PM/FC ☒ Sampler Name ☒ Sampling Date/Time/Location ☒ Sample ID ☒ Matrix
☒ Address ☒ Tel # / Fax # ☒ Courier Signature ☒ Analysis Required ☐ Preservative (if any) ☒ TAT

Safety Issues

☒ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☒ Cooler 2	☐ Box	☐ Other		
Condition	☐ Custody Seal	☒ Intact	☐ Damaged		
Packaging	☒ Bubble Pack	☐ Styrofoam	☐ Popcorn	☒ Sufficient	☐ _____
Temperatures	☒ Cooler 1 3.0 °C	☒ Cooler 2 3.9 °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID ~~COC ID~~	Discrepancy Code	Corrective Action Code
-01			A2	R2
-02			A2	R2
-03			A2	R2
-10		1007	D3	R2
-05	013, 014		H1	R5

REVIEWS

Sample Labeling _____ Date 4/13/07

SRF _____ Date 4/13/07

PM _____ Date 4/13/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label (ENCORES)
A3	Analysis is inconsistent in COC vis-a-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	NOTE: UNPRES ON LABELS/COC, (EMAX VIALS W/ HCL) per client om 4/16/07
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis within 14 days om 4/16
R5	Analyze within 7 days
R6	_____ TB preserved.

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 07D165

2000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D165

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 04/13/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC. SDG NO. : 07D165
Project : LMC BEAUMONT SITE 1 Instrument ID : T-094

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V094D38Q	1	NA	04/18/0704:35	04/18/0704:35	RDD404	RCD411	V094D38	Method Blank
LCS1W	V094D38L	1	NA	04/18/0702:38	04/18/0702:38	RDD401	RCD411	V094D38	Lab Control Sample (LCS)
LCD1W	V094D38C	1	NA	04/18/0703:18	04/18/0703:18	RDD402	RCD411	V094D38	LCS Duplicate
LTB-041207	D165-05	1	NA	04/18/0705:14	04/18/0705:14	RDD405	RCD411	V094D38	Field Sample
LTB-041307	D165-07	1	NA	04/18/0705:53	04/18/0705:53	RDD406	RCD411	V094D38	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/12/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D165	Date Extracted:	04/18/07 05:14
Sample ID:	LTB-041207	Date Analyzed:	04/18/07 05:14
Lab Samp ID:	D165-05	Dilution Factor:	1
Lab File ID:	RDD405	Matrix :	WATER
Ext Btch ID:	VO94D38	% Moisture :	NA
Calib. Ref.:	RCD411	Instrument ID :	T-094

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	0.55J	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	96	70-140
4-BROMOFLUOROBENZENE	99	70-130
TOLUENE-D8	94	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/13/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D165	Date Extracted:	04/18/07 05:53
Sample ID:	LTB-041307	Date Analyzed:	04/18/07 05:53
Lab Samp ID:	D165-07	Dilution Factor:	1
Lab File ID:	RDD406	Matrix :	WATER
Ext Btch ID:	VO94D38	% Moisture :	NA
Calib. Ref.:	RCD411	Instrument ID :	T-094

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	0.72J	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	100	70-140
4-BROMOFLUOROBENZENE	100	70-130
TOLUENE-D8	94	70-140

QC SUMMARIES

2006

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D165	Date Extracted: 04/18/07 04:35
Sample ID: MBLK1W	Date Analyzed: 04/18/07 04:35
Lab Samp ID: V094D38Q	Dilution Factor: 1
Lab File ID: RDD404	Matrix : WATER
Ext Btch ID: V094D38	% Moisture : NA
Calib. Ref.: RCD411	Instrument ID : T-094

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	98	70-140
4-BROMOFLUOROBENZENE	98	70-130
TOLUENE-D8	95	70-130

2007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V094D38Q	V094D38L	V094D38C		
LAB FILE ID:	RDD404	RDD401	RDD402		
DATE EXTRACTED:	04/18/0704:35	04/18/0702:38	04/18/0703:18	DATE COLLECTED:	NA
DATE ANALYZED:	04/18/0704:35	04/18/0702:38	04/18/0703:18	DATE RECEIVED:	04/18/07
PREP. BATCH:	V094D38	V094D38	V094D38		
CALIB. REF:	RCD411	RCD411	RCD411		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	8.81	88	10.0	8.90	89	1	60-130	30
Benzene	ND	10.0	9.06	91	10.0	8.88	89	2	70-130	30
Chlorobenzene	ND	10.0	9.59	96	10.0	9.48	95	1	70-120	30
Toluene	ND	10.0	9.31	93	10.0	9.26	93	1	70-130	30
Trichloroethene	ND	10.0	8.53	85	10.0	8.41	84	1	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.4	104	10.0	10.5	105	70-140
4-Bromofluorobenzene	10.0	9.72	97	10.0	9.69	97	70-130
Toluene-d8	10.0	9.49	95	10.0	9.47	95	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D165

Lab File ID: RCD405 BFB Injection Date : 03/20/07

Instrument ID: T-094 BFB Injection Time : 10:54

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.96
75	30.0 - 60.0% of mass 95	45.55
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	77.84
175	5.0 - 9.0% of mass 174	5.73(7.4)1
176	95.0 - 101.0% of mass 174	74.73(96.0)1
177	5.0 - 9.0% of mass 176	4.83(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V094C2001	RCD406	03/20/07	11:33
2	VSTD0.5	V094C2002	RCD407	03/20/07	12:11
3	VSTD01	V094C2003	RCD408	03/20/07	12:50
4	VSTD02	V094C2004	RCD409	03/20/07	13:29
5	VSTD05	V094C2005	RCD410	03/20/07	14:08
6	VSTD010	V094C2006	RCD411	03/20/07	14:46
7	VSTD020	V094C2007	RCD412	03/20/07	15:25
8	VSTD030	V094C2008	RCD413	03/20/07	16:03
9	VSTD040	V094C2009	RCD414	03/20/07	16:42
10	VSTD050	V094C2010	RCD415	03/20/07	17:20
11	VSTD010	IV094C2001	RCD418	03/20/07	19:16

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

nstrument ID :T094
eginning DateTime :03/20/07 11:33
pike Units :PPB
C File :RCD411

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :03/20/07 17:20
HPChem Method :V094C20

IDX	Parameters	.3 11:33 RCD406	.5 12:11 RCD407	1 12:50 RCD408	2 13:29 RCD409	5 14:08 RCD410	10 14:46 RCD411	20 15:25 RCD412	30 16:03 RCD413	40 16:42 RCD414	50 17:20 RCD415	Av_RRF	%_RSD	Av_Rt_M
1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	11.8637
2	Dichlorodifluoromethane	0.275	0.225	0.258	0.245	0.248	0.246	0.242	0.238	0.226	0.217	0.242	7.04	4.2553
3	Chloromethane	------	0.385	0.521	0.388	0.378	0.379	0.372	0.351	0.334	------	0.388	14.57	4.8300
4	Vinyl chloride	------	0.332	0.370	0.351	0.330	0.302	0.255	------	------	------	0.323	12.58	4.9410
5	Bromomethane	------	0.301	0.273	0.229	0.223	0.223	0.224	0.216	0.207	0.195	0.232	14.38	5.7350
6	Chloroethane	0.292	0.224	0.237	0.227	0.222	0.222	0.218	0.208	0.198	0.185	0.223	12.79	5.8478
7	Dichlorofluoromethane	0.556	0.529	0.553	0.592	0.568	0.565	0.548	0.530	0.517	0.485	0.544	5.54	5.8814
8	Trichlorofluoromethane	0.380	0.306	0.346	0.347	0.349	0.348	0.350	0.343	0.327	0.310	0.341	6.30	6.2674
9	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2 10	Acrolein	------	------	------	0.011	0.014	0.013	0.013	0.013	0.013	0.012	0.013	8.45	6.8807
11	1,1,2-Trichloro-1,2,2-trifluoroethane	0.215	0.225	0.228	0.249	0.236	0.233	0.227	0.226	0.221	0.209	0.227	4.92	6.9196
2 12	Acetone	------	0.056	0.048	0.042	0.042	0.038	0.039	------	------	------	0.044	14.81	6.9541
13	1,1-Dichloroethene	0.453	0.450	0.464	0.508	0.485	0.480	0.465	0.457	0.450	0.423	0.464	5.00	7.2443
5 14	tert-Butyl alcohol	0.012	0.012	0.012	0.013	0.014	0.013	0.013	0.013	0.012	0.012	0.013	4.25	7.2530
15	Methyl acetate	0.120	0.120	0.114	0.110	0.117	0.119	0.114	0.114	0.110	0.104	0.114	4.51	7.6362
16	Iodomethane	0.387	0.359	0.394	0.431	0.435	0.443	0.445	0.449	0.440	0.419	0.420	7.21	7.7970
17	Methylene chloride	------	0.528	0.497	0.479	0.441	0.424	0.404	0.397	0.385	0.367	0.436	12.58	7.9610
18	Carbon disulfide	1.149	1.115	1.160	1.286	1.239	1.220	1.187	1.165	1.145	1.078	1.175	5.19	8.1480
3 19	Acrylonitrile	0.039	0.044	0.046	0.046	0.048	0.045	0.043	0.043	0.042	0.040	0.044	6.55	8.0763
20	tert-Butyl methyl ether (MTBE)	0.453	0.436	0.455	0.490	0.489	0.470	0.447	0.453	0.440	0.418	0.455	4.95	8.1334
21	trans-1,2-Dichloroethene	0.516	0.499	0.510	0.557	0.535	0.527	0.510	0.503	0.496	0.465	0.512	4.86	8.4229
22	Isopropyl ether (DIPE)	1.192	1.160	1.240	1.299	1.288	1.254	1.201	1.203	1.173	1.106	1.212	4.93	8.7534
23	Vinyl acetate	0.374	0.310	0.317	0.370	0.415	0.400	0.375	0.381	0.386	0.365	0.369	8.93	8.9157
24	1,1-Dichloroethane	0.682	0.632	0.677	0.715	0.685	0.669	0.644	0.636	0.629	0.588	0.656	5.56	9.0414
25	tert-Butyl ethyl ether (ETBE)	0.750	0.719	0.770	0.817	0.826	0.799	0.767	0.773	0.754	0.718	0.769	4.79	9.3705
2 26	2-Butanone	0.056	0.062	0.064	0.060	0.068	0.063	0.060	0.060	0.059	0.057	0.061	5.93	9.5708
27	2,2-Dichloropropane	0.473	0.474	0.497	0.515	0.494	0.479	0.459	0.450	0.441	0.412	0.469	6.43	9.8925
28	cis-1,2-Dichloroethene	0.553	0.549	0.571	0.610	0.585	0.577	0.557	0.548	0.538	0.503	0.559	5.16	9.9613
29	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
30	Chloroform	0.526	0.507	0.535	0.569	0.550	0.541	0.525	0.526	0.517	0.487	0.528	4.31	10.1981
31	Bromochloromethane	0.247	0.245	0.260	0.277	0.270	0.265	0.250	0.250	0.241	0.224	0.253	6.14	10.4760
32	Tetrahydrofuran	------	------	0.077	0.066	0.052	0.046	0.041	0.041	0.039	0.037	0.050	28.91	10.5021
33	1,1,1-Trichloroethane	0.430	0.429	0.445	0.484	0.467	0.466	0.453	0.449	0.446	0.421	0.449	4.35	10.8430
34	Cyclohexane	1.118	0.830	0.783	0.780	0.826	0.843	0.839	0.810	0.790	0.741	0.836	12.44	10.9264
35	tert-Amyl methyl ether (TAME)	0.637	0.591	0.637	0.682	0.681	0.658	0.634	0.638	0.624	0.595	0.638	4.82	11.1501
36	1,2-Dichloroethane-d4	------	------	0.229	0.223	0.236	0.243	0.214	0.216	0.221	0.206	0.223	5.45	11.2972
37	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	17.9952
38	1,1-Dichloropropene	0.211	0.220	0.205	0.218	0.210	0.207	0.196	0.197	0.192	0.182	0.204	5.86	11.0740
39	Carbon tetrachloride	0.400	0.397	0.420	0.450	0.438	0.441	0.431	0.428	0.424	0.404	0.423	4.27	11.2934
40	1,2-Dichloroethane	0.341	0.313	0.336	0.345	0.327	0.320	0.307	0.304	0.302	0.285	0.318	6.06	11.4513
41	Benzene	1.857	1.656	1.634	1.713	1.613	1.597	1.540	1.521	1.513	1.420	1.606	7.56	11.5449
42	Trichloroethene	0.458	0.422	0.453	0.489	0.464	0.468	0.450	0.445	0.440	0.419	0.451	4.63	12.5642
43	Methylcyclohexane	0.668	0.842	0.835	0.830	0.865	0.894	0.888	0.858	0.840	0.790	0.831	7.77	12.7294
44	1,2-Dichloropropane	0.468	0.439	0.424	0.446	0.426	0.421	0.401	0.395	0.390	0.367	0.418	7.13	12.8567
45	Bromodichloromethane	0.360	0.368	0.390	0.424	0.419	0.422	0.411	0.409	0.404	0.386	0.399	5.68	13.3085
46	Dibromomethane	0.144	0.147	0.150	0.163	0.155	0.154	0.146	0.147	0.143	0.137	0.149	4.97	13.4518
47	2-Chloroethyl vinyl ether	------	------	------	0.018	0.015	0.014	0.015	0.016	0.017	0.017	0.016	8.93	13.6638
2 48	4-Methyl-2-pentanone	0.140	0.162	0.166	0.172	0.191	0.178	0.171	0.175	0.171	0.166	0.169	7.68	13.7209

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3/23/07

49	cis-1,3-Dichloropropene	0.526	0.482	0.505	0.536	0.518	0.521	0.501	0.499	0.491	0.465	0.504	4.26	14.2385
50	Toluene-d8	1.388	1.375	1.433	1.383	1.433	1.503	1.401	1.397	1.389	1.296	1.400	3.75	14.7869
51	Toluene	1.727	1.634	1.696	1.787	1.729	1.715	1.658	1.621	1.608	1.502	1.668	4.86	14.9478
52	Ethyl methacrylate	0.236	0.236	0.249	0.270	0.271	0.263	0.253	0.255	0.249	0.238	0.252	5.23	14.9960
53	trans-1,3-Dichloropropene	0.326	0.325	0.330	0.370	0.364	0.361	0.350	0.353	0.347	0.330	0.346	4.86	15.1730
2 54	2-Hexanone	0.089	0.100	0.110	0.112	0.126	0.119	0.114	0.115	0.112	0.108	0.110	9.14	15.4025
55	1,1,2-Trichloroethane	0.187	0.185	0.202	0.212	0.209	0.204	0.192	0.194	0.190	0.181	0.196	5.35	15.5473
56	1,3-Dichloropropane	0.395	0.380	0.397	0.415	0.404	0.397	0.378	0.379	0.372	0.354	0.387	4.55	16.0547
57	Tetrachloroethene	0.363	0.342	0.351	0.375	0.362	0.359	0.348	0.344	0.342	0.321	0.351	4.28	16.3252
58	Dibromochloromethane	0.217	0.202	0.221	0.244	0.246	0.246	0.240	0.243	0.240	0.230	0.233	6.49	16.7479
59	1,2-Dibromoethane	0.179	0.178	0.192	0.203	0.204	0.197	0.190	0.191	0.188	0.178	0.190	5.00	17.1982
60	1-Chlorohexane	0.783	0.737	0.757	0.836	0.802	0.797	0.774	0.760	0.754	0.711	0.771	4.59	17.3137
61	Chlorobenzene	1.023	0.971	1.006	1.082	1.042	1.027	0.995	0.975	0.963	0.907	0.999	4.88	18.0844
62	1,1,1,2-Tetrachloroethane	0.298	0.277	0.300	0.321	0.319	0.320	0.308	0.307	0.303	0.285	0.304	4.87	18.1253
63	Ethylbenzene	1.976	1.852	1.919	2.060	1.997	1.991	1.929	1.881	1.853	1.673	1.913	5.64	18.1239
2 64	m-Xylene & p-Xylene	1.446	1.346	1.399	1.514	1.475	1.471	1.429	1.380	------	------	1.432	3.86	18.2831
65	o-Xylene	1.420	1.309	1.381	1.490	1.434	1.423	1.390	1.360	1.358	1.270	1.384	4.60	19.3052
66	Styrene	1.001	0.945	1.003	1.092	1.075	1.072	1.041	1.021	1.014	0.960	1.022	4.74	19.3637
67	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	24.5499
68	Isopropylbenzene	5.483	5.127	5.245	5.702	5.386	5.394	5.232	5.237	5.235	4.792	5.283	4.51	20.0802
69	Bromoform	------	0.261	0.307	0.333	0.347	0.356	0.347	0.361	0.356	0.344	0.335	9.52	20.2750
70	1,1,2,2-Tetrachloroethane	0.610	0.605	0.607	0.673	0.651	0.645	0.611	0.626	0.613	0.583	0.622	4.26	20.4590
71	4-Bromofluorobenzene	1.566	1.293	1.299	1.257	1.260	1.325	1.233	1.239	1.235	1.160	1.287	8.40	20.7236
72	1,2,3-Trichloropropane	0.116	0.107	0.121	0.140	0.103	0.107	0.099	0.098	0.098	0.093	0.108	13.01	20.8157
73	trans-1,4-Dichloro-2-butene	------	0.158	0.128	0.150	0.192	0.182	0.180	0.182	0.180	0.140	0.166	13.57	20.8957
74	n-Propylbenzene	7.027	6.511	6.750	7.290	6.967	6.997	6.892	6.884	6.613	5.021	6.695	9.38	21.0263
75	Bromobenzene	0.969	0.957	0.991	1.079	1.016	1.011	0.974	0.972	0.969	1.388	1.033	12.57	21.2743
76	1,3,5-Trimethylbenzene	3.949	3.730	3.944	4.233	4.073	4.098	4.007	3.977	3.979	3.727	3.972	3.90	21.3825
77	2-Chlorotoluene	3.789	3.844	3.636	4.050	3.907	3.841	3.708	3.714	3.620	3.482	3.759	4.32	21.5434
78	4-Chlorotoluene	3.681	3.126	3.513	3.606	3.355	3.435	3.359	3.304	3.437	3.107	3.392	5.47	21.6311
79	tert-Butylbenzene	3.726	3.504	3.623	3.891	3.744	3.710	3.626	3.601	3.640	3.374	3.644	3.85	22.2570
80	1,2,4-Trimethylbenzene	3.876	3.611	3.748	4.067	3.986	3.986	3.870	3.850	3.846	3.630	3.847	3.88	22.3594
81	sec-Butylbenzene	6.036	5.637	5.909	6.330	6.154	6.155	6.066	6.029	5.956	5.314	5.959	4.87	22.7703
82	p-Isopropyltoluene	4.545	4.181	4.369	4.767	4.654	4.702	4.616	4.589	4.586	4.274	4.528	4.22	23.0671
83	1,3-Dichlorobenzene	2.174	1.977	2.092	2.236	2.151	2.133	2.066	2.059	2.054	1.933	2.087	4.34	23.4342
84	1,4-Dichlorobenzene	2.022	1.904	1.995	2.121	2.051	2.037	1.978	1.960	1.947	1.848	1.986	3.92	23.6769
85	n-Butylbenzene	4.448	4.136	4.333	4.754	4.740	4.784	4.696	4.685	4.662	4.350	4.559	4.92	24.0659
86	1,2-Dichlorobenzene	1.702	1.589	1.663	1.746	1.702	1.677	1.624	1.622	1.603	1.515	1.644	4.09	24.6172
87	1,2-Dibromo-3-chloropropane	------	0.058	0.084	0.090	0.092	0.091	0.089	0.090	0.089	0.085	0.085	12.25	26.5039
88	1,2,4-Trichlorobenzene	1.034	0.951	1.048	1.130	1.171	1.151	1.119	1.119	1.094	1.040	1.086	6.16	28.6868
89	Hexachlorobutadiene	0.733	0.686	0.723	0.816	0.816	0.819	0.810	0.797	0.764	0.715	0.768	6.53	28.9910
90	Naphthalene	1.214	1.121	1.179	1.270	1.355	1.368	1.314	1.334	1.332	1.288	1.278	6.40	29.4151
91	1,2,3-Trichlorobenzene	0.793	0.737	0.808	0.875	0.899	0.891	0.862	0.863	0.838	0.800	0.837	6.13	30.0555

Spike Amount = Nominal Amount * M
Ave_%RSD : 6.8 Max_%RSD : 28.9

se Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
esp_Ratio = xo + x1 * Amt_Ratio

DX	Parameter	x0	x1	CCF
32	Tetrahydrofuran	0.00491	0.03794	0.9986

3/23/ST

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	104	0.00	
2	T	Dichlorodifluoromethane	10.000	9.888	1.1	101	0.01	
3	P,T	Chloromethane	10.000	9.330	6.7	99	0.00	
4	C,T	Vinyl chloride	10.000	9.215	7.9	102	0.01	
5	T	Bromomethane	10.000	9.570	4.3	103	0.00	
6	T	Chloroethane	10.000	9.491	5.1	99	0.00	
7	T	Dichlorofluoromethane	10.000	9.933	0.7	99	0.00	
8	T	Trichlorofluoromethane	10.000	9.977	0.2	101	0.00	
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00	
10	T	Acrolein	20.000	19.997	0.0	98	0.00	
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.909	0.9	100	0.00	
12	T	Acetone	20.000	16.541	17.3	99	0.00	
13	C,T,M	1,1-Dichloroethene	10.000	9.919	0.8	99	0.00	
14	T	tert-Butyl alcohol	50.000	48.686	2.6	98	0.00	
15	T	Methyl acetate	10.000	0.531	94.7#	5	0.01	not valid'd
16	T	Iodomethane	10.000	10.006	-0.1	98	0.00	
17	T	Methylene chloride	10.000	9.167	8.3	98	0.00	
18	T	Carbon disulfide	10.000	9.846	1.5	98	0.00	
19	T	Acrylonitrile	30.000	29.415	2.0	98	0.00	
20	T	tert-Butyl methyl ether (MT	10.000	9.736	2.6	98	0.00	
21	T	trans-1,2-Dichloroethene	10.000	9.865	1.3	99	0.00	
22	T	Isopropyl ether (DIPE)	10.000	9.771	2.3	98	0.00	
23	T	Vinyl acetate	10.000	10.371	-3.7	99	0.01	
24	P,T	1,1-Dichloroethane	10.000	9.713	2.9	99	0.00	
25	T	tert-Butyl ethyl ether (ETB	10.000	9.856	1.4	98	0.01	
26	T	2-Butanone	20.000	19.013	4.9	95	0.00	
27	T	2,2-Dichloropropane	10.000	9.793	2.1	100	0.00	
28	T	cis-1,2-Dichloroethene	10.000	9.858	1.4	99	0.00	
29	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00	
30	C,T	Chloroform	10.000	9.808	1.9	99	0.00	
31	T	Bromochloromethane	10.000	9.863	1.4	98	0.00	
32	T	Tetrahydrofuran	10.000	9.987	0.1	97	0.00	
33	T	1,1,1-Trichloroethane	10.000	9.968	0.3	100	0.00	
34	T	Cyclohexane	10.000	0.071	99.3#	1	-0.12	not valid'd
35	T	tert-Amyl methyl ether (TAM	10.000	9.781	2.2	98	0.00	
36	S	1,2-Dichloroethane-d4	10.000	9.809	1.9	94	0.00	
37	I	CHLOROBENZENE-D5	10.000	10.000	0.0	104	0.01	
38	T	1,1-Dichloropropene	10.000	9.818	1.8	101	0.00	
39	T	Carbon tetrachloride	10.000	10.051	-0.5	101	0.00	
40	T	1,2-Dichloroethane	10.000	9.670	3.3	100	0.00	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	Benzene	10.000	9.466	5.3	99	0.00
42	T,M	Trichloroethene	10.000	9.854	1.5	99	0.00
43	T	Methylcyclohexane	10.000	0.027	99.7#	0	0.01 Not Valid'd
44	C,T	1,2-Dichloropropane	10.000	9.565	4.4	99	0.00
45	T	Bromodichloromethane	10.000	9.968	0.3	98	0.00
46	T	Dibromomethane	10.000	9.712	2.9	97	0.00
47	T	2-Chloroethyl vinyl ether	10.000	10.120	-1.2	120	0.00
48	T	4-Methyl-2-pentanone	20.000	19.964	0.2	99	0.00
49	T	cis-1,3-Dichloropropene	10.000	9.755	2.4	98	0.00
50	S	Toluene-d8	10.000	9.565	4.4	93	0.00
51	C,T,M	Toluene	10.000	9.797	2.0	99	0.00
52	T	Ethyl methacrylate	10.000	9.803	2.0	98	0.00
53	T	trans-1,3-Dichloropropene	10.000	9.929	0.7	99	0.00
54	T	2-Hexanone	20.000	20.046	-0.2	97	0.00
55	T	1,1,2-Trichloroethane	10.000	9.774	2.3	98	0.00
56	T	1,3-Dichloropropane	10.000	9.616	3.8	98	0.00
57	T	Tetrachloroethene	10.000	9.798	2.0	100	0.00
58	T	Dibromochloromethane	10.000	10.035	-0.4	99	0.00
59	T	1,2-Dibromoethane	10.000	9.807	1.9	98	0.00
60	T	1-Chlorohexane	10.000	9.934	0.7	100	0.00
61	P,M	Chlorobenzene	10.000	9.800	2.0	99	0.01
62	T	1,1,1,2-Tetrachloroethane	10.000	9.975	0.3	99	0.00
63	C,T	Ethylbenzene	10.000	9.958	0.4	100	0.00
64	T	m-Xylene & p-Xylene	20.000	19.612	1.9	100	0.00
65	T	o-Xylene	10.000	9.870	1.3	100	0.00
66	T	Styrene	10.000	9.986	0.1	99	0.00
67	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	104	0.00
68	T	Isopropylbenzene	10.000	9.793	2.1	100	0.00
69	P,T	Bromoform	10.000	9.941	0.6	97	0.00
70	P,T	1,1,2,2-Tetrachloroethane	10.000	9.640	3.6	97	0.00
71	S	4-Bromofluorobenzene	10.000	9.217	7.8	93	0.00
72	T	1,2,3-Trichloropropane	10.000	8.849	11.5	93	0.00
73	T	trans-1,4-Dichloro-2-butene	10.000	10.675	-6.8	101	0.00
74	T	n-Propylbenzene	10.000	10.058	-0.6	100	0.00
75	T	Bromobenzene	10.000	9.378	6.2	100	0.00
76	T	1,3,5-Trimethylbenzene	10.000	9.913	0.9	100	0.00
77	T	2-Chlorotoluene	10.000	9.675	3.2	98	0.00
78	T	4-Chlorotoluene	10.000	9.724	2.8	100	0.00
79	T	tert-Butylbenzene	10.000	9.797	2.0	100	0.00
80	T	1,2,4-Trimethylbenzene	10.000	9.903	1.0	99	0.00

(#) = Out of Range

2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	10.000	9.966	0.3	100	0.00
82	T	p-Isopropyltoluene	10.000	9.967	0.3	100	0.00
83	T	1,3-Dichlorobenzene	10.000	9.742	2.6	99	0.00
84	T	1,4-Dichlorobenzene	10.000	9.800	2.0	99	0.00
85	T	n-Butylbenzene	10.000	10.086	-0.9	100	0.01
86	T	1,2-Dichlorobenzene	10.000	9.671	3.3	99	0.00
87	T	1,2-Dibromo-3-chloropropane	10.000	9.866	1.3	96	0.00
88	T	1,2,4-Trichlorobenzene	10.000	10.072	-0.7	99	0.01
89	T	Hexachlorobutadiene	10.000	10.444	-4.4	102	0.00
90	T	Naphthalene	10.000	9.898	1.0	96	0.00
91	T	1,2,3-Trichlorobenzene	10.000	10.057	-0.6	98	0.00

3/23/07
2016

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D165
Lab File ID: RDD398
BFB Injection Date : 04/18/07
Instrument ID: T-094
BFB Injection Time : 00:41
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.62
75	30.0 - 60.0% of mass 95	44.40
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.85
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	70.28
175	5.0 - 9.0% of mass 174	5.13(7.3)1
176	95.0 - 101.0% of mass 174	68.47(97.4)1
177	5.0 - 9.0% of mass 176	4.44(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV094C2063	RDD399	04/18/07	01:20
2	MBLK1W	V094D38Q	RDD404	04/18/07	04:35
3	LCS1W	V094D38L	RDD401	04/18/07	02:38
4	LCD1W	V094D38C	RDD402	04/18/07	03:18
5	LTB-041207	D165-05	RDD405	04/18/07	05:14
6	LTB-041307	D165-07	RDD406	04/18/07	05:53

2018

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RCD411
Instrument ID: T-094
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07D165
Date Analyzed: 03/20/07
Time Analyzed: 14:46
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2971747	11.86	2473278	17.99	867440	24.56
	UPPER LIMIT	5943494	12.36	4946556	18.49	1734880	25.06
	LOWER LIMIT	1485874	11.36	1236639	17.49	433720	24.06
	SAMPLE ID						
1	VSTD010	2383555	11.85	2042947	17.98	752411	24.53
2	MBLK1W	2538588	11.85	2176711	17.98	787399	24.53
3	LCS1W	2515949	11.85	2156677	17.98	807572	24.53
4	LCD1W	2432427	11.85	2095842	17.98	786584	24.53
5	LTB-041207	2577826	11.85	2210959	17.98	780966	24.53
6	LTB-041307	2579897	11.85	2231934	17.98	804497	24.53

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	80	-0.01
2	T	Dichlorodifluoromethane	0.242	0.221	8.7	72	0.02
3	P,T	Chloromethane	0.388	0.354	8.8	75	0.02
4	C,T	Vinyl chloride	0.323	0.327	-1.2	87	0.02
5	T	Bromomethane	0.232	0.222	4.3	80	0.00
6	T	Chloroethane	0.223	0.236	-5.8	85	0.00
7	T	Dichlorofluoromethane	0.544	0.568	-4.4	81	0.00
8	T	Trichlorofluoromethane	0.341	0.358	-5.0	82	0.00
9	T	sec-Propyl alcohol	0.000	0.000#	0.0	0#	0.00
10	T	Acrolein	0.013	0.011	15.4	66	-0.01
11	T	1,1,2-Trichloro-1,2,2-trifl	0.227	0.204	10.1	70	0.00
12	T	Acetone	0.044	0.046	-4.5	96	0.00
13	C,T,M	1,1-Dichloroethene	0.464	0.432	6.9	72	0.00
14	T	tert-Butyl alcohol	0.013	0.014	-7.7	83	-0.01
15	T	Methyl acetate	0.114	0.008#	93.0#	6#	0.00
16	T	Iodomethane	0.420	0.375	10.7	68	-0.01
17	T	Methylene chloride	0.436	0.431	1.1	82	0.00
18	T	Carbon disulfide	1.175	0.813	30.8#	53	-0.01
19	T	Acrylonitrile	0.044	0.052	-18.2	92	-0.01
20	T	tert-Butyl methyl ether (MT	0.455	0.485	-6.6	83	-0.01
21	T	trans-1,2-Dichloroethene	0.512	0.475	7.2	72	-0.01
22	T	Isopropyl ether (DIPE)	1.212	1.407	-16.1	90	0.00
23	T	Vinyl acetate	0.369	0.386	-4.6	77	0.00
24	P,T	1,1-Dichloroethane	0.656	0.677	-3.2	81	-0.01
25	T	tert-Butyl ethyl ether (ETB	0.769	0.825	-7.3	83	0.00
26	T	2-Butanone	0.061	0.076	-24.6#	96	0.00
27	T	2,2-Dichloropropane	0.469	0.409	12.8	69	0.00
28	T	cis-1,2-Dichloroethene	0.559	0.563	-0.7	78	-0.01
29	T	tert-Butyl formate (TBF)	0.000	0.000#	0.0	0#	0.00
30	C,T	Chloroform	0.528	0.544	-3.0	81	-0.01
31	T	Bromochloromethane	0.253	0.276	-9.1	83	-0.01
32	T	Tetrahydrofuran	0.050	0.051	-2.0	90	-0.01
33	T	1,1,1-Trichloroethane	0.449	0.452	-0.7	78	-0.01
34	T	Cyclohexane	0.836	0.014	98.3#	1#	-0.07
35	T	tert-Amyl methyl ether (TAM	0.638	0.677	-6.1	82	-0.01
36	S	1,2-Dichloroethane-d4	0.223	0.230	-3.1	76	-0.01
37	I	CHLOROBENZENE-D5	1.000	1.000	0.0	83	-0.01
38	T	1,1-Dichloropropene	0.204	0.186	8.8	74	-0.01
39	T	Carbon tetrachloride	0.423	0.395	6.6	74	-0.01
40	T	1,2-Dichloroethane	0.318	0.304	4.4	78	-0.01

(#) = Out of Range

2020

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	Benzene	1.606	1.506	6.2	78	-0.01
42	T,M	Trichloroethene	0.451	0.399	11.5	70	-0.01
43	T	Methylcyclohexane	0.831	0.001#	99.9#	0#	-0.01
44	C,T	1,2-Dichloropropane	0.418	0.435	-4.1	85	-0.01
45	T	Bromodichloromethane	0.399	0.412	-3.3	80	-0.01
46	T	Dibromomethane	0.149	0.148	0.7	79	-0.03
47	T	2-Chloroethyl vinyl ether	0.016	0.027	-68.8#	155	-0.01
48	T	4-Methyl-2-pentanone	0.169	0.217	-28.4#	101	-0.01
49	T	cis-1,3-Dichloropropene	0.504	0.485	3.8	77	-0.01
50	S	Toluene-d8	1.400	1.320	5.7	73	-0.01
51	C,T,M	Toluene	1.668	1.627	2.5	78	-0.01
52	T	Ethyl methacrylate	0.252	0.266	-5.6	83	-0.01
53	T	trans-1,3-Dichloropropene	0.346	0.344	0.6	79	-0.01
54	T	2-Hexanone	0.110	0.135	-22.7#	93	-0.01
55	T	1,1,2-Trichloroethane	0.196	0.208	-6.1	84	-0.01
56	T	1,3-Dichloropropane	0.387	0.401	-3.6	83	-0.03
57	T	Tetrachloroethene	0.351	0.304	13.4	70	-0.01
58	T	Dibromochloromethane	0.233	0.235	-0.9	79	-0.01
59	T	1,2-Dibromoethane	0.190	0.190	0.0	79	-0.01
60	T	1-Chlorohexane	0.771	0.765	0.8	79	-0.03
61	P,M	Chlorobenzene	0.999	0.992	0.7	80	-0.01
62	T	1,1,1,2-Tetrachloroethane	0.304	0.301	1.0	78	-0.01
63	C,T	Ethylbenzene	1.913	1.958	-2.4	81	-0.01
64	T	m-Xylene & p-Xylene	1.432	1.422	0.7	80	-0.01
65	T	o-Xylene	1.384	1.425	-3.0	83	-0.03
66	T	Styrene	1.022	1.081	-5.8	83	-0.01
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	87	-0.03
68	T	Isopropylbenzene	5.283	5.138	2.7	83	-0.03
69	P,T	Bromoform	0.335	0.331	1.2	81	-0.01
70	P,T	1,1,2,2-Tetrachloroethane	0.622	0.647	-4.0	87	-0.03
71	S	4-Bromofluorobenzene	1.287	1.270	1.3	83	-0.03
72	T	1,2,3-Trichloropropane	0.108	0.113	-4.6	92	-0.01
73	T	trans-1,4-Dichloro-2-butene	0.166	0.169	-1.8	81	-0.03
74	T	n-Propylbenzene	6.695	6.749	-0.8	84	-0.03
75	T	Bromobenzene	1.033	0.937	9.3	80	-0.03
76	T	1,3,5-Trimethylbenzene	3.972	3.907	1.6	83	-0.03
77	T	2-Chlorotoluene	3.759	3.571	5.0	81	-0.03
78	T	4-Chlorotoluene	3.392	3.487	-2.8	88	-0.03
79	T	tert-Butylbenzene	3.644	3.517	3.5	82	-0.03
80	T	1,2,4-Trimethylbenzene	3.847	3.771	2.0	82	-0.03

(#) = Out of Range

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	5.959	6.048	-1.5	85	-0.03
82	T	p-Isopropyltoluene	4.528	4.330	4.4	80	-0.01
83	T	1,3-Dichlorobenzene	2.087	1.967	5.7	80	-0.01
84	T	1,4-Dichlorobenzene	1.986	1.888	4.9	80	-0.03
85	T	n-Butylbenzene	4.559	4.596	-0.8	83	-0.01
86	T	1,2-Dichlorobenzene	1.644	1.582	3.8	82	-0.01
87	T	1,2-Dibromo-3-chloropropane	0.085	0.085	0.0	81	-0.03
88	T	1,2,4-Trichlorobenzene	1.086	1.006	7.4	76	-0.01
89	T	Hexachlorobutadiene	0.768	0.737	4.0	78	-0.01
90	T	Naphthalene	1.278	1.155	9.6	73	-0.01
91	T	1,2,3-Trichlorobenzene	0.837	0.779	6.9	76	-0.03

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D
Acq On : 18 Apr 2007 1:20 am
Sample : CVO94C2063 10/20/50ppb
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA
MS Integration Params: 524TAIL.P

Vial: 3
Operator: CR
Inst : TO94
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	80	-0.01
2	T	Dichlorodifluoromethane	10.000	9.140	8.6	72	0.02
3	P,T	Chloromethane	10.000	9.122	8.8	75	0.02
4	C,T	Vinyl chloride	10.000	10.107	-1.1	87	0.02
5	T	Bromomethane	10.000	9.555	4.5	80	0.00
6	T	Chloroethane	10.000	10.543	-5.4	85	0.00
7	T	Dichlorofluoromethane	10.000	10.434	-4.3	81	0.00
8	T	Trichlorofluoromethane	10.000	10.501	-5.0	82	0.00
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
10	T	Acrolein	20.000	17.478	12.6	66	-0.01
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.008	9.9	70	0.00
12	T	Acetone	20.000	20.628	-3.1	96	0.00
13	C,T,M	1,1-Dichloroethene	10.000	9.313	6.9	72	0.00
14	T	tert-Butyl alcohol	50.000	53.223	-6.4	83	-0.01
15	T	Methyl acetate	10.000	0.732	92.7#	6	0.00
16	T	Iodomethane	10.000	8.913	10.9	68	-0.01
17	T	Methylene chloride	10.000	9.896	1.0	82	0.00
18	T	Carbon disulfide	10.000	6.921	30.8#	53	-0.01
19	T	Acrylonitrile	30.000	35.397	-18.0	92	-0.01
20	T	tert-Butyl methyl ether (MT	10.000	10.651	-6.5	83	-0.01
21	T	trans-1,2-Dichloroethene	10.000	9.276	7.2	72	-0.01
22	T	Isopropyl ether (DIPE)	10.000	11.615	-16.2	90	0.00
23	T	Vinyl acetate	10.000	10.456	-4.6	77	0.00
24	P,T	1,1-Dichloroethane	10.000	10.330	-3.3	81	-0.01
25	T	tert-Butyl ethyl ether (ETB	10.000	10.722	-7.2	83	0.00
26	T	2-Butanone	20.000	24.812	-24.1#	96	0.00
27	T	2,2-Dichloropropane	10.000	8.723	12.8	69	0.00
28	T	cis-1,2-Dichloroethene	10.000	10.063	-0.6	78	-0.01
29	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00
30	C,T	Chloroform	10.000	10.291	-2.9	81	-0.01
31	T	Bromochloromethane	10.000	10.903	-9.0	83	-0.01
32	T	Tetrahydrofuran	10.000	12.121	-21.2#	90	-0.01
33	T	1,1,1-Trichloroethane	10.000	10.061	-0.6	78	-0.01
34	T	Cyclohexane	10.000	0.164	98.4#	1	-0.07
35	T	tert-Amyl methyl ether (TAM	10.000	10.617	-6.2	82	-0.01
36	S	1,2-Dichloroethane-d4	10.000	10.298	-3.0	76	-0.01
37	I	CHLOROBENZENE-D5	10.000	10.000	0.0	83	-0.01
38	T	1,1-Dichloropropene	10.000	9.130	8.7	74	-0.01
39	T	Carbon tetrachloride	10.000	9.323	6.8	74	-0.01
40	T	1,2-Dichloroethane	10.000	9.554	4.5	78	-0.01

(#) = Out of Range

2023

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	Benzene	10.000	9.372	6.3	78	-0.01
42	T,M	Trichloroethene	10.000	8.844	11.6	70	-0.01
43	T	Methylcyclohexane	10.000	0.016	99.8#	0	-0.01
44	C,T	1,2-Dichloropropane	10.000	10.418	-4.2	85	-0.01
45	T	Bromodichloromethane	10.000	10.305	-3.0	80	-0.01
46	T	Dibromomethane	10.000	9.972	0.3	79	-0.03
47	T	2-Chloroethyl vinyl ether	10.000	16.512	-65.1#	155	-0.01
48	T	4-Methyl-2-pentanone	20.000	25.633	-28.2#	101	-0.01
49	T	cis-1,3-Dichloropropene	10.000	9.617	3.8	77	-0.01
50	S	Toluene-d8	10.000	9.428	5.7	73	-0.01
51	C,T,M	Toluene	10.000	9.759	2.4	78	-0.01
52	T	Ethyl methacrylate	10.000	10.559	-5.6	83	-0.01
53	T	trans-1,3-Dichloropropene	10.000	9.955	0.4	79	-0.01
54	T	2-Hexanone	20.000	24.358	-21.8#	93	-0.01
55	T	1,1,2-Trichloroethane	10.000	10.627	-6.3	84	-0.01
56	T	1,3-Dichloropropane	10.000	10.348	-3.5	83	-0.03
57	T	Tetrachloroethene	10.000	8.662	13.4	70	-0.01
58	T	Dibromochloromethane	10.000	10.072	-0.7	79	-0.01
59	T	1,2-Dibromoethane	10.000	9.986	0.1	79	-0.01
60	T	1-Chlorohexane	10.000	9.914	0.9	79	-0.03
61	P,M	Chlorobenzene	10.000	9.930	0.7	80	-0.01
62	T	1,1,1,2-Tetrachloroethane	10.000	9.914	0.9	78	-0.01
63	C,T	Ethylbenzene	10.000	10.237	-2.4	81	-0.01
64	T	m-Xylene & p-Xylene	20.000	19.855	0.7	80	-0.01
65	T	o-Xylene	10.000	10.297	-3.0	83	-0.03
66	T	Styrene	10.000	10.575	-5.7	83	-0.01
67	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	87	-0.03
68	T	Isopropylbenzene	10.000	9.726	2.7	83	-0.03
69	P,T	Bromoform	10.000	9.895	1.1	81	-0.01
70	P,T	1,1,2,2-Tetrachloroethane	10.000	10.389	-3.9	87	-0.03
71	S	4-Bromofluorobenzene	10.000	9.869	1.3	83	-0.03
72	T	1,2,3-Trichloropropane	10.000	10.452	-4.5	92	-0.01
73	T	trans-1,4-Dichloro-2-butene	10.000	10.217	-2.2	81	-0.03
74	T	n-Propylbenzene	10.000	10.080	-0.8	84	-0.03
75	T	Bromobenzene	10.000	9.074	9.3	80	-0.03
76	T	1,3,5-Trimethylbenzene	10.000	9.836	1.6	83	-0.03
77	T	2-Chlorotoluene	10.000	9.499	5.0	81	-0.03
78	T	4-Chlorotoluene	10.000	10.280	-2.8	88	-0.03
79	T	tert-Butylbenzene	10.000	9.653	3.5	82	-0.03
80	T	1,2,4-Trimethylbenzene	10.000	9.801	2.0	82	-0.03

(#) = Out of Range

2024

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	10.000	10.150	-1.5	85	-0.03
82	T	p-Isopropyltoluene	10.000	9.562	4.4	80	-0.01
83	T	1,3-Dichlorobenzene	10.000	9.425	5.7	80	-0.01
84	T	1,4-Dichlorobenzene	10.000	9.506	4.9	80	-0.03
85	T	n-Butylbenzene	10.000	10.082	-0.8	83	-0.01
86	T	1,2-Dichlorobenzene	10.000	9.620	3.8	82	-0.01
87	T	1,2-Dibromo-3-chloropropane	10.000	9.976	0.2	81	-0.03
88	T	1,2,4-Trichlorobenzene	10.000	9.270	7.3	76	-0.01
89	T	Hexachlorobutadiene	10.000	9.593	4.1	78	-0.01
90	T	Naphthalene	10.000	9.043	9.6	73	-0.01
91	T	1,2,3-Trichlorobenzene	10.000	9.311	6.9	76	-0.03

2025

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 3-20-07 ☐ 5-ml Purge ☒ 25-ml Purge

Book # A94 -017

BATCH V094C2006

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RCD404	BFB94C34	2 µl				T/CHECK
02	405	35					10:54
03	406	V094C2001	.05/.5/.06/.03 µl				.3 ppb 8260/.6 KetAA/1.5 TBA
04	407	02	.05/.25/.1/.05 µl				.5 / 1 / 2.5
05	408	03	.1/.5/.2/.1 µl				1 / 2 / 5
06	409	04	.2/1/.4/.2 µl				2 / 4 / 10
07	410	05	.5/2.5/1/.5 µl				5 / 10 / 25
08	411	06	1/5/2/1 µl				10 / 20 / 50
09	412	07	2/10/4/2 µl				20 / 40 / 100
10	413	08	3/15/6/3 µl				30 / 60 / 150
11	414	09	4/20/8/4 µl				40 / 80 / 200
12	415	10	5/25/10/5 µl				50 / 100 / 250
13	416	Rinse					
14	417	V094C35B					
15	418	IV094C2001	1/5/2 µl				10 / 20 / 50
16	419	02					
17	420	IV094C2003	5 µl				CLP for 3 Add'l(s)
18	421	IS/SS	25 wds	1.0			
19	422	07C184-06N			<2		21:49
20							
21							
22							
23							
24							
25							AS 3/21/07

Instrument No.	94
INITIAL CALIBRATION REFERENCE	
DATE	03-20-07
ICAL ID	V094C20

STANDARDS

NAME	ID	CONC. (mg/L)
DCC gases	SVIC-11-69-1	250
DCC 8260	69-2	50/250
DCC KetAA 3 add'l(s)	58-3 72-1	250 250
BFB	-49-3	50
IS/SURR. IS SS	-70-1 -70-2	250
LCS gas	-61-3	250
LCS 8260	-63-2	50/250/1000
LCS KetAA CLP	-59-3 -43-2	250 50/250/500

SOLVENT	ID
METHANOL	
DATA FILE	07C20

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO94	

Comments:

Analyzed By: AS

Date Disposed: 3-21-07

Disposed By: AS

2027

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/18/07 ☐ 5-ml Purge ☑ 25-ml Purge Book # A94 -017

BATCH CV094C20 & 3

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	397	RDD	BFB 94D37	2ml				
02	398		BFB 94D38	2ml				12:41 Am
03	399		CV094C20063	½/5ml				
04	400		CV094C20064					
05	401		V094D38L					
06	402		C					
07	403		B	25ml				
08	404		Q	25ml				
09	405		07D165-05	25ml	1	42.0		
10	406		-07		1			
11	407		07D180-02		1		•	
12	408		-01		1			
13	409		07D163-03		1			
14	410		-01		1			
15	411		-02		1			
16	412		RINSE					
17	413		07D163-02 I	250ml	100	42.0		
18	414		-03R	25ml	1			
19	415		-02I	500ml	50			11:46 Am
20	416		RINSE	25ml	1			
21	417		RINSE		1			
22								
23								
24								
25								

a 4/18/07

Instrument No.	94
INITIAL CALIBRATION REFERENCE	
DATE	9/20/07
ICAL ID	V094C20

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC-11-69-1	
DCC	-69-2	
DCC	-58-3	
BFB	-49-3	50/250
IS/SURR	-70-3	
LCS	-61-3	
LCS	-63-2	
LCS	-59-3	

SOLVENT	ID
METHANOL	
DATA FILE	07D17

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO94	

Comments:

Analyzed By: a

Date Disposed: 4/18/07

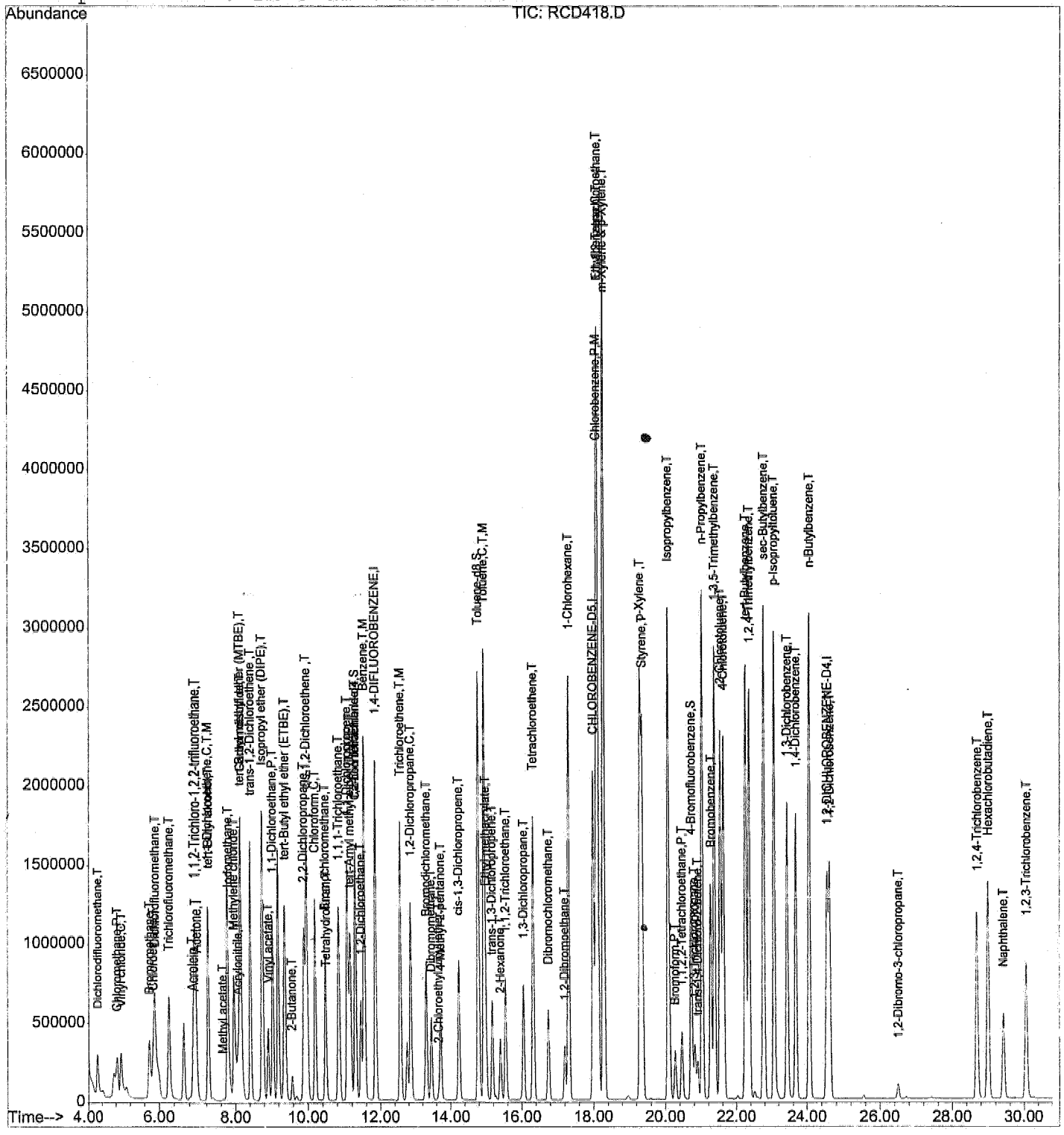
Disposed By: a

2823

Quantitation Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Mar 23 14:06 2007 Quant Results File: VO94C20.RES

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Tue Mar 20 17:52:51 2007
Response via : Initial Calibration



3/23/07

2029

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	104	0.00
2	T	Dichlorodifluoromethane	0.242	0.239	1.2	101	0.01
3	P,T	Chloromethane	0.388	0.362	6.7	99	0.00
4	C,T	Vinyl chloride	0.323	0.298	7.7	102	0.01
5	T	Bromomethane	0.232	0.222	4.3	103	0.00
6	T	Chloroethane	0.223	0.212	4.9	99	0.00
7	T	Dichlorofluoromethane	0.544	0.541	0.6	99	0.00
8	T	Trichlorofluoromethane	0.341	0.340	0.3	101	0.00
9	T	sec-Propyl alcohol	0.000	0.000#	0.0	0#	0.00
10	T	Acrolein	0.013	0.013	0.0	98	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	0.227	0.225	0.9	100	0.00
12	T	Acetone	0.044	0.037	15.9	99	0.00
13	C,T,M	1,1-Dichloroethene	0.464	0.460	0.9	99	0.00
14	T	tert-Butyl alcohol	0.013	0.012	7.7	98	0.00
15	T	Methyl acetate	0.114	0.006#	94.7#	5#	0.01
16	T	Iodomethane	0.420	0.421	-0.2	98	0.00
17	T	Methylene chloride	0.436	0.400	8.3	98	0.00
18	T	Carbon disulfide	1.175	1.156	1.6	98	0.00
19	T	Acrylonitrile	0.044	0.043	2.3	98	0.00
20	T	tert-Butyl methyl ether (MT	0.455	0.443	2.6	98	0.00
21	T	trans-1,2-Dichloroethene	0.512	0.505	1.4	99	0.00
22	T	Isopropyl ether (DIPE)	1.212	1.184	2.3	98	0.00
23	T	Vinyl acetate	0.369	0.383	-3.8	99	0.01
24	P,T	1,1-Dichloroethane	0.656	0.637	2.9	99	0.00
25	T	tert-Butyl ethyl ether (ETB	0.769	0.758	1.4	98	0.01
26	T	2-Butanone	0.061	0.058	4.9	95	0.00
27	T	2,2-Dichloropropane	0.469	0.460	1.9	100	0.00
28	T	cis-1,2-Dichloroethene	0.559	0.551	1.4	99	0.00
29	T	tert-Butyl formate (TBF)	0.000	0.000#	0.0	0#	0.00
30	C,T	Chloroform	0.528	0.518	1.9	99	0.00
31	T	Bromochloromethane	0.253	0.249	1.6	98	0.00
32	T	Tetrahydrofuran	0.050	0.043	14.0	97	0.00
33	T	1,1,1-Trichloroethane	0.449	0.448	0.2	100	0.00
34	T	Cyclohexane	0.836	0.006#	99.3#	1#	-0.12
35	T	tert-Amyl methyl ether (TAM	0.638	0.624	2.2	98	0.00
36	S	1,2-Dichloroethane-d4	0.223	0.219	1.8	94	0.00
37	I	CHLOROBENZENE-D5	1.000	1.000	0.0	104	0.01
38	T	1,1-Dichloropropene	0.204	0.200	2.0	101	0.00
39	T	Carbon tetrachloride	0.423	0.426	-0.7	101	0.00
40	T	1,2-Dichloroethane	0.318	0.307	3.5	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	Benzene	1.606	1.521	5.3	99	0.00
42	T,M	Trichloroethene	0.451	0.444	1.6	99	0.00
43	T	Methylcyclohexane	0.831	0.002#	99.8#	0#	0.01
44	C,T	1,2-Dichloropropane	0.418	0.399	4.5	99	0.00
45	T	Bromodichloromethane	0.399	0.398	0.3	98	0.00
46	T	Dibromomethane	0.149	0.144	3.4	97	0.00
47	T	2-Chloroethyl vinyl ether	0.016	0.016	0.0	120	0.00
48	T	4-Methyl-2-pentanone	0.169	0.169	0.0	99	0.00
49	T	cis-1,3-Dichloropropene	0.504	0.492	2.4	98	0.00
50	S	Toluene-d8	1.400	1.339	4.4	93	0.00
51	C,T,M	Toluene	1.668	1.634	2.0	99	0.00
52	T	Ethyl methacrylate	0.252	0.247	2.0	98	0.00
53	T	trans-1,3-Dichloropropene	0.346	0.343	0.9	99	0.00
54	T	2-Hexanone	0.110	0.111	-0.9	97	0.00
55	T	1,1,2-Trichloroethane	0.196	0.191	2.6	98	0.00
56	T	1,3-Dichloropropane	0.387	0.372	3.9	98	0.00
57	T	Tetrachloroethene	0.351	0.344	2.0	100	0.00
58	T	Dibromochloromethane	0.233	0.234	-0.4	99	0.00
59	T	1,2-Dibromoethane	0.190	0.186	2.1	98	0.00
60	T	1-Chlorohexane	0.771	0.766	0.6	100	0.00
61	P,M	Chlorobenzene	0.999	0.979	2.0	99	0.01
62	T	1,1,1,2-Tetrachloroethane	0.304	0.303	0.3	99	0.00
63	C,T	Ethylbenzene	1.913	1.905	0.4	100	0.00
64	T	m-Xylene & p-Xylene	1.432	1.405	1.9	100	0.00
65	T	o-Xylene	1.384	1.366	1.3	100	0.00
66	T	Styrene	1.022	1.021	0.1	99	0.00
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	104	0.00
68	T	Isopropylbenzene	5.283	5.174	2.1	100	0.00
69	P,T	Bromoform	0.335	0.333	0.6	97	0.00
70	P,T	1,1,2,2-Tetrachloroethane	0.622	0.600	3.5	97	0.00
71	S	4-Bromofluorobenzene	1.287	1.186	7.8	93	0.00
72	T	1,2,3-Trichloropropane	0.108	0.096	11.1	93	0.00
73	T	trans-1,4-Dichloro-2-butene	0.166	0.177	-6.6	101	0.00
74	T	n-Propylbenzene	6.695	6.734	-0.6	100	0.00
75	T	Bromobenzene	1.033	0.968	6.3	100	0.00
76	T	1,3,5-Trimethylbenzene	3.972	3.937	0.9	100	0.00
77	T	2-Chlorotoluene	3.759	3.637	3.2	98	0.00
78	T	4-Chlorotoluene	3.392	3.299	2.7	100	0.00
79	T	tert-Butylbenzene	3.644	3.570	2.0	100	0.00
80	T	1,2,4-Trimethylbenzene	3.847	3.810	1.0	99	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	5.959	5.938	0.4	100	0.00
82	T	p-Isopropyltoluene	4.528	4.513	0.3	100	0.00
83	T	1,3-Dichlorobenzene	2.087	2.034	2.5	99	0.00
84	T	1,4-Dichlorobenzene	1.986	1.947	2.0	99	0.00
85	T	n-Butylbenzene	4.559	4.598	-0.9	100	0.01
86	T	1,2-Dichlorobenzene	1.644	1.590	3.3	99	0.00
87	T	1,2-Dibromo-3-chloropropane	0.085	0.084	1.2	96	0.00
88	T	1,2,4-Trichlorobenzene	1.086	1.094	-0.7	99	0.01
89	T	Hexachlorobutadiene	0.768	0.802	-4.4	102	0.00
90	T	Naphthalene	1.278	1.265	1.0	96	0.00
91	T	1,2,3-Trichlorobenzene	0.837	0.841	-0.5	98	0.00

TANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

arent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SVIA-11-166	# DWM-544 ULTRA, VOC Gas Mix	2000 ppm	1250 µL	250 ppm
				AS 3-14-07

Standard ID	SV1-C11-69-1
Name	Gases 1°
Final Volume	10 mls
Solvent /Lot #	SWIA-03-457
Prep. Date	3-14-07
Exp. Date	9-14-07
Prepared By	
Reviewed By	
Comments	

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SVIA-11-185	#1111-02-14 ASI, 1-Chloroheyane	1000 ~~2500~~ AS 3/14	500 µL	50 ppm
SVIA-11-185	Z-020145-05 CPI, 2-CEVE	2000	250 µL	50 ppm
SVIA-11-128	OGAD-001 Accu Std, Oxygenates	2000/10,000	250 µL	50/250 ppm
SVIA-11-191	App-9-21-20X " ", Vinyl Acetate *	2000	250 µL	50 ppm
SVIA-11-197	# S-1405 Protocol, Dichloroflouromethane	1000	500 µL	50 ppm
SVIA-11-186	75-1 CPI, 8260B CAUB Super Mix	2000	250	50 ppm
				AS 3/14/07

Standard ID	SV1-C11-69-2
Name	8260B 1°
Final Volume	10 mls
Solvent /Lot #	SWIA-03-457
Prep. Date	3-14-07
Exp. Date	5-14-07 *
Prepared By	AS
Reviewed By	
Comments	* vinyl acetate exp date

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SVIA-11-31	M-502B-10X Accu Std Vol. ORG. Cmpd, Gas	2000 ppm	1250 µL	250 ppm
				AS 3-15-07

Standard ID	SV1-C11-69-3
Name	Gases 2°
Final Volume	10 mls
Solvent /Lot #	SWIA-03-457
Prep. Date	3-15-07
Exp. Date	9-15-07
Prepared By	AS
Reviewed By	
Comments	

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SVIA.11.10	VOA Tuning Compd Mix	5000ppm	100µL	50ppm
			DN 1.23.07	

Standard ID	SV1-C11- 58-1
Name	4-BFB
Final Volume	10mLs
Solvent /Lot #	SWIA.03-394
Prep. Date	1/23/07
Exp. Date	6/23/07
Prepared By	DN
Reviewed By	[illegible]

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SVIA.11.114	Custom Internal Std. Mix	2000ppm	1.25mL	250ppm
SVIA.11.118	VOA Surrogate Spike Mix	1000ppm	1.0mL	
			DN 1.23.07	

Standard ID	SV1-C11- 58-2
Name	IS/SS
Final Volume	10mLs
Solvent /Lot #	SWIA.03.394
Prep. Date	1.23.07
Exp. Date	6.23.07
Prepared By	[illegible]
Reviewed By	[illegible]

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SVIA-11-172	Accustd 502.2 Mix #4-8769	5,000ppm	500µL	250ppm
SVIA-11-187	Surr/Int, TCLVE Mix 1, Neto	2,000ppm	125µL	
			AS 1/29/07	

Standard ID	SV1-C11-58-3
Name	Ket-AA 1°
Final Volume	10 mls
Solvent /Lot #	SWIA-03-394
Prep. Date	1-29-07
Exp. Date	6-14-07
Prepared By	AS
Reviewed By	[illegible] 2/15/07

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-10-321	#F24105 Chem Serv Cyclohexanes*	1400 ppm	500 µL	25 ppm
SV1A-10-320	" " #F22412.5 Methylcyclohexane	1000 ppm	6	
SV1A-10-82	Methyl acetate	50,000 ppm	10 µL	
				AS 3/20/07

Standard ID	SV1-C11-72-1
Name	3 add'l Compds
Final Volume	2 mls
Solvent /Lot #	SV1A-03-457
Prep. Date	3-20-07
Exp. Date	6-30-07*
Prepared By	AS
Reviewed By	
Comments	* Cyclohexane spp.

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.

Standard ID	SV1-C11-72-2
Name	
Final Volume	
Solvent /Lot #	
Prep. Date	
Exp. Date	
Prepared By	
Reviewed By	
Comments	

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.

Standard ID	SV1-C11-72-3
Name	
Final Volume	
Solvent /Lot #	
Prep. Date	
Exp. Date	
Prepared By	
Reviewed By	
Comments	

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1C-11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-135	Restek, VOA cal mix #1, Ket150 #30006	5000 ppm	100 µl	250 ppm
SV1A-11-156	ULTRA, acrolein/acrylonitrile #AMN-623-1	2000 ppm	250 µl	250 ppm
				AS 11-14-06

Standard ID	SV1C-11-49-1
Name	Ket-A/A 2°
Final Volume	2 mo X4
Solvent /Lot #	SW1A-03-394
Prep. Date	11-14-06
Exp. Date	1-31-07 * [illegible]
Prepared By	AS
Reviewed By	[illegible]

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-153	Restek, VOA Sulfur Spike Mix #30004	2500 ppm	1 ml	250 ppm
				AS 11-15-06

Standard ID	SV1C-11-49-2
Name	8260 SS
Final Volume	10 mls
Solvent /Lot #	SW1A-03-394
Prep. Date	11-15-06
Exp. Date	5-15-07
Prepared By	AS
Reviewed By	[illegible]

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-60	Restek, VOA Tuning Compd 4-BFB #30003	5000 ppm	100 µl	50 ppm
				AS 11-15-06

Standard ID	SV1C-11-49-3
Name	4-BFB
Final Volume	10 mls
Solvent /Lot #	SW1A-03-394
Prep. Date	11-15-06
Exp. Date	5-15-06
Prepared By	AS
Reviewed By	[illegible] 11/30/06

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-188	Custom I.S. Mix	2000 ppm	1.25 mL	250 ppm
			CGM 3/15/07	

Standard ID	SV1-C11-70-1
Name	I.S.
Final Volume	10 mL
Solvent /Lot #	SW1A-03-458
Prep. Date	3/15/07
Exp. Date	9/15/07
Prepared By	CGM
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-202	VOA Surr. Spike Mix	2,500 ppm	1.0 mL	250 ppm
			CGM 3/15/07	

Standard ID	SV1-C11-70-2
Name	S.S.
Final Volume	10mL
Solvent /Lot #	SW1A-03-458
Prep. Date	3/15/07
Exp. Date	9/15/07
Prepared By	CGM
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-188	Custom I.S. Mix	2,000 ppm	1.25 mL	250 ppm
SV1A-11-163	VOA Surr. Spike Mix	2,500 ppm	1.0 mL	250 ppm
			CGM 3/15/07	

Standard ID	SV1-C11-70-3
Name	IS/SS
Final Volume	10 mL
Solvent /Lot #	SW1A-03-458
Prep. Date	3/15/07
Exp. Date	9/15/07
Prepared By	CGM
Reviewed By	

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-47	trans-1,4-dichloro-2-butene	2,000 ppm	250 µL	50 ppm
SV1A-11-193	1-Chlorohexane	1,000	500	50
SV1A-10-409	Ethyl Methacrylate	2,000	250	50
SV1A-11-92	2-CEVE	5,000	100	50
SV1A-11-159	Vinyl Acetate	2,000	250	50
SV1A-11-41	Carbon Disulfide	5,000	100	50
SV1A-11-90	Iodomethane	2,000	250	50
SV1A-10-413	Freon 113	1,000	500	50
~~SV1A-11-165~~	~~Dichlorodifluoromethane~~	CGM 2/6/07		
SV1A-10-412	502/524 Volatile Org. Calibration Mix	2,000	250	50
SV1A-11-10-174 CGM 2/6/07	California Oxygenates Mixture #1	2,000/10,000	250	50/250

Standard ID	SV1-C11-61-1
Name	8260 2°
Final Volume	10 mL
Solvent /Lot #	SV1A-03-394
Prep. Date	2/6/07
Exp. Date	5/31/07 *
Prepared By	CGM
Reviewed By	pu

Comments

* Iodomethane's exp. date.

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-47	trans-1,4-dichloro-2-butene	2,000 ppm	250 µL	50 ppm
SV1A-11-193	1-Chlorohexane	1,000	500	50
SV1A-10-409	Ethyl Methacrylate	2,000	250	50
SV1A-11-92	2-CEVE	5,000	100	50
SV1A-11-159	Vinyl Acetate	2,000	250	50
SV1A-11-41	Carbon Disulfide	5,000	100	50
SV1A-11-90	Iodomethane	2,000	250	50
SV1A-10-413	Freon 113	1,000	500	50
SV1A-10-412	502/524 Volatile Organics Calibration Mix	2,000	250	50
SV1A-11-174	California Oxygenates Mixture #1	2,000/10,000	250	50/250

Standard ID	SV1-C11-61-2
Name	8260 2°
Final Volume	10 mL
Solvent /Lot #	SV1A-03-394
Prep. Date	2/6/07
Exp. Date	5/31/07 *
Prepared By	CGM
Reviewed By	pu

Comments

* Iodomethane's exp. date.

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-68	Volatile Organic Compounds Mix 6	2,000 ppm	1.25 mL	250 ppm
			CGM	2/6/07

Standard ID	SV1-C11-61-3
Name	Gases 2°
Final Volume	10 mL
Solvent /Lot #	SV1A-03-394
Prep. Date	2/6/07
Exp. Date	6/30/07
Prepared By	CGM
Reviewed By	pu 2/15/07

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-198	TCL Volatile Mix 1	2,000ppm	1.25mL	250 ppm
SV1A-11-190	Acrolein + Acrylonitrile	5,000ppm	500µL	250 ppm
			CGM	2/7/07

Standard ID	SV1-C11-63-1
Name	Ket/AA 1°
Final Volume	10 mL
Solvent /Lot #	SV1A-03-394
Prep. Date	2/7/07
Exp. Date	6/14/07 *
Prepared By	CGM
Reviewed By	

Comments

* Acrolein + Acrylonitrile exp. date.

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-193	1-Chlorohexane	1,000 ppm	500 mL	50ppm
SV1A-11-92	2-CEVE	5,000 ppm	100µL	50 ppm
SV1A-11-203	Vinyl Acetate	2,000 ppm	250 µL	50 ppm
SV1A-11-152	California Oxygenates Mixture #1	2,000/10,000ppm	250µL	50/250 ppm
SV1A-11-204	Custom 8260 Megamix	2,000-40,000 ppm	250µL	50-1000 ppm
			CGM	2/7/07

Standard ID	SV1-C11-63-2
Name	8260 2°
Final Volume	10 mL
Solvent /Lot #	SV1A-03-394
Prep. Date	2/7/07
Exp. Date	8/7/07
Prepared By	CGM
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-33	624 ISSS M-DIR	20000 ppm	25 ul	250 ppm/ppb
SV1A-11-36	624 SS	20000 ppm	25ul	250 ppm/ppb 2/9/07

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1-C11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-176	#M-645-M-5X Acrolein/Acrylonitrile	50000ppm	500 µl	250 ppm
SV1A-11-157	#48374 Sulfolane, TCL VOA I Kit	20000 ppm	1250 µl	
				AS 1/29/07

Standard ID	SV1-C11-59-1
Name	Ket-AA 1°
Final Volume	10 mls
Solvent /Lot #	SV1A-03-394
Prep. Date	1-29-07
Exp. Date	6-14-07
Prepared By	AS
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-150	#34006 Restek Vol Cal Mix #1, 15 Comp	50000ppm	500 µl	250 ppm
SV1A-11-196	#AMN-623-1 ULTRA, Acrolein-Acrylonitrile	20000 ppm	1250 µl	
				AS 1/29/07

Standard ID	SV1-C11-59-2
Name	Ket-AA 2°
Final Volume	10 mls
Solvent /Lot #	SV1A-03-394
Prep. Date	1/29/07
Exp. Date	4/30/07
Prepared By	AS
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-150	#34006 Restek Vol Cal Mix #1, 15 Comp	50000ppm	500 µl	250 ppm
SV1A-11-196	#AMN-623-1 ULTRA, Acrolein-Acrylonitrile	20000 ppm	1250 µl	
				AS 1/29/07

Standard ID	SV1-C11-59-3
Name	Ket AA 2°
Final Volume	10 mls
Solvent /Lot #	SV1A-03-394
Prep. Date	1/29/07
Exp. Date	4/30/07
Prepared By	AS
Reviewed By	2/15/07

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1C-11

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-151	vinyl acetate, Restek #30216	2000 ppm	250 µL	50 ppm
-57	Iodomethane, Restek #30292	2000	250 µL	
-56	carbon disulfide, Restek #30258	2000	250 µL	
-24	1-chlorohexane, ULTRA #EPA-1208	1000	500 µL	
-55	t-1,4-Dichloro-2-butene Restek #30274	2000	250 µL	
-52	Freon 113, Restek #30462	2000	250 µL	
-37	2-clore, Accu std M-601C-10X	2000	250 µL	
-54	Ethyl methacrolate	2000	250 µL	
-93	502/524 Vol. Org. mix	2000	250 µL	
-134	CAL OXYG. mix ~~DCFM~~ AS 10-25-06	2000/10K	250 µL	50/250 ppm

Standard ID	SV1C-11-43-1
Name	8260B 2°
Final Volume	10 mls
Solvent /Lot #	SV1A-03-394 ~~04-25-07~~ AS 10/25
Prep. Date	10-25-06
Exp. Date	04-25-07
Prepared By	AS
Reviewed By	[signature] 10/30/06

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-11-109	Accu std, F114 #M-RCF-10	200 ppm	500 µL	50 ppm
-119	Isopropyl Alcohol #M-8015/5031-16	10,000	100 µL	500 ppm
-4	oxygenates #OGAD-001	2000/10,000	50 µL	50/250 ppm
SV1A-10-70	Restek, 1,2,3-TCB #30416	2000	50 µL	50 ppm
-275	vinyl acetate #30216	2000	50 µL	
-248	VOA CAL mix, Ketan #30006	5000	20 µL	
SV1A-11-64	502 CAL mix #30042	2000	50 µL	
-98	104.1 CLP VOA Mega mix #30456	2000	50 µL	
				AS 11-8-06

Standard ID	SV1C-11-43-2
Name	CLP + F114 & OXYG(S)
Final Volume	2 mls
Solvent /Lot #	SV1A-03-394
Prep. Date	11-8-06
Exp. Date	5-8-07
Prepared By	AS
Reviewed By	[signature] 11/30/06

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SV1A-10-72	Restek, VOA Matrix Spike #30045	2500 ppm	40 µL	50 ppm
				AS 11-8-06

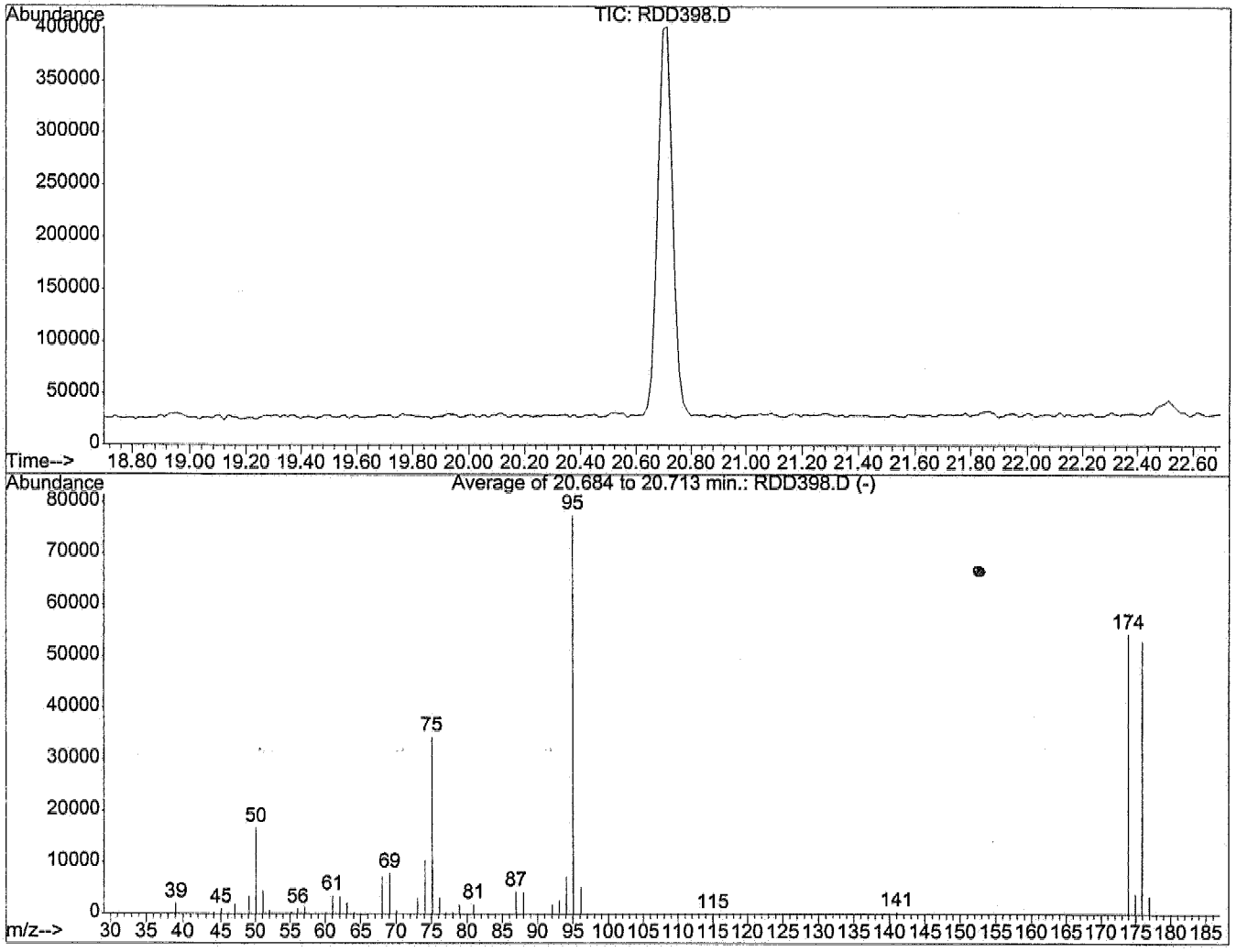
Standard ID	SV1C-11-43-3
Name	CLP M.SPK
Final Volume	2 mls
Solvent /Lot #	SV1A-03-394
Prep. Date	11-8-06
Exp. Date	5-8-07
Prepared By	AS
Reviewed By	[signature] 10/30/06

Comments

BFB

Data File : D:\HPCHEM\1\DATA\07D17\RDD398.D
Acq On : 18 Apr 2007 12:41 am
Sample : BFB94D38 2uL 25mL
Misc : T/CHECK
MS Integration Params: 524TAIL.P
Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260

Vial: 2
Operator: CR
Inst : TO94
Multiplr: 1.00



AutoFind: Scans 1142, 1143, 1144; Background Corrected with Scan 1135

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	16765	PASS
75	95	30	60	44.4	34427	PASS
95	95	100	100	100.0	77536	PASS
96	95	5	9	6.9	5314	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	70.3	54493	PASS
175	174	5	9	7.3	3977	PASS
176	174	95	101	97.4	53093	PASS
177	176	5	9	6.5	3442	PASS

RDD398.D VO94C20.M Wed Apr 18 15:34:10 2007

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Apr 19 9:29 2007 Quant Results File: VO94C20.RES

Quant Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Initial Calibration
DataAcq Meth : VO94C20

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	11.85	114	2383555	10.00	ug/l	-0.01
37) CHLOROBENZENE-D5	17.98	117	2042947	10.00	ug/l	-0.01
67) 1,2-DICHLOROBENZENE-D4	24.53	152	752411	10.00	ug/l	-0.03
System Monitoring Compounds						
36) 1,2-Dichloroethane-d4	11.28	65	548461	10.30	ug/l	-0.01
Spiked Amount 10.000			Recovery = 103.00%			
50) Toluene-d8	14.78	98	2696109	9.43	ug/l	-0.01
Spiked Amount 10.000			Recovery = 94.30%			
71) 4-Bromofluorobenzene	20.70	95	955357	9.87	ug/l	-0.03
Spiked Amount 10.000			Recovery = 98.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.26	85	526929	9.14	ug/l	100
3) Chloromethane	4.85	50	844318	9.12	ug/l	99
4) Vinyl chloride	4.95	62	778986	10.11	ug/l	100
5) Bromomethane	5.74	94	528792	9.55	ug/l	100
6) Chloroethane	5.84	64	561394	10.54	ug/l	99
7) Dichlorofluoromethane	5.88	67	1353640	10.43	ug/l	99
8) Trichlorofluoromethane	6.26	101	852274	10.50	ug/l	98
10) Acrolein	6.86	56	52554	17.48	ug/l	86
11) 1,1,2-Trichloro-1,2,2-trif	6.92	151	487055	9.01	ug/l	100
12) Acetone	6.95	43	217760	20.63	ug/l	98
13) 1,1-Dichloroethene	7.24	61	1028922	9.31	ug/l	98
14) tert-Butyl alcohol	7.24	59	162018	53.22	ug/l	92
15) Methyl acetate	7.64	43	19931	0.73	ug/l	95
16) Iodomethane	7.79	142	892942	8.91	ug/l	99
17) Methylene chloride	7.96	49	1028065	9.90	ug/l	96
18) Carbon disulfide	8.14	76	1937618	6.92	ug/l	100
19) Acrylonitrile	8.06	53	369083	35.40	ug/l	93
20) tert-Butyl methyl ether (M	8.12	73	1155343	10.65	ug/l	98
21) trans-1,2-Dichloroethene	8.41	61	1131382	9.28	ug/l	97
22) Isopropyl ether (DIPE)	8.75	45	3354018	11.61	ug/l	96
23) Vinyl acetate	8.91	43	920398	10.46	ug/l	97
24) 1,1-Dichloroethane	9.03	63	1614505	10.33	ug/l	98
25) tert-Butyl ethyl ether (ET	9.36	59	1965943	10.72	ug/l	100
26) 2-Butanone	9.57	43	360448	24.81	ug/l	97
27) 2,2-Dichloropropane	9.89	77	975951	8.72	ug/l	94
28) cis-1,2-Dichloroethene	9.95	61	1340916	10.06	ug/l	100
30) Chloroform	10.18	83	1295989	10.29	ug/l	99
31) Bromochloromethane	10.46	49	657126	10.90	ug/l	91
32) Tetrahydrofuran	10.49	42	121333	12.12	ug/l	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Apr 19 9:29 2007 Quant Results File: VO94C20.RES

Quant Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Initial Calibration
DataAcq Meth : VO94C20

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
33)	1,1,1-Trichloroethane	10.83	97	1076786	10.06	ug/l		99
34)	Cyclohexane	10.86	56	32750	0.16	ug/l	#	61
35)	tert-Amyl methyl ether (TA	11.13	73	1613809	10.62	ug/l		98
38)	1,1-Dichloropropene	11.06	77	379948	9.13	ug/l		96
39)	Carbon tetrachloride	11.28	119	806463	9.32	ug/l		99
40)	1,2-Dichloroethane	11.44	62	620661	9.55	ug/l		99
41)	Benzene	11.53	78	3075913	9.37	ug/l		99
42)	Trichloroethene	12.55	130	814447	8.84	ug/l		96
44)	1,2-Dichloropropane	12.84	63	888911	10.42	ug/l	#	95
45)	Bromodichloromethane	13.30	83	840849	10.30	ug/l		100
46)	Dibromomethane	13.43	93	302862	9.97	ug/l		96
47)	2-Chloroethyl vinyl ether	13.65	63	54839	16.51	ug/l	#	52
48)	4-Methyl-2-pentanone	13.71	43	886425	25.63	ug/l		94
49)	cis-1,3-Dichloropropene	14.22	75	990925	9.62	ug/l	#	99
51)	Toluene	14.94	91	3324867	9.76	ug/l		99
52)	Ethyl methacrylate	14.98	69	543509	10.56	ug/l		96
53)	trans-1,3-Dichloropropene	15.16	75	702869	9.96	ug/l		99
54)	2-Hexanone	15.39	43	549616	24.36	ug/l		95
55)	1,1,2-Trichloroethane	15.54	97	424466	10.63	ug/l		99
56)	1,3-Dichloropropane	16.03	76	818812	10.35	ug/l		99
57)	Tetrachloroethene	16.31	164	620592	8.66	ug/l		99
58)	Dibromochloromethane	16.73	129	479362	10.07	ug/l		99
59)	1,2-Dibromoethane	17.19	107	387622	9.99	ug/l		99
60)	1-Chlorohexane	17.29	91	1561974	9.91	ug/l		98
61)	Chlorobenzene	18.07	112	2026806	9.93	ug/l		98
62)	1,1,1,2-Tetrachloroethane	18.11	131	615361	9.91	ug/l		93
63)	Ethylbenzene	18.11	91	4000631	10.24	ug/l		99
64)	m-Xylene & p-Xylene	18.27	91	5810382	19.86	ug/l		100
65)	o-Xylene	19.28	91	2910552	10.30	ug/l		99
66)	Styrene	19.35	104	2208651	10.58	ug/l		100
68)	Isopropylbenzene	20.05	105	3866213	9.73	ug/l		99
69)	Bromoform	20.26	173	249214	9.90	ug/l		99
70)	1,1,2,2-Tetrachloroethane	20.43	83	486460	10.39	ug/l		100
72)	1,2,3-Trichloropropane	20.80	61	85109	10.45	ug/l		90
73)	trans-1,4-Dichloro-2-buten	20.87	53	127330	10.22	ug/l		92
74)	n-Propylbenzene	21.00	91	5078119	10.08	ug/l		98
75)	Bromobenzene	21.25	156	705054	9.07	ug/l		98
76)	1,3,5-Trimethylbenzene	21.36	105	2939372	9.84	ug/l		97
77)	2-Chlorotoluene	21.52	91	2686804	9.50	ug/l		98
78)	4-Chlorotoluene	21.60	91	2623840	10.28	ug/l		91
79)	tert-Butylbenzene	22.23	119	2646503	9.65	ug/l		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Apr 19 9:29 2007 Quant Results File: VO94C20.RES

Quant Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Initial Calibration
DataAcq Meth : VO94C20

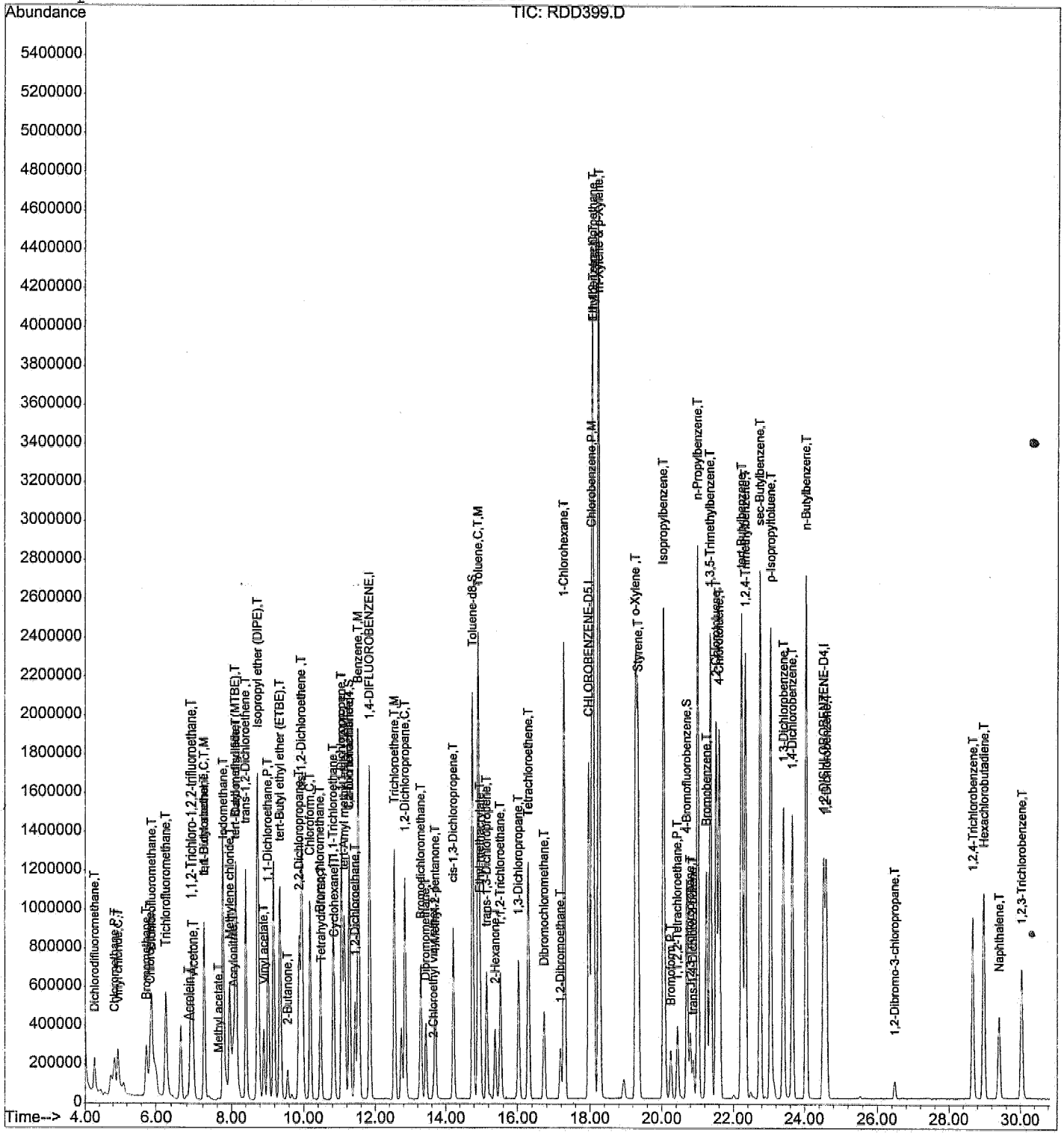
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	1,2,4-Trimethylbenzene	22.34	105	2837035	9.80	ug/l	88
81)	sec-Butylbenzene	22.74	105	4550536	10.15	ug/l	98
82)	p-Isopropyltoluene	23.05	119	3257964	9.56	ug/l	99
83)	1,3-Dichlorobenzene	23.42	146	1480281	9.42	ug/l	99
84)	1,4-Dichlorobenzene	23.65	146	1420681	9.51	ug/l	99
85)	n-Butylbenzene	24.05	91	3458141	10.08	ug/l	99
86)	1,2-Dichlorobenzene	24.60	146	1190204	9.62	ug/l	99
87)	1,2-Dibromo-3-chloropropan	26.47	157	64064	9.98	ug/l	97
88)	1,2,4-Trichlorobenzene	28.67	180	757295	9.27	ug/l	99
89)	Hexachlorobutadiene	28.97	225	554166	9.59	ug/l	99
90)	Naphthalene	29.40	128	869291	9.04	ug/l	99
91)	1,2,3-Trichlorobenzene	30.03	180	586070	9.31	ug/l	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\07D17\RDD399.D Vial: 3
Acq On : 18 Apr 2007 1:20 am Operator: CR
Sample : CVO94C2063 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Apr 19 9:29 2007 Quant Results File: VO94C20.RES

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Initial Calibration



LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 07D165

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D165

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Six (6) soil samples were received on 04/13/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D165
Instrument ID : T-067

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V067D29Q	1	NA	04/17/0716:21	04/17/0716:21	RDC346	RBC079	V067D29	Method Blank
LCS1S	V067D29L	1	NA	04/17/0714:25	04/17/0714:25	RDC343	RBC079	V067D29	Lab Control Sample (LCS)
LCD1S	V067D29C	1	NA	04/17/0715:02	04/17/0715:02	RDC344	RBC079	V067D29	LCS Duplicate
C22-HSAS25-13-14.5	D165-09	.89	3.0	04/17/0718:11	04/17/0718:11	RDC349	RBC079	V067D29	Field Sample
C22-HSAS22-11-12.5	D165-01	.93	4.1	04/17/0718:48	04/17/0718:48	RDC350	RBC079	V067D29	Field Sample
C22-HSAS22-30-31.5	D165-02	.82	14.4	04/17/0719:25	04/17/0719:25	RDC351	RBC079	V067D29	Field Sample
C22-HSAS22-60-61.5	D165-03	.94	5.6	04/17/0720:02	04/17/0720:02	RDC352	RBC079	V067D29	Field Sample
C22-HSAS25-25-26.5	D165-10	.94	3.8	04/17/0720:39	04/17/0720:39	RDC353	RBC079	V067D29	Field Sample
C22-HSAS25-46-46.5	D165-11	.89	4.9	04/17/0721:16	04/17/0721:16	RDC354	RBC079	V067D29	Field Sample
C22-HSAS25-13-14.5MS	D165-09M	1.1	3.0	04/17/0723:44	04/17/0723:44	RDC358	RBC079	V067D29	Matrix Spike Sample (MS)
C22-HSAS25-13-14.5MSD	D165-09S	.91	3.0	04/18/0700:21	04/18/0700:21	RDC359	RBC079	V067D29	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/12/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D165	Date Extracted:	04/17/07 18:48
Sample ID:	C22-HSAS22-11-12.5	Date Analyzed:	04/17/07 18:48
Lab Samp ID:	D165-01	Dilution Factor:	.93
Lab File ID:	RDC350	Matrix :	SOIL
Ext Btch ID:	V067D29	% Moisture :	4.1
Calib. Ref.:	RBC079	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.8	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.8	1.9
1,1,2-TRICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHENE	ND	4.8	1.9
1,2-DICHLOROETHANE	ND	4.8	1.9
1,2-DICHLOROPROPANE	ND	4.8	1.9
2-BUTANONE	ND	9.7	4.8
2-HEXANONE	ND	9.7	4.8
4-METHYL-2-PENTANONE	ND	9.7	4.8
ACETONE	ND	9.7	4.8
BENZENE	ND	4.8	1.9
BROMODICHLOROMETHANE	ND	4.8	1.9
BROMOFORM	ND	4.8	1.9
BROMOMETHANE	ND	9.7	1.9
CARBON DISULFIDE	ND	4.8	1.9
CARBON TETRACHLORIDE	ND	4.8	1.9
CHLOROBENZENE	ND	4.8	1.9
CHLOROETHANE	ND	4.8	1.9
CHLOROFORM	ND	4.8	1.9
CHLOROMETHANE	ND	9.7	1.9
CIS-1,2-DICHLOROETHENE	ND	4.8	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.8	1.9
DIBROMOCHLOROMETHANE	ND	4.8	1.9
ETHYLBENZENE	ND	4.8	1.9
M/P-XYLENES	ND	9.7	1.9
MTBE	ND	4.8	1.9
METHYLENE CHLORIDE	ND	9.7	1.9
O-XYLENE	ND	4.8	1.9
STYRENE	ND	4.8	1.9
TETRACHLOROETHENE	ND	4.8	1.9
TOLUENE	ND	4.8	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.8	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.8	1.9
TRICHLOROETHENE	ND	4.8	1.9
VINYL CHLORIDE	ND	4.8	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	120	60-160
4-BROMOFLUOROBENZENE	114	70-150
TOLUENE-D8	103	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/12/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D165	Date Extracted: 04/17/07 19:25
Sample ID: C22-HSAS22-30-31.5	Date Analyzed: 04/17/07 19:25
Lab Samp ID: D165-02	Dilution Factor: .82
Lab File ID: RDC351	Matrix : SOIL
Ext Btch ID: V067D29	% Moisture : 14.4
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.8	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.8	1.9
1,1,2-TRICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHENE	ND	4.8	1.9
1,2-DICHLOROETHANE	ND	4.8	1.9
1,2-DICHLOROPROPANE	ND	4.8	1.9
2-BUTANONE	ND	9.6	4.8
2-HEXANONE	ND	9.6	4.8
4-METHYL-2-PENTANONE	ND	9.6	4.8
ACETONE	ND	9.6	4.8
BENZENE	ND	4.8	1.9
BROMODICHLOROMETHANE	ND	4.8	1.9
BROMOFORM	ND	4.8	1.9
BROMOMETHANE	ND	9.6	1.9
CARBON DISULFIDE	ND	4.8	1.9
CARBON TETRACHLORIDE	ND	4.8	1.9
CHLOROBENZENE	ND	4.8	1.9
CHLOROETHANE	ND	4.8	1.9
CHLOROFORM	ND	4.8	1.9
CHLOROMETHANE	ND	9.6	1.9
CIS-1,2-DICHLOROETHENE	ND	4.8	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.8	1.9
DIBROMOCHLOROMETHANE	ND	4.8	1.9
ETHYLBENZENE	ND	4.8	1.9
M/P-XYLENES	ND	9.6	1.9
MTBE	ND	4.8	1.9
METHYLENE CHLORIDE	ND	9.6	1.9
O-XYLENE	ND	4.8	1.9
STYRENE	ND	4.8	1.9
TETRACHLOROETHENE	ND	4.8	1.9
TOLUENE	ND	4.8	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.8	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.8	1.9
TRICHLOROETHENE	ND	4.8	1.9
VINYL CHLORIDE	ND	4.8	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	122	60-160
4-BROMOFLUOROBENZENE	113	70-150
TOLUENE-D8	102	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/12/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D165	Date Extracted: 04/17/07 20:02
Sample ID: C22-HSAS22-60-61.5	Date Analyzed: 04/17/07 20:02
Lab Samp ID: D165-03	Dilution Factor: .94
Lab File ID: RDC352	Matrix : SOIL
Ext Btch ID: V067D29	% Moisture : 5.6
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	122	60-160
4-BROMOFLUOROBENZENE	110	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/13/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D165	Date Extracted: 04/17/07 18:11
Sample ID: C22-HSAS25-13-14.5	Date Analyzed: 04/17/07 18:11
Lab Samp ID: D165-09	Dilution Factor: .89
Lab File ID: RDC349	Matrix : SOIL
Ext Btch ID: V067D29	% Moisture : 3.0
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.6	1.8
1,1,2,2-TETRACHLOROETHANE	ND	4.6	1.8
1,1,2-TRICHLOROETHANE	ND	4.6	1.8
1,1-DICHLOROETHANE	ND	4.6	1.8
1,1-DICHLOROETHENE	ND	4.6	1.8
1,2-DICHLOROETHANE	ND	4.6	1.8
1,2-DICHLOROPROPANE	ND	4.6	1.8
2-BUTANONE	ND	9.2	4.6
2-HEXANONE	ND	9.2	4.6
4-METHYL-2-PENTANONE	ND	9.2	4.6
ACETONE	ND	9.2	4.6
BENZENE	ND	4.6	1.8
BROMODICHLOROMETHANE	ND	4.6	1.8
BROMOFORM	ND	4.6	1.8
BROMOMETHANE	ND	9.2	1.8
CARBON DISULFIDE	ND	4.6	1.8
CARBON TETRACHLORIDE	ND	4.6	1.8
CHLOROBENZENE	ND	4.6	1.8
CHLOROETHANE	ND	4.6	1.8
CHLOROFORM	ND	4.6	1.8
CHLOROMETHANE	ND	9.2	1.8
CIS-1,2-DICHLOROETHENE	ND	4.6	1.8
CIS-1,3-DICHLOROPROPENE	ND	4.6	1.8
DIBROMOCHLOROMETHANE	ND	4.6	1.8
ETHYLBENZENE	ND	4.6	1.8
M/P-XYLENES	ND	9.2	1.8
MTBE	ND	4.6	1.8
METHYLENE CHLORIDE	ND	9.2	1.8
O-XYLENE	ND	4.6	1.8
STYRENE	ND	4.6	1.8
TETRACHLOROETHENE	ND	4.6	1.8
TOLUENE	ND	4.6	1.8
TRANS-1,2-DICHLOROETHENE	ND	4.6	1.8
TRANS-1,3-DICHLOROPROPENE	ND	4.6	1.8
TRICHLOROETHENE	ND	4.6	1.8
VINYL CHLORIDE	ND	4.6	1.8

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	118	60-160
4-BROMOFLUOROBENZENE	113	70-150
TOLUENE-D8	102	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/13/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D165	Date Extracted:	04/17/07 20:39
Sample ID:	C22-HSAS25-25-26.5	Date Analyzed:	04/17/07 20:39
Lab Samp ID:	D165-10	Dilution Factor:	.94
Lab File ID:	RDC353	Matrix :	SOIL
Ext Btch ID:	V067D29	% Moisture :	3.8
Calib. Ref.:	RBC079	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.9	2.0
1,1,2,2-TETRACHLOROETHANE	ND	4.9	2.0
1,1,2-TRICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHENE	ND	4.9	2.0
1,2-DICHLOROETHANE	ND	4.9	2.0
1,2-DICHLOROPROPANE	ND	4.9	2.0
2-BUTANONE	ND	9.8	4.9
2-HEXANONE	ND	9.8	4.9
4-METHYL-2-PENTANONE	ND	9.8	4.9
ACETONE	ND	9.8	4.9
BENZENE	ND	4.9	2.0
BROMODICHLOROMETHANE	ND	4.9	2.0
BROMOFORM	ND	4.9	2.0
BROMOMETHANE	ND	9.8	2.0
CARBON DISULFIDE	ND	4.9	2.0
CARBON TETRACHLORIDE	ND	4.9	2.0
CHLOROBENZENE	ND	4.9	2.0
CHLOROETHANE	ND	4.9	2.0
CHLOROFORM	ND	4.9	2.0
CHLOROMETHANE	ND	9.8	2.0
CIS-1,2-DICHLOROETHENE	ND	4.9	2.0
CIS-1,3-DICHLOROPROPENE	ND	4.9	2.0
DIBROMOCHLOROMETHANE	ND	4.9	2.0
ETHYLBENZENE	ND	4.9	2.0
M/P-XYLENES	ND	9.8	2.0
MTBE	ND	4.9	2.0
METHYLENE CHLORIDE	ND	9.8	2.0
O-XYLENE	ND	4.9	2.0
STYRENE	ND	4.9	2.0
TETRACHLOROETHENE	ND	4.9	2.0
TOLUENE	ND	4.9	2.0
TRANS-1,2-DICHLOROETHENE	ND	4.9	2.0
TRANS-1,3-DICHLOROPROPENE	ND	4.9	2.0
TRICHLOROETHENE	ND	4.9	2.0
VINYL CHLORIDE	ND	4.9	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	120	60-160
4-BROMOFLUOROBENZENE	113	70-150
TOLUENE-D8	105	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/13/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D165	Date Extracted:	04/17/07 21:16
Sample ID:	C22-HSAS25-46-46.5	Date Analyzed:	04/17/07 21:16
Lab Samp ID:	D165-11	Dilution Factor:	.89
Lab File ID:	RDC354	Matrix :	SOIL
Ext Btch ID:	V067D29	% Moisture :	4.9
Calib. Ref.:	RBC079	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.7	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.7	1.9
1,1,2-TRICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHENE	ND	4.7	1.9
1,2-DICHLOROETHANE	ND	4.7	1.9
1,2-DICHLOROPROPANE	ND	4.7	1.9
2-BUTANONE	ND	9.4	4.7
2-HEXANONE	ND	9.4	4.7
4-METHYL-2-PENTANONE	ND	9.4	4.7
ACETONE	5.5J	9.4	4.7
BENZENE	ND	4.7	1.9
BROMODICHLOROMETHANE	ND	4.7	1.9
BROMOFORM	ND	4.7	1.9
BROMOMETHANE	ND	9.4	1.9
CARBON DISULFIDE	ND	4.7	1.9
CARBON TETRACHLORIDE	ND	4.7	1.9
CHLOROBENZENE	ND	4.7	1.9
CHLOROETHANE	ND	4.7	1.9
CHLOROFORM	ND	4.7	1.9
CHLOROMETHANE	ND	9.4	1.9
CIS-1,2-DICHLOROETHENE	ND	4.7	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.7	1.9
DIBROMOCHLOROMETHANE	ND	4.7	1.9
ETHYLBENZENE	ND	4.7	1.9
M/P-XYLENES	ND	9.4	1.9
MTBE	ND	4.7	1.9
METHYLENE CHLORIDE	ND	9.4	1.9
O-XYLENE	ND	4.7	1.9
STYRENE	ND	4.7	1.9
TETRACHLOROETHENE	ND	4.7	1.9
TOLUENE	ND	4.7	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.7	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.7	1.9
TRICHLOROETHENE	ND	4.7	1.9
VINYL CHLORIDE	ND	4.7	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	60-160
4-BROMOFLUOROBENZENE	112	70-150
TOLUENE-D8	104	70-140

QC SUMMARIES

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/17/07
Batch No. : 07D165	Date Extracted: 04/17/07 16:21
Sample ID: MBLK1S	Date Analyzed: 04/17/07 16:21
Lab Samp ID: V067D29Q	Dilution Factor: 1
Lab File ID: RDC346	Matrix : SOIL
Ext Btch ID: V067D29	% Moisture : NA
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	110	70-140
4-BROMOFLUOROBENZENE	113	70-130
TOLUENE-D8	102	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V067D29Q	V067D29L	V067D29C		
LAB FILE ID:	RDC346	RDC343	RDC344		
DATE EXTRACTED:	04/17/0716:21	04/17/0714:25	04/17/0715:02	DATE COLLECTED:	NA
DATE ANALYZED:	04/17/0716:21	04/17/0714:25	04/17/0715:02	DATE RECEIVED:	04/17/07
PREP. BATCH:	V067D29	V067D29	V067D29		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	20.5	103	20.0	20.4	102	1	60-130	50
Benzene	ND	20.0	20.6	103	20.0	18.0	90	13	70-130	50
Chlorobenzene	ND	20.0	19.6	98	20.0	17.3	86	13	70-130	50
Toluene	ND	20.0	19.5	97	20.0	17.1	85	13	70-130	50
Trichloroethene	ND	20.0	19.2	96	20.0	16.9	84	13	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	57.3	115	50.0	58.5	117	70-140
4-Bromofluorobenzene	50.0	53.3	107	50.0	51.0	102	70-130
Toluene-d8	50.0	50.5	101	50.0	46.7	93	70-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: SW 5035/8260B

MATRIX: SOIL % MOISTURE: 3.0

DILUTION FACTOR:	.89	1.1	.91		
SAMPLE ID:	C22-HSAS25-13-14.5				
LAB SAMP ID:	D165-09	D165-09M	D165-09S		
LAB FILE ID:	RDC349	RDC358	RDC359		
DATE EXTRACTED:	04/17/0718:11	04/17/0723:44	04/18/0700:21	DATE COLLECTED:	04/13/07
DATE ANALYZED:	04/17/0718:11	04/17/0723:44	04/18/0700:21	DATE RECEIVED:	04/13/07
PREP. BATCH:	V067D29	V067D29	V067D29		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	56.7	56.6	100	46.9	47.7	102	2	50-140	50
Benzene	ND	56.7	56.4	100	46.9	45.7	97	3	60-150	50
Chlorobenzene	ND	56.7	54.7	96	46.9	44.5	95	1	70-130	50
Toluene	ND	56.7	53.5	94	46.9	44.1	94	0	70-140	50
Trichloroethene	ND	56.7	50.7	89	46.9	43.0	92	3	60-140	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	56.7	69.8	123	46.9	57.1	122	60-160
4-Bromofluorobenzene	56.7	58.5	103	46.9	49.4	105	70-150
Toluene-d8	56.7	57.2	101	46.9	47.3	101	70-140

INITIAL CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D165

Lab File ID: RBC074 BFB Injection Date : 02/07/07

Instrument ID: T-067 BFB Injection Time : 18:28

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.67
75	30.0 - 60.0% of mass 95	41.01
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.56
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.94
175	5.0 - 9.0% of mass 174	4.92(6.8)1
176	95.0 - 101.0% of mass 174	70.83(98.5)1
177	5.0 - 9.0% of mass 176	4.71(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD02	V067B071	RBC075	02/07/07	19:04
2	VSTD05	V067B072	RBC076	02/07/07	19:41
3	VSTD010	V067B073	RBC077	02/07/07	20:18
4	VSTD020	V067B074	RBC078	02/07/07	20:55
5	VSTD050	V067B075	RBC079	02/07/07	21:32
6	VSTD080	V067B076	RBC080	02/07/07	22:08
7	VSTD100	V067B077	RBC081	02/07/07	22:45
8	VSTD200	V067B078	RBC082	02/07/07	23:22
9	VSTD300	V067B079	RBC083	02/07/07	23:58
10	VSTD050	IV067B071	RBC086	02/08/07	01:49

PROGRAM: ICALMAX

Input: R:\CAL\8260\2007\V067B07\RBC079.ICL Output: R:\CAL\8260\2007\V067B07\RBC079.MAX

IDX	Parameter	x0	x1	x2	CCF2	MaxMinAmtRatio	MaxMinRespRatio	MaxMinRRF	MaxMinConc
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998	2.23243	0.27666	0.12393	111.6
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996	-6.26479	-1.68957	0.26969	-313.2
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993	-4.45329	-2.14560	0.48180	-222.7
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997	-7.61527	-1.76653	0.23197	-380.8

2993

2/12/08

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :02/07/07 19:04
Spike Units :PPB
IC File :RBC079

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :02/07/07 23:58
HPChem Method :VO67B07

M	IDX	Parameters	2 19:04 RBC075	5 19:41 RBC076	10 20:18 RBC077	20 20:55 RBC078	50 21:32 RBC079	80 22:08 RBC080	100 22:45 RBC081	200 23:22 RBC082	300 23:58 RBC083	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	10.1403
	2	Dichlorodifluoromethane	0.181	0.215	0.228	0.229	0.240	0.235	0.219	0.208	0.199	0.217	8.72	3.5412
	3	Chloromethane	0.218	0.247	0.258	0.262	0.279	0.287	0.268	0.262	0.245	0.258	7.93	4.0145
	4	Vinyl chloride	0.215	0.246	0.240	0.224	0.190	0.158	0.138	------	------	0.202	20.48	4.1679
	5	Bromomethane	0.200	0.210	0.213	0.212	0.215	0.217	0.205	0.204	0.200	0.209	3.08	4.9065
	6	Chloroethane	0.099	0.121	0.125	0.134	0.145	0.144	0.132	0.128	0.120	0.127	11.03	5.0158
	7	Dichlorofluoromethane	0.467	0.471	0.535	0.501	0.466	0.478	0.445	0.451	0.421	0.471	6.97	5.0571
	8	Trichlorofluoromethane	0.268	0.299	0.314	0.324	0.342	0.336	0.317	0.306	0.293	0.311	7.30	5.3898
4	9	Acrolein	0.027	0.031	0.035	0.037	0.037	0.039	0.035	0.037	0.033	0.035	10.79	5.9442
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.199	0.190	0.232	0.210	0.199	0.202	0.192	0.197	0.189	0.201	6.58	5.9525
4	11	Acetone	0.079	0.076	0.073	0.075	0.066	0.069	0.064	0.067	0.062	0.070	8.21	6.0203
	12	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	13	1,1-Dichloroethene	0.358	0.373	0.444	0.408	0.391	0.392	0.370	0.370	0.346	0.383	7.65	6.2371
5	14	tert-Butyl alcohol	0.021	0.023	0.026	0.026	0.023	0.024	0.023	0.024	0.021	0.024	7.53	6.2785
	15	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	0.312	0.333	0.415	0.438	0.438	0.439	0.419	0.422	0.395	0.401	11.76	6.7022
	17	Methylene chloride	0.531	0.477	0.491	0.461	0.421	0.430	0.406	0.403	0.381	0.444	10.99	6.8660
5	18	Acrylonitrile	0.079	0.084	0.089	0.095	0.089	0.090	0.082	0.087	0.078	0.086	6.58	6.9835
	19	Carbon disulfide	1.095	1.112	1.258	1.207	1.136	1.128	1.065	1.088	1.009	1.122	6.61	6.9967
	20	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	21	tert-Butyl methyl ether (MTBE)	0.537	0.574	0.661	0.646	0.604	0.607	0.576	0.607	0.559	0.597	6.69	7.0017
	22	trans-1,2-Dichloroethene	0.382	0.411	0.480	0.465	0.445	0.438	0.421	0.427	0.407	0.431	6.99	7.2417
	23	Isopropyl ether (DIPE)	0.941	0.971	1.131	1.109	1.053	1.061	1.006	1.069	0.996	1.037	6.12	7.5330
	24	Vinyl acetate	0.425	0.402	0.530	0.531	0.525	0.563	0.554	0.610	0.578	0.524	13.05	7.6836
	25	1,1-Dichloroethane	0.553	0.553	0.622	0.599	0.559	0.554	0.513	0.529	0.507	0.554	6.71	7.7763
	26	tert-Butyl ethyl ether (ETBE)	0.709	0.757	0.867	0.839	0.796	0.801	0.779	0.809	0.758	0.791	5.94	8.0510
4	27	2-Butanone	0.122	0.115	0.117	0.133	0.127	0.132	0.125	0.136	0.131	0.126	5.76	8.2380
	28	2,2-Dichloropropane	0.362	0.366	0.418	0.397	0.375	0.370	0.352	0.365	0.348	0.373	5.96	8.4896
	29	cis-1,2-Dichloroethene	0.478	0.423	0.514	0.548	0.524	0.520	0.493	0.461	0.423	0.487	9.16	8.5541
	30	Chloroform	0.521	0.539	0.616	0.591	0.565	0.563	0.533	0.543	0.522	0.555	5.82	8.7577
	31	Bromochloromethane	0.285	0.302	0.349	0.333	0.306	0.309	0.295	0.288	0.277	0.305	7.63	8.9960
	32	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	33	1,1,1-Trichloroethane	0.402	0.403	0.462	0.431	0.417	0.413	0.394	0.403	0.382	0.412	5.69	9.2939
	34	1,1-Dichloropropene	0.112	0.129	0.155	0.151	0.141	0.144	0.136	0.139	0.129	0.137	9.50	9.4858
	35	tert-Amyl methyl ether (TAME)	0.675	0.722	0.842	0.820	0.770	0.785	0.755	0.788	0.755	0.768	6.49	9.5488
4	36	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	37	Carbon tetrachloride	0.337	0.339	0.400	0.370	0.356	0.361	0.342	0.347	0.334	0.354	5.90	9.6563
	38	1,2-Dichloroethane-d4	0.249	0.275	0.275	0.280	0.313	0.303	0.276	0.272	0.250	0.277	7.61	9.6811
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	15.6936
	40	1,2-Dichloroethane	0.363	0.371	0.424	0.413	0.374	0.371	0.357	0.363	0.329	0.374	7.68	9.8003
	41	Benzene	1.419	1.315	1.465	1.453	1.326	1.331	1.274	1.322	------	1.363	5.26	9.8750
	42	Trichloroethene	0.343	0.347	0.397	0.394	0.366	0.380	0.364	0.378	0.360	0.370	5.11	10.7113
	43	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	44	1,2-Dichloropropane	0.412	0.385	0.447	0.444	0.408	0.414	0.397	0.400	0.378	0.409	5.79	10.9612
	45	Bromodichloromethane	0.432	0.447	0.503	0.506	0.459	0.472	0.453	0.464	0.443	0.464	5.53	11.3501
	46	Dibromomethane	0.234	0.245	0.278	0.280	0.251	0.253	0.242	0.248	0.229	0.251	6.99	11.4858
	47	2-Chloroethyl vinyl ether	------	0.049	0.057	0.063	0.069	0.078	0.078	0.096	0.095	0.073	23.09	11.6721
	48	4-Methyl-2-pentanone	0.305	0.290	0.290	0.334	0.317	0.333	0.314	0.343	0.312	0.315	5.92	11.7175
	49	cis-1,3-Dichloropropene	0.417	0.437	0.505	0.518	0.484	0.509	0.503	0.525	0.494	0.488	7.57	12.1826
	50	Toluene-d8	------	1.135	1.140	1.221	1.339	1.286	1.219	1.223	------	1.223	5.98	12.6623
	51	Toluene	1.451	1.388	1.539	1.546	1.414	1.411	1.368	1.399	------	1.440	4.71	12.8112
	52	Ethyl methacrylate	0.234	0.278	0.328	0.359	0.348	0.369	0.360	0.388	------	0.333	15.59	12.8726
	53	trans-1,3-Dichloropropene	0.306	0.321	0.386	0.416	0.387	0.405	0.392	0.417	------	0.379	11.16	13.0346

NSOE

OK 2/12/07

4	54	2-Hexanone	0.186	0.161	0.164	0.191	0.185	0.208	0.202	0.223	0.219	0.193	11.30	13.2476
	55	1,1,2-Trichloroethane	0.283	0.302	0.328	0.339	0.304	0.310	0.295	0.306	0.287	0.306	5.88	13.3750
	56	1,3-Dichloropropane	0.478	0.478	0.532	0.551	0.499	0.510	0.497	0.511	0.483	0.504	4.91	13.8500
	57	Tetrachloroethene	0.268	0.265	0.286	0.293	0.267	0.269	0.259	0.265	0.252	0.269	4.82	14.0767
	58	Dibromochloromethane	0.325	0.337	0.381	0.393	0.362	0.376	0.363	0.385	0.367	0.366	6.14	14.4921
	59	1,2-Dibromoethane	0.291	0.316	0.363	0.371	0.341	0.349	0.337	0.359	0.347	0.342	7.26	14.9257
	60	1-Chlorohexane	0.436	0.454	0.531	0.561	0.558	0.563	0.547	0.562	0.542	0.528	9.18	15.0333
	61	Chlorobenzene	0.919	0.900	1.009	1.013	0.937	0.958	0.919	0.938	------	0.949	4.40	15.7752
	62	1,1,1,2-Tetrachloroethane	0.284	0.294	0.333	0.334	0.306	0.309	0.297	0.302	------	0.307	5.80	15.8181
	63	Ethylbenzene	1.472	1.458	1.648	1.682	1.566	1.612	1.548	1.547	------	1.567	5.02	15.8181
2	64	m-Xylene & p-Xylene	1.106	1.103	1.243	1.279	1.171	1.217	1.158	------	------	1.183	5.68	15.9816
	65	o-Xylene	1.143	1.152	1.277	1.326	1.211	1.289	1.230	1.274	1.153	1.228	5.53	16.9916
	66	Styrene	0.749	0.765	0.919	0.954	0.926	0.994	0.963	1.009	0.949	0.914	10.27	17.0561
	67	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	22.4738
	68	Isopropylbenzene	4.240	4.216	4.814	4.508	4.283	4.209	3.991	3.969	------	4.279	6.42	17.7823
	69	Bromoform	0.601	0.605	0.723	0.675	0.624	0.592	0.562	0.582	------	0.621	8.58	17.9629
	70	1,1,2,2-Tetrachloroethane	1.343	1.334	1.533	1.408	1.244	1.212	1.137	1.169	1.143	1.280	10.51	18.1847
	71	4-Bromofluorobenzene	1.345	1.218	1.211	1.214	1.323	1.237	------	------	------	1.258	4.78	18.4392
	72	1,2,3-Trichloropropane	0.216	0.233	0.261	0.251	0.207	0.197	0.192	0.197	0.174	0.214	13.59	18.5554
	73	trans-1,4-Dichloro-2-butene	------	0.133	0.163	0.161	0.159	0.167	0.164	0.180	0.177	0.163	8.78	18.6610
	74	n-Propylbenzene	4.663	4.875	5.741	5.404	5.360	5.343	5.141	4.981	------	5.188	6.62	18.7542
	75	Bromobenzene	0.980	1.001	1.128	1.042	0.976	0.947	0.895	0.909	------	0.985	7.63	18.9907
	76	1,3,5-Trimethylbenzene	3.020	2.934	3.555	3.395	3.293	3.259	3.119	3.158	2.943	3.186	6.58	19.1363
	77	2-Chlorotoluene	3.567	3.270	3.561	3.290	3.348	3.168	2.859	2.889	2.903	3.206	8.55	19.2736
	78	4-Chlorotoluene	2.695	2.848	3.244	3.069	2.677	2.706	2.726	2.742	2.445	2.795	8.40	19.3746
	79	tert-Butylbenzene	2.601	2.606	3.033	2.927	2.827	2.831	2.680	2.686	2.566	2.751	5.89	20.0365
	80	1,2,4-Trimethylbenzene	2.589	2.691	3.190	3.131	3.083	3.054	2.969	3.031	2.881	2.958	6.83	20.1524
	81	sec-Butylbenzene	3.681	3.756	4.567	4.444	4.595	4.541	4.417	4.561	------	4.320	8.72	20.5844
	82	p-Isopropyltoluene	2.141	2.299	2.848	2.857	3.058	3.170	3.088	3.283	------	2.843	14.54	20.9177
	83	1,3-Dichlorobenzene	1.684	1.640	1.905	1.810	1.744	1.750	1.641	1.723	1.706	1.734	4.83	21.2758
	84	1,4-Dichlorobenzene	1.518	1.564	1.823	1.715	1.647	1.667	1.600	1.677	1.649	1.651	5.36	21.5373
	85	n-Butylbenzene	1.438	1.605	2.113	2.259	2.605	2.916	2.800	3.262	------	2.375	26.94	21.9975
	86	1,2-Dichlorobenzene	1.571	1.506	1.745	1.646	1.576	1.576	1.514	1.579	1.548	1.585	4.59	22.5466
	87	1,2-Dibromo-3-chloropropane	0.087	0.106	0.148	0.151	0.151	0.154	0.147	0.168	0.168	0.142	19.23	24.6302
	88	1,2,4-Trichlorobenzene	0.357	0.375	0.488	0.492	0.548	0.618	0.600	0.726	0.782	0.554	26.06	27.0432
	89	Hexachlorobutadiene	0.248	0.247	0.323	0.319	0.351	0.387	0.372	0.411	0.430	0.343	19.08	27.3924
	90	Naphthalene	0.647	0.598	0.764	0.824	0.967	1.142	1.143	1.438	1.562	1.010	33.63	27.7929
	91	1,2,3-Trichlorobenzene	0.325	0.343	0.428	0.428	0.466	0.522	0.506	0.598	0.636	0.472	22.23	28.4698

Spike Amount = Nominal Amount * M
Ave_%RSD : 9.1 Max_%RSD : 33.6

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
4	Vinyl chloride	0.00692	0.15749	0.9827*
47	2-Chloroethyl vinyl ether	-0.00742	0.09175	0.9954
52	Ethyl methacrylate	-0.00783	0.37701	0.9993
85	n-Butylbenzene	-0.11897	3.04198	0.9958
87	1,2-Dibromo-3-chloropropane	-0.00432	0.16381	0.9988
88	1,2,4-Trichlorobenzene	-0.03217	0.71499	0.9930*
89	Hexachlorobutadiene	-0.01333	0.40976	0.9978
90	Naphthalene	-0.07805	1.40017	0.9886*
91	1,2,3-Trichlorobenzene	-0.02325	0.58876	0.9948*

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997

2/12/18

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	116	0.00
2	T	Dichlorodifluoromethane	50.000	54.285	-8.6	114	0.00
3	P,T	Chloromethane	50.000	56.283	-12.6	121	-0.01
4	C,T	Vinyl chloride	50.000	49.484	1.0	117	-0.01
5	T	Bromomethane	50.000	52.808	-5.6	119	-0.01
6	T	Chloroethane	50.000	55.465	-10.9	113	-0.01
7	T	Dichlorofluoromethane	50.000	47.741	4.5	112	0.00
8	T	Trichlorofluoromethane	50.000	57.196	-14.4	121	0.00
9	T	Acrolein	200.000	201.489	-0.7	109	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	49.156	1.7	115	0.00
11	T	Acetone	200.000	186.165	6.9	114	0.00
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	60	0.06
13	C,TM	1,1-Dichloroethene	50.000	59.108	-18.2	135	0.00
14	T	tert-Butyl alcohol	250.000	262.606	-5.0	123	-0.01
15	T	Methyl acetate	-1.000	0.000	0.0	71	0.00
16	T	Iodomethane	50.000	51.871	-3.7	110	0.00
17	T	Methylene chloride	50.000	49.726	0.5	122	0.00
18	T	Acrylonitrile	250.000	257.444	-3.0	116	-0.01
19	T	Carbon disulfide	50.000	52.289	-4.6	120	0.00
20	T	Acetonitrile	-1.000	0.000	0.0	107	0.00
21	T	tert-Butyl methyl ether (MT	50.000	48.369	3.3	111	0.00
22	T	trans-1,2-Dichloroethene	50.000	53.736	-7.5	121	0.00
23	T	Isopropyl ether (DIPE)	50.000	47.711	4.6	109	-0.01
24	T	Vinyl acetate	50.000	42.372	15.3	98	0.00
25	P,T	1,1-Dichloroethane	50.000	51.578	-3.2	119	0.00
26	T	tert-Butyl ethyl ether (ETB	50.000	47.902	4.2	111	0.00
27	T	2-Butanone	200.000	206.098	-3.0	120	0.00
28	T	2,2-Dichloropropane	50.000	46.355	7.3	107	0.00
29	T	cis-1,2-Dichloroethene	50.000	47.567	4.9	103	0.00
30	C,T	Chloroform	50.000	49.113	1.8	112	0.00
31	T	Bromochloromethane	50.000	51.125	-2.3	119	0.00
32	T	Cyclohexane	-1.000	0.000	0.0	15	-0.03
33	T	1,1,1-Trichloroethane	50.000	49.430	1.1	113	0.00
34	T	1,1-Dichloropropene	50.000	51.242	-2.5	116	0.00
35	T	tert-Amyl methyl ether (TAM	50.000	48.916	2.2	113	0.00
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	125	0.00
37	T	Carbon tetrachloride	50.000	50.690	-1.4	117	-0.01
38	S	1,2-Dichloroethane-d4	50.000	47.859	4.3	98	0.00
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	113	0.00
40	T	1,2-Dichloroethane	50.000	48.947	2.1	110	0.00

(#) = Out of Range

2067

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D
Acq On : 8 Feb 2007 1:49 am
Sample : IVO67B071
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA
MS Integration Params: LSCINT.P

Vial: 13
Operator: CGM
Inst : TO67
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	54.058	-8.1	125	0.00
42	M,T	Trichloroethene	50.000	52.260	-4.5	119	0.00
43	T	Methylcyclohexane	-1.000	0.000	0.0	128	0.00
44	C,T	1,2-Dichloropropane	50.000	50.501	-1.0	114	0.00
45	T	Bromodichloromethane	50.000	49.499	1.0	113	0.00
46	T	Dibromomethane	50.000	49.986	0.0	113	0.00
47	T	2-Chloroethyl vinyl ether	50.000	43.744	12.5	119	-0.01
48	T	4-Methyl-2-pentanone	200.000	207.809	-3.9	116	0.00
49	T	cis-1,3-Dichloropropene	50.000	54.224	-8.4	123	0.00
50	S	Toluene-d8	50.000	49.772	0.5	102	0.00
51	C,TM	Toluene	50.000	49.389	1.2	113	0.00
52	T	Ethyl methacrylate	50.000	48.539	2.9	116	0.00
53	T	trans-1,3-Dichloropropene	50.000	54.432	-8.9	120	0.00
54	T	2-Hexanone	200.000	209.396	-4.7	123	0.00
55	T	1,1,2-Trichloroethane	50.000	48.634	2.7	110	0.00
56	T	1,3-Dichloropropane	50.000	49.986	0.0	114	0.00
57	T	Tetrachloroethene	50.000	50.941	-1.9	116	0.00
58	T	Dibromochloromethane	50.000	50.227	-0.5	114	0.00
59	T	1,2-Dibromoethane	50.000	50.638	-1.3	114	0.00
60	T	1-Chlorohexane	50.000	50.448	-0.9	108	0.00
61	P,M	Chlorobenzene	50.000	50.707	-1.4	116	0.00
62	T	1,1,1,2-Tetrachloroethane	50.000	49.950	0.1	113	0.00
63	C,T	Ethylbenzene	50.000	51.079	-2.2	115	0.00
64	T	m-Xylene & p-Xylene	100.000	100.201	-0.2	114	-0.01
65	T	o-Xylene	50.000	50.020	-0.0	114	0.00
66	T	Styrene	50.000	52.795	-5.6	117	0.00
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	119	-0.01
68	T	Isopropylbenzene	50.000	47.813	4.4	113	0.00
69	P,T	Bromoform	50.000	48.380	3.2	114	0.00
70	P,T	1,1,2,2-Tetrachloroethane	50.000	47.660	4.7	116	0.00
71	S	4-Bromofluorobenzene	50.000	46.192	7.6	104	0.00
72	T	1,2,3-Trichloropropane	50.000	48.387	3.2	119	0.00
73	T	trans-1,4-Dichloro-2-butene	50.000	52.139	-4.3	127	0.00
74	T	n-Propylbenzene	50.000	49.025	2.0	113	0.00
75	T	Bromobenzene	50.000	48.222	3.6	115	0.00
76	T	1,3,5-Trimethylbenzene	50.000	49.887	0.2	115	-0.01
77	T	2-Chlorotoluene	50.000	45.831	8.3	104	0.00
78	T	4-Chlorotoluene	50.000	49.598	0.8	123	-0.01
79	T	tert-Butylbenzene	50.000	49.742	0.5	115	0.00
80	T	1,2,4-Trimethylbenzene	50.000	50.652	-1.3	115	0.00

(#) = Out of Range

2/12/08

2068

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	50.285	-0.6	112	0.00
82	T	p-Isopropyltoluene	50.000	52.720	-5.4	116	0.00
83	T	1,3-Dichlorobenzene	50.000	48.342	3.3	114	0.00
84	T	1,4-Dichlorobenzene	50.000	48.878	2.2	116	0.00
85	T	n-Butylbenzene	50.000	43.936	12.1	116	0.00
86	T	1,2-Dichlorobenzene	50.000	47.375	5.3	113	-0.01
87	T	1,2-Dibromo-3-chloropropane	50.000	46.360	7.3	116	-0.01
88	T	1,2,4-Trichlorobenzene	50.000	46.822	6.4	114	-0.01
89	T	Hexachlorobutadiene	50.000	41.814	16.4	111	0.00
90	T	Naphthalene	50.000	48.936	2.1	124	0.00
91	T	1,2,3-Trichlorobenzene	50.000	46.100	7.8	113	0.00

2/12/07
2069

DAILY CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D165

Lab File ID: RDC340 BFB Injection Date : 04/17/07

Instrument ID: T-067 BFB Injection Time : 12:35

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.45
75	30.0 - 60.0% of mass 95	42.57
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.91
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	69.32
175	5.0 - 9.0% of mass 174	4.85(7.0)1
176	95.0 - 101.0% of mass 174	66.97(96.6)1
177	5.0 - 9.0% of mass 176	4.25(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV067B07181	RDC341	04/17/07	13:11
2	MBLK1S	V067D29Q	RDC346	04/17/07	16:21
3	LCS1S	V067D29L	RDC343	04/17/07	14:25
4	LCD1S	V067D29C	RDC344	04/17/07	15:02
5	C22-HSAS25-13-14.5	D165-09	RDC349	04/17/07	18:11
6	C22-HSAS22-11-12.5	D165-01	RDC350	04/17/07	18:48
7	C22-HSAS22-30-31.5	D165-02	RDC351	04/17/07	19:25
8	C22-HSAS22-60-61.5	D165-03	RDC352	04/17/07	20:02
9	C22-HSAS25-25-26.5	D165-10	RDC353	04/17/07	20:39
10	C22-HSAS25-46-46.5	D165-11	RDC354	04/17/07	21:16
11	C22-HSAS25-13-14.5MS	D165-09M	RDC358	04/17/07	23:44
12	C22-HSAS25-13-14.5MSD	D165-09S	RDC359	04/18/07	00:21

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBC079
Instrument ID: T-067
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D165
Date Analyzed: 02/07/07
Time Analyzed: 21:32
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3224417	10.14	3011586	15.68	1040569	22.47
	UPPER LIMIT	6448834	10.64	6023172	16.18	2081138	22.97
	LOWER LIMIT	1612209	9.64	1505793	15.18	520285	21.97
	SAMPLE ID						
1	VSTD050	3232788	10.13	2878491	15.69	972837	22.46
2	MBLK1S	3520043	10.14	3013368	15.70	834850	22.48
3	LCS1S	3265393	10.14	2882062	15.68	920065	22.46
4	LCD1S	3364720	10.14	3321338	15.68	1012887	22.47
5	C22-HSAS25-13-14.5	3235318	10.14	2749819	15.69	753474	22.46
6	C22-HSAS22-11-12.5	3485891	10.15	2967083	15.69	824938	22.47
7	C22-HSAS22-30-31.5	3237056	10.14	2810294	15.68	770514	22.47
8	C22-HSAS22-60-61.5	3273666	10.15	2825464	15.69	808838	22.46
9	C22-HSAS25-25-26.5	3123776	10.14	2610949	15.68	736559	22.46
10	C22-HSAS25-46-46.5	3103061	10.13	2680352	15.69	751481	22.46
11	C22-HSAS25-13-14.5MS	2947000	10.13	2676103	15.69	897943	22.46
12	C22-HSAS25-13-14.5MSD	3046537	10.14	2781862	15.68	897987	22.46

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDC341.D Vial: 2
Acq On : 17 Apr 2007 1:11 pm Operator: CGM
Sample : CVO67B07181 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	100	-0.01
2	T	Dichlorodifluoromethane	50.000	51.488	-3.0	94	0.00
3	P,T	Chloromethane	50.000	43.207	13.6	80	0.02
4	C,T	Vinyl chloride	50.000	46.863	6.3	97	0.00
5	T	Bromomethane	50.000	45.293	9.4	88	-0.01
6	T	Chloroethane	50.000	49.832	0.3	88	-0.01
7	T	Dichlorofluoromethane	50.000	49.462	1.1	100	0.00
8	T	Trichlorofluoromethane	50.000	55.001	-10.0	100	0.00
9	T	Acrolein	200.000	192.279	3.9	90	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	47.834	4.3	97	-0.01
11	T	Acetone	200.000	211.005	-5.5	112	0.00
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	123	0.00
13	C,TM	1,1-Dichloroethene	50.000	49.343	1.3	97	0.00
14	T	tert-Butyl alcohol	250.000	199.266	20.3#	81	0.00
15	T	Methyl acetate	-1.000	0.000	0.0	119	0.00
16	T	Iodomethane	50.000	44.908	10.2	82	0.00
17	T	Methylene chloride	50.000	46.844	6.3	99	-0.01
18	T	Acrylonitrile	250.000	267.636	-7.1	104	-0.01
19	T	Carbon disulfide	50.000	39.865	20.3#	79	-0.01
20	T	Acetonitrile	-1.000	0.000	0.0	108	0.00
21	T	tert-Butyl methyl ether (MT	50.000	45.717	8.6	91	0.00
22	T	trans-1,2-Dichloroethene	50.000	49.408	1.2	96	0.00
23	T	Isopropyl ether (DIPE)	50.000	49.313	1.4	97	-0.01
24	T	Vinyl acetate	50.000	54.688	-9.4	110	-0.01
25	P,T	1,1-Dichloroethane	50.000	47.917	4.2	95	0.00
26	T	tert-Butyl ethyl ether (ETB	50.000	44.852	10.3	89	0.00
27	T	2-Butanone	200.000	208.394	-4.2	104	0.00
28	T	2,2-Dichloropropane	50.000	49.171	1.7	98	0.00
29	T	cis-1,2-Dichloroethene	50.000	49.427	1.1	92	0.00
30	C,T	Chloroform	50.000	51.821	-3.6	102	0.00
31	T	Bromochloromethane	50.000	50.729	-1.5	102	0.00
32	T	Cyclohexane	-1.000	0.000	0.0	56	0.00
33	T	1,1,1-Trichloroethane	50.000	48.940	2.1	97	-0.01
34	T	1,1-Dichloropropene	50.000	50.842	-1.7	99	-0.01
35	T	tert-Amyl methyl ether (TAM	50.000	42.618	14.8	85	-0.01
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	106	0.00
37	T	Carbon tetrachloride	50.000	49.602	0.8	99	-0.01
38	S	1,2-Dichloroethane-d4	50.000	56.208	-12.4	100	-0.01
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	96	0.00
40	T	1,2-Dichloroethane	50.000	55.016	-10.0	105	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDC341.D Vial: 2
Acq On : 17 Apr 2007 1:11 pm Operator: CGM
Sample : CV067B07181 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	49.945	0.1	98	-0.01
42	M,T	Trichloroethene	50.000	50.495	-1.0	98	0.00
43	T	Methylcyclohexane	-1.000	0.000	0.0	106	-0.01
44	C,T	1,2-Dichloropropane	50.000	50.670	-1.3	97	-0.01
45	T	Bromodichloromethane	50.000	54.105	-8.2	105	0.00
46	T	Dibromomethane	50.000	51.576	-3.2	99	0.00
47	T	2-Chloroethyl vinyl ether	50.000	24.674	50.7#	52	-0.01
48	T	4-Methyl-2-pentanone	200.000	202.500	-1.3	96	0.00
49	T	cis-1,3-Dichloropropene	50.000	50.769	-1.5	98	-0.01
50	S	Toluene-d8	50.000	50.667	-1.3	88	0.00
51	C,TM	Toluene	50.000	49.847	0.3	97	0.00
52	T	Ethyl methacrylate	50.000	46.150	7.7	93	-0.01
53	T	trans-1,3-Dichloropropene	50.000	50.971	-1.9	95	-0.01
54	T	2-Hexanone	200.000	194.804	2.6	97	0.00
55	T	1,1,2-Trichloroethane	50.000	52.447	-4.9	101	-0.01
56	T	1,3-Dichloropropane	50.000	51.330	-2.7	99	-0.01
57	T	Tetrachloroethene	50.000	49.139	1.7	95	-0.01
58	T	Dibromochloromethane	50.000	52.348	-4.7	101	0.00
59	T	1,2-Dibromoethane	50.000	50.649	-1.3	97	-0.01
60	T	1-Chlorohexane	50.000	50.572	-1.1	92	0.00
61	P,M	Chlorobenzene	50.000	49.812	0.4	96	0.00
62	T	1,1,1,2-Tetrachloroethane	50.000	50.154	-0.3	96	0.00
63	C,T	Ethylbenzene	50.000	49.662	0.7	95	-0.01
64	T	m-Xylene & p-Xylene	100.000	98.653	1.3	95	-0.01
65	T	o-Xylene	50.000	48.862	2.3	95	-0.01
66	T	Styrene	50.000	50.261	-0.5	95	-0.01
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	93	-0.01
68	T	Isopropylbenzene	50.000	50.751	-1.5	95	-0.01
69	P,T	Bromoform	50.000	53.489	-7.0	100	-0.01
70	P,T	1,1,2,2-Tetrachloroethane	50.000	52.890	-5.8	102	-0.01
71	S	4-Bromofluorobenzene	50.000	51.689	-3.4	92	-0.01
72	T	1,2,3-Trichloropropane	50.000	53.434	-6.9	103	-0.01
73	T	trans-1,4-Dichloro-2-butene	50.000	52.566	-5.1	101	-0.01
74	T	n-Propylbenzene	50.000	50.901	-1.8	92	-0.01
75	T	Bromobenzene	50.000	49.362	1.3	93	-0.01
76	T	1,3,5-Trimethylbenzene	50.000	51.326	-2.7	93	-0.01
77	T	2-Chlorotoluene	50.000	51.373	-2.7	92	-0.01
78	T	4-Chlorotoluene	50.000	48.990	2.0	96	-0.01
79	T	tert-Butylbenzene	50.000	49.158	1.7	89	0.00
80	T	1,2,4-Trimethylbenzene	50.000	50.119	-0.2	90	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDC341.D Vial: 2
Acq On : 17 Apr 2007 1:11 pm Operator: CGM
Sample : CVO67B07181 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	49.710	0.6	87	-0.01
82	T	p-Isopropyltoluene	50.000	48.569	2.9	84	0.00
83	T	1,3-Dichlorobenzene	50.000	48.548	2.9	90	0.00
84	T	1,4-Dichlorobenzene	50.000	47.664	4.7	89	-0.01
85	T	n-Butylbenzene	50.000	38.722	22.6#	80	-0.01
86	T	1,2-Dichlorobenzene	50.000	47.356	5.3	89	-0.01
87	T	1,2-Dibromo-3-chloropropane	50.000	44.578	10.8	88	-0.01
88	T	1,2,4-Trichlorobenzene	50.000	44.130	11.7	85	-0.01
89	T	Hexachlorobutadiene	50.000	40.880	18.2	86	-0.01
90	T	Naphthalene	50.000	39.548	20.9#	77	-0.01
91	T	1,2,3-Trichlorobenzene	50.000	45.596	8.8	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDC341.D Vial: 2
Acq On : 17 Apr 2007 1:11 pm Operator: CGM
Sample : CVO67B07181 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	100	-0.01
2	T	Dichlorodifluoromethane	0.217	0.224	-3.2	94	0.00
3	P,T	Chloromethane	0.258	0.223	13.6	80	0.02
4	C,T	Vinyl chloride	0.202	0.183	9.4	97	0.00
5	T	Bromomethane	0.209	0.189	9.6	88	-0.01
6	T	Chloroethane	0.127	0.127	0.0	88	-0.01
7	T	Dichlorofluoromethane	0.471	0.466	1.1	100	0.00
8	T	Trichlorofluoromethane	0.311	0.342	-10.0	100	0.00
9	T	Acrolein	0.035	0.033	5.7	90	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	0.201	0.192	4.5	97	-0.01
11	T	Acetone	0.070	0.074	-5.7	112	0.00
12	T	sec-Propyl alcohol	0.000	0.000	0.0	123	0.00
13	C,TM	1,1-Dichloroethene	0.383	0.378	1.3	97	0.00
14	T	tert-Butyl alcohol	0.024	0.019	20.8#	81	0.00
15	T	Methyl acetate	0.000	0.000	0.0	119	0.00
16	T	Iodomethane	0.401	0.360	10.2	82	0.00
17	T	Methylene chloride	0.444	0.416	6.3	99	-0.01
18	T	Acrylonitrile	0.086	0.092	-7.0	104	-0.01
19	T	Carbon disulfide	1.122	0.895	20.2#	79	-0.01
20	T	Acetonitrile	0.000	0.000	0.0	108	0.00
21	T	tert-Butyl methyl ether (MT	0.597	0.546	8.5	91	0.00
22	T	trans-1,2-Dichloroethene	0.431	0.426	1.2	96	0.00
23	T	Isopropyl ether (DIPE)	1.037	1.023	1.4	97	-0.01
24	T	Vinyl acetate	0.524	0.573	-9.4	110	-0.01
25	P,T	1,1-Dichloroethane	0.554	0.531	4.2	95	0.00
26	T	tert-Butyl ethyl ether (ETB	0.791	0.709	10.4	89	0.00
27	T	2-Butanone	0.126	0.132	-4.8	104	0.00
28	T	2,2-Dichloropropane	0.373	0.366	1.9	98	0.00
29	T	cis-1,2-Dichloroethene	0.487	0.482	1.0	92	0.00
30	C,T	Chloroform	0.555	0.575	-3.6	102	0.00
31	T	Bromochloromethane	0.305	0.310	-1.6	102	0.00
32	T	Cyclohexane	0.000	0.000	0.0	56	0.00
33	T	1,1,1-Trichloroethane	0.412	0.403	2.2	97	-0.01
34	T	1,1-Dichloropropene	0.137	0.139	-1.5	99	-0.01
35	T	tert-Amyl methyl ether (TAM	0.768	0.655	14.7	85	-0.01
36	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	106	0.00
37	T	Carbon tetrachloride	0.354	0.351	0.8	99	-0.01
38	S	1,2-Dichloroethane-d4	0.277	0.311	-12.3	100	-0.01
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	96	0.00
40	T	1,2-Dichloroethane	0.374	0.411	-9.9	105	0.00

(#) = Out of Range

2076

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDC341.D Vial: 2
Acq On : 17 Apr 2007 1:11 pm Operator: CGM
Sample : CVO67B07181 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	M,T	Benzene	1.363	1.361	0.1	98	-0.01
42	M,T	Trichloroethene	0.370	0.374	-1.1	98	0.00
43	T	Methylcyclohexane	0.000	0.000	0.0	106	-0.01
44	C,T	1,2-Dichloropropane	0.409	0.415	-1.5	97	-0.01
45	T	Bromodichloromethane	0.464	0.503	-8.4	105	0.00
46	T	Dibromomethane	0.251	0.259	-3.2	99	0.00
47	T	2-Chloroethyl vinyl ether	0.073	0.038	47.9#	52	-0.01
48	T	4-Methyl-2-pentanone	0.315	0.319	-1.3	96	0.00
49	T	cis-1,3-Dichloropropene	0.488	0.495	-1.4	98	-0.01
50	S	Toluene-d8	1.223	1.240	-1.4	88	0.00
51	C,TM	Toluene	1.440	1.435	0.3	97	0.00
52	T	Ethyl methacrylate	0.333	0.340	-2.1	93	-0.01
53	T	trans-1,3-Dichloropropene	0.379	0.386	-1.8	95	-0.01
54	T	2-Hexanone	0.193	0.188	2.6	97	0.00
55	T	1,1,2-Trichloroethane	0.306	0.321	-4.9	101	-0.01
56	T	1,3-Dichloropropane	0.504	0.518	-2.8	99	-0.01
57	T	Tetrachloroethene	0.269	0.265	1.5	95	-0.01
58	T	Dibromochloromethane	0.366	0.383	-4.6	101	0.00
59	T	1,2-Dibromoethane	0.342	0.346	-1.2	97	-0.01
60	T	1-Chlorohexane	0.528	0.534	-1.1	92	0.00
61	P,M	Chlorobenzene	0.949	0.946	0.3	96	0.00
62	T	1,1,1,2-Tetrachloroethane	0.307	0.308	-0.3	96	0.00
63	C,T	Ethylbenzene	1.567	1.556	0.7	95	-0.01
64	T	m-Xylene & p-Xylene	1.183	1.167	1.4	95	-0.01
65	T	o-Xylene	1.228	1.200	2.3	95	-0.01
66	T	Styrene	0.914	0.919	-0.5	95	-0.01
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	93	-0.01
68	T	Isopropylbenzene	4.279	4.343	-1.5	95	-0.01
69	P,T	Bromoform	0.621	0.664	-6.9	100	-0.01
70	P,T	1,1,2,2-Tetrachloroethane	1.280	1.354	-5.8	102	-0.01
71	S	4-Bromofluorobenzene	1.258	1.301	-3.4	92	-0.01
72	T	1,2,3-Trichloropropane	0.214	0.229	-7.0	103	-0.01
73	T	trans-1,4-Dichloro-2-butene	0.163	0.171	-4.9	101	-0.01
74	T	n-Propylbenzene	5.188	5.282	-1.8	92	-0.01
75	T	Bromobenzene	0.985	0.972	1.3	93	-0.01
76	T	1,3,5-Trimethylbenzene	3.186	3.271	-2.7	93	-0.01
77	T	2-Chlorotoluene	3.206	3.294	-2.7	92	-0.01
78	T	4-Chlorotoluene	2.795	2.738	2.0	96	-0.01
79	T	tert-Butylbenzene	2.751	2.704	1.7	89	0.00
80	T	1,2,4-Trimethylbenzene	2.958	2.965	-0.2	90	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D17\RDC341.D Vial: 2
Acq On : 17 Apr 2007 1:11 pm Operator: CGM
Sample : CVO67B07181 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	4.320	4.295	0.6	87	-0.01
82	T	p-Isopropyltoluene	2.843	2.762	2.8	84	0.00
83	T	1,3-Dichlorobenzene	1.734	1.683	2.9	90	0.00
84	T	1,4-Dichlorobenzene	1.651	1.574	4.7	89	-0.01
85	T	n-Butylbenzene	2.375	2.237	5.8	80	-0.01
86	T	1,2-Dichlorobenzene	1.585	1.501	5.3	89	-0.01
87	T	1,2-Dibromo-3-chloropropane	0.142	0.142	0.0	88	-0.01
88	T	1,2,4-Trichlorobenzene	0.554	0.495	10.6	85	-0.01
89	T	Hexachlorobutadiene	0.343	0.322	6.1	86	-0.01
90	T	Naphthalene	1.010	0.795	21.3#	77	-0.01
91	T	1,2,3-Trichlorobenzene	0.472	0.438	7.2	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/17/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -028**

BATCH 13TC0484-97MV

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RDC340		~~CGM 4/17/07~~ BFB67~~B07~~D29	2mL				
02		341	CV067B07181	4/5/1M				
03		342	" 182	"				
04		343	V067029L	1G/4M	1.0			
05		344	C	"	"			
06		345	B	5.0g				
07		346	@	"				
08		347	07D148-01R	"			✓	
09		348	" -02R	"	"		✓	
10		349	07D165-09	5.6g	0.89		✓	
11		350	-01	5.4g	0.93		✓	
12		351	-02	6.1g	0.82		✓	
13		352	-03	5.3g	0.94		✓	
14		353	-10	5.3g	0.94		✓	
15		354	-11	5.6g	0.89		✓	
16		355	07D168-01	4.7g	1.1		✓	
17		356	" -02	5.1g	0.98		✓	
18		357	Rinse		~~0.98~~	CGM 4/17	✗	
19		358	07D165-09M	4.4g	1.1		✓	
20		359	" -09S	5.5g	0.91		✓	
21								
22								
23								
24								
25								CGM 4/17/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	V067B07

STANDARDS		
NAME	ID	CONC. (ng/L)
DCC	SVIC-11-58-3	25
DCC	-69-2	5/250
DCC	-69-1	250
BFB	-58-1	50
IS/SURR.	-70-3	250
LCS	-59-2	250
LCS	-63-2	50-10X
LCS	-69-3	250

SOLVENT	ID
METHANOL	
DATA FILE	07D17

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 4/18/07

Disposed By: CGM

2088

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 2/7/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -027**

BATCH V067B075

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RBC074	BFBG7B06 ✓	2µL				~~Ket/AA~~ ~~8260~~ TBA
02	075	V067B071 ✓	.4/.2/.04µL				8 2 10 PPB
03	076	2 ✓	.4/.5/.1µL				20 5 25
04	077	3 ✓	.8/1/.2µL				40 10 50
05	078	4 ✓	1.6/2/.4µL				80 20 100
06	079	5 ✓	4/5/1µL				200 50 250
07	080	6 ✓	6.4/8/1.6µL				320 80 400
08	081	7 ✓	8/10/2µL				400 100 500
09	082	8 ✓	16/20/4µL				800 200 1000
10	083	9 ✓	24/30/6µL				1200 300 1500
11	084	Rinse					
12	085	V067B06B					
13	086	IV067B071 ✓	4/5/1µL				200 50 250
14	087	2	4/5/1µL				200 50 250
15	088	Rinse					
16	089	Rinse					
17							
18							
19							
20							
21							
22							
23							
24							
25							CGM 2/7/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	V067B07

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SVIC-11-63-1	250
DCC 8260	SVIC-11-60-1	50/250
DCC Gases	SVIC-11-60-3	250
BFB	SVIC-11-49-3	50
IS/SURR	SVIC-11-62-2	250
LCS Ket/AA	SVIC-11-59-3	250
LCS 8260	SVIC-11-63-2	50/250
LCS Gases	SVIC-11-61-3	250
SOLVENT IS	SVIC-11-62-1 ID	250
METHANOL SS	SVIC-11-62-3	250
DATA FILE	07B07	

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 2/8/07

Disposed By: CGM

2981

EXTRACTION LOGS

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-016

Matrix: SOIL STARTING DATE 4/17/07 15:00 Ending Date 4/17/07 15:15

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.
BLANK	30.2	35.2	5.0	1.00
07D165-01	31.7	37.1	5.4	0.93
07D165-02	31.6	37.7	6.1	0.82
07D165-03	31.6	36.9	5.3	0.94
07D165-09	31.6	37.2	5.6	0.89
07D165-09M	31.5	35.9	4.4	1.14
07D165-09S	31.7	37.2	5.5	0.91
07D165-10	31.6	36.9	5.3	0.94
07D165-11	31.5	37.1	5.6	0.89
07D168-01	31.6	36.3	4.7	1.06
07D168-02	31.6	36.7	5.1	0.98

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20		
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML VOLUME METRIC FLASK.

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: CGM

Extract Received By: CM

Extract Location	N/A

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D165

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D165

METHOD 314.0
PERCHLORATE

Two (2) water and six (6) soil samples were received on 04/13/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of MRL.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Samples D165-08 and -09 were analyzed for duplicate. %RPDs were within QC limit.

5. **Matrix Spike**

   Samples D165-08 and -09 were spiked. %Recoveries were within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D165

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD007WB	ND	1	NA	2.00	0.500	04/17/0720:36	NA	JD17011	JD17010	PCD007W	NA	NA
LCS1W	PCD007WL	24.5	1	NA	2.00	0.500	04/17/0721:16	NA	JD17013	JD17010	PCD007W	NA	NA
LCD1W	PCD007WC	24.9	1	NA	2.00	0.500	04/17/0721:36	NA	JD17014	JD17010	PCD007W	NA	NA
LEB-041207	D165-06	ND	1	NA	2.00	0.500	04/18/0701:39	NA	JD17026	JD17021	PCD007W	04/12/0709:00	04/13/07
LEB-041307	D165-08	ND	1	NA	2.00	0.500	04/18/0702:00	NA	JD17027	JD17021	PCD007W	04/13/0708:45	04/13/07
LEB-041307DUP	D165-08D	ND	1	NA	2.00	0.500	04/18/0702:20	NA	JD17028	JD17021	PCD007W	04/13/0708:45	04/13/07
LEB-041307MS	D165-08M	9.89	1	NA	2.00	0.500	04/18/0702:40	NA	JD17029	JD17021	PCD007W	04/13/0708:45	04/13/07

8993

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D165

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD008SB	ND	1	NA	20.0	10.0	04/18/0704:01	04/17/0709:45	JD17033	JD17032	PCD008S	NA	04/17/07
LCS1S	PCD008SL	254	1	NA	20.0	10.0	04/18/0704:42	04/17/0709:45	JD17035	JD17032	PCD008S	NA	04/17/07
LCD1S	PCD008SC	250	1	NA	20.0	10.0	04/18/0705:02	04/17/0709:45	JD17036	JD17032	PCD008S	NA	04/17/07
C22-HSAS22-60-61.5	D165-03	ND	1	5.6	21.2	10.6	04/18/0718:16	04/17/0709:45	JD17050	JD17049	PCD008S	04/12/0711:37	04/13/07
C22-HSAS25-13-14.5	D165-09	31.9	1	3.0	20.6	10.3	04/18/0718:56	04/17/0709:45	JD17052	JD17049	PCD008S	04/13/0709:03	04/13/07
C22-HSAS25-13-14.5DUP	D165-09D	31.0	1	3.0	20.6	10.3	04/18/0719:17	04/17/0709:45	JD17053	JD17049	PCD008S	04/13/0709:03	04/13/07
C22-HSAS25-13-14.5MS	D165-09M	128	1	3.0	20.6	10.3	04/18/0719:37	04/17/0709:45	JD17054	JD17049	PCD008S	04/13/0709:03	04/13/07
C22-HSAS25-25-26.5	D165-10	62.4	1	3.8	20.8	10.4	04/18/0719:57	04/17/0709:45	JD17055	JD17049	PCD008S	04/13/0709:35	04/13/07
C22-HSAS25-46-46.5	D165-11	ND	1	4.9	21.0	10.5	04/18/0720:17	04/17/0709:45	JD17056	JD17049	PCD008S	04/13/0710:34	04/13/07
C22-HSAS22-30-31.5	D165-02	5570	20	14.4	467	234	04/18/0720:38	04/17/0709:45	JD17057	JD17049	PCD008S	04/12/0710:47	04/13/07
C22-HSAS22-12.5-14	D165-04	39600	200	5.5	4230	2120	04/18/0720:58	04/17/0709:45	JD17058	JD17049	PCD008S	04/12/0709:59	04/13/07

8501

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD007WB	PCD007WL	PCD007WC		
LAB FILE ID:	JD17011	JD17013	JD17014		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/17/0720:36	04/17/0721:16	04/17/0721:36	DATE RECEIVED:	NA
PREP. BATCH:	PCD007W	PCD007W	PCD007W		
CALIB. REF:	JD17010	JD17010	JD17010		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.5	98	25.0	24.9	100	2	85-115	20

8996

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD008SB	PCD008SL	PCD008SC		
LAB FILE ID:	JD17033	JD17035	JD17036		
DATE EXTRACTED:	04/17/0709:45	04/17/0709:45	04/17/0709:45	DATE COLLECTED:	NA
DATE ANALYZED:	04/18/0704:01	04/18/0704:42	04/18/0705:02	DATE RECEIVED:	04/17/07
PREP. BATCH:	PCD008S	PCD008S	PCD008S		
CALIB. REF:	JD17032	JD17032	JD17032		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	254	102	250	250	100	2	85-115	20

7695

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: METHOD 314.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	LEB-041307			
LAB SAMP ID:	D165-08	D165-08M		
LAB FILE ID:	JD17027	JD17029		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	04/13/07 08:45
DATE ANALYZED:	04/18/0702:00	04/18/0702:40	DATE RECEIVED:	04/13/07
PREP. BATCH:	PCD007W	PCD007W		
CALIB. REF:	JD17021	JD17021		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	QC LIMIT (%)
Perchlorate	ND	10.0	9.89	99	80-120

8008

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 3.0

DILUTION FACTOR:	1	1		
SAMPLE ID:	C22-HSAS25-13-14.5			
LAB SAMP ID:	D165-09	D165-09M		
LAB FILE ID:	JD17052	JD17054		
DATE EXTRACTED:	04/17/0709:45	04/17/0709:45	DATE COLLECTED:	04/13/07 09:03
DATE ANALYZED:	04/18/0718:56	04/18/0719:37	DATE RECEIVED:	04/13/07
PREP. BATCH:	PCD008S	PCD008S		
CALIB. REF:	JD17049	JD17049		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	31.9	103	128	93	80-120

0999

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: METHOD 314.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	LEB-041307			
EMAX SAMP ID:	D165-08	D165-08D		
LAB FILE ID:	JD17027	JD17028		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	04/13/07 08:45
DATE ANALYZED:	04/18/0702:00	04/18/0702:20	DATE RECEIVED:	04/13/07
PREP. BATCH:	PCD007W	PCD007W		
CALIB. REF:	JD17021	JD17021		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	DUPL RSLT (ug/L)	RPD RSLT %	QC LIMIT (%)
Perchlorate	ND	ND	0	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D165
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	3.0
DILUTION FACTOR:	1	1		
SAMPLE ID:	C22-HSAS25-13-14.5			
EMAX SAMP ID:	D165-09	D165-09D		
LAB FILE ID:	JD17052	JD17053		
DATE EXTRACTED:	04/17/0709:45	04/17/0709:45	DATE COLLECTED:	04/13/07 09:03
DATE ANALYZED:	04/18/0718:56	04/18/0719:17	DATE RECEIVED:	04/13/07
PREP. BATCH:	PCD008S	PCD008S		
CALIB. REF:	JD17049	JD17049		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	31.9	31	3	20

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

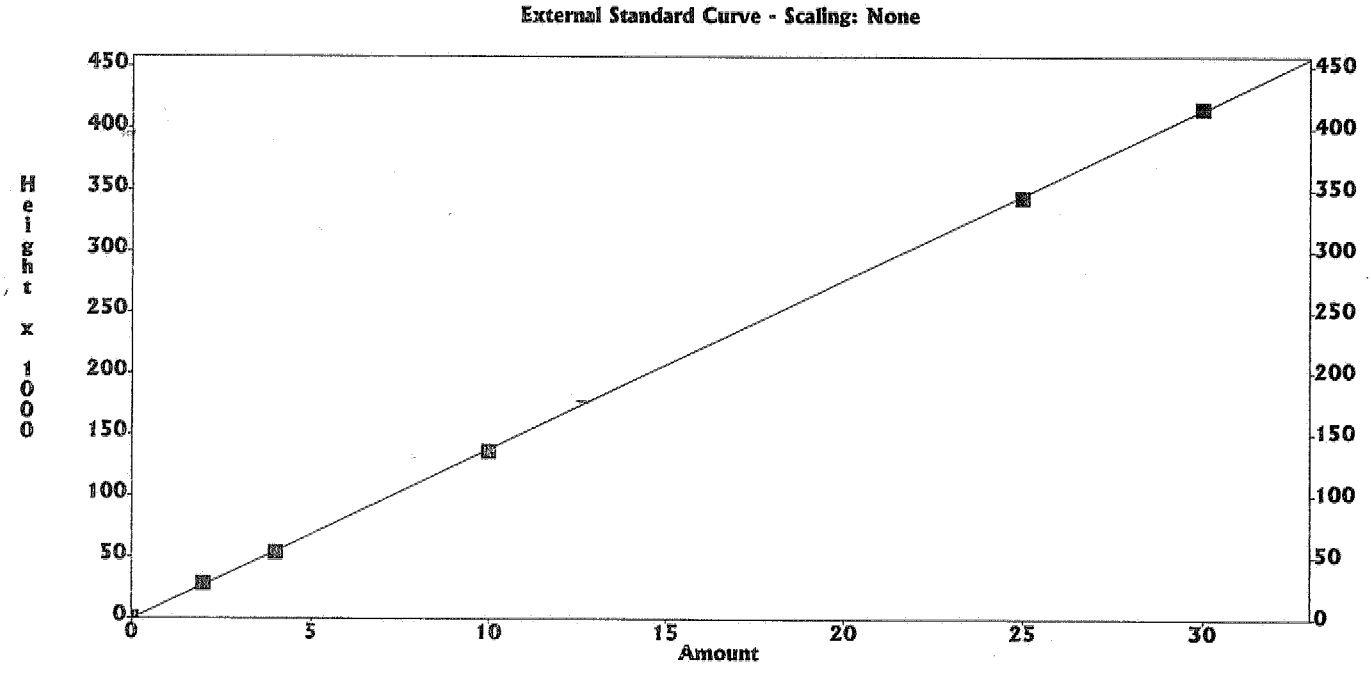
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8014

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-07

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-07

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02 - 18

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JD17
Method File: * IC57d17.met
Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

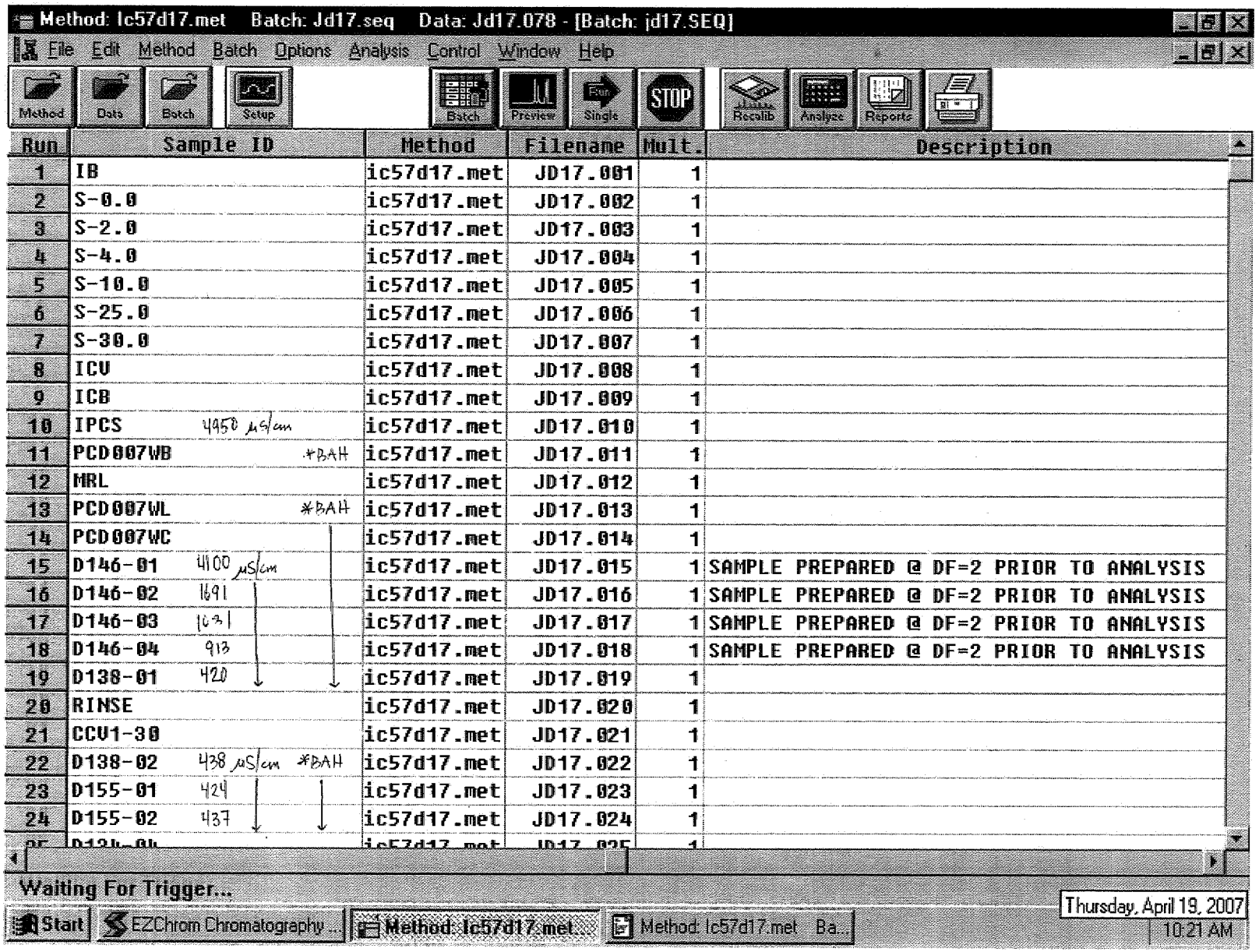
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cl

Date: 04/17/07



Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

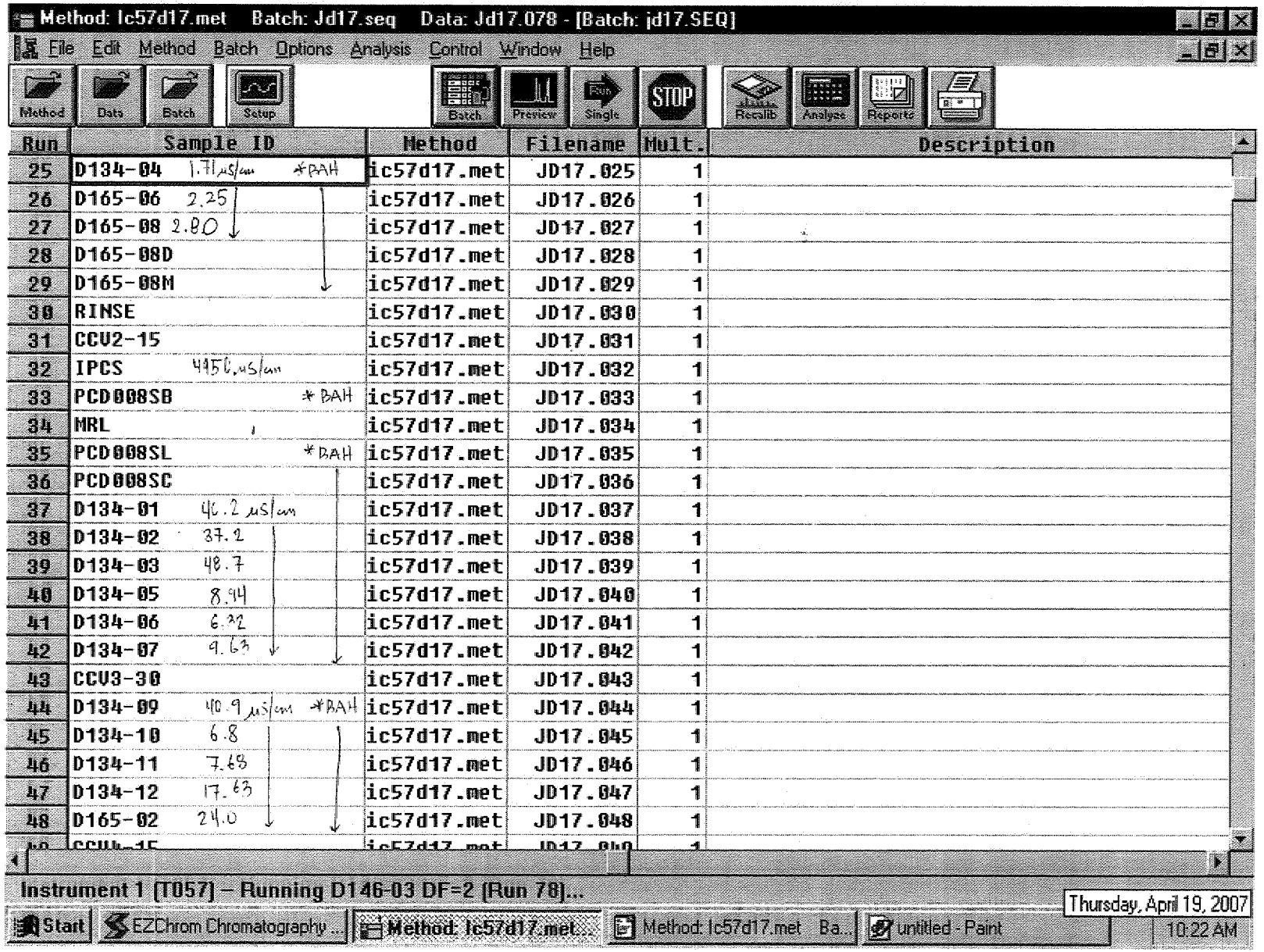
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Mult.	Description
1	IB	ic57d17.met	JD17.001	1	
2	S-0.0	ic57d17.met	JD17.002	1	
3	S-2.0	ic57d17.met	JD17.003	1	
4	S-4.0	ic57d17.met	JD17.004	1	
5	S-10.0	ic57d17.met	JD17.005	1	
6	S-25.0	ic57d17.met	JD17.006	1	
7	S-30.0	ic57d17.met	JD17.007	1	
8	ICV	ic57d17.met	JD17.008	1	
9	ICB	ic57d17.met	JD17.009	1	
10	IPCS 4450 µS/cm	ic57d17.met	JD17.010	1	
11	PCD007WB *BAH	ic57d17.met	JD17.011	1	
12	MRL	ic57d17.met	JD17.012	1	
13	PCD007WL *BAH	ic57d17.met	JD17.013	1	
14	PCD007WC	ic57d17.met	JD17.014	1	
15	D146-01 4100 µS/cm	ic57d17.met	JD17.015	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16	D146-02 1691	ic57d17.met	JD17.016	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17	D146-03 1031	ic57d17.met	JD17.017	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18	D146-04 913	ic57d17.met	JD17.018	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19	D138-01 420	ic57d17.met	JD17.019	1	
20	RINSE	ic57d17.met	JD17.020	1	
21	CCV1-30	ic57d17.met	JD17.021	1	
22	D138-02 438 µS/cm *BAH	ic57d17.met	JD17.022	1	
23	D155-01 424	ic57d17.met	JD17.023	1	
24	D155-02 437	ic57d17.met	JD17.024	1	

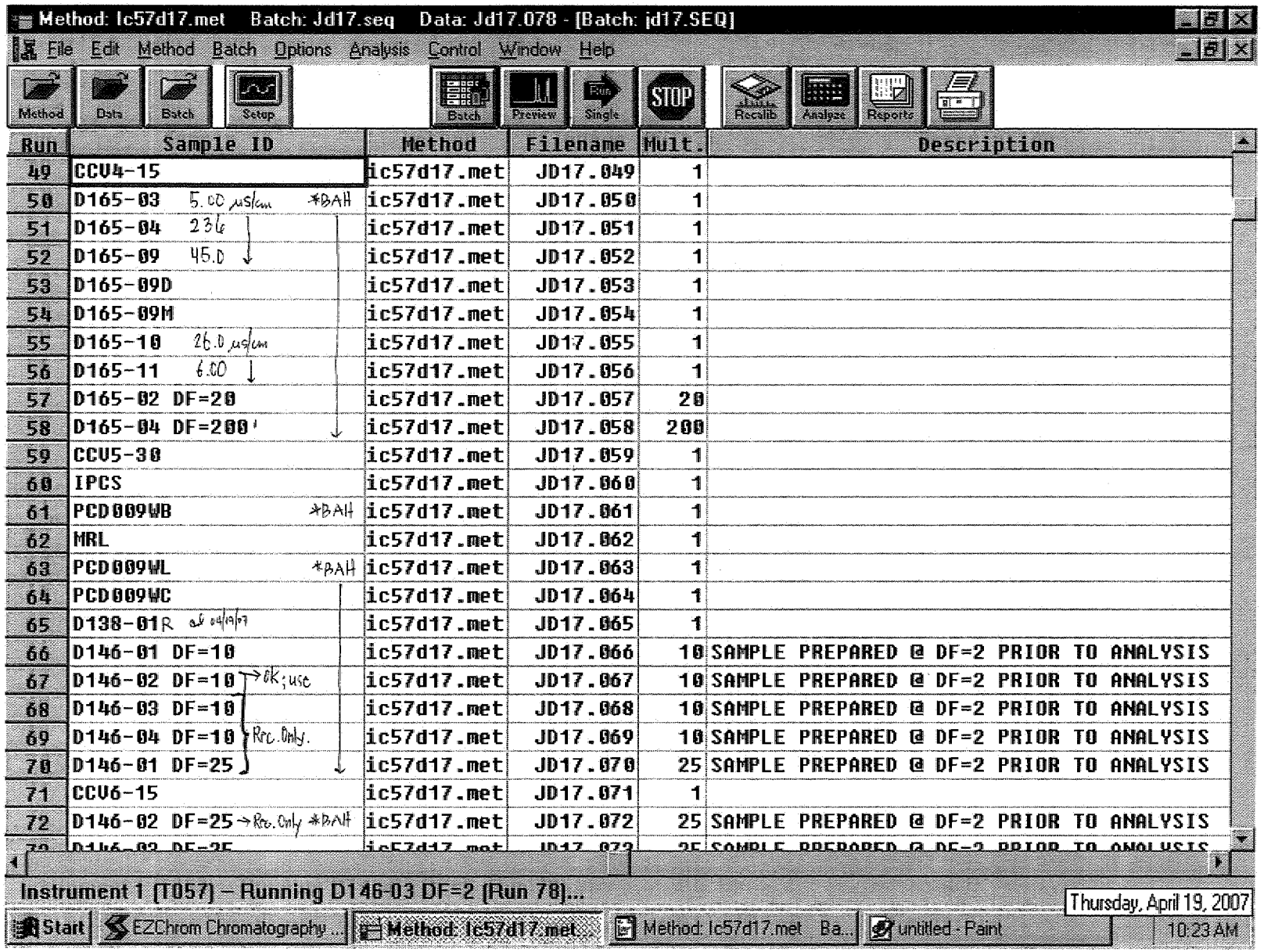
Waiting For Trigger...

Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba...

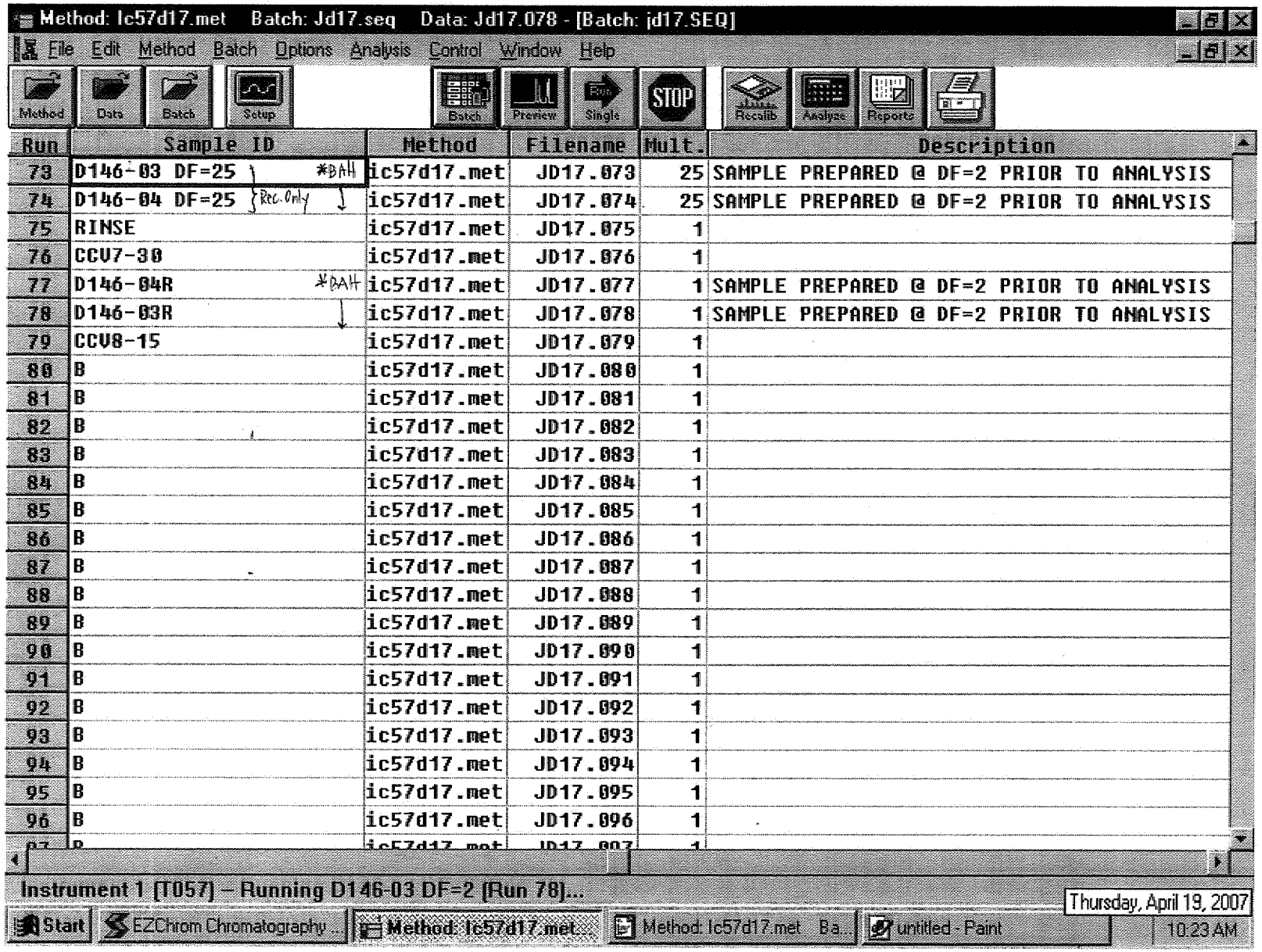
Thursday, April 19, 2007 10:21 AM


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µs/cm *PAH ic57d17.met JD17.025 1
26 D165-06 2.25 ic57d17.met JD17.026 1
27 D165-08 2.80 ic57d17.met JD17.027 1
28 D165-08D ic57d17.met JD17.028 1
29 D165-08M ic57d17.met JD17.029 1
30 RINSE ic57d17.met JD17.030 1
31 CCV2-15 ic57d17.met JD17.031 1
32 IPCS 4956.µs/cm ic57d17.met JD17.032 1
33 PCD008SB *PAH ic57d17.met JD17.033 1
34 MRL ic57d17.met JD17.034 1
35 PCD008SL *PAH ic57d17.met JD17.035 1
36 PCD008SC ic57d17.met JD17.036 1
37 D134-01 46.2 µs/cm ic57d17.met JD17.037 1
38 D134-02 37.2 ic57d17.met JD17.038 1
39 D134-03 48.7 ic57d17.met JD17.039 1
40 D134-05 8.94 ic57d17.met JD17.040 1
41 D134-06 6.32 ic57d17.met JD17.041 1
42 D134-07 9.63 ic57d17.met JD17.042 1
43 CCV3-30 ic57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *PAH ic57d17.met JD17.044 1
45 D134-10 6.8 ic57d17.met JD17.045 1
46 D134-11 7.68 ic57d17.met JD17.046 1
47 D134-12 17.63 ic57d17.met JD17.047 1
48 D165-02 24.0 ic57d17.met JD17.048 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8022


Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 CCV4-15 ic57d17.met JD17.049 1
50 D165-03 5.00 µs/cm *BAH ic57d17.met JD17.050 1
51 D165-04 23.6 ic57d17.met JD17.051 1
52 D165-09 45.0 ic57d17.met JD17.052 1
53 D165-09D ic57d17.met JD17.053 1
54 D165-09M ic57d17.met JD17.054 1
55 D165-10 26.0 µs/cm ic57d17.met JD17.055 1
56 D165-11 6.00 ic57d17.met JD17.056 1
57 D165-02 DF=20 ic57d17.met JD17.057 20
58 D165-04 DF=200 ic57d17.met JD17.058 200
59 CCV5-30 ic57d17.met JD17.059 1
60 IPCS ic57d17.met JD17.060 1
61 PCD009WB *BAH ic57d17.met JD17.061 1
62 MRL ic57d17.met JD17.062 1
63 PCD009WL *BAH ic57d17.met JD17.063 1
64 PCD009WC ic57d17.met JD17.064 1
65 D138-01R ic57d17.met JD17.065 1
66 D146-01 DF=10 ic57d17.met JD17.066 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 D146-02 DF=10 → ok; use ic57d17.met JD17.067 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 D146-03 DF=10 ic57d17.met JD17.068 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 D146-04 DF=10 Rec. Only. ic57d17.met JD17.069 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 D146-01 DF=25 ic57d17.met JD17.070 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 CCV6-15 ic57d17.met JD17.071 1
72 D146-02 DF=25 → Rec. Only *BAH ic57d17.met JD17.072 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography ... Method: Ic57d17.met... Method: Ic57d17.met Ba... untitled - Paint 10:23 AM

8023


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
73 D146-03 DF=25 *BAH lc57d17.met JD17.073 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 D146-04 DF=25 Rec. Only lc57d17.met JD17.074 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 RINSE lc57d17.met JD17.075 1
76 CCV7-30 lc57d17.met JD17.076 1
77 D146-04R *BAH lc57d17.met JD17.077 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 D146-03R lc57d17.met JD17.078 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 CCV8-15 lc57d17.met JD17.079 1
80 B lc57d17.met JD17.080 1
81 B lc57d17.met JD17.081 1
82 B lc57d17.met JD17.082 1
83 B lc57d17.met JD17.083 1
84 B lc57d17.met JD17.084 1
85 B lc57d17.met JD17.085 1
86 B lc57d17.met JD17.086 1
87 B lc57d17.met JD17.087 1
88 B lc57d17.met JD17.088 1
89 B lc57d17.met JD17.089 1
90 B lc57d17.met JD17.090 1
91 B lc57d17.met JD17.091 1
92 B lc57d17.met JD17.092 1
93 B lc57d17.met JD17.093 1
94 B lc57d17.met JD17.094 1
95 B lc57d17.met JD17.095 1
96 B lc57d17.met JD17.096 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

89215

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 04/17/07 Time 09:45 End Date 04/17/07 Time 12:00

PREPARATION BATCH # _____

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0085B	10.000g	100ml	100ml	
*02	SL				
*03	SC				
*04	D134 - 01				
*05	02				
*06	03				
*07	05				
*08	06				
*09	07				
*10	09				
*11	10				
*12	11				
*13	12				
*14	D165 - 02				
*15	03				
*16	04				
*17	09				
*18	09D				
*19	09M				
*20	10				
*21	11				
*22					
*23					
*24					
*25					

ad 04/17/07

Standards	ID	Amount Added (ml)	
		LCS	MS
Acetate			
Butyrate			
Lactate			
Perchlorate LCS/MS	SW 08-02-931	2.5	1.0
Propionate			
Pyruvate			

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments: _____

Prepared By: ad

Standard Added By: ad

Checked By: _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8926

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D166**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3520C/3550B/8082	5000 – 5060
HPLC	METHOD 8330	6000 – 6033
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 04-30-2007
EMAX Batch No.: 07D166

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/13/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
D29-HAS11@0.5'	D166-01	04/11/07	SOIL	NITROAROMATICS & NITRAMINES
D29-HAS11@5'	D166-02	04/11/07	SOIL	NITROAROMATICS & NITRAMINES
D29-HAS12@0.5'	D166-03	04/11/07	SOIL	NITROAROMATICS & NITRAMINES
D29-HAS12@5'	D166-04	04/11/07	SOIL	NITROAROMATICS & NITRAMINES
D29-HAS13@0.5'	D166-05	04/11/07	SOIL	NITROAROMATICS & NITRAMINES
D29-HAS13@5'	D166-06	04/11/07	SOIL	NITROAROMATICS & NITRAMINES
LEB-041107	D166-07	04/11/07	WATER	NITROAROMATICS & NITRAMINES
LEB1-041107	D166-08	04/11/07	WATER	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS1@5'	D166-09	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS1@10'	D166-10	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS1@15'	D166-11	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS2@5'	D166-12	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS2@10'	D166-13	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS2@15'	D166-14	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS3@5'	D166-15	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS3@10'	D166-16	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS3@15'	D166-17	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS4@5'	D166-18	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS4@10'	D166-19	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)

Sample ID	Control #	Col Date	Matrix	Analysis
F36-HSAS4@15'	D166-20	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS2@5'MS	D166-12M	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
F36-HSAS2@5'MSD	D166-12S	04/11/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

07D166

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

TT- 0618-

SHIP TO: Emax

DATE 4/11/07 PAGE 2 OF 2

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures) Holly A. Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	8330 explosives	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	D29-HAS11@ 0.5'	4/11/07	0903	X	U	S	G	1	NR
2.	D29-HAS11@ 5'	4/11/07	0933	X					
3.	D29-HAS12@ 0.5'	4/11/07	0941	X					
4.	D29-HAS12@ 5'	4/11/07	0955	X					
5.	D29 HAS13@ 0.5'	4/11/07	1000	X					
6.	D29-HAS13@ 5'	4/11/07	1010	X					
7.	LEB-041107	4/11/07	0850	X		W			
8.									
9.									
10.									

1) T= 3.0°C

2) T= 3.9°C

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME
Holly A. Hanke	Holly A. Hanke	TETRA TECH, INC.	4/11/07	1400
RECEIVED BY: GEORGE LIM	SIGNATURE	COMPANY: EMAX	DATE 4/13/07	TIME 13:25
RELINQUISHED BY: GEORGE LIM	SIGNATURE	COMPANY: EMAX	DATE 4/13/07	TIME 15:28
RECEIVED BY: V-LUNA	SIGNATURE	COMPANY: emax	DATE 4-13-07	TIME 1528

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 17

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements:

X:\GIS\ATT-MISC\COCR.CDR

1552

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

07D166

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Emax
1835 W. 20th St
Torrance CA
90501

DATE 4-11-07 PAGE 1 OF 1

CLIENT: LMC
PROJECT NAME: Supplemental Soil investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967
SAMPLERS (Signatures): Linda Marquez

PARAMETERS

TURN-AROUND TIME: Standard

LINE ITEM	SAMPLE NO.	DATE	TIME	8081 PCBs	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
8 1	LEB-041107	4-11-07	1445	X	U	S	P	1	NR	
9 2	F36-HSAS1	11	1552	X			G	3		
14 3	F36-HSAS2	11	1611	X				4		one Dup @ 5'
17 4	F36-HSAS3	11	1532	X				3		
20 5	F36-HSAS4	11	1511	X				3		
	6.									
	7.									
	8.									
	9.									
	10.									

Linda Marquez 4-11-07

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: L Marquez	SIGNATURE: Linda Marquez	TETRA TECH, INC.	DATE: 4-11-07	TIME: 1705	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 14
RECEIVED BY: GEORGE Lim	SIGNATURE:	COMPANY: EMAX	DATE: 4/13/07	TIME: 13:25	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE Lim	SIGNATURE:	COMPANY: EMAX	DATE: 4/13/07	TIME: 15:28	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA	SIGNATURE:	COMPANY: emax	DATE: 4-13-07	TIME: 1528	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

6561

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D166
☒ EMAX Courier	SEE COC	Recepient JON LUNA
☐ Client Delivery		Date 4-13-07
☐ Third Party		Time 1528

COC Inspection

☒ Client Name ☒ Client PM/FC ☒ Sampler Name ☒ Sampling Date/Time/Location ☒ Sample ID ☒ Matrix
☒ Address ☒ Tel # / Fax # ☒ Courier Signature * ☒ Analysis Required ☐ Preservative (if any) ☒ PAT

Safety Issues
☒ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments: * WRONG METHOD ON PCBs (8021 ON LABELS)

Packaging Inspection

Container	☒ Cooler 2	☐ Box	☐ Other		
Condition	☐ Custody Seal	☒ Intact	☐ Damaged		
Packaging	☒ Bubble Pack	☐ Styrofoam	☐ Popcorn	☒ Sufficient	☐ _____
Temperatures	☒ Cooler 1 8.0 °C	☒ Cooler 2 8.9 °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/~~COC ID~~	Discrepancy Code	Corrective Action Code
-08		LEB1-041107	H1, B3	R2 for H1, R6 for B3
-09		F36-HSAS1 5'	D3 - 1544, H2	R5, R6
-10		F36-HSAS1 10'	D3 - 1549, H2	R5, R6
-11		F36-HSAS1 15'	D3 - 1552, B3	R6
-12		F36-HSAS2 5'	D3 - 1601, H2	R5, R6
-13		F36-HSAS2 10'	D3 - 1608, H2	R5, R6
-14		F36-HSAS2 15'	D3 - 1611, B3	R6
-15		F36-HSAS3 5'	D3 - 1524, H2	R5, R6
-16		F36-HSAS3 10'	D3 - 1527, H2	R5, R6
-17		F36-HSAS3 15'	D3 - 1532, B3	R6
-18		F36-HSAS4 5'	D3 - 1504, H2	R5, R6
-19		F36-HSAS4 10'	D3 - 1508, H2	R5, R6
-20		F36-HSAS4 15'	D3 - 1511, B3	R5, R6

REVIEWS

Sample Labeling _____ Date 4-13-07

SRF _____ Date 4/16/07

PM _____ Date 4/16/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	WATER SAMPLE, RECVD IN 125ML PLASTIC BOTTLE (FOR PCBs)
H2	NOT LISTED ON COC

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC w/ volume provided
R3	Refer to attached instruction
R4	Cancel the analysis
R5	Login as tagged using ID/Time
R6	Follow info. on labels (ID) enter on Labels

100%

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8082
PCBs

SDG#: 07D166

5000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D166

METHOD 3520C/3550B/8082
PCBs

One (1) water and twelve (12) soil samples were received on 04/13/07 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample D166-12 was spiked. Recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

   Only 100 mL of water sample was extracted due to limited amount of sample.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D166
Instrument ID : GCT071

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	60D032WB	1	NA	04/20/0720:23	04/17/0716:30	KD20004A	KD20002A	60D032W	Method Blank
LCS1W	60D032WL	1	NA	04/20/0720:45	04/17/0716:30	KD20005A	KD20002A	60D032W	Lab Control Sample (LCS)
LCD1W	60D032WC	1	NA	04/20/0721:06	04/17/0716:30	KD20006A	KD20002A	60D032W	LCS Duplicate
LEB1-041107	D166-08	5	NA	04/20/0721:28	04/17/0716:30	KD20007A	KD20002A	60D032W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60D034SB	1	NA	04/19/0720:14	04/18/0715:15	KD19018A	KD19014A	60D034S	Method Blank
LCS1S	60D034SL	1	NA	04/19/0720:36	04/18/0715:15	KD19019A	KD19014A	60D034S	Lab Control Sample (LCS)
LCD1S	60D034SC	1	NA	04/19/0720:57	04/18/0715:15	KD19020A	KD19014A	60D034S	LCS Duplicate
F36-HSAS1@5'	D166-09	1	5.9	04/20/0712:52	04/18/0715:15	KD19055A	KD19037A	60D034S	Field Sample
F36-HSAS1@10'	D166-10	1	6.2	04/20/0713:13	04/18/0715:15	KD19056A	KD19037A	60D034S	Field Sample
F36-HSAS1@15'	D166-11	1	4.6	04/20/0713:35	04/18/0715:15	KD19057A	KD19037A	60D034S	Field Sample
F36-HSAS2@5'	D166-12	1	3.7	04/20/0715:22	04/18/0715:15	KD19062A	KD19060A	60D034S	Field Sample
F36-HSAS2@10'	D166-13	1	5.0	04/20/0716:26	04/18/0715:15	KD19065A	KD19060A	60D034S	Field Sample
F36-HSAS2@15'	D166-14	1	4.4	04/20/0716:48	04/18/0715:15	KD19066A	KD19060A	60D034S	Field Sample
F36-HSAS3@5'	D166-15	1	9.1	04/20/0717:09	04/18/0715:15	KD19067A	KD19060A	60D034S	Field Sample
F36-HSAS3@10'	D166-16	1	5.6	04/20/0717:31	04/18/0715:15	KD19068A	KD19060A	60D034S	Field Sample
F36-HSAS3@15'	D166-17	1	7.7	04/20/0717:52	04/18/0715:15	KD19069A	KD19060A	60D034S	Field Sample
F36-HSAS4@5'	D166-18	1	5.4	04/20/0721:49	04/18/0715:15	KD20008A	KD20002A	60D034S	Field Sample
F36-HSAS4@10'	D166-19	1	4.5	04/20/0722:11	04/18/0715:15	KD20009A	KD20002A	60D034S	Field Sample
F36-HSAS4@15'	D166-20	1	7.8	04/20/0722:32	04/18/0715:15	KD20010A	KD20002A	60D034S	Field Sample
F36-HSAS2@5'MS	D166-12M	1	3.7	04/20/0715:44	04/18/0715:15	KD19063A	KD19060A	60D034S	Matrix Spike Sample (MS)
F36-HSAS2@5'MSD	D166-12S	1	3.7	04/20/0716:05	04/18/0715:15	KD19064A	KD19060A	60D034S	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/17/07 16:30
Sample ID:	LEB1-041107	Date Analyzed:	04/20/07 21:28
Lab Samp ID:	D166-08	Dilution Factor:	5
Lab File ID:	KD20007A	Matrix :	WATER
Ext Btch ID:	60D032W	% Moisture :	NA
Calib. Ref.:	KD20002A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	5.0	2.5 | 2.5
PCB-1221	(ND) | ND	5.0	2.5 | 2.5
PCB-1232	(ND) | ND	5.0	2.5 | 2.5
PCB-1242	(ND) | ND	5.0	2.5 | 2.5
PCB-1248	(ND) | ND	5.0	2.5 | 2.5
PCB-1254	(ND) | ND	5.0	2.5 | 2.5
PCB-1260	(ND) | ND	5.0	2.5 | 2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(96) | 95	30-140
DECACHLOROBIPHENYL	(124) | 119	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS1@5'	Date Analyzed:	04/20/07 12:52
Lab Samp ID:	D166-09	Dilution Factor:	1
Lab File ID:	KD19055A	Matrix :	SOIL
Ext Btch ID:	60D034S	% Moisture :	5.9
Calib. Ref.:	KD19037A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(100) | 113	10-160
DECACHLOROBIPHENYL	(129) | 123	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS1@10'	Date Analyzed:	04/20/07 13:13
Lab Samp ID:	D166-10	Dilution Factor:	1
Lab File ID:	KD19056A	Matrix	: SOIL
Ext Btch ID:	60D034S	% Moisture	: 6.2
Calib. Ref.:	KD19037A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(103) | 126	10-160
DECACHLOROBIPHENYL	(127) | 122	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D166	Date Extracted: 04/18/07 15:15
Sample ID: F36-HSAS1@15'	Date Analyzed: 04/20/07 13:35
Lab Samp ID: D166-11	Dilution Factor: 1
Lab File ID: KD19057A	Matrix : SOIL
Ext Btch ID: 60D034S	% Moisture : 4.6
Calib. Ref.: KD19037A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(95) | 115	10-160
DECACHLOROBIPHENYL	(123) | 118	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D166	Date Extracted: 04/18/07 15:15
Sample ID: F36-HSAS2@5'	Date Analyzed: 04/20/07 15:22
Lab Samp ID: D166-12	Dilution Factor: 1
Lab File ID: KD19062A	Matrix : SOIL
Ext Btch ID: 60D034S	% Moisture : 3.7
Calib. Ref.: KD19060A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(110) | 127	10-160
DECACHLOROBIPHENYL	(130) | 121	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS2@10'	Date Analyzed:	04/20/07 16:26
Lab Samp ID:	D166-13	Dilution Factor:	1
Lab File ID:	KD19065A	Matrix :	SOIL
Ext Btch ID:	60D034S	% Moisture :	5.0
Calib. Ref.:	KD19060A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(100) | 129	10-160
DECACHLOROBIPHENYL	(127) | 121	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS2@15'	Date Analyzed:	04/20/07 16:48
Lab Samp ID:	D166-14	Dilution Factor:	1
Lab File ID:	KD19066A	Matrix	: SOIL
Ext Btch ID:	60D034S	% Moisture	: 4.4
Calib. Ref.:	KD19060A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(105) | 138	10-160
DECACHLOROBIPHENYL	(128) | 122	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D166	Date Extracted: 04/18/07 15:15
Sample ID: F36-HSAS3@5'	Date Analyzed: 04/20/07 17:09
Lab Samp ID: D166-15	Dilution Factor: 1
Lab File ID: KD19067A	Matrix : SOIL
Ext Btch ID: 60D034S	% Moisture : 9.1
Calib. Ref.: KD19060A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	55	22 | 22
PCB-1221	(ND) | ND	55	22 | 22
PCB-1232	(ND) | ND	55	22 | 22
PCB-1242	(ND) | ND	55	22 | 22
PCB-1248	(ND) | ND	55	22 | 22
PCB-1254	(ND) | ND	55	22 | 22
PCB-1260	(ND) | ND	55	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(105) | 133	10-160
DECACHLOROBIPHENYL	(129) | 123	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D166	Date Extracted: 04/18/07 15:15
Sample ID: F36-HSAS3@10'	Date Analyzed: 04/20/07 17:31
Lab Samp ID: D166-16	Dilution Factor: 1
Lab File ID: KD19068A	Matrix : SOIL
Ext Btch ID: 60D034S	% Moisture : 5.6
Calib. Ref.: KD19060A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(104) | 136	10-160
DECACHLOROBIPHENYL	(123) | 118	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS3@15'	Date Analyzed:	04/20/07 17:52
Lab Samp ID:	D166-17	Dilution Factor:	1
Lab File ID:	KD19069A	Matrix :	SOIL
Ext Btch ID:	60D034S	% Moisture :	7.7
Calib. Ref.:	KD19060A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	54	22 | 22
PCB-1221	(ND) | ND	54	22 | 22
PCB-1232	(ND) | ND	54	22 | 22
PCB-1242	(ND) | ND	54	22 | 22
PCB-1248	(ND) | ND	54	22 | 22
PCB-1254	(ND) | ND	54	22 | 22
PCB-1260	(ND) | ND	54	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(101) | 123	10-160
DECACHLOROBIPHENYL	(126) | 121	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS4@5'	Date Analyzed:	04/20/07 21:49
Lab Samp ID:	D166-18	Dilution Factor:	1
Lab File ID:	KD20008A	Matrix	: SOIL
Ext Btch ID:	60D034S	% Moisture	: 5.4
Calib. Ref.:	KD20002A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(100) | 131	10-160
DECACHLOROBIPHENYL	(123) | 118	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS4@10'	Date Analyzed:	04/20/07 22:11
Lab Samp ID:	D166-19	Dilution Factor:	1
Lab File ID:	KD20009A	Matrix :	SOIL
Ext Btch ID:	60D034S	% Moisture :	4.5
Calib. Ref.:	KD20002A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(93) | 123	10-160
DECACHLOROBIPHENYL	(123) | 117	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	F36-HSAS4@15'	Date Analyzed:	04/20/07 22:32
Lab Samp ID:	D166-20	Dilution Factor:	1
Lab File ID:	KD20010A	Matrix :	SOIL
Ext Btch ID:	60D034S	% Moisture :	7.8
Calib. Ref.:	KD20002A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	54	22 | 22
PCB-1221	(ND) | ND	54	22 | 22
PCB-1232	(ND) | ND	54	22 | 22
PCB-1242	(ND) | ND	54	22 | 22
PCB-1248	(ND) | ND	54	22 | 22
PCB-1254	(ND) | ND	54	22 | 22
PCB-1260	(ND) | ND	54	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(99) | 97	10-160
DECACHLOROBIPHENYL	(125) | 120	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARY

METHOD 3520C/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D166	Date Extracted:	04/17/07 16:30
Sample ID:	MBLK1W	Date Analyzed:	04/20/07 20:23
Lab Samp ID:	60D032WB	Dilution Factor:	1
Lab File ID:	KD20004A	Matrix	: WATER
Ext Btch ID:	60D032W	% Moisture	: NA
Calib. Ref.:	KD20002A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(96) | 95	30-130
DECACHLOROBIPHENYL	(122) | 117	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D166
METHOD: METHOD 3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	60D032WB	60D032WL	60D032WC		
LAB FILE ID:	KD20004A	KD20005A	KD20006A		
DATE EXTRACTED:	04/17/0716:30	04/17/0716:30	04/17/0716:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0720:23	04/20/0720:45	04/20/0721:06	DATE RECEIVED:	04/17/07
PREP. BATCH:	60D032W	60D032W	60D032W		
CALIB. REF:	KD20002A	KD20002A	KD20002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5.00	(5.19) | 5.29	(104) | 106	5.00	(5.38) | 5.48	(108) | 110	(4) | 4	50-130	30
PCB-1260	(ND) | ND	5.00	(5.27) | 5.43	(105) | 109	5.00	(5.57) | 5.64	(111) | 113	(6) | 4	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	0.400	(0.381) | 0.385	(95) | 96	0.400	(0.393) | 0.394	(98) | 99	30-130
Decachlorobiphenyl	0.400	(0.484) | 0.463	(121) | 116	0.400	(0.487) | 0.465	(122) | 116	40-150

USEPA

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/18/07
Batch No.	: 07D166	Date Extracted:	04/18/07 15:15
Sample ID:	MBLK1S	Date Analyzed:	04/19/07 20:14
Lab Samp ID:	60D034SB	Dilution Factor:	1
Lab File ID:	KD19018A	Matrix :	SOIL
Ext Btch ID:	60D034S	% Moisture :	NA
Calib. Ref.:	KD19014A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(91) | 89	40-130
DECACHLOROBIPHENYL	(125) | 126	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D166
METHOD: METHOD 3550B/8082

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60D034SB	60D034SL	60D034SC		
LAB FILE ID:	KD19018A	KD19019A	KD19020A		
DATE EXTRACTED:	04/18/0715:15	04/18/0715:15	04/18/0715:15	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0720:14	04/19/0720:36	04/19/0720:57	DATE RECEIVED:	04/18/07
PREP. BATCH:	60D034S	60D034S	60D034S		
CALIB. REF:	KD19014A	KD19014A	KD19014A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(152) | 155	(91) | 93	167	(156) | 162	(94) | 97	(3) | 4	50-130	50
PCB-1260	(ND) | ND	167	(180) | 186	(108) | 112	167	(182) | 191	(109) | 115	(1) | 3	70-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(11.8) | 11.8	(88) | 88	13.3	(12.2) | 12.3	(92) | 92	40-130
Decachlorobiphenyl	13.3	(16.7) | 16.8	(126) | 126	13.3	(17.0) | 17.1	(127) | 128	40-160

5021

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D166
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: 3.7

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	F36-HSAS2@5'				
LAB SAMP ID:	D166-12	D166-12M	D166-12S		
LAB FILE ID:	KD19062A	KD19063A	KD19064A		
DATE EXTRACTED:	04/18/0715:15	04/18/0715:15	04/18/0715:15	DATE COLLECTED:	04/11/07
DATE ANALYZED:	04/20/0715:22	04/20/0715:44	04/20/0716:05	DATE RECEIVED:	04/13/07
PREP. BATCH:	60D034S	60D034S	60D034S		
CALIB. REF:	KD19060A	KD19060A	KD19060A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	173	(195) | 211	(113) | 122	173	(195) | 207	(113) | 120	(0) | 2	20-160	50
PCB-1260	(ND) | ND	173	(201) | 202	(116) | 117	173	(208) | 199	(120) | 115	(3) | 1	20-160	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.8	(15.5) | 18.4	(112) | 133	13.8	(15.4) | 18.1	(111) | 131	10-160
Decachlorobiphenyl	13.8	(17.8) | 16.4	(129) | 119	13.8	(17.8) | 16.4	(128) | 119	30-150

* : Outside of QC limits

5520

INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
LFID & Datetime: KD17002A 04/17/07 11:05
LFID & Datetime: KD17003A 04/17/07 11:27
LFID & Datetime: KD17004A 04/17/07 11:48
LFID & Datetime: KD17005A 04/17/07 12:10
LFID & Datetime: KD17006A 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1222.85	1270.50	1181.34	1023.15	923.31	1124.23	13.0
PCB1016-2	20.00	1405.05	1541.56	1431.64	1298.23	1179.83	1371.26	10.0
PCB1016-3	20.00	5276.95	4988.12	4510.80	3878.04	3478.53	4426.49	16.9
PCB1016-4	20.00	1289.20	1511.80	1422.99	1326.13	1201.69	1350.36	8.9
PCB1016-5	20.00	1166.50	1430.44	1181.47	1212.29	1068.37	1211.81	11.0
PCB1260-1	20.00	3494.15	3529.02	3133.71	2851.14	2409.67	3083.54	15.2
PCB1260-2	20.00	5729.00	5652.56	5436.91	4869.33	4439.66	5225.49	10.6
PCB1260-3	20.00	3469.70	3441.72	3396.39	3041.85	2752.14	3220.36	9.7
PCB1260-4	20.00	7270.55	8008.74	7756.66	7290.90	6554.21	7376.21	7.5
PCB1260-5	20.00	4389.70	4642.28	4442.28	4319.34	4017.51	4362.22	5.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10592	10679	10499	9850	9496	10223	5.1
DCB	5.00	14372	14235	13795	12178	11471	13210	9.9

MW 4-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
LFID & Datetime: KD17002A 04/17/07 11:05
LFID & Datetime: KD17003A 04/17/07 11:27
LFID & Datetime: KD17004A 04/17/07 11:48
LFID & Datetime: KD17005A 04/17/07 12:10
LFID & Datetime: KD17006A 04/17/07 12:32

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.5X	5.0X	10.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
PCB1016-1	4.942	4.933	4.933	4.933	4.925	4.933	4.895	4.971	0.038
PCB1016-2	5.658	5.658	5.658	5.650	5.650	5.655	5.589	5.721	0.066
PCB1016-3	6.025	6.025	6.025	6.017	6.017	6.022	5.984	6.060	0.038
PCB1016-4	6.225	6.217	6.217	6.217	6.217	6.219	6.181	6.257	0.038
PCB1016-5	6.342	6.342	6.342	6.333	6.333	6.338	6.276	6.400	0.062
PCB1260-1	7.842	7.833	7.833	7.825	7.825	7.832	7.756	7.908	0.076
PCB1260-2	8.533	8.533	8.533	8.525	8.525	8.530	8.428	8.632	0.102
PCB1260-3	8.983	8.975	8.975	8.967	8.967	8.973	8.871	9.075	0.102
PCB1260-4	9.500	9.492	9.492	9.483	9.483	9.490	9.377	9.603	0.113
PCB1260-5	10.033	10.033	10.025	10.017	10.017	10.025	9.912	10.138	0.113
SURROGATE	1.0X	2.5X	5.0X	10.0X	20.0X	RT	FROM	TO	WIDTH
TCX	4.342	4.342	4.342	4.333	4.333	4.338	4.287	4.389	0.051
DCB	12.817	12.808	12.800	12.792	12.783	12.800	12.725	12.875	0.075

pw 4-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
LFID & Datetime: KD17002B 04/17/07 11:05
LFID & Datetime: KD17003B 04/17/07 11:27
LFID & Datetime: KD17004B 04/17/07 11:48
LFID & Datetime: KD17005B 04/17/07 12:10
LFID & Datetime: KD17006B 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1454.55	1424.40	1292.03	1118.69	998.03	1257.54	15.6
PCB1016-2	20.00	2781.45	2675.90	2441.52	2076.26	1841.45	2363.32	16.8
PCB1016-3	20.00	5437.50	4996.70	4563.71	3882.20	3497.18	4475.46	17.7
PCB1016-4	20.00	1510.30	1427.08	1400.76	1267.94	1181.01	1357.42	9.7
PCB1016-5	20.00	1152.80	1291.20	1216.05	1177.94	1124.06	1192.41	5.4
PCB1260-1	20.00	4650.55	4444.38	4379.77	3723.10	3400.99	4119.76	12.9
PCB1260-2	20.00	3411.65	3196.48	3273.92	2870.77	2590.60	3068.68	10.9
PCB1260-3	20.00	3093.25	2986.02	3162.32	2717.71	2477.88	2887.43	9.9
PCB1260-4	20.00	7807.60	7652.78	7640.60	6670.01	6202.79	7194.76	9.9
PCB1260-5	20.00	5368.85	5467.36	5552.58	5030.22	4645.39	5212.88	7.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10583	10930	11041	10247	10105	10581	3.9
DCB	5.00	14855	14247	13516	12432	11744	13359	9.6

4-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
LFID & Datetime: KD17002B 04/17/07 11:05
LFID & Datetime: KD17003B 04/17/07 11:27
LFID & Datetime: KD17004B 04/17/07 11:48
LFID & Datetime: KD17005B 04/17/07 12:10
LFID & Datetime: KD17006B 04/17/07 12:32

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.5X	5.0X	10.0X	20.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
PCB1016-1	3.708	3.708	3.700	3.700	3.700	3.703	3.616	3.790	0.087
PCB1016-2	4.217	4.217	4.217	4.208	4.208	4.213	4.184	4.242	0.029
PCB1016-3	4.850	4.850	4.850	4.842	4.842	4.847	4.785	4.909	0.062
PCB1016-4	5.092	5.092	5.092	5.083	5.083	5.088	5.050	5.126	0.038
PCB1016-5	5.625	5.625	5.625	5.617	5.617	5.622	5.584	5.660	0.038
PCB1260-1	6.850	6.850	6.850	6.842	6.842	6.847	6.795	6.899	0.052
PCB1260-2	7.008	7.000	7.000	7.000	7.000	7.002	6.940	7.064	0.062
PCB1260-3	7.500	7.500	7.492	7.492	7.492	7.495	7.420	7.570	0.075
PCB1260-4	7.775	7.767	7.767	7.767	7.767	7.769	7.682	7.856	0.087
PCB1260-5	8.183	8.183	8.183	8.175	8.175	8.180	8.091	8.269	0.089
SURROGATE	1.0X	2.5X	5.0X	10.0X	20.0X	RT	FROM	TO	WIDTH
TCX	3.000	3.000	3.000	2.992	2.992	2.997	2.968	3.026	0.029
DCB	9.717	9.717	9.708	9.708	9.708	9.712	9.669	9.755	0.043

pre 4-19-07

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007A 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			954.565	5		15
PCB1260				1000.0			1003.852	0		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.333	4.282	4.384	50.0	10223.2	501063	49.01	-2		15
DCB	12.783	12.708	12.858	50.0	13210.2	726987	55.03	10		15

4-19-07

5029

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007B 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			956.404	4		15
PCB1260				1000.0			978.074	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.992	2.963	3.021	50.0	10581.1	503048	47.54	-5		15
DCB	9.700	9.657	9.743	50.0	13358.7	701265	52.49	5		15

4-19-07

5030

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19014A 04/19/2007 18:49
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1027.513	3		15
PCB1260				1000.0			1081.747	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.308	4.257	4.359	50.0	10223.2	586838	57.40	15		15
DCB	12.708	12.633	12.783	50.0	13210.2	710659	53.80	8		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19014B 04/19/2007 18:49
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1016.054	2		15
PCB1260				1000.0			1049.300	5		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.967	2.938	2.996	50.0	10581.1	579130	54.73	9		15
DCB	9.658	9.615	9.701	50.0	13358.7	683252	51.15	2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19037A 04/20/2007 03:02
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			983.930	2		15
PCB1260				1000.0			1036.251	4		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.308	4.257	4.359	50.0	10223.2	538259	52.65	5		15
DCB	12.700	12.625	12.775	50.0	13210.2	664221	50.28	1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19037B 04/20/2007 03:02
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			975.073	2		15
PCB1260				1000.0			984.239	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.967	2.938	2.996	50.0	10581.1	537632	50.81	2		15
DCB	9.650	9.607	9.693	50.0	13358.7	640715	47.96	-4		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19060A 04/20/2007 14:39
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1015.963	2		15
PCB1260				1000.0			936.761	6		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.300	4.249	4.351	50.0	10223.2	553255	54.12	8		15
DCB	12.700	12.625	12.775	50.0	13210.2	678532	51.36	3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19060B 04/20/2007 14:39
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			940.179	6		15
PCB1260				1000.0			1035.257	4		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.967	2.938	2.996	50.0	10581.1	552819	52.25	4		15
DCB	9.650	9.607	9.693	50.0	13358.7	684604	51.25	2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19071A 04/20/2007 18:35
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			958.769	4		15
PCB1260				1000.0			1020.675	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.300	4.249	4.351	50.0	10223.2	521424	51.00	2		15
DCB	12.700	12.625	12.775	50.0	13210.2	642847	48.66	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD19071B 04/20/2007 18:35
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			946.086	5		15
PCB1260				1000.0			948.044	5		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.967	2.938	2.996	50.0	10581.1	519836	49.13	-2		15
DCB	9.650	9.607	9.693	50.0	13358.7	622807	46.62	-7		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD20002A 04/20/2007 19:40
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			959.223	4		15
PCB1260				1000.0			989.511	1		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.300	4.249	4.351	50.0	10223.2	530835	51.92	4		15
DCB	12.700	12.625	12.775	50.0	13210.2	655551	49.63	-1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD20002B 04/20/2007 19:40
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			957.688	4		15
PCB1260				1000.0			997.962	0		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.967	2.938	2.996	50.0	10581.1	528574	49.95	-0		15
DCB	9.650	9.607	9.693	50.0	13358.7	655899	49.10	-2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD20013A 04/20/2007 23:36
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			940.691	6		15
PCB1260				1000.0			984.359	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.300	4.249	4.351	50.0	10223.2	519938	50.86	2		15
DCB	12.692	12.617	12.767	50.0	13210.2	642874	48.67	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD20013B 04/20/2007 23:36
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			929.378	7		15
PCB1260				1000.0			967.727	3		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.967	2.938	2.996	50.0	10581.1	517408	48.90	-2		15
DCB	9.642	9.599	9.685	50.0	13358.7	621296	46.51	-7		15

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD19

Method File: 6071D17; 5471D17

Analytical Batch: KD19002A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4/17/07
5471D17	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	45059	N/A
1660 ICAL	SS1B-05-62-2	100-2000ppb
1254 ICAL	SS1B-05-63-1	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

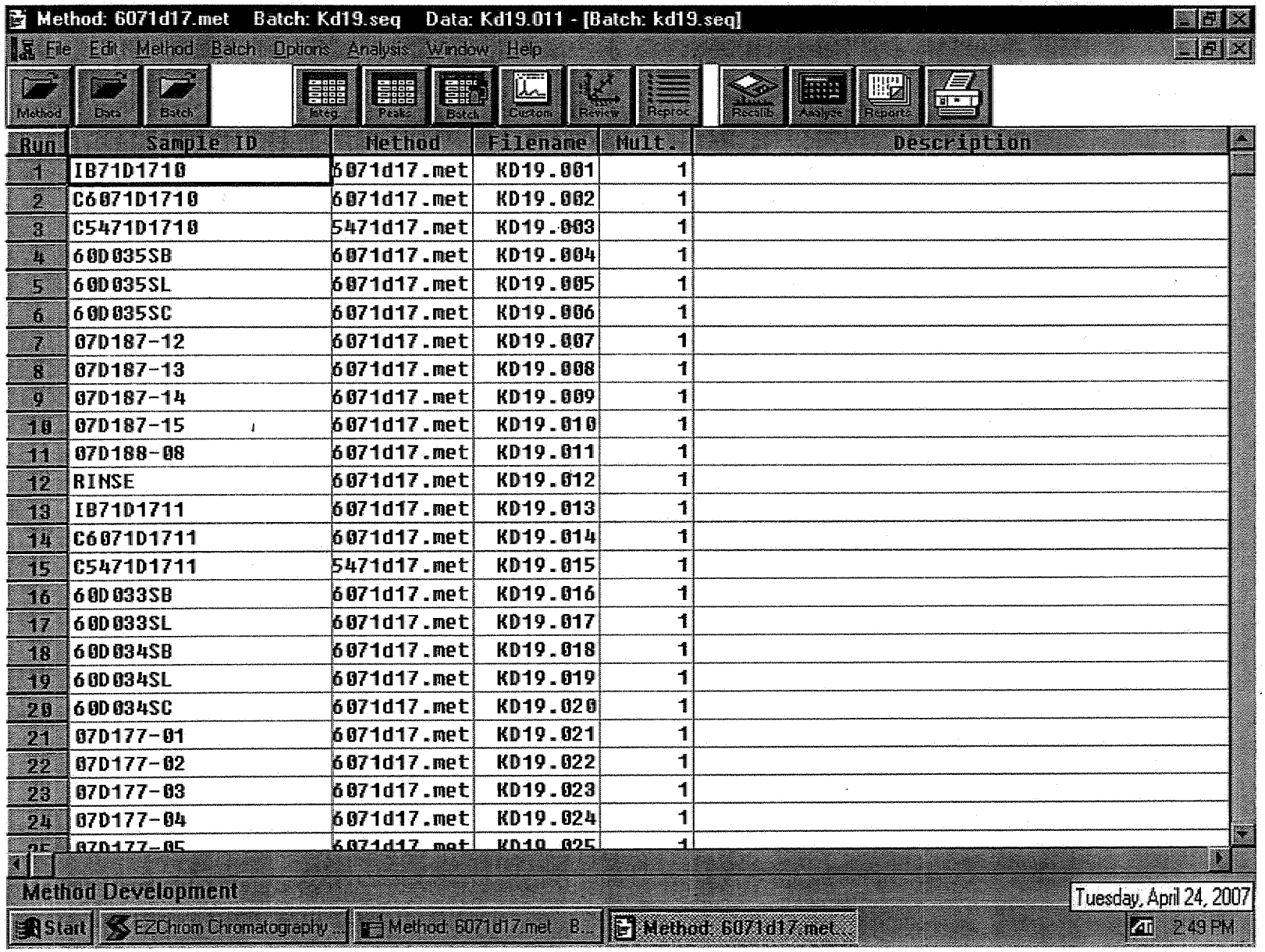
ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC_4_Pesticides	
☐	

Analyzed By: JL Date: 4/19/07

Date Disposed: Disposed By:

This page is checked during data review.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Peaks
Batch
Custom
Review
Reproc
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
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2 | C6071D1710 | 6071d17.met | KD19.002 | 1
3 | C5471D1710 | 5471d17.met | KD19.003 | 1
4 | 60D035SB | 6071d17.met | KD19.004 | 1
5 | 60D035SL | 6071d17.met | KD19.005 | 1
6 | 60D035SC | 6071d17.met | KD19.006 | 1
7 | 07D187-12 | 6071d17.met | KD19.007 | 1
8 | 07D187-13 | 6071d17.met | KD19.008 | 1
9 | 07D187-14 | 6071d17.met | KD19.009 | 1
10 | 07D187-15 | 6071d17.met | KD19.010 | 1
11 | 07D188-08 | 6071d17.met | KD19.011 | 1
12 | RINSE | 6071d17.met | KD19.012 | 1
13 | IB71D1711 | 6071d17.met | KD19.013 | 1
14 | C6071D1711 | 6071d17.met | KD19.014 | 1
15 | C5471D1711 | 5471d17.met | KD19.015 | 1
16 | 60D033SB | 6071d17.met | KD19.016 | 1
17 | 60D033SL | 6071d17.met | KD19.017 | 1
18 | 60D034SB | 6071d17.met | KD19.018 | 1
19 | 60D034SL | 6071d17.met | KD19.019 | 1
20 | 60D034SC | 6071d17.met | KD19.020 | 1
21 | 07D177-01 | 6071d17.met | KD19.021 | 1
22 | 07D177-02 | 6071d17.met | KD19.022 | 1
23 | 07D177-03 | 6071d17.met | KD19.023 | 1
24 | 07D177-04 | 6071d17.met | KD19.024 | 1
Method Development
Tuesday, April 24, 2007
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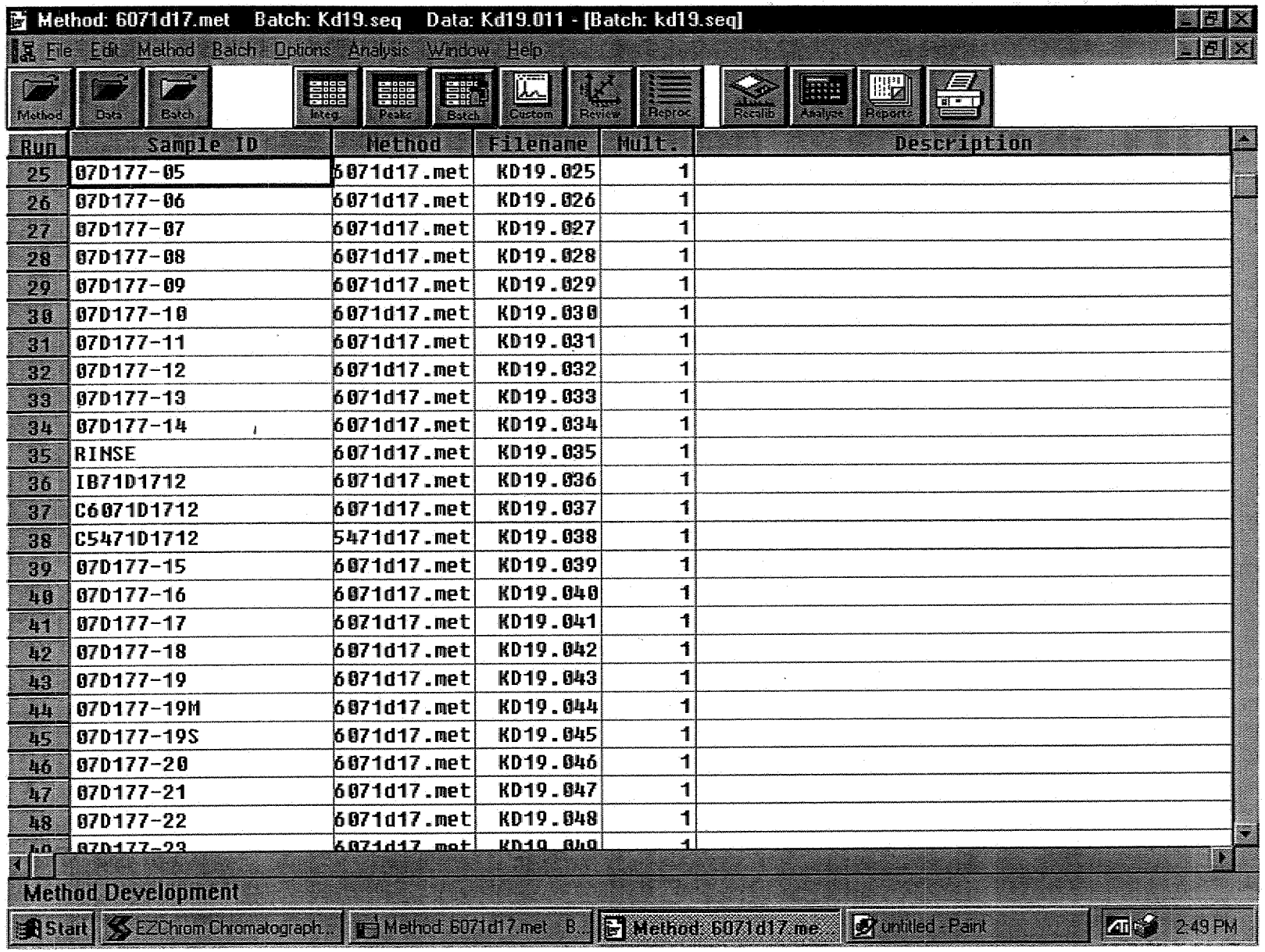
Method: 6071d17.met...
2:49 PM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Method
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Peaks
Batch
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Review
Reproc
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Reports
Run
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Method
Filename
Mult.
Description
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27 07D177-07 6071d17.met KD19.027 1
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29 07D177-09 6071d17.met KD19.029 1
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46 07D177-20 6071d17.met KD19.046 1
47 07D177-21 6071d17.met KD19.047 1
48 07D177-22 6071d17.met KD19.048 1
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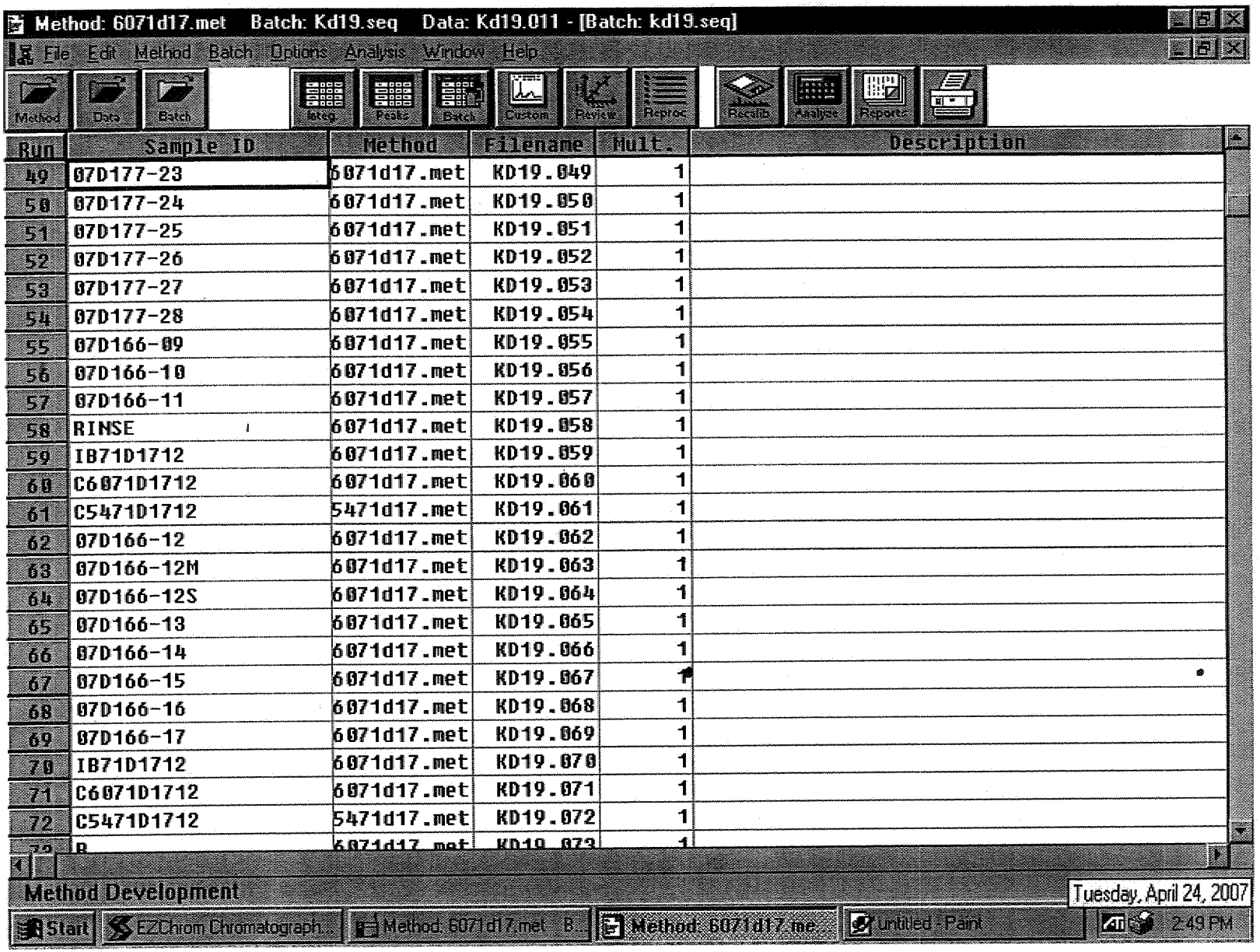
2:49 PM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Method Development
Tuesday, April 24, 2007
Start EZChrom Chromatograph... Method: 6071d17.met B... Method: 6071d17.me... untitled - Paint 2:49 PM

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* PESTICIDES

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD20

Method File: 607ID17 ; 547ID17

Analytical Batch: KD20002A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
607ID17	KD17	4/17/07
547ID17	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	45059	N/A
1660 ICAL	SSIB-05-62-2	100-2000 pp b
1259 ↓	↓ 63-1	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

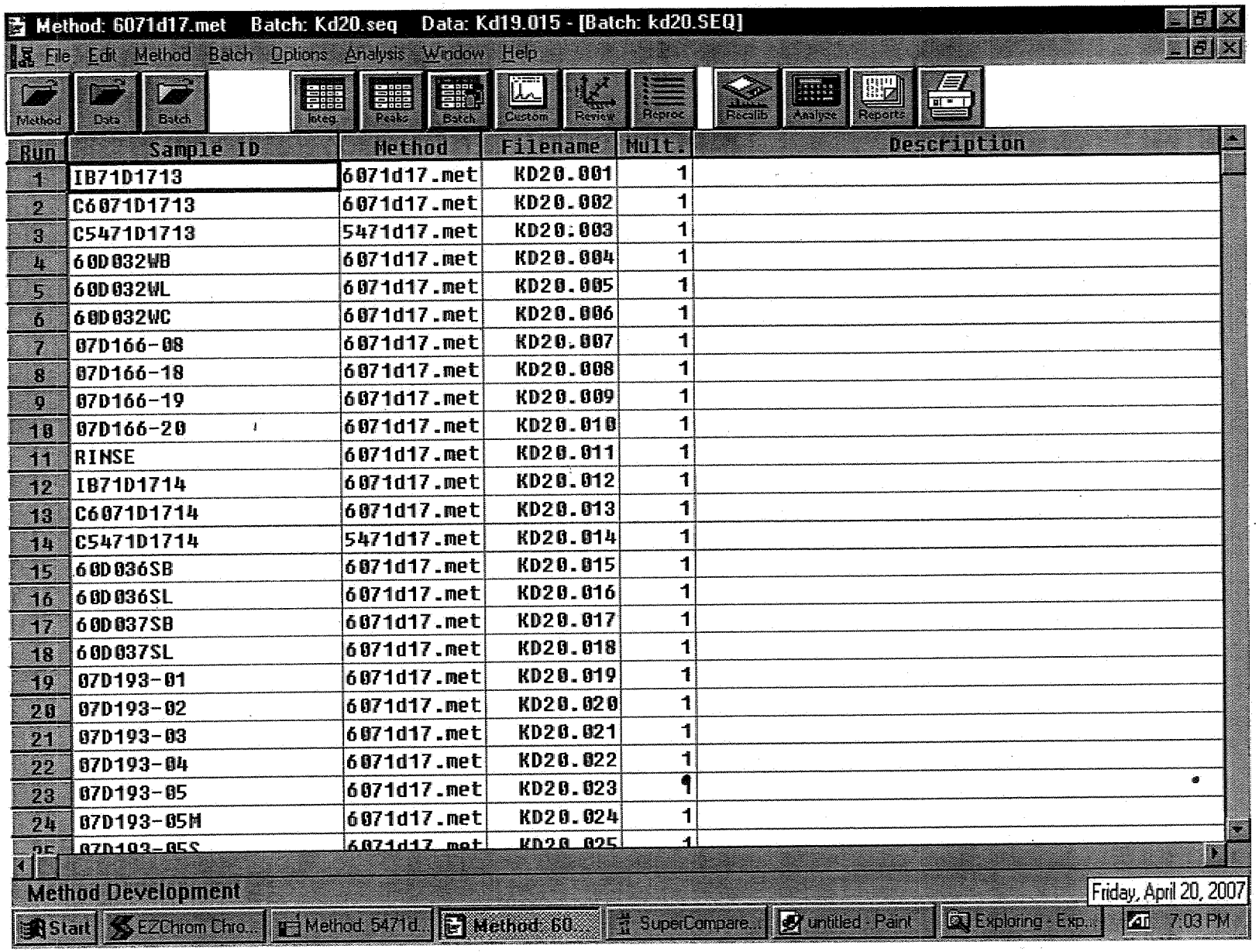
ELECTRONIC DATA ARCHIVAL

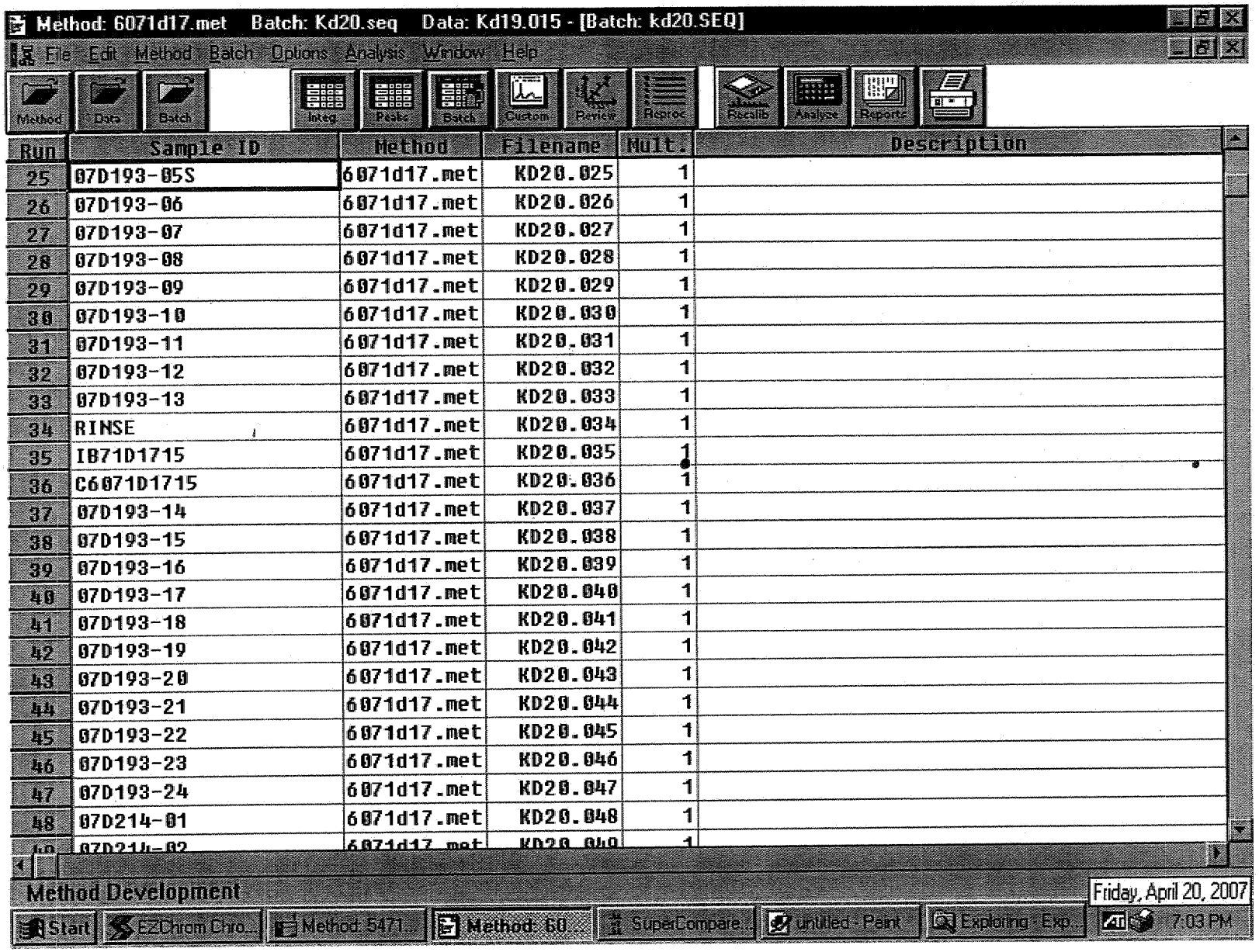
Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: JW Date: 4/20/07

Date Disposed: Disposed By:

This page is checked during data review.


Method: 6071d17.met Batch: Kd20.seq Data: Kd19.015 - [Batch: kd20.SEQ]
File Edit Method Batch Options Analysis Window Help
Method Data Batch Integ Peaks Batch Custom Review Reproc Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1713 | 6071d17.met | KD20.001 | 1
2 | C6071D1713 | 6071d17.met | KD20.002 | 1
3 | C5471D1713 | 5471d17.met | KD20.003 | 1
4 | 60D032WB | 6071d17.met | KD20.004 | 1
5 | 60D032WL | 6071d17.met | KD20.005 | 1
6 | 60D032WC | 6071d17.met | KD20.006 | 1
7 | 07D166-08 | 6071d17.met | KD20.007 | 1
8 | 07D166-18 | 6071d17.met | KD20.008 | 1
9 | 07D166-19 | 6071d17.met | KD20.009 | 1
10 | 07D166-20 | 6071d17.met | KD20.010 | 1
11 | RINSE | 6071d17.met | KD20.011 | 1
12 | IB71D1714 | 6071d17.met | KD20.012 | 1
13 | C6071D1714 | 6071d17.met | KD20.013 | 1
14 | C5471D1714 | 5471d17.met | KD20.014 | 1
15 | 60D036SB | 6071d17.met | KD20.015 | 1
16 | 60D036SL | 6071d17.met | KD20.016 | 1
17 | 60D037SB | 6071d17.met | KD20.017 | 1
18 | 60D037SL | 6071d17.met | KD20.018 | 1
19 | 07D193-01 | 6071d17.met | KD20.019 | 1
20 | 07D193-02 | 6071d17.met | KD20.020 | 1
21 | 07D193-03 | 6071d17.met | KD20.021 | 1
22 | 07D193-04 | 6071d17.met | KD20.022 | 1
23 | 07D193-05 | 6071d17.met | KD20.023 | 1
24 | 07D193-05M | 6071d17.met | KD20.024 | 1
Method Development
Friday, April 20, 2007
Start EZChrom Chro... Method: 5471d... Method: 60... SuperCompare... untitled - Paint Exploring - Exp... 7:03 PM


Method: 6071d17.met Batch: Kd20.seq Data: Kd19.015 - [Batch: kd20.SEQ]
File Edit Method Batch Options Analysis Window Help
Method
Data
Batch
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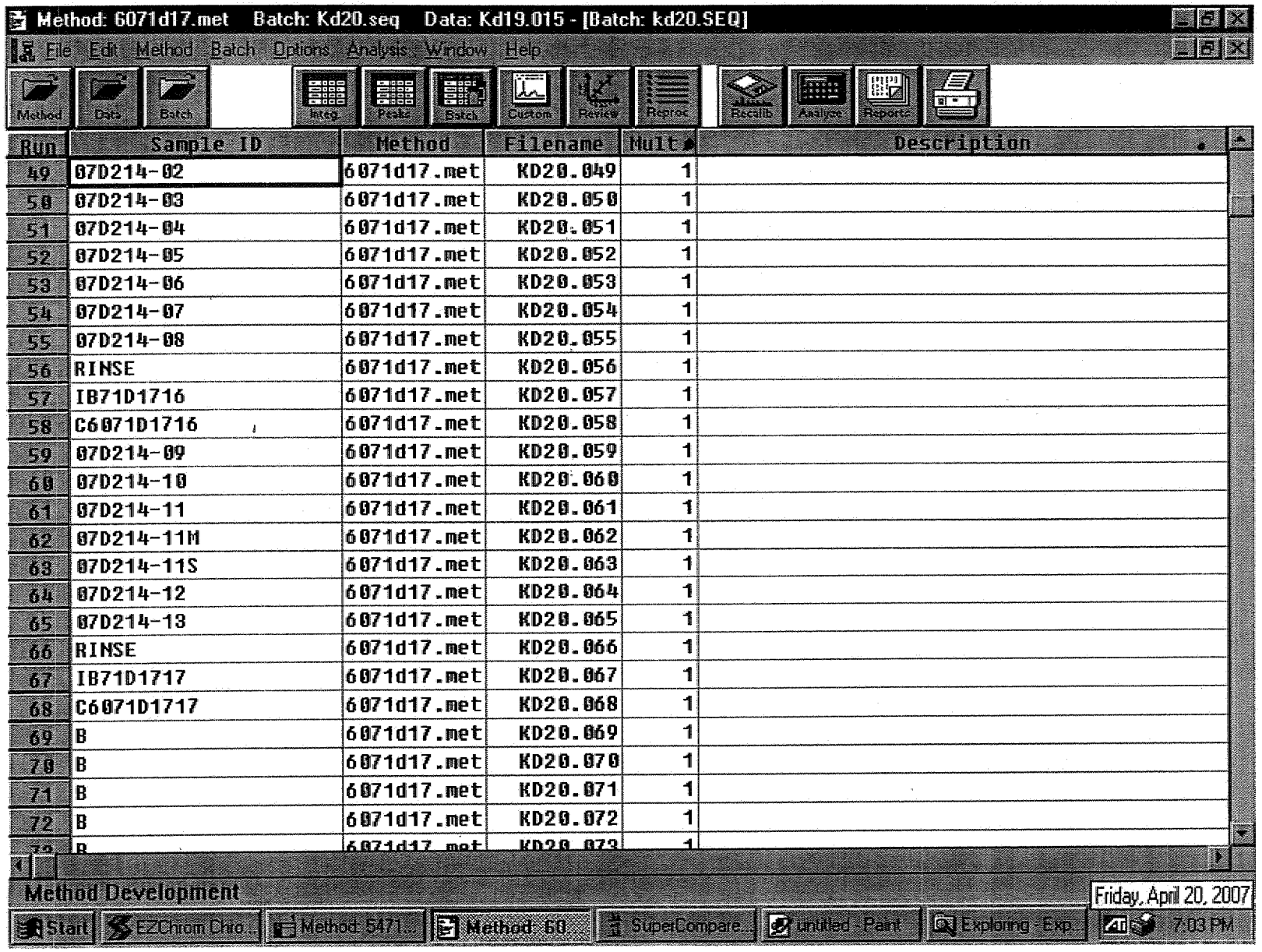
Peaks
Batch
Custom
Review
Reproc
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | 07D193-05S | 6071d17.met | KD20.025 | 1
26 | 07D193-06 | 6071d17.met | KD20.026 | 1
27 | 07D193-07 | 6071d17.met | KD20.027 | 1
28 | 07D193-08 | 6071d17.met | KD20.028 | 1
29 | 07D193-09 | 6071d17.met | KD20.029 | 1
30 | 07D193-10 | 6071d17.met | KD20.030 | 1
31 | 07D193-11 | 6071d17.met | KD20.031 | 1
32 | 07D193-12 | 6071d17.met | KD20.032 | 1
33 | 07D193-13 | 6071d17.met | KD20.033 | 1
34 | RINSE | 6071d17.met | KD20.034 | 1
35 | IB71D1715 | 6071d17.met | KD20.035 | 1
36 | C6071D1715 | 6071d17.met | KD20.036 | 1
37 | 07D193-14 | 6071d17.met | KD20.037 | 1
38 | 07D193-15 | 6071d17.met | KD20.038 | 1
39 | 07D193-16 | 6071d17.met | KD20.039 | 1
40 | 07D193-17 | 6071d17.met | KD20.040 | 1
41 | 07D193-18 | 6071d17.met | KD20.041 | 1
42 | 07D193-19 | 6071d17.met | KD20.042 | 1
43 | 07D193-20 | 6071d17.met | KD20.043 | 1
44 | 07D193-21 | 6071d17.met | KD20.044 | 1
45 | 07D193-22 | 6071d17.met | KD20.045 | 1
46 | 07D193-23 | 6071d17.met | KD20.046 | 1
47 | 07D193-24 | 6071d17.met | KD20.047 | 1
48 | 07D214-01 | 6071d17.met | KD20.048 | 1
07D214-02 6071d17.met KD20.049 1
Method Development
Friday, April 20, 2007
Start
EZChrom Chro...
Method: 5471...
Method: 60...
SuperCompare...
untitled - Paint
Exploring - Exp...
7:03 PM


Method: 6071d17.met Batch: Kd20.seq Data: Kd19.015 - [Batch: kd20.SEQ]
File Edit Method Batch Options Analysis Window Help
Method
Data
Batch
Integ
PeakZ
Batch
Custom
Review
Reproc
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult | Description
49 | 07D214-02 | 6071d17.met | KD20.049 | 1
50 | 07D214-03 | 6071d17.met | KD20.050 | 1
51 | 07D214-04 | 6071d17.met | KD20.051 | 1
52 | 07D214-05 | 6071d17.met | KD20.052 | 1
53 | 07D214-06 | 6071d17.met | KD20.053 | 1
54 | 07D214-07 | 6071d17.met | KD20.054 | 1
55 | 07D214-08 | 6071d17.met | KD20.055 | 1
56 | RINSE | 6071d17.met | KD20.056 | 1
57 | IB71D1716 | 6071d17.met | KD20.057 | 1
58 | C6071D1716 | 6071d17.met | KD20.058 | 1
59 | 07D214-09 | 6071d17.met | KD20.059 | 1
60 | 07D214-10 | 6071d17.met | KD20.060 | 1
61 | 07D214-11 | 6071d17.met | KD20.061 | 1
62 | 07D214-11M | 6071d17.met | KD20.062 | 1
63 | 07D214-11S | 6071d17.met | KD20.063 | 1
64 | 07D214-12 | 6071d17.met | KD20.064 | 1
65 | 07D214-13 | 6071d17.met | KD20.065 | 1
66 | RINSE | 6071d17.met | KD20.066 | 1
67 | IB71D1717 | 6071d17.met | KD20.067 | 1
68 | C6071D1717 | 6071d17.met | KD20.068 | 1
69 | B | 6071d17.met | KD20.069 | 1
70 | B | 6071d17.met | KD20.070 | 1
71 | B | 6071d17.met | KD20.071 | 1
72 | B | 6071d17.met | KD20.072 | 1
Method Development
Friday, April 20, 2007
Start
EZChrom Chro...
Method 5471...
Method: 60...
SuperCompare...
untitled - Paint
Exploring - Exp...
7:03 PM

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD17

Method File: 6071D17 ; 5471D17 ; 4871D17

Analytical Batch: KD17026A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4/17/07
54 ↓	↓	↓
48 ↓	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	45059	N/A
1606 ICAL	551B-05-62-2	100-2000ppb
↓ ICV	↓ 3	
1246 ICAL	551B-05-63-3	
↓ ICV	↓ 64-1	
1254 ICAL	551B-05-63-1	
↓ ICV	↓ -2	
1221 ICAL	551B-05-54-1	100-2000ppb
1232 ↓	↓ 2	
1242	↓ 3	
1262 ↓	551B-05-64-2	
1268 ICV	↓ 3	

Column	A. RTX CLPEST I	B. RTX CLPEST II

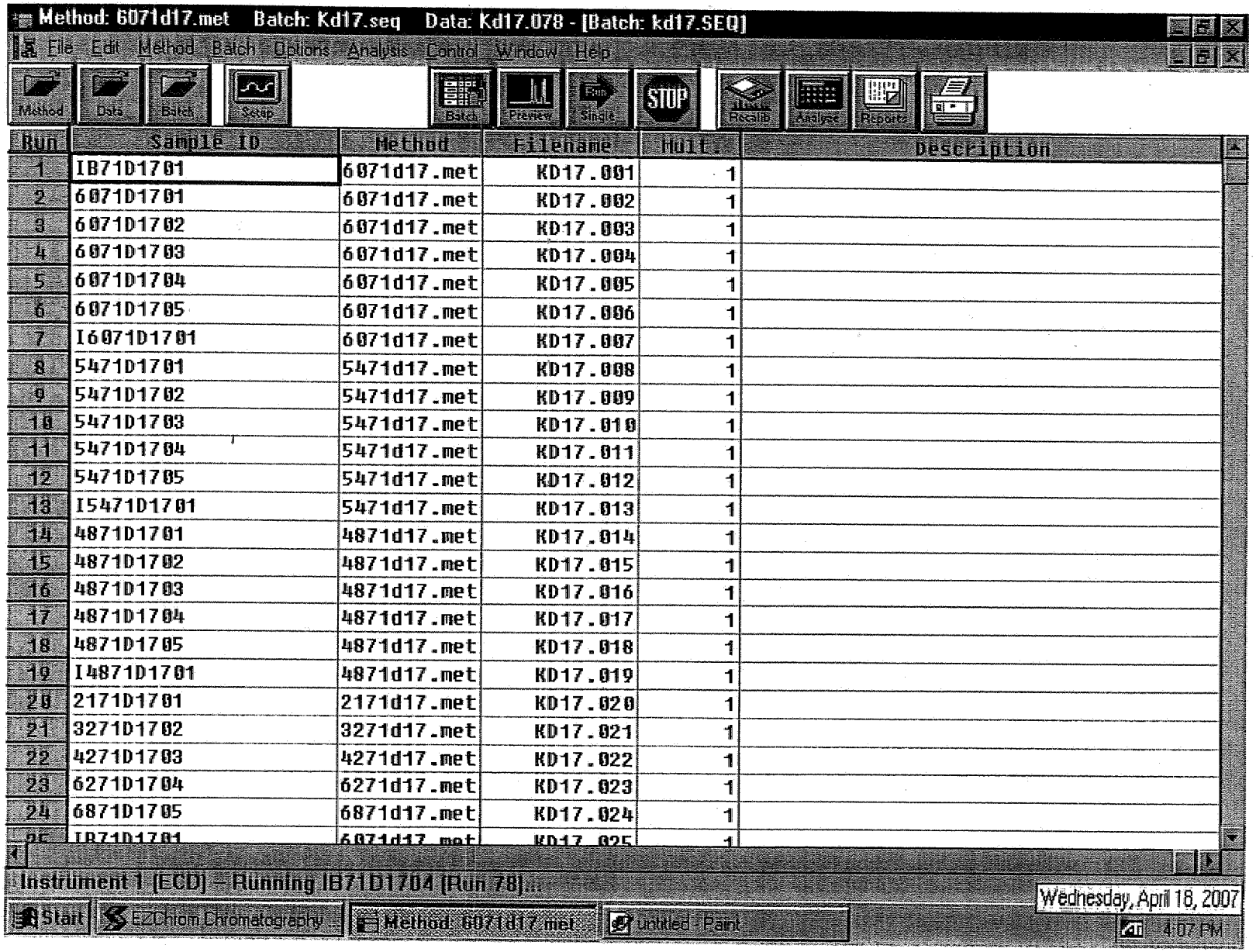
ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC_4_Pesticides	
☐	

Analyzed By: JC Date: 4/17/07

Date Disposed: Disposed By:

This page is checked during data review.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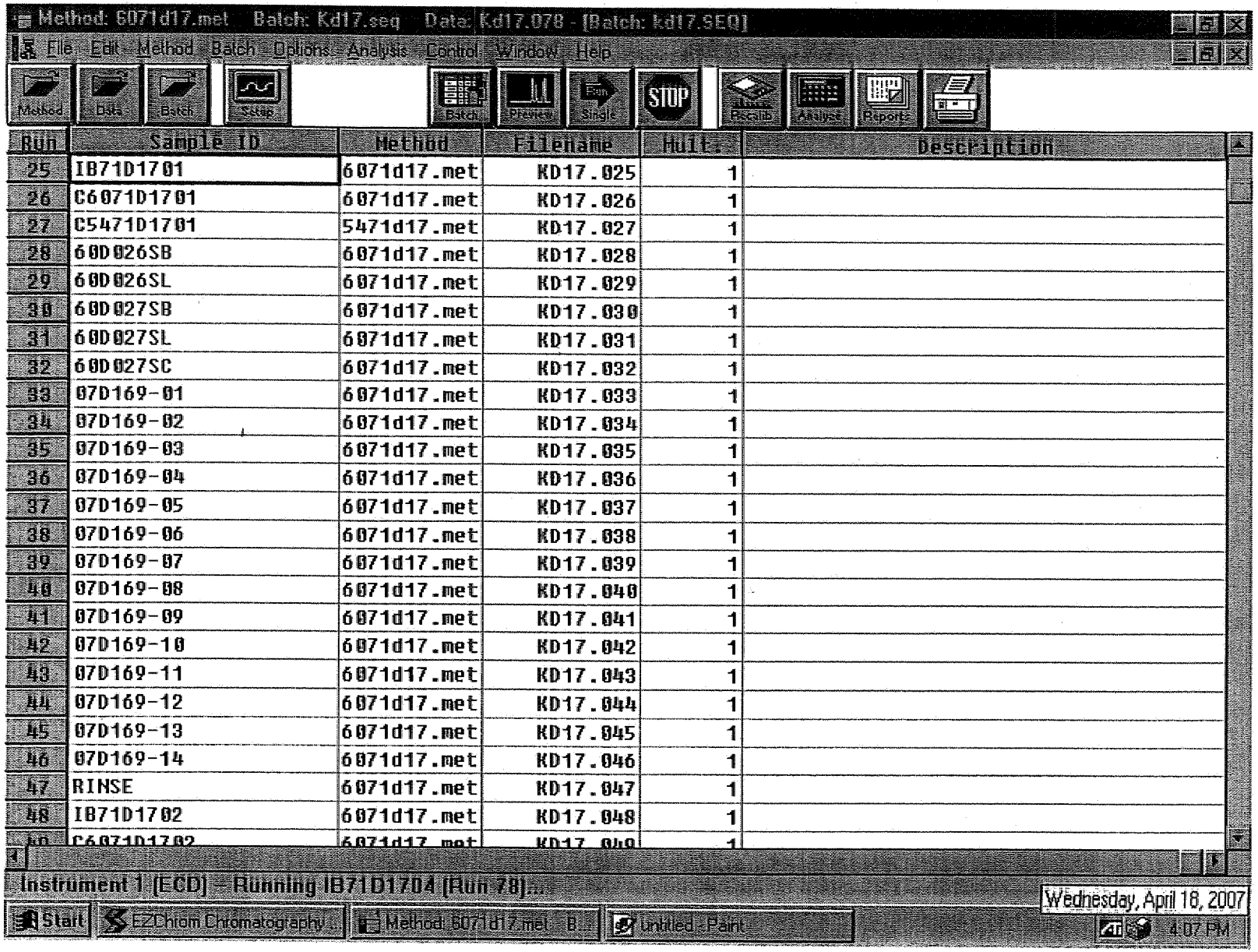
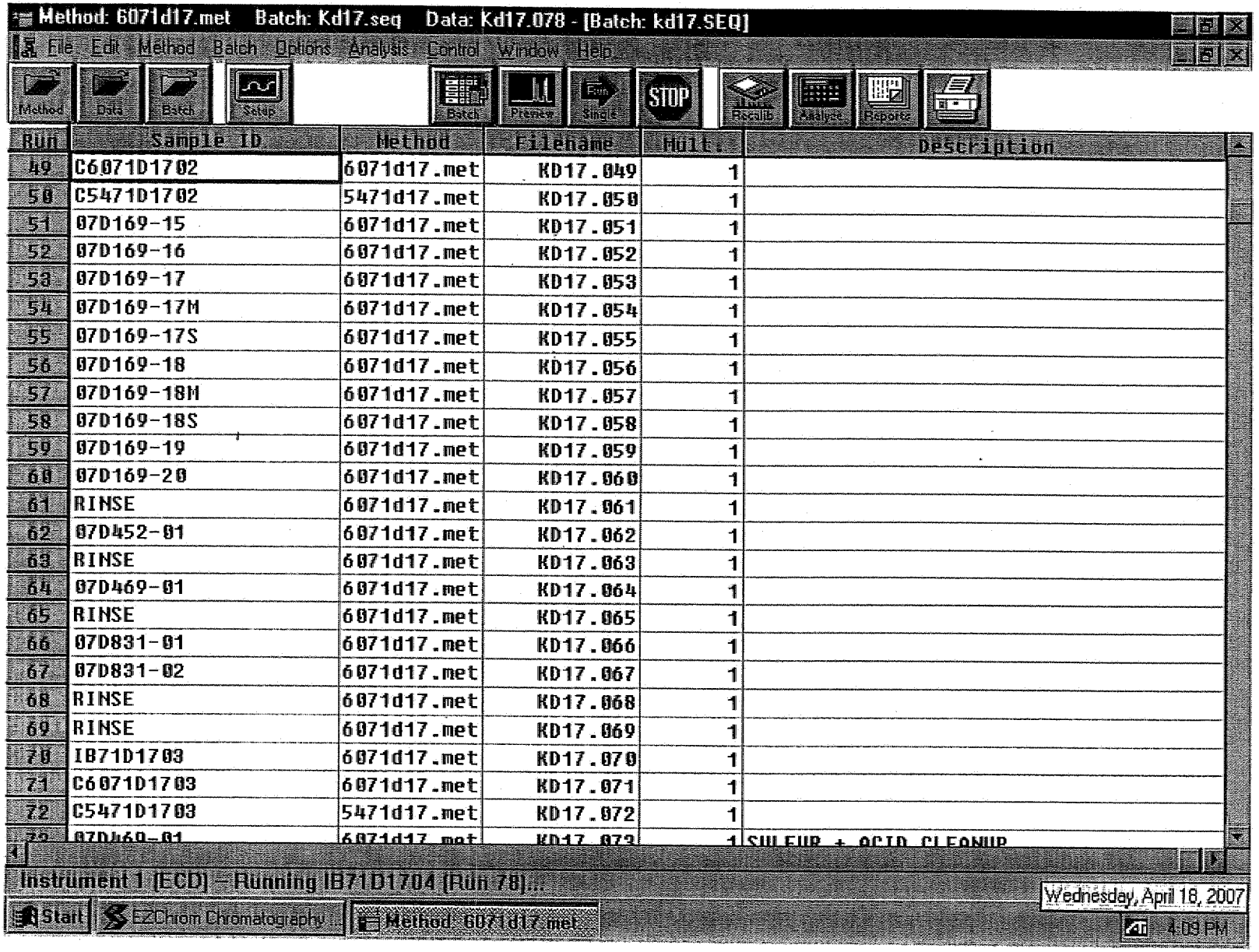
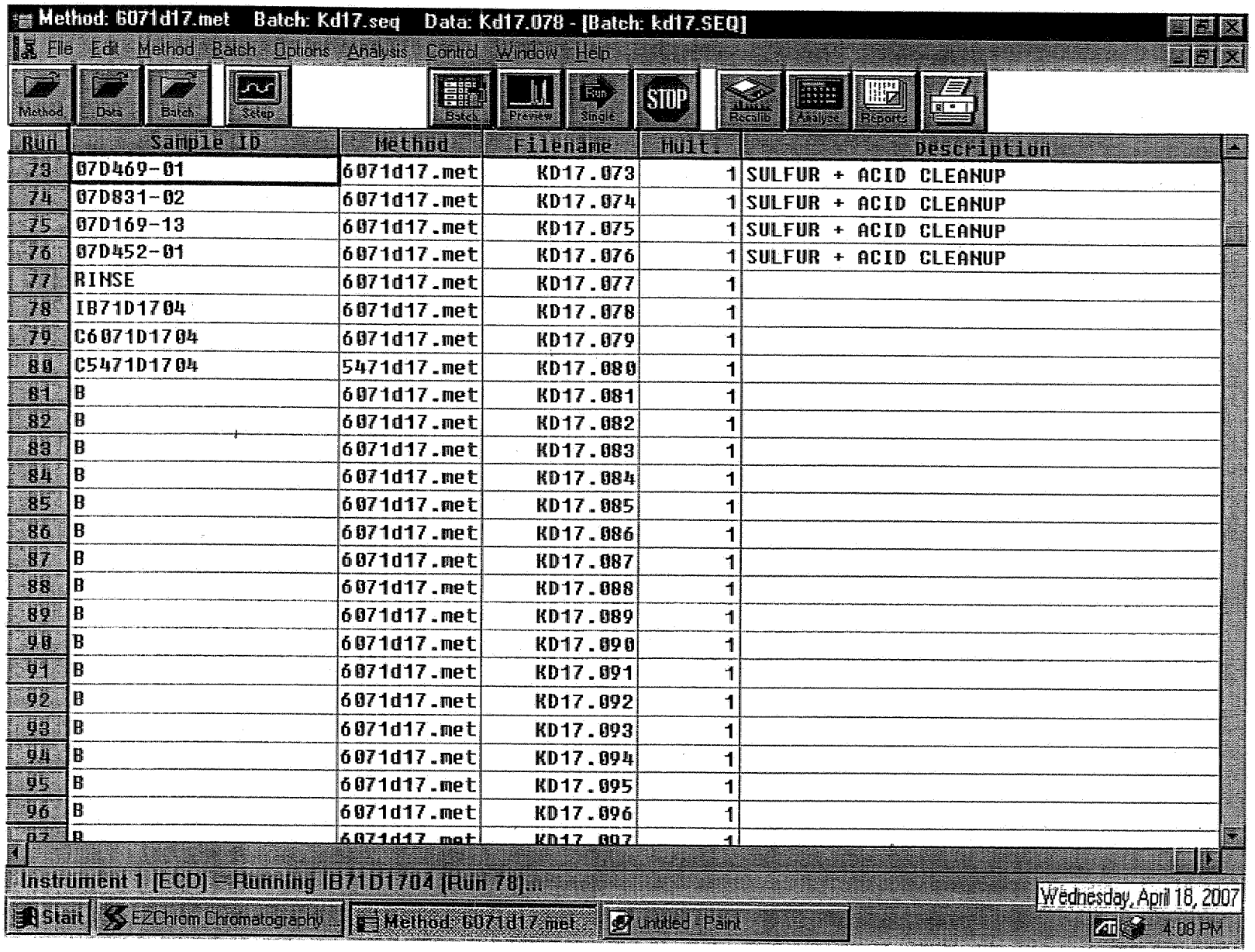
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1701 | 6071d17.met | KD17.001 | 1
2 | 6071D1701 | 6071d17.met | KD17.002 | 1
3 | 6071D1702 | 6071d17.met | KD17.003 | 1
4 | 6071D1703 | 6071d17.met | KD17.004 | 1
5 | 6071D1704 | 6071d17.met | KD17.005 | 1
6 | 6071D1705 | 6071d17.met | KD17.006 | 1
7 | I6071D1701 | 6071d17.met | KD17.007 | 1
8 | 5471D1701 | 5471d17.met | KD17.008 | 1
9 | 5471D1702 | 5471d17.met | KD17.009 | 1
10 | 5471D1703 | 5471d17.met | KD17.010 | 1
11 | 5471D1704 | 5471d17.met | KD17.011 | 1
12 | 5471D1705 | 5471d17.met | KD17.012 | 1
13 | I5471D1701 | 5471d17.met | KD17.013 | 1
14 | 4871D1701 | 4871d17.met | KD17.014 | 1
15 | 4871D1702 | 4871d17.met | KD17.015 | 1
16 | 4871D1703 | 4871d17.met | KD17.016 | 1
17 | 4871D1704 | 4871d17.met | KD17.017 | 1
18 | 4871D1705 | 4871d17.met | KD17.018 | 1
19 | I4871D1701 | 4871d17.met | KD17.019 | 1
20 | 2171D1701 | 2171d17.met | KD17.020 | 1
21 | 3271D1702 | 3271d17.met | KD17.021 | 1
22 | 4271D1703 | 4271d17.met | KD17.022 | 1
23 | 6271D1704 | 6271d17.met | KD17.023 | 1
24 | 6871D1705 | 6871d17.met | KD17.024 | 1
Instrument 1 [ECD] - Running IB71D1704 [Run 78]...
Wednesday, April 18, 2007
Start EZChrom Chromatography... Method: 6071d17.met untitled - Paint
4:07 PM

5595


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Results
Analyst
Report
Run | Sample ID | Method | Filename | Vials | Description
25 | IB71D1701 | 6071d17.met | KD17.025 | 1
26 | C6071D1701 | 6071d17.met | KD17.026 | 1
27 | C5471D1701 | 5471d17.met | KD17.027 | 1
28 | 60D026SB | 6071d17.met | KD17.028 | 1
29 | 60D026SL | 6071d17.met | KD17.029 | 1
30 | 60D027SB | 6071d17.met | KD17.030 | 1
31 | 60D027SL | 6071d17.met | KD17.031 | 1
32 | 60D027SC | 6071d17.met | KD17.032 | 1
33 | 07D169-01 | 6071d17.met | KD17.033 | 1
34 | 07D169-02 | 6071d17.met | KD17.034 | 1
35 | 07D169-03 | 6071d17.met | KD17.035 | 1
36 | 07D169-04 | 6071d17.met | KD17.036 | 1
37 | 07D169-05 | 6071d17.met | KD17.037 | 1
38 | 07D169-06 | 6071d17.met | KD17.038 | 1
39 | 07D169-07 | 6071d17.met | KD17.039 | 1
40 | 07D169-08 | 6071d17.met | KD17.040 | 1
41 | 07D169-09 | 6071d17.met | KD17.041 | 1
42 | 07D169-10 | 6071d17.met | KD17.042 | 1
43 | 07D169-11 | 6071d17.met | KD17.043 | 1
44 | 07D169-12 | 6071d17.met | KD17.044 | 1
45 | 07D169-13 | 6071d17.met | KD17.045 | 1
46 | 07D169-14 | 6071d17.met | KD17.046 | 1
47 | RINSE | 6071d17.met | KD17.047 | 1
48 | IB71D1702 | 6071d17.met | KD17.048 | 1
Instrument 1 (ECD) - Running IB71D1704 (Run 78)...
Wednesday, April 18, 2007
Start
EZChrom Chromatography ...
Method: 6071d17.met - B...
Untitled - Paint
4:07 PM


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Results
Analyse
Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | C6071D1702 | 6071d17.met | KD17.049 | 1
50 | C5471D1702 | 5471d17.met | KD17.050 | 1
51 | 07D169-15 | 6071d17.met | KD17.051 | 1
52 | 07D169-16 | 6071d17.met | KD17.052 | 1
53 | 07D169-17 | 6071d17.met | KD17.053 | 1
54 | 07D169-17M | 6071d17.met | KD17.054 | 1
55 | 07D169-17S | 6071d17.met | KD17.055 | 1
56 | 07D169-18 | 6071d17.met | KD17.056 | 1
57 | 07D169-18M | 6071d17.met | KD17.057 | 1
58 | 07D169-18S | 6071d17.met | KD17.058 | 1
59 | 07D169-19 | 6071d17.met | KD17.059 | 1
60 | 07D169-20 | 6071d17.met | KD17.060 | 1
61 | RINSE | 6071d17.met | KD17.061 | 1
62 | 07D452-01 | 6071d17.met | KD17.062 | 1
63 | RINSE | 6071d17.met | KD17.063 | 1
64 | 07D469-01 | 6071d17.met | KD17.064 | 1
65 | RINSE | 6071d17.met | KD17.065 | 1
66 | 07D831-01 | 6071d17.met | KD17.066 | 1
67 | 07D831-02 | 6071d17.met | KD17.067 | 1
68 | RINSE | 6071d17.met | KD17.068 | 1
69 | RINSE | 6071d17.met | KD17.069 | 1
70 | IB71D1703 | 6071d17.met | KD17.070 | 1
71 | C6071D1703 | 6071d17.met | KD17.071 | 1
72 | C5471D1703 | 5471d17.met | KD17.072 | 1
Instrument 1 (ECD) - Running IB71D1704 (Run 70)...
Start
EZChrom Chromatography ...
Method: 6071d17.met
Wednesday, April 18, 2007
4:09 PM


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | 07D469-01 | 6071d17.met | KD17.073 | 1 | SULFUR + ACID CLEANUP
74 | 07D831-02 | 6071d17.met | KD17.074 | 1 | SULFUR + ACID CLEANUP
75 | 07D169-13 | 6071d17.met | KD17.075 | 1 | SULFUR + ACID CLEANUP
76 | 07D452-01 | 6071d17.met | KD17.076 | 1 | SULFUR + ACID CLEANUP
77 | RINSE | 6071d17.met | KD17.077 | 1 |
78 | IB71D1704 | 6071d17.met | KD17.078 | 1 |
79 | C6071D1704 | 6071d17.met | KD17.079 | 1 |
80 | C5471D1704 | 5471d17.met | KD17.080 | 1 |
81 | B | 6071d17.met | KD17.081 | 1 |
82 | B | 6071d17.met | KD17.082 | 1 |
83 | B | 6071d17.met | KD17.083 | 1 |
84 | B | 6071d17.met | KD17.084 | 1 |
85 | B | 6071d17.met | KD17.085 | 1 |
86 | B | 6071d17.met | KD17.086 | 1 |
87 | B | 6071d17.met | KD17.087 | 1 |
88 | B | 6071d17.met | KD17.088 | 1 |
89 | B | 6071d17.met | KD17.089 | 1 |
90 | B | 6071d17.met | KD17.090 | 1 |
91 | B | 6071d17.met | KD17.091 | 1 |
92 | B | 6071d17.met | KD17.092 | 1 |
93 | B | 6071d17.met | KD17.093 | 1 |
94 | B | 6071d17.met | KD17.094 | 1 |
95 | B | 6071d17.met | KD17.095 | 1 |
96 | B | 6071d17.met | KD17.096 | 1 |
Instrument 1 [ECD] - Running IB71D1704 [Run 78]...
Start EZChrom Chromatography Method: 6071d17.met Untitled - Paint
Wednesday, April 18, 2007
4:08 PM

EXTRACTION LOG

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☒ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: WATER Starting Date: 4/17/07 Time: 16:30 Ending Date: 4/18/07 Time: 10:30 Book # ECP-030

PREPARATION BATCH * 60D032W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60D032-WB	N/A	1000	—	10	ACID clean up	
*02	-WL		1000	—	10		
*03	-WC		1000	—	10		
*04	07D166-08		100	6	5		Limited volume of sample was provided
*05							
*06							
*07							
*08							
*09							
*10							
*11							
*12							
*13							
*14							
*15							
*16							
*17							
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

4/18/07 JM

Standards	ID	Amount Added (ml)
Surrogate	SS1B-05-67-1	1.0
LCS/MS	(PCB) SS1B-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	~~46137~~ 46023 4/18/07 JM
NaOH	—
Silica Sand	—

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp.(oC)		
1	35	35
2		
3		
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JM Checked By: ML

Witnessed By: IZ Received By: ~~EX~~ 4/18/07

Standard Added By: JM Disposed By:

Extract Location: SE02-09 Disposal Date:

This page is checked during data review.

Clean-up Legend [G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W 205th St. Torrance, CA 90501

5059

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: SOIL Starting Date: 4/18/07 Time: 15:15 Ending Date: 4/18/07 Time: 18:15 Book # ECP-030

PREPARATION BATCH # 60D0345

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60D034 - SB	1	30.01		10	4010	
*02	- SL	3	30.03		10		
*03	- SC	3	30.00		10		
*04	07D177 - 21	1	30.01		10		
*05	- 22	3	30.09		10		
*06	- 23	3	30.01		10		
*07	- 24	3	30.02		10		
*08	- 25	3	30.01		10		
*09	- 26	1	30.02		10		
*10	- 27	1	30.01		10		
*11	- 28	3	30.03		10		
*12	07D166 - 09	3	30.02		10		
*13	- 10	1	30.01		10		
*14	- 11	3	30.01		10		
*15	- 12	3	30.00		10		
*16	- 12M	3	30.03		10		
*17	- 12S	3	30.02		10		
*18	- 13	1	30.01		10		
*19	- 14	1	30.03		10		
*20	- 15	3	30.02		10		
*21	- 16	3	30.01		10		
*22	- 17	1	30.02		10		
*23	- 18	3	30.01		10		
*24	- 19	3	30.02		10		
*25	- 20	1	30.01		10		
*26			JT 4/18/07				
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SSIB-05-67-1	1.0
LCS/MS	SSIB-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	46023
NaOH	-
Silica Sand	42273

TUNING

Sonicator #	Reading
1	N/A
3	95%

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3	35	35
4	35	35
5	60	60

Comments: Test thermometer = T_1

Prepared By: JT Checked By: ML

Witnessed By: SS Received By: EDB 4/18/07

Standard Added By: JT Disposed By:

Extract Location: SE0245 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 8330
EXPLOSIVES

SDG#: 07D166

5000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D166

EPA METHOD 8330
EXPLOSIVES

One (1) water sample and six (6) soil samples were received on 04/13/07 for Explosives analysis by EPA Method 8330 in accordance with USEPA-SW846 3rd edition, and EMAX-8330.

1. Holding Time

Analytical holding time was met. Water sample extraction was started and completed on 04/17/07. Soil sample extraction was started on 04/19/07 and completed on 04/20/07.

2. Calibration

Initial calibration was 5 points. %RSDs were within 20%. All continuing calibrations of the primary column were carried out within 10-sample intervals and the recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate recovery

All surrogate recoveries were within QC limits.

5. Lab Control Sample / Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No sample was spiked.

7. Sample Analysis

Sample analyses were within QC requirements. Quantitation is from the primary column. All positive results above RL were confirmed by Phenyl-Hexyl column and the confirmation is presumptive because it was based on retention time window.

Soil samples were air-dried prior to extraction; hence, no moisture correction was applied to RL, MDL and results.

LAB CHRONICLE
EXPLOSIVES

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D166
Instrument ID : T081

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	EXD002WB	1	NA	04/20/0711:18	04/17/0711:30	XD20003A	XD20002A	EXD002W	Method Blank
LCS1W	EXD002WL	1	NA	04/20/0711:46	04/17/0711:30	XD20004A	XD20002A	EXD002W	Lab Control Sample (LCS)
LCD1W	EXD002WC	1	NA	04/20/0712:14	04/17/0711:30	XD20005A	XD20002A	EXD002W	LCS Duplicate
LEB-041107	D166-07	1	NA	04/20/0713:10	04/17/0711:30	XD20007A	XD20002A	EXD002W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	EXD004SB	1	NA	04/20/0723:24	04/19/0715:00	XD20029A	XD20025A	EXD004S	Method Blank
LCS1S	EXD004SL	1	NA	04/20/0723:52	04/19/0715:00	XD20030A	XD20025A	EXD004S	Lab Control Sample (LCS)
D29-HAS11@0.5'	D166-01	1	NA	04/21/0705:27	04/19/0715:00	XD20042A	XD20036A	EXD004S	Field Sample
D29-HAS11@5'	D166-02	1	NA	04/21/0705:55	04/19/0715:00	XD20043A	XD20036A	EXD004S	Field Sample
D29-HAS12@0.5'	D166-03	1	NA	04/21/0706:23	04/19/0715:00	XD20044A	XD20036A	EXD004S	Field Sample
D29-HAS12@5'	D166-04	1	NA	04/21/0706:50	04/19/0715:00	XD20045A	XD20036A	EXD004S	Field Sample
D29-HAS13@0.5'	D166-05	1	NA	04/21/0707:18	04/19/0715:00	XD20046A	XD20036A	EXD004S	Field Sample
D29-HAS13@5'	D166-06	1	NA	04/21/0707:46	04/19/0715:00	XD20047A	XD20036A	EXD004S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/19/07 15:00
Sample ID:	D29-HAS11@0.5'	Date Analyzed:	04/21/07 05:27
Lab Samp ID:	D166-01	Dilution Factor:	1
Lab File ID:	XD20042A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/19/07 15:00
Sample ID:	D29-HAS11@5'	Date Analyzed:	04/21/07 05:55
Lab Samp ID:	D166-02	Dilution Factor:	1
Lab File ID:	XD20043A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	114	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/19/07 15:00
Sample ID:	D29-HAS12@0.5'	Date Analyzed:	04/21/07 06:23
Lab Samp ID:	D166-03	Dilution Factor:	1
Lab File ID:	XD20044A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	114	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/19/07 15:00
Sample ID:	D29-HAS12@5'	Date Analyzed:	04/21/07 06:50
Lab Samp ID:	D166-04	Dilution Factor:	1
Lab File ID:	XD20045A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/19/07 15:00
Sample ID:	D29-HAS13@0.5'	Date Analyzed:	04/21/07 07:18
Lab Samp ID:	D166-05	Dilution Factor:	1
Lab File ID:	XD20046A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20036A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	113	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: 04/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/13/07
Batch No. : 07D166	Date Extracted: 04/19/07 15:00
Sample ID: D29-HAS13@5'	Date Analyzed: 04/21/07 07:46
Lab Samp ID: D166-06	Dilution Factor: 1
Lab File ID: XD20047A	Matrix : SOIL
Ext Btch ID: EXD004S	% Moisture : NA
Calib. Ref.: XD20036A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	112	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	04/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/13/07
Batch No.	: 07D166	Date Extracted:	04/17/07 11:30
Sample ID:	LEB-041107	Date Analyzed:	04/20/07 13:10
Lab Samp ID:	D166-07	Dilution Factor:	1
Lab File ID:	XD20007A	Matrix :	WATER
Ext Btch ID:	EXD002W	% Moisture :	NA
Calib. Ref.:	XD20002A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TNB	ND	1.0	0.20
1,3-DNB	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TNT	ND	1.0	0.20
4-AM-2,6-DNT	ND	1.0	0.20
2-AM-4,6-DNT	ND	1.0	0.20
2,6-DNT	ND	1.0	0.20
2,4-DNT	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	111	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

QC SUMMARIES

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D166	Date Extracted:	04/17/07 11:30
Sample ID:	MBLK1W	Date Analyzed:	04/20/07 11:18
Lab Samp ID:	EXD002WB	Dilution Factor:	1
Lab File ID:	XD20003A	Matrix :	WATER
Ext Btch ID:	EXD002W	% Moisture :	NA
Calib. Ref.:	XD20002A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TNB	ND	1.0	0.20
1,3-DNB	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TNT	ND	1.0	0.20
4-AM-2,6-DNT	ND	1.0	0.20
2-AM-4,6-DNT	ND	1.0	0.20
2,6-DNT	ND	1.0	0.20
2,4-DNT	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	104	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D166
METHOD: METHOD 8330

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	EXD002WB	EXD002WL	EXD002WC		
LAB FILE ID:	XD20003A	XD20004A	XD20005A		
DATE EXTRACTED:	04/17/0711:30	04/17/0711:30	04/17/0711:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0711:18	04/20/0711:46	04/20/0712:14	DATE RECEIVED:	04/17/07
PREP. BATCH:	EXD002W	EXD002W	EXD002W		
CALIB. REF:	XD20002A	XD20002A	XD20002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	4.00	3.50	87	4.00	4.00	100	13	70-130	30
RDX	ND	4.00	3.18	79	4.00	3.61	90	13	60-130	30
1,3,5-TNB	ND	4.00	3.44	86	4.00	4.10	102	17	70-130	30
1,3-DNB	ND	4.00	3.18	80	4.00	3.76	94	17	70-130	30
Tetryl	ND	4.00	3.57	89	4.00	4.00	100	11	70-130	30
Nitrobenzene	ND	4.00	3.04	76	4.00	3.65	91	18	70-130	30
2,4,6-TNT	ND	4.00	3.91	98	4.00	4.60	115	16	70-130	30
4-AM-2,6-DNT	ND	4.00	3.96	99	4.00	4.67	117	16	70-130	30
2-AM-4,6-DNT	ND	4.00	3.45	86	4.00	4.01	100	15	70-130	30
2,6-DNT	ND	4.00	3.99	100	4.00	4.61	115	14	70-130	30
2,4-DNT	ND	4.00	3.57	89	4.00	4.12	103	14	70-130	30
2-Nitrotoluene	ND	4.00	3.78	94	4.00	4.35	109	14	70-130	30
3-Nitrotoluene	ND	4.00	3.22	80	4.00	3.85	96	18	70-130	30
4-Nitrotoluene	ND	4.00	3.55	89	4.00	4.46	111	23	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
3,4-Dinitrotoluene	4.00	3.98	99	4.00	4.12	103	70-130

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/19/07
Batch No.	: 07D166	Date Extracted:	04/19/07 15:00
Sample ID:	MBLK1S	Date Analyzed:	04/20/07 23:24
Lab Samp ID:	EXD004SB	Dilution Factor:	1
Lab File ID:	XD20029A	Matrix :	SOIL
Ext Btch ID:	EXD004S	% Moisture :	NA
Calib. Ref.:	XD20025A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	114	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D166
METHOD: METHOD 8330

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	EXD004SB	EXD004SL		
LAB FILE ID:	XD20029A	XD20030A		
DATE EXTRACTED:	04/19/0715:00	04/19/0715:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0723:24	04/20/0723:52	DATE RECEIVED:	04/19/07
PREP. BATCH:	EXD004S	EXD004S		
CALIB. REF:	XD20025A	XD20025A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
HMX	ND	2000	2230	112	70-130
RDX	ND	2000	2280	114	70-130
1,3,5-TNB	ND	2000	2200	110	70-130
1,3-DNB	ND	2000	2180	109	70-130
Tetryl	ND	2000	2000	100	70-130
Nitrobenzene	ND	2000	2250	112	70-140
2,4,6-TNT	ND	2000	2240	112	70-130
4-AM-2,6-DNT	ND	2000	2330	116	70-130
2-AM-4,6-DNT	ND	2000	2080	104	70-130
2,6-DNT	ND	2000	2370	119	70-130
2,4-DNT	ND	2000	2140	107	70-130
2-Nitrotoluene	ND	2000	2130	107	70-130
3-Nitrotoluene	ND	2000	2040	102	70-130
4-Nitrotoluene	ND	2000	2120	106	70-140

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
3,4-Dinitrotoluene	2000	2190	109	70-130

INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
LFID & Datetime: XK07007A 11/07/06 15:49
LFID & Datetime: XK07008A 11/07/06 16:17
LFID & Datetime: XK07009A 11/07/06 16:45
LFID & Datetime: XK07010A 11/07/06 17:13
LFID & Datetime: XK07011A 11/07/06 17:41

COMPOUND	RT OF STANDARDS (MIN) 1.0X	5.0X	10.0X	20.0X	40.0X	MEAN RT	RT WINDOW FROM	TO	RTWINDOW WIDTH
HMX	4.300	4.292	4.308	4.317	4.308	4.305	4.255	4.355	0.050
RDX	6.400	6.350	6.383	6.408	6.383	6.385	6.247	6.523	0.138
1,3,5-TNB	8.633	8.608	8.658	8.683	8.650	8.646	8.493	8.799	0.153
1,3-DNB	10.508	10.500	10.567	10.575	10.542	10.538	10.309	10.767	0.229
Tetryl	11.183	11.192	11.258	11.275	11.233	11.228	10.940	11.516	0.288
Nitrobenzene	12.208	12.133	12.225	12.242	12.183	12.198	11.797	12.599	0.401
2,4,6-TNT	13.575	13.558	13.633	13.650	13.592	13.602	13.201	14.003	0.401
4-AM-2,6-DNT	14.125	14.083	14.208	14.225	14.142	14.157	13.652	14.662	0.505
2-AM-4,6-DNT	14.692	14.692	14.792	14.808	14.717	14.740	14.192	15.288	0.548
2,6-DNT	15.783	15.808	15.875	15.867	15.808	15.828	15.365	16.291	0.463
2,4-DNT	16.350	16.408	16.483	16.492	16.433	16.433	15.956	16.910	0.477
2-Nitrotoluene	19.525	19.558	19.625	19.608	19.583	19.580	18.989	20.171	0.591
4-Nitrotoluene	21.158	21.200	21.233	21.258	21.217	21.213	20.556	21.870	0.657
3-Nitrotoluene	22.733	22.650	22.708	22.733	22.700	22.705	21.953	23.457	0.752
SURROGATE	**1.0X**	**5.0X**	**10.0X**	**20.0X**	**40.0X**	**RT**	**FROM**	**TO**	**WIDTH**
3,4-Dinitrotoluene	13.050	13.017	13.092	13.125	13.058	13.068	12.693	13.443	0.375

AS 11/16/06

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XK07012A 11/07/2006 18:08
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.308	4.258	4.358	400.0	66.700	26924	403.82	1		15
RDX	6.375	6.237	6.513	400.0	79.000	33328	421.93	5		15
1,3,5-TNB	8.633	8.480	8.786	400.0	200.600	80697	402.28	1		15
1,3-DNB	10.517	10.288	10.746	400.0	277.900	112256	403.99	1		15
Tetryl	11.208	10.920	11.496	400.0	163.900	64398	392.80	-2		15
Nitrobenzene	12.175	11.774	12.576	400.0	198.400	82442	415.47	4		15
2,4,6-TNT	13.583	13.182	13.984	400.0	199.400	78108	391.62	-2		15
4-AM-2,6-DNT	14.150	13.645	14.655	400.0	139.000	56985	409.99	2		15
2-AM-4,6-DNT	14.717	14.169	15.265	400.0	208.500	80301	385.16	-4		15
2,6-DNT	15.825	15.362	16.288	400.0	122.200	48068	393.35	-2		15
2,4-DNT	16.442	15.965	16.919	400.0	272.700	109592	401.90	0		15
2-Nitrotoluene	19.625	19.034	20.216	400.0	126.800	48117	379.40	-5		15
4-Nitrotoluene	21.317	20.660	21.974	400.0	116.700	45806	392.35	-2		15
3-Nitrotoluene	22.767	22.015	23.519	400.0	148.400	56334	379.49	-5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.042	12.667	13.417	400.0	114.900	46110	401.27	0		15

EX81K07.MET

11/11/06

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20002A 04/20/2007 10:50
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.292	4.242	4.342	400.0	66.700	28090	421.30	5		15
RDX	6.342	6.204	6.480	400.0	79.000	35273	446.56	12		15
1,3,5-TNB	8.567	8.414	8.720	400.0	200.600	84433	420.91	5		15
1,3-DNB	10.492	10.263	10.721	400.0	277.900	114294	411.32	3		15
Tetryl	10.900	10.612	11.188	400.0	163.900	65892	401.91	0		15
Nitrobenzene	12.192	11.791	12.593	400.0	198.400	81034	408.37	2		15
2,4,6-TNT	13.308	12.907	13.709	400.0	199.400	81218	407.21	2		15
4-AM-2,6-DNT	13.825	13.320	14.330	400.0	139.000	63929	459.95	15		15
2-AM-4,6-DNT	14.425	13.877	14.973	400.0	208.500	87155	418.03	5		15
2,6-DNT	15.558	15.095	16.021	400.0	122.200	55615	455.11	14		15
2,4-DNT	16.258	15.781	16.735	400.0	272.700	111386	408.48	2		15
2-Nitrotoluene	19.333	18.742	19.924	400.0	126.800	52932	417.36	4		15
4-Nitrotoluene	21.042	20.385	21.699	400.0	116.700	47927	410.51	3		15
3-Nitrotoluene	22.467	21.715	23.219	400.0	148.400	59338	399.72	-0		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	12.925	12.550	13.300	400.0	114.900	49518	430.93	8		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20013A 04/20/2007 15:57
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.275	4.225	4.325	400.0	66.700	26720	400.76	0		15
RDX	6.325	6.187	6.463	400.0	79.000	33678	426.36	7		15
1,3,5-TNB	8.558	8.405	8.711	400.0	200.600	80386	400.73	0		15
1,3-DNB	10.492	10.263	10.721	400.0	277.900	109614	394.48	-1		15
Tetryl	10.917	10.629	11.205	400.0	163.900	65007	396.51	-1		15
Nitrobenzene	12.192	11.791	12.593	400.0	198.400	79436	400.32	0		15
2,4,6-TNT	13.317	12.916	13.718	400.0	199.400	77817	390.16	-2		15
4-AM-2,6-DNT	13.850	13.345	14.355	400.0	139.000	60504	435.31	9		15
2-AM-4,6-DNT	14.442	13.894	14.990	400.0	208.500	82647	396.41	-1		15
2,6-DNT	15.575	15.112	16.038	400.0	122.200	53716	439.57	10		15
2,4-DNT	16.275	15.798	16.752	400.0	272.700	108331	397.28	-1		15
2-Nitrotoluene	19.342	18.751	19.933	400.0	126.800	53162	419.18	5		15
4-Nitrotoluene	21.008	20.351	21.665	400.0	116.700	47253	404.74	1		15
3-Nitrotoluene	22.467	21.715	23.219	400.0	148.400	59044	397.74	-1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	12.933	12.558	13.308	400.0	114.900	46555	405.14	1		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Columm : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20025A 04/20/2007 21:32
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.300	4.250	4.350	400.0	66.700	26827	402.36	1		15
RDX	6.358	6.220	6.496	400.0	79.000	34092	431.60	8		15
1,3,5-TNB	8.600	8.447	8.753	400.0	200.600	80740	402.50	1		15
1,3-DNB	10.558	10.329	10.787	400.0	277.900	109354	393.54	-2		15
Tetryl	10.992	10.704	11.280	400.0	163.900	64374	392.65	-2		15
Nitrobenzene	12.258	11.857	12.659	400.0	198.400	80537	405.87	1		15
2,4,6-TNT	13.383	12.982	13.784	400.0	199.400	79461	398.41	-0		15
4-AM-2,6-DNT	13.950	13.445	14.455	400.0	139.000	59988	431.60	8		15
2-AM-4,6-DNT	14.567	14.019	15.115	400.0	208.500	83180	398.96	-0		15
2,6-DNT	15.658	15.195	16.121	400.0	122.200	53065	434.24	9		15
2,4-DNT	16.375	15.898	16.852	400.0	272.700	104886	384.65	-4		15
2-Nitrotoluene	19.425	18.834	20.016	400.0	126.800	51495	406.03	2		15
4-Nitrotoluene	21.125	20.468	21.782	400.0	116.700	45928	393.39	-2		15
3-Nitrotoluene	22.558	21.806	23.310	400.0	148.400	58505	394.11	-1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.008	12.633	13.383	400.0	114.900	46321	403.11	1		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20036A 04/21/2007 02:39
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.292	4.242	4.342	400.0	66.700	26106	391.55	-2		15
RDX	6.358	6.220	6.496	400.0	79.000	33213	420.48	5		15
1,3,5-TNB	8.592	8.439	8.745	400.0	200.600	79102	394.33	-1		15
1,3-DNB	10.550	10.321	10.779	400.0	277.900	108394	390.09	-2		15
Tetryl	10.983	10.695	11.271	400.0	163.900	62853	383.37	-4		15
Nitrobenzene	12.242	11.841	12.643	400.0	198.400	78069	393.43	-2		15
2,4,6-TNT	13.383	12.982	13.784	400.0	199.400	78152	391.84	-2		15
4-AM-2,6-DNT	13.983	13.478	14.488	400.0	139.000	58745	422.66	6		15
2-AM-4,6-DNT	14.592	14.044	15.140	400.0	208.500	80819	387.64	-3		15
2,6-DNT	15.683	15.220	16.146	400.0	122.200	52248	427.56	7		15
2,4-DNT	16.417	15.940	16.894	400.0	272.700	103454	379.39	-5		15
2-Nitrotoluene	19.500	18.909	20.091	400.0	126.800	50778	400.38	0		15
4-Nitrotoluene	21.242	20.585	21.899	400.0	116.700	45797	392.27	-2		15
3-Nitrotoluene	22.675	21.923	23.427	400.0	148.400	57829	389.56	-3		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.008	12.633	13.383	400.0	114.900	44586	388.01	-3		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XK07010A 11/07/2006 17:13
Conc Cont LFID & Datetime: XD20048A 04/21/2007 08:14
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.283	4.233	4.333	400.0	66.700	26725	400.83	0		15
RDX	6.333	6.195	6.471	400.0	79.000	33872	428.82	7		15
1,3,5-TNB	8.558	8.405	8.711	400.0	200.600	80254	400.08	0		15
1,3-DNB	10.483	10.254	10.712	400.0	277.900	108485	390.42	-2		15
Tetryl	10.908	10.620	11.196	400.0	163.900	64382	392.70	-2		15
Nitrobenzene	12.183	11.782	12.584	400.0	198.400	80153	403.93	1		15
2,4,6-TNT	13.308	12.907	13.709	400.0	199.400	78135	391.76	-2		15
4-AM-2,6-DNT	13.842	13.337	14.347	400.0	139.000	61564	442.94	11		15
2-AM-4,6-DNT	14.442	13.894	14.990	400.0	208.500	83130	398.73	-0		15
2,6-DNT	15.575	15.112	16.038	400.0	122.200	53584	438.49	10		15
2,4-DNT	16.292	15.815	16.769	400.0	272.700	106859	391.88	-2		15
2-Nitrotoluene	19.383	18.792	19.974	400.0	126.800	51851	408.84	2		15
4-Nitrotoluene	21.083	20.426	21.740	400.0	116.700	46704	400.04	0		15
3-Nitrotoluene	22.525	21.773	23.277	400.0	148.400	59723	402.32	1		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	12.933	12.558	13.308	400.0	114.900	46422	403.98	1		15

ANALYTICAL LOGS

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Prep Batch: EXD002W, EXD003S, EXD004S

Samples: 07D134, 07D166, 07D144

Book #:	A81 -8
Instrument No.:	81
Analytical Sequence:	XD20
Method File:	EX81K07
Analytical Batch:	XD20002

SOP #	Rev. #
☐ EMAX-8310	4
☑ EMAX-8330	3
☐ EMAX-8332	0
☐ EMAX-	

STANDARDS ID	CONC. (µg/L)
ICAL	
ICV	
DCC SH1C-04-20-2	400 ppb

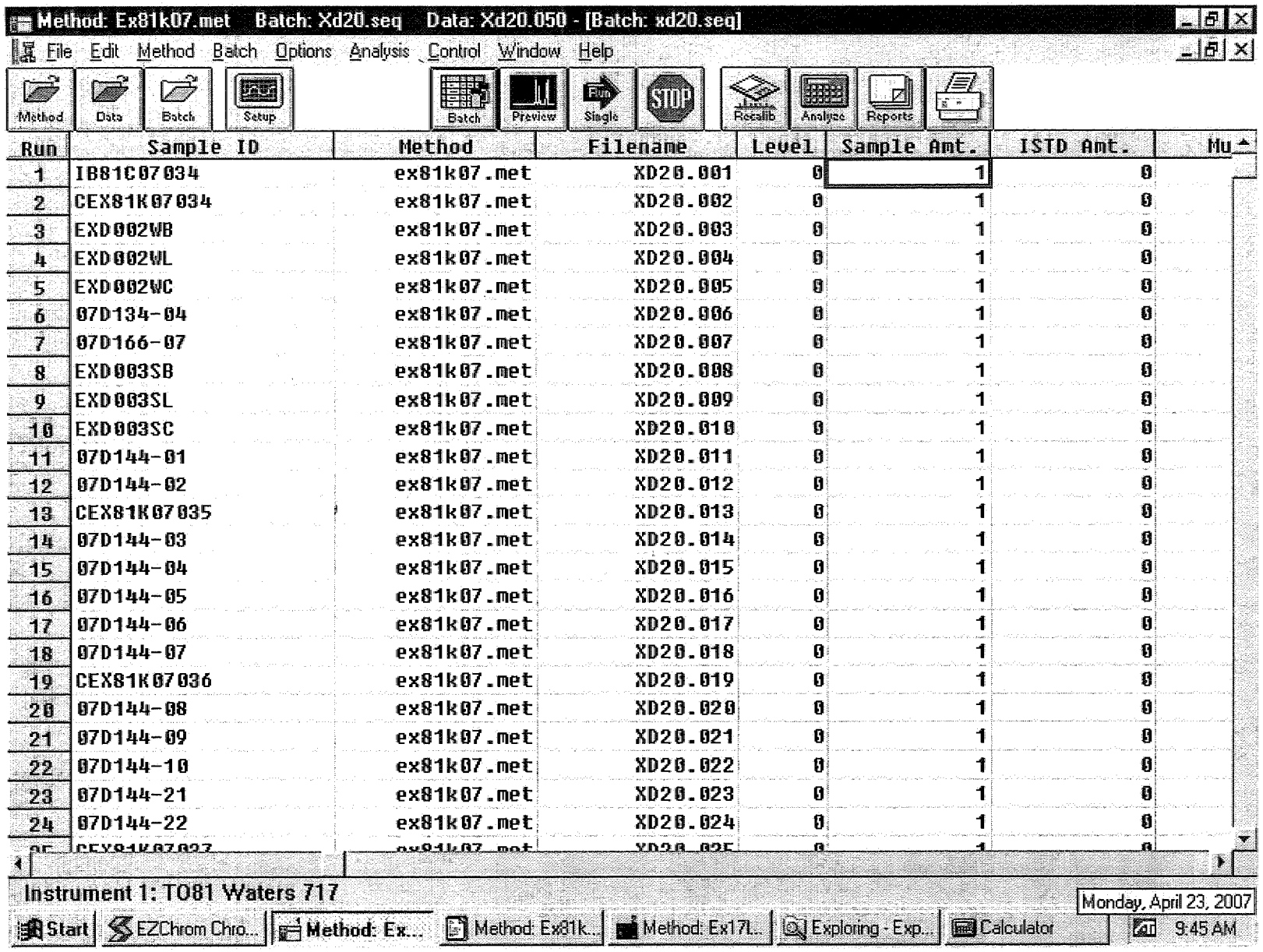
SOLVENT	ID
Acetonitrile	
Methanol	46111
Water	46089

Data File	

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_5_HPLC	
☐	

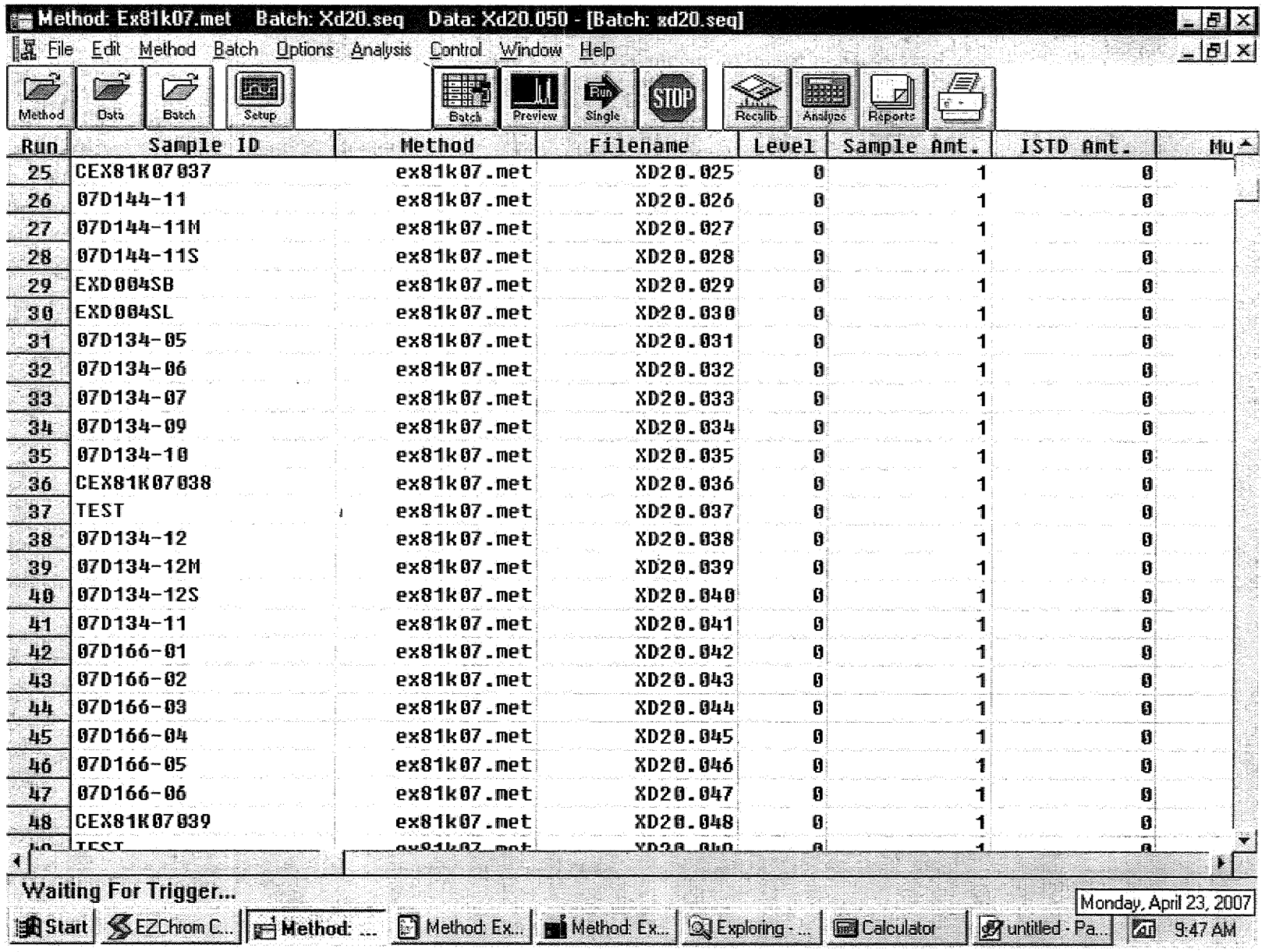
Analyzed By: KS

Date: 4/20/07



KS
4/23/07

0528



Method: Ex81k07.met Batch: Xd20.seq Data: Xd20.050 - [Batch: xd20.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Level	Sample Amt.	ISTD Amt.	Mu
25	CEX81K07037	ex81k07.met	XD20.025	0	1	0	
26	07D144-11	ex81k07.met	XD20.026	0	1	0	
27	07D144-11M	ex81k07.met	XD20.027	0	1	0	
28	07D144-11S	ex81k07.met	XD20.028	0	1	0	
29	EXD004SB	ex81k07.met	XD20.029	0	1	0	
30	EXD004SL	ex81k07.met	XD20.030	0	1	0	
31	07D134-05	ex81k07.met	XD20.031	0	1	0	
32	07D134-06	ex81k07.met	XD20.032	0	1	0	
33	07D134-07	ex81k07.met	XD20.033	0	1	0	
34	07D134-09	ex81k07.met	XD20.034	0	1	0	
35	07D134-10	ex81k07.met	XD20.035	0	1	0	
36	CEX81K07038	ex81k07.met	XD20.036	0	1	0	
37	TEST	ex81k07.met	XD20.037	0	1	0	
38	07D134-12	ex81k07.met	XD20.038	0	1	0	
39	07D134-12M	ex81k07.met	XD20.039	0	1	0	
40	07D134-12S	ex81k07.met	XD20.040	0	1	0	
41	07D134-11	ex81k07.met	XD20.041	0	1	0	
42	07D166-01	ex81k07.met	XD20.042	0	1	0	
43	07D166-02	ex81k07.met	XD20.043	0	1	0	
44	07D166-03	ex81k07.met	XD20.044	0	1	0	
45	07D166-04	ex81k07.met	XD20.045	0	1	0	
46	07D166-05	ex81k07.met	XD20.046	0	1	0	
47	07D166-06	ex81k07.met	XD20.047	0	1	0	
48	CEX81K07039	ex81k07.met	XD20.048	0	1	0	
49	TEST	ex81k07.met	XD20.049	0	1	0	

Waiting For Trigger...

Monday, April 23, 2007

Start EZChrom C... Method: ... Method: Ex... Method: Ex... Exploring - ... Calculator untitled - Pa... 9:47 AM

KS
4/23/07

6029

EXTRACTION LOGS

ANALYSIS RUN LOG FOR HPLC

SOP ☑ EMAX-8330 Rev. No: 2 ☐ EMAX-8310 Rev. No: 4 ☐ EMAX-8332 Rev. No: 0 ☐ Book # A81-007

Starting Date: 11/7/06 Time: 15:21 Ending Date: 11/7/06 Time: 18:08

ANALYTICAL BATCH NK

Preparation Batch	Data File Name	Lab Sample ID	DF	Matrix (W)	Matrix (S)	Notes
NA	XK07.006	IB81K001				
	.007	EX81K0701 20PPB				
	.008	02 100PPB				
	.009	03 200PPB				8330 ICAL
	.010	04 400PPB				
	011	05 800PPB				
	.012	IEX81K0701 400PPB				8330 ICV

KS 11/7/06

Instrument Number	81
INITIAL CALIBRATION REFERENCE	
Date	11/7/06
Method	EX81K07
Mid Point	XK07.009
ICAL ID	SH1C-04-12-2
ICV ID	SH1C-04-12-3
DCC ID	—

Solvents ID	
Acetonitrile	—
Methanol	45035
Water	46089

Electronic Data Archival		
	Location	Date
☐	EZC_5_HPLC	
☐		

Comments:

Analyzed By: KS / KP

Disposed on: 11/9/06 By: KS

This page is checked during the data review process.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOG FOR EXPLOSIVES

SOP: ☑ EMAX-8330 Rev.No.: 3 ☐

Matrix: WATER **Start Date:** 4/17/07 **Time:** 11:30 **End Date:** 4/17/07 **Time:** 13:00 **Book # EEX-013**

PREPARATION BATCH: EXD0210

Sample Prep ID	Lab Sample ID	Sample Amount (g) (ml)	Extract Volume (ml)	Notes
*01	EXD002 - WB	200	4	
*02	- WL	200	4	
*03	- WC	200	4	
*04	07D134 - 04	200	4	
*05	07D166 - 07	200	4	
*06		JV 4/17/07		
*07				
*08				
*09				
*10				
*11				
*12				
*13				
*14				
*15				
*16				
*17				
*18				
*19				
*20				
*21				
*22				
*23				
*24				
*25				
*26				

Standards	ID	Amount Added (ml)
Surrogate	SHIC-04-11-3	0.08
LCS/MS	SHIC-04-17-3	0.08

Reagent	Lot# / ID
Acetonitrile	45026
NaCl	46357704
$CaCl_2$	SP/B-01-394
Silica Sand	-

SDG #	Extract Location
	SF04 #2

Comments:

Prepared By: JV

Standard Added By: JV Witnessed By: JM

Checked By: JML Extract Received By: RA 4/17/07

Disposed By: Disposal Date:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOG FOR EXPLOSIVES

SOP: ☑ EMAX-8330 Rev.No.: 3 ☐

Matrix: 3 OIL Start Date: 4/19/07 Time: 15:00 End Date: 4/20/07 Time: 9:00 Book # EEX-013

PREPARATION BATCH: EXD0049

Sample Prep ID	Lab Sample ID	Sample Amount (g / ml)	Extract Volume (ml)	Notes
*01	EXD004 - SB	2.01	20	
*02	- SL	200	20	
*03	07D134 - 05	2.01	20	
*04	- 06	2.03	20	
*05	- 07	2.02	20	
*06	- 09	2.01	20	
*07	- 10	2.02	20	
*08	- 11	2.03	20	
*09	- 12	2.02	20	
*10	- 12M	2.01	20	
*11	- 12S	2.03	20	
*12	07D166 - 01	2.02	20	
*13	- 02	2.03	20	
*14	- 03	2.01	20	
*15	- 04	2.02	20	
*16	- 05	2.03	20	
*17	- 06	2.02	20	
*18		JV 4/19/07		
*19				
*20				
*21				
*22				
*23				
*24				
*25				
*26				

Standards	ID	Amount Added (ml)
Surrogate	SHIC-04-11-3	0.08
LCS/MS	SHIC-04-17-3	0.08

Reagent	Lot# / ID
Acetonitrile	45026
NaCl	-
$CaCl_2$	SPIB-01-394
Silica Sand	44273

SDG #	Extract Location
	SE04# 2

Comments:

Prepared By: JV

Standard Added By: JV Witnessed By: YK

Checked By: ML Extract Received By: [illegible] 4/20/07

Disposed By: Disposal Date:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D181**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1004
GC/MS-VOA	METHOD 5030B/8260B (WATER) METHOD 5035/8260B (SOIL)	2000 – 2027 2028 – 2061
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8031
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-07-2007
EMAX Batch No.: 07D181

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/17/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LTB-041607	D181-01	04/16/07	WATER	VOLATILE ORGANICS BY GC/MS
LEB-041607	D181-02	04/16/07	WATER	PERCHLORATE BY IC
B19-HSAS17-5.6.5'	D181-03	04/16/07	SOIL	PERCHLORATE BY IC
B19-HSAS17-10-11.5'	D181-04	04/16/07	SOIL	PERCHLORATE BY IC
B19-HSAS17-20-21.5'	D181-05	04/16/07	SOIL	PERCHLORATE BY IC
B19-HSAS1-5-6.5'	D181-06	04/16/07	SOIL	PERCHLORATE BY IC
B19-HSAS1-10-11.5'	D181-07	04/16/07	SOIL	PERCHLORATE BY IC
B19-HSAS1-20-21.5'	D181-08	04/16/07	SOIL	PERCHLORATE BY IC
C22-HSAS26-15-16.5'	D181-09	04/16/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS26-20-21.5'	D181-10	04/16/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS26-35-36.5'	D181-11	04/16/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS26-35-36.5'MS	D181-11M	04/16/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
C22-HSAS26-35-36.5'MSD	D181-11S	04/16/07	SOIL	VOLATILE ORGANICS BY GC/MS
C22-HSAS26-35-36.5'DUP	D181-11D	04/16/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

07D181

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

TT-0618-

SHIP TO: EMAX
1835 W. 205th St.
Torrance, CA
90501

DATE 4-16-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Mayer
TC #: 19967.02
SAMPLERS (Signatures) J. Zimmerman

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LTB-041607	4/16/07	0755	X		U	W	G	2	HCl
2.	LEB-041607	4/16/07	0830		X	U	W	P	1	NR
3.	B19-HSAS17 5-6.5'	4/16/07	0852		X	U	S	G	1	NR
4.	B19-HSAS17 10-11.5'	4/16/07	0856		X	U	S	G	1	NR
5.	B19-HSAS17 20-21.5'	4/16/07	0912		X	U	S	G	1	NR
6.	B9-HSAS1 5-6.5'	4/16/07	0955		X	U	S	G	1	NR
7.	B9-HSAS1 10-11.5'	4/16/07	1000		X	U	S	G	1	NR
8.	B9-HSAS1 20-21.5'	4/16/07	1012		X	U	S	G	1	NR
9.	C22-HSAS26 15-16.5'	4/16/07	1324	X	X	U	S	G/P	1/3	NR
10.	C22-HSAS26 20-21.5'	4/16/07	1332	X	X	U	S	G/P	1/3	NR

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

T=4.0°C

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: J. Zimmerman	SIGNATURE: J. Zimmerman	TETRA TECH, INC.	DATE: 4-16-07	TIME: 1800	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 17
RECEIVED BY: GEORGE LIM	SIGNATURE: George L.	COMPANY: EMAX	DATE: 4/17/07	TIME: 10:10	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM	SIGNATURE: George L.	COMPANY: EMAX	DATE: 4/17/07	TIME: 12:10	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA	SIGNATURE:	COMPANY: EMAX	DATE: 4-17-07	TIME: 1210	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1 of 1

X:\GIS\ATT-MISC\COCR.CDR

07D181

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX
1835 W. 205th St
Torrance, CA
90501

DATE 4-16-07 PAGE 2 OF 2

CLIENT: LMC
PROJECT NAME: Site I Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967.02
SAMPLERS (Signatures) J. Zimmerman

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
11	C22-HSAS26 35-36.5'	4-16-07	1356	X	X	U	S	G/P	1/3	NP	
12	C22-HSAS26 35-36.5'	4-16-07	1356	X	X	U	S	G/P	2/6	NP	MS/MSD
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											

FILTERING:
☐ FILTERED ☒ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY: J. Zimmerman	SIGNATURE: J. Zimmerman	TETRA TECH, INC.	DATE: 4-16-07	TIME: 1800	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 12
RECEIVED BY: GEORGE LIM	SIGNATURE: George L.	COMPANY: EMAX	DATE: 4/17/07	TIME: 10:10	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM	SIGNATURE: George L.	COMPANY: EMAX	DATE: 4/17/07	TIME: 12:10	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA	SIGNATURE:	COMPANY: CMG X	DATE: 4-17-07	TIME: 1210	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1002

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D181
☒ EMAX Courier	SEE COC	Recepient JONLUNA
☐ Client Delivery		Date 4-17-07
☐ Third Party		Time 1210

COC Inspection

☒ Client Name ☒ Client PM/FC ☒ Sampler Name ☒ Sampling Date/Time/Location ☒ Sample ID ☒ Matrix
☒ Address ☒ Tel # / Fax # ☒ Courier Signature ☒ Analysis Required ☐ Preservative (if any) ☒ TAT

Safety Issues
☒ None ☐ High concentrations expected ☐ Superfuud Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☒ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☒ Intact	☐ Damaged		
Packaging	☒ Bubble Pack	☐ Styrofoam	☐ Popcorn	☒ Sufficient	☐ _____
Temperatures	☒ Cooler 1 4.0 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
-09			A2	R2
-10			A2	R2
-11			A2	R2

REVIEWS

Sample Labelling _____ Date 4/17/07

SRF _____ Date 4/17/07

PM _____ Date 4/17/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label (ALL ENCORES)
A3	Analysis is inconsistent in COC vis-a-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	_____
H2	_____

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	_____
R6	_____

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 07D181

2000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D181

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

One (1) water sample was received on 04/17/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D181
Instrument ID : T-094

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VO94D40Q	1	NA	04/18/0718:14	04/18/0718:14	RDD425	RCD411	VO94D40	Method Blank
LCS1W	VO94D40L	1	NA	04/18/0716:19	04/18/0716:19	RDD422	RCD411	VO94D40	Lab Control Sample (LCS)
LCD1W	VO94D40C	1	NA	04/18/0716:58	04/18/0716:58	RDD423	RCD411	VO94D40	LCS Duplicate
LTB-041607	D181-01	1	NA	04/18/0719:32	04/18/0719:32	RDD427	RCD411	VO94D40	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/16/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D181	Date Extracted:	04/18/07 19:32
Sample ID:	LTB-041607	Date Analyzed:	04/18/07 19:32
Lab Samp ID:	D181-01	Dilution Factor:	1
Lab File ID:	RDD427	Matrix :	WATER
Ext Btch ID:	V094D40	% Moisture :	NA
Calib. Ref.:	RCD411	Instrument ID :	T-094

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	0.51J	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	98	70-140
4-BROMOFLUOROBENZENE	98	70-130
TOLUENE-D8	95	70-140

QC SUMMARIES

2005

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/18/07
Batch No.	: 07D181	Date Extracted:	04/18/07 18:14
Sample ID:	MBLK1W	Date Analyzed:	04/18/07 18:14
Lab Samp ID:	V094D40Q	Dilution Factor:	1
Lab File ID:	RDD425	Matrix :	WATER
Ext Btch ID:	V094D40	% Moisture :	NA
Calib. Ref.:	RCD411	Instrument ID :	T-094

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	70-140
4-BROMOFLUOROBENZENE	98	70-130
TOLUENE-D8	94	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V094D40Q	V094D40L	V094D40C		
LAB FILE ID:	RDD425	RDD422	RDD423		
DATE EXTRACTED:	04/18/0718:14	04/18/0716:19	04/18/0716:58	DATE COLLECTED:	NA
DATE ANALYZED:	04/18/0718:14	04/18/0716:19	04/18/0716:58	DATE RECEIVED:	04/18/07
PREP. BATCH:	V094D40	V094D40	V094D40		
CALIB. REF:	RCD411	RCD411	RCD411		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	8.54	85	10.0	8.81	88	3	60-130	30
Benzene	ND	10.0	8.66	87	10.0	8.84	88	2	70-130	30
Chlorobenzene	ND	10.0	9.25	92	10.0	9.39	94	2	70-120	30
Toluene	ND	10.0	9.05	91	10.0	9.22	92	2	70-130	30
Trichloroethene	ND	10.0	8.11	81	10.0	8.27	83	2	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.3	103	10.0	10.2	102	70-140
4-Bromofluorobenzene	10.0	9.67	97	10.0	9.73	97	70-130
Toluene-d8	10.0	9.47	95	10.0	9.52	95	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D181
Lab File ID: RCD405
BFB Injection Date : 03/20/07
Instrument ID: T-094
BFB Injection Time : 10:54
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.96
75	30.0 - 60.0% of mass 95	45.55
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	77.84
175	5.0 - 9.0% of mass 174	5.73(7.4)1
176	95.0 - 101.0% of mass 174	74.73(96.0)1
177	5.0 - 9.0% of mass 176	4.83(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V094C2001	RCD406	03/20/07	11:33
2	VSTD0.5	V094C2002	RCD407	03/20/07	12:11
3	VSTD01	V094C2003	RCD408	03/20/07	12:50
4	VSTD02	V094C2004	RCD409	03/20/07	13:29
5	VSTD05	V094C2005	RCD410	03/20/07	14:08
6	VSTD010	V094C2006	RCD411	03/20/07	14:46
7	VSTD020	V094C2007	RCD412	03/20/07	15:25
8	VSTD030	V094C2008	RCD413	03/20/07	16:03
9	VSTD040	V094C2009	RCD414	03/20/07	16:42
10	VSTD050	V094C2010	RCD415	03/20/07	17:20
11	VSTD010	IV094C2001	RCD418	03/20/07	19:16

2009

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

nstrument ID :T094
eginning DateTime :03/20/07 11:33
pike Units :PPB
C File :RCD411

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :03/20/07 17:20
HPChem Method :VO94C20

IDX	Parameters	.3 11:33 RCD406	.5 12:11 RCD407	1 12:50 RCD408	2 13:29 RCD409	5 14:08 RCD410	10 14:46 RCD411	20 15:25 RCD412	30 16:03 RCD413	40 16:42 RCD414	50 17:20 RCD415	Av_RRF	%_RSD	Av_Rt_M
1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	11.8637
2	Dichlorodifluoromethane	0.275	0.225	0.258	0.245	0.248	0.246	0.242	0.238	0.226	0.217	0.242	7.04	4.2553
3	Chloromethane	------	0.385	0.521	0.388	0.378	0.379	0.372	0.351	0.334	------	0.388	14.57	4.8300
4	Vinyl chloride	------	0.332	0.370	0.351	0.330	0.302	0.255	------	------	------	0.323	12.58	4.9410
5	Bromomethane	------	0.301	0.273	0.229	0.223	0.223	0.224	0.216	0.207	0.195	0.232	14.38	5.7350
6	Chloroethane	0.292	0.224	0.237	0.227	0.222	0.222	0.218	0.208	0.198	0.185	0.223	12.79	5.8478
7	Dichlorofluoromethane	0.556	0.529	0.553	0.592	0.568	0.565	0.548	0.530	0.517	0.485	0.544	5.54	5.8814
8	Trichlorofluoromethane	0.380	0.306	0.346	0.347	0.349	0.348	0.350	0.343	0.327	0.310	0.341	6.30	6.2674
9	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2 10	Acrolein	------	------	------	0.011	0.014	0.013	0.013	0.013	0.013	0.012	0.013	8.45	6.8807
11	1,1,2-Trichloro-1,2,2-trifluoroethane	0.215	0.225	0.228	0.249	0.236	0.233	0.227	0.226	0.221	0.209	0.227	4.92	6.9196
2 12	Acetone	------	0.056	0.048	0.042	0.042	0.038	0.039	------	------	------	0.044	14.81	6.9541
13	1,1-Dichloroethene	0.453	0.450	0.464	0.508	0.485	0.480	0.465	0.457	0.450	0.423	0.464	5.00	7.2443
5 14	tert-Butyl alcohol	0.012	0.012	0.012	0.013	0.014	0.013	0.013	0.013	0.012	0.012	0.013	4.25	7.2530
15	Methyl acetate	0.120	0.120	0.114	0.110	0.117	0.119	0.114	0.114	0.110	0.104	0.114	4.51	7.6362
16	Iodomethane	0.387	0.359	0.394	0.431	0.435	0.443	0.445	0.449	0.440	0.419	0.420	7.21	7.7970
17	Methylene chloride	------	0.528	0.497	0.479	0.441	0.424	0.404	0.397	0.385	0.367	0.436	12.58	7.9610
18	Carbon disulfide	1.149	1.115	1.160	1.286	1.239	1.220	1.187	1.165	1.145	1.078	1.175	5.19	8.1480
3 19	Acrylonitrile	0.039	0.044	0.046	0.046	0.048	0.045	0.043	0.043	0.042	0.040	0.044	6.55	8.0763
20	tert-Butyl methyl ether (MTBE)	0.453	0.436	0.455	0.490	0.489	0.470	0.447	0.453	0.440	0.418	0.455	4.95	8.1334
21	trans-1,2-Dichloroethene	0.516	0.499	0.510	0.557	0.535	0.527	0.510	0.503	0.496	0.465	0.512	4.86	8.4229
22	Isopropyl ether (DIPE)	1.192	1.160	1.240	1.299	1.288	1.254	1.201	1.203	1.173	1.106	1.212	4.93	8.7534
23	Vinyl acetate	0.374	0.310	0.317	0.370	0.415	0.400	0.375	0.381	0.386	0.365	0.369	8.93	8.9157
24	1,1-Dichloroethane	0.682	0.632	0.677	0.715	0.685	0.669	0.644	0.636	0.629	0.588	0.656	5.56	9.0414
25	tert-Butyl ethyl ether (ETBE)	0.750	0.719	0.770	0.817	0.826	0.799	0.767	0.773	0.754	0.718	0.769	4.79	9.3705
2 26	2-Butanone	0.056	0.062	0.064	0.060	0.068	0.063	0.060	0.060	0.059	0.057	0.061	5.93	9.5708
27	2,2-Dichloropropane	0.473	0.474	0.497	0.515	0.494	0.479	0.459	0.450	0.441	0.412	0.469	6.43	9.8925
28	cis-1,2-Dichloroethene	0.553	0.549	0.571	0.610	0.585	0.577	0.557	0.548	0.538	0.503	0.559	5.16	9.9613
29	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
30	Chloroform	0.526	0.507	0.535	0.569	0.550	0.541	0.525	0.526	0.517	0.487	0.528	4.31	10.1981
31	Bromochloromethane	0.247	0.245	0.260	0.277	0.270	0.265	0.250	0.250	0.241	0.224	0.253	6.14	10.4760
32	Tetrahydrofuran	------	------	0.077	0.066	0.052	0.046	0.041	0.041	0.039	0.037	0.050	28.91	10.5021
33	1,1,1-Trichloroethane	0.430	0.429	0.445	0.484	0.467	0.466	0.453	0.449	0.446	0.421	0.449	4.35	10.8430
34	Cyclohexane	1.118	0.830	0.783	0.780	0.826	0.843	0.839	0.810	0.790	0.741	0.836	12.44	10.9264
35	tert-Amyl methyl ether (TAME)	0.637	0.591	0.637	0.682	0.681	0.658	0.634	0.638	0.624	0.595	0.638	4.82	11.1501
36	1,2-Dichloroethane-d4	------	------	0.229	0.223	0.236	0.243	0.214	0.216	0.221	0.206	0.223	5.45	11.2972
37	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	17.9952
38	1,1-Dichloropropene	0.211	0.220	0.205	0.218	0.210	0.207	0.196	0.197	0.192	0.182	0.204	5.86	11.0740
39	Carbon tetrachloride	0.400	0.397	0.420	0.450	0.438	0.441	0.431	0.428	0.424	0.404	0.423	4.27	11.2934
40	1,2-Dichloroethane	0.341	0.313	0.336	0.345	0.327	0.320	0.307	0.304	0.302	0.285	0.318	6.06	11.4513
41	Benzene	1.857	1.656	1.634	1.713	1.613	1.597	1.540	1.521	1.513	1.420	1.606	7.56	11.5449
42	Trichloroethene	0.458	0.422	0.453	0.489	0.464	0.468	0.450	0.445	0.440	0.419	0.451	4.63	12.5642
43	Methylcyclohexane	0.668	0.842	0.835	0.830	0.865	0.894	0.888	0.858	0.840	0.790	0.831	7.77	12.7294
44	1,2-Dichloropropane	0.468	0.439	0.424	0.446	0.426	0.421	0.401	0.395	0.390	0.367	0.418	7.13	12.8567
45	Bromodichloromethane	0.360	0.368	0.390	0.424	0.419	0.422	0.411	0.409	0.404	0.386	0.399	5.68	13.3085
46	Dibromomethane	0.144	0.147	0.150	0.163	0.155	0.154	0.146	0.147	0.143	0.137	0.149	4.97	13.4518
47	2-Chloroethyl vinyl ether	------	------	------	0.018	0.015	0.014	0.015	0.016	0.017	0.017	0.016	8.93	13.6638
2 48	4-Methyl-2-pentanone	0.140	0.162	0.166	0.172	0.191	0.178	0.171	0.175	0.171	0.166	0.169	7.68	13.7209

CT
3/23/07

49	cis-1,3-Dichloropropene	0.526	0.482	0.505	0.536	0.518	0.521	0.501	0.499	0.491	0.465	0.504	4.26	14.2385
50	Toluene-d8	1.388	1.375	1.433	1.383	1.433	1.503	1.401	1.397	1.389	1.296	1.400	3.75	14.7869
51	Toluene	1.727	1.634	1.696	1.787	1.729	1.715	1.658	1.621	1.608	1.502	1.668	4.86	14.9478
52	Ethyl methacrylate	0.236	0.236	0.249	0.270	0.271	0.263	0.253	0.255	0.249	0.238	0.252	5.23	14.9960
53	trans-1,3-Dichloropropene	0.326	0.325	0.330	0.370	0.364	0.361	0.350	0.353	0.347	0.330	0.346	4.86	15.1730
2 54	2-Hexanone	0.089	0.100	0.110	0.112	0.126	0.119	0.114	0.115	0.112	0.108	0.110	9.14	15.4025
55	1,1,2-Trichloroethane	0.187	0.185	0.202	0.212	0.209	0.204	0.192	0.194	0.190	0.181	0.196	5.35	15.5473
56	1,3-Dichloropropane	0.395	0.380	0.397	0.415	0.404	0.397	0.378	0.379	0.372	0.354	0.387	4.55	16.0547
57	Tetrachloroethene	0.363	0.342	0.351	0.375	0.362	0.359	0.348	0.344	0.342	0.321	0.351	4.28	16.3252
58	Dibromochloromethane	0.217	0.202	0.221	0.244	0.246	0.246	0.240	0.243	0.240	0.230	0.233	6.49	16.7479
59	1,2-Dibromoethane	0.179	0.178	0.192	0.203	0.204	0.197	0.190	0.191	0.188	0.178	0.190	5.00	17.1982
60	1-Chlorohexane	0.783	0.737	0.757	0.836	0.802	0.797	0.774	0.760	0.754	0.711	0.771	4.59	17.3137
61	Chlorobenzene	1.023	0.971	1.006	1.082	1.042	1.027	0.995	0.975	0.963	0.907	0.999	4.88	18.0844
62	1,1,1,2-Tetrachloroethane	0.298	0.277	0.300	0.321	0.319	0.320	0.308	0.307	0.303	0.285	0.304	4.87	18.1253
63	Ethylbenzene	1.976	1.852	1.919	2.060	1.997	1.991	1.929	1.881	1.853	1.673	1.913	5.64	18.1239
2 64	m-Xylene & p-Xylene	1.446	1.346	1.399	1.514	1.475	1.471	1.429	1.380	------	------	1.432	3.86	18.2831
65	o-Xylene	1.420	1.309	1.381	1.490	1.434	1.423	1.390	1.360	1.358	1.270	1.384	4.60	19.3052
66	Styrene	1.001	0.945	1.003	1.092	1.075	1.072	1.041	1.021	1.014	0.960	1.022	4.74	19.3637
67	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	24.5499
68	Isopropylbenzene	5.483	5.127	5.245	5.702	5.386	5.394	5.232	5.237	5.235	4.792	5.283	4.51	20.0802
69	Bromoform	------	0.261	0.307	0.333	0.347	0.356	0.347	0.361	0.356	0.344	0.335	9.52	20.2750
70	1,1,2,2-Tetrachloroethane	0.610	0.605	0.607	0.673	0.651	0.645	0.611	0.626	0.613	0.583	0.622	4.26	20.4590
71	4-Bromofluorobenzene	1.566	1.293	1.299	1.257	1.260	1.325	1.233	1.239	1.235	1.160	1.287	8.40	20.7236
72	1,2,3-Trichloropropane	0.116	0.107	0.121	0.140	0.103	0.107	0.099	0.098	0.098	0.093	0.108	13.01	20.8157
73	trans-1,4-Dichloro-2-butene	------	0.158	0.128	0.150	0.192	0.182	0.180	0.182	0.180	0.140	0.166	13.57	20.8957
74	n-Propylbenzene	7.027	6.511	6.750	7.290	6.967	6.997	6.892	6.884	6.613	5.021	6.695	9.38	21.0263
75	Bromobenzene	0.969	0.957	0.991	1.079	1.016	1.011	0.974	0.972	0.969	1.388	1.033	12.57	21.2743
76	1,3,5-Trimethylbenzene	3.949	3.730	3.944	4.233	4.073	4.098	4.007	3.977	3.979	3.727	3.972	3.90	21.3825
77	2-Chlorotoluene	3.789	3.844	3.636	4.050	3.907	3.841	3.708	3.714	3.620	3.482	3.759	4.32	21.5434
78	4-Chlorotoluene	3.681	3.126	3.513	3.606	3.355	3.435	3.359	3.304	3.437	3.107	3.392	5.47	21.6311
79	tert-Butylbenzene	3.726	3.504	3.623	3.891	3.744	3.710	3.626	3.601	3.640	3.374	3.644	3.85	22.2570
80	1,2,4-Trimethylbenzene	3.876	3.611	3.748	4.067	3.986	3.986	3.870	3.850	3.846	3.630	3.847	3.88	22.3594
81	sec-Butylbenzene	6.036	5.637	5.909	6.330	6.154	6.155	6.066	6.029	5.956	5.314	5.959	4.87	22.7703
82	p-Isopropyltoluene	4.545	4.181	4.369	4.767	4.654	4.702	4.616	4.589	4.586	4.274	4.528	4.22	23.0671
83	1,3-Dichlorobenzene	2.174	1.977	2.092	2.236	2.151	2.133	2.066	2.059	2.054	1.933	2.087	4.34	23.4342
84	1,4-Dichlorobenzene	2.022	1.904	1.995	2.121	2.051	2.037	1.978	1.960	1.947	1.848	1.986	3.92	23.6769
85	n-Butylbenzene	4.448	4.136	4.333	4.754	4.740	4.784	4.696	4.685	4.662	4.350	4.559	4.92	24.0659
86	1,2-Dichlorobenzene	1.702	1.589	1.663	1.746	1.702	1.677	1.624	1.622	1.603	1.515	1.644	4.09	24.6172
87	1,2-Dibromo-3-chloropropane	------	0.058	0.084	0.090	0.092	0.091	0.089	0.090	0.089	0.085	0.085	12.25	26.5039
88	1,2,4-Trichlorobenzene	1.034	0.951	1.048	1.130	1.171	1.151	1.119	1.119	1.094	1.040	1.086	6.16	28.6868
89	Hexachlorobutadiene	0.733	0.686	0.723	0.816	0.816	0.819	0.810	0.797	0.764	0.715	0.768	6.53	28.9910
90	Naphthalene	1.214	1.121	1.179	1.270	1.355	1.368	1.314	1.334	1.332	1.288	1.278	6.40	29.4151
91	1,2,3-Trichlorobenzene	0.793	0.737	0.808	0.875	0.899	0.891	0.862	0.863	0.838	0.800	0.837	6.13	30.0555

Spike Amount = Nominal Amount * M

Ave_%RSD : 6.8 Max_%RSD : 28.9

se Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15

esp_Ratio = xo + x1 * Amt_Ratio

DX	Parameter	x0	x1	CCF
32	Tetrahydrofuran	0.00491	0.03794	0.9986

3/23/JT

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	104	0.00	
2	T	Dichlorodifluoromethane	10.000	9.888	1.1	101	0.01	
3	P,T	Chloromethane	10.000	9.330	6.7	99	0.00	
4	C,T	Vinyl chloride	10.000	9.215	7.9	102	0.01	
5	T	Bromomethane	10.000	9.570	4.3	103	0.00	
6	T	Chloroethane	10.000	9.491	5.1	99	0.00	
7	T	Dichlorofluoromethane	10.000	9.933	0.7	99	0.00	
8	T	Trichlorofluoromethane	10.000	9.977	0.2	101	0.00	
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00	
10	T	Acrolein	20.000	19.997	0.0	98	0.00	
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.909	0.9	100	0.00	
12	T	Acetone	20.000	16.541	17.3	99	0.00	
13	C,T,M	1,1-Dichloroethene	10.000	9.919	0.8	99	0.00	
14	T	tert-Butyl alcohol	50.000	48.686	2.6	98	0.00	
15	T	Methyl acetate	10.000	0.531	94.7#	5	0.01	not valid'd
16	T	Iodomethane	10.000	10.006	-0.1	98	0.00	
17	T	Methylene chloride	10.000	9.167	8.3	98	0.00	
18	T	Carbon disulfide	10.000	9.846	1.5	98	0.00	
19	T	Acrylonitrile	30.000	29.415	2.0	98	0.00	
20	T	tert-Butyl methyl ether (MT	10.000	9.736	2.6	98	0.00	
21	T	trans-1,2-Dichloroethene	10.000	9.865	1.3	99	0.00	
22	T	Isopropyl ether (DIPE)	10.000	9.771	2.3	98	0.00	
23	T	Vinyl acetate	10.000	10.371	-3.7	99	0.01	
24	P,T	1,1-Dichloroethane	10.000	9.713	2.9	99	0.00	
25	T	tert-Butyl ethyl ether (ETB	10.000	9.856	1.4	98	0.01	
26	T	2-Butanone	20.000	19.013	4.9	95	0.00	
27	T	2,2-Dichloropropane	10.000	9.793	2.1	100	0.00	
28	T	cis-1,2-Dichloroethene	10.000	9.858	1.4	99	0.00	
29	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00	
30	C,T	Chloroform	10.000	9.808	1.9	99	0.00	
31	T	Bromochloromethane	10.000	9.863	1.4	98	0.00	
32	T	Tetrahydrofuran	10.000	9.987	0.1	97	0.00	
33	T	1,1,1-Trichloroethane	10.000	9.968	0.3	100	0.00	
34	T	Cyclohexane	10.000	0.071	99.3#	1	-0.12	Not Valid'd
35	T	tert-Amyl methyl ether (TAM	10.000	9.781	2.2	98	0.00	
36	S	1,2-Dichloroethane-d4	10.000	9.809	1.9	94	0.00	
37	I	CHLOROBENZENE-D5	10.000	10.000	0.0	104	0.01	
38	T	1,1-Dichloropropene	10.000	9.818	1.8	101	0.00	
39	T	Carbon tetrachloride	10.000	10.051	-0.5	101	0.00	
40	T	1,2-Dichloroethane	10.000	9.670	3.3	100	0.00	

(#) = Out of Range

2013

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	Benzene	10.000	9.466	5.3	99	0.00
42	T,M	Trichloroethene	10.000	9.854	1.5	99	0.00
43	T	Methylcyclohexane	10.000	0.027	99.7#	0	0.01 Not Valid'd
44	C,T	1,2-Dichloropropane	10.000	9.565	4.4	99	0.00
45	T	Bromodichloromethane	10.000	9.968	0.3	98	0.00
46	T	Dibromomethane	10.000	9.712	2.9	97	0.00
47	T	2-Chloroethyl vinyl ether	10.000	10.120	-1.2	120	0.00
48	T	4-Methyl-2-pentanone	20.000	19.964	0.2	99	0.00
49	T	cis-1,3-Dichloropropene	10.000	9.755	2.4	98	0.00
50	S	Toluene-d8	10.000	9.565	4.4	93	0.00
51	C,T,M	Toluene	10.000	9.797	2.0	99	0.00
52	T	Ethyl methacrylate	10.000	9.803	2.0	98	0.00
53	T	trans-1,3-Dichloropropene	10.000	9.929	0.7	99	0.00
54	T	2-Hexanone	20.000	20.046	-0.2	97	0.00
55	T	1,1,2-Trichloroethane	10.000	9.774	2.3	98	0.00
56	T	1,3-Dichloropropane	10.000	9.616	3.8	98	0.00
57	T	Tetrachloroethene	10.000	9.798	2.0	100	0.00
58	T	Dibromochloromethane	10.000	10.035	-0.4	99	0.00
59	T	1,2-Dibromoethane	10.000	9.807	1.9	98	0.00
60	T	1-Chlorohexane	10.000	9.934	0.7	100	0.00
61	P,M	Chlorobenzene	10.000	9.800	2.0	99	0.01
62	T	1,1,1,2-Tetrachloroethane	10.000	9.975	0.3	99	0.00
63	C,T	Ethylbenzene	10.000	9.958	0.4	100	0.00
64	T	m-Xylene & p-Xylene	20.000	19.612	1.9	100	0.00
65	T	o-Xylene	10.000	9.870	1.3	100	0.00
66	T	Styrene	10.000	9.986	0.1	99	0.00
67	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	104	0.00
68	T	Isopropylbenzene	10.000	9.793	2.1	100	0.00
69	P,T	Bromoform	10.000	9.941	0.6	97	0.00
70	P,T	1,1,2,2-Tetrachloroethane	10.000	9.640	3.6	97	0.00
71	S	4-Bromofluorobenzene	10.000	9.217	7.8	93	0.00
72	T	1,2,3-Trichloropropane	10.000	8.849	11.5	93	0.00
73	T	trans-1,4-Dichloro-2-butene	10.000	10.675	-6.8	101	0.00
74	T	n-Propylbenzene	10.000	10.058	-0.6	100	0.00
75	T	Bromobenzene	10.000	9.378	6.2	100	0.00
76	T	1,3,5-Trimethylbenzene	10.000	9.913	0.9	100	0.00
77	T	2-Chlorotoluene	10.000	9.675	3.2	98	0.00
78	T	4-Chlorotoluene	10.000	9.724	2.8	100	0.00
79	T	tert-Butylbenzene	10.000	9.797	2.0	100	0.00
80	T	1,2,4-Trimethylbenzene	10.000	9.903	1.0	99	0.00

(#) = Out of Range

2014

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07C20\RCD418.D Vial: 15
Acq On : 20 Mar 2007 7:16 pm Operator: AS
Sample : IVO94C2001 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	10.000	9.966	0.3	100	0.00
82	T	p-Isopropyltoluene	10.000	9.967	0.3	100	0.00
83	T	1,3-Dichlorobenzene	10.000	9.742	2.6	99	0.00
84	T	1,4-Dichlorobenzene	10.000	9.800	2.0	99	0.00
85	T	n-Butylbenzene	10.000	10.086	-0.9	100	0.01
86	T	1,2-Dichlorobenzene	10.000	9.671	3.3	99	0.00
87	T	1,2-Dibromo-3-chloropropane	10.000	9.866	1.3	96	0.00
88	T	1,2,4-Trichlorobenzene	10.000	10.072	-0.7	99	0.01
89	T	Hexachlorobutadiene	10.000	10.444	-4.4	102	0.00
90	T	Naphthalene	10.000	9.898	1.0	96	0.00
91	T	1,2,3-Trichlorobenzene	10.000	10.057	-0.6	98	0.00

3/23/07
2015

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D181

Lab File ID: RDD419 BFB Injection Date : 04/18/07

Instrument ID: T-094 BFB Injection Time : 14:23

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.58
75	30.0 - 60.0% of mass 95	43.13
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.64
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	76.24
175	5.0 - 9.0% of mass 174	5.46(7.2)1
176	95.0 - 101.0% of mass 174	74.71(98.0)1
177	5.0 - 9.0% of mass 176	4.94(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV094C2066	RDD421	04/18/07	15:40
2	MBLK1W	V094D40Q	RDD425	04/18/07	18:14
3	LCS1W	V094D40L	RDD422	04/18/07	16:19
4	LCD1W	V094D40C	RDD423	04/18/07	16:58
5	LTB-041607	D181-01	RDD427	04/18/07	19:32

2017

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RCD411
Instrument ID: T-094
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07D181
Date Analyzed: 03/20/07
Time Analyzed: 14:46
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2971747	11.86	2473278	17.99	867440	24.56
	UPPER LIMIT	5943494	12.36	4946556	18.49	1734880	25.06
	LOWER LIMIT	1485874	11.36	1236639	17.49	433720	24.06
	SAMPLE ID						
1	VSTD010	2569415	11.85	2186368	17.98	807815	24.53
2	MBLK1W	2399873	11.85	2069676	17.99	750261	24.54
3	LCS1W	2599051	11.85	2228741	17.99	836246	24.54
4	LCD1W	2586527	11.85	2205740	17.98	821565	24.53
5	LTB-041607	2479239	11.87	2129111	17.99	775866	24.54

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D18\RDD421.D Vial: 4
Acq On : 18 Apr 2007 3:40 pm Operator: CR
Sample : CVO94C2066 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	86	-0.01
2	T	Dichlorodifluoromethane	10.000	8.558	14.4	73	0.02
3	P,T	Chloromethane	10.000	8.611	13.9	76	0.03
4	C,T	Vinyl chloride	10.000	9.622	3.8	89	0.02
5	T	Bromomethane	10.000	9.170	8.3	83	0.00
6	T	Chloroethane	10.000	9.851	1.5	86	0.00
7	T	Dichlorofluoromethane	10.000	9.611	3.9	80	0.00
8	T	Trichlorofluoromethane	10.000	9.895	1.1	84	0.00
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
10	T	Acrolein	20.000	18.176	9.1	74	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	8.130	18.7	68	0.00
12	T	Acetone	20.000	19.356	3.2	97	0.00
13	C,T,M	1,1-Dichloroethene	10.000	8.517	14.8	71	0.00
14	T	tert-Butyl alcohol	50.000	49.937	0.1	84	-0.01
15	T	Methyl acetate	10.000	0.668	93.3#	6	0.00
16	T	Iodomethane	10.000	8.208	17.9	67	-0.01
17	T	Methylene chloride	10.000	9.054	9.5	80	0.00
18	T	Carbon disulfide	10.000	6.372	36.3#	53	-0.01
19	T	Acrylonitrile	30.000	32.532	-8.4	91	-0.01
20	T	tert-Butyl methyl ether (MT	10.000	9.943	0.6	83	-0.01
21	T	trans-1,2-Dichloroethene	10.000	8.632	13.7	72	-0.01
22	T	Isopropyl ether (DIPE)	10.000	10.847	-8.5	91	0.00
23	T	Vinyl acetate	10.000	11.232	-12.3	90	0.00
24	P,T	1,1-Dichloroethane	10.000	9.481	5.2	80	-0.01
25	T	tert-Butyl ethyl ether (ETB	10.000	9.984	0.2	83	0.00
26	T	2-Butanone	20.000	23.118	-15.6	96	0.00
27	T	2,2-Dichloropropane	10.000	9.504	5.0	80	0.00
28	T	cis-1,2-Dichloroethene	10.000	9.615	3.8	81	-0.01
29	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00
30	C,T	Chloroform	10.000	9.552	4.5	81	-0.01
31	T	Bromochloromethane	10.000	10.118	-1.2	83	-0.01
32	T	Tetrahydrofuran	10.000	11.371	-13.7	91	-0.01
33	T	1,1,1-Trichloroethane	10.000	9.215	7.9	77	-0.01
34	T	Cyclohexane	10.000	0.134	98.7#	1	-0.07
35	T	tert-Amyl methyl ether (TAM	10.000	9.923	0.8	83	-0.01
36	S	1,2-Dichloroethane-d4	10.000	10.322	-3.2	82	-0.01
37	I	CHLOROBENZENE-D5	10.000	10.000	0.0	88	-0.01
38	T	1,1-Dichloropropene	10.000	8.374	16.3	73	-0.01
39	T	Carbon tetrachloride	10.000	8.533	14.7	72	-0.01
40	T	1,2-Dichloroethane	10.000	9.037	9.6	79	-0.01

(#) = Out of Range

2019

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D18\RDD421.D Vial: 4
Acq On : 18 Apr 2007 3:40 pm Operator: CR
Sample : CVO94C2066 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T,M	Benzene	10.000	8.712	12.9	77	-0.01
42	T,M	Trichloroethene	10.000	8.175	18.2	70	-0.01
43	T	Methylcyclohexane	10.000	0.013	99.9#	0	-0.01
44	C,T	1,2-Dichloropropane	10.000	9.773	2.3	86	-0.01
45	T	Bromodichloromethane	10.000	9.669	3.3	81	-0.01
46	T	Dibromomethane	10.000	9.364	6.4	80	-0.01
47	T	2-Chloroethyl vinyl ether	10.000	12.354	-23.5#	124	-0.01
48	T	4-Methyl-2-pentanone	20.000	23.764	-18.8	100	-0.01
49	T	cis-1,3-Dichloropropene	10.000	9.388	6.1	80	-0.01
50	S	Toluene-d8	10.000	9.523	4.8	78	-0.01
51	C,T,M	Toluene	10.000	9.086	9.1	78	-0.01
52	T	Ethyl methacrylate	10.000	10.106	-1.1	86	-0.01
53	T	trans-1,3-Dichloropropene	10.000	9.504	5.0	80	-0.01
54	T	2-Hexanone	20.000	23.671	-18.4	97	-0.01
55	T	1,1,2-Trichloroethane	10.000	9.945	0.5	84	-0.01
56	T	1,3-Dichloropropane	10.000	9.720	2.8	84	-0.03
57	T	Tetrachloroethene	10.000	8.001	20.0	69	-0.01
58	T	Dibromochloromethane	10.000	9.514	4.9	80	-0.01
59	T	1,2-Dibromoethane	10.000	9.346	6.5	80	-0.01
60	T	1-Chlorohexane	10.000	9.332	6.7	80	-0.03
61	P,M	Chlorobenzene	10.000	9.251	7.5	80	-0.01
62	T	1,1,1,2-Tetrachloroethane	10.000	9.181	8.2	77	-0.01
63	C,T	Ethylbenzene	10.000	9.546	4.5	81	-0.01
64	T	m-Xylene & p-Xylene	20.000	18.394	8.0	79	-0.01
65	T	o-Xylene	10.000	9.548	4.5	82	-0.01
66	T	Styrene	10.000	9.811	1.9	83	-0.01
67	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	93	-0.03
68	T	Isopropylbenzene	10.000	9.028	9.7	82	-0.01
69	P,T	Bromoform	10.000	9.233	7.7	81	-0.01
70	P,T	1,1,2,2-Tetrachloroethane	10.000	9.881	1.2	89	-0.01
71	S	4-Bromofluorobenzene	10.000	9.790	2.1	89	-0.01
72	T	1,2,3-Trichloropropane	10.000	9.769	2.3	92	-0.01
73	T	trans-1,4-Dichloro-2-butene	10.000	9.814	1.9	83	-0.02
74	T	n-Propylbenzene	10.000	9.422	5.8	84	-0.03
75	T	Bromobenzene	10.000	8.425	15.7	80	-0.03
76	T	1,3,5-Trimethylbenzene	10.000	9.138	8.6	82	-0.01
77	T	2-Chlorotoluene	10.000	9.471	5.3	86	-0.01
78	T	4-Chlorotoluene	10.000	8.815	11.9	81	-0.01
79	T	tert-Butylbenzene	10.000	8.845	11.5	81	-0.03
80	T	1,2,4-Trimethylbenzene	10.000	9.143	8.6	82	-0.03

(#) = Out of Range

2020

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D18\RDD421.D Vial: 4
Acq On : 18 Apr 2007 3:40 pm Operator: CR
Sample : CVO94C2066 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	10.000	9.356	6.4	84	-0.03
82	T	p-Isopropyltoluene	10.000	8.843	11.6	79	-0.01
83	T	1,3-Dichlorobenzene	10.000	8.789	12.1	80	-0.01
84	T	1,4-Dichlorobenzene	10.000	8.753	12.5	79	-0.01
85	T	n-Butylbenzene	10.000	9.633	3.7	85	-0.01
86	T	1,2-Dichlorobenzene	10.000	8.903	11.0	81	-0.01
87	T	1,2-Dibromo-3-chloropropane	10.000	9.363	6.4	82	-0.01
88	T	1,2,4-Trichlorobenzene	10.000	9.115	8.8	80	-0.01
89	T	Hexachlorobutadiene	10.000	9.051	9.5	79	-0.01
90	T	Naphthalene	10.000	9.283	7.2	81	-0.01
91	T	1,2,3-Trichlorobenzene	10.000	9.120	8.8	80	-0.01

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D18\RDD421.D Vial: 4
Acq On : 18 Apr 2007 3:40 pm Operator: CR
Sample : CVO94C2066 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	86	-0.01
2	T	Dichlorodifluoromethane	0.242	0.207	14.5	73	0.02
3	P,T	Chloromethane	0.388	0.334	13.9	76	0.03
4	C,T	Vinyl chloride	0.323	0.311	3.7	89	0.02
5	T	Bromomethane	0.232	0.213	8.2	83	0.00
6	T	Chloroethane	0.223	0.220	1.3	86	0.00
7	T	Dichlorofluoromethane	0.544	0.523	3.9	80	0.00
8	T	Trichlorofluoromethane	0.341	0.337	1.2	84	0.00
9	T	sec-Propyl alcohol	0.000	0.000#	0.0	0#	0.00
10	T	Acrolein	0.013	0.011	15.4	74	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	0.227	0.184	18.9	68	0.00
12	T	Acetone	0.044	0.043	2.3	97	0.00
13	C,T,M	1,1-Dichloroethene	0.464	0.395	14.9	71	0.00
14	T	tert-Butyl alcohol	0.013	0.013	0.0	84	-0.01
15	T	Methyl acetate	0.114	0.008#	93.0#	6#	0.00
16	T	Iodomethane	0.420	0.345	17.9	67	-0.01
17	T	Methylene chloride	0.436	0.395	9.4	80	0.00
18	T	Carbon disulfide	1.175	0.748	36.3#	53	-0.01
19	T	Acrylonitrile	0.044	0.047	-6.8	91	-0.01
20	T	tert-Butyl methyl ether (MT	0.455	0.452	0.7	83	-0.01
21	T	trans-1,2-Dichloroethene	0.512	0.442	13.7	72	-0.01
22	T	Isopropyl ether (DIPE)	1.212	1.314	-8.4	91	0.00
23	T	Vinyl acetate	0.369	0.415	-12.5	90	0.00
24	P,T	1,1-Dichloroethane	0.656	0.622	5.2	80	-0.01
25	T	tert-Butyl ethyl ether (ETB	0.769	0.768	0.1	83	0.00
26	T	2-Butanone	0.061	0.070	-14.8	96	0.00
27	T	2,2-Dichloropropane	0.469	0.446	4.9	80	0.00
28	T	cis-1,2-Dichloroethene	0.559	0.538	3.8	81	-0.01
29	T	tert-Butyl formate (TBF)	0.000	0.000#	0.0	0#	0.00
30	C,T	Chloroform	0.528	0.505	4.4	81	-0.01
31	T	Bromochloromethane	0.253	0.256	-1.2	83	-0.01
32	T	Tetrahydrofuran	0.050	0.048	4.0	91	-0.01
33	T	1,1,1-Trichloroethane	0.449	0.414	7.8	77	-0.01
34	T	Cyclohexane	0.836	0.011	98.7#	1#	-0.07
35	T	tert-Amyl methyl ether (TAM	0.638	0.633	0.8	83	-0.01
36	S	1,2-Dichloroethane-d4	0.223	0.231	-3.6	82	-0.01
37	I	CHLOROBENZENE-D5	1.000	1.000	0.0	88	-0.01
38	T	1,1-Dichloropropene	0.204	0.171	16.2	73	-0.01
39	T	Carbon tetrachloride	0.423	0.361	14.7	72	-0.01
40	T	1,2-Dichloroethane	0.318	0.287	9.7	79	-0.01

(#) = Out of Range

2022

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D18\RDD421.D Vial: 4
Acq On : 18 Apr 2007 3:40 pm Operator: CR
Sample : CVO94C2066 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T,M	Benzene	1.606	1.400	12.8	77	-0.01
42	T,M	Trichloroethene	0.451	0.369	18.2	70	-0.01
43	T	Methylcyclohexane	0.831	0.001#	99.9#	0#	-0.01
44	C,T	1,2-Dichloropropane	0.418	0.408	2.4	86	-0.01
45	T	Bromodichloromethane	0.399	0.386	3.3	81	-0.01
46	T	Dibromomethane	0.149	0.139	6.7	80	-0.01
47	T	2-Chloroethyl vinyl ether	0.016	0.020	-25.0#	124	-0.01
48	T	4-Methyl-2-pentanone	0.169	0.201	-18.9	100	-0.01
49	T	cis-1,3-Dichloropropene	0.504	0.473	6.2	80	-0.01
50	S	Toluene-d8	1.400	1.333	4.8	78	-0.01
51	C,T,M	Toluene	1.668	1.515	9.2	78	-0.01
52	T	Ethyl methacrylate	0.252	0.255	-1.2	86	-0.01
53	T	trans-1,3-Dichloropropene	0.346	0.328	5.2	80	-0.01
54	T	2-Hexanone	0.110	0.131	-19.1	97	-0.01
55	T	1,1,2-Trichloroethane	0.196	0.194	1.0	84	-0.01
56	T	1,3-Dichloropropane	0.387	0.377	2.6	84	-0.03
57	T	Tetrachloroethene	0.351	0.281	19.9	69	-0.01
58	T	Dibromochloromethane	0.233	0.222	4.7	80	-0.01
59	T	1,2-Dibromoethane	0.190	0.178	6.3	80	-0.01
60	T	1-Chlorohexane	0.771	0.720	6.6	80	-0.03
61	P,M	Chlorobenzene	0.999	0.924	7.5	80	-0.01
62	T	1,1,1,2-Tetrachloroethane	0.304	0.279	8.2	77	-0.01
63	C,T	Ethylbenzene	1.913	1.826	4.5	81	-0.01
64	T	m-Xylene & p-Xylene	1.432	1.317	8.0	79	-0.01
65	T	o-Xylene	1.384	1.321	4.6	82	-0.01
66	T	Styrene	1.022	1.003	1.9	83	-0.01
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	93	-0.03
68	T	Isopropylbenzene	5.283	4.770	9.7	82	-0.01
69	P,T	Bromoform	0.335	0.309	7.8	81	-0.01
70	P,T	1,1,2,2-Tetrachloroethane	0.622	0.615	1.1	89	-0.01
71	S	4-Bromofluorobenzene	1.287	1.260	2.1	89	-0.01
72	T	1,2,3-Trichloropropane	0.108	0.106	1.9	92	-0.01
73	T	trans-1,4-Dichloro-2-butene	0.166	0.163	1.8	83	-0.02
74	T	n-Propylbenzene	6.695	6.308	5.8	84	-0.03
75	T	Bromobenzene	1.033	0.870	15.8	80	-0.03
76	T	1,3,5-Trimethylbenzene	3.972	3.629	8.6	82	-0.01
77	T	2-Chlorotoluene	3.759	3.560	5.3	86	-0.01
78	T	4-Chlorotoluene	3.392	2.990	11.9	81	-0.01
79	T	tert-Butylbenzene	3.644	3.223	11.6	81	-0.03
80	T	1,2,4-Trimethylbenzene	3.847	3.518	8.6	82	-0.03

(#) = Out of Range

2023

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D18\RDD421.D Vial: 4
Acq On : 18 Apr 2007 3:40 pm Operator: CR
Sample : CVO94C2066 10/20/50ppb Inst : TO94
Misc : 10ppb 8260/20ppbKET-AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO94C20.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Mar 23 15:02:12 2007
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	5.959	5.575	6.4	84	-0.03
82	T	p-Isopropyltoluene	4.528	4.005	11.6	79	-0.01
83	T	1,3-Dichlorobenzene	2.087	1.835	12.1	80	-0.01
84	T	1,4-Dichlorobenzene	1.986	1.739	12.4	79	-0.01
85	T	n-Butylbenzene	4.559	4.391	3.7	85	-0.01
86	T	1,2-Dichlorobenzene	1.644	1.464	10.9	81	-0.01
87	T	1,2-Dibromo-3-chloropropane	0.085	0.080	5.9	82	-0.01
88	T	1,2,4-Trichlorobenzene	1.086	0.990	8.8	80	-0.01
89	T	Hexachlorobutadiene	0.768	0.695	9.5	79	-0.01
90	T	Naphthalene	1.278	1.186	7.2	81	-0.01
91	T	1,2,3-Trichlorobenzene	0.837	0.763	8.8	80	-0.01

2024

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 3-20-07 ☐ 5-ml Purge ☒ 25-ml Purge **Book # A94 -017**

BATCH V094C20Ø6

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RCD404	BFB94C34	2 µL				TUNE CHECK
02		405	35					10:54
03		406	V094C2Ø61	.05/.5/1/3µL				.3 ppb 8260 1/6 KetAA 1.5 TBA
04		407	Ø2	.05/.25/.1/.5µL				.5 1 2.5
05		408	Ø3	.1/.5/.2/1µL				1 2 5
06		409	Ø4	.2/1/.4/2µL				2 4 1Ø
07		410	Ø5	.5/2.5/1/5µL				5 1Ø 25
08		411	Ø6	1/5/2/1Ø µL				1Ø 2Ø 5Ø
09		412	Ø7	2/1Ø/4/2Ø µL				2Ø 4Ø 1ØØ
10		413	Ø8	3/15/6/3Ø µL				3Ø 6Ø 15Ø
11		414	Ø9	4/2Ø/8/4Ø µL				4Ø 8Ø 2ØØ
12		415	1Ø	5/25/1Ø/5Ø µL				5Ø 1ØØ 25Ø
13		416	Rinse					
14		417	V094C35B					
15		418	IV094C2Ø61	1/5/2µL				1Ø 2Ø 5Ø
16		419	62					
17		420	IV094C2Ø63	5µL				CLP + 3 Add'l(s)
18		421	15/55	25mL	1.Ø			
19		422	Ø7C184-Ø6N			L2		21:49
20								
21								
22								
23								
24								
25								AS 3/21/Ø7

Instrument No.	94
INITIAL CALIBRATION REFERENCE	
DATE	Ø3-2Ø-Ø7
ICAL ID	V094C2Ø

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC gases	SVIC-11-69-1	25Ø
DCC 8260	69-2	Ø/25Ø
DCC KetAA 3 add'l(s)	58-3 72-1	25Ø 25Ø
BFB	49-3	5Ø
IS/SURR. IS SS	78-1 78-2	25Ø
LCS gas	61-3	25Ø
LCS 8260	63-2	5Ø/25Ø/1ØØØ
LCS KetAA 2,4-DP	57-3 43-2	25Ø 5Ø/75Ø/5ØØ

SOLVENT	ID
METHANOL	
DATA FILE	Ø7C2Ø

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO94	

Comments:

Analyzed By: AS

Date Disposed 3-21-Ø7

Disposed By: AS

2023

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: ☐ 5-ml Purge ☐ 25-ml Purge

Book # A94 -017

BATCH V094C2065

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDD418	BFB94D39	2ml				
02		419	BFB94D40	2ml				2:23 PM
03		420	CV094C2065	½/5ml				
04		421	CV094C2066					
05		422	V094D40L					
06		423	C					
07		424	B	25ml				
08		425	Q	25ml				
09		426	07D176-06	25ml	1	<2.0		
10		427	07D181-01		1			
11		428	07D189-01		1			
12		429	-02T	1ml	25			
13		430	-03T	1ml	25			
14		431	-04T	1ml	25			
15		432	07D180-02R	25ml	1			
16		433	07D189-02		1			
17		434	07D180-01R		1			
18		435	07D189-03		1			
19		436	RINSE		1			
20		437	07D189-04		1	<2.0		2:00 pm 4/19/07
21		438	DI H2O CHECK 2		1			
22		439	DI H2O CHECK 1		1			
23								
24								
25								cn 4/19/07

Instrument No.	94
INITIAL CALIBRATION REFERENCE	
DATE	3/20/07
ICAL ID	V094C20

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SVIC-11-69-1	
DCC	-69-2	
DCC	-58-3	
BFB	-49-3	50/25
IS/SURR.	-70-3	
LCS	-61-3	
LCS	-63-2	
LCS	-59-3	

SOLVENT	ID
METHANOL	
DATA FILE	07D18

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO94	

Comments:

Analyzed By: cn

Date Disposed: 4/19/07

Disposed By: cn

2027

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 07D181

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D181

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 04/17/07 for Volatile Organic analysis by Method 5035/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample D181-11 was spiked. %Recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D181
Instrument ID : T-067

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V067D37Q	1	NA	04/19/0718:51	04/19/0718:51	RDC424	RBC079	V067D37	Method Blank
LCS1S	V067D37L	1	NA	04/19/0717:00	04/19/0717:00	RDC421	RBC079	V067D37	Lab Control Sample (LCS)
LCD1S	V067D37C	1	NA	04/19/0717:37	04/19/0717:37	RDC422	RBC079	V067D37	LCS Duplicate
C22-HSAS26-15-16.5'	D181-09	.94	5.5	04/19/0721:19	04/19/0721:19	RDC428	RBC079	V067D37	Field Sample
C22-HSAS26-20-21.5'	D181-10	1.1	4.1	04/19/0721:57	04/19/0721:57	RDC429	RBC079	V067D37	Field Sample
C22-HSAS26-35-36.5'	D181-11	1.2	5.1	04/19/0722:33	04/19/0722:33	RDC430	RBC079	V067D37	Field Sample
C22-HSAS26-35-36.5'MS	D181-11M	1.4	5.1	04/19/0723:11	04/19/0723:11	RDC431	RBC079	V067D37	Matrix Spike Sample (MS)
C22-HSAS26-35-36.5'MSD	D181-11S	1.5	5.1	04/19/0723:47	04/19/0723:47	RDC432	RBC079	V067D37	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

2693

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/16/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/17/07
Batch No. : 07D181	Date Extracted: 04/19/07 21:19
Sample ID: C22-HSAS26-15-16.5'	Date Analyzed: 04/19/07 21:19
Lab Samp ID: D181-09	Dilution Factor: .94
Lab File ID: RDC428	Matrix : SOIL
Ext Btch ID: V067D37	% Moisture : 5.5
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	9.9	5.0
2-HEXANONE	ND	9.9	5.0
4-METHYL-2-PENTANONE	ND	9.9	5.0
ACETONE	5.0J	9.9	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	9.9	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	9.9	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	9.9	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	9.9	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	2.6J	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	60-160
4-BROMOFLUOROBENZENE	113	70-150
TOLUENE-D8	103	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/16/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/17/07
Batch No. : 07D181	Date Extracted: 04/19/07 21:57
Sample ID: C22-HSAS26-20-21.5'	Date Analyzed: 04/19/07 21:57
Lab Samp ID: D181-10	Dilution Factor: 1.1
Lab File ID: RDC429	Matrix : SOIL
Ext Btch ID: V067D37	% Moisture : 4.1
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.7	2.3
1,1,2,2-TETRACHLOROETHANE	ND	5.7	2.3
1,1,2-TRICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHENE	ND	5.7	2.3
1,2-DICHLOROETHANE	ND	5.7	2.3
1,2-DICHLOROPROPANE	ND	5.7	2.3
2-BUTANONE	ND	11	5.7
2-HEXANONE	ND	11	5.7
4-METHYL-2-PENTANONE	ND	11	5.7
ACETONE	ND	11	5.7
BENZENE	ND	5.7	2.3
BROMODICHLOROMETHANE	ND	5.7	2.3
BROMOFORM	ND	5.7	2.3
BROMOMETHANE	ND	11	2.3
CARBON DISULFIDE	ND	5.7	2.3
CARBON TETRACHLORIDE	ND	5.7	2.3
CHLOROBENZENE	ND	5.7	2.3
CHLOROETHANE	ND	5.7	2.3
CHLOROFORM	ND	5.7	2.3
CHLOROMETHANE	ND	11	2.3
CIS-1,2-DICHLOROETHENE	ND	5.7	2.3
CIS-1,3-DICHLOROPROPENE	ND	5.7	2.3
DIBROMOCHLOROMETHANE	ND	5.7	2.3
ETHYLBENZENE	ND	5.7	2.3
M/P-XYLENES	ND	11	2.3
MTBE	ND	5.7	2.3
METHYLENE CHLORIDE	ND	11	2.3
O-XYLENE	ND	5.7	2.3
STYRENE	ND	5.7	2.3
TETRACHLOROETHENE	ND	5.7	2.3
TOLUENE	ND	5.7	2.3
TRANS-1,2-DICHLOROETHENE	ND	5.7	2.3
TRANS-1,3-DICHLOROPROPENE	ND	5.7	2.3
TRICHLOROETHENE	ND	5.7	2.3
VINYL CHLORIDE	ND	5.7	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	123	60-160
4-BROMOFLUOROBENZENE	112	70-150
TOLUENE-D8	100	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/16/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/17/07
Batch No.	: 07D181	Date Extracted:	04/19/07 22:33
Sample ID:	C22-HSAS26-35-36.5'	Date Analyzed:	04/19/07 22:33
Lab Samp ID:	D181-11	Dilution Factor:	1.2
Lab File ID:	RDC430	Matrix :	SOIL
Ext Btch ID:	V067D37	% Moisture :	5.1
Calib. Ref.:	RBC079	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.3	2.5
1,1,2,2-TETRACHLOROETHANE	ND	6.3	2.5
1,1,2-TRICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHENE	ND	6.3	2.5
1,2-DICHLOROETHANE	ND	6.3	2.5
1,2-DICHLOROPROPANE	ND	6.3	2.5
2-BUTANONE	ND	13	6.3
2-HEXANONE	ND	13	6.3
4-METHYL-2-PENTANONE	ND	13	6.3
ACETONE	ND	13	6.3
BENZENE	ND	6.3	2.5
BROMODICHLOROMETHANE	ND	6.3	2.5
BROMOFORM	ND	6.3	2.5
BROMOMETHANE	ND	13	2.5
CARBON DISULFIDE	ND	6.3	2.5
CARBON TETRACHLORIDE	ND	6.3	2.5
CHLOROBENZENE	ND	6.3	2.5
CHLOROETHANE	ND	6.3	2.5
CHLOROFORM	ND	6.3	2.5
CHLOROMETHANE	ND	13	2.5
CIS-1,2-DICHLOROETHENE	ND	6.3	2.5
CIS-1,3-DICHLOROPROPENE	ND	6.3	2.5
DIBROMOCHLOROMETHANE	ND	6.3	2.5
ETHYLBENZENE	ND	6.3	2.5
M/P-XYLENES	ND	13	2.5
MTBE	ND	6.3	2.5
METHYLENE CHLORIDE	ND	13	2.5
O-XYLENE	ND	6.3	2.5
STYRENE	ND	6.3	2.5
TETRACHLOROETHENE	ND	6.3	2.5
TOLUENE	ND	6.3	2.5
TRANS-1,2-DICHLOROETHENE	ND	6.3	2.5
TRANS-1,3-DICHLOROPROPENE	ND	6.3	2.5
TRICHLOROETHENE	ND	6.3	2.5
VINYL CHLORIDE	ND	6.3	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	121	60-160
4-BROMOFLUOROBENZENE	111	70-150
TOLUENE-D8	104	70-140

QC SUMMARIES

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/19/07
Batch No. : 07D181	Date Extracted: 04/19/07 18:51
Sample ID: MBLK1S	Date Analyzed: 04/19/07 18:51
Lab Samp ID: V067D37Q	Dilution Factor: 1
Lab File ID: RDC424	Matrix : SOIL
Ext Btch ID: V067D37	% Moisture : NA
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	70-140
4-BROMOFLUOROBENZENE	112	70-130
TOLUENE-D8	103	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V067D37Q	V067D37L	V067D37C		
LAB FILE ID:	RDC424	RDC421	RDC422		
DATE EXTRACTED:	04/19/0718:51	04/19/0717:00	04/19/0717:37	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0718:51	04/19/0717:00	04/19/0717:37	DATE RECEIVED:	04/19/07
PREP. BATCH:	V067D37	V067D37	V067D37		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	21.6	108	20.0	21.1	105	2	60-130	50
Benzene	ND	20.0	21.5	108	20.0	20.6	103	4	70-130	50
Chlorobenzene	ND	20.0	20.7	104	20.0	20.1	100	3	70-130	50
Toluene	ND	20.0	20.1	100	20.0	19.2	96	4	70-130	50
Trichloroethene	ND	20.0	19.6	98	20.0	18.8	94	4	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	57.6	115	50.0	57.1	114	70-140
4-Bromofluorobenzene	50.0	51.8	104	50.0	52.5	105	70-130
Toluene-d8	50.0	49.8	100	50.0	51.1	102	70-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: SW 5035/8260B

MATRIX: SOIL % MOISTURE: 5.1

DILUTION FACTOR:	1.2	1.4	1.5		
SAMPLE ID:	C22-HSAS26-35-36.5'				
LAB SAMP ID:	D181-11	D181-11M	D181-11S		
LAB FILE ID:	RDC430	RDC431	RDC432		
DATE EXTRACTED:	04/19/0722:33	04/19/0723:11	04/19/0723:47	DATE COLLECTED:	04/16/07
DATE ANALYZED:	04/19/0722:33	04/19/0723:11	04/19/0723:47	DATE RECEIVED:	04/17/07
PREP. BATCH:	V067D37	V067D37	V067D37		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	73.8	72.8	99	79.0	79.4	100	1	50-140	50
Benzene	ND	73.8	70.1	95	79.0	74.7	95	0	60-150	50
Chlorobenzene	ND	73.8	68.8	93	79.0	72.7	92	1	70-130	50
Toluene	ND	73.8	68.0	92	79.0	71.1	90	2	70-140	50
Trichloroethene	ND	73.8	64.7	88	79.0	68.5	87	1	60-140	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	73.8	90.0	122	79.0	96.7	122	60-160
4-Bromofluorobenzene	73.8	76.5	104	79.0	82.1	104	70-150
Toluene-d8	73.8	73.3	99	79.0	78.3	99	70-140

INITIAL CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D181

Lab File ID: RBC074 BFB Injection Date : 02/07/07

Instrument ID: T-067 BFB Injection Time : 18:28

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.67
75	30.0 - 60.0% of mass 95	41.01
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.56
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.94
175	5.0 - 9.0% of mass 174	4.92(6.8)1
176	95.0 - 101.0% of mass 174	70.83(98.5)1
177	5.0 - 9.0% of mass 176	4.71(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD02	V067B071	RBC075	02/07/07	19:04
2	VSTD05	V067B072	RBC076	02/07/07	19:41
3	VSTD010	V067B073	RBC077	02/07/07	20:18
4	VSTD020	V067B074	RBC078	02/07/07	20:55
5	VSTD050	V067B075	RBC079	02/07/07	21:32
6	VSTD080	V067B076	RBC080	02/07/07	22:08
7	VSTD100	V067B077	RBC081	02/07/07	22:45
8	VSTD200	V067B078	RBC082	02/07/07	23:22
9	VSTD300	V067B079	RBC083	02/07/07	23:58
10	VSTD050	IV067B071	RBC086	02/08/07	01:49

PROGRAM: ICALMAX

Input: R:\CAL\8260\2007\V067B07\RBC079.ICL Output: R:\CAL\8260\2007\V067B07\RBC079.MAX

IDX	Parameter	x0	x1	x2	CCF2	MaxMinAmtRatio	MaxMinRespRatio	MaxMinRRF	MaxMinConc
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998	2.23243	0.27666	0.12393	111.6
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996	-6.26479	-1.68957	0.26969	-313.2
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993	-4.45329	-2.14560	0.48180	-222.7
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997	-7.61527	-1.76653	0.23197	-380.8

1-602

2/12/08

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :02/07/07 19:04
Spike Units :PPB
IC File :RBC079

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :02/07/07 23:58
HPChem Method :V067B07

M	IDX	Parameters	2 19:04 RBC075	5 19:41 RBC076	10 20:18 RBC077	20 20:55 RBC078	50 21:32 RBC079	80 22:08 RBC080	100 22:45 RBC081	200 23:22 RBC082	300 23:58 RBC083	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	10.1403
	2	Dichlorodifluoromethane	0.181	0.215	0.228	0.229	0.240	0.235	0.219	0.208	0.199	0.217	8.72	3.5412
	3	Chloromethane	0.218	0.247	0.258	0.262	0.279	0.287	0.268	0.262	0.245	0.258	7.93	4.0145
	4	Vinyl chloride	0.215	0.246	0.240	0.224	0.190	0.158	0.138	------	------	0.202	20.48	4.1679
	5	Bromomethane	0.200	0.210	0.213	0.212	0.215	0.217	0.205	0.204	0.200	0.209	3.08	4.9065
	6	Chloroethane	0.099	0.121	0.125	0.134	0.145	0.144	0.132	0.128	0.120	0.127	11.03	5.0158
	7	Dichlorofluoromethane	0.467	0.471	0.535	0.501	0.466	0.478	0.445	0.451	0.421	0.471	6.97	5.0571
	8	Trichlorofluoromethane	0.268	0.299	0.314	0.324	0.342	0.336	0.317	0.306	0.293	0.311	7.30	5.3898
4	9	Acrolein	0.027	0.031	0.035	0.037	0.037	0.039	0.035	0.037	0.033	0.035	10.79	5.9442
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.199	0.190	0.232	0.210	0.199	0.202	0.192	0.197	0.189	0.201	6.58	5.9525
4	11	Acetone	0.079	0.076	0.073	0.075	0.066	0.069	0.064	0.067	0.062	0.070	8.21	6.0203
	12	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	13	1,1-Dichloroethene	0.358	0.373	0.444	0.408	0.391	0.392	0.370	0.370	0.346	0.383	7.65	6.2371
5	14	tert-Butyl alcohol	0.021	0.023	0.026	0.026	0.023	0.024	0.023	0.024	0.021	0.024	7.53	6.2785
	15	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	0.312	0.333	0.415	0.438	0.438	0.439	0.419	0.422	0.395	0.401	11.76	6.7022
	17	Methylene chloride	0.531	0.477	0.491	0.461	0.421	0.430	0.406	0.403	0.381	0.444	10.99	6.8660
5	18	Acrylonitrile	0.079	0.084	0.089	0.095	0.089	0.090	0.082	0.087	0.078	0.086	6.58	6.9835
	19	Carbon disulfide	1.095	1.112	1.258	1.207	1.136	1.128	1.065	1.088	1.009	1.122	6.61	6.9967
	20	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	21	tert-Butyl methyl ether (MTBE)	0.537	0.574	0.661	0.646	0.604	0.607	0.576	0.607	0.559	0.597	6.69	7.0017
	22	trans-1,2-Dichloroethene	0.382	0.411	0.480	0.465	0.445	0.438	0.421	0.427	0.407	0.431	6.99	7.2417
	23	Isopropyl ether (DIPE)	0.941	0.971	1.131	1.109	1.053	1.061	1.006	1.069	0.996	1.037	6.12	7.5330
	24	Vinyl acetate	0.425	0.402	0.530	0.531	0.525	0.563	0.554	0.610	0.578	0.524	13.05	7.6836
	25	1,1-Dichloroethane	0.553	0.553	0.622	0.599	0.559	0.554	0.513	0.529	0.507	0.554	6.71	7.7763
	26	tert-Butyl ethyl ether (ETBE)	0.709	0.757	0.867	0.839	0.796	0.801	0.779	0.809	0.758	0.791	5.94	8.0510
4	27	2-Butanone	0.122	0.115	0.117	0.133	0.127	0.132	0.125	0.136	0.131	0.126	5.76	8.2380
	28	2,2-Dichloropropane	0.362	0.366	0.418	0.397	0.375	0.370	0.352	0.365	0.348	0.373	5.96	8.4896
	29	cis-1,2-Dichloroethene	0.478	0.423	0.514	0.548	0.524	0.520	0.493	0.461	0.423	0.487	9.16	8.5541
	30	Chloroform	0.521	0.539	0.616	0.591	0.565	0.563	0.533	0.543	0.522	0.555	5.82	8.7577
	31	Bromochloromethane	0.285	0.302	0.349	0.333	0.306	0.309	0.295	0.288	0.277	0.305	7.63	8.9960
	32	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	33	1,1,1-Trichloroethane	0.402	0.403	0.462	0.431	0.417	0.413	0.394	0.403	0.382	0.412	5.69	9.2939
	34	1,1-Dichloropropene	0.112	0.129	0.155	0.151	0.141	0.144	0.136	0.139	0.129	0.137	9.50	9.4858
	35	tert-Amyl methyl ether (TAME)	0.675	0.722	0.842	0.820	0.770	0.785	0.755	0.788	0.755	0.768	6.49	9.5488
4	36	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	37	Carbon tetrachloride	0.337	0.339	0.400	0.370	0.356	0.361	0.342	0.347	0.334	0.354	5.90	9.6563
	38	1,2-Dichloroethane-d4	0.249	0.275	0.275	0.280	0.313	0.303	0.276	0.272	0.250	0.277	7.61	9.6811
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	15.6936
	40	1,2-Dichloroethane	0.363	0.371	0.424	0.413	0.374	0.371	0.357	0.363	0.329	0.374	7.68	9.8003
	41	Benzene	1.419	1.315	1.465	1.453	1.326	1.331	1.274	1.322	------	1.363	5.26	9.8750
	42	Trichloroethene	0.343	0.347	0.397	0.394	0.366	0.380	0.364	0.378	0.360	0.370	5.11	10.7113
	43	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	44	1,2-Dichloropropane	0.412	0.385	0.447	0.444	0.408	0.414	0.397	0.400	0.378	0.409	5.79	10.9612
	45	Bromodichloromethane	0.432	0.447	0.503	0.506	0.459	0.472	0.453	0.464	0.443	0.464	5.53	11.3501
	46	Dibromomethane	0.234	0.245	0.278	0.280	0.251	0.253	0.242	0.248	0.229	0.251	6.99	11.4858
	47	2-Chloroethyl vinyl ether	------	0.049	0.057	0.063	0.069	0.078	0.078	0.096	0.095	0.073	23.09	11.6721
	48	4-Methyl-2-pentanone	0.305	0.290	0.290	0.334	0.317	0.333	0.314	0.343	0.312	0.315	5.92	11.7175
	49	cis-1,3-Dichloropropene	0.417	0.437	0.505	0.518	0.484	0.509	0.503	0.525	0.494	0.488	7.57	12.1826
	50	Toluene-d8	------	1.135	1.140	1.221	1.339	1.286	1.219	1.223	------	1.223	5.98	12.6623
	51	Toluene	1.451	1.388	1.539	1.546	1.414	1.411	1.368	1.399	------	1.440	4.71	12.8112
	52	Ethyl methacrylate	0.234	0.278	0.328	0.359	0.348	0.369	0.360	0.388	------	0.333	15.59	12.8726
	53	trans-1,3-Dichloropropene	0.306	0.321	0.386	0.416	0.387	0.405	0.392	0.417	------	0.379	11.16	13.0346

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or 2/12/08

4	54	2-Hexanone	0.186	0.161	0.164	0.191	0.185	0.208	0.202	0.223	0.219	0.193	11.30	13.2476
	55	1,1,2-Trichloroethane	0.283	0.302	0.328	0.339	0.304	0.310	0.295	0.306	0.287	0.306	5.88	13.3750
	56	1,3-Dichloropropane	0.478	0.478	0.532	0.551	0.499	0.510	0.497	0.511	0.483	0.504	4.91	13.8500
	57	Tetrachloroethene	0.268	0.265	0.286	0.293	0.267	0.269	0.259	0.265	0.252	0.269	4.82	14.0767
	58	Dibromochloromethane	0.325	0.337	0.381	0.393	0.362	0.376	0.363	0.385	0.367	0.366	6.14	14.4921
	59	1,2-Dibromoethane	0.291	0.316	0.363	0.371	0.341	0.349	0.337	0.359	0.347	0.342	7.26	14.9257
	60	1-Chlorohexane	0.436	0.454	0.531	0.561	0.558	0.563	0.547	0.562	0.542	0.528	9.18	15.0333
	61	Chlorobenzene	0.919	0.900	1.009	1.013	0.937	0.958	0.919	0.938	------	0.949	4.40	15.7752
	62	1,1,1,2-Tetrachloroethane	0.284	0.294	0.333	0.334	0.306	0.309	0.297	0.302	------	0.307	5.80	15.8181
	63	Ethylbenzene	1.472	1.458	1.648	1.682	1.566	1.612	1.548	1.547	------	1.567	5.02	15.8181
2	64	m-Xylene & p-Xylene	1.106	1.103	1.243	1.279	1.171	1.217	1.158	------	------	1.183	5.68	15.9816
	65	o-Xylene	1.143	1.152	1.277	1.326	1.211	1.289	1.230	1.274	1.153	1.228	5.53	16.9916
	66	Styrene	0.749	0.765	0.919	0.954	0.926	0.994	0.963	1.009	0.949	0.914	10.27	17.0561
	67	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	22.4738
	68	Isopropylbenzene	4.240	4.216	4.814	4.508	4.283	4.209	3.991	3.969	------	4.279	6.42	17.7823
	69	Bromoform	0.601	0.605	0.723	0.675	0.624	0.592	0.562	0.582	------	0.621	8.58	17.9629
	70	1,1,2,2-Tetrachloroethane	1.343	1.334	1.533	1.408	1.244	1.212	1.137	1.169	1.143	1.280	10.51	18.1847
	71	4-Bromofluorobenzene	1.345	1.218	1.211	1.214	1.323	1.237	------	------	------	1.258	4.78	18.4392
	72	1,2,3-Trichloropropane	0.216	0.233	0.261	0.251	0.207	0.197	0.192	0.197	0.174	0.214	13.59	18.5554
	73	trans-1,4-Dichloro-2-butene	------	0.133	0.163	0.161	0.159	0.167	0.164	0.180	0.177	0.163	8.78	18.6610
	74	n-Propylbenzene	4.663	4.875	5.741	5.404	5.360	5.343	5.141	4.981	------	5.188	6.62	18.7542
	75	Bromobenzene	0.980	1.001	1.128	1.042	0.976	0.947	0.895	0.909	------	0.985	7.63	18.9907
	76	1,3,5-Trimethylbenzene	3.020	2.934	3.555	3.395	3.293	3.259	3.119	3.158	2.943	3.186	6.58	19.1363
	77	2-Chlorotoluene	3.567	3.270	3.561	3.290	3.348	3.168	2.859	2.889	2.903	3.206	8.55	19.2736
	78	4-Chlorotoluene	2.695	2.848	3.244	3.069	2.677	2.706	2.726	2.742	2.445	2.795	8.40	19.3746
	79	tert-Butylbenzene	2.601	2.606	3.033	2.927	2.827	2.831	2.680	2.686	2.566	2.751	5.89	20.0365
	80	1,2,4-Trimethylbenzene	2.589	2.691	3.190	3.131	3.083	3.054	2.969	3.031	2.881	2.958	6.83	20.1524
	81	sec-Butylbenzene	3.681	3.756	4.567	4.444	4.595	4.541	4.417	4.561	------	4.320	8.72	20.5844
	82	p-Isopropyltoluene	2.141	2.299	2.848	2.857	3.058	3.170	3.088	3.283	------	2.843	14.54	20.9177
	83	1,3-Dichlorobenzene	1.684	1.640	1.905	1.810	1.744	1.750	1.641	1.723	1.706	1.734	4.83	21.2758
	84	1,4-Dichlorobenzene	1.518	1.564	1.823	1.715	1.647	1.667	1.600	1.677	1.649	1.651	5.36	21.5373
	85	n-Butylbenzene	1.438	1.605	2.113	2.259	2.605	2.916	2.800	3.262	------	2.375	26.94	21.9975
	86	1,2-Dichlorobenzene	1.571	1.506	1.745	1.646	1.576	1.576	1.514	1.579	1.548	1.585	4.59	22.5466
	87	1,2-Dibromo-3-chloropropane	0.087	0.106	0.148	0.151	0.151	0.154	0.147	0.168	0.168	0.142	19.23	24.6302
	88	1,2,4-Trichlorobenzene	0.357	0.375	0.488	0.492	0.548	0.618	0.600	0.726	0.782	0.554	26.06	27.0432
	89	Hexachlorobutadiene	0.248	0.247	0.323	0.319	0.351	0.387	0.372	0.411	0.430	0.343	19.08	27.3924
	90	Naphthalene	0.647	0.598	0.764	0.824	0.967	1.142	1.143	1.438	1.562	1.010	33.63	27.7929
	91	1,2,3-Trichlorobenzene	0.325	0.343	0.428	0.428	0.466	0.522	0.506	0.598	0.636	0.472	22.23	28.4698

Spike Amount = Nominal Amount * M
Ave_%RSD : 9.1 Max_%RSD : 33.6

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
4	Vinyl chloride	0.00692	0.15749	0.9827*
47	2-Chloroethyl vinyl ether	-0.00742	0.09175	0.9954
52	Ethyl methacrylate	-0.00783	0.37701	0.9993
85	n-Butylbenzene	-0.11897	3.04198	0.9958
87	1,2-Dibromo-3-chloropropane	-0.00432	0.16381	0.9988
88	1,2,4-Trichlorobenzene	-0.03217	0.71499	0.9930*
89	Hexachlorobutadiene	-0.01333	0.40976	0.9978
90	Naphthalene	-0.07805	1.40017	0.9886*
91	1,2,3-Trichlorobenzene	-0.02325	0.58876	0.9948*

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997

2/12/87

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	116	0.00
2	T	Dichlorodifluoromethane	50.000	54.285	-8.6	114	0.00
3	P,T	Chloromethane	50.000	56.283	-12.6	121	-0.01
4	C,T	Vinyl chloride	50.000	49.484	1.0	117	-0.01
5	T	Bromomethane	50.000	52.808	-5.6	119	-0.01
6	T	Chloroethane	50.000	55.465	-10.9	113	-0.01
7	T	Dichlorofluoromethane	50.000	47.741	4.5	112	0.00
8	T	Trichlorofluoromethane	50.000	57.196	-14.4	121	0.00
9	T	Acrolein	200.000	201.489	-0.7	109	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	49.156	1.7	115	0.00
11	T	Acetone	200.000	186.165	6.9	114	0.00
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	60	0.06
13	C,TM	1,1-Dichloroethene	50.000	59.108	-18.2	135	0.00
14	T	tert-Butyl alcohol	250.000	262.606	-5.0	123	-0.01
15	T	Methyl acetate	-1.000	0.000	0.0	71	0.00
16	T	Iodomethane	50.000	51.871	-3.7	110	0.00
17	T	Methylene chloride	50.000	49.726	0.5	122	0.00
18	T	Acrylonitrile	250.000	257.444	-3.0	116	-0.01
19	T	Carbon disulfide	50.000	52.289	-4.6	120	0.00
20	T	Acetonitrile	-1.000	0.000	0.0	107	0.00
21	T	tert-Butyl methyl ether (MT	50.000	48.369	3.3	111	0.00
22	T	trans-1,2-Dichloroethene	50.000	53.736	-7.5	121	0.00
23	T	Isopropyl ether (DIPE)	50.000	47.711	4.6	109	-0.01
24	T	Vinyl acetate	50.000	42.372	15.3	98	0.00
25	P,T	1,1-Dichloroethane	50.000	51.578	-3.2	119	0.00
26	T	tert-Butyl ethyl ether (ETB	50.000	47.902	4.2	111	0.00
27	T	2-Butanone	200.000	206.098	-3.0	120	0.00
28	T	2,2-Dichloropropane	50.000	46.355	7.3	107	0.00
29	T	cis-1,2-Dichloroethene	50.000	47.567	4.9	103	0.00
30	C,T	Chloroform	50.000	49.113	1.8	112	0.00
31	T	Bromochloromethane	50.000	51.125	-2.3	119	0.00
32	T	Cyclohexane	-1.000	0.000	0.0	15	-0.03
33	T	1,1,1-Trichloroethane	50.000	49.430	1.1	113	0.00
34	T	1,1-Dichloropropene	50.000	51.242	-2.5	116	0.00
35	T	tert-Amyl methyl ether (TAM	50.000	48.916	2.2	113	0.00
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	125	0.00
37	T	Carbon tetrachloride	50.000	50.690	-1.4	117	-0.01
38	S	1,2-Dichloroethane-d4	50.000	47.859	4.3	98	0.00
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	113	0.00
40	T	1,2-Dichloroethane	50.000	48.947	2.1	110	0.00

(#) = Out of Range

2045

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	54.058	-8.1	125	0.00
42	M,T	Trichloroethene	50.000	52.260	-4.5	119	0.00
43	T	Methylcyclohexane	-1.000	0.000	0.0	128	0.00
44	C,T	1,2-Dichloropropane	50.000	50.501	-1.0	114	0.00
45	T	Bromodichloromethane	50.000	49.499	1.0	113	0.00
46	T	Dibromomethane	50.000	49.986	0.0	113	0.00
47	T	2-Chloroethyl vinyl ether	50.000	43.744	12.5	119	-0.01
48	T	4-Methyl-2-pentanone	200.000	207.809	-3.9	116	0.00
49	T	cis-1,3-Dichloropropene	50.000	54.224	-8.4	123	0.00
50	S	Toluene-d8	50.000	49.772	0.5	102	0.00
51	C,TM	Toluene	50.000	49.389	1.2	113	0.00
52	T	Ethyl methacrylate	50.000	48.539	2.9	116	0.00
53	T	trans-1,3-Dichloropropene	50.000	54.432	-8.9	120	0.00
54	T	2-Hexanone	200.000	209.396	-4.7	123	0.00
55	T	1,1,2-Trichloroethane	50.000	48.634	2.7	110	0.00
56	T	1,3-Dichloropropane	50.000	49.986	0.0	114	0.00
57	T	Tetrachloroethene	50.000	50.941	-1.9	116	0.00
58	T	Dibromochloromethane	50.000	50.227	-0.5	114	0.00
59	T	1,2-Dibromoethane	50.000	50.638	-1.3	114	0.00
60	T	1-Chlorohexane	50.000	50.448	-0.9	108	0.00
61	P,M	Chlorobenzene	50.000	50.707	-1.4	116	0.00
62	T	1,1,1,2-Tetrachloroethane	50.000	49.950	0.1	113	0.00
63	C,T	Ethylbenzene	50.000	51.079	-2.2	115	0.00
64	T	m-Xylene & p-Xylene	100.000	100.201	-0.2	114	-0.01
65	T	o-Xylene	50.000	50.020	-0.0	114	0.00
66	T	Styrene	50.000	52.795	-5.6	117	0.00
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	119	-0.01
68	T	Isopropylbenzene	50.000	47.813	4.4	113	0.00
69	P,T	Bromoform	50.000	48.380	3.2	114	0.00
70	P,T	1,1,2,2-Tetrachloroethane	50.000	47.660	4.7	116	0.00
71	S	4-Bromofluorobenzene	50.000	46.192	7.6	104	0.00
72	T	1,2,3-Trichloropropane	50.000	48.387	3.2	119	0.00
73	T	trans-1,4-Dichloro-2-butene	50.000	52.139	-4.3	127	0.00
74	T	n-Propylbenzene	50.000	49.025	2.0	113	0.00
75	T	Bromobenzene	50.000	48.222	3.6	115	0.00
76	T	1,3,5-Trimethylbenzene	50.000	49.887	0.2	115	-0.01
77	T	2-Chlorotoluene	50.000	45.831	8.3	104	0.00
78	T	4-Chlorotoluene	50.000	49.598	0.8	123	-0.01
79	T	tert-Butylbenzene	50.000	49.742	0.5	115	0.00
80	T	1,2,4-Trimethylbenzene	50.000	50.652	-1.3	115	0.00

(#) = Out of Range

2/12/08

2046

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	50.285	-0.6	112	0.00
82	T	p-Isopropyltoluene	50.000	52.720	-5.4	116	0.00
83	T	1,3-Dichlorobenzene	50.000	48.342	3.3	114	0.00
84	T	1,4-Dichlorobenzene	50.000	48.878	2.2	116	0.00
85	T	n-Butylbenzene	50.000	43.936	12.1	116	0.00
86	T	1,2-Dichlorobenzene	50.000	47.375	5.3	113	-0.01
87	T	1,2-Dibromo-3-chloropropane	50.000	46.360	7.3	116	-0.01
88	T	1,2,4-Trichlorobenzene	50.000	46.822	6.4	114	-0.01
89	T	Hexachlorobutadiene	50.000	41.814	16.4	111	0.00
90	T	Naphthalene	50.000	48.936	2.1	124	0.00
91	T	1,2,3-Trichlorobenzene	50.000	46.100	7.8	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

er 2/12/07
2047

DAILY CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D181
Lab File ID: RDC418
BFB Injection Date : 04/19/07
Instrument ID: T-067
BFB Injection Time : 13:55
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.19
75	30.0 - 60.0% of mass 95	42.71
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.90
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	65.81
175	5.0 - 9.0% of mass 174	4.80(7.3)1
176	95.0 - 101.0% of mass 174	63.74(96.9)1
177	5.0 - 9.0% of mass 176	3.97(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV067B07189	RDC419	04/19/07	14:32
2	MBLK1S	V067D37Q	RDC424	04/19/07	18:51
3	LCS1S	V067D37L	RDC421	04/19/07	17:00
4	LCD1S	V067D37C	RDC422	04/19/07	17:37
5	C22-HSAS26-15-16.5'	D181-09	RDC428	04/19/07	21:19
6	C22-HSAS26-20-21.5'	D181-10	RDC429	04/19/07	21:57
7	C22-HSAS26-35-36.5'	D181-11	RDC430	04/19/07	22:33
8	C22-HSAS26-35-36.5'MS	D181-11M	RDC431	04/19/07	23:11
9	C22-HSAS26-35-36.5'MSD	D181-11S	RDC432	04/19/07	23:47

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBC079
Instrument ID: T-067
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D181
Date Analyzed: 02/07/07
Time Analyzed: 21:32
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3224417	10.14	3011586	15.68	1040569	22.47
	UPPER LIMIT	6448834	10.64	6023172	16.18	2081138	22.97
	LOWER LIMIT	1612209	9.64	1505793	15.18	520285	21.97
	SAMPLE ID						
1	VSTD050	2977556	10.16	2775204	15.72	944215	22.50
2	MBLK1S	3710563	10.16	3072684	15.72	883091	22.51
3	LCS1S	3153040	10.16	2823828	15.71	942249	22.51
4	LCD1S	3328888	10.16	2955009	15.72	984916	22.51
5	C22-HSAS26-15-16.5'	3271384	10.16	2832220	15.72	800404	22.51
6	C22-HSAS26-20-21.5'	3333857	10.16	2906723	15.72	823803	22.50
7	C22-HSAS26-35-36.5'	3247313	10.16	2748864	15.71	793501	22.51
8	C22-HSAS26-35-36.5'MS	3211612	10.16	2978303	15.72	991493	22.50
9	C22-HSAS26-35-36.5'MSD	3291117	10.16	3047657	15.72	1007087	22.49

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\data\07D19\RDC419.D Vial: 3
Acq On : 19 Apr 2007 2:32 pm Operator: CGM
Sample : CVO67B07189 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	92	0.02
2	T	Dichlorodifluoromethane	50.000	53.332	-6.7	89	0.02
3	P,T	Chloromethane	50.000	41.653	16.7	71	0.02
4	C,T	Vinyl chloride	50.000	48.173	3.7	91	0.02
5	T	Bromomethane	50.000	46.589	6.8	84	0.00
6	T	Chloroethane	50.000	49.352	1.3	80	0.00
7	T	Dichlorofluoromethane	50.000	50.414	-0.8	94	0.02
8	T	Trichlorofluoromethane	50.000	56.134	-12.3	94	0.02
9	T	Acrolein	200.000	182.768	8.6	79	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	49.116	1.8	92	0.02
11	T	Acetone	200.000	212.372	-6.2	104	0.02
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	114	0.02
13	C,TM	1,1-Dichloroethene	50.000	51.090	2.2	93	0.02
14	T	tert-Butyl alcohol	250.000	176.788	29.3#	66	0.02
15	T	Methyl acetate	-1.000	0.000	0.0	131	0.02
16	T	Iodomethane	50.000	43.678	12.6	74	0.02
17	T	Methylene chloride	50.000	49.518	1.0	97	0.00
18	T	Acrylonitrile	250.000	270.184	-8.1	97	0.00
19	T	Carbon disulfide	50.000	39.851	20.3#	73	0.02
20	T	Acetonitrile	-1.000	0.000	0.0	105	0.00
21	T	tert-Butyl methyl ether (MT	50.000	46.191	7.6	84	0.02
22	T	trans-1,2-Dichloroethene	50.000	49.889	0.2	89	0.04
23	T	Isopropyl ether (DIPE)	50.000	50.908	-1.8	93	0.00
24	T	Vinyl acetate	50.000	52.196	-4.4	96	0.00
25	P,T	1,1-Dichloroethane	50.000	52.405	-4.8	96	0.02
26	T	tert-Butyl ethyl ether (ETB	50.000	45.687	8.6	84	0.02
27	T	2-Butanone	200.000	204.674	-2.3	94	0.02
28	T	2,2-Dichloropropane	50.000	45.021	10.0	83	0.02
29	T	cis-1,2-Dichloroethene	50.000	50.929	-1.9	87	0.04
30	C,T	Chloroform	50.000	54.322	-8.6	98	0.02
31	T	Bromochloromethane	50.000	50.769	-1.5	94	0.02
32	T	Cyclohexane	-1.000	0.000	0.0	97	0.02
33	T	1,1,1-Trichloroethane	50.000	49.474	1.1	90	0.02
34	T	1,1-Dichloropropene	50.000	50.876	-1.8	92	0.00
35	T	tert-Amyl methyl ether (TAM	50.000	42.677	14.6	79	0.02
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	92	0.02
37	T	Carbon tetrachloride	50.000	50.677	-1.4	93	0.00
38	S	1,2-Dichloroethane-d4	50.000	57.530	-15.1	94	0.02
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	92	0.04
40	T	1,2-Dichloroethane	50.000	55.439	-10.9	102	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\data\07D19\RDC419.D Vial: 3
Acq On : 19 Apr 2007 2:32 pm Operator: CGM
Sample : CVO67B07189 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	48.488	3.0	92	0.02
42	M,T	Trichloroethene	50.000	48.505	3.0	90	0.02
43	T	Methylcyclohexane	-1.000	0.000	0.0	103	0.02
44	C,T	1,2-Dichloropropane	50.000	50.433	-0.9	93	0.02
45	T	Bromodichloromethane	50.000	53.518	-7.0	100	0.02
46	T	Dibromomethane	50.000	49.953	0.1	92	0.02
47	T	2-Chloroethyl vinyl ether	50.000	19.628	60.7#	38	0.02
48	T	4-Methyl-2-pentanone	200.000	190.903	4.5	87	0.04
49	T	cis-1,3-Dichloropropene	50.000	49.529	0.9	92	0.02
50	S	Toluene-d8	50.000	49.140	1.7	83	0.02
51	C,TM	Toluene	50.000	49.806	0.4	93	0.02
52	T	Ethyl methacrylate	50.000	44.200	11.6	86	0.02
53	T	trans-1,3-Dichloropropene	50.000	50.025	-0.0	90	0.02
54	T	2-Hexanone	200.000	177.133	11.4	85	0.02
55	T	1,1,2-Trichloroethane	50.000	52.176	-4.4	97	0.02
56	T	1,3-Dichloropropane	50.000	50.598	-1.2	94	0.02
57	T	Tetrachloroethene	50.000	48.214	3.6	90	0.02
58	T	Dibromochloromethane	50.000	51.528	-3.1	96	0.02
59	T	1,2-Dibromoethane	50.000	50.035	-0.1	92	0.02
60	T	1-Chlorohexane	50.000	49.247	1.5	86	0.02
61	P,M	Chlorobenzene	50.000	50.012	-0.0	93	0.04
62	T	1,1,1,2-Tetrachloroethane	50.000	51.108	-2.2	95	0.02
63	C,T	Ethylbenzene	50.000	50.407	-0.8	93	0.02
64	T	m-Xylene & p-Xylene	100.000	99.886	0.1	93	0.02
65	T	o-Xylene	50.000	49.742	0.5	93	0.02
66	T	Styrene	50.000	48.888	2.2	89	0.04
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	91	0.02
68	T	Isopropylbenzene	50.000	51.106	-2.2	93	0.02
69	P,T	Bromoform	50.000	51.748	-3.5	93	0.02
70	P,T	1,1,2,2-Tetrachloroethane	50.000	52.056	-4.1	97	0.02
71	S	4-Bromofluorobenzene	50.000	51.454	-2.9	89	0.02
72	T	1,2,3-Trichloropropane	50.000	54.031	-8.1	101	0.02
73	T	trans-1,4-Dichloro-2-butene	50.000	46.615	6.8	87	0.02
74	T	n-Propylbenzene	50.000	51.195	-2.4	90	0.02
75	T	Bromobenzene	50.000	49.164	1.7	90	0.02
76	T	1,3,5-Trimethylbenzene	50.000	51.203	-2.4	90	0.02
77	T	2-Chlorotoluene	50.000	50.556	-1.1	88	0.04
78	T	4-Chlorotoluene	50.000	49.836	0.3	94	0.02
79	T	tert-Butylbenzene	50.000	49.959	0.1	88	0.04
80	T	1,2,4-Trimethylbenzene	50.000	51.175	-2.3	89	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\data\07D19\RDC419.D Vial: 3
Acq On : 19 Apr 2007 2:32 pm Operator: CGM
Sample : CVO67B07189 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	50.753	-1.5	87	0.04
82	T	p-Isopropyltoluene	50.000	48.917	2.2	83	0.04
83	T	1,3-Dichlorobenzene	50.000	48.822	2.4	88	0.04
84	T	1,4-Dichlorobenzene	50.000	48.844	2.3	89	0.04
85	T	n-Butylbenzene	50.000	37.078	25.8#	74	0.02
86	T	1,2-Dichlorobenzene	50.000	48.448	3.1	88	0.02
87	T	1,2-Dibromo-3-chloropropane	50.000	42.373	15.3	81	0.02
88	T	1,2,4-Trichlorobenzene	50.000	41.290	17.4	76	0.02
89	T	Hexachlorobutadiene	50.000	41.962	16.1	86	0.04
90	T	Naphthalene	50.000	35.308	29.4#	66	0.04
91	T	1,2,3-Trichlorobenzene	50.000	42.843	14.3	80	0.04

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\data\07D19\RDC419.D Vial: 3
Acq On : 19 Apr 2007 2:32 pm Operator: CGM
Sample : CVO67B07189 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	92	0.02
2	T	Dichlorodifluoromethane	0.217	0.232	-6.9	89	0.02
3	P,T	Chloromethane	0.258	0.215	16.7	71	0.02
4	C,T	Vinyl chloride	0.202	0.187	7.4	91	0.02
5	T	Bromomethane	0.209	0.194	7.2	84	0.00
6	T	Chloroethane	0.127	0.126	0.8	80	0.00
7	T	Dichlorofluoromethane	0.471	0.475	-0.8	94	0.02
8	T	Trichlorofluoromethane	0.311	0.349	-12.2	94	0.02
9	T	Acrolein	0.035	0.032	8.6	79	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	0.201	0.198	1.5	92	0.02
11	T	Acetone	0.070	0.075	-7.1	104	0.02
12	T	sec-Propyl alcohol	0.000	0.000	0.0	114	0.02
13	C,TM	1,1-Dichloroethene	0.383	0.392	-2.3	93	0.02
14	T	tert-Butyl alcohol	0.024	0.017	29.2#	66	0.02
15	T	Methyl acetate	0.000	0.000	0.0	131	0.02
16	T	Iodomethane	0.401	0.350	12.7	74	0.02
17	T	Methylene chloride	0.444	0.440	0.9	97	0.00
18	T	Acrylonitrile	0.086	0.093	-8.1	97	0.00
19	T	Carbon disulfide	1.122	0.894	20.3#	73	0.02
20	T	Acetonitrile	0.000	0.000	0.0	105	0.00
21	T	tert-Butyl methyl ether (MT	0.597	0.551	7.7	84	0.02
22	T	trans-1,2-Dichloroethene	0.431	0.430	0.2	89	0.04
23	T	Isopropyl ether (DIPE)	1.037	1.056	-1.8	93	0.00
24	T	Vinyl acetate	0.524	0.547	-4.4	96	0.00
25	P,T	1,1-Dichloroethane	0.554	0.581	-4.9	96	0.02
26	T	tert-Butyl ethyl ether (ETB	0.791	0.722	8.7	84	0.02
27	T	2-Butanone	0.126	0.129	-2.4	94	0.02
28	T	2,2-Dichloropropane	0.373	0.336	9.9	83	0.02
29	T	cis-1,2-Dichloroethene	0.487	0.496	-1.8	87	0.04
30	C,T	Chloroform	0.555	0.603	-8.6	98	0.02
31	T	Bromochloromethane	0.305	0.310	-1.6	94	0.02
32	T	Cyclohexane	0.000	0.000	0.0	97	0.02
33	T	1,1,1-Trichloroethane	0.412	0.407	1.2	90	0.02
34	T	1,1-Dichloropropene	0.137	0.140	-2.2	92	0.00
35	T	tert-Amyl methyl ether (TAM	0.768	0.656	14.6	79	0.02
36	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	92	0.02
37	T	Carbon tetrachloride	0.354	0.359	-1.4	93	0.00
38	S	1,2-Dichloroethane-d4	0.277	0.319	-15.2	94	0.02
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	92	0.04
40	T	1,2-Dichloroethane	0.374	0.415	-11.0	102	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\data\07D19\RDC419.D Vial: 3
Acq On : 19 Apr 2007 2:32 pm Operator: CGM
Sample : CVO67B07189 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	M,T	Benzene	1.363	1.322	3.0	92	0.02
42	M,T	Trichloroethene	0.370	0.359	3.0	90	0.02
43	T	Methylcyclohexane	0.000	0.000	0.0	103	0.02
44	C,T	1,2-Dichloropropane	0.409	0.413	-1.0	93	0.02
45	T	Bromodichloromethane	0.464	0.497	-7.1	100	0.02
46	T	Dibromomethane	0.251	0.251	0.0	92	0.02
47	T	2-Chloroethyl vinyl ether	0.073	0.029	60.3#	38#	0.02
48	T	4-Methyl-2-pentanone	0.315	0.301	4.4	87	0.04
49	T	cis-1,3-Dichloropropene	0.488	0.483	1.0	92	0.02
50	S	Toluene-d8	1.223	1.202	1.7	83	0.02
51	C,TM	Toluene	1.440	1.434	0.4	93	0.02
52	T	Ethyl methacrylate	0.333	0.325	2.4	86	0.02
53	T	trans-1,3-Dichloropropene	0.379	0.379	0.0	90	0.02
54	T	2-Hexanone	0.193	0.171	11.4	85	0.02
55	T	1,1,2-Trichloroethane	0.306	0.319	-4.2	97	0.02
56	T	1,3-Dichloropropane	0.504	0.510	-1.2	94	0.02
57	T	Tetrachloroethene	0.269	0.260	3.3	90	0.02
58	T	Dibromochloromethane	0.366	0.377	-3.0	96	0.02
59	T	1,2-Dibromoethane	0.342	0.342	0.0	92	0.02
60	T	1-Chlorohexane	0.528	0.520	1.5	86	0.02
61	P,M	Chlorobenzene	0.949	0.949	0.0	93	0.04
62	T	1,1,1,2-Tetrachloroethane	0.307	0.314	-2.3	95	0.02
63	C,T	Ethylbenzene	1.567	1.579	-0.8	93	0.02
64	T	m-Xylene & p-Xylene	1.183	1.181	0.2	93	0.02
65	T	o-Xylene	1.228	1.222	0.5	93	0.02
66	T	Styrene	0.914	0.894	2.2	89	0.04
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	91	0.02
68	T	Isopropylbenzene	4.279	4.373	-2.2	93	0.02
69	P,T	Bromoform	0.621	0.642	-3.4	93	0.02
70	P,T	1,1,2,2-Tetrachloroethane	1.280	1.333	-4.1	97	0.02
71	S	4-Bromofluorobenzene	1.258	1.295	-2.9	89	0.02
72	T	1,2,3-Trichloropropane	0.214	0.231	-7.9	101	0.02
73	T	trans-1,4-Dichloro-2-butene	0.163	0.152	6.7	87	0.02
74	T	n-Propylbenzene	5.188	5.312	-2.4	90	0.02
75	T	Bromobenzene	0.985	0.968	1.7	90	0.02
76	T	1,3,5-Trimethylbenzene	3.186	3.263	-2.4	90	0.02
77	T	2-Chlorotoluene	3.206	3.242	-1.1	88	0.04
78	T	4-Chlorotoluene	2.795	2.785	0.4	94	0.02
79	T	tert-Butylbenzene	2.751	2.748	0.1	88	0.04
80	T	1,2,4-Trimethylbenzene	2.958	3.027	-2.3	89	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\data\07D19\RDC419.D Vial: 3
Acq On : 19 Apr 2007 2:32 pm Operator: CGM
Sample : CVO67B07189 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	4.320	4.385	-1.5	87	0.04
82	T	p-Isopropyltoluene	2.843	2.781	2.2	83	0.04
83	T	1,3-Dichlorobenzene	1.734	1.693	2.4	88	0.04
84	T	1,4-Dichlorobenzene	1.651	1.613	2.3	89	0.04
85	T	n-Butylbenzene	2.375	2.137	10.0	74	0.02
86	T	1,2-Dichlorobenzene	1.585	1.536	3.1	88	0.02
87	T	1,2-Dibromo-3-chloropropane	0.142	0.135	4.9	81	0.02
88	T	1,2,4-Trichlorobenzene	0.554	0.461	16.8	76	0.02
89	T	Hexachlorobutadiene	0.343	0.331	3.5	86	0.04
90	T	Naphthalene	1.010	0.701	30.6#	66	0.04
91	T	1,2,3-Trichlorobenzene	0.472	0.410	13.1	80	0.04

2056

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/19/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -028**

BATCH CV067B07189

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RDC417	BFB67D36	2ML				
02	418	37 ✓					13:55
03	419	CV067B07189 ✓	4/5/1ML				
04	420	190					
05	421	V067D37L ✓	1.6/2/.4ML	1.0			
06	422	C ✓					
07	423	B	5.0g				
08	424	Q ✓					
09	425	VPD002SB					1x 55 high
10	426	07D122-01	6.0g	0.83		✓	1x
11	427	07D123-01	5.0g	1.0		✓	1x
12	428	07D181-09 ✓ CGM 4/27	5.3g ~~5.6g~~	0.94		✓	
13	429	-10 ✓	4.7g	1.1		✓	
14	430	-11 ✓	4.3g	1.2		✓	
15	431	-11M ✓	3.7g	1.4		✓	
16	432	-11S ✓	3.4g	1.5		✓	23:47
17	433	V067D37X	1.6/2/.4ML	1.0			
18	434	Y					
19							
20							
21							
22							
23							
24							
25							CGM 4/19/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	V067B07

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVK-11-58-3	250
DCC	-69-2	50/250
DCC	69-1	250
BFB	CGM 4/19/07 ~~70~~ -58-1	50
IS/SURR.	-70-3	250
LCS	-59-2	250
LCS	-63-2	50-1000
LCS	-69-3	250

SOLVENT	ID
METHANOL	
DATA FILE	07D19

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 4/20/07

Disposed By: CGM

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EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 2/7/07 ☑ 5-ml Purge ☐ 25-ml Purge

Book # A67 -027

BATCH V067B075

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RBC074	BFB67B06 ✓	2µL				Ket/AA 8260 TBA
02	075	V067B071 ✓	.16/.2/.04µL				8 2 10 ppb
03	076	2 ✓	.4/.5/.1µL				20 5 25
04	077	3 ✓	.8/1/.2µL				40 10 50
05	078	4 ✓	1.6/2/.4µL				80 20 100
06	079	5 ✓	4/5/1µL				200 50 250
07	080	6 ✓	6.4/1.6/8µL				320 80 400
08	081	7 ✓	8/10/2µL				400 100 500
09	082	8 ✓	16/20/4µL				800 200 1000
10	083	9 ✓	24/30/6µL				1200 300 1500
11	084	Rinse					
12	085	V067B06B					
13	086	IV067B071 ✓	4/5/1µL				200 50 250
14	087	2	4/5/1µL				200 50 250
15	088	Rinse					
16	089	Rinse					
17							
18							
19							
20							
21							
22							
23							
24							
25							CGM 2/7/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	V067B07

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SVIC-11-63-1	250
DCC 8260	SVIC-11-60-1	50/250
DCC Gases	SVIC-11-60-3	250
BFB	SVIC-11-49-3	50
IS/SURR.	SVIC-11-62-2	250
LCS Ket/AA	SVIC-11-59-3	250
LCS 8260	SVIC-11-63-2	50/250
LCS Gases	SVIC-11-61-3	250
SOLVENT IS	SVIC-11-62-1 ID	250
METHANOL SS	SVIC-11-62-3	250
DATA FILE	07B07	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 2/8/07

Disposed By: CGM

2059

EXTRACTION LOGS

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-016

Matrix: SOIL STARTING DATE 4/19/07 11:45 Ending Date 4/19/07 12:10

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.
BLANK	30.6	35.6	5.0	1.00
07D144-17N	31.8	36.0	4.2	1.19
07D144-18N	31.8	36.1	4.3	1.16
07D144-19N	31.7	36.3	4.6	1.09
07D144-20N	31.4	36.0	4.6	1.09
07D176-01	31.7	36.6	4.9	1.02
07D176-02	31.5	35.5	4.0	1.25
07D176-03	31.6	36.5	4.9	1.02
07D176-04	31.6	37.0	5.4	0.93
07D176-05	31.6	36.0	4.4	1.14
07D181-09	31.6	36.9	5.3	0.94
07D181-10	31.5	36.2	4.7	1.06
07D181-11	31.6	35.9	4.3	1.16
07D181-11M	31.6	35.3	3.7	1.35
07D181-11S	31.8	35.2	3.4	1.47

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20		
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML VOLUME METRIC FLASK.

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: CGM

Extract Received By: CM

Extract Location N/A

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D181

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D181

METHOD 314.0
PERCHLORATE

One (1) water and nine (9) soil samples were received on 04/17/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Sample D181-11 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   Sample D181-11 was spiked. %Recovery was within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D181

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD011WB	ND	1	NA	2.00	0.500	04/20/0704:11	NA	JD19032	JD19031	PCD011W	NA	NA
LCS1W	PCD011WL	24.3	1	NA	2.00	0.500	04/20/0704:52	NA	JD19034	JD19031	PCD011W	NA	NA
LCD1W	PCD011WC	24.6	1	NA	2.00	0.500	04/20/0705:12	NA	JD19035	JD19031	PCD011W	NA	NA
LEB-041607	D181-02	ND	1	NA	2.00	0.500	04/20/0705:32	NA	JD19036	JD19031	PCD011W	04/16/0708:30	04/17/07

C003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D181

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD010SB	ND	1	NA	20.0	10.0	04/19/0717:52	04/19/0712:30	JD19002	JD19001	PCD010S	NA	04/19/07
LCS1S	PCD010SL	244	1	NA	20.0	10.0	04/19/0718:33	04/19/0712:30	JD19004	JD19001	PCD010S	NA	04/19/07
LCD1S	PCD010SC	244	1	NA	20.0	10.0	04/19/0718:53	04/19/0712:30	JD19005	JD19001	PCD010S	NA	04/19/07
B19-HSAS17-5.6.5'	D181-03	ND	1	6.3	21.3	10.7	04/19/0719:24	04/19/0712:30	JD19006	JD19001	PCD010S	04/16/0708:52	04/17/07
B19-HSAS17-10-11.5'	D181-04	63.8	1	4.2	20.9	10.4	04/19/0719:45	04/19/0712:30	JD19007	JD19001	PCD010S	04/16/0708:56	04/17/07
B19-HSAS17-20-21.5'	D181-05	213	1	11.1	22.5	11.2	04/19/0720:05	04/19/0712:30	JD19008	JD19001	PCD010S	04/16/0709:12	04/17/07
B19-HSAS1-20-21.5'	D181-08	267	1	17.7	24.3	12.2	04/19/0721:06	04/19/0712:30	JD19011	JD19001	PCD010S	04/16/0710:12	04/17/07
C22-HSAS26-15-16.5'	D181-09	34.1	1	5.5	21.2	10.6	04/19/0721:46	04/19/0712:30	JD19013	JD19012	PCD010S	04/16/0713:24	04/17/07
C22-HSAS26-20-21.5'	D181-10	ND	1	4.1	20.9	10.4	04/19/0722:06	04/19/0712:30	JD19014	JD19012	PCD010S	04/16/0713:32	04/17/07
C22-HSAS26-35-36.5'	D181-11	87.5	1	5.1	21.1	10.5	04/19/0722:27	04/19/0712:30	JD19015	JD19012	PCD010S	04/16/0713:56	04/17/07
C22-HSAS26-35-36.5'DUP	D181-11D	86.8	1	5.1	21.1	10.5	04/19/0722:47	04/19/0712:30	JD19016	JD19012	PCD010S	04/16/0713:56	04/17/07
C22-HSAS26-35-36.5'MS	D181-11M	192	1	5.1	21.1	10.5	04/19/0723:07	04/19/0712:30	JD19017	JD19012	PCD010S	04/16/0713:56	04/17/07
B19-HSAS1-5-6.5'	D181-06	292	2	2.6	41.1	20.5	04/20/0715:39	04/19/0712:30	JD19062	JD19058	PCD010S	04/16/0709:55	04/17/07
B19-HSAS1-10-11.5'	D181-07	470	2	4.4	41.8	20.9	04/20/0715:59	04/19/0712:30	JD19063	JD19058	PCD010S	04/16/0710:00	04/17/07

8001

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD011WB	PCD011WL	PCD011WC		
LAB FILE ID:	JD19032	JD19034	JD19035		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0704:11	04/20/0704:52	04/20/0705:12	DATE RECEIVED:	NA
PREP. BATCH:	PCD011W	PCD011W	PCD011W		
CALIB. REF:	JD19031	JD19031	JD19031		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.3	97	25.0	24.6	98	1	85-115	20

8996

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD010SB	PCD010SL	PCD010SC		
LAB FILE ID:	JD19002	JD19004	JD19005		
DATE EXTRACTED:	04/19/0712:30	04/19/0712:30	04/19/0712:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0717:52	04/19/0718:33	04/19/0718:53	DATE RECEIVED:	04/19/07
PREP. BATCH:	PCD010S	PCD010S	PCD010S		
CALIB. REF:	JD19001	JD19001	JD19001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	244	98	250	244	98	0	85-115	20

8007

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	5.1
DILUTION FACTOR:	1	1		
SAMPLE ID:	C22-HSAS26-35-36.5'			
EMAX SAMP ID:	D181-11	D181-11D		
LAB FILE ID:	JD19015	JD19016		
DATE EXTRACTED:	04/19/0712:30	04/19/0712:30	DATE COLLECTED:	04/16/07 13:56
DATE ANALYZED:	04/19/0722:27	04/19/0722:47	DATE RECEIVED:	04/17/07
PREP. BATCH:	PCD010S	PCD010S		
CALIB. REF:	JD19012	JD19012		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	87.5	86.8	1	20

8008

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D181
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 5.1
DILUTION FACTOR: 1 1
SAMPLE ID: C22-HSAS26-35-36.5'
LAB SAMP ID: D181-11 D181-11M
LAB FILE ID: JD19015 JD19017
DATE EXTRACTED: 04/19/0712:30 04/19/0712:30 DATE COLLECTED: 04/16/07 13:56
DATE ANALYZED: 04/19/0722:27 04/19/0723:07 DATE RECEIVED: 04/17/07
PREP. BATCH: PCD010S PCD010S
CALIB. REF: JD19012 JD19012

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	87.5	105	192	99	80-120

8009

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

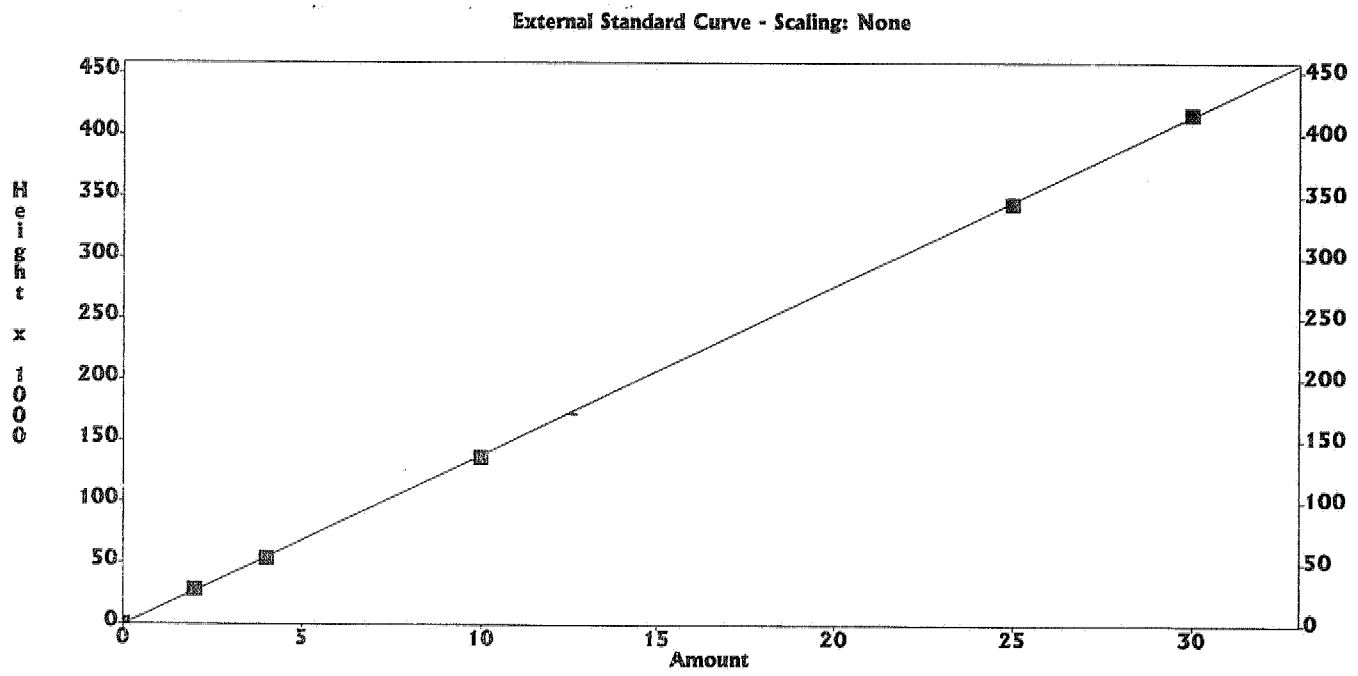
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8012

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4/4-24-07

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD19001	IPCS	P	80.6%	04/19/0717:32	1
JD19002	PCD010SB	P	.000	04/19/0717:52	1
JD19003	MRL	P	96.7%	04/19/0718:12	1
JD19004	PCD010SL	P	24.4	04/19/0718:33	1
JD19005	PCD010SC	P	24.4	04/19/0718:53	1
JD19006	D181-03	P	.000	04/19/0719:24	1
JD19007	D181-04	P	6.11	04/19/0719:45	1
JD19008	D181-05	P	18.9	04/19/0720:05	1
JD19009	D181-06	*	32E	04/19/0720:25	1
JD19010	D181-07	*	46.7E	04/19/0720:45	1
JD19011	D181-08	P	22	04/19/0721:06	1
JD19012	CCV9-30	P	102%	04/19/0721:26	1
JD19013	D181-09	P	3.22	04/19/0721:46	1
JD19014	D181-10	P	.000	04/19/0722:06	1
JD19015	D181-11	P	8.3	04/19/0722:27	1
JD19016	D181-11D	P	8.24	04/19/0722:47	1
JD19017	D181-11M	P	18.2	04/19/0723:07	1
JD19018	D207-01	P	10.3	04/19/0723:28	1
JD19019	D207-02	P	3.52	04/19/0723:48	1
JD19020	D207-03	*	34.1E	04/20/0700:08	1
JD19021	D207-04	P	1.74	04/20/0700:28	1
JD19022	D207-07	*	36.1E	04/20/0700:49	1
JD19023	CCV10-15	P	101%	04/20/0701:09	1
JD19024	D207-08	P	14.1	04/20/0701:29	1
JD19025	D207-09	P	.000	04/20/0701:49	1
JD19026	D207-10	*	40.3E	04/20/0702:10	1
JD19027	D207-11	*	48.3E	04/20/0702:30	1
JD19028	D207-14	P	11.6	04/20/0702:50	1
JD19029	RINSE	P	.000	04/20/0703:10	1
JD19030	CCV11-30	P	102%	04/20/0703:31	1
JD19031	IPCS	P	82.7%	04/20/0703:51	1
JD19032	PCD011WB	P	.000	04/20/0704:11	1
JD19033	MRL	P	95.6%	04/20/0704:31	1
JD19034	PCD011WL	P	24.3	04/20/0704:52	1
JD19035	PCD011WC	P	24.6	04/20/0705:12	1
JD19036	D181-02	P	.000	04/20/0705:32	1
JD19037	D183-01	P	3.28	04/20/0705:52	1
JD19038	D183-02	*	51.4E	04/20/0706:13	1
JD19039	D206-02	P	8.69	04/20/0706:33	1
JD19040	D206-03	P	8.72	04/20/0706:53	1
JD19041	CCV12-15	P	99.6%	04/20/0707:13	1
JD19042	D206-04	P	8.54	04/20/0707:34	1
JD19043	D206-05	P	8.9	04/20/0707:54	1
JD19044	D206-06	P	8.89	04/20/0708:14	1
JD19045	RINSE	P	.000	04/20/0708:34	1
JD19046	RINSE	P	.929	04/20/0708:57	1
JD19047	CCV13-30	P	103%	04/20/0709:18	1
JD19048	D183-02R	*	51.4E	04/20/0709:41	1
JD19049	D183-02	P	.000	04/20/0710:04	2
JD19050	D183-02	P	58.6	04/20/0710:25	2
JD19051	D183-02	P	51.7	04/20/0711:51	2
JD19052	D206-07	P	5.88	04/20/0712:16	1
JD19053	D206-08	P	6.93	04/20/0712:37	1
JD19054	D206-11	P	6.61	04/20/0712:57	1
JD19055	D206-12	P	6.06	04/20/0713:17	1
JD19056	D206-13	P	6.32	04/20/0713:37	1
JD19057	D206-14	P	5.73	04/20/0713:58	1
JD19058	CCV14-15	P	101%	04/20/0714:18	1
JD19059	D206-09	P	8.64	04/20/0714:38	1
JD19060	D206-09M	P	18.2	04/20/0714:58	1
JD19061	D206-09S	P	18.2	04/20/0715:19	1
JD19062	D181-06	P	28.4	04/20/0715:39	2
JD19063	D181-07	P	44.9	04/20/0715:59	2
JD19064	D207-03	P	30.6	04/20/0716:19	2
JD19065	D207-07	P	34.1	04/20/0717:02	2
JD19066	D207-09	P	294	04/20/0717:22	20
JD19067	D207-10	P	39.2	04/20/0717:42	2
JD19068	D207-11	P	48.8	04/20/0718:02	5
JD19069	CCV14-30	P	106%	04/20/0719:35	1
JD19070	IPCS	P	84.4%	04/20/0719:56	1
JD19071	PCD012WB	P	.000	04/20/0720:16	1
JD19072	MRL	P	98.4%	04/20/0720:36	1
JD19073	PCD012WL	P	24.9	04/20/0720:56	1
JD19074	PCD012WC	P	24.9	04/20/0721:17	1

JD19075	D206-15	P	5.16	04/20/0721:37	1
JD19076	D206-16	P	6.03	04/20/0721:57	1
JD19077	D206-17	P	5.98	04/20/0722:17	1
JD19078	D207-05	P	.000	04/20/0722:38	1
JD19079	D207-13	P	.000	04/20/0722:58	1
JD19080	D223-01	P	.000	04/20/0723:18	1
JD19081	CCV15-15	P	103%	04/20/0723:38	1
JD19082	D223-02	P	.000	04/20/0723:59	1
JD19083	D223-03	P	.000	04/21/0700:19	1
JD19084	D223-04	P	.000	04/21/0700:39	1
JD19085	D223-05	P	.000	04/21/0701:00	1
JD19086	D223-06	P	.000	04/21/0701:20	1
JD19087	D223-06D	P	.000	04/21/0701:40	1
JD19088	D223-06M	P	14.7	04/21/0702:00	1
JD19089	D223-07	P	.000	04/21/0702:21	1
JD19090	D223-08	P	.000	04/21/0702:41	1
JD19091	D223-09	P	.000	04/21/0703:01	1
JD19092	CCV16-30	P	106%	04/21/0703:21	1
JD19093	D223-10	P	.000	04/21/0703:42	1
JD19094	D223-11	P	9.4	04/21/0704:02	1
JD19095	D223-12	P	.000	04/21/0704:22	1
JD19096	D223-13	P	15.5	04/21/0704:42	1
JD19097	D223-14	*	53.8E	04/21/0705:03	1
JD19098	D223-15	P	1.17	04/21/0705:23	1
JD19099	RINSE	P	.000	04/21/0705:43	1
JD19100	CCV17-15	P	102%	04/21/0706:03	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02 - 18

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JD17
Method File: IC57d17.met
Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev.#
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

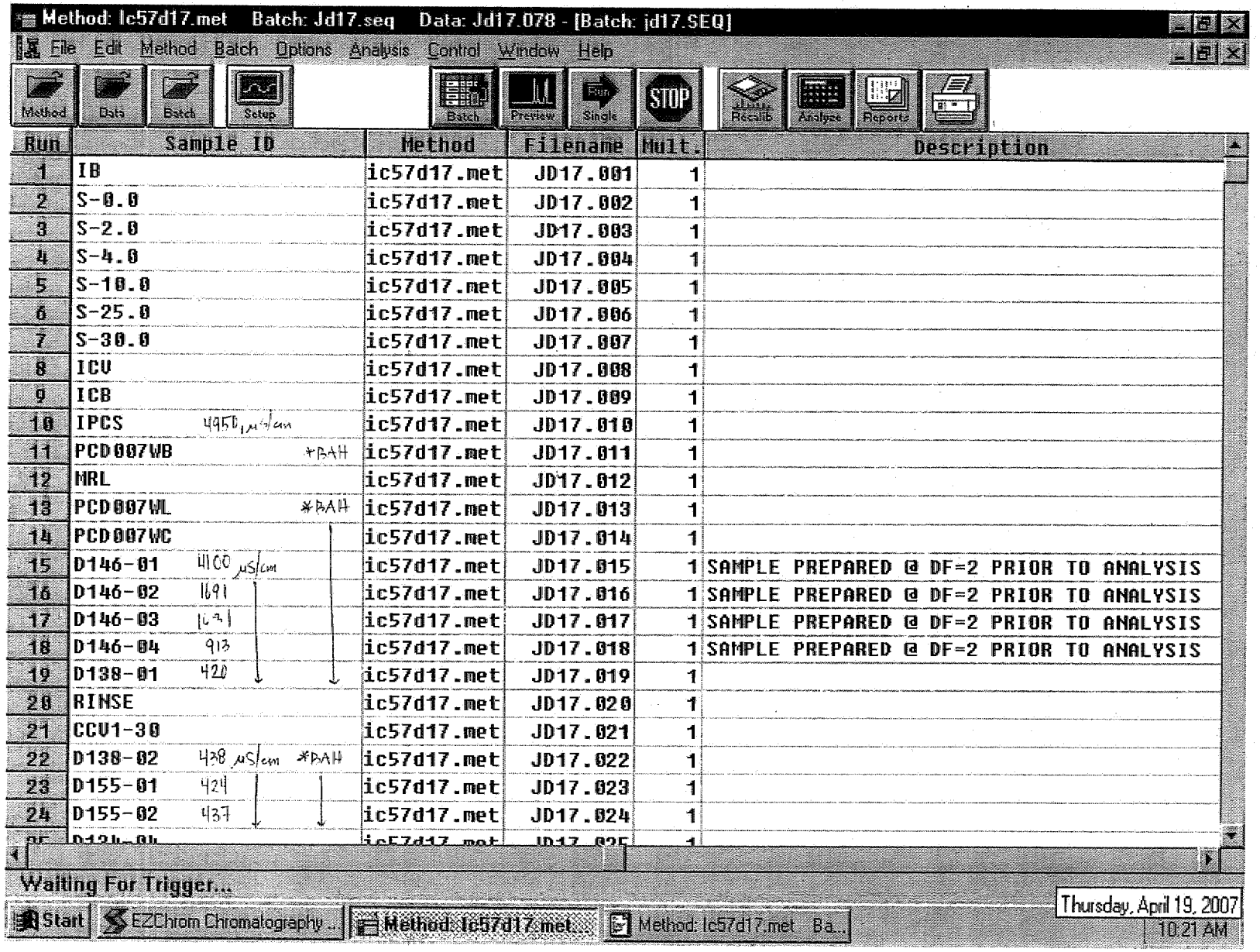
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	938
LCS	936
MS	931
IPC	934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

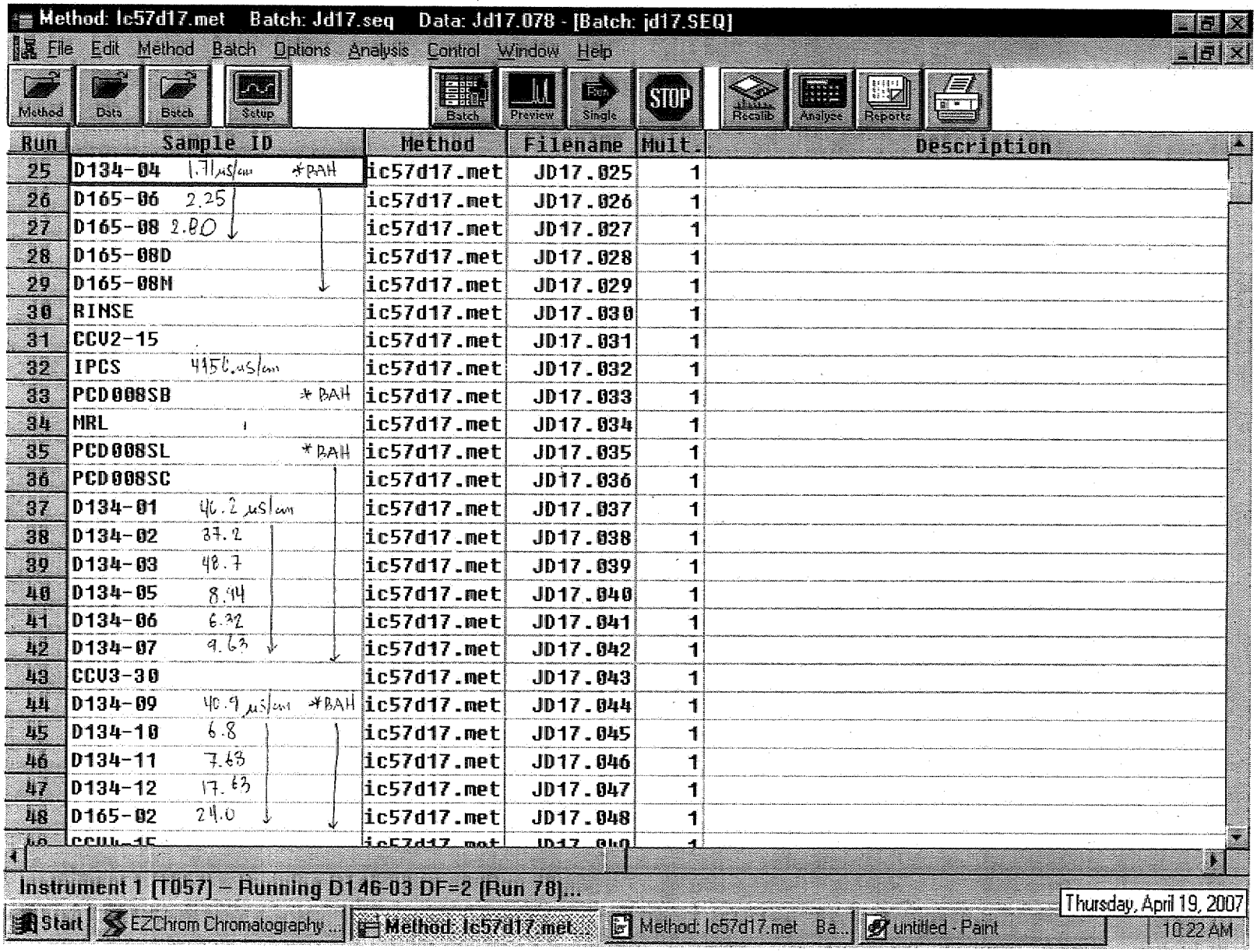
CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

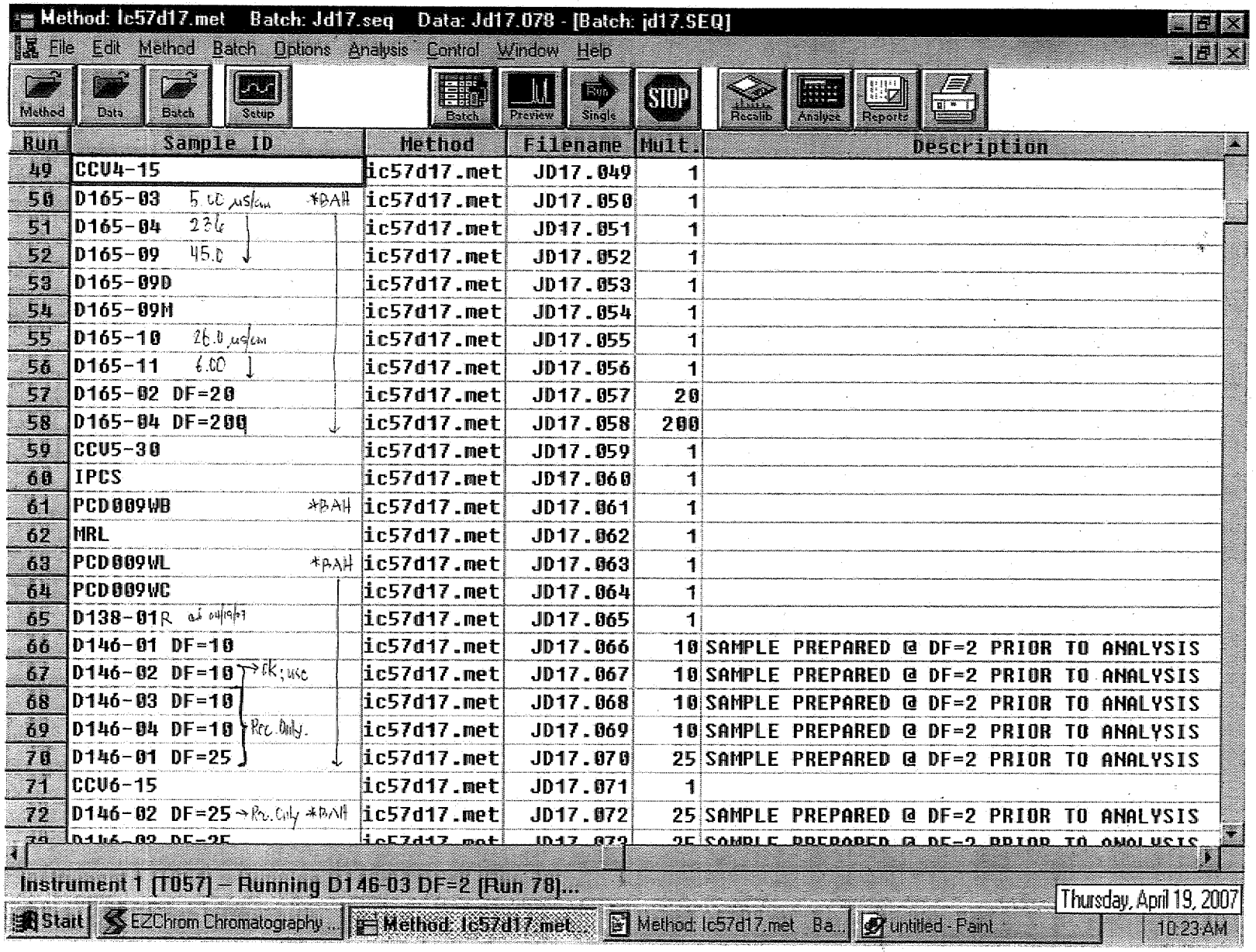
Analyzed By: el

Date: 04/17/07


Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d17.met | JD17.001 | 1
2 | S-0.0 | ic57d17.met | JD17.002 | 1
3 | S-2.0 | ic57d17.met | JD17.003 | 1
4 | S-4.0 | ic57d17.met | JD17.004 | 1
5 | S-10.0 | ic57d17.met | JD17.005 | 1
6 | S-25.0 | ic57d17.met | JD17.006 | 1
7 | S-30.0 | ic57d17.met | JD17.007 | 1
8 | ICV | ic57d17.met | JD17.008 | 1
9 | ICB | ic57d17.met | JD17.009 | 1
10 | IPCS 4950 µS/cm | ic57d17.met | JD17.010 | 1
11 | PCD007WB *BAH | ic57d17.met | JD17.011 | 1
12 | MRL | ic57d17.met | JD17.012 | 1
13 | PCD007WL *BAH | ic57d17.met | JD17.013 | 1
14 | PCD007WC | ic57d17.met | JD17.014 | 1
15 | D146-01 4100 µS/cm | ic57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | ic57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1691 | ic57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | ic57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | ic57d17.met | JD17.019 | 1
20 | RINSE | ic57d17.met | JD17.020 | 1
21 | CCV1-30 | ic57d17.met | JD17.021 | 1
22 | D138-02 428 µS/cm *BAH | ic57d17.met | JD17.022 | 1
23 | D155-01 424 | ic57d17.met | JD17.023 | 1
24 | D155-02 437 | ic57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Thursday, April 19, 2007
10:21 AM


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µs/cm *BAH ic57d17.met JD17.025 1
26 D165-06 2.25 ic57d17.met JD17.026 1
27 D165-08 2.80 ic57d17.met JD17.027 1
28 D165-08D ic57d17.met JD17.028 1
29 D165-08N ic57d17.met JD17.029 1
30 RINSE ic57d17.met JD17.030 1
31 CCV2-15 ic57d17.met JD17.031 1
32 IPCS 4956. µs/cm ic57d17.met JD17.032 1
33 PCD008SB *BAH ic57d17.met JD17.033 1
34 MRL ic57d17.met JD17.034 1
35 PCD008SL *BAH ic57d17.met JD17.035 1
36 PCD008SC ic57d17.met JD17.036 1
37 D134-01 46.2 µs/cm ic57d17.met JD17.037 1
38 D134-02 37.2 ic57d17.met JD17.038 1
39 D134-03 48.7 ic57d17.met JD17.039 1
40 D134-05 8.14 ic57d17.met JD17.040 1
41 D134-06 6.32 ic57d17.met JD17.041 1
42 D134-07 9.63 ic57d17.met JD17.042 1
43 CCV3-30 ic57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *BAH ic57d17.met JD17.044 1
45 D134-10 6.8 ic57d17.met JD17.045 1
46 D134-11 7.63 ic57d17.met JD17.046 1
47 D134-12 17.63 ic57d17.met JD17.047 1
48 D165-02 24.0 ic57d17.met JD17.048 1
Instrument 1 [T057] – Running D146-03 DF=2 (Run 78)...
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8921



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method | Data | Batch | Setup | Batch | Preview | Single | STOP | Recalib | Analyze | Reports

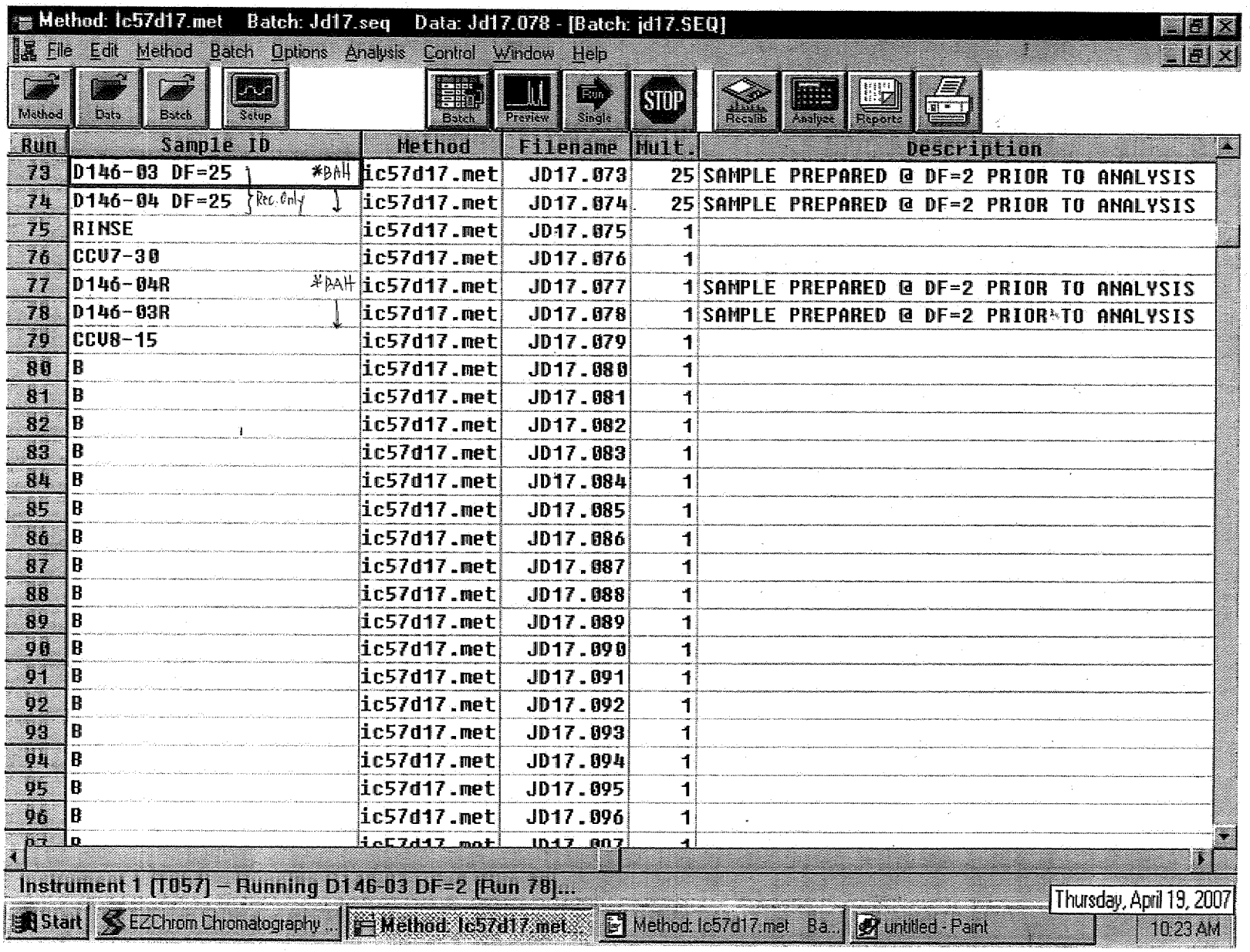
Run	Sample ID	Method	Filename	Mult.	Description
49	CCV4-15	ic57d17.met	JD17.049	1	
50	D165-03 5.00 µs/cm *BAH	ic57d17.met	JD17.050	1	
51	D165-04 236	ic57d17.met	JD17.051	1	
52	D165-09 45.0	ic57d17.met	JD17.052	1	
53	D165-09D	ic57d17.met	JD17.053	1	
54	D165-09M	ic57d17.met	JD17.054	1	
55	D165-10 26.0 µs/cm	ic57d17.met	JD17.055	1	
56	D165-11 6.00	ic57d17.met	JD17.056	1	
57	D165-02 DF=20	ic57d17.met	JD17.057	20	
58	D165-04 DF=200	ic57d17.met	JD17.058	200	
59	CCV5-30	ic57d17.met	JD17.059	1	
60	IPCS	ic57d17.met	JD17.060	1	
61	PCD009WB *BAH	ic57d17.met	JD17.061	1	
62	MRL	ic57d17.met	JD17.062	1	
63	PCD009WL *BAH	ic57d17.met	JD17.063	1	
64	PCD009WC	ic57d17.met	JD17.064	1	
65	D138-01R ad 04/19/07	ic57d17.met	JD17.065	1	
66	D146-01 DF=10	ic57d17.met	JD17.066	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67	D146-02 DF=10 → ok; use	ic57d17.met	JD17.067	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68	D146-03 DF=10	ic57d17.met	JD17.068	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69	D146-04 DF=10 Rec. Only.	ic57d17.met	JD17.069	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70	D146-01 DF=25	ic57d17.met	JD17.070	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71	CCV6-15	ic57d17.met	JD17.071	1	
72	D146-02 DF=25 → Rec. Only *BAH	ic57d17.met	JD17.072	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
73	D146-03 DF=25	ic57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS

Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...

Thursday, April 19, 2007

Start | EZChrom Chromatography ... | Method: Ic57d17.met... | Method: Ic57d17.met Ba... | untitled - Paint | 10:23 AM

8022


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analysis Reports
Run Sample ID Method Filename Mult. Description
73 D146-03 DF=25 *BAH lc57d17.met JD17.073 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 D146-04 DF=25 Rec. Only lc57d17.met JD17.074 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 RINSE lc57d17.met JD17.075 1
76 CCV7-30 lc57d17.met JD17.076 1
77 D146-04R *BAH lc57d17.met JD17.077 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 D146-03R lc57d17.met JD17.078 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 CCV8-15 lc57d17.met JD17.079 1
80 B lc57d17.met JD17.080 1
81 B lc57d17.met JD17.081 1
82 B lc57d17.met JD17.082 1
83 B lc57d17.met JD17.083 1
84 B lc57d17.met JD17.084 1
85 B lc57d17.met JD17.085 1
86 B lc57d17.met JD17.086 1
87 B lc57d17.met JD17.087 1
88 B lc57d17.met JD17.088 1
89 B lc57d17.met JD17.089 1
90 B lc57d17.met JD17.090 1
91 B lc57d17.met JD17.091 1
92 B lc57d17.met JD17.092 1
93 B lc57d17.met JD17.093 1
94 B lc57d17.met JD17.094 1
95 B lc57d17.met JD17.095 1
96 B lc57d17.met JD17.096 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8023

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH ⇒ SW8A-02-18

* JD19.048 : Confirmation Only *JD19.049 & -050 : Bad injection.

* JD19.096 : Record Only; Bad injection - Not used.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD19

Method File: IC57d17.met

Analytical Batch: PCD0106 + PCD0111W.+ PCD0112W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

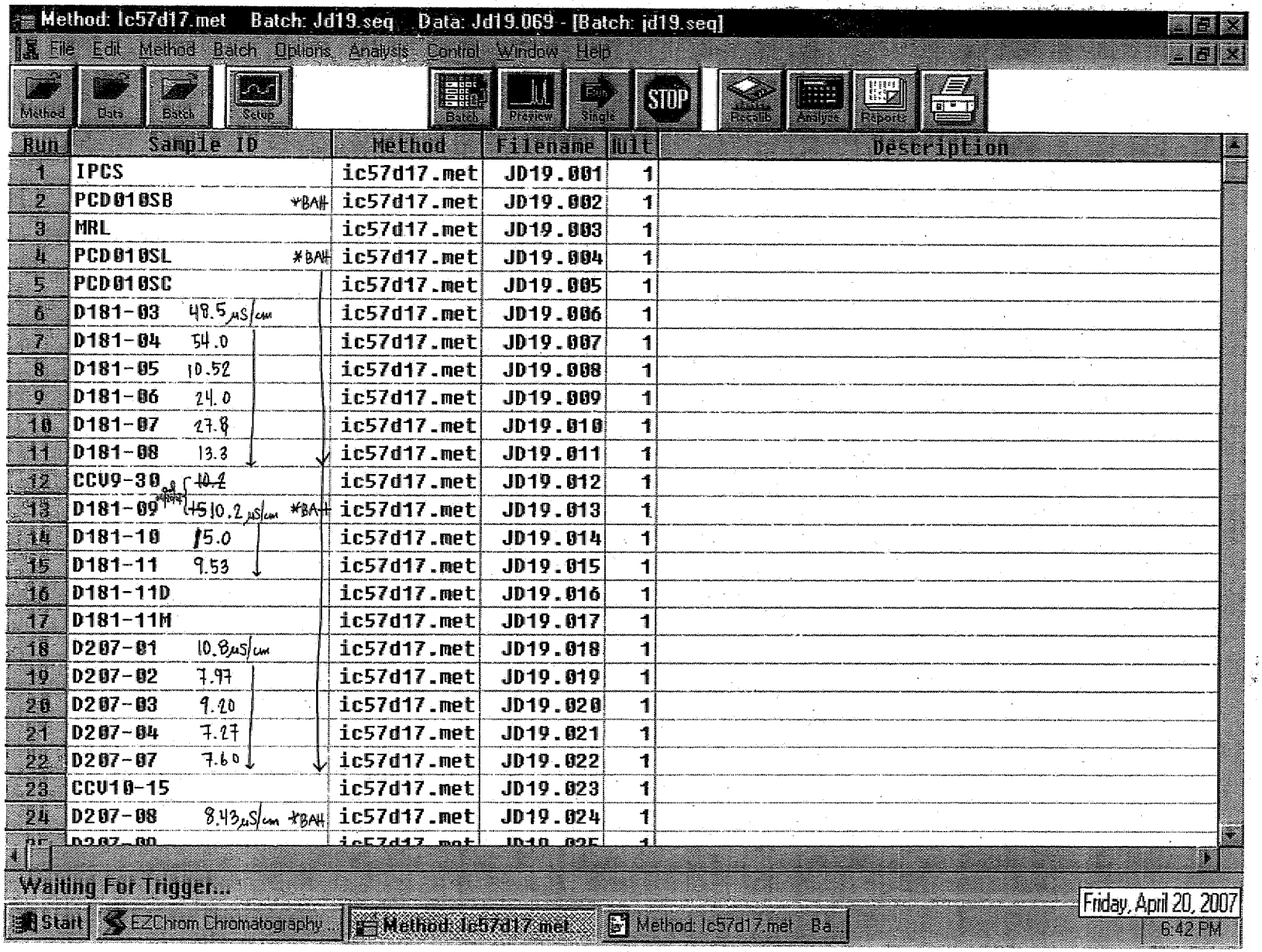
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	938
LCS	936
MS	931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1410	(±) 30	25°C

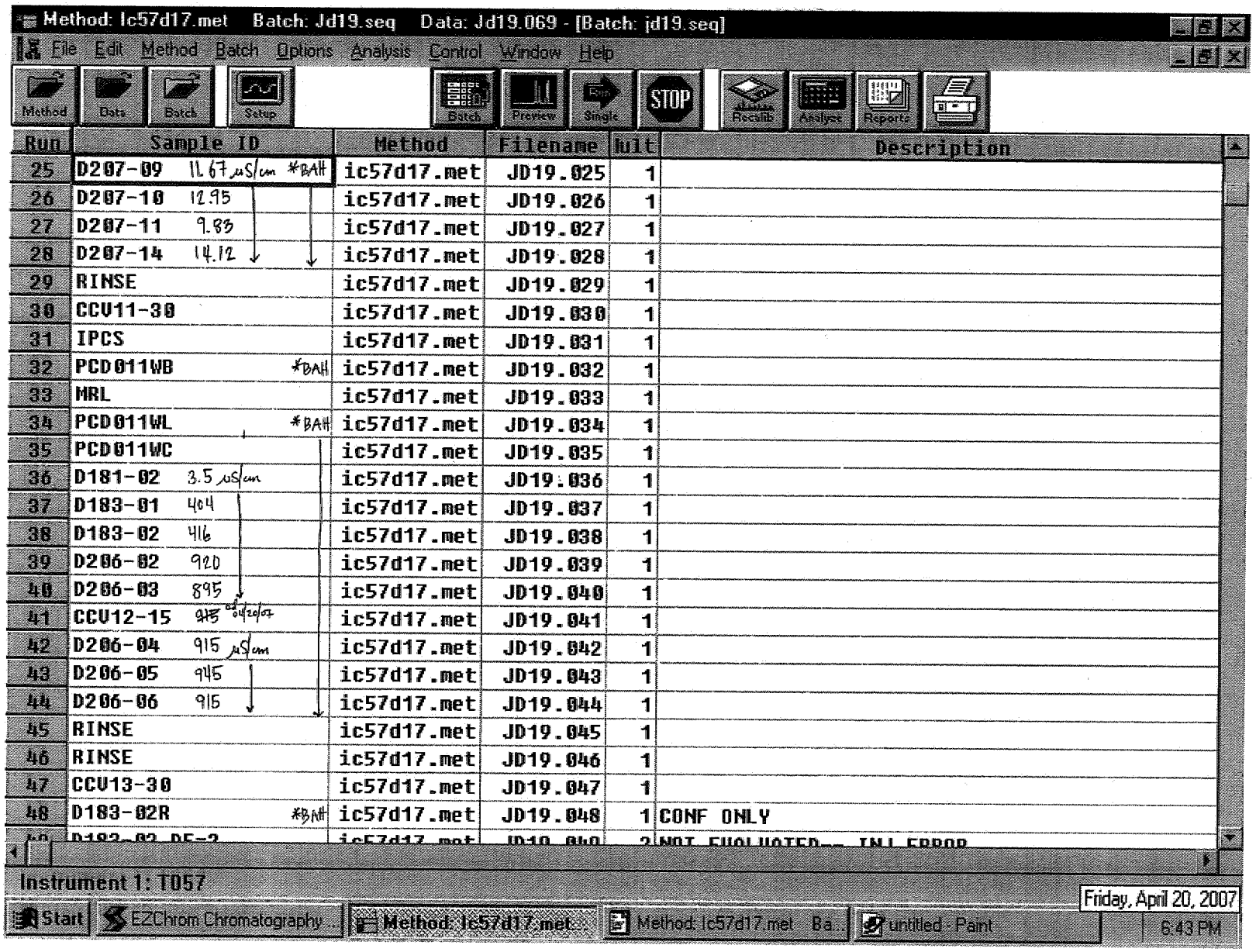
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: el

Date: 04/19/07


Method: lc57d17.met Batch: Jd19.seq Data: Jd19.069 - [Batch: jd19.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analysis Reports
Run | Sample ID | Method | Filename | Wlt | Description
1 IPCS ic57d17.met JD19.001 1
2 PCD010SB *BAH ic57d17.met JD19.002 1
3 MRL ic57d17.met JD19.003 1
4 PCD010SL *BAH ic57d17.met JD19.004 1
5 PCD010SC ic57d17.met JD19.005 1
6 D181-03 48.5 µS/cm ic57d17.met JD19.006 1
7 D181-04 54.0 ic57d17.met JD19.007 1
8 D181-05 10.52 ic57d17.met JD19.008 1
9 D181-06 24.0 ic57d17.met JD19.009 1
10 D181-07 27.8 ic57d17.met JD19.010 1
11 D181-08 13.3 ic57d17.met JD19.011 1
12 CCV9-30 10.2 ic57d17.met JD19.012 1
13 D181-09 10.2 µS/cm *BAH ic57d17.met JD19.013 1
14 D181-10 15.0 ic57d17.met JD19.014 1
15 D181-11 9.53 ic57d17.met JD19.015 1
16 D181-11D ic57d17.met JD19.016 1
17 D181-11M ic57d17.met JD19.017 1
18 D207-01 10.8 µS/cm ic57d17.met JD19.018 1
19 D207-02 7.97 ic57d17.met JD19.019 1
20 D207-03 9.20 ic57d17.met JD19.020 1
21 D207-04 7.27 ic57d17.met JD19.021 1
22 D207-07 7.60 ic57d17.met JD19.022 1
23 CCV10-15 ic57d17.met JD19.023 1
24 D207-08 8.43 µS/cm *BAH ic57d17.met JD19.024 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met Method: lc57d17.met Ba...
Friday, April 20, 2007
6:42 PM

8025



Method: Ic57d17.met Batch: Jd19.seq Data: Jd19.069 - [Batch: jd19.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

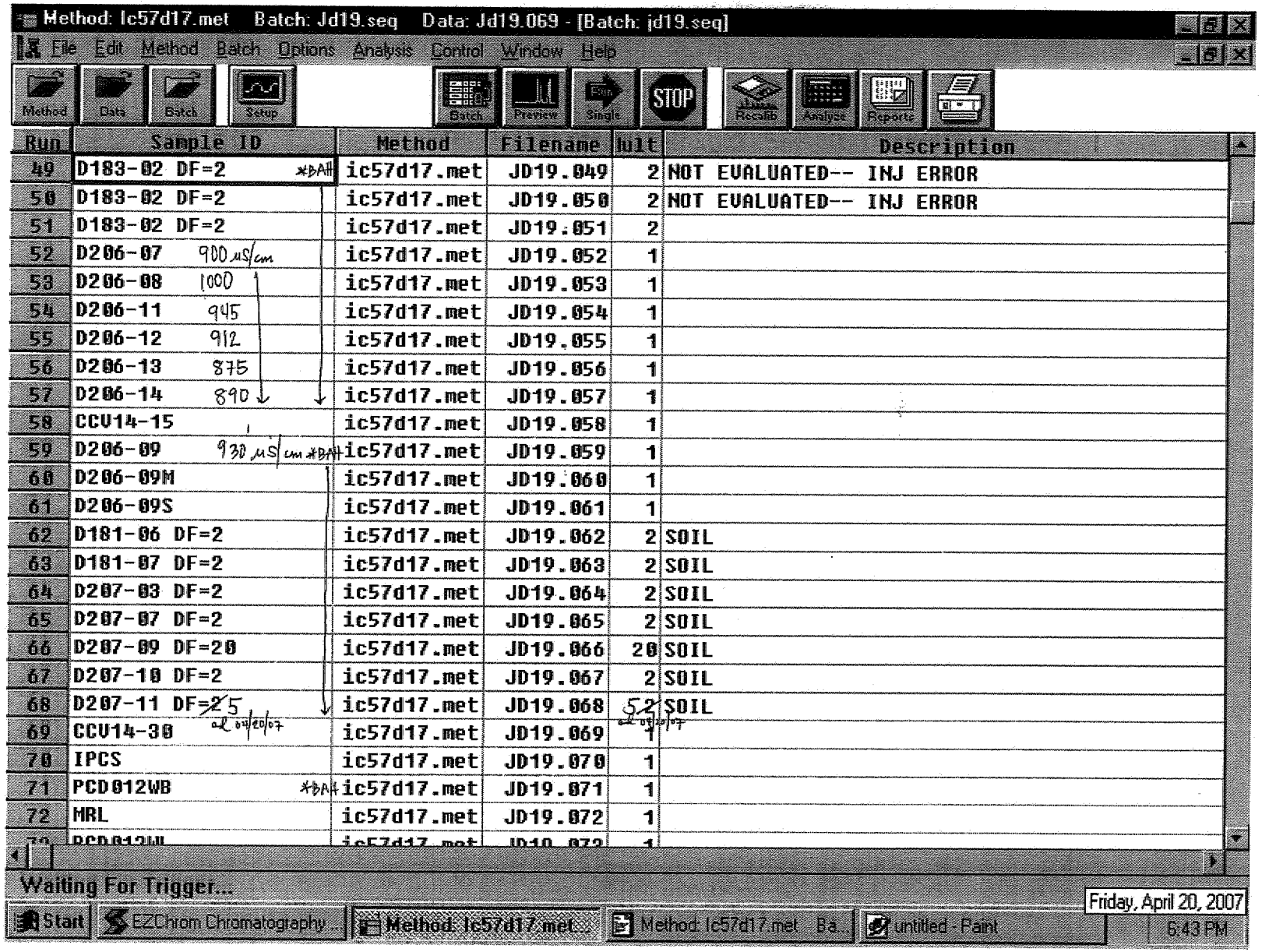
Run	Sample ID	Method	Filename	Mult	Description
25	D207-09 11.67 µS/cm *BAH	ic57d17.met	JD19.025	1	
26	D207-10 12.95	ic57d17.met	JD19.026	1	
27	D207-11 9.83	ic57d17.met	JD19.027	1	
28	D207-14 14.12	ic57d17.met	JD19.028	1	
29	RINSE	ic57d17.met	JD19.029	1	
30	CCV11-30	ic57d17.met	JD19.030	1	
31	IPCS	ic57d17.met	JD19.031	1	
32	PCD011WB *BAH	ic57d17.met	JD19.032	1	
33	MRL	ic57d17.met	JD19.033	1	
34	PCD011WL *BAH	ic57d17.met	JD19.034	1	
35	PCD011WC	ic57d17.met	JD19.035	1	
36	D181-02 3.5 µS/cm	ic57d17.met	JD19.036	1	
37	D183-01 404	ic57d17.met	JD19.037	1	
38	D183-02 416	ic57d17.met	JD19.038	1	
39	D206-02 920	ic57d17.met	JD19.039	1	
40	D206-03 895	ic57d17.met	JD19.040	1	
41	CCV12-15 ~~915~~ 04/20/07	ic57d17.met	JD19.041	1	
42	D206-04 915 µS/cm	ic57d17.met	JD19.042	1	
43	D206-05 945	ic57d17.met	JD19.043	1	
44	D206-06 915	ic57d17.met	JD19.044	1	
45	RINSE	ic57d17.met	JD19.045	1	
46	RINSE	ic57d17.met	JD19.046	1	
47	CCV13-30	ic57d17.met	JD19.047	1	
48	D183-02R *BAH	ic57d17.met	JD19.048	1	CONF ONLY
49	D183-02 DF=2	ic57d17.met	JD19.049	2	NOT EVALUATED-- INJ ERROR

Instrument 1: TO57

Friday, April 20, 2007

Start | EZChrom Chromatography ... | Method: Ic57d17.met... | Method: Ic57d17.met Ba... | untitled - Paint | 6:43 PM

8026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File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | ult | Description
49 | D183-02 DF=2 *BAH | lc57d17.met | JD19.049 | 2 | NOT EVALUATED-- INJ ERROR
50 | D183-02 DF=2 | lc57d17.met | JD19.050 | 2 | NOT EVALUATED-- INJ ERROR
51 | D183-02 DF=2 | lc57d17.met | JD19.051 | 2 |
52 | D206-07 900 uS/cm | lc57d17.met | JD19.052 | 1 |
53 | D206-08 1000 | lc57d17.met | JD19.053 | 1 |
54 | D206-11 945 | lc57d17.met | JD19.054 | 1 |
55 | D206-12 912 | lc57d17.met | JD19.055 | 1 |
56 | D206-13 875 | lc57d17.met | JD19.056 | 1 |
57 | D206-14 890 | lc57d17.met | JD19.057 | 1 |
58 | CCV14-15 | lc57d17.met | JD19.058 | 1 |
59 | D206-09 930 uS/cm *BAH | lc57d17.met | JD19.059 | 1 |
60 | D206-09M | lc57d17.met | JD19.060 | 1 |
61 | D206-09S | lc57d17.met | JD19.061 | 1 |
62 | D181-06 DF=2 | lc57d17.met | JD19.062 | 2 | SOIL
63 | D181-07 DF=2 | lc57d17.met | JD19.063 | 2 | SOIL
64 | D207-03 DF=2 | lc57d17.met | JD19.064 | 2 | SOIL
65 | D207-07 DF=2 | lc57d17.met | JD19.065 | 2 | SOIL
66 | D207-09 DF=20 | lc57d17.met | JD19.066 | 20 | SOIL
67 | D207-10 DF=2 | lc57d17.met | JD19.067 | 2 | SOIL
68 | D207-11 DF=25 | lc57d17.met | JD19.068 | 52 | SOIL
69 | CCV14-30 | lc57d17.met | JD19.069 | 1 |
70 | IPCS | lc57d17.met | JD19.070 | 1 |
71 | PCD012WB *BAH | lc57d17.met | JD19.071 | 1 |
72 | MRL | lc57d17.met | JD19.072 | 1 |
Waiting For Trigger...
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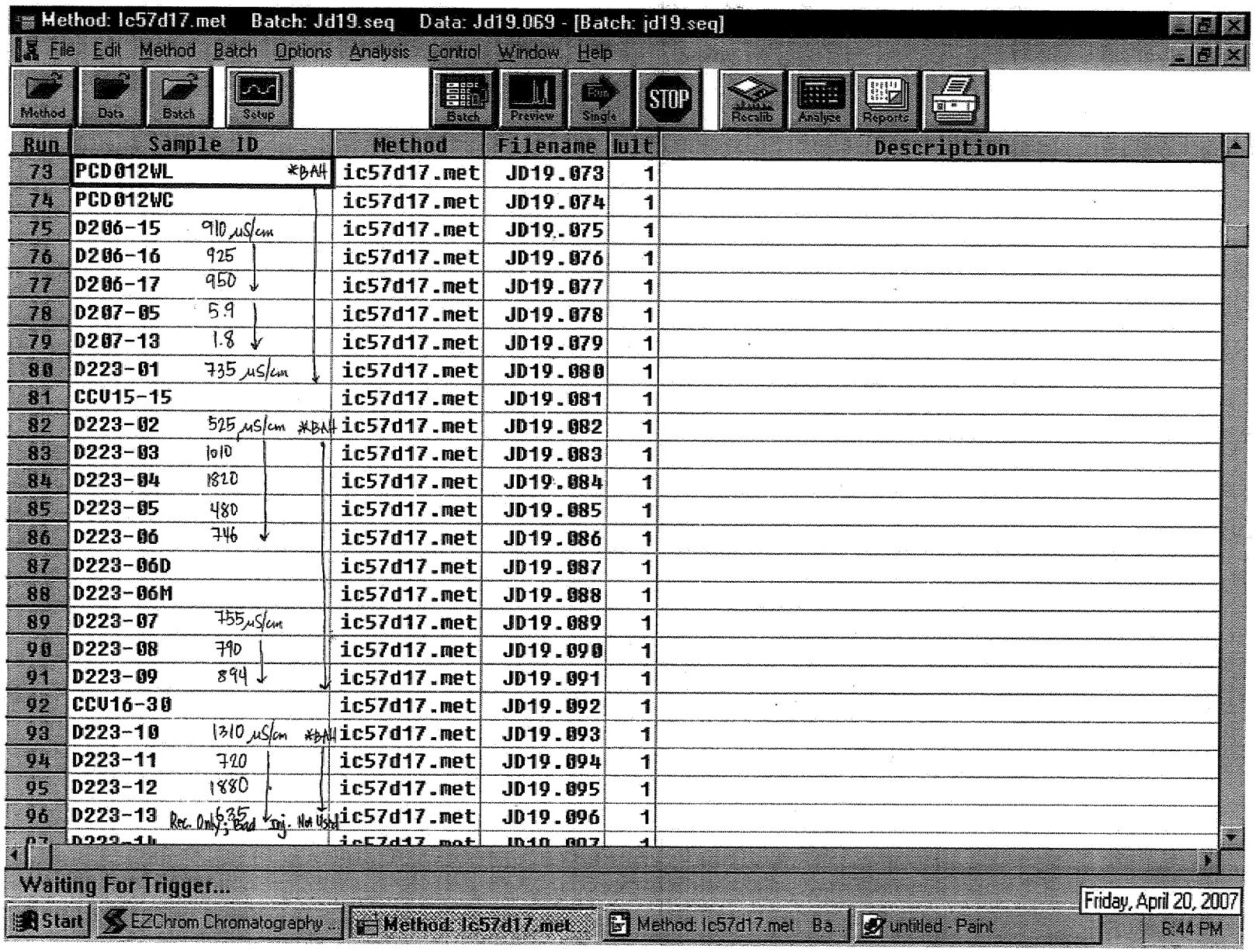
Friday, April 20, 2007
6:43 PM

8627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File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP RecallB Analyse Reports
Run Sample ID Method Filename Mlt Description
73 PCD012WL *BAH ic57d17.met JD19.073 1
74 PCD012WC ic57d17.met JD19.074 1
75 D206-15 910 µS/cm ic57d17.met JD19.075 1
76 D206-16 925 ic57d17.met JD19.076 1
77 D206-17 950 ic57d17.met JD19.077 1
78 D207-05 5.9 ic57d17.met JD19.078 1
79 D207-13 1.8 ic57d17.met JD19.079 1
80 D223-01 735 µS/cm ic57d17.met JD19.080 1
81 CCV15-15 ic57d17.met JD19.081 1
82 D223-02 525 µS/cm *BAH ic57d17.met JD19.082 1
83 D223-03 1010 ic57d17.met JD19.083 1
84 D223-04 1820 ic57d17.met JD19.084 1
85 D223-05 480 ic57d17.met JD19.085 1
86 D223-06 746 ic57d17.met JD19.086 1
87 D223-06D ic57d17.met JD19.087 1
88 D223-06M ic57d17.met JD19.088 1
89 D223-07 755 µS/cm ic57d17.met JD19.089 1
90 D223-08 790 ic57d17.met JD19.090 1
91 D223-09 894 ic57d17.met JD19.091 1
92 CCV16-30 ic57d17.met JD19.092 1
93 D223-10 1310 µS/cm *BAH ic57d17.met JD19.093 1
94 D223-11 720 ic57d17.met JD19.094 1
95 D223-12 1880 ic57d17.met JD19.095 1
96 D223-13 1635 ic57d17.met JD19.096 1
Waiting For Trigger...
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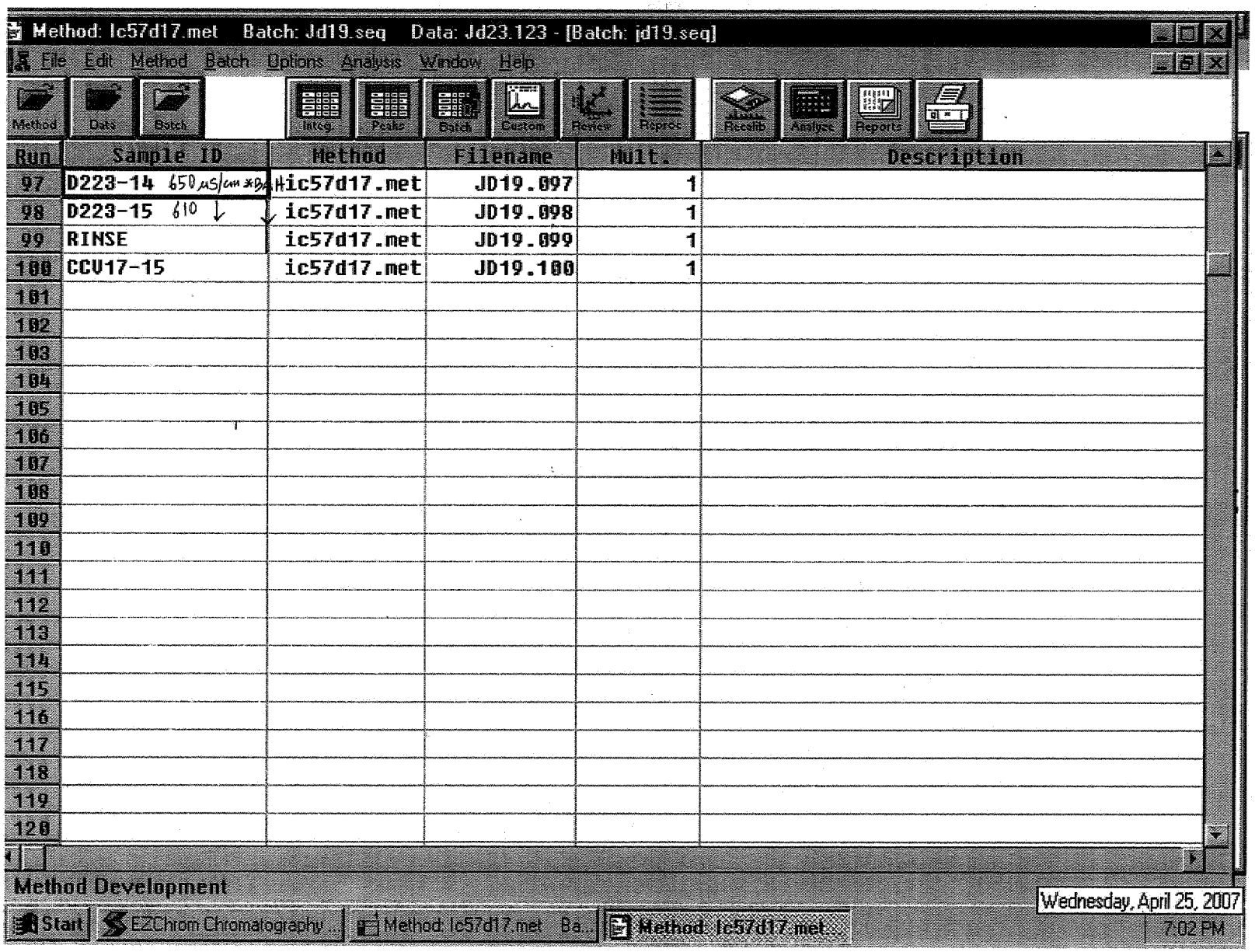
Friday, April 20, 2007
6:44 PM

8028


Method: lc57d17.met Batch: Jd19.seq Data: Jd23.123 - [Batch: jd19.seq]
File Edit Method Batch Options Analysis Window Help
Method Data Batch Integ Peaks Batch Custom Review Reproc Recalib Analysis Reports
Run Sample ID Method Filename Mult. Description
97 D223-14 650 µS/cm *Ba Hic57d17.met JD19.097 1
98 D223-15 610 ic57d17.met JD19.098 1
99 RINSE ic57d17.met JD19.099 1
100 CCV17-15 ic57d17.met JD19.100 1
101
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Method Development
Start EZChrom Chromatography... Method: lc57d17.met Ba... Method: lc57d17.met...
Wednesday, April 25, 2007
7:02 PM

8026

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 04/19/07 Time 10:30 End Date 04/19/07 Time 13:40

PREPARATION BATCH # PC01015

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0105B	10.000g	1.00 ml	100 ml	
*02	SL				
*03	SC				
*04	D181-03				
*05	04				
*06	05				
*07	06				
*08	07				
*09	08				
*10	09				
*11	10				
*12	11				
*13	11D				
*14	11M				
*15	D207-01				
*16	02				
*17	03				
*18	04				
*19	07				
*20	08				
*21	09				
*22	10				
*23	11				
*24	14				
*25					al 04/19/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5ml/1.0ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D207**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1007
GC/MS-VOA	METHOD 5030B/8260B (WATER) METHOD 5035/8260B (SOIL)	2000 – 2028 2029 – 2068
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3550B/M8015	5000 – 5032
HPLC	**	6000 –
METALS	METHOD 3050B/6010B METHOD 7471A	7000 – 7024 7025 – 7035
WET	METHOD 314.0	8000 – 8029
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-07-2007
EMAX Batch No.: 07D207

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/18/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
C22-HSAS21-12-15.5	D207-01	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS21-30-31.5	D207-02	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS21-60-61.5	D207-03	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS21-9.5-11	D207-04	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
LEB-041707	D207-05	04/17/07	WATER	PERCHLORATE BY IC
LTB-041707	D207-06	04/17/07	WATER	VOLATILE ORGANICS BY GC/MS
C22-HSAS2101-60-61.5	D207-07	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS23-60-61.5	D207-08	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS23-30-31.5	D207-09	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS2301-60-61.5	D207-10	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC
C22-HSAS23-10-11.5	D207-11	04/17/07	SOIL	VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
				PERCHLORATE BY IC
LTB-041807	D207-12	04/18/07	WATER	VOLATILE ORGANICS BY GC/MS
LEB-041807	D207-13	04/18/07	WATER	PERCHLORATE BY IC
IDW-041807-BIN1	D207-14	04/18/07	SOIL	VOLATILE ORGANICS BY GC/MS
				PERCHLORATE BY IC
				METALS CAM
				MERCURY
				DIESEL RANGE ORGANICS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

for

Kam Y. Pang, Ph.D.
Laboratory Director

070207

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391
TT_0618-

SHIP TO: EMAX

DATE 4-17-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures)

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1	C22-HSAS21-12-15.5	4-17-07	920	X		U	S	P	3	NR
	C22-HSAS21-12-15.5	4-17-07	920		X	U	S	G	1	NR
2	C22-HSAS21-30-31.5	4-17-07	0947	X		U	S	P	3	NR
	C22-HSAS21-30-31.5	4-17-07	0947		X	U	S	G	1	NR
3	C22-HSAS21-60-61.5	4-17-07	1041	X		U	S	P	3	NR
	C22-HSAS21-60-61.5	4-17-07	1041		X	U	S	G	1	NR
4	C22-HSAS21-9.5-11	4-17-07	902	X		U	S	P	3	NR
5	LEB-041707	4-17-07	0832		X	U	W	P	1	NR
6	LTB-041707	4-17-07	0833	X		U	W	G	2	HCL
4	C22-HSAS21-9.5-11	4-17-07	902		X	U	S	G	1	NR

FILTERING:
☐ FILTERED ☒ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NaOH
NR (None required)
H_2SO_4

RELINQUISHED BY: Holly A. Hanke	SIGNATURE	TETRA TECH, INC.	DATE 4-17-07	TIME 1920	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 19 of 23	
RECEIVED BY: ALFRED GALICIA	SIGNATURE	COMPANY EMAX	DATE 4/18/07	TIME 1305	METHOD OF SHIPMENT/SHIPMENT NO.	
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 4/18/07	TIME 17.35	Special Shipping/Handling/Storage Requirements: T = 3.6 °C	
RECEIVED BY: V - LUNA	SIGNATURE	COMPANY emax	DATE 4/18/07	TIME 1735		

DISTRIBUTION: White and Pink = Tetra Tech, Inc Canary = Laboratory

1502

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07D207

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4-17-07 PAGE 2 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967.02
SAMPLERS (Signatures): Holly A Hanker

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC's	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	C22-HSAS2101-60-61.5	4-17-07	1041	X		U	S	P	3	NR
2.	C22-HSAS2101-60-61.5	4-17-07	1041		X	U	S	G	1	NR
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

7

HHA

HHA

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 4 of 23
Holly A. Hanker	Holly A Hanker	TETRA TECH, INC.	4-17-07	1920	
RECEIVED BY: ALFRED GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/18/07	TIME: 1305	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/18/07	TIME: 17:35	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA	SIGNATURE	COMPANY: emax	DATE: 4-18-07	TIME: 1735	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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COC1

070207

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4-17-07 PAGE 1 OF 1

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation Site 1
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A. Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
8	CZZ-HSAS23-60-61.5	4-17-07	1537	X		U	S	P	3	NR
	CZZ-HSAS23-60-61.5	4-17-07	1537		X	U	S	G	1	NR
9	CZZ-HSAS23-30-31.5	4-17-07	1510	X		U	S	P	3	NR
	CZZ-HSAS23-30-31.5	4-17-07	1510		X	U	S	G	1	NR
10	CZZ-HSAS2301-60-61.5	4-17-07	1550	X		U	S	P	3	NR
	CZZ-HSAS2301-60-61.5	4-17-07	1550		X	U	S	G	1	NR
11	CZZ-HSAS23-10-11.5	4-17-07	1440	X		U	S	P	3	NR
	CZZ-HSAS23-10-11.5	4-17-07	1440		X	U	S	G	1	NR
	9.									
	10.									

FILTERING:
☐ FILTERED ☒ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 16 of 16
Holly A. Hanke		TETRA TECH, INC.	4-17-07	1920	
RECEIVED BY: ALFRED GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/18/07	TIME: 13:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/18/07	TIME: 17.35	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUNA	SIGNATURE	COMPANY: emax	DATE: 4-18-07	TIME: 1735	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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1 of 1

070207

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Emax
1835 W. 205th St
Torrance CA
90501

DATE 4-16-07 PAGE 1 OF ____

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures) J. Zimmerman

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	3140 Perchlorate	8015 TPH(DRO)	Title 22 metals 6010B/7000	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
12 1	LTB-041807	4-18-07	1045	X				U	W	G	2	HCL
13 2	LEB-041807	4-18-07	1100		X			U	W	P	1	NR
3	IDW-041807-BIN1	4-18-07	1130		X			U	S	G	1	NR
14 4	IDW-041807-BIN1	4-18-07	1130				X	U	S	G	1	NR
5	IDW-041807-BIN1	4-18-07	1130			X		U	S	G	1	NR
6	IDW-041807-BIN1	4-18-07	1130	X				U	S	P	3	NR
7.												
8.												
9.												
10.												

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: J. Zimmerman	SIGNATURE	TETRA TECH, INC.	DATE 4-18-07	TIME 1230	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 9
RECEIVED BY: ALFRED GALLEGOS	SIGNATURE	COMPANY EMAX	DATE 4/18/07	TIME 1305	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALLEGOS	SIGNATURE	COMPANY EMAX	DATE 4/18/07	TIME 1735	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J. LUNA	SIGNATURE	COMPANY emax	DATE 4-18-07	TIME 1735	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

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EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

07D207 4/18/07

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	SEE COC	ECN 07D207
☐ Client Delivery		Recepient JON LUNA
☐ Third Party		Date 4-18-07
		Time 1735

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☑ Preservative (if any) ☑ TAT

Safety Issues
☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures	☑ Cooler 1 3.6 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code
			A2	R2

REVIEWS

Sample Labeling _____ Date 4/18/07

SRF _____ Date 4/18/07

PM _____ Date 4/18/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label (CALL ENCORES)
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 07D207

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D207

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 04/18/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D207
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VO05D50Q	1	NA	04/27/0702:28	04/27/0702:28	RDQ607	RDQ591	VO05D50	Method Blank
LCS1W	VO05D50L	1	NA	04/27/0700:38	04/27/0700:38	RDQ604	RDQ591	VO05D50	Lab Control Sample (LCS)
LCD1W	VO05D50C	1	NA	04/27/0701:15	04/27/0701:15	RDQ605	RDQ591	VO05D50	LCS Duplicate
LTB-041707	D207-06	1	NA	04/27/0703:05	04/27/0703:05	RDQ608	RDQ591	VO05D50	Field Sample
LTB-041807	D207-12	1	NA	04/27/0703:42	04/27/0703:42	RDQ609	RDQ591	VO05D50	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/17/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/18/07
Batch No.	: 07D207	Date Extracted:	04/27/07 03:05
Sample ID:	LTB-041707	Date Analyzed:	04/27/07 03:05
Lab Samp ID:	D207-06	Dilution Factor:	1
Lab File ID:	RDQ608	Matrix :	WATER
Ext Btch ID:	VOO5D50	% Moisture :	NA
Calib. Ref.:	RDQ591	Instrument ID :	T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	107	70-140
4-BROMOFLUOROBENZENE	117	70-130
TOLUENE-D8	116	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/18/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 070207	Date Extracted: 04/27/07 03:42
Sample ID: LTB-041807	Date Analyzed: 04/27/07 03:42
Lab Samp ID: D207-12	Dilution Factor: 1
Lab File ID: RDQ609	Matrix : WATER
Ext Btch ID: VO05D50	% Moisture : NA
Calib. Ref.: RDQ591	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	108	70-140
4-BROMOFLUOROBENZENE	115	70-130
TOLUENE-D8	117	70-140

QC SUMMARIES

2006

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D207	Date Extracted:	04/27/07 02:28
Sample ID:	MBLK1W	Date Analyzed:	04/27/07 02:28
Lab Samp ID:	V005D50Q	Dilution Factor:	1
Lab File ID:	RDQ607	Matrix	: WATER
Ext Btch ID:	V005D50	% Moisture	: NA
Calib. Ref.:	RDQ591	Instrument ID	: T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	104	70-140
4-BROMOFLUOROBENZENE	116	70-130
TOLUENE-D8	117	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V005D50Q	V005D50L	V005D50C		
LAB FILE ID:	RDQ607	RDQ604	RDQ605		
DATE EXTRACTED:	04/27/0702:28	04/27/0700:38	04/27/0701:15	DATE COLLECTED:	NA
DATE ANALYZED:	04/27/0702:28	04/27/0700:38	04/27/0701:15	DATE RECEIVED:	04/27/07
PREP. BATCH:	V005D50	V005D50	V005D50		
CALIB. REF:	RDQ591	RDQ591	RDQ591		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	10.9	109	10.0	10.7	107	2	60-130	30
Benzene	ND	10.0	11.0	110	10.0	10.8	108	2	70-130	30
Chlorobenzene	ND	10.0	11.3	113	10.0	11.1	111	2	70-120	30
Toluene	ND	10.0	11.4	114	10.0	11.2	112	2	70-130	30
Trichloroethene	ND	10.0	11.5	115	10.0	11.3	113	2	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.1	101	10.0	10.1	101	70-140
4-Bromofluorobenzene	10.0	10.1	101	10.0	10.4	104	70-130
Toluene-d8	10.0	10.7	107	10.0	11.1	111	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D207

Lab File ID: RDQ584 BFB Injection Date : 04/26/07

Instrument ID: T-005 BFB Injection Time : 12:21

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.46
75	30.0 - 60.0% of mass 95	56.00
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.75
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	68.43
175	5.0 - 9.0% of mass 174	5.23(7.6)1
176	95.0 - 101.0% of mass 174	68.19(99.7)1
177	5.0 - 9.0% of mass 176	4.50(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V005D261	RDQ586	04/26/07	13:35
2	VSTD0.5	V005D262	RDQ587	04/26/07	14:11
3	VSTD01	V005D263	RDQ588	04/26/07	14:47
4	VSTD02	V005D264	RDQ589	04/26/07	15:24
5	VSTD05	V005D265	RDQ590	04/26/07	16:01
6	VSTD010	V005D266	RDQ591	04/26/07	16:38
7	VSTD020	V005D267	RDQ592	04/26/07	17:15
8	VSTD030	V005D268	RDQ593	04/26/07	17:51
9	VSTD040	V005D269	RDQ594	04/26/07	18:27
10	VSTD050	V005D2610	RDQ595	04/26/07	19:03
11	VSTD010	IV005D2602	RDQ599	04/26/07	21:31

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TOO5
Beginning DateTime :04/26/07 13:35
Spike Units :PPB
IC File :RDQ591

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :04/26/07 19:03
HPChem Method :VO05D26

M	IDX	Parameters	.3 13:35 RDQ586	.5 14:11 RDQ587	1 14:47 RDQ588	2 15:24 RDQ589	5 16:01 RDQ590	10 16:38 RDQ591	20 17:15 RDQ592	30 17:51 RDQ593	40 18:27 RDQ594	50 19:03 RDQ595	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	9.9131
	2	Dichlorodifluoromethane	------	0.523	0.492	0.468	0.466	0.509	0.479	0.451	0.496	0.507	0.488	4.83	2.2089
	3	Chloromethane	0.817	0.789	0.651	0.601	0.566	0.628	0.632	0.638	0.706	0.685	0.671	11.91	2.5437
	4	Vinyl chloride	0.767	0.625	0.634	0.585	0.577	0.608	0.589	0.568	0.635	0.637	0.622	9.17	2.7065
	5	Bromomethane	0.622	0.608	0.625	0.466	0.378	0.389	0.377	0.380	0.451	0.442	0.474	22.14	3.3439
	6	Chloroethane	0.418	0.392	0.373	0.350	0.326	0.361	0.350	0.346	0.396	0.393	0.370	7.74	3.4653
	7	Dichlorofluoromethane	1.131	0.977	1.035	1.058	0.957	1.127	1.011	1.129	1.216	1.099	1.074	7.52	3.5345
	8	Trichlorofluoromethane	------	0.771	0.755	0.708	0.700	0.749	0.714	0.687	0.768	0.774	0.736	4.58	3.8419
	9	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	10	Acrolein	------	------	------	0.024	0.023	0.024	0.023	0.024	0.026	0.024	0.024	4.51	4.5673
	11	1,1,2-Trichloro-1,2,2-trifluoroethane	0.353	0.268	0.293	0.296	0.251	0.337	0.293	0.335	0.350	0.309	0.309	11.19	4.5083
2	12	Acetone	------	------	------	0.085	0.076	0.072	0.071	0.080	0.089	0.086	0.080	8.88	4.7612
	13	1,1-Dichloroethene	0.733	0.638	0.682	0.698	0.602	0.742	0.639	0.708	0.745	0.679	0.687	7.05	4.7613
5	14	tert-Butyl alcohol	------	------	------	0.027	0.018	0.020	0.017	0.017	0.019	0.017	0.019	18.83	5.1672
	15	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	------	------	0.103	0.265	0.406	0.541	0.440	0.409	0.441	0.387	0.374	35.69	5.2273
	17	Methyl acetate	------	------	0.201	0.128	0.113	0.118	0.120	0.114	0.131	0.122	0.131	22.12	5.4329
	18	Methylene chloride	------	0.802	0.678	0.593	0.483	0.527	0.455	0.486	0.530	0.481	0.559	20.41	5.5169
	19	Carbon disulfide	------	1.322	1.385	1.434	1.183	1.509	1.331	1.476	1.603	1.453	1.411	8.68	5.5001
3	20	Acrylonitrile	------	------	------	0.052	0.054	0.046	0.046	0.052	0.055	0.051	0.051	7.29	5.7923
	21	tert-Butyl methyl ether (MTBE)	0.776	0.707	0.715	0.797	0.662	0.723	0.622	0.677	0.759	0.683	0.712	7.59	5.9687
	22	trans-1,2-Dichloroethene	0.657	0.624	0.659	0.663	0.590	0.712	0.597	0.670	0.710	0.644	0.653	6.30	5.9822
	23	Isopropyl ether (DIPE)	1.290	1.150	1.321	1.274	1.118	1.356	1.167	1.250	1.367	1.240	1.253	6.85	6.6542
	24	1,1-Dichloroethane	0.768	0.702	0.782	0.785	0.672	0.815	0.673	0.711	0.765	0.689	0.736	7.13	6.6770
	25	Vinyl acetate	------	0.399	0.364	0.450	0.402	0.437	0.395	0.421	0.485	0.438	0.421	8.54	6.7714
	26	tert-Butyl ethyl ether (ETBE)	0.937	0.829	0.945	1.026	0.908	1.071	0.925	0.988	1.096	0.998	0.972	8.23	7.3330
2	27	2-Butanone	------	------	------	0.051	0.056	0.050	0.058	0.060	0.073	0.067	0.059	13.84	7.6136
	28	2,2-Dichloropropane	------	0.710	0.777	0.752	0.620	0.697	0.562	0.558	0.579	------	0.657	13.39	7.6091
	29	cis-1,2-Dichloroethene	0.623	0.553	0.621	0.745	0.569	0.767	0.654	0.703	0.750	0.676	0.666	11.33	7.6846
	30	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	31	Chloroform	0.819	0.705	0.760	0.762	0.664	0.797	0.685	0.736	0.790	0.720	0.743	6.83	7.9603
	32	Bromochloromethane	0.287	0.253	0.287	0.294	0.256	0.296	0.258	0.274	0.293	0.266	0.276	6.21	8.2335
	33	Tetrahydrofuran	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	34	1,1,1-Trichloroethane	0.668	0.599	0.681	0.691	0.612	0.739	0.629	0.686	0.716	0.641	0.666	6.80	8.6332
	35	Cyclohexane	0.660	0.626	0.717	0.645	0.663	0.564	0.560	0.649	0.701	0.676	0.646	7.99	8.6475
	36	tert-Amyl methyl ether (TAME)	0.709	0.631	0.696	0.766	0.655	0.777	0.678	0.722	0.808	0.730	0.717	7.75	9.3136
	37	1,2-Dichloroethane-d4	0.423	0.367	0.372	0.414	0.365	0.326	0.279	------	------	------	0.364	13.60	9.2171
	38	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	16.0278
	39	1,1-Dichloropropene	------	0.300	0.312	0.264	0.213	0.271	0.222	0.240	0.243	0.223	0.254	13.88	8.9112
	40	Carbon tetrachloride	0.744	0.604	0.653	0.705	0.610	0.752	0.623	0.678	0.684	0.625	0.668	8.04	9.0716
	41	1,2-Dichloroethane	0.527	0.529	0.561	0.618	0.542	0.619	0.523	0.550	0.580	0.528	0.558	6.57	9.3777
	42	Benzene	1.807	1.594	1.598	1.678	1.437	1.727	1.485	1.619	1.676	1.554	1.617	6.84	9.3844
	43	Trichloroethene	0.471	0.411	0.439	0.458	0.395	0.504	0.427	0.467	0.479	0.445	0.450	7.29	10.5042
	44	Methylcyclohexane	------	0.522	0.537	0.599	0.687	0.535	0.538	0.701	0.739	------	0.607	14.60	10.6122
	45	1,2-Dichloropropane	0.472	0.412	0.429	0.458	0.395	0.466	0.395	0.424	0.444	0.412	0.431	6.54	10.8498
	46	Bromodichloromethane	0.643	0.548	0.598	0.643	0.562	0.653	0.555	0.584	0.625	0.572	0.598	6.63	11.2917
	47	Dibromomethane	0.186	0.179	0.181	0.201	0.174	0.205	0.173	0.179	0.190	0.174	0.184	6.13	11.3878
2	48	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	49	4-Methyl-2-pentanone	------	------	------	0.155	0.158	0.166	0.174	0.174	0.203	0.190	0.174	9.94	12.1559
1	50	cis-1,3-Dichloropropene	0.510	0.479	0.520	0.589	0.531	0.631	0.550	0.583	0.620	0.579	0.559	8.84	12.3718
1	51	Toluene-d8	------	1.329	1.222	1.260	1.316	1.157	1.010	0.909	1.412	1.089	1.189	13.72	12.8395
1	52	Toluene	1.085	0.854	0.961	1.046	0.907	1.125	0.975	1.057	1.100	1.019	1.013	8.65	12.9991
	53	Ethyl methacrylate	------	------	0.160	0.237	0.212	0.300	0.280	0.301	0.334	0.308	0.267	21.90	13.5168
	54	trans-1,3-Dichloropropene	------	0.314	0.401	0.461	0.416	0.509	0.445	0.479	0.512	0.470	0.445	13.91	13.4072
	55	1,1,2-Trichloroethane	0.194	0.195	0.220	0.237	0.210	0.242	0.211	0.224	0.239	0.221	0.219	7.80	13.7158
2	56	2-Hexanone	------	------	------	------	0.052	0.068	0.088	0.096	0.119	0.113	0.089	28.77	13.9444
	57	1,3-Dichloropropane	0.416	0.390	0.417	0.481	0.414	0.497	0.431	0.464	0.499	0.459	0.447	8.58	14.2453
	58	Tetrachloroethene	0.370	0.302	0.317	0.356	0.300	0.397	0.340	0.380	0.391	0.352	0.350	10.12	14.3330

4/30/07

59	Dibromochloromethane	0.275	0.258	0.286	0.331	0.294	0.349	0.302	0.322	0.345	0.317	0.308	9.74	14.7706
60	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
61	1,2-Dibromoethane	0.170	0.137	0.185	0.223	0.200	0.232	0.204	0.219	0.240	0.221	0.203	15.54	15.2133
62	1-Chlorohexane	0.721	0.547	0.623	0.653	0.565	0.769	0.661	0.746	0.766	0.684	0.674	11.74	15.6079
63	Chlorobenzene	1.024	0.831	0.926	1.013	0.875	1.086	0.949	1.035	1.096	0.999	0.983	8.85	16.1104
64	1,1,1,2-Tetrachloroethane	0.368	0.317	0.357	0.382	0.337	0.408	0.357	0.387	0.402	0.367	0.368	7.61	16.2200
65	Ethylbenzene	2.165	1.762	1.864	2.039	1.797	2.290	2.004	2.190	2.301	2.072	2.048	9.47	16.2495
2 66	m-Xylene & p-Xylene	1.696	1.330	1.453	1.579	1.411	1.816	1.581	1.763	------	------	1.579	10.96	16.4248
67	o-Xylene	1.726	1.430	1.515	1.645	1.423	1.800	1.567	1.722	1.774	1.587	1.619	8.44	17.3928
68	Styrene	0.875	0.777	0.899	1.009	0.901	1.173	1.046	1.149	1.196	1.070	1.009	14.08	17.4788
69	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	22.4198
70	Bromoform	0.364	0.366	0.371	0.403	0.361	0.423	0.371	0.420	0.453	0.415	0.395	8.13	18.1972
71	Isopropylbenzene	6.040	4.737	4.882	5.019	4.305	5.340	4.601	5.336	5.408	4.869	5.054	9.76	18.2258
72	1,1,2,2-Tetrachloroethane	0.892	0.668	0.663	0.702	0.598	0.683	0.603	0.666	0.707	0.646	0.683	12.04	18.6348
73	4-Bromofluorobenzene	------	------	1.315	1.192	1.223	1.046	0.937	------	------	------	1.143	13.13	18.7873
74	1,2,3-Trichloropropane	------	0.142	0.141	0.141	0.126	0.149	0.123	0.137	0.147	0.134	0.138	6.24	18.9674
75	trans-1,4-Dichloro-2-butene	------	------	0.136	0.185	0.154	0.190	0.168	0.198	------	------	0.172	13.89	18.3820
76	n-Propylbenzene	8.467	6.209	6.268	6.328	5.432	7.043	6.150	7.161	7.204	------	6.696	13.13	19.1554
77	Bromobenzene	1.181	0.899	0.945	1.000	0.870	1.041	0.916	1.042	1.079	0.985	0.996	9.46	19.1972
78	2-Chlorotoluene	5.258	3.712	3.960	3.953	3.455	4.294	3.673	4.194	4.245	3.898	4.064	12.24	19.5268
79	1,3,5-Trimethylbenzene	4.884	3.720	3.843	3.939	3.330	4.222	3.622	4.191	4.226	3.819	3.980	10.75	19.5353
80	4-Chlorotoluene	4.681	3.085	3.206	3.502	2.928	3.719	3.214	3.750	3.790	3.475	3.535	14.13	19.6474
81	tert-Butylbenzene	4.884	3.588	3.758	3.900	3.329	4.272	3.668	4.209	4.237	3.827	3.967	11.18	20.3574
82	1,2,4-Trimethylbenzene	4.724	3.498	3.597	3.826	3.267	4.075	3.532	4.006	4.100	3.687	3.831	10.85	20.4468
83	sec-Butylbenzene	6.849	4.753	5.152	5.292	4.504	6.012	5.127	5.901	5.943	5.316	5.485	12.64	20.8658
84	p-Isopropyltoluene	4.908	3.678	3.945	4.182	3.574	4.768	4.114	4.692	4.770	4.264	4.289	11.13	21.2064
85	1,3-Dichlorobenzene	2.226	1.574	1.733	1.837	1.615	2.053	1.795	1.998	2.092	1.875	1.880	11.25	21.3650
86	1,4-Dichlorobenzene	1.936	1.546	1.723	1.749	1.502	1.954	1.698	1.899	2.014	1.806	1.783	9.66	21.6230
87	n-Butylbenzene	4.459	3.778	3.653	3.839	3.326	4.717	4.094	4.611	4.772	4.256	4.151	11.89	22.1829
88	1,2-Dichlorobenzene	1.767	1.429	1.524	1.552	1.426	1.701	1.489	1.622	1.711	1.544	1.577	7.58	22.4830
89	1,2-Dibromo-3-chloropropane	------	------	0.088	0.100	0.083	0.102	0.089	0.092	0.107	0.099	0.095	8.69	24.4674
90	1,2,4-Trichlorobenzene	1.534	0.842	0.846	0.841	0.767	1.010	0.898	0.995	1.092	0.985	0.981	22.24	26.5446
91	Hexachlorobutadiene	1.042	0.692	0.758	0.789	0.627	0.881	0.752	0.838	0.869	0.770	0.802	14.27	26.8785
92	Naphthalene	1.300	1.018	0.911	0.974	0.905	1.095	1.048	1.166	1.339	1.252	1.101	14.32	27.0598
93	1,2,3-Trichlorobenzene	1.546	1.380	0.751	0.840	0.652	0.807	0.713	0.774	0.843	0.770	0.908	33.13	27.5741

Spike Amount = Nominal Amount * M
Ave_%RSD : 11.4 Max_%RSD : 35.7

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
5	Bromomethane	0.00792	0.41631	0.9960
14	tert-Butyl alcohol	0.00846	0.01695	0.9959
17	Methyl acetate	0.00433	0.12050	0.9974
18	Methylene chloride	0.01629	0.48825	0.9983
53	Ethyl methacrylate	-0.01979	0.31430	0.9976
61	1,2-Dibromoethane	-0.00296	0.22460	0.9984
90	1,2,4-Trichlorobenzene	-0.00217	0.99670	0.9966
93	1,2,3-Trichlorobenzene	0.01855	0.77305	0.9973

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
16	Iodomethane	-0.04566	0.53881	-0.02773	0.9973
56	2-Hexanone	-0.03885	0.08365	0.00380	0.9973

NSTN

of 7/30/19

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ599.D Vial: 16
Acq On : 26 Apr 2007 9:31 pm Operator: DN
Sample : IVO05D2602 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration * Not evaluated

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	100	-0.02
2	T	Dichlorodifluoromethane	10.000	9.959	0.4	95	0.00
3	P,T	Chloromethane	10.000	9.409	5.9	101	0.00
4	C,T	Vinyl chloride	10.000	9.818	1.8	100	0.00
5	T	Bromomethane	10.000	10.055	-0.5	109	0.00
6	T	Chloroethane	10.000	9.823	1.8	101	-0.02
7	T	Dichlorofluoromethane	10.000	10.697	-7.0	102	-0.02
8	T	Trichlorofluoromethane	10.000	9.777	2.2	96	0.00
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
10	T	Acrolein	20.000	19.753	1.2	100	0.00
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	11.134	-11.3	102	0.00
12	T	Acetone	20.000	17.894	10.5	99	0.00
13	C,TM	1,1-Dichloroethene	10.000	10.760	-7.6	100	0.00
14	T	tert-Butyl alcohol	50.000	53.571	-7.1	98	0.00
15	T	Acetonitrile	-1.000	0.000	0.0	0	0.00
16	T	Iodomethane	10.000	9.702	3.0	83	0.00
17	T	Methyl acetate *	10.000	0.968	90.3#	14	0.05
18	T	Methylene chloride	10.000	10.201	-2.0	98	0.00
19	T	Carbon disulfide	10.000	10.820	-8.2	101	-0.02
20	T	Acrylonitrile	30.000	32.840	-9.5	122	0.00
21	T	tert-Butyl methyl ether (MT	10.000	10.130	-1.3	100	-0.02
22	T	trans-1,2-Dichloroethene	10.000	10.821	-8.2	99	-0.02
23	T	Isopropyl ether (DIPE)	10.000	10.700	-7.0	99	-0.02
24	P,T	1,1-Dichloroethane	10.000	11.064	-10.6	100	-0.02
25	T	Vinyl acetate	10.000	10.720	-7.2	103	0.00
26	T	tert-Butyl ethyl ether (ETB	10.000	10.853	-8.5	98	0.00
27	T	2-Butanone	20.000	18.029	9.9	107	-0.02
28	T	2,2-Dichloropropane	10.000	10.321	-3.2	97	-0.02
29	T	cis-1,2-Dichloroethene	10.000	11.529	-15.3	100	-0.02
30	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00
31	C,T	Chloroform	10.000	10.560	-5.6	98	-0.02
32	T	Bromochloromethane	10.000	10.633	-6.3	99	-0.02
33	T	Tetrahydrofuran	-1.000	0.000	0.0	0	0.00
34	T	1,1,1-Trichloroethane	10.000	11.003	-10.0	99	0.00
35	T	Cyclohexane *	10.000	0.008	99.9#	0	-0.07
36	T	tert-Amyl methyl ether (TAM	10.000	10.629	-6.3	98	0.00
37	S	1,2-Dichloroethane-d4	10.000	9.554	4.5	107	-0.02
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	98	-0.02
39	T	1,1-Dichloropropene	10.000	10.498	-5.0	97	-0.02
40	T	Carbon tetrachloride	10.000	11.180	-11.8	98	0.00

(#) = Out of Range

2014

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ599.D Vial: 16
Acq On : 26 Apr 2007 9:31 pm Operator: DN
Sample : IVO05D2602 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration * Not evaluated

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	11.127	-11.3	99	-0.02
42	M,T	Benzene	10.000	10.780	-7.8	99	0.00
43	M,T	Trichloroethene	10.000	11.235	-12.3	99	-0.02
44	T	Methylcyclohexane *	10.000	0.045	99.6#	0	-0.02
45	C,T	1,2-Dichloropropane	10.000	10.847	-8.5	99	-0.02
46	T	Bromodichloromethane	10.000	10.970	-9.7	99	-0.02
47	T	Dibromomethane	10.000	10.890	-8.9	96	-0.02
48	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
49	T	4-Methyl-2-pentanone	20.000	18.270	8.7	94	0.00
50	T	cis-1,3-Dichloropropene	10.000	11.259	-12.6	98	-0.02
51	S	Toluene-d8	10.000	10.579	-5.8	107	-0.01
52	C,TM	Toluene	10.000	11.191	-11.9	99	-0.02
53	T	Ethyl methacrylate	10.000	10.084	-0.8	97	-0.02
54	T	trans-1,3-Dichloropropene	10.000	11.460	-14.6	99	-0.01
55	T	1,1,2-Trichloroethane	10.000	11.118	-11.2	99	-0.02
56	T	2-Hexanone	20.000	19.194	4.0	98	-0.02
57	T	1,3-Dichloropropane	10.000	11.033	-10.3	98	-0.02
58	T	Tetrachloroethene	10.000	11.305	-13.0	98	-0.02
59	T	Dibromochloromethane	10.000	11.173	-11.7	97	-0.02
60	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
61	T	1,2-Dibromoethane	10.000	10.525	-5.3	99	-0.02
62	T	1-Chlorohexane	10.000	11.670	-16.7	101	-0.02
63	P,M	Chlorobenzene	10.000	11.052	-10.5	99	-0.02
64	T	1,1,1,2-Tetrachloroethane	10.000	10.985	-9.8	98	-0.02
65	C,T	Ethylbenzene	10.000	11.218	-12.2	99	-0.02
66	T	m-Xylene & p-Xylene	20.000	23.039	-15.2	99	-0.02
67	T	o-Xylene	10.000	11.090	-10.9	98	-0.02
68	T	Styrene	10.000	11.665	-16.6	99	-0.02
69	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	98	-0.02
70	P,T	Bromoform	10.000	10.512	-5.1	96	-0.02
71	T	Isopropylbenzene	10.000	10.595	-6.0	98	-0.02
72	P,T	1,1,2,2-Tetrachloroethane	10.000	10.014	-0.1	98	-0.02
73	S	4-Bromofluorobenzene	10.000	9.693	3.1	103	-0.02
74	T	1,2,3-Trichloropropane	10.000	11.054	-10.5	100	0.00
75	T	trans-1,4-Dichloro-2-butene	10.000	10.477	-4.8	92	0.00
76	T	n-Propylbenzene	10.000	10.566	-5.7	98	-0.02
77	T	Bromobenzene	10.000	10.465	-4.6	98	-0.02
78	T	2-Chlorotoluene	10.000	10.626	-6.3	98	-0.02
79	T	1,3,5-Trimethylbenzene	10.000	10.651	-6.5	98	-0.02
80	T	4-Chlorotoluene	10.000	10.559	-5.6	98	0.00

(#) = Out of Range

2015

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ599.D Vial: 16
Acq On : 26 Apr 2007 9:31 pm Operator: DN
Sample : IVO05D2602 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	10.000	10.893	-8.9	99	0.00
82	T	1,2,4-Trimethylbenzene	10.000	10.809	-8.1	99	-0.02
83	T	sec-Butylbenzene	10.000	10.928	-9.3	97	-0.02
84	T	p-Isopropyltoluene	10.000	11.376	-13.8	100	-0.02
85	T	1,3-Dichlorobenzene	10.000	11.008	-10.1	98	-0.02
86	T	1,4-Dichlorobenzene	10.000	11.115	-11.2	99	-0.02
87	T	n-Butylbenzene	10.000	11.646	-16.5	100	-0.02
88	T	1,2-Dichlorobenzene	10.000	11.056	-10.6	100	-0.02
89	T	1,2-Dibromo-3-chloropropane	10.000	10.553	-5.5	96	-0.03
90	T	1,2,4-Trichlorobenzene	10.000	10.973	-9.7	106	0.00
91	T	Hexachlorobutadiene	10.000	11.755	-17.6	104	-0.02
92	T	Naphthalene	10.000	11.926	-19.3	117	0.00
93	T	1,2,3-Trichlorobenzene	10.000	11.304	-13.0	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

4/30/09

2016

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D207
Lab File ID: RDQ601 BFB Injection Date : 04/26/07
Instrument ID: T-005 BFB Injection Time : 22:45
GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.82
75	30.0 - 60.0% of mass 95	57.83
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.08
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	73.81
175	5.0 - 9.0% of mass 174	5.15(7.0)1
176	95.0 - 101.0% of mass 174	72.85(98.7)1
177	5.0 - 9.0% of mass 176	4.67(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV005D2601	RDQ602	04/26/07	23:23
2	MBLK1W	V005D50Q	RDQ607	04/27/07	02:28
3	LCS1W	V005D50L	RDQ604	04/27/07	00:38
4	LCD1W	V005D50C	RDQ605	04/27/07	01:15
5	LTB-041707	D207-06	RDQ608	04/27/07	03:05
6	LTB-041807	D207-12	RDQ609	04/27/07	03:42

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDQ591
Instrument ID: T-005
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D207
Date Analyzed: 04/26/07
Time Analyzed: 16:38
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2065282	9.92	1699120	16.03	713372	22.42
	UPPER LIMIT	4130564	10.42	3398240	16.53	1426744	22.92
	LOWER LIMIT	1032641	9.42	849560	15.53	356686	21.92
	SAMPLE ID						
1	VSTD010	1984633	9.90	1667198	16.01	691103	22.40
2	MBLK1W	2416390	9.90	1939250	16.01	682089	22.40
3	LCS1W	2073352	9.90	1706847	16.01	706388	22.40
4	LCD1W	2145409	9.90	1771606	16.01	725632	22.40
5	LTB-041707	2455101	9.90	1973309	16.01	700697	22.40
6	LTB-041807	2291364	9.90	1849560	16.02	671186	22.40

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ602.D Vial: 3
Acq On : 26 Apr 2007 11:23 pm Operator: DN
Sample : CVO05D2601 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	96	-0.02
2	T	Dichlorodifluoromethane	10.000	9.367	6.3	86	0.00
3	P,T	Chloromethane	10.000	8.497	15.0	87	0.00
4	C,T	Vinyl chloride	10.000	8.687	13.1	85	0.00
5	T	Bromomethane	10.000	8.939	10.6	94	0.00
6	T	Chloroethane	10.000	8.631	13.7	85	-0.02
7	T	Dichlorofluoromethane	10.000	9.545	4.6	87	-0.02
8	T	Trichlorofluoromethane	10.000	9.282	7.2	88	0.00
9	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
10	T	Acrolein	20.000	17.127	14.4	83	-0.01
11	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.994	0.1	88	0.00
12	T	Acetone	20.000	17.484	12.6	93	0.00
13	C,TM	1,1-Dichloroethene	10.000	9.993	0.1	89	-0.02
14	T	tert-Butyl alcohol	50.000	53.230	-6.5	94	0.00
15	T	Acetonitrile	-1.000	0.000	0.0	0	0.00
16	T	Iodomethane	10.000	9.035	9.6	74	-0.02
17	T	Methyl acetate	10.000	0.552	94.5#	9	0.00
18	T	Methylene chloride	10.000	9.427	5.7	87	0.00
19	T	Carbon disulfide	10.000	9.793	2.1	88	-0.02
20	T	Acrylonitrile	30.000	26.979	10.1	96	-0.02
21	T	tert-Butyl methyl ether (MT	10.000	9.489	5.1	90	-0.02
22	T	trans-1,2-Dichloroethene	10.000	10.057	-0.6	89	-0.02
23	T	Isopropyl ether (DIPE)	10.000	10.075	-0.7	90	-0.02
24	P,T	1,1-Dichloroethane	10.000	10.115	-1.2	88	-0.02
25	T	Vinyl acetate	10.000	9.891	1.1	92	-0.02
26	T	tert-Butyl ethyl ether (ETB	10.000	10.350	-3.5	90	0.00
27	T	2-Butanone	20.000	16.648	16.8	95	-0.01
28	T	2,2-Dichloropropane	10.000	9.368	6.3	85	-0.02
29	T	cis-1,2-Dichloroethene	10.000	10.678	-6.8	89	-0.02
30	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00
31	C,T	Chloroform	10.000	10.000	0.0	90	-0.02
32	T	Bromochloromethane	10.000	10.117	-1.2	91	-0.02
33	T	Tetrahydrofuran	-1.000	0.000	0.0	0	0.00
34	T	1,1,1-Trichloroethane	10.000	10.401	-4.0	90	-0.02
35	T	Cyclohexane	10.000	0.321	96.8#	4	0.09
36	T	tert-Amyl methyl ether (TAM	10.000	10.233	-2.3	91	-0.02
37	S	1,2-Dichloroethane-d4	10.000	10.052	-0.5	108	-0.02
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	98	-0.02
39	T	1,1-Dichloropropene	10.000	9.633	3.7	89	-0.01
40	T	Carbon tetrachloride	10.000	10.243	-2.4	89	-0.02

(#) = Out of Range

2020

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ602.D Vial: 3
Acq On : 26 Apr 2007 11:23 pm Operator: DN
Sample : CVO05D2601 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	10.287	-2.9	91	-0.02
42	M,T	Benzene	10.000	9.744	2.6	90	-0.02
43	M,T	Trichloroethene	10.000	10.121	-1.2	89	-0.02
44	T	Methylcyclohexane	10.000	0.073	99.3#	1	-0.04
45	C,T	1,2-Dichloropropane	10.000	9.830	1.7	89	-0.02
46	T	Bromodichloromethane	10.000	10.028	-0.3	90	-0.02
47	T	Dibromomethane	10.000	9.876	1.2	87	-0.02
48	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
49	T	4-Methyl-2-pentanone	20.000	17.923	10.4	92	-0.02
50	T	cis-1,3-Dichloropropene	10.000	10.220	-2.2	89	-0.02
51	S	Toluene-d8	10.000	9.947	0.5	100	-0.01
52	C,TM	Toluene	10.000	10.257	-2.6	91	-0.02
53	T	Ethyl methacrylate	10.000	9.726	2.7	93	-0.01
54	T	trans-1,3-Dichloropropene	10.000	10.520	-5.2	90	-0.02
55	T	1,1,2-Trichloroethane	10.000	10.336	-3.4	92	-0.02
56	T	2-Hexanone	20.000	17.892	10.5	89	-0.02
57	T	1,3-Dichloropropane	10.000	10.244	-2.4	90	-0.02
58	T	Tetrachloroethene	10.000	10.319	-3.2	89	-0.02
59	T	Dibromochloromethane	10.000	10.465	-4.6	91	-0.02
60	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	0	0.00
61	T	1,2-Dibromoethane	10.000	9.768	2.3	92	-0.02
62	T	1-Chlorohexane	10.000	10.531	-5.3	90	-0.02
63	P,M	Chlorobenzene	10.000	10.112	-1.1	90	-0.02
64	T	1,1,1,2-Tetrachloroethane	10.000	10.317	-3.2	91	-0.02
65	C,T	Ethylbenzene	10.000	10.278	-2.8	90	-0.02
66	T	m-Xylene & p-Xylene	20.000	21.068	-5.3	90	-0.01
67	T	o-Xylene	10.000	10.281	-2.8	91	-0.02
68	T	Styrene	10.000	10.731	-7.3	91	-0.02
69	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	97	-0.02
70	P,T	Bromoform	10.000	9.725	2.8	88	-0.02
71	T	Isopropylbenzene	10.000	9.775	2.2	90	-0.02
72	P,T	1,1,2,2-Tetrachloroethane	10.000	9.320	6.8	90	-0.02
73	S	4-Bromofluorobenzene	10.000	9.441	5.6	100	-0.02
74	T	1,2,3-Trichloropropane	10.000	9.575	4.3	86	-0.01
75	T	trans-1,4-Dichloro-2-butene	10.000	9.776	2.2	86	0.00
76	T	n-Propylbenzene	10.000	9.744	2.6	90	-0.02
77	T	Bromobenzene	10.000	9.729	2.7	90	-0.02
78	T	2-Chlorotoluene	10.000	9.890	1.1	91	-0.02
79	T	1,3,5-Trimethylbenzene	10.000	9.812	1.9	90	-0.02
80	T	4-Chlorotoluene	10.000	9.757	2.4	90	-0.02

(#) = Out of Range

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ602.D Vial: 3
Acq On : 26 Apr 2007 11:23 pm Operator: DN
Sample : CVO05D2601 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	10.000	10.081	-0.8	91	-0.02
82	T	1,2,4-Trimethylbenzene	10.000	9.907	0.9	90	-0.02
83	T	sec-Butylbenzene	10.000	10.086	-0.9	89	-0.02
84	T	p-Isopropyltoluene	10.000	10.318	-3.2	90	-0.02
85	T	1,3-Dichlorobenzene	10.000	10.150	-1.5	90	-0.02
86	T	1,4-Dichlorobenzene	10.000	10.093	-0.9	89	-0.02
87	T	n-Butylbenzene	10.000	10.495	-4.9	89	-0.02
88	T	1,2-Dichlorobenzene	10.000	10.065	-0.6	90	0.00
89	T	1,2-Dibromo-3-chloropropane	10.000	10.003	-0.0	90	-0.02
90	T	1,2,4-Trichlorobenzene	10.000	9.503	5.0	91	0.00
91	T	Hexachlorobutadiene	10.000	10.242	-2.4	90	-0.02
92	T	Naphthalene	10.000	9.213	7.9	90	0.00
93	T	1,2,3-Trichlorobenzene	10.000	9.381	6.2	89	0.00

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ602.D Vial: 3
Acq On : 26 Apr 2007 11:23 pm Operator: DN
Sample : CVO05D2601 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	96	-0.02
2	T	Dichlorodifluoromethane	0.488	0.457	6.4	86	0.00
3	P,T	Chloromethane	0.671	0.570	15.1	87	0.00
4	C,T	Vinyl chloride	0.622	0.541	13.0	85	0.00
5	T	Bromomethane	0.474	0.380	19.8	94	0.00
6	T	Chloroethane	0.370	0.320	13.5	85	-0.02
7	T	Dichlorofluoromethane	1.074	1.025	4.6	87	-0.02
8	T	Trichlorofluoromethane	0.736	0.683	7.2	88	0.00
9	T	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
10	T	Acrolein	0.024	0.020	16.7	83	-0.01
11	T	1,1,2-Trichloro-1,2,2-trifl	0.309	0.308	0.3	88	0.00
12	T	Acetone	0.080	0.070	12.5	93	0.00
13	C,TM	1,1-Dichloroethene	0.687	0.686	0.1	89	-0.02
14	T	tert-Butyl alcohol	0.019	0.020	-5.3	94	0.00
15	T	Acetonitrile	0.000	0.000	0.0	0#	0.00
16	T	Iodomethane	0.374	0.419	-12.0	74	-0.02
17	T	Methyl acetate	0.131	0.011	91.6#	9#	0.00
18	T	Methylene chloride	0.559	0.477	14.7	87	0.00
19	T	Carbon disulfide	1.411	1.381	2.1	88	-0.02
20	T	Acrylonitrile	0.051	0.046	9.8	96	-0.02
21	T	tert-Butyl methyl ether (MT	0.712	0.676	5.1	90	-0.02
22	T	trans-1,2-Dichloroethene	0.653	0.656	-0.5	89	-0.02
23	T	Isopropyl ether (DIPE)	1.253	1.263	-0.8	90	-0.02
24	P,T	1,1-Dichloroethane	0.736	0.745	-1.2	88	-0.02
25	T	Vinyl acetate	0.421	0.417	1.0	92	-0.02
26	T	tert-Butyl ethyl ether (ETB	0.972	1.006	-3.5	90	0.00
27	T	2-Butanone	0.059	0.049	16.9	95	-0.01
28	T	2,2-Dichloropropane	0.657	0.615	6.4	85	-0.02
29	T	cis-1,2-Dichloroethene	0.666	0.711	-6.8	89	-0.02
30	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	0#	0.00
31	C,T	Chloroform	0.743	0.743	0.0	90	-0.02
32	T	Bromochloromethane	0.276	0.280	-1.4	91	-0.02
33	T	Tetrahydrofuran	0.000	0.000	0.0	0#	0.00
34	T	1,1,1-Trichloroethane	0.666	0.693	-4.1	90	-0.02
35	T	Cyclohexane	0.646	0.021	96.7#	4#	0.09
36	T	tert-Amyl methyl ether (TAM	0.717	0.734	-2.4	91	-0.02
37	S	1,2-Dichloroethane-d4	0.364	0.366	-0.5	108	-0.02
38	I	CHLOROBENZENE-D5	1.000	1.000	0.0	98	-0.02
39	T	1,1-Dichloropropene	0.254	0.245	3.5	89	-0.01
40	T	Carbon tetrachloride	0.668	0.684	-2.4	89	-0.02

(#) = Out of Range

2023

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ602.D Vial: 3
Acq On : 26 Apr 2007 11:23 pm Operator: DN
Sample : CVO05D2601 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.558	0.574	-2.9	91	-0.02
42	M,T	Benzene	1.617	1.576	2.5	90	-0.02
43	M,T	Trichloroethene	0.450	0.455	-1.1	89	-0.02
44	T	Methylcyclohexane	0.607	0.004	99.3#	1#	-0.04
45	C,T	1,2-Dichloropropane	0.431	0.423	1.9	89	-0.02
46	T	Bromodichloromethane	0.598	0.600	-0.3	90	-0.02
47	T	Dibromomethane	0.184	0.182	1.1	87	-0.02
48	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.00
49	T	4-Methyl-2-pentanone	0.174	0.156	10.3	92	-0.02
50	T	cis-1,3-Dichloropropene	0.559	0.572	-2.3	89	-0.02
51	S	Toluene-d8	1.189	1.183	0.5	100	-0.01
52	C,TM	Toluene	1.013	1.039	-2.6	91	-0.02
53	T	Ethyl methacrylate	0.267	0.286	-7.1	93	-0.01
54	T	trans-1,3-Dichloropropene	0.445	0.468	-5.2	90	-0.02
55	T	1,1,2-Trichloroethane	0.219	0.227	-3.7	92	-0.02
56	T	2-Hexanone	0.089	0.061	31.5#	89	-0.02
57	T	1,3-Dichloropropane	0.447	0.458	-2.5	90	-0.02
58	T	Tetrachloroethene	0.350	0.362	-3.4	89	-0.02
59	T	Dibromochloromethane	0.308	0.322	-4.5	91	-0.02
60	T	2-Ethyl-1-butanol	0.000	0.000	0.0	0#	0.00
61	T	1,2-Dibromoethane	0.203	0.216	-6.4	92	-0.02
62	T	1-Chlorohexane	0.674	0.709	-5.2	90	-0.02
63	P,M	Chlorobenzene	0.983	0.994	-1.1	90	-0.02
64	T	1,1,1,2-Tetrachloroethane	0.368	0.380	-3.3	91	-0.02
65	C,T	Ethylbenzene	2.048	2.105	-2.8	90	-0.02
66	T	m-Xylene & p-Xylene	1.579	1.663	-5.3	90	-0.01
67	T	o-Xylene	1.619	1.664	-2.8	91	-0.02
68	T	Styrene	1.009	1.083	-7.3	91	-0.02
69	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	97	-0.02
70	P,T	Bromoform	0.395	0.384	2.8	88	-0.02
71	T	Isopropylbenzene	5.054	4.940	2.3	90	-0.02
72	P,T	1,1,2,2-Tetrachloroethane	0.683	0.636	6.9	90	-0.02
73	S	4-Bromofluorobenzene	1.143	1.079	5.6	100	-0.02
74	T	1,2,3-Trichloropropane	0.138	0.132	4.3	86	-0.01
75	T	trans-1,4-Dichloro-2-butene	0.172	0.168	2.3	86	0.00
76	T	n-Propylbenzene	6.696	6.525	2.6	90	-0.02
77	T	Bromobenzene	0.996	0.969	2.7	90	-0.02
78	T	2-Chlorotoluene	4.064	4.019	1.1	91	-0.02
79	T	1,3,5-Trimethylbenzene	3.980	3.905	1.9	90	-0.02
80	T	4-Chlorotoluene	3.535	3.449	2.4	90	-0.02

(#) = Out of Range

2024

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDQ602.D Vial: 3
Acq On : 26 Apr 2007 11:23 pm Operator: DN
Sample : CVO05D2601 Inst : TO05
Misc : 10ppb 8260/20.0ppb KET-A/50ppb TBA/30ppb Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO05D26.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 27 12:06:08 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	3.967	3.999	-0.8	91	-0.02
82	T	1,2,4-Trimethylbenzene	3.831	3.795	0.9	90	-0.02
83	T	sec-Butylbenzene	5.485	5.532	-0.9	89	-0.02
84	T	p-Isopropyltoluene	4.289	4.426	-3.2	90	-0.02
85	T	1,3-Dichlorobenzene	1.880	1.908	-1.5	90	-0.02
86	T	1,4-Dichlorobenzene	1.783	1.799	-0.9	89	-0.02
87	T	n-Butylbenzene	4.151	4.356	-4.9	89	-0.02
88	T	1,2-Dichlorobenzene	1.577	1.587	-0.6	90	0.00
89	T	1,2-Dibromo-3-chloropropane	0.095	0.095	0.0	90	-0.02
90	T	1,2,4-Trichlorobenzene	0.981	0.945	3.7	91	0.00
91	T	Hexachlorobutadiene	0.802	0.821	-2.4	90	-0.02
92	T	Naphthalene	1.101	1.014	7.9	90	0.00
93	T	1,2,3-Trichlorobenzene	0.908	0.744	18.1	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ANALYTICAL LOG

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4.26.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # A05 -037**

BATCH V05D261

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDQ 584	BFB05 D47	2µL	NA	NA		12:21 pm
02		585	↓ 48	↓				
03		586	V05D261	.03/.15µL				8260, 624 / ket-A / TBA / AEN .3 / 1.8 / 1.5 / 1.9 ppb
04		587	2	.08/1.1 .5µL				.5 / 1 / 2.5 / 1.5
05		588	3	.1/1.7/5µL				1 / 2 / 5 / 3
06		589	4	.2/4/10µL				2 / 4 / 10 / 6
07		590	5	.5/1/25µL				5 / 10 / 25 / 15
08		591	6	1/2/5µL				10 / 20 / 50 / 30
09		592	7	2/4/10µL				20 / 40 / 100 / 60
10		593	8	3/6/15µL				30 / 60 / 150 / 90
11		594	9	4/8/20µL				40 / 80 / 200 / 120
12		595	↓ 10	5/10/25µL				50 / 100 / 250 / 150 ppb
13		596	IS/SS	25mL				
14		597	V05D47B	↓				
15		598	IV05D261 01	1/2/5µL				10/20/50/30 ppb
16		↓ 599	↓ 02	↓	↓	↓		↓ 9:31 pm
17								
18								
19								
20								
21								
22								pw 4.27.07
23								
24								
25								

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	4.26.07
ICAL ID	V05D26

STANDARDS

NAME	ID	CONC. (mg/L)
DCC 8260	GVIC. 11. 81.1	50/250
DCC ket-AA Gases	.80.2 .79.3	250 250
DCC 3 add	.71.1	250
BFB	.58.1	50
IS/SURR. IS SS	.70.1 .70.2	250 250
LCS 8260	.81.3	50/250
LCS ket-AA	.80.3	250
LCS Gases	↓ .80.1	250

SOLVENT	ID
METHANOL	
DATA FILE	07D26

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO05	

Comments:

Analyzed By: DN

Date Disposed: 4/27/07

Disposed By: DN

2821

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4.26.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # A05 -037**

BATCH CV005D2601

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RDQ600	BFB05D49	2ml				
02	601	50					10:45 pm
03	602	CV005D2601	1/2/5ml				
04	603	02					
05	604	V005D50L					
06	605	C					
07	606	B	25ml				
08	607	Q					
09	608	07D207-06	25ml	1	<2		
10	609	-12					
11	610	07D190-05					dirty, KR
12	611	-06					elo → RR
13	612	07D244-10					1x
14	613	07D237-01					1/10x
15	614	07D208-01					1x
16	615	-02					1x
17	616	-03					
18	617	07D202-09J	10ml	2500			
19	618	07D208-04	25ml	1			
20	619	07D202-02I	250ml	100			
21	620	09T					10:37 am
22							
23							
24							DN 4.27.07
25							

Instrument No.	05
INITIAL CALIBRATION REFERENCE	
DATE	4.26.07
ICAL ID	V005D26

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC_11. 81.1	
DCC	.80.2	
DCC	.79.3	
BFB	.58.1	50/250
IS/SURR.	.79.1	
LCS	.81.3	
LCS	.80.3	
LCS	.80.1	

SOLVENT	ID
METHANOL	
DATA FILE	07D26

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO05	

Comments:

Analyzed By: DN

Date Disposed: 4/27/07

Disposed By: DN

2028

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 07D207

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D207

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Ten (10) soil samples were received on 04/18/07 for Volatile Organic analysis by Method 5035/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D207
Instrument ID : T-067

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V067D47Q	1	NA	04/26/0715:50	04/26/0715:50	RDC548	RBC079	V067D47	Method Blank
LCS1S	V067D47L	1	NA	04/26/0714:00	04/26/0714:00	RDC545	RBC079	V067D47	Lab Control Sample (LCS)
LCD1S	V067D47C	1	NA	04/26/0714:37	04/26/0714:37	RDC546	RBC079	V067D47	LCS Duplicate
C22-HSAS21-12-15.5	D207-01	.94	4.6	04/26/0717:03	04/26/0717:03	RDC549	RBC079	V067D47	Field Sample
C22-HSAS21-30-31.5	D207-02	.94	10.1	04/26/0717:40	04/26/0717:40	RDC550	RBC079	V067D47	Field Sample
C22-HSAS21-60-61.5	D207-03	.88	7.4	04/26/0718:18	04/26/0718:18	RDC551	RBC079	V067D47	Field Sample
C22-HSAS21-9.5-11	D207-04	.98	1.2	04/26/0718:55	04/26/0718:55	RDC552	RBC079	V067D47	Field Sample
C22-HSAS2101-60-61.5	D207-07	.93	6.6	04/26/0719:32	04/26/0719:32	RDC553	RBC079	V067D47	Field Sample
C22-HSAS23-60-61.5	D207-08	.89	8.0	04/26/0720:10	04/26/0720:10	RDC554	RBC079	V067D47	Field Sample
C22-HSAS23-30-31.5	D207-09	1.1	4.3	04/26/0720:47	04/26/0720:47	RDC555	RBC079	V067D47	Field Sample
C22-HSAS2301-60-61.5	D207-10	.91	5.8	04/26/0721:24	04/26/0721:24	RDC556	RBC079	V067D47	Field Sample
C22-HSAS23-10-11.5	D207-11	.88	6.5	04/26/0722:02	04/26/0722:02	RDC557	RBC079	V067D47	Field Sample
IDW-041807-BIN1	D207-14	1.9	3.7	04/26/0722:39	04/26/0722:39	RDC558	RBC079	V067D47	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 17:03
Sample ID: C22-HSAS21-12-15.5	Date Analyzed: 04/26/07 17:03
Lab Samp ID: D207-01	Dilution Factor: .94
Lab File ID: RDC549	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 4.6
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.9	2.0
1,1,2,2-TETRACHLOROETHANE	ND	4.9	2.0
1,1,2-TRICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHENE	ND	4.9	2.0
1,2-DICHLOROETHANE	ND	4.9	2.0
1,2-DICHLOROPROPANE	ND	4.9	2.0
2-BUTANONE	ND	9.9	4.9
2-HEXANONE	ND	9.9	4.9
4-METHYL-2-PENTANONE	ND	9.9	4.9
ACETONE	ND	9.9	4.9
BENZENE	ND	4.9	2.0
BROMODICHLOROMETHANE	ND	4.9	2.0
BROMOFORM	ND	4.9	2.0
BROMOMETHANE	ND	9.9	2.0
CARBON DISULFIDE	ND	4.9	2.0
CARBON TETRACHLORIDE	ND	4.9	2.0
CHLOROBENZENE	ND	4.9	2.0
CHLOROETHANE	ND	4.9	2.0
CHLOROFORM	ND	4.9	2.0
CHLOROMETHANE	ND	9.9	2.0
CIS-1,2-DICHLOROETHENE	ND	4.9	2.0
CIS-1,3-DICHLOROPROPENE	ND	4.9	2.0
DIBROMOCHLOROMETHANE	ND	4.9	2.0
ETHYLBENZENE	ND	4.9	2.0
M/P-XYLENES	ND	9.9	2.0
MTBE	ND	4.9	2.0
METHYLENE CHLORIDE	ND	9.9	2.0
O-XYLENE	ND	4.9	2.0
STYRENE	ND	4.9	2.0
TETRACHLOROETHENE	ND	4.9	2.0
TOLUENE	ND	4.9	2.0
TRANS-1,2-DICHLOROETHENE	ND	4.9	2.0
TRANS-1,3-DICHLOROPROPENE	ND	4.9	2.0
TRICHLOROETHENE	ND	4.9	2.0
VINYL CHLORIDE	ND	4.9	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	60-160
4-BROMOFLUOROBENZENE	100	70-150
TOLUENE-D8	100	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 17:40
Sample ID: C22-HSAS21-30-31.5	Date Analyzed: 04/26/07 17:40
Lab Samp ID: D207-02	Dilution Factor: .94
Lab File ID: RDC550	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 10.1
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.2	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.2	2.1
1,1,2-TRICHLOROETHANE	ND	5.2	2.1
1,1-DICHLOROETHANE	ND	5.2	2.1
1,1-DICHLOROETHENE	ND	5.2	2.1
1,2-DICHLOROETHANE	ND	5.2	2.1
1,2-DICHLOROPROPANE	ND	5.2	2.1
2-BUTANONE	ND	10	5.2
2-HEXANONE	ND	10	5.2
4-METHYL-2-PENTANONE	ND	10	5.2
ACETONE	ND	10	5.2
BENZENE	ND	5.2	2.1
BROMODICHLOROMETHANE	ND	5.2	2.1
BROMOFORM	ND	5.2	2.1
BROMOMETHANE	ND	10	2.1
CARBON DISULFIDE	ND	5.2	2.1
CARBON TETRACHLORIDE	ND	5.2	2.1
CHLOROBENZENE	ND	5.2	2.1
CHLOROETHANE	ND	5.2	2.1
CHLOROFORM	ND	5.2	2.1
CHLOROMETHANE	ND	10	2.1
CIS-1,2-DICHLOROETHENE	ND	5.2	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.2	2.1
DIBROMOCHLOROMETHANE	ND	5.2	2.1
ETHYLBENZENE	ND	5.2	2.1
M/P-XYLENES	ND	10	2.1
MTBE	ND	5.2	2.1
METHYLENE CHLORIDE	ND	10	2.1
O-XYLENE	ND	5.2	2.1
STYRENE	ND	5.2	2.1
TETRACHLOROETHENE	ND	5.2	2.1
TOLUENE	ND	5.2	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.2	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.2	2.1
TRICHLOROETHENE	ND	5.2	2.1
VINYL CHLORIDE	ND	5.2	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	87	60-160
4-BROMOFLUOROBENZENE	103	70-150
TOLUENE-D8	99	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 18:18
Sample ID: C22-HSAS21-60-61.5	Date Analyzed: 04/26/07 18:18
Lab Samp ID: D207-03	Dilution Factor: .88
Lab File ID: RDC551	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 7.4
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.8	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.8	1.9
1,1,2-TRICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHENE	ND	4.8	1.9
1,2-DICHLOROETHANE	ND	4.8	1.9
1,2-DICHLOROPROPANE	ND	4.8	1.9
2-BUTANONE	ND	9.5	4.8
2-HEXANONE	ND	9.5	4.8
4-METHYL-2-PENTANONE	ND	9.5	4.8
ACETONE	4.9J	9.5	4.8
BENZENE	ND	4.8	1.9
BROMODICHLOROMETHANE	ND	4.8	1.9
BROMOFORM	ND	4.8	1.9
BROMOMETHANE	ND	9.5	1.9
CARBON DISULFIDE	ND	4.8	1.9
CARBON TETRACHLORIDE	ND	4.8	1.9
CHLOROBENZENE	ND	4.8	1.9
CHLOROETHANE	ND	4.8	1.9
CHLOROFORM	ND	4.8	1.9
CHLOROMETHANE	ND	9.5	1.9
CIS-1,2-DICHLOROETHENE	ND	4.8	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.8	1.9
DIBROMOCHLOROMETHANE	ND	4.8	1.9
ETHYLBENZENE	ND	4.8	1.9
M/P-XYLENES	ND	9.5	1.9
MTBE	ND	4.8	1.9
METHYLENE CHLORIDE	ND	9.5	1.9
O-XYLENE	ND	4.8	1.9
STYRENE	ND	4.8	1.9
TETRACHLOROETHENE	ND	4.8	1.9
TOLUENE	ND	4.8	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.8	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.8	1.9
TRICHLOROETHENE	ND	4.8	1.9
VINYL CHLORIDE	ND	4.8	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	60-160
4-BROMOFLUOROBENZENE	101	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 18:55
Sample ID: C22-HSAS21-9.5-11	Date Analyzed: 04/26/07 18:55
Lab Samp ID: D207-04	Dilution Factor: .98
Lab File ID: RDC552	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 1.2
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	9.9	5.0
2-HEXANONE	ND	9.9	5.0
4-METHYL-2-PENTANONE	ND	9.9	5.0
ACETONE	ND	9.9	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	9.9	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	9.9	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	9.9	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	9.9	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	60-160
4-BROMOFLUOROBENZENE	103	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 19:32
Sample ID: C22-HSAS2101-60-61.5	Date Analyzed: 04/26/07 19:32
Lab Samp ID: D207-07	Dilution Factor: .93
Lab File ID: RDC553	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 6.6
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	60-160
4-BROMOFLUOROBENZENE	102	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 20:10
Sample ID: C22-HSAS23-60-61.5	Date Analyzed: 04/26/07 20:10
Lab Samp ID: D207-08	Dilution Factor: .89
Lab File ID: RDC554	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 8.0
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.8	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.8	1.9
1,1,2-TRICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHENE	ND	4.8	1.9
1,2-DICHLOROETHANE	ND	4.8	1.9
1,2-DICHLOROPROPANE	ND	4.8	1.9
2-BUTANONE	ND	9.7	4.8
2-HEXANONE	ND	9.7	4.8
4-METHYL-2-PENTANONE	ND	9.7	4.8
ACETONE	ND	9.7	4.8
BENZENE	ND	4.8	1.9
BROMODICHLOROMETHANE	ND	4.8	1.9
BROMOFORM	ND	4.8	1.9
BROMOMETHANE	ND	9.7	1.9
CARBON DISULFIDE	ND	4.8	1.9
CARBON TETRACHLORIDE	ND	4.8	1.9
CHLOROBENZENE	ND	4.8	1.9
CHLOROETHANE	ND	4.8	1.9
CHLOROFORM	ND	4.8	1.9
CHLOROMETHANE	ND	9.7	1.9
CIS-1,2-DICHLOROETHENE	ND	4.8	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.8	1.9
DIBROMOCHLOROMETHANE	ND	4.8	1.9
ETHYLBENZENE	ND	4.8	1.9
M/P-XYLENES	ND	9.7	1.9
MTBE	ND	4.8	1.9
METHYLENE CHLORIDE	ND	9.7	1.9
O-XYLENE	ND	4.8	1.9
STYRENE	ND	4.8	1.9
TETRACHLOROETHENE	ND	4.8	1.9
TOLUENE	ND	4.8	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.8	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.8	1.9
TRICHLOROETHENE	ND	4.8	1.9
VINYL CHLORIDE	ND	4.8	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	60-160
4-BROMOFLUOROBENZENE	102	70-150
TOLUENE-D8	102	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/17/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/18/07
Batch No.	: 07D207	Date Extracted:	04/26/07 20:47
Sample ID:	C22-HSAS23-30-31.5	Date Analyzed:	04/26/07 20:47
Lab Samp ID:	D207-09	Dilution Factor:	1.1
Lab File ID:	RDC555	Matrix :	SOIL
Ext Btch ID:	V067D47	% Moisture :	4.3
Calib. Ref.:	R8C079	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.7	2.3
1,1,2,2-TETRACHLOROETHANE	ND	5.7	2.3
1,1,2-TRICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHENE	ND	5.7	2.3
1,2-DICHLOROETHANE	ND	5.7	2.3
1,2-DICHLOROPROPANE	ND	5.7	2.3
2-BUTANONE	ND	11	5.7
2-HEXANONE	ND	11	5.7
4-METHYL-2-PENTANONE	ND	11	5.7
ACETONE	ND	11	5.7
BENZENE	ND	5.7	2.3
BROMODICHLOROMETHANE	ND	5.7	2.3
BROMOFORM	ND	5.7	2.3
BROMOMETHANE	ND	11	2.3
CARBON DISULFIDE	ND	5.7	2.3
CARBON TETRACHLORIDE	ND	5.7	2.3
CHLOROBENZENE	ND	5.7	2.3
CHLOROETHANE	ND	5.7	2.3
CHLOROFORM	ND	5.7	2.3
CHLOROMETHANE	ND	11	2.3
CIS-1,2-DICHLOROETHENE	ND	5.7	2.3
CIS-1,3-DICHLOROPROPENE	ND	5.7	2.3
DIBROMOCHLOROMETHANE	ND	5.7	2.3
ETHYLBENZENE	ND	5.7	2.3
M/P-XYLENES	ND	11	2.3
MTBE	ND	5.7	2.3
METHYLENE CHLORIDE	ND	11	2.3
O-XYLENE	ND	5.7	2.3
STYRENE	ND	5.7	2.3
TETRACHLOROETHENE	ND	5.7	2.3
TOLUENE	ND	5.7	2.3
TRANS-1,2-DICHLOROETHENE	ND	5.7	2.3
TRANS-1,3-DICHLOROPROPENE	ND	5.7	2.3
TRICHLOROETHENE	ND	5.7	2.3
VINYL CHLORIDE	ND	5.7	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	60-160
4-BROMOFLUOROBENZENE	103	70-150
TOLUENE-D8	100	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 21:24
Sample ID: C22-HSAS2301-60-61.5	Date Analyzed: 04/26/07 21:24
Lab Samp ID: D207-10	Dilution Factor: .91
Lab File ID: RDC556	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 5.8
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.8	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.8	1.9
1,1,2-TRICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHANE	ND	4.8	1.9
1,1-DICHLOROETHENE	ND	4.8	1.9
1,2-DICHLOROETHANE	ND	4.8	1.9
1,2-DICHLOROPROPANE	ND	4.8	1.9
2-BUTANONE	ND	9.7	4.8
2-HEXANONE	ND	9.7	4.8
4-METHYL-2-PENTANONE	ND	9.7	4.8
ACETONE	ND	9.7	4.8
BENZENE	ND	4.8	1.9
BROMODICHLOROMETHANE	ND	4.8	1.9
BROMOFORM	ND	4.8	1.9
BROMOMETHANE	ND	9.7	1.9
CARBON DISULFIDE	ND	4.8	1.9
CARBON TETRACHLORIDE	ND	4.8	1.9
CHLOROBENZENE	ND	4.8	1.9
CHLOROETHANE	ND	4.8	1.9
CHLOROFORM	ND	4.8	1.9
CHLOROMETHANE	ND	9.7	1.9
CIS-1,2-DICHLOROETHENE	ND	4.8	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.8	1.9
DIBROMOCHLOROMETHANE	ND	4.8	1.9
ETHYLBENZENE	ND	4.8	1.9
M/P-XYLENES	ND	9.7	1.9
MTBE	ND	4.8	1.9
METHYLENE CHLORIDE	ND	9.7	1.9
O-XYLENE	ND	4.8	1.9
STYRENE	ND	4.8	1.9
TETRACHLOROETHENE	ND	4.8	1.9
TOLUENE	ND	4.8	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.8	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.8	1.9
TRICHLOROETHENE	ND	4.8	1.9
VINYL CHLORIDE	ND	4.8	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	60-160
4-BROMOFLUOROBENZENE	102	70-150
TOLUENE-D8	101	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/17/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 22:02
Sample ID: C22-HSAS23-10-11.5	Date Analyzed: 04/26/07 22:02
Lab Samp ID: D207-11	Dilution Factor: .88
Lab File ID: RDC557	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 6.5
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.7	1.9
1,1,2,2-TETRACHLOROETHANE	ND	4.7	1.9
1,1,2-TRICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHANE	ND	4.7	1.9
1,1-DICHLOROETHENE	ND	4.7	1.9
1,2-DICHLOROETHANE	ND	4.7	1.9
1,2-DICHLOROPROPANE	ND	4.7	1.9
2-BUTANONE	ND	9.4	4.7
2-HEXANONE	ND	9.4	4.7
4-METHYL-2-PENTANONE	ND	9.4	4.7
ACETONE	ND	9.4	4.7
BENZENE	ND	4.7	1.9
BROMODICHLOROMETHANE	ND	4.7	1.9
BROMOFORM	ND	4.7	1.9
BROMOMETHANE	ND	9.4	1.9
CARBON DISULFIDE	ND	4.7	1.9
CARBON TETRACHLORIDE	ND	4.7	1.9
CHLOROBENZENE	ND	4.7	1.9
CHLOROETHANE	ND	4.7	1.9
CHLOROFORM	ND	4.7	1.9
CHLOROMETHANE	ND	9.4	1.9
CIS-1,2-DICHLOROETHENE	ND	4.7	1.9
CIS-1,3-DICHLOROPROPENE	ND	4.7	1.9
DIBROMOCHLOROMETHANE	ND	4.7	1.9
ETHYLBENZENE	ND	4.7	1.9
M/P-XYLENES	ND	9.4	1.9
MTBE	ND	4.7	1.9
METHYLENE CHLORIDE	ND	9.4	1.9
O-XYLENE	ND	4.7	1.9
STYRENE	ND	4.7	1.9
TETRACHLOROETHENE	ND	4.7	1.9
TOLUENE	ND	4.7	1.9
TRANS-1,2-DICHLOROETHENE	ND	4.7	1.9
TRANS-1,3-DICHLOROPROPENE	ND	4.7	1.9
TRICHLOROETHENE	ND	4.7	1.9
VINYL CHLORIDE	ND	4.7	1.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	60-160
4-BROMOFLUOROBENZENE	106	70-150
TOLUENE-D8	105	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/18/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/26/07 22:39
Sample ID: IDW-041807-BIN1	Date Analyzed: 04/26/07 22:39
Lab Samp ID: D207-14	Dilution Factor: 1.9
Lab File ID: RDC558	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : 3.7
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	9.9	3.9
1,1,2,2-TETRACHLOROETHANE	ND	9.9	3.9
1,1,2-TRICHLOROETHANE	ND	9.9	3.9
1,1-DICHLOROETHANE	ND	9.9	3.9
1,1-DICHLOROETHENE	ND	9.9	3.9
1,2-DICHLOROETHANE	ND	9.9	3.9
1,2-DICHLOROPROPANE	ND	9.9	3.9
2-BUTANONE	ND	20	9.9
2-HEXANONE	ND	20	9.9
4-METHYL-2-PENTANONE	ND	20	9.9
ACETONE	ND	20	9.9
BENZENE	ND	9.9	3.9
BROMODICHLOROMETHANE	ND	9.9	3.9
BROMOFORM	ND	9.9	3.9
BROMOMETHANE	ND	20	3.9
CARBON DISULFIDE	ND	9.9	3.9
CARBON TETRACHLORIDE	ND	9.9	3.9
CHLOROBENZENE	ND	9.9	3.9
CHLOROETHANE	ND	9.9	3.9
CHLOROFORM	ND	9.9	3.9
CHLOROMETHANE	ND	20	3.9
CIS-1,2-DICHLOROETHENE	ND	9.9	3.9
CIS-1,3-DICHLOROPROPENE	ND	9.9	3.9
DIBROMOCHLOROMETHANE	ND	9.9	3.9
ETHYLBENZENE	ND	9.9	3.9
M/P-XYLENES	ND	20	3.9
MTBE	ND	9.9	3.9
METHYLENE CHLORIDE	ND	20	3.9
O-XYLENE	ND	9.9	3.9
STYRENE	ND	9.9	3.9
TETRACHLOROETHENE	ND	9.9	3.9
TOLUENE	ND	9.9	3.9
TRANS-1,2-DICHLOROETHENE	ND	9.9	3.9
TRANS-1,3-DICHLOROPROPENE	ND	9.9	3.9
TRICHLOROETHENE	ND	9.9	3.9
VINYL CHLORIDE	ND	9.9	3.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	60-160
4-BROMOFLUOROBENZENE	111	70-150
TOLUENE-D8	104	70-140

QC SUMMARIES

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/26/07
Batch No. : 07D207	Date Extracted: 04/26/07 15:50
Sample ID: MBLK1S	Date Analyzed: 04/26/07 15:50
Lab Samp ID: V067D47Q	Dilution Factor: 1
Lab File ID: RDC548	Matrix : SOIL
Ext Btch ID: V067D47	% Moisture : NA
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	92	70-140
4-BROMOFLUOROBENZENE	100	70-130
TOLUENE-D8	101	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V067D47Q	V067D47L	V067D47C		
LAB FILE ID:	RDC548	RDC545	RDC546		
DATE EXTRACTED:	04/26/0715:50	04/26/0714:00	04/26/0714:37	DATE COLLECTED:	NA
DATE ANALYZED:	04/26/0715:50	04/26/0714:00	04/26/0714:37	DATE RECEIVED:	04/26/07
PREP. BATCH:	V067D47	V067D47	V067D47		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	21.4	107	20.0	21.1	106	1	60-130	50
Benzene	ND	20.0	21.8	109	20.0	19.7	99	10	70-130	50
Chlorobenzene	ND	20.0	20.0	100	20.0	18.3	91	9	70-130	50
Toluene	ND	20.0	20.1	101	20.0	18.2	91	10	70-130	50
Trichloroethene	ND	20.0	22.2	111	20.0	20.2	101	9	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	42.6	85	50.0	41.7	83	70-140
4-Bromofluorobenzene	50.0	46.8	94	50.0	46.5	93	70-130
Toluene-d8	50.0	49.2	98	50.0	45.1	90	70-130

INITIAL CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc | Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.: | SAS No.: SDG No.: 07D207
Lab File ID: RBC074 | BFB Injection Date : 02/07/07
Instrument ID: T-067 | BFB Injection Time : 18:28
GC Column:RTX502.2ID:0.32mm (mm) | Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.67
75	30.0 - 60.0% of mass 95	41.01
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.56
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.94
175	5.0 - 9.0% of mass 174	4.92(6.8)1
176	95.0 - 101.0% of mass 174	70.83(98.5)1
177	5.0 - 9.0% of mass 176	4.71(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD02	V067B071	RBC075	02/07/07	19:04
2	VSTD05	V067B072	RBC076	02/07/07	19:41
3	VSTD010	V067B073	RBC077	02/07/07	20:18
4	VSTD020	V067B074	RBC078	02/07/07	20:55
5	VSTD050	V067B075	RBC079	02/07/07	21:32
6	VSTD080	V067B076	RBC080	02/07/07	22:08
7	VSTD100	V067B077	RBC081	02/07/07	22:45
8	VSTD200	V067B078	RBC082	02/07/07	23:22
9	VSTD300	V067B079	RBC083	02/07/07	23:58
10	VSTD050	IV067B071	RBC086	02/08/07	01:49

PROGRAM: ICALMAX

Input: R:\CAL\8260\2007\V067B07\RBC079.ICL Output: R:\CAL\8260\2007\V067B07\RBC079.MAX

IDX	Parameter	x0	x1	x2	CCF2	MaxMinAmtRatio	MaxMinRespRatio	MaxMinRRF	MaxMinConc
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998	2.23243	0.27666	0.12393	111.6
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996	-6.26479	-1.68957	0.26969	-313.2
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993	-4.45329	-2.14560	0.48180	-222.7
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997	-7.61527	-1.76653	0.23197	-380.8

2918

2/2/18

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO67
Beginning DateTime :02/07/07 19:04
Spike Units :PPB
IC File :RBC079

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :02/07/07 23:58
HPChem Method :VO67B07

M	IDX	Parameters	2 19:04 RBC075	5 19:41 RBC076	10 20:18 RBC077	20 20:55 RBC078	50 21:32 RBC079	80 22:08 RBC080	100 22:45 RBC081	200 23:22 RBC082	300 23:58 RBC083	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	10.1403
	2	Dichlorodifluoromethane	0.181	0.215	0.228	0.229	0.240	0.235	0.219	0.208	0.199	0.217	8.72	3.5412
	3	Chloromethane	0.218	0.247	0.258	0.262	0.279	0.287	0.268	0.262	0.245	0.258	7.93	4.0145
	4	Vinyl chloride	0.215	0.246	0.240	0.224	0.190	0.158	0.138	------	------	0.202	20.48	4.1679
	5	Bromomethane	0.200	0.210	0.213	0.212	0.215	0.217	0.205	0.204	0.200	0.209	3.08	4.9065
	6	Chloroethane	0.099	0.121	0.125	0.134	0.145	0.144	0.132	0.128	0.120	0.127	11.03	5.0158
	7	Dichlorofluoromethane	0.467	0.471	0.535	0.501	0.466	0.478	0.445	0.451	0.421	0.471	6.97	5.0571
	8	Trichlorofluoromethane	0.268	0.299	0.314	0.324	0.342	0.336	0.317	0.306	0.293	0.311	7.30	5.3898
4	9	Acrolein	0.027	0.031	0.035	0.037	0.037	0.039	0.035	0.037	0.033	0.035	10.79	5.9442
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.199	0.190	0.232	0.210	0.199	0.202	0.192	0.197	0.189	0.201	6.58	5.9525
4	11	Acetone	0.079	0.076	0.073	0.075	0.066	0.069	0.064	0.067	0.062	0.070	8.21	6.0203
	12	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	13	1,1-Dichloroethene	0.358	0.373	0.444	0.408	0.391	0.392	0.370	0.370	0.346	0.383	7.65	6.2371
5	14	tert-Butyl alcohol	0.021	0.023	0.026	0.026	0.023	0.024	0.023	0.024	0.021	0.024	7.53	6.2785
	15	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	0.312	0.333	0.415	0.438	0.438	0.439	0.419	0.422	0.395	0.401	11.76	6.7022
	17	Methylene chloride	0.531	0.477	0.491	0.461	0.421	0.430	0.406	0.403	0.381	0.444	10.99	6.8660
5	18	Acrylonitrile	0.079	0.084	0.089	0.095	0.089	0.090	0.082	0.087	0.078	0.086	6.58	6.9835
	19	Carbon disulfide	1.095	1.112	1.258	1.207	1.136	1.128	1.065	1.088	1.009	1.122	6.61	6.9967
	20	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	21	tert-Butyl methyl ether (MTBE)	0.537	0.574	0.661	0.646	0.604	0.607	0.576	0.607	0.559	0.597	6.69	7.0017
	22	trans-1,2-Dichloroethene	0.382	0.411	0.480	0.465	0.445	0.438	0.421	0.427	0.407	0.431	6.99	7.2417
	23	Isopropyl ether (DIPE)	0.941	0.971	1.131	1.109	1.053	1.061	1.006	1.069	0.996	1.037	6.12	7.5330
	24	Vinyl acetate	0.425	0.402	0.530	0.531	0.525	0.563	0.554	0.610	0.578	0.524	13.05	7.6836
	25	1,1-Dichloroethane	0.553	0.553	0.622	0.599	0.559	0.554	0.513	0.529	0.507	0.554	6.71	7.7763
	26	tert-Butyl ethyl ether (ETBE)	0.709	0.757	0.867	0.839	0.796	0.801	0.779	0.809	0.758	0.791	5.94	8.0510
4	27	2-Butanone	0.122	0.115	0.117	0.133	0.127	0.132	0.125	0.136	0.131	0.126	5.76	8.2380
	28	2,2-Dichloropropane	0.362	0.366	0.418	0.397	0.375	0.370	0.352	0.365	0.348	0.373	5.96	8.4896
	29	cis-1,2-Dichloroethene	0.478	0.423	0.514	0.548	0.524	0.520	0.493	0.461	0.423	0.487	9.16	8.5541
	30	Chloroform	0.521	0.539	0.616	0.591	0.565	0.563	0.533	0.543	0.522	0.555	5.82	8.7577
	31	Bromochloromethane	0.285	0.302	0.349	0.333	0.306	0.309	0.295	0.288	0.277	0.305	7.63	8.9960
	32	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	33	1,1,1-Trichloroethane	0.402	0.403	0.462	0.431	0.417	0.413	0.394	0.403	0.382	0.412	5.69	9.2939
	34	1,1-Dichloropropene	0.112	0.129	0.155	0.151	0.141	0.144	0.136	0.139	0.129	0.137	9.50	9.4858
	35	tert-Amyl methyl ether (TAME)	0.675	0.722	0.842	0.820	0.770	0.785	0.755	0.788	0.755	0.768	6.49	9.5488
4	36	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	37	Carbon tetrachloride	0.337	0.339	0.400	0.370	0.356	0.361	0.342	0.347	0.334	0.354	5.90	9.6563
	38	1,2-Dichloroethane-d4	0.249	0.275	0.275	0.280	0.313	0.303	0.276	0.272	0.250	0.277	7.61	9.6811
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	15.6936
	40	1,2-Dichloroethane	0.363	0.371	0.424	0.413	0.374	0.371	0.357	0.363	0.329	0.374	7.68	9.8003
	41	Benzene	1.419	1.315	1.465	1.453	1.326	1.331	1.274	1.322	------	1.363	5.26	9.8750
	42	Trichloroethene	0.343	0.347	0.397	0.394	0.366	0.380	0.364	0.378	0.360	0.370	5.11	10.7113
	43	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	44	1,2-Dichloropropane	0.412	0.385	0.447	0.444	0.408	0.414	0.397	0.400	0.378	0.409	5.79	10.9612
	45	Bromodichloromethane	0.432	0.447	0.503	0.506	0.459	0.472	0.453	0.464	0.443	0.464	5.53	11.3501
	46	Dibromomethane	0.234	0.245	0.278	0.280	0.251	0.253	0.242	0.248	0.229	0.251	6.99	11.4858
	47	2-Chloroethyl vinyl ether	------	0.049	0.057	0.063	0.069	0.078	0.078	0.096	0.095	0.073	23.09	11.6721
4	48	4-Methyl-2-pentanone	0.305	0.290	0.290	0.334	0.317	0.333	0.314	0.343	0.312	0.315	5.92	11.7175
	49	cis-1,3-Dichloropropene	0.417	0.437	0.505	0.518	0.484	0.509	0.503	0.525	0.494	0.488	7.57	12.1826
	50	Toluene-d8	------	1.135	1.140	1.221	1.339	1.286	1.219	1.223	------	1.223	5.98	12.6623
	51	Toluene	1.451	1.388	1.539	1.546	1.414	1.411	1.368	1.399	------	1.440	4.71	12.8112
	52	Ethyl methacrylate	0.234	0.278	0.328	0.359	0.348	0.369	0.360	0.388	------	0.333	15.59	12.8726
	53	trans-1,3-Dichloropropene	0.306	0.321	0.386	0.416	0.387	0.405	0.392	0.417	------	0.379	11.16	13.0346

6h02
6h04

OK 2/12/07

4	54	2-Hexanone	0.186	0.161	0.164	0.191	0.185	0.208	0.202	0.223	0.219	0.193	11.30	13.2476
	55	1,1,2-Trichloroethane	0.283	0.302	0.328	0.339	0.304	0.310	0.295	0.306	0.287	0.306	5.88	13.3750
	56	1,3-Dichloropropane	0.478	0.478	0.532	0.551	0.499	0.510	0.497	0.511	0.483	0.504	4.91	13.8500
	57	Tetrachloroethene	0.268	0.265	0.286	0.293	0.267	0.269	0.259	0.265	0.252	0.269	4.82	14.0767
	58	Dibromochloromethane	0.325	0.337	0.381	0.393	0.362	0.376	0.363	0.385	0.367	0.366	6.14	14.4921
	59	1,2-Dibromoethane	0.291	0.316	0.363	0.371	0.341	0.349	0.337	0.359	0.347	0.342	7.26	14.9257
	60	1-Chlorohexane	0.436	0.454	0.531	0.561	0.558	0.563	0.547	0.562	0.542	0.528	9.18	15.0333
	61	Chlorobenzene	0.919	0.900	1.009	1.013	0.937	0.958	0.919	0.938	------	0.949	4.40	15.7752
	62	1,1,1,2-Tetrachloroethane	0.284	0.294	0.333	0.334	0.306	0.309	0.297	0.302	------	0.307	5.80	15.8181
	63	Ethylbenzene	1.472	1.458	1.648	1.682	1.566	1.612	1.548	1.547	------	1.567	5.02	15.8181
2	64	m-Xylene & p-Xylene	1.106	1.103	1.243	1.279	1.171	1.217	1.158	------	------	1.183	5.68	15.9816
	65	o-Xylene	1.143	1.152	1.277	1.326	1.211	1.289	1.230	1.274	1.153	1.228	5.53	16.9916
	66	Styrene	0.749	0.765	0.919	0.954	0.926	0.994	0.963	1.009	0.949	0.914	10.27	17.0561
	67	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	22.4738
	68	Isopropylbenzene	4.240	4.216	4.814	4.508	4.283	4.209	3.991	3.969	------	4.279	6.42	17.7823
	69	Bromoform	0.601	0.605	0.723	0.675	0.624	0.592	0.562	0.582	------	0.621	8.58	17.9629
	70	1,1,2,2-Tetrachloroethane	1.343	1.334	1.533	1.408	1.244	1.212	1.137	1.169	1.143	1.280	10.51	18.1847
	71	4-Bromofluorobenzene	1.345	1.218	1.211	1.214	1.323	1.237	------	------	------	1.258	4.78	18.4392
	72	1,2,3-Trichloropropane	0.216	0.233	0.261	0.251	0.207	0.197	0.192	0.197	0.174	0.214	13.59	18.5554
	73	trans-1,4-Dichloro-2-butene	------	0.133	0.163	0.161	0.159	0.167	0.164	0.180	0.177	0.163	8.78	18.6610
	74	n-Propylbenzene	4.663	4.875	5.741	5.404	5.360	5.343	5.141	4.981	------	5.188	6.62	18.7542
	75	Bromobenzene	0.980	1.001	1.128	1.042	0.976	0.947	0.895	0.909	------	0.985	7.63	18.9907
	76	1,3,5-Trimethylbenzene	3.020	2.934	3.555	3.395	3.293	3.259	3.119	3.158	2.943	3.186	6.58	19.1363
	77	2-Chlorotoluene	3.567	3.270	3.561	3.290	3.348	3.168	2.859	2.889	2.903	3.206	8.55	19.2736
	78	4-Chlorotoluene	2.695	2.848	3.244	3.069	2.677	2.706	2.726	2.742	2.445	2.795	8.40	19.3746
	79	tert-Butylbenzene	2.601	2.606	3.033	2.927	2.827	2.831	2.680	2.686	2.566	2.751	5.89	20.0365
	80	1,2,4-Trimethylbenzene	2.589	2.691	3.190	3.131	3.083	3.054	2.969	3.031	2.881	2.958	6.83	20.1524
	81	sec-Butylbenzene	3.681	3.756	4.567	4.444	4.595	4.541	4.417	4.561	------	4.320	8.72	20.5844
	82	p-Isopropyltoluene	2.141	2.299	2.848	2.857	3.058	3.170	3.088	3.283	------	2.843	14.54	20.9177
	83	1,3-Dichlorobenzene	1.684	1.640	1.905	1.810	1.744	1.750	1.641	1.723	1.706	1.734	4.83	21.2758
	84	1,4-Dichlorobenzene	1.518	1.564	1.823	1.715	1.647	1.667	1.600	1.677	1.649	1.651	5.36	21.5373
	85	n-Butylbenzene	1.438	1.605	2.113	2.259	2.605	2.916	2.800	3.262	------	2.375	26.94	21.9975
	86	1,2-Dichlorobenzene	1.571	1.506	1.745	1.646	1.576	1.576	1.514	1.579	1.548	1.585	4.59	22.5466
	87	1,2-Dibromo-3-chloropropane	0.087	0.106	0.148	0.151	0.151	0.154	0.147	0.168	0.168	0.142	19.23	24.6302
	88	1,2,4-Trichlorobenzene	0.357	0.375	0.488	0.492	0.548	0.618	0.600	0.726	0.782	0.554	26.06	27.0432
	89	Hexachlorobutadiene	0.248	0.247	0.323	0.319	0.351	0.387	0.372	0.411	0.430	0.343	19.08	27.3924
	90	Naphthalene	0.647	0.598	0.764	0.824	0.967	1.142	1.143	1.438	1.562	1.010	33.63	27.7929
	91	1,2,3-Trichlorobenzene	0.325	0.343	0.428	0.428	0.466	0.522	0.506	0.598	0.636	0.472	22.23	28.4698

Spike Amount = Nominal Amount * M
Ave_%RSD : 9.1 Max_%RSD : 33.6

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
4	Vinyl chloride	0.00692	0.15749	0.9827*
47	2-Chloroethyl vinyl ether	-0.00742	0.09175	0.9954
52	Ethyl methacrylate	-0.00783	0.37701	0.9993
85	n-Butylbenzene	-0.11897	3.04198	0.9958
87	1,2-Dibromo-3-chloropropane	-0.00432	0.16381	0.9988
88	1,2,4-Trichlorobenzene	-0.03217	0.71499	0.9930*
89	Hexachlorobutadiene	-0.01333	0.40976	0.9978
90	Naphthalene	-0.07805	1.40017	0.9886*
91	1,2,3-Trichlorobenzene	-0.02325	0.58876	0.9948*

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997

OK 12/12/97

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	116	0.00
2	T	Dichlorodifluoromethane	50.000	54.285	-8.6	114	0.00
3	P,T	Chloromethane	50.000	56.283	-12.6	121	-0.01
4	C,T	Vinyl chloride	50.000	49.484	1.0	117	-0.01
5	T	Bromomethane	50.000	52.808	-5.6	119	-0.01
6	T	Chloroethane	50.000	55.465	-10.9	113	-0.01
7	T	Dichlorofluoromethane	50.000	47.741	4.5	112	0.00
8	T	Trichlorofluoromethane	50.000	57.196	-14.4	121	0.00
9	T	Acrolein	200.000	201.489	-0.7	109	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	49.156	1.7	115	0.00
11	T	Acetone	200.000	186.165	6.9	114	0.00
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	60	0.06
13	C,TM	1,1-Dichloroethene	50.000	59.108	-18.2	135	0.00
14	T	tert-Butyl alcohol	250.000	262.606	-5.0	123	-0.01
15	T	Methyl acetate	-1.000	0.000	0.0	71	0.00
16	T	Iodomethane	50.000	51.871	-3.7	110	0.00
17	T	Methylene chloride	50.000	49.726	0.5	122	0.00
18	T	Acrylonitrile	250.000	257.444	-3.0	116	-0.01
19	T	Carbon disulfide	50.000	52.289	-4.6	120	0.00
20	T	Acetonitrile	-1.000	0.000	0.0	107	0.00
21	T	tert-Butyl methyl ether (MT	50.000	48.369	3.3	111	0.00
22	T	trans-1,2-Dichloroethene	50.000	53.736	-7.5	121	0.00
23	T	Isopropyl ether (DIPE)	50.000	47.711	4.6	109	-0.01
24	T	Vinyl acetate	50.000	42.372	15.3	98	0.00
25	P,T	1,1-Dichloroethane	50.000	51.578	-3.2	119	0.00
26	T	tert-Butyl ethyl ether (ETB	50.000	47.902	4.2	111	0.00
27	T	2-Butanone	200.000	206.098	-3.0	120	0.00
28	T	2,2-Dichloropropane	50.000	46.355	7.3	107	0.00
29	T	cis-1,2-Dichloroethene	50.000	47.567	4.9	103	0.00
30	C,T	Chloroform	50.000	49.113	1.8	112	0.00
31	T	Bromochloromethane	50.000	51.125	-2.3	119	0.00
32	T	Cyclohexane	-1.000	0.000	0.0	15	-0.03
33	T	1,1,1-Trichloroethane	50.000	49.430	1.1	113	0.00
34	T	1,1-Dichloropropene	50.000	51.242	-2.5	116	0.00
35	T	tert-Amyl methyl ether (TAM	50.000	48.916	2.2	113	0.00
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	125	0.00
37	T	Carbon tetrachloride	50.000	50.690	-1.4	117	-0.01
38	S	1,2-Dichloroethane-d4	50.000	47.859	4.3	98	0.00
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	113	0.00
40	T	1,2-Dichloroethane	50.000	48.947	2.1	110	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	54.058	-8.1	125	0.00
42	M,T	Trichloroethene	50.000	52.260	-4.5	119	0.00
43	T	Methylcyclohexane	-1.000	0.000	0.0	128	0.00
44	C,T	1,2-Dichloropropane	50.000	50.501	-1.0	114	0.00
45	T	Bromodichloromethane	50.000	49.499	1.0	113	0.00
46	T	Dibromomethane	50.000	49.986	0.0	113	0.00
47	T	2-Chloroethyl vinyl ether	50.000	43.744	12.5	119	-0.01
48	T	4-Methyl-2-pentanone	200.000	207.809	-3.9	116	0.00
49	T	cis-1,3-Dichloropropene	50.000	54.224	-8.4	123	0.00
50	S	Toluene-d8	50.000	49.772	0.5	102	0.00
51	C,TM	Toluene	50.000	49.389	1.2	113	0.00
52	T	Ethyl methacrylate	50.000	48.539	2.9	116	0.00
53	T	trans-1,3-Dichloropropene	50.000	54.432	-8.9	120	0.00
54	T	2-Hexanone	200.000	209.396	-4.7	123	0.00
55	T	1,1,2-Trichloroethane	50.000	48.634	2.7	110	0.00
56	T	1,3-Dichloropropane	50.000	49.986	0.0	114	0.00
57	T	Tetrachloroethene	50.000	50.941	-1.9	116	0.00
58	T	Dibromochloromethane	50.000	50.227	-0.5	114	0.00
59	T	1,2-Dibromoethane	50.000	50.638	-1.3	114	0.00
60	T	1-Chlorohexane	50.000	50.448	-0.9	108	0.00
61	P,M	Chlorobenzene	50.000	50.707	-1.4	116	0.00
62	T	1,1,1,2-Tetrachloroethane	50.000	49.950	0.1	113	0.00
63	C,T	Ethylbenzene	50.000	51.079	-2.2	115	0.00
64	T	m-Xylene & p-Xylene	100.000	100.201	-0.2	114	-0.01
65	T	o-Xylene	50.000	50.020	-0.0	114	0.00
66	T	Styrene	50.000	52.795	-5.6	117	0.00
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	119	-0.01
68	T	Isopropylbenzene	50.000	47.813	4.4	113	0.00
69	P,T	Bromoform	50.000	48.380	3.2	114	0.00
70	P,T	1,1,2,2-Tetrachloroethane	50.000	47.660	4.7	116	0.00
71	S	4-Bromofluorobenzene	50.000	46.192	7.6	104	0.00
72	T	1,2,3-Trichloropropane	50.000	48.387	3.2	119	0.00
73	T	trans-1,4-Dichloro-2-butene	50.000	52.139	-4.3	127	0.00
74	T	n-Propylbenzene	50.000	49.025	2.0	113	0.00
75	T	Bromobenzene	50.000	48.222	3.6	115	0.00
76	T	1,3,5-Trimethylbenzene	50.000	49.887	0.2	115	-0.01
77	T	2-Chlorotoluene	50.000	45.831	8.3	104	0.00
78	T	4-Chlorotoluene	50.000	49.598	0.8	123	-0.01
79	T	tert-Butylbenzene	50.000	49.742	0.5	115	0.00
80	T	1,2,4-Trimethylbenzene	50.000	50.652	-1.3	115	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	50.285	-0.6	112	0.00
82	T	p-Isopropyltoluene	50.000	52.720	-5.4	116	0.00
83	T	1,3-Dichlorobenzene	50.000	48.342	3.3	114	0.00
84	T	1,4-Dichlorobenzene	50.000	48.878	2.2	116	0.00
85	T	n-Butylbenzene	50.000	43.936	12.1	116	0.00
86	T	1,2-Dichlorobenzene	50.000	47.375	5.3	113	-0.01
87	T	1,2-Dibromo-3-chloropropane	50.000	46.360	7.3	116	-0.01
88	T	1,2,4-Trichlorobenzene	50.000	46.822	6.4	114	-0.01
89	T	Hexachlorobutadiene	50.000	41.814	16.4	111	0.00
90	T	Naphthalene	50.000	48.936	2.1	124	0.00
91	T	1,2,3-Trichlorobenzene	50.000	46.100	7.8	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/12/07

2054

DAILY CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D207

Lab File ID: RDC542 BFB Injection Date : 04/26/07

Instrument ID: T-067 BFB Injection Time : 12:10

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.10
75	30.0 - 60.0% of mass 95	40.98
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.67
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	69.65
175	5.0 - 9.0% of mass 174	5.36(7.7)1
176	95.0 - 101.0% of mass 174	67.32(96.7)1
177	5.0 - 9.0% of mass 176	4.79(7.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV067B07197	RDC543	04/26/07	12:46
2	MBLK1S	V067D47Q	RDC548	04/26/07	15:50
3	LCS1S	V067D47L	RDC545	04/26/07	14:00
4	LCD1S	V067D47C	RDC546	04/26/07	14:37
5	C22-HSAS21-12-15.5	D207-01	RDC549	04/26/07	17:03
6	C22-HSAS21-30-31.5	D207-02	RDC550	04/26/07	17:40
7	C22-HSAS21-60-61.5	D207-03	RDC551	04/26/07	18:18
8	C22-HSAS21-9.5-11	D207-04	RDC552	04/26/07	18:55
9	C22-HSAS2101-60-61.5	D207-07	RDC553	04/26/07	19:32
10	C22-HSAS23-60-61.5	D207-08	RDC554	04/26/07	20:10
11	C22-HSAS23-30-31.5	D207-09	RDC555	04/26/07	20:47
12	C22-HSAS2301-60-61.5	D207-10	RDC556	04/26/07	21:24
13	C22-HSAS23-10-11.5	D207-11	RDC557	04/26/07	22:02
14	IDW-041807-BIN1	D207-14	RDC558	04/26/07	22:39

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBC079
Instrument ID: T-067
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D207
Date Analyzed: 02/07/07
Time Analyzed: 21:32
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3224417	10.14	3011586	15.68	1040569	22.47
	UPPER LIMIT	6448834	10.64	6023172	16.18	2081138	22.97
	LOWER LIMIT	1612209	9.64	1505793	15.18	520285	21.97
	SAMPLE ID						
1	VSTD050	2666189	10.17	2434758	15.73	857547	22.50
2	MBLK1S	3184508	10.17	2725593	15.73	787586	22.52
3	LCS1S	3005107	10.17	2688646	15.73	887542	22.50
4	LCD1S	3416588	10.17	3286377	15.73	1001016	22.51
5	C22-HSAS21-12-15.5	3924844	10.17	3458737	15.73	1036265	22.52
6	C22-HSAS21-30-31.5	3715787	10.17	3172443	15.74	903461	22.52
7	C22-HSAS21-60-61.5	3671747	10.17	3147052	15.73	914250	22.52
8	C22-HSAS21-9.5-11	3783592	10.17	3238171	15.73	907584	22.50
9	C22-HSAS2101-60-61.5	3765548	10.17	3236095	15.73	936091	22.51
10	C22-HSAS23-60-61.5	3789864	10.17	3212449	15.73	927037	22.51
11	C22-HSAS23-30-31.5	3675345	10.17	3175430	15.73	884418	22.50
12	C22-HSAS2301-60-61.5	3722783	10.17	3191687	15.73	908306	22.50
13	C22-HSAS23-10-11.5	3674991	10.16	3049486	15.72	820886	22.51
14	IDW-041807-BIN1	3477637	10.17	2851617	15.73	716975	22.50

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC543.D Vial: 2
Acq On : 26 Apr 2007 12:46 pm Operator: CGM
Sample : CVO67B07197 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	83	0.03
2	T	Dichlorodifluoromethane	50.000	49.579	0.8	74	0.03
3	P,T	Chloromethane	50.000	45.582	8.8	70	0.03
4	C,T	Vinyl chloride	50.000	44.156	11.7	76	0.03
5	T	Bromomethane	50.000	51.115	-2.2	82	0.01
6	T	Chloroethane	50.000	50.144	-0.3	73	0.01
7	T	Dichlorofluoromethane	50.000	39.652	20.7#	66	0.03
8	T	Trichlorofluoromethane	50.000	43.719	12.6	66	0.03
9	T	Acrolein	200.000	167.717	16.1	65	0.03
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	53.752	-7.5	90	0.03
11	T	Acetone	200.000	149.475	25.3#	65	0.03
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	53	0.04
13	C,TM	1,1-Dichloroethene	50.000	44.412	11.2	72	0.03
14	T	tert-Butyl alcohol	250.000	185.740	25.7#	62	0.04
15	T	Methyl acetate	-1.000	0.000	0.0	93	0.03
16	T	Iodomethane	50.000	49.833	0.3	75	0.03
17	T	Methylene chloride	50.000	38.891	22.2#	68	0.01
18	T	Acrylonitrile	250.000	214.315	14.3	69	0.01
19	T	Carbon disulfide	50.000	46.977	6.0	77	0.03
20	T	Acetonitrile	-1.000	0.000	0.0	54	0.03
21	T	tert-Butyl methyl ether (MT	50.000	41.346	17.3	68	0.03
22	T	trans-1,2-Dichloroethene	50.000	44.250	11.5	71	0.04
23	T	Isopropyl ether (DIPE)	50.000	42.324	15.4	69	0.03
24	T	Vinyl acetate	50.000	43.004	14.0	71	0.03
25	P,T	1,1-Dichloroethane	50.000	44.594	10.8	73	0.03
26	T	tert-Butyl ethyl ether (ETB	50.000	40.905	18.2	67	0.03
27	T	2-Butanone	200.000	152.475	23.8#	63	0.03
28	T	2,2-Dichloropropane	50.000	39.279	21.4#	64	0.03
29	T	cis-1,2-Dichloroethene	50.000	44.950	10.1	69	0.04
30	C,T	Chloroform	50.000	45.000	10.0	73	0.03
31	T	Bromochloromethane	50.000	40.198	19.6	66	0.03
32	T	Cyclohexane	-1.000	0.000	0.0	106	0.03
33	T	1,1,1-Trichloroethane	50.000	41.878	16.2	68	0.03
34	T	1,1-Dichloropropene	50.000	48.717	2.6	79	0.03
35	T	tert-Amyl methyl ether (TAM	50.000	44.077	11.8	73	0.03
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	66	0.04
37	T	Carbon tetrachloride	50.000	42.351	15.3	70	0.03
38	S	1,2-Dichloroethane-d4	50.000	39.767	20.5#	58	0.03
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	81	0.04
40	T	1,2-Dichloroethane	50.000	39.049	21.9#	63	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC543.D Vial: 2
Acq On : 26 Apr 2007 12:46 pm Operator: CGM
Sample : CVO67B07197 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	48.012	4.0	80	0.03
42	M,T	Trichloroethene	50.000	54.076	-8.2	88	0.03
43	T	Methylcyclohexane	-1.000	0.000	0.0	79	0.03
44	C,T	1,2-Dichloropropane	50.000	43.792	12.4	71	0.03
45	T	Bromodichloromethane	50.000	43.766	12.5	72	0.04
46	T	Dibromomethane	50.000	40.514	19.0	66	0.04
47	T	2-Chloroethyl vinyl ether	50.000	22.975	54.0#	41	0.03
48	T	4-Methyl-2-pentanone	200.000	151.456	24.3#	61	0.04
49	T	cis-1,3-Dichloropropene	50.000	46.993	6.0	77	0.03
50	S	Toluene-d8	50.000	49.100	1.8	73	0.04
51	C,TM	Toluene	50.000	47.918	4.2	79	0.04
52	T	Ethyl methacrylate	50.000	42.812	14.4	73	0.03
53	T	trans-1,3-Dichloropropene	50.000	46.355	7.3	73	0.03
54	T	2-Hexanone	200.000	148.411	25.8#	63	0.04
55	T	1,1,2-Trichloroethane	50.000	46.034	7.9	75	0.03
56	T	1,3-Dichloropropane	50.000	44.944	10.1	73	0.03
57	T	Tetrachloroethene	50.000	53.373	-6.7	87	0.04
58	T	Dibromochloromethane	50.000	46.984	6.0	77	0.04
59	T	1,2-Dibromoethane	50.000	41.878	16.2	68	0.03
60	T	1-Chlorohexane	50.000	48.464	3.1	74	0.04
61	P,M	Chlorobenzene	50.000	48.259	3.5	79	0.04
62	T	1,1,1,2-Tetrachloroethane	50.000	50.118	-0.2	81	0.04
63	C,T	Ethylbenzene	50.000	47.987	4.0	78	0.03
64	T	m-Xylene & p-Xylene	100.000	95.730	4.3	78	0.03
65	T	o-Xylene	50.000	47.619	4.8	78	0.03
66	T	Styrene	50.000	50.808	-1.6	81	0.04
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	82	0.03
68	T	Isopropylbenzene	50.000	47.070	5.9	78	0.03
69	P,T	Bromoform	50.000	44.970	10.1	74	0.04
70	P,T	1,1,2,2-Tetrachloroethane	50.000	43.139	13.7	73	0.03
71	S	4-Bromofluorobenzene	50.000	44.909	10.2	70	0.03
72	T	1,2,3-Trichloropropane	50.000	38.658	22.7#	66	0.03
73	T	trans-1,4-Dichloro-2-butene	50.000	35.459	29.1#	60	0.03
74	T	n-Propylbenzene	50.000	46.909	6.2	75	0.04
75	T	Bromobenzene	50.000	50.980	-2.0	85	0.04
76	T	1,3,5-Trimethylbenzene	50.000	47.527	4.9	76	0.03
77	T	2-Chlorotoluene	50.000	44.257	11.5	70	0.04
78	T	4-Chlorotoluene	50.000	46.250	7.5	80	0.03
79	T	tert-Butylbenzene	50.000	48.482	3.0	78	0.04
80	T	1,2,4-Trimethylbenzene	50.000	47.448	5.1	75	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC543.D Vial: 2
Acq On : 26 Apr 2007 12:46 pm Operator: CGM
Sample : CVO67B07197 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	46.393	7.2	72	0.04
82	T	p-Isopropyltoluene	50.000	49.888	0.2	76	0.04
83	T	1,3-Dichlorobenzene	50.000	50.483	-1.0	83	0.04
84	T	1,4-Dichlorobenzene	50.000	50.762	-1.5	84	0.04
85	T	n-Butylbenzene	50.000	36.375	27.3#	66	0.03
86	T	1,2-Dichlorobenzene	50.000	48.818	2.4	81	0.03
87	T	1,2-Dibromo-3-chloropropane	50.000	42.439	15.1	74	0.03
88	T	1,2,4-Trichlorobenzene	50.000	46.644	6.7	79	0.03
89	T	Hexachlorobutadiene	50.000	46.959	6.1	87	0.04
90	T	Naphthalene	50.000	44.230	11.5	77	0.04
91	T	1,2,3-Trichlorobenzene	50.000	45.564	8.9	77	0.04

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC543.D Vial: 2
Acq On : 26 Apr 2007 12:46 pm Operator: CGM
Sample : CVO67B07197 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	83	0.03
2	T	Dichlorodifluoromethane	0.217	0.215	0.9	74	0.03
3	P,T	Chloromethane	0.258	0.236	8.5	70	0.03
4	C,T	Vinyl chloride	0.202	0.175	13.4	76	0.03
5	T	Bromomethane	0.209	0.213	-1.9	82	0.01
6	T	Chloroethane	0.127	0.128	-0.8	73	0.01
7	T	Dichlorofluoromethane	0.471	0.373	20.8#	66	0.03
8	T	Trichlorofluoromethane	0.311	0.272	12.5	66	0.03
9	T	Acrolein	0.035	0.029	17.1	65	0.03
10	T	1,1,2-Trichloro-1,2,2-trifl	0.201	0.216	-7.5	90	0.03
11	T	Acetone	0.070	0.052	25.7#	65	0.03
12	T	sec-Propyl alcohol	0.000	0.000	0.0	53	0.04
13	C,TM	1,1-Dichloroethene	0.383	0.341	11.0	72	0.03
14	T	tert-Butyl alcohol	0.024	0.018	25.0#	62	0.04
15	T	Methyl acetate	0.000	0.000	0.0	93	0.03
16	T	Iodomethane	0.401	0.400	0.2	75	0.03
17	T	Methylene chloride	0.444	0.346	22.1#	68	0.01
18	T	Acrylonitrile	0.086	0.074	14.0	69	0.01
19	T	Carbon disulfide	1.122	1.054	6.1	77	0.03
20	T	Acetonitrile	0.000	0.000	0.0	54	0.03
21	T	tert-Butyl methyl ether (MT	0.597	0.493	17.4	68	0.03
22	T	trans-1,2-Dichloroethene	0.431	0.381	11.6	71	0.04
23	T	Isopropyl ether (DIPE)	1.037	0.878	15.3	69	0.03
24	T	Vinyl acetate	0.524	0.451	13.9	71	0.03
25	P,T	1,1-Dichloroethane	0.554	0.494	10.8	73	0.03
26	T	tert-Butyl ethyl ether (ETB	0.791	0.647	18.2	67	0.03
27	T	2-Butanone	0.126	0.096	23.8#	63	0.03
28	T	2,2-Dichloropropane	0.373	0.293	21.4#	64	0.03
29	T	cis-1,2-Dichloroethene	0.487	0.438	10.1	69	0.04
30	C,T	Chloroform	0.555	0.499	10.1	73	0.03
31	T	Bromochloromethane	0.305	0.245	19.7	66	0.03
32	T	Cyclohexane	0.000	0.000	0.0	106	0.03
33	T	1,1,1-Trichloroethane	0.412	0.345	16.3	68	0.03
34	T	1,1-Dichloropropene	0.137	0.134	2.2	79	0.03
35	T	tert-Amyl methyl ether (TAM	0.768	0.677	11.8	73	0.03
36	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	66	0.04
37	T	Carbon tetrachloride	0.354	0.300	15.3	70	0.03
38	S	1,2-Dichloroethane-d4	0.277	0.220	20.6#	58	0.03
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	81	0.04
40	T	1,2-Dichloroethane	0.374	0.292	21.9#	63	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC543.D Vial: 2
Acq On : 26 Apr 2007 12:46 pm Operator: CGM
Sample : CVO67B07197 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	M,T	Benzene	1.363	1.309	4.0	80	0.03
42	M,T	Trichloroethene	0.370	0.400	-8.1	88	0.03
43	T	Methylcyclohexane	0.000	0.000	0.0	79	0.03
44	C,T	1,2-Dichloropropane	0.409	0.359	12.2	71	0.03
45	T	Bromodichloromethane	0.464	0.406	12.5	72	0.04
46	T	Dibromomethane	0.251	0.204	18.7	66	0.04
47	T	2-Chloroethyl vinyl ether	0.073	0.035	52.1#	41#	0.03
48	T	4-Methyl-2-pentanone	0.315	0.239	24.1#	61	0.04
49	T	cis-1,3-Dichloropropene	0.488	0.459	5.9	77	0.03
50	S	Toluene-d8	1.223	1.201	1.8	73	0.04
51	C,TM	Toluene	1.440	1.380	4.2	79	0.04
52	T	Ethyl methacrylate	0.333	0.315	5.4	73	0.03
53	T	trans-1,3-Dichloropropene	0.379	0.351	7.4	73	0.03
54	T	2-Hexanone	0.193	0.143	25.9#	63	0.04
55	T	1,1,2-Trichloroethane	0.306	0.282	7.8	75	0.03
56	T	1,3-Dichloropropane	0.504	0.453	10.1	73	0.03
57	T	Tetrachloroethene	0.269	0.287	-6.7	87	0.04
58	T	Dibromochloromethane	0.366	0.343	6.3	77	0.04
59	T	1,2-Dibromoethane	0.342	0.286	16.4	68	0.03
60	T	1-Chlorohexane	0.528	0.512	3.0	74	0.04
61	P,M	Chlorobenzene	0.949	0.916	3.5	79	0.04
62	T	1,1,1,2-Tetrachloroethane	0.307	0.308	-0.3	81	0.04
63	C,T	Ethylbenzene	1.567	1.504	4.0	78	0.03
64	T	m-Xylene & p-Xylene	1.183	1.132	4.3	78	0.03
65	T	o-Xylene	1.228	1.170	4.7	78	0.03
66	T	Styrene	0.914	0.929	-1.6	81	0.04
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	82	0.03
68	T	Isopropylbenzene	4.279	4.028	5.9	78	0.03
69	P,T	Bromoform	0.621	0.558	10.1	74	0.04
70	P,T	1,1,2,2-Tetrachloroethane	1.280	1.105	13.7	73	0.03
71	S	4-Bromofluorobenzene	1.258	1.130	10.2	70	0.03
72	T	1,2,3-Trichloropropane	0.214	0.166	22.4#	66	0.03
73	T	trans-1,4-Dichloro-2-butene	0.163	0.116	28.8#	60	0.03
74	T	n-Propylbenzene	5.188	4.868	6.2	75	0.04
75	T	Bromobenzene	0.985	1.004	-1.9	85	0.04
76	T	1,3,5-Trimethylbenzene	3.186	3.029	4.9	76	0.03
77	T	2-Chlorotoluene	3.206	2.838	11.5	70	0.04
78	T	4-Chlorotoluene	2.795	2.585	7.5	80	0.03
79	T	tert-Butylbenzene	2.751	2.667	3.1	78	0.04
80	T	1,2,4-Trimethylbenzene	2.958	2.807	5.1	75	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC543.D Vial: 2
Acq On : 26 Apr 2007 12:46 pm Operator: CGM
Sample : CVO67B07197 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	4.320	4.009	7.2	72	0.04
82	T	p-Isopropyltoluene	2.843	2.837	0.2	76	0.04
83	T	1,3-Dichlorobenzene	1.734	1.750	-0.9	83	0.04
84	T	1,4-Dichlorobenzene	1.651	1.676	-1.5	84	0.04
85	T	n-Butylbenzene	2.375	2.094	11.8	66	0.03
86	T	1,2-Dichlorobenzene	1.585	1.547	2.4	81	0.03
87	T	1,2-Dibromo-3-chloropropane	0.142	0.135	4.9	74	0.03
88	T	1,2,4-Trichlorobenzene	0.554	0.526	5.1	79	0.03
89	T	Hexachlorobutadiene	0.343	0.372	-8.5	87	0.04
90	T	Naphthalene	1.010	0.901	10.8	77	0.04
91	T	1,2,3-Trichlorobenzene	0.472	0.438	7.2	77	0.04

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 2/7/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -027**

BATCH VO67B07S

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RBC074	BFB67B06 ✓	2µL				~~Ket/AA~~ ~~8260~~ ~~TBA~~
02		075	VO67B071 ✓	.4/.2/.04µL				8 2 10 ppb
03		076	2 ✓	.4/.5/.1µL				20 5 25
04		077	3 ✓	.8/1/.2µL				40 10 50
05		078	4 ✓	1.6/2/.4µL				80 20 100
06		079	5 ✓	4/5/1µL				200 50 250
07		080	6 ✓	6.4/8/2µL				320 80 400
08		081	7 ✓	8/10/2µL				400 100 500
09		082	8 ✓	16/20/4µL				800 200 1000
10		083	9 ✓	24/30/6µL				1200 300 1500
11		084	Rinse					
12		085	VO67B06B					
13		086	VO67B071 ✓	4/5/1µL				200 50 250
14		087	2	4/5/1µL				200 50 250
15		088	Rinse					
16		089	Rinse					
17								
18								
19								
20								
21								
22								
23								
24								
25								CGM 2/7/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	VO67B07

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SVIC-11-63-1	250
DCC 8260	SVIC-11-60-1	50/250
DCC Gases	SVIC-11-60-3	250
BFB	SVIC-11-49-3	50
IS/SURR.	SVIC-11-62-2	250
LCS Ket/AA	SVIC-11-59-3	250
LCS 8260	SVIC-11-63-2	50/250
LCS Gases	SVIC-11-61-3	250
SOLVENT IS	SVIC-11-62-1 ID	250
METHANOL SS	SVIC-11-62-3	250
DATA FILE	07B07	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 2/8/07

Disposed By: CGM

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/26/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -028**

BATCH CV067B07197

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDC542	BFB67D47	2mL				12:10
02		543	CV067B07197	4/5/µL				
03		544	↓ 198	↓				
04		545	V067D47L	16/24/µL	1.0			
05		546	C	↓				
06		547	B	5.0g				
07		548	Q	↓	↓			
08		549	07D207-01	5.3g	0.94		✓	
09		550	-02	5.3g	0.94		✓	
10		551	-03	5.7g	0.88		✓	
11		552	-04	5.1g	0.98		✓	
12		553	-07 CGM 4/26	5.4g	0.93	•	✓	
13		554	-08	5.6g	0.89		✓	
14		555	-09	4.7g	1.1		✓	
15		556	-10	5.5g	0.91		✓	
16		557	-11	5.7g	0.88		✓	
17		558	-14	2.6g	1.9		✓	
18		559	07D219-01	5.0g	1.0		✓	
19		560	-02	↓	↓		✓	23:52
20								
21								
22								
23								
24								
25								CGM 4/26/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	V067B07

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC-11-80-2	250
DCC	-81-1	50/250
DCC	-79-3	250
BFB	-58-1	50
IS/SURR.	-79-1	250
LCS	-80-3	250
LCS	-81-3	50-1000
LCS	• -80-1	250

SOLVENT	ID
METHANOL	
DATA FILE	07D26

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 4/27/07

Disposed By: CGM

2955

EXTRACTION LOGS

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-016

Matrix: SOIL STARTING DATE 4/26/07 15:50 Ending Date 4/26/07 16:25

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.
BLANK	30.1	35.1	5.0	1.00
07D207-01	31.7	37.0	5.3	0.94
07D207-02	31.6	36.9	5.3	0.94
07D207-03	31.6	37.3	5.7	0.88
07D207-04	31.6	36.7	5.1	0.98
07D207-07	31.6	37.0	5.4	0.93
07D207-08	31.7	37.3	5.6	0.89
07D207-09	31.8	36.5	4.7	1.06
07D207-10	31.6	37.1	5.5	0.91
07D207-11	31.7	37.4	5.7	0.88
07D207-14	31.6	34.2	2.6	1.92
07D211-01	31.5	36.2	4.7	1.06
07D244-11	31.6	36.9	5.3	0.94
07D244-12	31.6	36.5	4.9	1.02
07D244-12M	31.7	36.7	5.0	1.00
07D244-12S	31.7	36.6	4.9	1.02
07D244-13	31.6	36.8	5.2	0.96

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20		
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML

VOLUME METRIC FLUSH.

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: CGM

Extract Received By: CM

Extract Location	N/A

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3550B/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 07D207

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D207

METHOD 3550B/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One (1) soil sample was received on 04/18/07 for Total Petroleum Hydrocarbons by Extraction analysis by Method 3550B/M8015 in accordance with SW846 3rd Edition.

1. **Holding Time**

   Analytical holding time was met. Extraction was performed and completed on 04/19/07.

2. **Calibration**

   Initial calibration was seven points for Diesel and Motor Oil. %RSDs were within 20%. Continuing calibrations were carried out at every 12 hours interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   All recoveries were within QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No sample was designated for MS/MSD.

7. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met.

   Sample results were quantitated from C10 to C24 using Diesel (C10-C24) calibration factor and from C24 to C36 using Motor Oil calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D207
Instrument ID : GCT105

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSD044SB	1	NA	04/20/0723:16	04/19/0715:15	LD20040A	LD20029A	DSD044S	Method Blank
LCS1S	DSD044SL	1	NA	04/20/0722:42	04/19/0715:15	LD20038A	LD20029A	DSD044S	Lab Control Sample (LCS)
LCD1S	DSD044SC	1	NA	04/20/0722:59	04/19/0715:15	LD20039A	LD20029A	DSD044S	LCS Duplicate
IDW-041807-BIN1	D207-14	1	3.7	04/21/0700:39	04/19/0715:15	LD20045A	LD20043A	DSD044S	Field Sample

FN - Filename
% Moist - Percent Moisture

5602

SAMPLE RESULTS

METHOD 3550B/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : TETRA TECH, INC.	Date Collected: 04/18/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/18/07
Batch No. : 07D207	Date Extracted: 04/19/07 15:15
Sample ID: IDW-041807-BIN1	Date Analyzed: 04/21/07 00:39
Lab Samp ID: D207-14	Dilution Factor: 1
Lab File ID: LD20045A	Matrix : SOIL
Ext Btch ID: DSD044S	% Moisture : 3.7
Calib. Ref.: LD20043A	Instrument ID : GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	10	5.2
MOTOR OIL	ND	21	5.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	96	50-150
HEXACOSANE	101	50-150

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

QC SUMMARIES

METHOD 3550B/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/19/07
Batch No.	: 07D207	Date Extracted:	04/19/07 15:15
Sample ID:	MBLK1S	Date Analyzed:	04/20/07 23:16
Lab Samp ID:	DSD044SB	Dilution Factor:	1
Lab File ID:	LD20040A	Matrix :	SOIL
Ext Btch ID:	DSD044S	% Moisture :	NA
Calib. Ref.:	LD20029A	Instrument ID :	GCT105

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
DIESEL	ND	10	5.0
MOTOR OIL	ND	20	5.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
BROMOBENZENE	91	50-150
HEXACOSANE	99	70-140

Parameter	H-C Range
Diesel	C10-C24
Motor Oil	C24-C36

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: METHOD 3550B/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSD044SB	DSD044SL	DSD044SC		
LAB FILE ID:	LD20040A	LD20038A	LD20039A		
DATE EXTRACTED:	04/19/0715:15	04/19/0715:15	04/19/0715:15	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0723:16	04/20/0722:42	04/20/0722:59	DATE RECEIVED:	04/19/07
PREP. BATCH:	DSD044S	DSD044S	DSD044S		
CALIB. REF:	LD20029A	LD20029A	LD20029A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	479	96	500	429	86	11	60-130	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	102	102	100	94.0	94	60-150
Hexacosane	25.0	26.7	107	25.0	23.3	93	60-140

INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: LC29005A 03/29/07 11:40
LFID & Datetime: LC29006A 03/29/07 11:57
LFID & Datetime: LC29007A 03/29/07 12:13
LFID & Datetime: LC29008A 03/29/07 12:30
LFID & Datetime: LC29009A 03/29/07 12:46
LFID & Datetime: LC29010A 03/29/07 13:03
LFID & Datetime: LC29011A 03/29/07 13:20
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	10.00X	20.00X	100.00X	300.00X	600.00X	MEAN	%RSD
DIESEL(TOTAL)	5.00	29518	29702	31385	33252	32800	26435	27951	30149.0	8.3
DIESEL(C10-C24)	5.00	29062	28641	31086	32671	32252	25960	27386	29579.7	8.5
DIESEL(C10-C28)	5.00	29062	29180	31193	32789	32279	25980	27416	29699.8	8.5
SURROGATE	X	0.50X	1.00X	2.00X	3.00X	5.00X	7.00X	11.00X	MEAN	%RSD
BROMOBENZENE	20.00	0	15626	16043	14930	15745	16176	15657	15696.0	2.8
HEXACOSANE	5.00	0	26983	27778	26457	27270	27032	27423	27157.2	1.7

DS105C29.MET

AS
4/2/07

INITIAL CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Column : HP5
Column size ID : 30MX0.32MM 0.25UM
LFID & Datetime: LB02013A 02/02/07 17:01
LFID & Datetime: LB02014A 02/02/07 17:17
LFID & Datetime: LB02015A 02/02/07 17:34
LFID & Datetime: LB02016A 02/02/07 17:50
LFID & Datetime: LB02017A 02/02/07 18:07
LFID & Datetime: LB02018A 02/02/07 18:23
LFID & Datetime: LB02019A 02/02/07 18:39
CONC UNIT: ppm

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	2.00X	5.00X	50.00X	100.00X	200.00X	300.00X	MEAN	%RSD
JP5	10.00	27020	28721	29246	27987	26934	27011	27798	27816.6	3.3
MOTOR OIL	10.00	26287	27017	26867	24121	22897	22359	23250	24685.6	8.1

JM105B02.MET

LA
2/5/07

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LC29009A 03/29/2007 12:46
Conc Cont LFID & Datetime: LC29012A 03/29/2007 13:36
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	NA	NA	NA	500.0	30149.0	14370835	476.66	-5		15
DIESEL(C10-C24)	NA	NA	NA	500.0	29579.7	13636296	461.00	-8		15
DIESEL(C10-C28)	NA	NA	NA	500.0	29699.8	13805149	464.82	-7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	1.744	1.741	1.747	100.0	15696.0	1608183	102.46	2		15
HEXACOSANE	4.967	4.896	5.038	25.0	27157.2	718075	26.44	6		15

DS105C29.MET

AS
4/10/07

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Column : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LC29010A 03/29/2007 13:03
Conc Cont LFID & Datetime: LC29013A 03/29/2007 13:53
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	NA	NA	NA	1500.0	30149.0	39732920	1317.89	-12		15
DIESEL(C10-C24)	NA	NA	NA	1500.0	29579.7	37554360	1269.60	-15		15
DIESEL(C10-C28)	NA	NA	NA	1500.0	29699.8	38154184	1284.66	-14		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	1.748	1.745	1.751	140.0	15696.0	2201270	140.24	0		15
HEXACOSANE	4.983	4.912	5.054	35.0	27157.2	970859	35.75	2		15

DS105C29.MET

AS
4/2/07

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LB02016A 02/02/2007 17:50
Conc Cont LFID & Datetime: LB02020A 02/02/2007 18:56
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	NA	NA	NA	500.0	27816.6	15938817	573.00	15		15
MOTOR OIL	NA	NA	NA	500.0	24685.6	12554242	508.57	2		15

JM105B02.MET

LA
2/5/07

INITIAL CALIBRATION VERIFICATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LB02018A 02/02/2007 18:23
Conc Cont LFID & Datetime: LB02021A 02/02/2007 19:12
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	NA	NA	NA	2000.0	27816.6	61070700	2195.48	10		15
MOTOR OIL	NA	NA	NA	2000.0	24685.6	48109128	1948.87	-3		15

JM105B02.MET

AA
2/5/07

5015

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LC29009A 03/29/2007 12:46
Conc Cont LFID & Datetime: LD20029A 04/20/2007 20:13
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	NA	NA	NA	500.0	30149.0	14384246	477.11	-5		15
DIESEL(C10-C24)	NA	NA	NA	500.0	29579.7	13999741	473.29	-5		15
DIESEL(C10-C28)	NA	NA	NA	500.0	29699.8	14008661	471.68	-6		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	1.733	1.730	1.736	100.0	15696.0	1651315	105.21	5		15
HEXACOSANE	4.888	4.817	4.959	25.0	27157.2	695887	25.62	2		15

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Column : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LB02016A 02/02/2007 17:50
Conc Cont LFID & Datetime: LD20030A 04/20/2007 20:29
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	NA	NA	NA	500.0	27816.6	14861454	534.27	7		15
MOTOR OIL	NA	NA	NA	500.0	24685.6	12304322	498.44	-0		15

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Column : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LC29009A 03/29/2007 12:46
Conc Cont LFID & Datetime: LD20043A 04/21/2007 00:06
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	NA	NA	NA	500.0	30149.0	14464236	479.76	-4		15
DIESEL(C10-C24)	NA	NA	NA	500.0	29579.7	14069634	475.65	-5		15
DIESEL(C10-C28)	NA	NA	NA	500.0	29699.8	14079020	474.05	-5		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	1.733	1.730	1.736	100.0	15696.0	1661330	105.84	6		15
HEXACOSANE	4.888	4.817	4.959	25.0	27157.2	698026	25.70	3		15

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LB02016A 02/02/2007 17:50
Conc Cont LFID & Datetime: LD20044A 04/21/2007 00:22
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	NA	NA	NA	500.0	27816.6	14682544	527.83	6		15
MOTOR OIL	NA	NA	NA	500.0	24685.6	12552821	508.51	2		15

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LC29009A 03/29/2007 12:46
Conc Cont LFID & Datetime: LD20056A 04/21/2007 03:41
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
DIESEL(TOTAL)	NA	NA	NA	500.0	30149.0	14192907	470.76	-6		15
DIESEL(C10-C24)	NA	NA	NA	500.0	29579.7	13802388	466.62	-7		15
DIESEL(C10-C28)	NA	NA	NA	500.0	29699.8	13810935	465.02	-7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
BROMOBENZENE	1.733	1.730	1.736	100.0	15696.0	1640295	104.50	5		15
HEXACOSANE	4.886	4.815	4.957	25.0	27157.2	680006	25.04	0		15

CONTINUE CALIBRATION
METHOD M8015

Lab Name : EMAX Inc
Instrument ID : GCT105
GC Columm : HP5
Column size ID : 30MX0.32MM 0.25UM
Mid Conc Init LFID & Datetime: LB02016A 02/02/2007 17:50
Conc Cont LFID & Datetime: LD20057A 04/21/2007 03:57
CONC UNIT : ppm

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
JP5	NA	NA	NA	500.0	27816.6	14591675	524.57	5		15
MOTOR OIL	NA	NA	NA	500.0	24685.6	12360730	500.73	0		15

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR TPH

Note:
For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:
DSB0018 : B001

Book #: A105-019

Instrument No.: 105

Analytical Sequence: LB02

Method File: DS105A19, JU105A19, JU105B02

Analytical Batch: CDS105A19777

SOP #	Rev. #
☐ EMAX-8270	3
☐ EMAX-8270SIM	3
☑ EMAX- M8015D	3

STANDARDS ID	Conc (mg/L)
ICAL	
☐ Diesel ☑ JP5/5W30 SS3C-7-62-3	10-30000
☐ Motor Oill ☐ Alcohol	
CH_2Cl_2 46331	Pure
DCC (DSL) SS3C-7-60-3	500
LCS	
JP5/5W30 (DCC) SS3C-7-62-1	500
JP5 (ICV) SS3B-7-4-3	50,270
5W30 (ICV) SS3B-7-7-3	50,510

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_2_Diesel	
☐	

Analyzed By: DC

Date: 2/2/07

GC105 Method: JM105B02.met Data: LB02.b Program Default Sequence: LB02.sq

File Edit View Method Data Sequence Analysis Control Reports Window Help

1: A

Run #	Vial	Volume	Sample ID	Method	Filename	Sample Amt	Amt	Multiplier 1	Multiplier 2	Multiplier 3	Dilution 1	Dilut
						COMMENT	2/5/07					
1	1	2	IB105B777	S\DS105A19.met	\LB02\LB02.001	1	1	1	1	1	1	
2	2	2	CDS105A19777 D500	S\DS105A19.met	\LB02\LB02.002	1	1	1	1	1	1	
3	3	2	CJM105A19778 JP5/MD	5\JM105A19.met	\LB02\LB02.003	1	1	1	1	1	1	
4	1	2	07B001-03	S\DS105A19.met	\LB02\LB02.004	BAD INJECTION 1	1	1	1	1	1	
5	4	2	07B001-03	S\DS105A19.met	\LB02\LB02.005	1	1	1	1	1	1	
6	5	2	07B001-01	S\DS105A19.met	\LB02\LB02.006	1	1	1	1	1	1	
7	1	2	RINSE	S\DS105A19.met	\LB02\LB02.007	1	1	1	1	1	1	
8	2	2	CDS105A19778 D500	S\DS105A19.met	\LB02\LB02.008	1	1	1	1	1	1	
9	3	2	CJM105A19780 JP5/MD	5\JM105A19.met	\LB02\LB02.009	1	1	1	1	1	1	
10	1	2	RINSE	S\DS105A19.met	\LB02\LB02.010	1	1	1	1	1	1	
11	1	2	RINSE	S\DS105A19.met	\LB02\LB02.011	1	1	1	1	1	1	
12	6	2	IB105B781	5\JM105B02.met	\LB02\LB02.012	1	1	1	1	1	1	
13	7	2	JM105B0201 10FPM	5\JM105B02.met	\LB02\LB02.013	ICAL 1	1	1	1	1	1	
14	8	2	JM105B0202 20FPM	5\JM105B02.met	\LB02\LB02.014	1	1	1	1	1	1	
15	9	2	JM105B0203 50FPM	5\JM105B02.met	\LB02\LB02.015	1	1	1	1	1	1	
16	10	2	JM105B0204 500FPM	5\JM105B02.met	\LB02\LB02.016	1	1	1	1	1	1	
17	11	2	JM105B0205 1000PPM	5\JM105B02.met	\LB02\LB02.017	1	1	1	1	1	1	
18	12	2	JM105B0206 2000PPM	JM105B02.met	B02\LB02.018	1	1	1	1	1	1	
19	13	2	JM105B0207 3000PPM	5\JM105B02.met	\LB02\LB02.019	1	1	1	1	1	1	
20	14	2	JM105B0201 500PPM	5\JM105B02.met	\LB02\LB02.020	ICV 1	1	1	1	1	1	
21	15	2	JM105B0202 2000PPM	5\JM105B02.met	\LB02\LB02.021	1	1	1	1	1	1	
22	16	2	HC-CHAIN	5\JM105B02.met	\LB02\LB02.022	1	1	1	1	1	1	
23	1	2	IB	S\DS105A19.met	\LB02\LB02.023	1	1	1	1	1	1	
24	1	2	IB	S\DS105A19.met	\LB02\LB02.024	1	1	1	1	1	1	
25	1	2	IB	S\DS105A19.met	\LB02\LB02.025	1	1	1	1	1	1	
26	1	2	IB	S\DS105A19.met	\LB02\LB02.026	1	1	1	1	1	1	
27	1	2	IB	S\DS105A19.met	\LB02\LB02.027	1	1	1	1	1	1	
28	1	2	IB	S\DS105A19.met	\LB02\LB02.028	1	1	1	1	1	1	
29	1	2	IB	S\DS105A19.met	\LB02\LB02.029	1	1	1	1	1	1	
30	1	2	IB	S\DS105A19.met	\LB02\LB02.030	1	1	1	1	1	1	
31	1	2	IB	S\DS105A19.met	\LB02\LB02.031	1	1	1	1	1	1	
32	1	2	IB	S\DS105A19.met	\LB02\LB02.032	1	1	1	1	1	1	
33	1	2	IB	S\DS105A19.met	\LB02\LB02.033	1	1	1	1	1	1	
34	1	2	IB	S\DS105A19.met	\LB02\LB02.034	1	1	1	1	1	1	
35	1	2	IB	S\DS105A19.met	\LB02\LB02.035	1	1	1	1	1	1	

DC 2/2/07

For Help, press F1 Equilibrating method... Friday, February 02, 2007

Start D:\EZCHROM\EXPORT\L... GC105 Method: JM... GC105 (Offline) Meth... Untitled - Paint 18:21

5025

DC 2/2/07

Note:
For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

DSC0438 : C238

Book #: A105-019

Instrument No.: 105

Analytical Sequence: LC29

Method File: DS105A19, DS105C29, JM105B0

Analytical Batch: CDS105C29 231

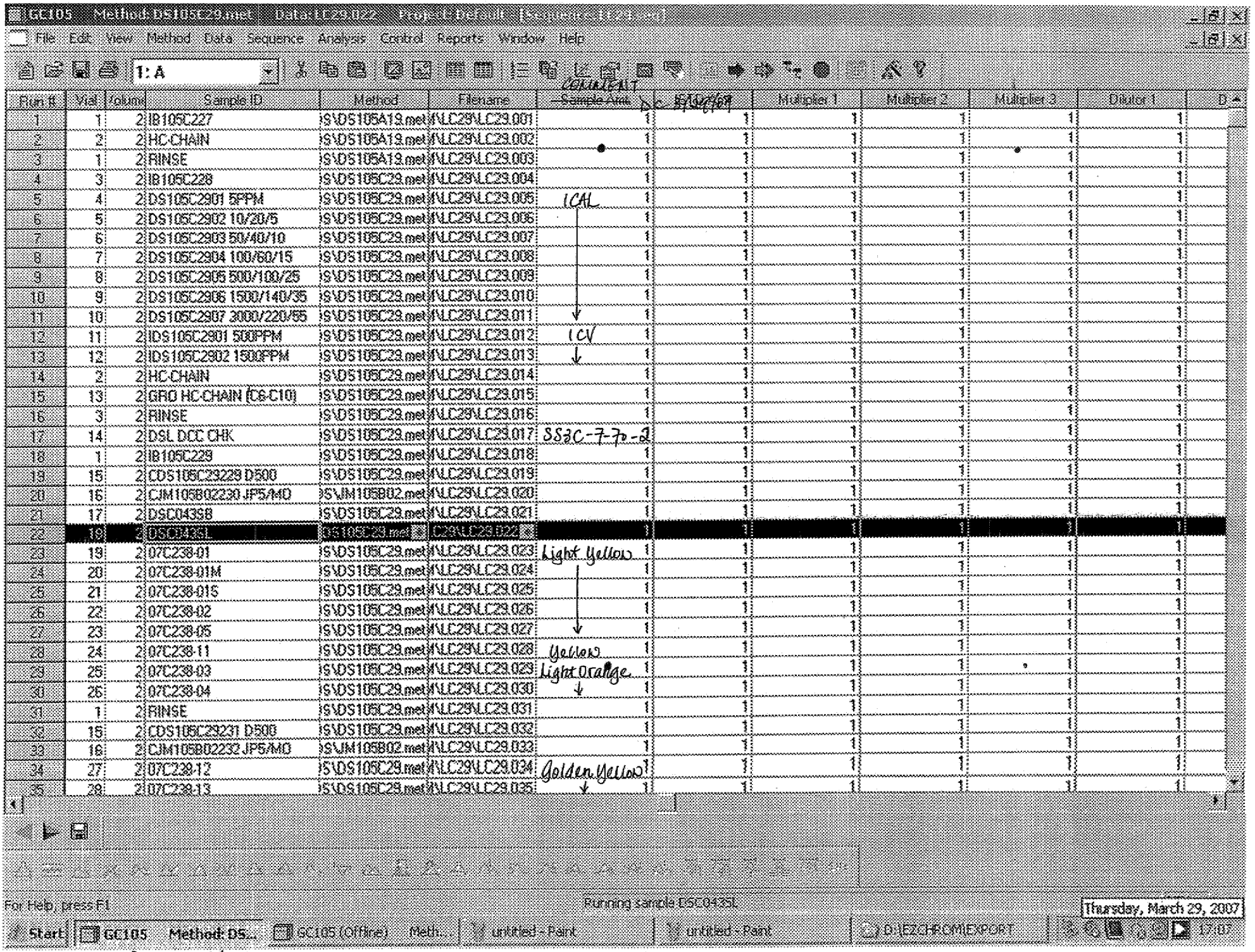
SOP #	Rev. #
☐ EMAX-8270	3
☐ EMAX-8270SIM	3
☑ EMAX- M 8015 D	3

STANDARDS ID		Conc (mg/L)
ICAL		
☑ Diesel ☐ JP5	SS3C-7-70-1	5-3000
☐ Motor Oill ☐ Alcohol		
CH_2Cl_2	46331	Pure
DCC (DSL)	SS3C-7-64-3	500
LCS		
DSL (ICV)	SS3C-7-68-1	500, 1500
JP5/51730 (DCC)	SS3C-7-69-2	500

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_2_Diesel	
☐	

Analyzed By: DC

Date: 3/29/07



GC105 Method: DS105C29.met Data: LC29\022 Prog: 18 Default [Sequence: LC29.seq]

File Edit View Method Data Sequence Analysis Control Reports Window Help

1: A

Run #	Vial	Volume	Sample ID	Method	Filename	Sample Amt	Multiplier 1	Multiplier 2	Multiplier 3	Dilution 1	D
1	1	2	IB105C227	S\DS105A19.met	\LC29\LC29.001	1	1	1	1	1	1
2	2	2	HC-CHAIN	S\DS105A19.met	\LC29\LC29.002	1	1	1	1	1	1
3	1	2	RINSE	S\DS105A19.met	\LC29\LC29.003	1	1	1	1	1	1
4	3	2	IB105C228	S\DS105C29.met	\LC29\LC29.004	1	1	1	1	1	1
5	4	2	DS105C2901 5PPM	S\DS105C29.met	\LC29\LC29.005	1	1	1	1	1	1
6	5	2	DS105C2902 10/20/5	S\DS105C29.met	\LC29\LC29.006	1	1	1	1	1	1
7	6	2	DS105C2903 50/40/10	S\DS105C29.met	\LC29\LC29.007	1	1	1	1	1	1
8	7	2	DS105C2904 100/60/15	S\DS105C29.met	\LC29\LC29.008	1	1	1	1	1	1
9	8	2	DS105C2905 500/100/25	S\DS105C29.met	\LC29\LC29.009	1	1	1	1	1	1
10	9	2	DS105C2906 1500/140/35	S\DS105C29.met	\LC29\LC29.010	1	1	1	1	1	1
11	10	2	DS105C2907 3000/220/55	S\DS105C29.met	\LC29\LC29.011	1	1	1	1	1	1
12	11	2	IDS105C2901 500PPM	S\DS105C29.met	\LC29\LC29.012	1	1	1	1	1	1
13	12	2	IDS105C2902 1500PPM	S\DS105C29.met	\LC29\LC29.013	1	1	1	1	1	1
14	2	2	HC-CHAIN	S\DS105C29.met	\LC29\LC29.014	1	1	1	1	1	1
15	13	2	GRD HC-CHAIN (C8-C10)	S\DS105C29.met	\LC29\LC29.015	1	1	1	1	1	1
16	3	2	RINSE	S\DS105C29.met	\LC29\LC29.016	1	1	1	1	1	1
17	14	2	DSL DCC CHK	S\DS105C29.met	\LC29\LC29.017	1	1	1	1	1	1
18	1	2	IB105C229	S\DS105C29.met	\LC29\LC29.018	1	1	1	1	1	1
19	15	2	CDS105C29229 D500	S\DS105C29.met	\LC29\LC29.019	1	1	1	1	1	1
20	16	2	CJM105B02230 JP5/MO	S\JM105B02.met	\LC29\LC29.020	1	1	1	1	1	1
21	17	2	DSC0436B	S\DS105C29.met	\LC29\LC29.021	1	1	1	1	1	1
22	19	2	DSC0436L	DS105C29.met	C29\LC29.022	1	1	1	1	1	1
23	19	2	07C238-01	S\DS105C29.met	\LC29\LC29.023	1	1	1	1	1	1
24	20	2	07C238-01M	S\DS105C29.met	\LC29\LC29.024	1	1	1	1	1	1
25	21	2	07C238-015	S\DS105C29.met	\LC29\LC29.025	1	1	1	1	1	1
26	22	2	07C238-02	S\DS105C29.met	\LC29\LC29.026	1	1	1	1	1	1
27	23	2	07C238-05	S\DS105C29.met	\LC29\LC29.027	1	1	1	1	1	1
28	24	2	07C238-11	S\DS105C29.met	\LC29\LC29.028	1	1	1	1	1	1
29	25	2	07C238-03	S\DS105C29.met	\LC29\LC29.029	1	1	1	1	1	1
30	26	2	07C238-04	S\DS105C29.met	\LC29\LC29.030	1	1	1	1	1	1
31	1	2	RINSE	S\DS105C29.met	\LC29\LC29.031	1	1	1	1	1	1
32	15	2	CDS105C29231 D500	S\DS105C29.met	\LC29\LC29.032	1	1	1	1	1	1
33	16	2	CJM105B02232 JP5/MO	S\JM105B02.met	\LC29\LC29.033	1	1	1	1	1	1
34	27	2	07C238-12	S\DS105C29.met	\LC29\LC29.034	1	1	1	1	1	1
35	28	2	07C238-13	S\DS105C29.met	\LC29\LC29.035	1	1	1	1	1	1

COMMENT

ICAL

ICV

SS3C-7-70-2

Light Yellow

Yellow

Light Orange

Golden Yellow

5927

For Help, press F1

Running sample DSC0436L

Thursday, March 29, 2007

Start | GC105 Method: DS... | GC105 (Offline) Meth... | untitled - Paint | untitled - Paint | D:\EZCHROM\EXPORT | 17:07

Dr. 3/29/07

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR TPH

Note:
For samples, relevant QCs/Standards analyzed,
refer to attached analytical sequence.

Comments:
EL 4/20/07
DSD0435B : D210 , D211 , D212
DSD034W : D158
DSD037W : D171 , D172
DSD044S : D197 , D207 , D176, D185 , D190
DSD042W : D192
DSD045S : D227 , D187

Book #: A105-019
Instrument No.: 105
Analytical Sequence: LD20
Method File: DS105C29, JM105B02
Analytical Batch: CDS105C29 425

SOP #	Rev. #
☐ EMAX-8270	3
☐ EMAX-8270SIM	3
☑ EMAX-M8015D	3

STANDARDS ID		Conc (mg/L)
ICAL		
☐ Diesel ☐ JP5		
☐ Motor Oill ☐ Alcohol		
CH_2Cl_2	47010	pure
DCC (DSL)	SS3C-7-70-2	500
LCS		
JP5/GW30 (DCC)	SS3C-7-71-1	500

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_2_Diesel	
☐	

Analyzed By: EL /bc
Date: 4/20/07

GC105 Method: DS105C29.mst Data: LD20.020 Project: Default Sequence: LD20.seq

File Edit View Method Data Sequence Analysis Control Reports Window Help

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Continued Command 5 EL 4/20/07

Run #	Vial	Volume	Sample ID	Method	Filename	Sample Amt	ISTD Amt	Multiplier 1	Multiplier 2	Multiplier 3	Diutor 1	
1	1	2	IB105D425	S\DS105C29.met	LD20\LD20.001	1	1	1	1	1	1	
2	2	2	CDS105C23425 D500	S\DS105C29.met	LD20\LD20.002	1	1	1	1	1	1	
3	3	2	CJM105B02428 JP5/MO	S\JM105B02.met	LD20\LD20.003	1	1	1	1	1	1	
4	4	2	DSD043SB	S\DS105C29.met	LD20\LD20.004	1	1	1	1	1	1	
5	5	2	DSD043SL	S\DS105C29.met	LD20\LD20.005	1	1	1	1	1	1	
6	6	2	07D210-01	S\DS105C29.met	LD20\LD20.006	1	1	1	1	1	1	
7	7	2	07D210-02	S\DS105C29.met	LD20\LD20.007	pale yellow 1	1	1	1	1	1	
8	8	2	07D210-03	S\DS105C29.met	LD20\LD20.008	light yellow 1	1	1	1	1	1	
9	9	2	07D210-03M	S\DS105C29.met	LD20\LD20.009	1	1	1	1	1	1	
10	10	2	07D210-03S	S\DS105C29.met	LD20\LD20.010	1	1	1	1	1	1	
11	11	2	07D211-01	S\DS105C29.met	LD20\LD20.011	1	1	1	1	1	1	
12	12	2	07D211-02	S\DS105C29.met	LD20\LD20.012	yellow 1	1	1	1	1	1	
13	13	2	07D212-01	S\DS105C29.met	LD20\LD20.013	light yellow 1	1	1	1	1	1	
14	1	2	RINSE	S\DS105C29.met	LD20\LD20.014	1	1	1	1	1	1	
15	2	2	CDS105C29427 D500	S\DS105C29.met	LD20\LD20.015	1	1	1	1	1	1	
16	3	2	CJM105B02428 JP5/MO	S\JM105B02.met	LD20\LD20.016	1	1	1	1	1	1	
17	14	2	07D212-05	S\DS105C29.met	LD20\LD20.017	light brown 1	1	1	1	1	1	
18	15	2	07D212-07	S\DS105C29.met	LD20\LD20.018	yellow 1	1	1	1	1	1	
19	16	2	07D212-04	S\DS105C29.met	LD20\LD20.019	1	1	1	1	1	1	
20	17	2	07D212-03	S\DS105C29.met	LD20\LD20.020	1	1	1	1	1	1	
21	18	2	07D212-06	S\DS105C29.met	LD20\LD20.021	yellow 1	1	1	1	1	1	
22	19	2	07D212-02	S\DS105C29.met	LD20\LD20.022	golden yellow 1	1	1	1	1	1	
23	1	2	RINSE	S\DS105C29.met	LD20\LD20.023	1	1	1	1	1	1	
24	20	2	DSD034WL	S\DS105C29.met	LD20\LD20.024	1	1	1	1	1	1	
25	21	2	DSD034WC	S\DS105C29.met	LD20\LD20.025	1	1	1	1	1	1	
26	22	2	DSD034WB	S\DS105C29.met	LD20\LD20.026	1	1	1	1	1	1	
27	23	2	07D158-20	S\DS105C29.met	LD20\LD20.027	pale yellow 1	RR (over range)	1	1	1	1	
28	54	2	IB105D429	S\DS105C29.met	LD20\LD20.028	1	1	1	1	1	1	
29	2	2	CDS105C29429 D500	S\DS105C29.met	LD20\LD20.029	1	1	1	1	1	1	
30	3	2	CJM105B02430 JP5/MO	S\JM105B02.met	LD20\LD20.030	1	1	1	1	1	1	
31	24	2	DSD037WB	S\DS105C29.met	LD20\LD20.031	1	1	1	1	1	1	
32	25	2	DSD037WL	S\DS105C29.met	LD20\LD20.032	1	1	1	1	1	1	
33	26	2	DSD037WC	S\DS105C29.met	LD20\LD20.033	1	1	1	1	1	1	
34	27	2	07D171-02	S\DS105C29.met	LD20\LD20.034	1	1	EL 1	1	1	1	
35	28	2	07D172-03	S\DS105C29.met	LD20\LD20.035	RR ~~(over range)~~	(due to low surrogate)	4/20/07 1	1	1	1	

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Start GC105 Method: D... GC105 (Offline) Met... D:\EZCHROM\METHODS A:\ untitled - Paint 17:40

DC/EL 4/20/07

GC105 Method: DS105C29.met Data: LD20\D0 Project: Default [Sequence: Unsaved]

File Edit View Method Data Sequence Analysis Control Reports Window Help

1: A

comments EL 4/20/07

Run #	Vial	Volume	Sample ID	Method	Filename	Sample Amt	ISTD Amt	Multiplier 1	Multiplier 2	Multiplier 3	Dilution 1
36	29	2	07D172-04	S\DS105C29.met	\LD20\LD20.036	RR ~~(over range)~~	(due to low surrogate) 4/20/07	1	1	1	1
37	54	2	RINSE	S\DS105C29.met	\LD20\LD20.037	1	1	1	1	1	1
38	30	2	DSD044SL	S\DS105C29.met	\LD20\LD20.038	1	1	1	1	1	1
39	31	2	DSD044SC	S\DS105C29.met	\LD20\LD20.039	1	1	1	1	1	1
40	32	2	DSD044SB	S\DS105C29.met	\LD20\LD20.040	1	1	1	1	1	1
41	33	2	07D197-01	S\DS105C29.met	\LD20\LD20.041	1	1	1	1	1	1
42	54	2	RINSE	S\DS105C29.met	\LD20\LD20.042	1	1	1	1	1	1
43	2	2	CDS105C29431 D500	S\DS105C29.met	\LD20\LD20.043	1	1	1	1	1	1
44	3	2	CJM105B02432 JP5/MO	S\JM105B02.met	\LD20\LD20.044	1	1	1	1	1	1
45	34	2	07D207-14	S\DS105C29.met	\LD20\LD20.045	1	1	1	1	1	1
46	35	2	07D176-01	S\DS105C29.met	\LD20\LD20.046	RR (overrange)	1	1	1	1	1
47	36	2	07D176-02	S\DS105C29.met	\LD20\LD20.047	1	1	1	1	1	1
48	37	2	07D176-03	S\DS105C29.met	\LD20\LD20.048	1	1	1	1	1	1
49	38	2	07D176-04	S\DS105C29.met	\LD20\LD20.049	RR (overrange)	1	1	1	1	1
50	39	2	07D176-05	S\DS105C29.met	\LD20\LD20.050	1	1	1	1	1	1
51	40	2	07D176-05M	S\DS105C29.met	\LD20\LD20.051	1	1	1	1	1	1
52	41	2	07D176-05S	S\DS105C29.met	\LD20\LD20.052	1	1	1	1	1	1
53	42	2	07D185-01	S\DS105C29.met	\LD20\LD20.053	1	1	1	1	1	1
54	43	2	07D185-02	S\DS105C29.met	\LD20\LD20.054	1	1	1	1	1	1
55	63	2	RINSE	S\DS105C29.met	\LD20\LD20.055	1	1	1	1	1	1
56	2	2	CDS105C29433 D500	S\DS105C29.met	\LD20\LD20.056	1	1	1	1	1	1
57	3	2	CJM105B02434 JP5/MO	S\JM105B02.met	\LD20\LD20.057	1	1	1	1	1	1
58	44	2	07D190-01	S\DS105C29.met	\LD20\LD20.058	1	1	1	1	1	1
59	45	2	07D190-02	S\DS105C29.met	\LD20\LD20.059	1	1	1	1	1	1
60	46	2	07D190-03	S\DS105C29.met	\LD20\LD20.060	1	1	1	1	1	1
61	47	2	07D190-04	S\DS105C29.met	\LD20\LD20.061	RR (over range)	1	1	1	1	1
62	63	2	RINSE	S\DS105C29.met	\LD20\LD20.062	1	1	1	1	1	1
63	48	2	DSD042WL	S\DS105C29.met	\LD20\LD20.063	1	1	1	1	1	1
64	49	2	DSD042WB	S\DS105C29.met	\LD20\LD20.064	1	1	1	1	1	1
65	50	2	07D192-01	S\DS105C29.met	\LD20\LD20.065	RR ~~(over range)~~	(due to low surrogate) EL 4/20/07	1	1	1	1
66	51	2	07D192-01M	S\DS105C29.met	\LD20\LD20.066	1	1	1	1	1	1
67	52	2	07D192-01S	S\DS105C29.met	\LD20\LD20.067	1	1	1	1	1	1
68	53	2	07D192-02	S\DS105C29.met	\LD20\LD20.068	1	1	1	1	1	1
69	64	2	I8106D435	S\DS105C29.met	\LD20\LD20.069	1	1	1	1	1	1
70	2	2	CDS105C29435 D500	S\DS105C29.met	\LD20\LD20.070	1	1	1	1	1	1

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DC/EL 4/20/07

EXTRACTION LOGS

EMAX LABORATORIES, INC.

EXTRACTION LOG *for* TPH

SOP ☒ EMAX-3550 Rev. No.1 ☐ EMAX-3520 Rev. No.2 ☐ EMAX-LUFT E Rev. No.1 ☐ EMAX-3540 Rev. No.0 ☐ EMAX-3510Rev.No. 1

Matrix: SOIL Start Date: 4/19/07 Time: 15:15 End Date: 4/19/07 Time: 16:30 Book # EDS-032

PREPARATION BATCH * DVD0445

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g | ml)	Extract Volume (ml)	Silica Gel Clean-up	Notes
01	DVD044 – SB	4	10.00	10	~~silica~~ SS	4/19/7
02	– SL	4	10.00	10		
03	– SC	4	10.00	10		
04	07D176 – 01	2	10.03	10		
05	– 02	2	10.05	10		
06	– 03	4	10.02	10		
07	– 04	2	10.00	10		
08	– 05	2	10.01	10		
09	– 05M	4	10.02	10		
10	– 05S	4	10.02	10	•	
11	07D185 – 01	2	10.00	10		
12	– 02	4	10.04	10		
13	07D190 – 01	2	10.02	10		
14	– 02	4	10.03	10		
15	– 03	2	10.01	10		
16	– 04	4	10.02	10		
17	07D197 – 01	2	10.05	10		use composite
18	07D207 – 14	4	10.03	10		
19						
20						
21						
22						
23				← SS		
24				4/19/07		
25						
26						
27						

Standards	ID	Amount Added (ml)
Surrogate	SS3C-7-70-3	1.0
LCS/MS	SS3C-7-68-1	1.0

Reagent	Lot# / ID
CH_2Cl_2	47010
Na_2SO4	460806 19
HCl	—
Silica Sand	44273

TUNING

Sonicator #	Reading
2	20
4	4

Concentrator Water Bath Temp. (C)

1	35	35
2	35	35
3	35	35
4	35	35
5	35	35
6		

Comments: Test thermometer = T_1

Prepared By: SS/JM Standard Added By: SS

Witnessed By: JM Checked By: JM

Extract Received by: DC 4/19/7 Extract Location: SEC 6 #14

Disposal Date: Disposed By:

This page is checked during data review.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METALS / MERCURY

SDG#: 07D207

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D207

METHOD 3050B/6010B
METALS BY ICP

One (1) soil sample was received on 04/18/07 for Metals analysis by Method 3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution/Post-Analytical Spike**

   Sample D197-01 from another SDG was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
METALS BY ICP

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D207
Instrument ID : T-ID8

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPD031SB	1	NA	04/20/0715:19	04/19/0714:15	ID8D015060	ID8D015058	IPD031S	Method Blank
LCS1S	IPD031SL	1	NA	04/20/0715:24	04/19/0714:15	ID8D015061	ID8D015058	IPD031S	Lab Control Sample (LCS)
LCD1S	IPD031SC	1	NA	04/20/0715:29	04/19/0714:15	ID8D015062	ID8D015058	IPD031S	LCS Duplicate
COMP5 MZ3-2 1,2,3,4,5AS	D197-01A	1	NA	04/20/0715:33	04/19/0714:15	ID8D015063	ID8D015058	IPD031S	Analytical Spike Sample
COMP5 MZ3-2 1,2,3,4,5	D197-01	1	NA	04/20/0715:37	04/19/0714:15	ID8D015064	ID8D015058	IPD031S	Field Sample
COMP5 MZ3-2 1,2,3,4,5DL	D197-01J	5	NA	04/20/0715:42	04/19/0714:15	ID8D015065	ID8D015058	IPD031S	Diluted Sample
IDW-041807-BIN1	D207-14	1	3.7	04/20/0716:00	04/19/0714:15	ID8D015069	ID8D015058	IPD031S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3050B/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	04/18/07 11:30
Project	: LMC BEAUMONT SITE 1	Date Received:	04/18/07
SDG NO.	: 07D207	Date Extracted:	04/19/07 14:15
Sample ID:	IDW-041807-BIN1	Date Analyzed:	04/20/07 16:00
Lab Samp ID:	D207-14	Dilution Factor:	1
Lab File ID:	ID8D015069	Matrix :	SOIL
Ext Btch ID:	IPD031S	% Moisture :	3.7
Calib. Ref.:	ID8D015058	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10.4	2.08
Arsenic	0.951J	1.04	0.415
Barium	82.8	1.04	0.208
Beryllium	ND	1.04	0.208
Cadmium	ND	1.04	0.519
Chromium	27.4	2.08	1.04
Cobalt	3.66	2.08	1.04
Copper	ND	2.08	0.519
Lead	2.49	1.04	0.208
Molybdenum	ND	5.19	0.519
Nickel	1.84J	2.08	1.04
Selenium	ND	1.04	0.519
Silver	ND	2.08	0.519
Thallium	1.01J	1.04	0.519
Vanadium	22.7	2.08	0.519
Zinc	49.1	2.08	0.519

METHOD 3050B/6010B
METALS BY ICP

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	04/19/07
SDG NO.	: 07D207	Date Extracted:	04/19/07 14:15
Sample ID:	MBLK1S	Date Analyzed:	04/20/07 15:19
Lab Samp ID:	IPD031SB	Dilution Factor:	1
Lab File ID:	ID8D015060	Matrix :	SOIL
Ext Btch ID:	IPD031S	% Moisture :	NA
Calib. Ref.:	ID8D015058	Instrument ID :	EMAXTID8

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10.0	2.00
Arsenic	ND	1.00	0.400
Barium	ND	1.00	0.200
Beryllium	ND	1.00	0.200
Cadmium	ND	1.00	0.500
Chromium	ND	2.00	1.00
Cobalt	ND	2.00	1.00
Copper	ND	2.00	0.500
Lead	ND	1.00	0.200
Molybdenum	ND	5.00	0.500
Nickel	ND	2.00	1.00
Selenium	ND	1.00	0.500
Silver	ND	2.00	0.500
Thallium	ND	1.00	0.500
Vanadium	ND	2.00	0.500
Zinc	ND	2.00	0.500

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D207
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPD031SB	IPD031SL	IPD031SC		
LAB FILE ID:	ID8D015060	ID8D015061	ID8D015062		
DATIME EXTRCTD:	04/19/0714:15	04/19/0714:15	04/19/0714:15	DATE COLLECTED:	NA
DATIME ANALYZD:	04/20/0715:19	04/20/0715:24	04/20/0715:29	DATE RECEIVED:	04/19/07
PREP. BATCH:	IPD031S	IPD031S	IPD031S		
CALIB. REF:	ID8D015058	ID8D015058	ID8D015058		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	495	99	500	489	98	1	80-120	20
Arsenic	ND	100	99.6	100	100	100	100	1	80-120	20
Barium	ND	100	95.1	95	100	96.1	96	1	80-120	20
Beryllium	ND	100	105	105	100	106	106	1	80-120	20
Cadmium	ND	100	98.1	98	100	98.9	99	1	80-120	20
Chromium	ND	100	99.2	99	100	102	102	2	80-120	20
Cobalt	ND	100	101	101	100	102	102	1	80-120	20
Copper	ND	100	103	103	100	102	102	1	80-120	20
Lead	ND	100	97.2	97	100	98.1	98	1	80-120	20
Molybdenum	ND	100	110	110	100	109	109	0	80-120	20
Nickel	ND	100	98.3	98	100	98.9	99	1	80-120	20
Selenium	ND	100	97.9	98	100	98.6	99	1	80-120	20
Silver	ND	100	95.1	95	100	94.8	95	0	80-120	20
Thallium	ND	100	103	103	100	104	104	1	80-120	20
Vanadium	ND	100	102	102	100	103	103	1	80-120	20
Zinc	ND	100	100	100	100	101	101	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	COMP5 MZ3-2 1,2,3,4	COMP5 MZ3-2 1,2,3,4		
EMAX SAMP ID:	D197-01	D197-01J		
LAB FILE ID:	ID8D015064	ID8D015065		
DATE EXTRACTED:	04/19/0714:15	04/19/0714:15	DATE COLLECTED:	04/17/07 12:54
DATE ANALYZED:	04/20/0715:37	04/20/0715:42	DATE RECEIVED:	04/18/07
PREP. BATCH:	IPD031S	IPD031S		
CALIB. REF:	ID8D015058	ID8D015058		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	1.19	2.09J	NA	10
Barium	103	106	3	10
Beryllium	0.272J	ND	NA	10
Cadmium	ND	ND	0	10
Chromium	11.0	11.2	2	10
Cobalt	6.21	6.32J	NA	10
Copper	5.69	6.87J	NA	10
Lead	3.35	3.47J	NA	10
Molybdenum	ND	ND	0	10
Nickel	6.80	6.89J	NA	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	0.729J	ND	NA	10
Vanadium	32.6	34.0	4	10
Zinc	38.2	39.9	5	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D207
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1
SAMPLE ID: COMP5 MZ3-2 1,2,3,4,5
CONTROL NO.: D197-01 D197-01A
LAB FILE ID: ID8D015064 ID8D015063
DATIME EXTRCTD: 04/19/0714:15 04/19/0714:15 DATE COLLECTED: 04/17/07 12:54
DATIME ANALYZD: 04/20/0715:37 04/20/0715:33 DATE RECEIVED: 04/18/07
PREP. BATCH: IPD031S IPD031S
CALIB. REF: ID8D015058 ID8D015058

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	500	456	91	75-125
Arsenic	1.19	100	96.3	95	75-125
Barium	103	100	199	95	75-125
Beryllium	.272J	100	100	100	75-125
Cadmium	ND	100	95.5	96	75-125
Chromium	11	100	107	96	75-125
Cobalt	6.21	100	104	98	75-125
Copper	5.69	100	104	99	75-125
Lead	3.35	100	97.4	94	75-125
Molybdenum	ND	100	104	104	75-125
Nickel	6.8	100	102	95	75-125
Selenium	ND	100	94.3	94	75-125
Silver	ND	100	91.5	91	75-125
Thallium	.729J	100	99.8	99	75-125
Vanadium	32.6	100	133	100	75-125
Zinc	38.2	100	136	97	75-125

TRACE-LOW ICP QC CHECK TABLE

QC	ICV HIGH	ICV	CCV	ICSAB	ICSA
Limit%	95-105	90-110	90-110	80-120	80-120
Comp	mg/L	mg/L	mg/L	mg/L	mg/L
Al	10	5	5	500	500
Sb	1	0.5	0.5	1	0
As	1	0.5	0.5	1	0
Ba	1	0.5	0.5	0.5	0
Be	1	0.5	0.5	0.5	0
B	1	0.5	0.5	0.5	0
Cd	1	0.5	0.5	1	0
Ca	100	50	50	500	500
Cr	1	0.5	0.5	0.5	0
Co	1	0.5	0.5	0.5	0
Cu	1	0.5	0.5	0.5	0
Fe	10	5	5	200	200
Pb	1	0.5	0.5	0.5	0
Li	1	0.5	0.5	0.5	0
Mg	100	50	50	500	500
Mn	1	0.5	0.5	0.5	0
Mo	1	0.5	0.5	1	0
Ni	1	0.5	0.5	1	0
K	100	50	50	75	0
Se	1	0.5	0.5	1	0
Si	1	0.5	0.5	1	0
Ag	1	0.5	0.5	1	0
Na	100	50	50	75	0
Sr	1	0.5	0.5	0.5	0
Tl	1	0.5	0.5	1	0
Sn	1	0.5	0.5	1	0
Ti	1	0.5	0.5	1	0
U	10	5	5	1	0
V	1	0.5	0.5	0.5	0
Zn	1	0.5	0.5	1	0

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* METALS BY ICP

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/20/07 10:41

End Date: 4/20/07 16:10

Comments:

ok
ICV Al failed

Book #: AD8-001

Instrument No.: D8

Analytical Batch: TD8D015

Analytical Sequence: S-6010D07(V13)

Method File: 6010D07(V13

SOP #	Rev. #
☑ EMAX-6010	5
☐ EMAX-200.7	0
☐ EMAX-	

STANDARDS ID	
S0	SMIB10·71·01
S1	NA
S2	SMIB10·78·01
S3	NA
S4	NA
S5	SMIB10·72·04
S6	NA
ICV	SMIB10·73·01
CCV	10·72·04
ICSA	10·73·03
ICSAB	10·80·02
CRI/MRL	10·79·02
MRL2	10·72·01
S8	10·78·02

Analyzed By: cjc

Date: 4/20/07

SEQUENCE FILE : ID8D015

4-18	19-33	34-43	44-53	54-63
LFID	LSID	TIME	DATE	DF
ID8D015001	Blank	10:41	04/20/07	1.000
ID8D015002	S2	10:46	04/20/07	1.000
ID8D015003	S5	10:50	04/20/07	1.000
ID8D015004	S8	10:55	04/20/07	1.000
ID8D015005	ICV	11:00	04/20/07	1.000
ID8D015006	ICB	11:04	04/20/07	1.000
ID8D015007	MRL8D15	11:09	04/20/07	1.000
ID8D015008	MRL8D15A	11:14	04/20/07	1.000
ID8D015009	MRL8D15B	11:18	04/20/07	1.000
ID8D015010	ICSAI	11:23	04/20/07	1.000
ID8D015011	ICSABI	11:28	04/20/07	1.000
ID8D015012	CCV1	11:32	04/20/07	1.000
ID8D015013	CCB1	11:37	04/20/07	1.000
ID8D015014	IPD023SB	11:42	04/20/07	1.000
ID8D015015	IPD023SL	11:46	04/20/07	1.000
ID8D015016	IPD023SC	11:51	04/20/07	1.000
ID8D015017	D144-11M	11:55	04/20/07	1.000
ID8D015018	D144-11S	12:00	04/20/07	1.000
ID8D015019	D144-11A	12:04	04/20/07	1.000
ID8D015020	D144-11	12:09	04/20/07	1.000
ID8D015021	D144-11J	12:13	04/20/07	5.000
ID8D015022	D144-01	12:18	04/20/07	1.000
ID8D015023	D144-02	12:23	04/20/07	1.000
ID8D015024	CCV2	12:27	04/20/07	1.000
ID8D015025	CCB2	12:32	04/20/07	1.000
ID8D015026	D144-03	12:36	04/20/07	1.000
ID8D015027	D144-04	12:41	04/20/07	1.000
ID8D015028	D144-05	12:46	04/20/07	1.000
ID8D015029	D144-06	12:50	04/20/07	1.000
ID8D015030	D144-07	12:55	04/20/07	1.000
ID8D015031	D144-08	13:00	04/20/07	1.000
ID8D015032	D144-09	13:04	04/20/07	1.000
ID8D015033	D144-10	13:09	04/20/07	1.000
ID8D015034	D144-21	13:13	04/20/07	1.000
ID8D015035	D144-22	13:18	04/20/07	1.000
ID8D015036	CCV3	13:23	04/20/07	1.000
ID8D015037	CCB3	13:27	04/20/07	1.000
ID8D015038	IPD028SB	13:32	04/20/07	1.000
ID8D015039	IPD028SL	13:37	04/20/07	1.000
ID8D015040	IPD028SC	13:41	04/20/07	1.000
ID8D015041	D150-34A	13:46	04/20/07	1.000
ID8D015042	D150-34	13:50	04/20/07	1.000
ID8D015043	D150-34J	13:55	04/20/07	5.000
ID8D015044	D150-35	13:59	04/20/07	1.000
ID8D015045	D150-36	14:04	04/20/07	1.000
ID8D015046	D150-37	14:08	04/20/07	1.000
ID8D015047	D150-39	14:13	04/20/07	1.000
ID8D015048	CCV4	14:18	04/20/07	1.000
ID8D015049	CCB4	14:22	04/20/07	1.000
ID8D015050	D150-42	14:27	04/20/07	1.000
ID8D015051	D150-44	14:31	04/20/07	1.000
ID8D015052	D150-45	14:36	04/20/07	1.000
ID8D015053	D150-47	14:41	04/20/07	1.000
ID8D015054	D150-49	14:45	04/20/07	1.000
ID8D015055	D150-50	14:50	04/20/07	1.000

7010

ID8D015056	D151-01	14:55	04/20/07	1.000
ID8D015057	BLANK	14:59	04/20/07	1.000
ID8D015058	CCV5	15:04	04/20/07	1.000
ID8D015059	CCB5	15:09	04/20/07	1.000
ID8D015060	IPD031SB	15:19	04/20/07	1.000
ID8D015061	IPD031SL	15:24	04/20/07	1.000
ID8D015062	IPD031SC	15:29	04/20/07	1.000
ID8D015063	D197-01A	15:33	04/20/07	1.000
ID8D015064	D197-01	15:37	04/20/07	1.000
ID8D015065	D197-01J	15:42	04/20/07	5.000
ID8D015066	D198-01	15:47	04/20/07	1.000
ID8D015067	D199-01	15:51	04/20/07	1.000
ID8D015068	D200-01	15:56	04/20/07	1.000
ID8D015069	D207-14	16:00	04/20/07	1.000
ID8D015070	CCV6	16:05	04/20/07	1.000
ID8D015071	CCB6	16:10	04/20/07	1.000

SDG : 07D207 UNIT : % SUMMARY of ICV and CCV : ID8D015 DATE : 04/20/07 INST : EMA

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	89*	95	97	95	98	100	94	97	95	95	94	96	95	97	95	98	93	94	97	95	95	95	96	97
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D15	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D15A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D15B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	93	----	----	----	----	----	----	97	----	----	----	95	----	102	----	----	----	----	----	----	----	----	----	----
ICSABI	92	100	102	102	100	103	99	95	98	98	100	93	96	99	96	108	95	110	102	105	109	98	98	99
CCV1	94	94	101	99	100	103	98	100	99	98	96	98	95	100	97	106	97	97	103	97	98	99	102	100
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD023SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD023SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD023SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	94	95	103	101	102	105	99	100	103	99	96	96	96	102	100	110	97	97	106	97	99	102	104	100
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-21	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	93	95	103	101	102	105	99	100	103	99	96	95	*96	101	99	109	97	97	105	97	98	102	103	101
CCB3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD028SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD028SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD028SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-34A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-34J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-35	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-36	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-37	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-39	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	94	94	102	100	101	104	98	99	102	99	95	96	95	100	99	110	97	98	105	95	98	103	105	99
CCB4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-42	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-44	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-45	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-47	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-49	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-50	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

FORM I SW-2

D151-01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
BLANK	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
CCV5	95	95	102	101	102	104	99	100	102	99	97	97	96	101	99	108	98	98	105	97	99	102	104	100
CCB5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
IPD031SB	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
IPD031SL	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
IPD031SC	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D197-01A	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D197-01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D197-01J	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D198-01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D199-01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D200-01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
D207-14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
CCV6	93	94	102	100	101	104	98	99	102	98	96	96	95	101	100	108	97	98	105	95	98	102	104	100
CCB6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7013

SDG : 07D207 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : ID8D015 (SOIL) DATE : 04/20/07 INST : EMAX

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Tl	V	Zn
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-3.95	-.170	1.20	-.700	-.160	-2.14	.000	302	-.500	-.220	-.710	-8.69	-.120	-10.5	1.14	.360	-.260	-5.67	-2.04	.250	43.1	-.620	.290	-.180
MRL8D15	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D15A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
MRL8D15B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	----	-8.04	.460	-.460	-.040	16.0	3.13	----	4.44	.140	2.27	----	4.04	----	-1.05	-1.17	-4.00	56.8	-6.62	.530	168	-8.20	-.650	5.40
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	-3.46	.530	.650	-.560	-.220	-3.15	-.040	-26.6	-.630	-.150	-.640	-10.4	-.440	17.1	-1.21	.270	-.400	132	-.370	.070	34.4	.200	.180	.850
IPD023SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD023SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD023SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11M	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11S	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-11J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	6.00	.800	1.58	-.250	.090	-3.46	-.060	-15.5	-.710	-.250	-.720	-4.85	-.240	-12.9	.640	.250	-.280	123	-1.70	.080	23.9	.310	.210	7.48
D144-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-04	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-05	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-06	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-07	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-08	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-09	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-21	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D144-22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB3	-3.20	-.820	-.930	-.480	.010	-4.38	-.010	-26.1	-.520	-.010	-1.02	-9.77	-.170	11.6	.830	.060	-.150	53.9	-3.49	.190	-12.0	.160	.050	-.940
IPD028SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD028SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD028SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-34A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-34J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-35	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-36	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-37	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-39	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB4	-.090	-.950	2.04	-.380	.030	-4.33	.000	-26.8	-.510	-.110	-.950	-9.29	-.450	17.9	.120	.260	-.210	55.0	-3.20	.080	-25.2	-.060	.340	-1.29
D150-42	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-44	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-45	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-47	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-49	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D150-50	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

7014

D151-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB5	-4.73	-.260	-.520	-.910	-.090	-4.49	-.030	-21.3	-.650	.020	-.870	-8.31	.290	-3.58	.350	.120	-.170	-12.6	-.010	.180	-45.3	-.120	.440	.380
IPD031SB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD031SL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPD031SC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D197-01A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D197-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D197-01J	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D198-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D199-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D200-01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
D207-14	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB6	-5.07	-.080	-.210	-.550	-.190	-4.84	.020	-18.6	-.620	-.090	-.870	-6.68	-.070	42.7	.420	.280	-.270	90.4	-2.45	-.060	-84.8	.630	.190	-1.07

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7015

17:51

	Pos ID	Type	Samplename	Comment	Data File	Type*	Diln Factor	CorrFact	Check	Check Table	Fail Action
1	1	Unk	S0		ID8D015001			1	☐		Continue
2	2	Unk	S2		ID8D015002			1	☐		Continue
3	3	Unk	S5		ID8D015003			1	☐		Continue
4	4	Unk	S8		ID8D015004			1	☐		Continue
5	5	QC	ICV		ID8D015005			1	☒	ICV	Continue
6	6	QC	ICB		ID8D015006			1	☒	CCB1	Continue
7	7	Unk	MRL8D15	BGMP	ID8D015007			1	☐		Continue
8	8	Unk	MRL8D15A	CAM	ID8D015008			1	☐		Continue
9	9	Unk	MRL8D15B	CAM	ID8D015009			1	☐		Continue
10	10	QC	ICSAI		ID8D015010			1	☒	ICSA	Continue
11	11	QC	ICSABI		ID8D015011			1	☒	ICSAB	Continue
12	12	QC	CCV1		ID8D015012			1	☒	CCV	Continue
13	13	QC	CCB1		ID8D015013			1	☒	CCB1	Continue
14	14	QC	IPD023SB		ID8D015014			1	☒	CCB1	Continue
15	15	QC	IPD023SL		ID8D015015			1	☒	LCS	Continue
16	16	QC	IPD023SC		ID8D015016			1	☒	LCS	Continue
17	17	Unk	D144-11M		ID8D015017			1	☐		Continue
18	18	Unk	D144-11S		ID8D015018			1	☐		Continue
19	19	Unk	D144-11A		ID8D015019			1	☐		Continue
20	20	Unk	D144-11		ID8D015020			1	☐		Continue
21	21	Unk	D144-11J		ID8D015021			1	☐		Continue
22	22	Unk	D144-01		ID8D015022			1	☐		Continue
23	23	Unk	D144-02		ID8D015023			1	☐		Continue
24	24	QC	CCV2		ID8D015024			1	☒	CCV	Continue
25	25	QC	CCB2		ID8D015025			1	☒	CCB1	Continue
26	26	Unk	D144-03		ID8D015026			1	☐		Continue
27	27	Unk	D144-04		ID8D015027			1	☐		Continue
28	28	Unk	D144-05		ID8D015028			1	☐		Continue
29	29	Unk	D144-06		ID8D015029			1	☐		Continue
30	30	Unk	D144-07		ID8D015030			1	☐		Continue
31	31	Unk	D144-08		ID8D015031			1	☐		Continue
32	32	Unk	D144-09		ID8D015032			1	☐		Continue
33	33	Unk	D144-10		ID8D015033			1	☐		Continue
34	34	Unk	D144-21		ID8D015034			1	☐		Continue
35	35	Unk	D144-22		ID8D015035			1	☐		Continue
36	36	QC	CCV3		ID8D015036			1	☒	CCV	Continue
37	37	QC	CCB3		ID8D015037			1	☒	CCB1	Continue
38	38	QC	IPD028SB		ID8D015038			1	☒	CCB1	Continue
39	39	QC	IPD028SL		ID8D015039			1	☒	LCS	Continue
40	40	QC	IPD028SC		ID8D015040			1	☒	LCS	Continue
41	41	Unk	D150-34A		ID8D015041			1	☐		Continue
42	42	Unk	D150-34		ID8D015042			1	☐		Continue
43	43	Unk	D150-34J		ID8D015043			1	☐		Continue
44	44	Unk	D150-35		ID8D015044			1	☐		Continue
45	45	Unk	D150-36		ID8D015045			1	☐		Continue
46	46	Unk	D150-37		ID8D015046			1	☐		Continue

Sequence Sample List (S_6010D07(v13))

04/20/07 16:17:51

7016

	Pos ID	Type	Samplename	Comment	Data File	Type*	Diln Factor	CorrFact	Check	Check Table	Fail Action
47	47	Unk	D150-39		ID8D015047			1	☐		Continue
48	48	QC	CCV4		ID8D015048			1	☒	CCV	Continue
49	49	QC	CCB4		ID8D015049			1	☒	CCB1	Continue
50	50	Unk	D150-42		ID8D015050			1	☐		Continue
51	51	Unk	D150-44		ID8D015051			1	☐		Continue
52	52	Unk	D150-45		ID8D015052			1	☐		Continue
53	53	Unk	D150-47		ID8D015053			1	☐		Continue
54	54	Unk	D150-49		ID8D015054			1	☐		Continue
55	55	Unk	D150-50		ID8D015055			1	☐		Continue
56	56	Unk	D151-01		ID8D015056			1	☐		Continue
57	57	Unk	BLANK		ID8D015057			1	☐		Continue
58	58	QC	CCV5		ID8D015058			1	☒	CCV	Continue
59	59	QC	CCB5		ID8D015059			1	☒	CCB1	Continue
60	60	Unk	IPD031SB		ID8D015060			1	☐		Continue
61	61	Unk	IPD031SL		ID8D015061			1	☐		Continue
62	62	Unk	IPD031SC		ID8D015062			1	☐		Continue
63	63	Unk	D197-01A		ID8D015063			1	☐		Continue
64	64	Unk	D197-01		ID8D015064			1	☐		Continue
65	65	Unk	D197-01J		ID8D015065			1	☐		Continue
66	66	Unk	D198-01		ID8D015066			1	☐		Continue
67	67	Unk	D199-01		ID8D015067			1	☐		Continue
68	68	Unk	D200-01		ID8D015068			1	☐		Continue
69	69	Unk	D207-14		ID8D015069			1	☐		Continue
70	70	QC	CCV6		ID8D015070			1	☒	CCV	Continue
71	71	QC	CCB6		ID8D015071			1	☒	CCB1	Continue

IQ8D015 Section 1 of 3

INDX	LSID	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	LSID
1	Blank	.00120	.00003	-.00001	.00078	-.00010	.00088	-.00073	.00044	.00007	-.00068	Blank
2	S2				.60385	.92044	.09495	3.0104		.13172	.85349	S2
3	S5		.00704	.00361								S5
4	S8	.18518							1.8557			S8
5	ICV	4.4664*	.47731	.48338	.47369	.49178	.49895	.46880	48.730	.47687	.47564	ICV
6	ICB	-.00395	-.00017	.00120	-.00070	-.00016	-.00214	.00000	.30192*	-.00050	-.00022	ICB
7	MRL8D15	.16419	.09948	.01036	.00415	.00492	-.00235	.00432	.50634	.00975	.01486	MRL8D15
8	MRL8D15A	-.00670	.09725	.00936	.00941	.00973	.01703	.00973	-.01172	.00946	.00964	MRL8D15A
9	MRL8D15B	-.00145	.09901	.00987	.00951	.00985	.01794	.00999	-.01198	.00982	.00973	MRL8D15B
10	ICSAI	467.29	-.00804	.00046	-.00046	-.00004	.01601	.00313	486.17	.00444	.00014	ICSAI
11	ICSABI	459.27	1.0033	1.0153	.51213	.50041	.51312	.98665	474.32	.48886	.48964	ICSABI
12	CCV1	4.6901	.47247	.50382	.49554	.50218	.51478	.49003	49.999	.49634	.48809	CCV1
13	CCB1	-.00346	.00053	.00065	-.00056	-.00022	-.00315	-.00004	-.02661	-.00063	-.00015	CCB1
14	IPD023SB	-.00509	-.00002	-.00007	-.00080	.00007	-.00372	-.00003	-.02790	-.00050	-.00006	IPD023SB
15	IPD023SL	8.9187	4.7967	.97867	.93870	1.0253	.97390	.96324	49.500	.99501	.98726	IPD023SL
16	IPD023SC	9.3234	4.9185	1.0218	.98259	1.0735	.99255	1.0095	50.278	1.0393	1.0368	IPD023SC
17	D144-11M	49.713	2.9843	.91685	1.6028	.93827	.91793	.87873	186.37	.93705	.92324	D144-11M
18	D144-11S	52.289	3.0224	.92889	1.6300	.94626	.93097	.88545	194.68	.94480	.92929	D144-11S
19	D144-11A	43.297	4.3994	.92754	1.4997	.94342	.94755	.88226	210.04	.94011	.92373	D144-11A
20	D144-11	36.598	.00792	.02445	.68188	.00343	.00726	.00208	177.21	.04334	.02231	D144-11
21	D144-11J	7.2824	.00213	.00448	.14242	.00072	.00008	.00035	37.817	.00901	.00458	D144-11J
22	D144-01	29.997	.00038	.02308	.80280	.00191	.01099	.00471	116.10	.03846	.01810	D144-01
23	D144-02	31.486	-.00085	.02551	.55865	.00175	.00930	.00157	102.17	.04107	.01842	D144-02
24	CCV2	4.6782	.47578	.51418	.50629	.50993	.52629	.49362	49.808	.51518	.49582	CCV2
25	CCB2	.00600	.00080	.00158	-.00025	.00009	-.00346	-.00006	-.01548	-.00071	-.00025	CCB2
26	D144-03	36.505	.00056	.05593	2.6968	.00209	.01676	.00117	454.03	.05329	.02269	D144-03
27	D144-04	33.812	.00107	.02588	.68269	.00180	.00731	.00768	175.77	.04205	.02008	D144-04
28	D144-05	35.328	.00012	.02572	.70941	.00174	.00850	.00261	107.58	.04287	.02080	D144-05
29	D144-06	37.427	-.00272	.02388	.72502	.00210	.00810	.00267	112.78	.04597	.02168	D144-06
30	D144-07	39.913	-.00168	.03497	.78733	.00222	.00855	.00055	156.02	.04667	.02189	D144-07
31	D144-08	36.394	-.00229	.03185	.63852	.00209	.00781	.00089	143.96	.04407	.02094	D144-08
32	D144-09	26.489	.00847	.03037	.59762	.00130	.00242	.00182	92.284	.07583	.02208	D144-09
33	D144-10	33.966	-.00084	.03222	.65813	.00192	.00979	.00055	158.14	.04563	.02130	D144-10
34	D144-21	31.987	-.00101	.02314	.65427	.00188	.00672	.00301	89.156	.04164	.01898	D144-21
35	D144-22	39.019	-.00157	.02516	.68584	.00196	.00921	.00334	100.90	.05339	.02185	D144-22
36	CCV3	4.6616	.47432	.51365	.50420	.51000	.52258	.49325	49.872	.51329	.49502	CCV3
37	CCB3	-.00320	-.00082	-.00093	-.00048	.00001	-.00438	-.00001	-.02610	-.00052	-.00001	CCB3
38	IPD028SB	.16525	-.00050	-.00059	-.00020	-.00008	-.00205	.00003	-.02196	-.00071	-.00006	IPD028SB
39	IPD028SL	9.4227	5.0499	1.0310	.98188	1.0779	1.0328	1.0069	51.525	1.0390	1.0308	IPD028SL
40	IPD028SC	8.8867	4.7233	.97365	.91858	1.0076	.96181	.94793	48.711	.97351	.96801	IPD028SC
41	D150-34A	51.059	4.6533	.98867	1.2294	.99941	1.0259	1.0209	86.267	1.1152	.98477	D150-34A
42	D150-34	41.408	.00927	.02037	.32111	.00217	.05058	.08702	39.711	.16286	.01726	D150-34
43	D150-34J	8.5742	.00247	.00439	.06825	.00043	.00936	.01839	8.5408	.03493	.00375	D150-34J
44	D150-35	36.962	.00120	.02173	.32344	.00176	.02791	.01350	21.554	.15445	.01705	D150-35
45	D150-36	31.993	.00373	.01819	.32105	.00156	.02805	.01851	18.924	.14746	.01933	D150-36
46	D150-37	31.381	.03619	.03365	.30354	.00150	.06726	.04761	40.788	.23615	.02904	D150-37
47	D150-39	29.530	.00671	.04072	.46159	.00195	.03143	.01644	17.132	.11727	.01893	D150-39
48	CCV4	4.6821	.47166	.51106	.50093	.50577	.51965	.49111	49.425	.51047	.49328	CCV4
49	CCB4	-.00009	-.00095	.00204	-.00038	.00003	-.00433	.00000	-.02676	-.00051	-.00011	CCB4
50	D150-42	10.520	.00672	.00771	.09016	.00054	.02272	.00719	31.060	.05668	.00472	D150-42
51	D150-44	15.139	.02383	.01541	.13770	.00075	.05275	.00904	17.942	.17969	.00642	D150-44
52	D150-45	11.090	.00967	.00611	.09233	.00056	.02226	.00480	15.238	.04943	.00686	D150-45
53	D150-47	9.0145	.00483	.00533	.06985	.00027	.00786	.00200	6.4737	.03281	.00309	D150-47
54	D150-49	65.808	-.00537	.06140	.63980	.00249	.08911	.01353	80.453	.17773	.03394	D150-49
55	D150-50	75.450	.00428	.04018	.51899	.00415	.09739	.03305	45.200	.21182	.04097	D150-50

TQ5.6

56	D151-01	52.974	.01029	.04012	7.6516	.00100	.08877	.05109	216.95	3.4303	1.0871	D151-01
57	BLANK	-.00499	.00018	.00065	-.00066	-.00001	-.00506	-.00004	-.01855	-.00070	-.00020	BLANK
58	CCV5	4.7366	.47437	.51247	.50418	.50899	.52195	.49378	50.148	.50861	.49306	CCV5
59	CCB5	-.00473	-.00026	-.00052	-.00091	-.00009	-.00449	-.00003	-.02126	-.00065	.00002	CCB5
60	IPD031SB	-.00660	-.00142	.00196	-.00048	.00001	-.00256	.00009	-.00650	-.00046	.00000	IPD031SB
61	IPD031SL	9.1806	4.9492	.99553	.95096	1.0460	.99953	.98059	50.897	.99242	1.0062	IPD031SL
62	IPD031SC	9.1366	4.8888	1.0040	.96094	1.0582	.98855	.98884	50.513	1.0161	1.0157	IPD031SC
63	D197-01A	103.07	4.5612	.96270	1.9877	1.0028	.96752	.95521	83.449	1.0724	1.0443	D197-01A
64	D197-01	89.798	-.01363	.01192	1.0333	.00272	-.00181	.00156	35.845	.10996	.06208	D197-01
65	D197-01J	18.220	-.00331	.00418	.21291	.00057	-.00357	.00020	7.5279	.02237	.01263	D197-01J
66	D198-01	115.22	-.01416	.01928	.47019	.00218	.02182	.00701	93.090	.12289	.14431	D198-01
67	D199-01	21.356	-.00240	.01251	.33360	.00124	.02633	.00164	56.317	.04139	.01894	D199-01
68	D200-01	99.900	-.01006	.05206	1.0302	.00490	.17156	.01006	609.38	.18864	.06994	D200-01
69	D207-14	78.112	-.01770	.00916	.79696	.00186	-.00320	.00129	16.017	.26368	.03528	D207-14
70	CCV6	4.6701	.47060	.51134	.49999	.50620	.51902	.48995	49.577	.51023	.49085	CCV6
71	CCB6	-.00507	-.00008	-.00021	-.00055	-.00019	-.00484	.00002	-.01856	-.00062	-.00009	CCB6
INDX	LSID	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	LSID

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ID8D015 Section 2 of 3

INDX	LSID	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	LSID
1	Blank	.01881	.00004	.00020	-.00003	.00009	-.00001	-.00084	-.00228	.00003	.00010	Blank
2	S2	3.4274		.21206		.09595		.73411			.17583	S2
3	S5						.67304			.00367		S5
4	S8		.05655		.26623				1.4335			S8
5	ICV	.47016	4.8233	.47385	48.283	.47378	.49178	.46446	46.840	.48270	.47358	ICV
6	ICB	-.00071	-.00869	-.00012	-.01053	.00114	.00036	-.00026	-.00567	-.00204	.00025	ICB
7	MRL8D15	.00866	.09285	.00291	.19333	.00365	.01542	.01966	.87757	.00823	.00961	MRL8D15
8	MRL8D15A	.00865	-.00640	.00952	-.02100	.01219	.04930	.00972	.05840	.00864	.00973	MRL8D15A
9	MRL8D15B	.00918	-.01320	.01006	.03636	.01059	.05069	.00989	.09974	.00930	.00972	MRL8D15B
10	ICSAI	.00227	190.45	.00404	507.87	-.00105	-.00117	-.00400	.05678	-.00662	.00053	ICSAI
11	ICSABI	.50123	185.20	.96038	495.80	.47971	1.0836	.94761	82.610	1.0212	1.0482	ICSABI
12	CCV1	.47760	4.8799	.47723	49.976	.48574	.52851	.48359	48.401	.51423	.48414	CCV1
13	CCB1	-.00064	-.01036	-.00044	.01714	-.00121	.00027	-.00040	.13231*	-.00037	.00007	CCB1
14	IPD023SB	-.00065	-.01017	-.00082	-.06590	.00143	.00012	-.00037	.05806	-.00199	-.00001	IPD023SB
15	IPD023SL	.96553	9.5753	.95663	49.609	.97948	1.0595	.96055	47.767	.96500	.92695	IPD023SL
16	IPD023SC	1.0259	10.022	1.0016	50.658	1.0262	1.0887	1.0070	48.134	1.0082	.97223	IPD023SC
17	D144-11M	.93299	50.630	.90473	69.623	1.7564	.94497	.91890	62.792	.86815	.86793	D144-11M
18	D144-11S	.94414	52.689	.91131	71.311	1.7976	.95449	.92842	64.618	.87979	.87406	D144-11S
19	D144-11A	.94352	48.397	.90399	67.130	1.6819	.96601	.91953	61.602	.88537	.87976	D144-11A
20	D144-11	.03427	42.770	.03256	23.652	.86862	.00247	.04570	17.672	-.00220	.00012	D144-11
21	D144-11J	.00633	8.9421	.00626	5.0478	.18443	.00061	.00956	3.5586	-.00300	-.00041	D144-11J
22	D144-01	.12223	37.286	.09141	18.843	.77055	.00131	.03677	9.2877	-.00367	.00084	D144-01
23	D144-02	.05095	40.117	.04295	19.999	.77174	.00117	.03891	6.9991	-.00293	-.00104	D144-02
24	CCV2	.47802	4.7923	.48083	50.855	.49998	.54814	.48607	48.596	.52967	.48269	CCV2
25	CCB2	-.00072	-.00485	-.00024	-.01288	.00064	.00025	-.00028	.12332*	-.00170	.00008	CCB2
26	D144-03	.04372	39.969	.03525	25.651	.87274	.00160	.04428	7.0372	-.00316	-.00164	D144-03
27	D144-04	.09069	40.948	.08590	22.126	.85030	.00086	.04195	10.448	-.00229	-.00086	D144-04
28	D144-05	.07323	42.545	.11686	22.934	.89575	.00050	.04458	8.4656	-.00435	-.00075	D144-05
29	D144-06	.08722	45.112	.11774	23.841	1.2257	.00107	.04690	8.8001	-.00230	-.00101	D144-06
30	D144-07	.03501	43.173	.03273	25.008	.89407	.00106	.04584	7.8072	-.00391	-.00136	D144-07
31	D144-08	.04334	43.350	.03817	22.696	.83524	.00091	.04354	7.5534	-.00294	-.00134	D144-08
32	D144-09	.09664	97.957	1.1671	17.725	1.0489	.00550	.06062	6.3354	-.00660	-.00081	D144-09
33	D144-10	.03373	44.979	.03365	23.504	.88898	.00097	.04384	6.7857	-.00373	-.00141	D144-10
34	D144-21	.08899	42.515	.13771	20.982	.88628	.00080	.04039	8.7201	-.00317	-.00099	D144-21
35	D144-22	.16665	50.790	.16104	25.178	.98982	.00097	.04702	10.074	-.00301	-.00107	D144-22
36	CCV3	.47786	4.7732	.47984	50.598	.49412	.54512	.48637	48.426	.52606	.48265	CCV3
37	CCB3	-.00102	-.00977	-.00017	.01161	.00083	.00006	-.00015	.05392	-.00349	.00019	CCB3
38	IPD028SB	-.00091	-.01079	.00007	-.04729	-.00027	.00014	-.00011	.06544	-.00250	.00013	IPD028SB
39	IPD028SL	1.0342	10.142	.99702	51.572	1.0235	1.1151	1.0059	48.972	1.0160	.96913	IPD028SL
40	IPD028SC	.96597	9.5822	.93692	48.579	.96084	1.0406	.94611	46.659	.95509	.91305	IPD028SC
41	D150-34A	1.1457	84.247	1.0413	59.824	2.2162	1.0599	1.0902	61.829	.97476	.91068	D150-34A
42	D150-34	.18174	76.621	.11962	12.592	1.3055	.04678	.14939	15.147	.01744	-.00095	D150-34
43	D150-34J	.03791	16.519	.02560	2.6835	.28154	.00981	.03171	3.1804	.00162	-.00036	D150-34J
44	D150-35	.12259	80.686	.16350	10.836	.85092	.05071	.11634	10.987	.00400	-.00085	D150-35
45	D150-36	.16453	76.671	.26649	8.1769	1.7760	.02547	.11673	12.651	.00141	-.00050	D150-36
46	D150-37	.43370	75.889	1.4275	8.6476	1.3654	.08547	.16997	6.6627	.00598	.00483	D150-37
47	D150-39	.13406	177.04	2.2269	5.9376	.77868	.02987	.08586	5.0712	-.00363	-.00061	D150-39
48	CCV4	.47515	4.7842	.47736	50.247	.49537	.54779	.48494	48.791	.52658	.47526	CCV4
49	CCB4	-.00095	-.00929	-.00045	.01791	.00012	.00026	-.00021	.05499	-.00320	.00008	CCB4
50	D150-42	.04750	21.087	.22006	2.9605	.40315	.00468	.01822	2.3718	-.00150	.00131	D150-42
51	D150-44	.15151	40.347	1.0179	4.9270	.24431	.00423	.02695	2.7477	.00049	-.00003	D150-44
52	D150-45	.04214	24.425	.16239	5.0714	.25616	.00465	.01861	2.8679	-.00052	-.00018	D150-45
53	D150-47	.02072	15.893	.12879	2.0925	.15535	.00309	.00851	2.4940	-.00071	.00001	D150-47
54	D150-49	.18683	149.13	.06761	23.852	.97024	.04036	.19380	18.667	.00224	-.00137	D150-49
55	D150-50	.27350	133.40	.17057	16.828	2.8856	.09818	.25927	20.374	.01465	-.00105	D150-50

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INDX	LSID	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	LSID
56	D151-01	2.1983	520.26	14.293	33.444	3.1557	.06345	.34126	11.133	-.02447	-.00112	D151-01
57	BLANK	.00076	-.01171	.00017	.00129	-.00068	.00015	-.00020	.05656	-.00146	.00034	BLANK
58	CCV5	.48723	4.8679	.47987	50.634	.49680	.54178	.48775	48.969	.52480	.48261	CCV5
59	CCB5	-.00087	-.00831	.00029	-.00358	.00035	.00012	-.00017	-.01256	-.00001	.00018	CCB5
60	IPD031SB	-.00061	-.00961	.00004	.02320	-.00052	-.00005	.00097	.06083	-.00467	.00023	IPD031SB
61	IPD031SL	1.0253	9.8427	.97205	50.432	.99037	1.0987	.98253	48.482	.97868	.95124	IPD031SL
62	IPD031SC	1.0184	9.7829	.98132	50.445	1.0088	1.0938	.98947	48.155	.98603	.94805	IPD031SC
63	D197-01A	1.0427	146.00	.97389	93.985	3.0245	1.0449	1.0210	70.777	.94302	.91453	D197-01A
64	D197-01	.05688	136.14	.03352	45.498	2.0535	.00056	.06800	22.350	-.00678	-.00264	D197-01
65	D197-01J	.01374	28.893	.00694	9.4862	.43010	.00009	.01378	4.5748	-.00297	-.00048	D197-01J
66	D198-01	.19117	280.81	.03287	96.211	4.1994	.00532	.18438	10.800	-.01282	-.00317	D198-01
67	D199-01	.03044	52.380	.01752	14.627	.84680	.00684	.04411	6.3456	-.00169	-.00116	D199-01
68	D200-01	.15277	194.91	.06584	72.063	4.3993	.06603	.17979	27.966	-.00942	-.00278	D200-01
69	D207-14	-.01633	131.83	.02395	37.402	1.9628	.00097	.01771	45.374	-.00613	-.00220	D207-14
70	CCV6	.47873	4.7864	.47675	50.259	.50142	.54191	.48333	48.865	.52568	.47450	CCV6
71	CCB6	-.00087	-.00668	-.00007	.04274	.00042	.00028	-.00027	.09040	-.00245	-.00006	CCB6

ID8D015 Section 2 of 3

INDX	LSID	Na	Tl	V	Zn	LSID
1	Blank	.00799	-.00074	-.00012	.00228	Blank
2	S2		.12355	.08713		S2
3	S5				.93392	S5
4	S8	3.6886				S8
5	ICV	47.731	.47618	.47999	.48560	ICV
6	ICB	.04310	-.00062	.00029	-.00018	ICB
7	MRL8D15	.41062	.01004	.01005	.02306	MRL8D15
8	MRL8D15A	-.00349	.01042	.00966	.01083	MRL8D15A
9	MRL8D15B	-.01203	.01011	.00978	.01025	MRL8D15B
10	ICSAI	.16811	-.00820	-.00065	.00540	ICSAI
11	ICSABI	81.658	.97556	.49228	.98544	ICSABI
12	CCV1	48.913	.49642	.51012	.49785	CCV1
13	CCB1	.03438	.00020	.00018	-.00085	CCB1
14	IPD023SB	.01792	-.00032	.00023	-.00102	IPD023SB
15	IPD023SL	48.782	1.0064	1.0086	.98572	IPD023SL
16	IPD023SC	49.272	1.0523	1.0514	1.0391	IPD023SC
17	D144-11M	49.960	.90594	1.0291	1.0195	D144-11M
18	D144-11S	51.101	.91619	1.0464	1.0271	D144-11S
19	D144-11A	50.192	.91637	1.0319	1.0099	D144-11A
20	D144-11	4.2616	.00159	.11638	.12340	D144-11
21	D144-11J	.81643	-.00022	.02452	.02993	D144-11J
22	D144-01	2.8242	-.00130	.08863	.37081	D144-01
23	D144-02	.96882	.00003	.09647	.25468	D144-02
24	CCV2	49.303	.51203	.51805	.50161	CCV2
25	CCB2	.02393	.00031	.00021	.00748	CCB2
26	D144-03	9.5600	-.00088	.16998	.13155	D144-03
27	D144-04	6.2782	-.00139	.10785	.22487	D144-04
28	D144-05	2.2251	-.00204	.09808	2.8907	D144-05
29	D144-06	2.1344	.00031	.10128	.61574	D144-06
30	D144-07	3.8875	-.00045	.12646	.12961	D144-07
31	D144-08	.97493	-.00065	.10852	.12883	D144-08
32	D144-09	1.3195	-.00087	.08051	.29979	D144-09
33	D144-10	2.5643	-.00198	.12283	.12462	D144-10
34	D144-21	2.2161	-.00068	.09445	.73816	D144-21
35	D144-22	2.3673	-.00216	.11605	.71619	D144-22
36	CCV3	48.965	.51090	.51718	.50290	CCV3
37	CCB3	-.01196	.00016	.00005	-.00094	CCB3
38	IPD028SB	-.04894	-.00049	.00010	-.00109	IPD028SB
39	IPD028SL	50.699	1.0527	1.0611	1.0272	IPD028SL
40	IPD028SC	47.979	.98924	.99960	.96450	IPD028SC
41	D150-34A	49.355	.97170	1.2836	2.0015	D150-34A
42	D150-34	1.9522	.00124	.29552	1.0669	D150-34
43	D150-34J	.37794	.00057	.06308	.22847	D150-34J
44	D150-35	2.3964	.00068	.30920	.82586	D150-35
45	D150-36	1.3386	.00015	.25484	2.4132	D150-36
46	D150-37	1.9562	-.00066	.12900	7.5764	D150-37
47	D150-39	1.1641	-.00179	.13809	10.456	D150-39
48	CCV4	49.214	.51397	.52276	.49651	CCV4
49	CCB4	-.02516	-.00006	.00034	-.00129	CCB4
50	D150-42	.80305	.00035	.05263	.95867	D150-42
51	D150-44	1.2345	-.00094	.05764	1.9953	D150-44
52	D150-45	1.4878	-.00105	.05026	.67610	D150-45
53	D150-47	.75088	-.00018	.03926	.32740	D150-47
54	D150-49	4.0624	-.00065	.22018	.78464	D150-49
55	D150-50	4.8436	-.00146	.35388	1.5920	D150-50

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56	D151-01	4.7976	.00369	.29464	42.830	D151-01
57	BLANK	-.08932	-.00058	.00016	.00036	BLANK
58	CCV5	49.464	.50982	.52180	.49973	CCV5
59	CCB5	-.04529	-.00012	.00044	.00038	CCB5
60	IPD031SB	-.08546	.00178	.00015	.00052	IPD031SB
61	IPD031SL	50.318	1.0288	1.0180	1.0024	IPD031SL
62	IPD031SC	49.761	1.0362	1.0299	1.0099	IPD031SC
63	D197-01A	51.034	.99809	1.3273	1.3561	D197-01A
64	D197-01	2.2965	.00729	.32643	.38188	D197-01
65	D197-01J	.38790	.00162	.06807	.07984	D197-01J
66	D198-01	8.4699	.00205	.38396	.42145	D198-01
67	D199-01	4.3000	-.00098	.07997	.12973	D199-01
68	D200-01	6.4940	.00120	.36336	.49087	D200-01
69	D207-14	1.2148	.00970	.21826	.47240	D207-14
70	CCV6	49.092	.51027	.52137	.50075	CCV6
71	CCB6	-.08476	.00063	.00019	-.00107	CCB6
INDX	LSID	Na	Tl	V	Zn	LSID

ID8D015 Section 3 of 3

EMAX LABORATORIES, INC.

DIGESTION LOG FOR ICP METALS

SOP ☐ EMAX-3005 Rev. No.4 ☐ EMAX-3010 Rev. No. 3 ☒ EMAX-3050 Rev. No. 3 ☐ EMAX-CLP-TAL ☐ Book # EIP-059

Matrix: SOIL Start Date: 4-19-07 Time: 14:15 Temp: 90°C Ending Date: 4-19-07 Time: 18:17 Temp.: 90 °C

BATCH: IPD031-S

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Turbidity <1 NTU	Sample Amount (g | ml)	pH	Extract Volume (ml)	Digestate Description: Color	Digestate Description: Clarity
01	IPD031-SB					N/A	N/A	100		
02	-SL					—		100		
03	-SC					—		100		
04	D197-01					1.003		100		
05	D198-01					1.001		100		
06	D199-01					1.002		100		
07	D200-01					1.003		100		
08	D207-14					1.003		100		
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

4-19-07 MC

Standards	ID	Amount Added (ml)
LCS -1	SM1A-10-50	~~0.5~~ 1.0
LCS -2	SM1A-10-51	~~0.5~~ 1.0
LCS -3	SM1A-10-52	1.00
MS	N/A	
Reagent	**Lot# / ID**	**Amount Added (ml)**
HNO_3	SW1A-03-477	10.0
HCl	SW1A-03-429	10.0
H_2O_2	SW1A-03-404	10.0
HNO3 (1:1)	SMSB-02-64	10.0
Digestate Location	ICP	
Extract Location		

Legend:

Texture	Cs = Coarse	Md = Medium	Fn = Fine
Clarity	Cr = Clear	Cy = Cloudy	Td = Turbid
Artifacts	Rk = rocks	Sl = Shale	Vg=Vegetation
Color	Bu = blue	Bk = Black	Bn = Brown
	Gn = Green	Og = Orange	Rd = Red
	Yw = Yellow	Cl = Colorless	

Comments: Samples for Methods 200.7 or 200.8 Analyses

If turbidity ≤ 1 NTU no digestion is required unless otherwise required by the project

Prepared By: MC/NT Standard Added By: MC/NT

Witnessed By: CPC Extracts Rcvd. By: CPC 4/20/07

Checked By: CPC

Date Disposed: Disposed by:

7021

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D207

METHOD 7471A
MERCURY BY COLD VAPOR

One (1) soil sample was received on 04/18/07 for Mercury analysis by Method 7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution/Post-Analytical Spike**

   Sample D197-01 from another SDG was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD sample was not designated in this SDG.

6. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D207
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGD016SB	1	NA	04/24/0713:35	04/24/0711:00	M47D017010	M47D017008	HGD016S	Method Blank
LCS1S	HGD016SL	1	NA	04/24/0713:37	04/24/0711:00	M47D017011	M47D017008	HGD016S	Lab Control Sample (LCS)
LCD1S	HGD016SC	1	NA	04/24/0713:39	04/24/0711:00	M47D017012	M47D017008	HGD016S	LCS Duplicate
COMP5 MZ3-2 1,2,3,4,5AS	D197-01A	1	NA	04/24/0713:41	04/24/0711:00	M47D017013	M47D017008	HGD016S	Analytical Spike Sample
COMP5 MZ3-2 1,2,3,4,5	D197-01	1	NA	04/24/0713:43	04/24/0711:00	M47D017014	M47D017008	HGD016S	Field Sample
COMP5 MZ3-2 1,2,3,4,5DL	D197-01J	5	NA	04/24/0713:45	04/24/0711:00	M47D017015	M47D017008	HGD016S	Diluted Sample
IDW-041807-BIN1	D207-14	1	3.7	04/24/0714:12	04/24/0711:00	M47D017028	M47D017020	HGD016S	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 7471A
MERCURY BY COLD VAPOR

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D207

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGD016SB	ND	1	NA	0.100	0.0330	04/24/0713:35	04/24/0711:00	M47D017010	M47D017008	HGD016S	NA	04/24/07
LCS1S	HGD016SL	0.927	1	NA	0.100	0.0330	04/24/0713:37	04/24/0711:00	M47D017011	M47D017008	HGD016S	NA	04/24/07
LCD1S	HGD016SC	0.927	1	NA	0.100	0.0330	04/24/0713:39	04/24/0711:00	M47D017012	M47D017008	HGD016S	NA	04/24/07
IDW-041807-BIN1	D207-14	ND	1	3.7	0.104	0.0343	04/24/0714:12	04/24/0711:00	M47D017028	M47D017020	HGD016S	04/18/07	04/18/07

T62J

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D207
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGD016SB	HGD016SL	HGD016SC		
LAB FILE ID:	M47D017010	M47D017011	M47D017012		
DATIME EXTRCTD:	04/24/0711:00	04/24/0711:00	04/24/0711:00	DATE COLLECTED:	NA
DATIME ANALYZD:	04/24/0713:35	04/24/0713:37	04/24/0713:39	DATE RECEIVED:	04/24/07
PREP. BATCH:	HGD016S	HGD016S	HGD016S		
CALIB. REF:	M47D017008	M47D017008	M47D017008		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	0.833	0.927	111	0.833	0.927	111	0	80-120	20

1928

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	COMP5 MZ3-2 1,2,3,4,5	COMP5 MZ3-2 1,2,3,4,5DL		
EMAX SAMP ID:	D197-01	D197-01J		
LAB FILE ID:	M47D017014	M47D017015		
DATE EXTRACTED:	04/24/0711:00	04/24/0711:00	DATE COLLECTED:	04/17/07
DATE ANALYZED:	04/24/0713:43	04/24/0713:45	DATE RECEIVED:	04/18/07
PREP. BATCH:	HGD016S	HGD016S		
CALIB. REF:	M47D017008	M47D017008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
SDG NO.: 07D207
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	COMP5 MZ3-2 1,2,3,4,5			
CONTROL NO.:	D197-01	D197-01A		
LAB FILE ID:	M47D017014	M47D017013		
DATIME EXTRCTD:	04/24/0711:00	04/24/0711:00	DATE COLLECTED:	04/17/07
DATIME ANALYZD:	04/24/0713:43	04/24/0713:41	DATE RECEIVED:	04/18/07
PREP. BATCH:	HGD016S	HGD016S		
CALIB. REF:	M47D017008	M47D017008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	0.333	0.380	114	85-115

T0339

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Start Date: 4/24/07 **Start Time:** 13:13

End Date: 4/24/07 **End Time:** 14:40

Comments:

QC OK

Book #: A47-51

Instrument No.: 47

Analytical Sequence/Batch: M47D017

Method File: Hg

SOP #	Rev. #
☐ EMAX-7470	3
☑ EMAX-7471	3
☐ EMAX-CLP-245.5	
☐ EMAX-CLP-245.1	
☐ EMAX-	

STANDARDS ID	
S1	BLANK
S2	SM3B-07-363
S3	↓
S4	
S5	
S6	
ICV	SM3B-07-364
CCV	↓
LCS	
Analytical Spike	
SM3B-07-345	

Analyzed By: NT

Date: 4/24/07

"M47D017"

EMAX1fid	EMAX1sid	conc	Raw_resp	rsd/rf	adatetime	DF
M47D017000	STD1REP1	0	1364		04/24/0713:13	1
M47D017001	STD2REP1	.2	29867		04/24/0713:16	1
M47D017002	STD3REP1	1	139539		04/24/0713:18	1
M47D017003	STD4REP1	2	261250		04/24/0713:20	1
M47D017004	STD5REP1	5	659052		04/24/0713:22	1
M47D017005	STD6REP1	10	1248572		04/24/0713:24	1
M47D017006	ICV	2.13	277336	0	04/24/0713:26	1
M47D017007	ICB	-.052	4089	0	04/24/0713:28	1
M47D017008	CCV1	5.54	703404	0	04/24/0713:30	1
M47D017009	CCB1	-.08	542	0	04/24/0713:33	1
M47D017010	HGD016SB	-.028	7088	0	04/24/0713:35	1
M47D017011	HGD016SL	5.56	705634	0	04/24/0713:37	1
M47D017012	HGD016SC	5.56	706454	0	04/24/0713:39	1
M47D017013	D197-01A	2.28	295401	0	04/24/0713:41	1
M47D017014	D197-01	-.056	3526	0	04/24/0713:43	1
M47D017015	D197-01J	-.094	-1158	0	04/24/0713:45	5
M47D017016	D197-01M	5.59	709408	0	04/24/0713:47	1
M47D017017	D197-01S	5.51	699256	0	04/24/0713:49	1
M47D017018	D211-01	1.13	152110	0	04/24/0713:51	1
M47D017019	D175-01	-.043	5271	0	04/24/0713:54	1
M47D017020	CCV2	5.5	698214	0	04/24/0713:56	1
M47D017021	CCB2	-.055	3690	0	04/24/0713:58	1
M47D017022	D175-02	.108	24153	0	04/24/0714:00	1
M47D017023	D175-03	.226	38850	0	04/24/0714:02	1
M47D017024	D175-04	.443	66023	0	04/24/0714:04	1
M47D017025	D198-01	-.067	2248	0	04/24/0714:06	1
M47D017026	D199-01	-.031	6681	0	04/24/0714:08	1
M47D017027	D200-01	.035	15005	0	04/24/0714:10	1
M47D017028	D207-14	-.032	6599	0	04/24/0714:12	1
M47D017029	D219-01	.015	12524	0	04/24/0714:14	1
M47D017030	D219-02	.045	16161	0	04/24/0714:16	1
M47D017031	D219-03	.043	15910	0	04/24/0714:18	1
M47D017032	CCV3	5.43	689855	0	04/24/0714:20	1
M47D017033	CCB3	-.105	-2490	0	04/24/0714:23	1
M47D017034	D219-04	.007	11458	0	04/24/0714:25	1
M47D017035	D219-05	-.016	8606	0	04/24/0714:27	1
M47D017036	D219-06	-.046	4848	0	04/24/0714:29	1
M47D017037	D219-07	.017	12741	0	04/24/0714:31	1
M47D017038	D219-08	.056	17610	0	04/24/0714:33	1
M47D017039	D510-01	.028	14085	0	04/24/0714:36	1
M47D017040	CCV4	5.41	687495	0	04/24/0714:38	1
M47D017041	CCB4	-.051	4223	0	04/24/0714:40	1
**********	**********	**********	**********	**********	**********	***
EMAX1fid	EMAX1sid	Xint	Yint	rrf	adatetime	DF
M47D017000	BLANK	-8.689073E-02	10858.91	.9996457	04/24/0714:40	1

RunProt: HGCOM

RunFold: M47D017 Seq: 6 Batch:

Prnt: R/T On Pump: On

Rev: 4.2 13:24:56 24 Apr 2007 Xmit: Off Gas: 0.35 LPM

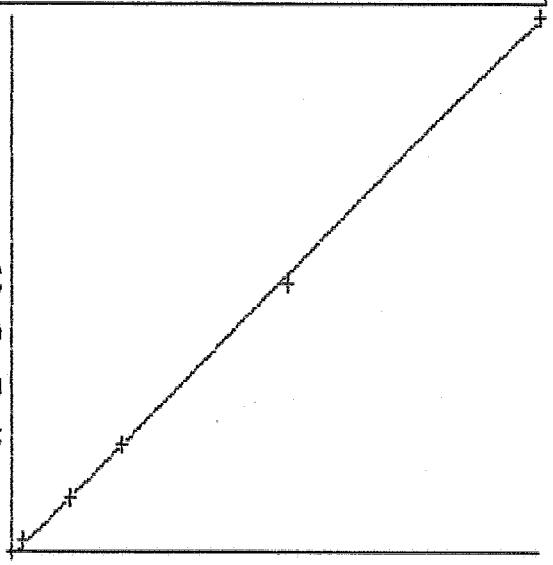
State: Idle User: NT A/S: On

CALIBRATION: Line proto: HGCOM

	Hg Conc.	Calc.	Dev.	Accepted ->linear
S1	.000	-.074	-.074	Quadratic
S2	.200	.154	-.046	Wtdlinear
S3	1.00	1.03	.031	C
S4	2.00	2.00	.004	Accept o
S5	5.00	5.19	.185	n
S6	10.0	9.90	-.101	c

A .0000000 r .999646

B 7.99612e-6 C -8.46801e-2



Relative Absorbance

	Mean		SD	1364
S1	1364	0		
S2	29867	0	%RSD	29867
S3	139539	0	%RSD	139539
S4	261250	0	%RSD	261250
S5	659052	0	%RSD	659052
S6	1248572	0	%RSD	1248572

New cal coefficients stored

EMAX LABORATORIES, INC.

DIGESTION LOG FOR MERCURY

SOP ☐ EMAX-7470 Rev. No.3 ☑ EMAX-7471 Rev. No.3 ☐ EMAX-CLP-245.5 ☐ EMAX-CLP-245.1 ☐

Matrix: Soil Start Date: 4/24/07 Time: 11:00 Ending Date: 4/24/07 Time: 12:00 Book # E47-053

BATCH: HGD0165

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Sample Amount (g | ml)	Dry Weight	pH	Extract Volume (ml)	Matrix Description: Color	Matrix Description: Clarity
01	S-0	Cr	Cr	N/A	0	N/A	N/A	100	Cr	Cr
02	0.2				0.2					
03	1				1					
04	2				2					
05	5				5					
06	10				10					
07	ICV				2					
08	ICB				0					
09	CCV				5					
10	CCB				0					
11	HGD0165B				0.600g					
12	SL				0.600					
13	SC				0.600					
14	D197-01	Bn	Fn		0.601					
15	01M				0.600					
16	01S				0.604					
17	D211-01				0.602					
18	D175-01				0.604					
19	02				0.601					
20	03				0.603					
21	04				0.603					
22	D198-01				0.604					
23	D199-01				0.603					
24	D200-01				0.603					
25	D207-14				0.601					
26	D219-01				0.603					
27	02				0.604					
28	03				0.604					

Standards	ID	Conc. (µg/L)	Amount Added (ml)
ICAL	SM3B-07-363	100	0.2, 1, 2, 5, 10
ICV	SM3B-07-364		2
CCV/MS			5
LCS			5
Reagent	Lot# / ID		
HNO_3 aqua	SW1A-03-444		
HCl regia	SW1A-03-445		
H_2SO_4	N/A		
$KMnO_4$	SM5B-02-59		
$K_2S_2O_8$	N/A		
$NH_2OH.HCl$	SM5B-02-62		
$SnCl_2$	63		

Temp of Digestion Bath: 95 °C

Legend

Color

Bu = blue	Cs = Coarse	Cr = Clear	Rk = rocks
Bk = black	Md = Medium	Cy = Cloudy	Sl = Shale
Bn = Brown	Fn = Fine	Td = Turbid	Vg=Vegetation
Gn = Green			
Og = Orange			
Rd = Red			
Yw = Yellow			

Comments:

Prepared By: NT

Standard Added By: NT Witnessed By: MC

Checked By:

Disposed By: Date Disposed:

7034

DIGESTION LOG FOR MERCURY

SOP ☐ EMAX-7470 Rev. No.3 ☑ EMAX-7471 Rev. No.3 ☐ EMAX-CLP-245.5 ☐ EMAX-CLP-245.1 ☐

Matrix: Soil Start Date: 4/24/07 Time: 11:00 Ending Date: 4/24/07 Time: 12:00 Book # E47-053

BATCH: HGD016.S

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Matrix Description: Texture / Clarity	Matrix Description: Artifacts	Sample Amount (g / ml)	Dry Weight	pH	Extract Volume (ml)	Matrix Description: Color	Matrix Description: Clarity
01	D219-04	Bn	Fn	N/A	0.604	N/A	N/A	100	Cr	Cr
02	05				0.604					
03	06				0.604					
04	07				0.603					
05	08				0.604					
06	D510-01				0.603					
07										
08										
09										
10										
11										
12										
13										
14										
15										
16						NT				
17						4/24/07				
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										

Standards	ID	Conc. (µg/L)	Amount Added (ml)
ICAL			
ICV			
CCV/MS			
LCS			
Reagent	Lot# / ID		
HNO_3			
HCl			
H_2SO_4			
$KMnO_4$			
$K_2S_2O_8$			
$NH_2OH.HCl$	SAME AS PAGE 16		
$SnCl_2$			

Temp of Digestion Bath: °C

Legend

Color			
Bu = blue	Cs = Coarse	Cr = Clear	Rk = rocks
Bk = black	Md = Medium	Cy = Cloudy	Sl = Shale
Bn = Brown	Fn = Fine	Td = Turbid	Vg=Vegetation
Gn = Green			
Og = Orange			
Rd = Red			
Yw = Yellow			

Comments:

Prepared By: NT

Standard Added By: NT Witnessed By: MC

Checked By:

Disposed By: Date Disposed:

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D207

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D207

METHOD 314.0
PERCHLORATE

Two (2) water and ten (10) soil samples were received on 04/18/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   No Duplicate sample was designated in this SDG.

5. **Matrix Spike**

   No MS sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D207

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD011WB	ND	1	NA	2.00	0.500	04/20/0704:11	NA	JD19032	JD19031	PCD011W	NA	NA
LCS1W	PCD011WL	24.3	1	NA	2.00	0.500	04/20/0704:52	NA	JD19034	JD19031	PCD011W	NA	NA
LCD1W	PCD011WC	24.6	1	NA	2.00	0.500	04/20/0705:12	NA	JD19035	JD19031	PCD011W	NA	NA
LEB-041707	D207-05	ND	1	NA	2.00	0.500	04/20/0722:38	NA	JD19078	JD19070	PCD011W	04/17/0708:32	04/18/07
LEB-041807	D207-13	ND	1	NA	2.00	0.500	04/20/0722:58	NA	JD19079	JD19070	PCD011W	04/18/0711:00	04/18/07

3003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D207

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD010SB	ND	1	NA	20.0	10.0	04/19/0717:52	04/19/0710:30	JD19002	JD19001	PCD010S	NA	04/19/07
LCS1S	PCD010SL	244	1	NA	20.0	10.0	04/19/0718:33	04/19/0710:30	JD19004	JD19001	PCD010S	NA	04/19/07
LCD1S	PCD010SC	244	1	NA	20.0	10.0	04/19/0718:53	04/19/0710:30	JD19005	JD19001	PCD010S	NA	04/19/07
C22-HSAS21-12-15.5	D207-01	108	1	4.6	21.0	10.5	04/19/0723:28	04/19/0710:30	JD19018	JD19012	PCD010S	04/17/0709:20	04/18/07
C22-HSAS21-30-31.5	D207-02	39.2	1	10.1	22.2	11.1	04/19/0723:48	04/19/0710:30	JD19019	JD19012	PCD010S	04/17/0709:47	04/18/07
C22-HSAS21-9.5-11	D207-04	17.6J	1	1.2	20.2	10.1	04/20/0700:28	04/19/0710:30	JD19021	JD19012	PCD010S	04/17/0709:02	04/18/07
C22-HSAS23-60-61.5	D207-08	153	1	8.0	21.7	10.9	04/20/0701:29	04/19/0710:30	JD19024	JD19023	PCD010S	04/17/0715:37	04/18/07
IDW-041807-BIN1	D207-14	120	1	3.7	20.8	10.4	04/20/0702:50	04/19/0710:30	JD19028	JD19023	PCD010S	04/18/0711:30	04/18/07
C22-HSAS21-60-61.5	D207-03	330	2	7.4	43.2	21.6	04/20/0716:19	04/19/0710:30	JD19064	JD19058	PCD010S	04/17/0710:41	04/18/07
C22-HSAS2101-60-61.5	D207-07	365	2	6.6	42.8	21.4	04/20/0717:02	04/19/0710:30	JD19065	JD19058	PCD010S	04/17/0710:41	04/18/07
C22-HSAS23-30-31.5	D207-09	3070	20	4.3	418	209	04/20/0717:22	04/19/0710:30	JD19066	JD19058	PCD010S	04/17/0715:10	04/18/07
C22-HSAS2301-60-61.5	D207-10	416	2	5.8	42.5	21.2	04/20/0717:42	04/19/0710:30	JD19067	JD19058	PCD010S	04/17/0715:50	04/18/07
C22-HSAS23-10-11.5	D207-11	522	5	6.5	107	53.5	04/20/0718:02	04/19/0710:30	JD19068	JD19058	PCD010S	04/17/0714:40	04/18/07

8691

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: METHOD 314.0

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD011WB	PCD011WL	PCD011WC		
LAB FILE ID:	JD19032	JD19034	JD19035		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/20/0704:11	04/20/0704:52	04/20/0705:12	DATE RECEIVED:	NA
PREP. BATCH:	PCD011W	PCD011W	PCD011W		
CALIB. REF:	JD19031	JD19031	JD19031		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.3	97	25.0	24.6	98	1	85-115	20

3065

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D207
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD010SB	PCD010SL	PCD010SC		
LAB FILE ID:	JD19002	JD19004	JD19005		
DATE EXTRACTED:	04/19/0710:30	04/19/0710:30	04/19/0710:30	DATE COLLECTED:	NA
DATE ANALYZED:	04/19/0717:52	04/19/0718:33	04/19/0718:53	DATE RECEIVED:	04/19/07
PREP. BATCH:	PCD010S	PCD010S	PCD010S		
CALIB. REF:	JD19001	JD19001	JD19001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	244	98	250	244	98	0	85-115	20

8007

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

PW 4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

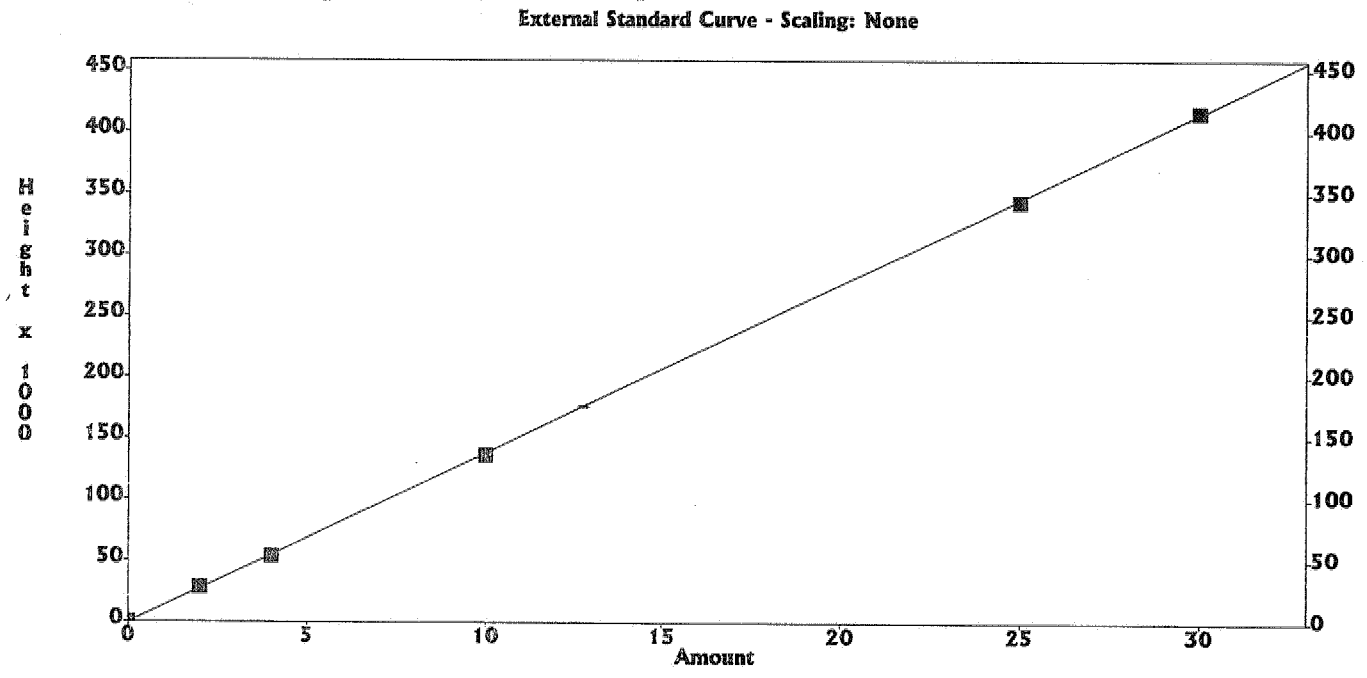
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-01

8012

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD19001	IPCS	P	80.6%	04/19/0717:32	1
JD19002	PCD010SB	P	.000	04/19/0717:52	1
JD19003	MRL	P	96.7%	04/19/0718:12	1
JD19004	PCD010SL	P	24.4	04/19/0718:33	1
JD19005	PCD010SC	P	24.4	04/19/0718:53	1
JD19006	D181-03	P	.000	04/19/0719:24	1
JD19007	D181-04	P	6.11	04/19/0719:45	1
JD19008	D181-05	P	18.9	04/19/0720:05	1
JD19009	D181-06	*	32E	04/19/0720:25	1
JD19010	D181-07	*	46.7E	04/19/0720:45	1
JD19011	D181-08	P	22	04/19/0721:06	1
JD19012	CCV9-30	P	102%	04/19/0721:26	1
JD19013	D181-09	P	3.22	04/19/0721:46	1
JD19014	D181-10	P	.000	04/19/0722:06	1
JD19015	D181-11	P	8.3	04/19/0722:27	1
JD19016	D181-11D	P	8.24	04/19/0722:47	1
JD19017	D181-11M	P	18.2	04/19/0723:07	1
JD19018	D207-01	P	10.3	04/19/0723:28	1
JD19019	D207-02	P	3.52	04/19/0723:48	1
JD19020	D207-03	*	34.1E	04/20/0700:08	1
JD19021	D207-04	P	1.74	04/20/0700:28	1
JD19022	D207-07	*	36.1E	04/20/0700:49	1
JD19023	CCV10-15	P	101%	04/20/0701:09	1
JD19024	D207-08	P	14.1	04/20/0701:29	1
JD19025	D207-09	P ok	.000	04/20/0701:49	1
JD19026	D207-10	*	40.3E	04/20/0702:10	1
JD19027	D207-11	*	48.3E	04/20/0702:30	1
JD19028	D207-14	P	11.6	04/20/0702:50	1
JD19029	RINSE	P	.000	04/20/0703:10	1
JD19030	CCV11-30	P	102%	04/20/0703:31	1
JD19031	IPCS	P	82.7%	04/20/0703:51	1
JD19032	PCD011WB	P	.000	04/20/0704:11	1
JD19033	MRL	P	95.6%	04/20/0704:31	1
JD19034	PCD011WL	P	24.3	04/20/0704:52	1
JD19035	PCD011WC	P	24.6	04/20/0705:12	1
JD19036	D181-02	P	.000	04/20/0705:32	1
JD19037	D183-01	P	3.28	04/20/0705:52	1
JD19038	D183-02	*	51.4E	04/20/0706:13	1
JD19039	D206-02	P	8.69	04/20/0706:33	1
JD19040	D206-03	P	8.72	04/20/0706:53	1
JD19041	CCV12-15	P	99.6%	04/20/0707:13	1
JD19042	D206-04	P	8.54	04/20/0707:34	1
JD19043	D206-05	P	8.9	04/20/0707:54	1
JD19044	D206-06	P	8.89	04/20/0708:14	1
JD19045	RINSE	P	.000	04/20/0708:34	1
JD19046	RINSE	P	.929	04/20/0708:57	1
JD19047	CCV13-30	P	103%	04/20/0709:18	1
JD19048	D183-02R	*	51.4E	04/20/0709:41	1
JD19049	D183-02	P	.000	04/20/0710:04	2
JD19050	D183-02	P	58.6	04/20/0710:25	2
JD19051	D183-02	P	51.7	04/20/0711:51	2
JD19052	D206-07	P	5.88	04/20/0712:16	1
JD19053	D206-08	P	6.93	04/20/0712:37	1
JD19054	D206-11	P	6.61	04/20/0712:57	1
JD19055	D206-12	P	6.06	04/20/0713:17	1
JD19056	D206-13	P	6.32	04/20/0713:37	1
JD19057	D206-14	P	5.73	04/20/0713:58	1
JD19058	CCV14-15	P	101%	04/20/0714:18	1
JD19059	D206-09	P	8.64	04/20/0714:38	1
JD19060	D206-09M	P	18.2	04/20/0714:58	1
JD19061	D206-09S	P	18.2	04/20/0715:19	1
JD19062	D181-06	P	28.4	04/20/0715:39	2
JD19063	D181-07	P	44.9	04/20/0715:59	2
JD19064	D207-03	P	30.6	04/20/0716:19	2
JD19065	D207-07	P	34.1	04/20/0717:02	2
JD19066	D207-09	P	294	04/20/0717:22	20
JD19067	D207-10	P	39.2	04/20/0717:42	2
JD19068	D207-11	P	48.8	04/20/0718:02	5
JD19069	CCV14-30	P	106%	04/20/0719:35	1
JD19070	IPCS	P	84.4%	04/20/0719:56	1
JD19071	PCD012WB	P	.000	04/20/0720:16	1
JD19072	MRL	P	98.4%	04/20/0720:36	1
JD19073	PCD012WL	P	24.9	04/20/0720:56	1
JD19074	PCD012WC	P	24.9	04/20/0721:17	1

JD19075	D206-15	P	5.16	04/20/0721:37	1
JD19076	D206-16	P	6.03	04/20/0721:57	1
JD19077	D206-17	P	5.98	04/20/0722:17	1
JD19078	D207-05	P	.000	04/20/0722:38	1
JD19079	D207-13	P	.000	04/20/0722:58	1
JD19080	D223-01	P	.000	04/20/0723:18	1
JD19081	CCV15-15	P	103%	04/20/0723:38	1
JD19082	D223-02	P	.000	04/20/0723:59	1
JD19083	D223-03	P	.000	04/21/0700:19	1
JD19084	D223-04	P	.000	04/21/0700:39	1
JD19085	D223-05	P	.000	04/21/0701:00	1
JD19086	D223-06	P	.000	04/21/0701:20	1
JD19087	D223-06D	P	.000	04/21/0701:40	1
JD19088	D223-06M	P	14.7	04/21/0702:00	1
JD19089	D223-07	P	.000	04/21/0702:21	1
JD19090	D223-08	P	.000	04/21/0702:41	1
JD19091	D223-09	P	.000	04/21/0703:01	1
JD19092	CCV16-30	P	106%	04/21/0703:21	1
JD19093	D223-10	P	.000	04/21/0703:42	1
JD19094	D223-11	P	9.4	04/21/0704:02	1
JD19095	D223-12	P	.000	04/21/0704:22	1
JD19096	D223-13	P	15.5	04/21/0704:42	1
JD19097	D223-14	*	53.8E	04/21/0705:03	1
JD19098	D223-15	P	1.17	04/21/0705:23	1
JD19099	RINSE	P	.000	04/21/0705:43	1
JD19100	CCV17-15	P	102%	04/21/0706:03	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: * IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

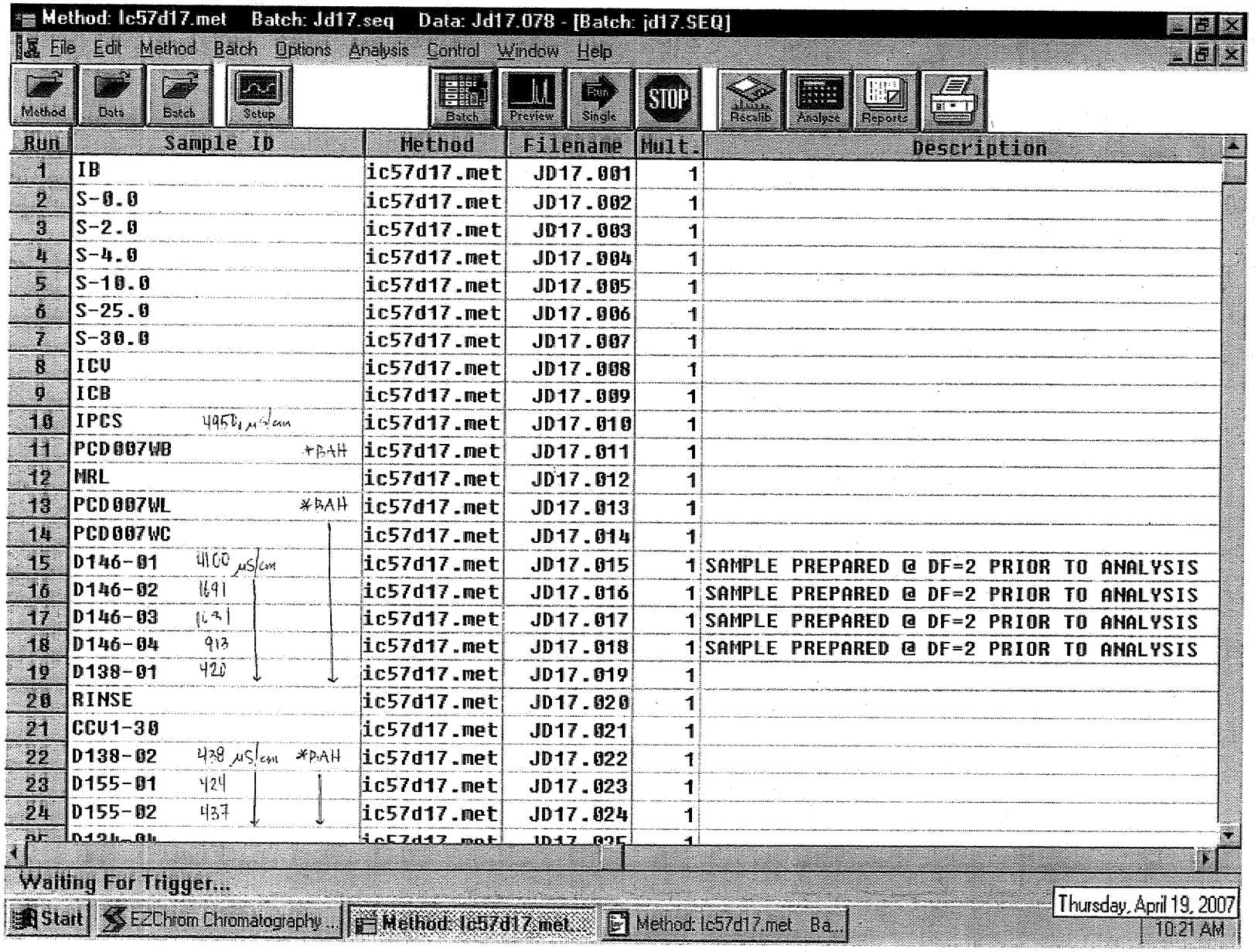
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

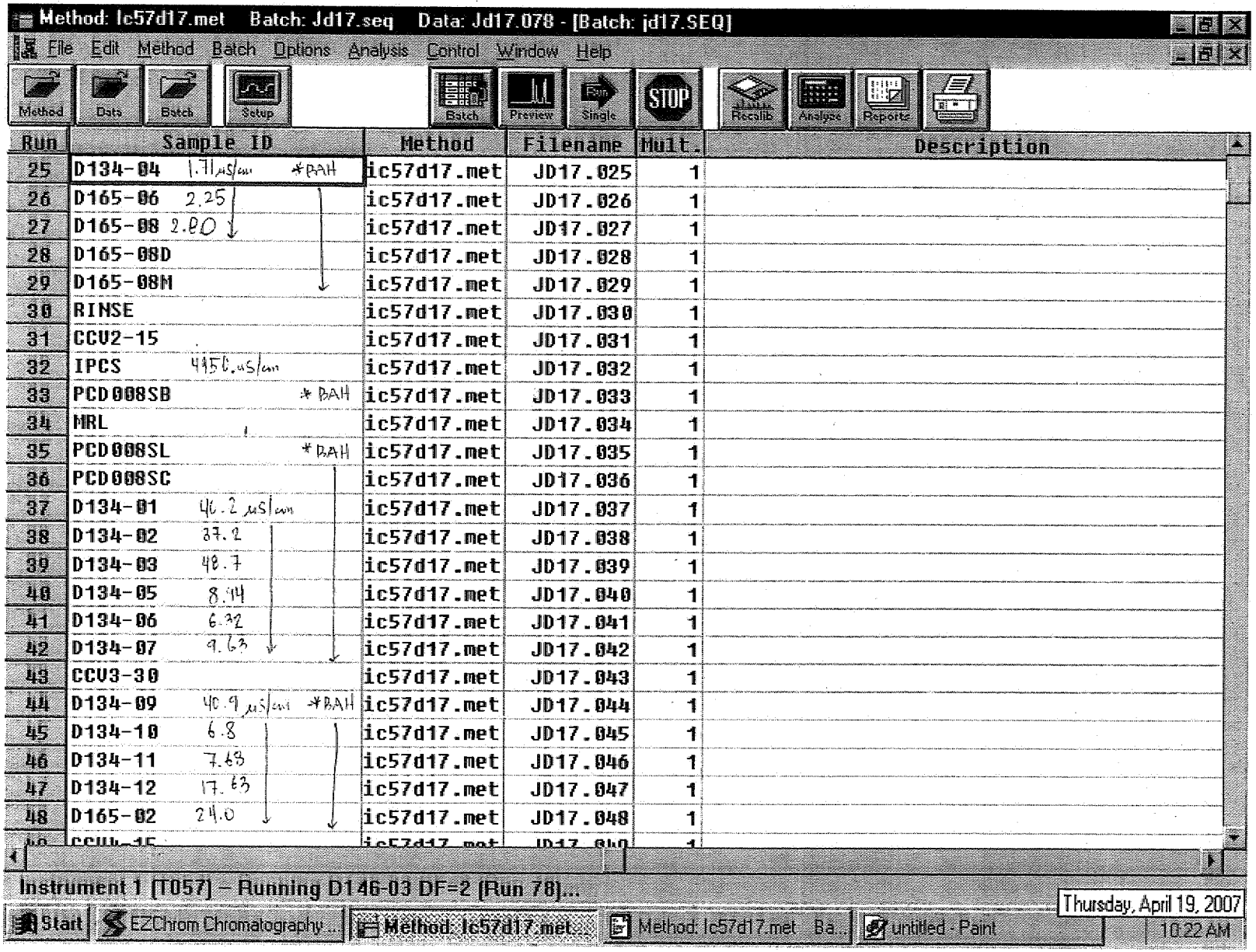
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cl

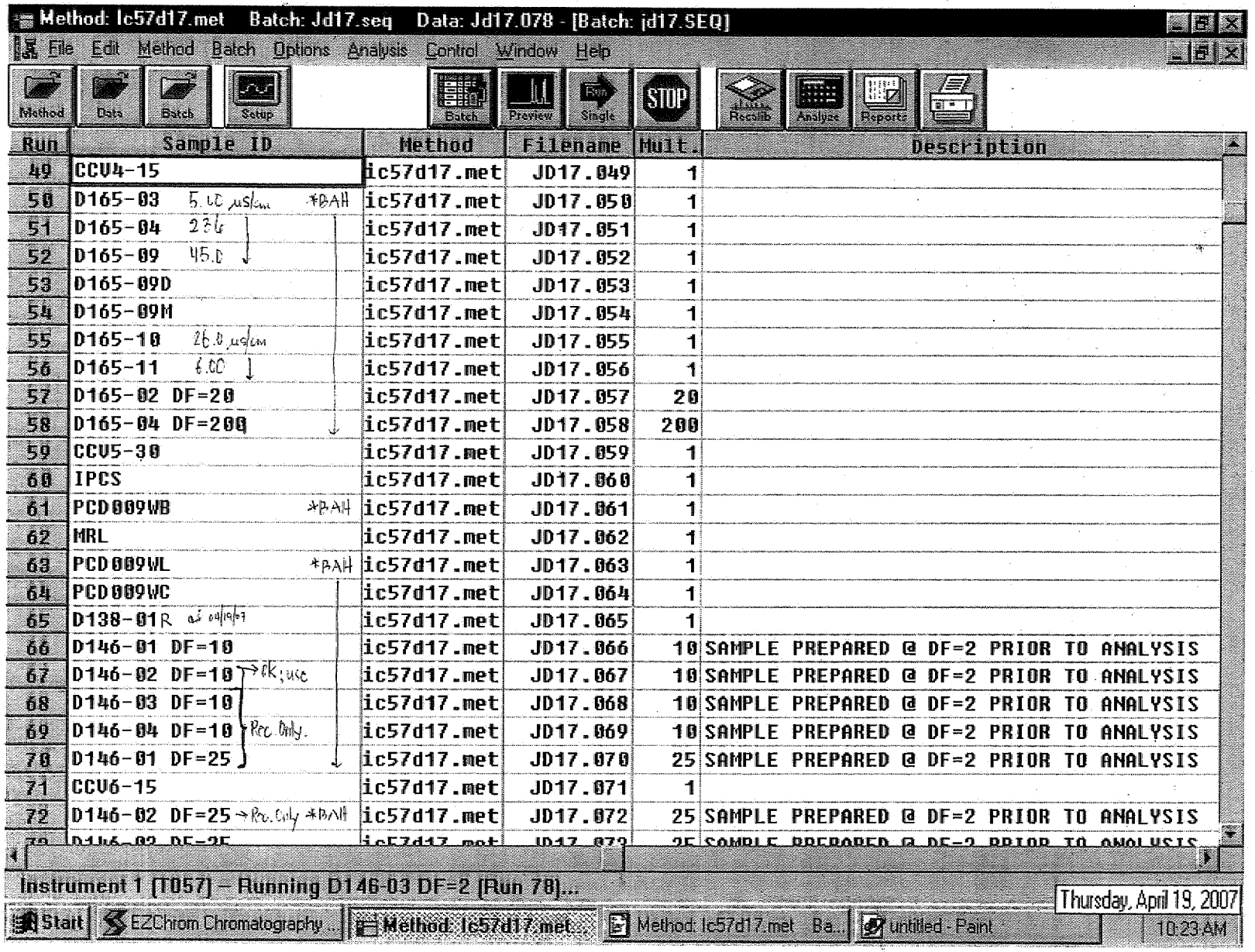
Date: 04/17/07


Method: ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d17.met | JD17.001 | 1
2 | S-0.0 | ic57d17.met | JD17.002 | 1
3 | S-2.0 | ic57d17.met | JD17.003 | 1
4 | S-4.0 | ic57d17.met | JD17.004 | 1
5 | S-10.0 | ic57d17.met | JD17.005 | 1
6 | S-25.0 | ic57d17.met | JD17.006 | 1
7 | S-30.0 | ic57d17.met | JD17.007 | 1
8 | ICV | ic57d17.met | JD17.008 | 1
9 | ICB | ic57d17.met | JD17.009 | 1
10 | IPCS 4950 µS/cm | ic57d17.met | JD17.010 | 1
11 | PCD007WB *PAH | ic57d17.met | JD17.011 | 1
12 | MRL | ic57d17.met | JD17.012 | 1
13 | PCD007WL *PAH | ic57d17.met | JD17.013 | 1
14 | PCD007WC | ic57d17.met | JD17.014 | 1
15 | D146-01 4100 µS/cm | ic57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | ic57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1631 | ic57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | ic57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | ic57d17.met | JD17.019 | 1
20 | RINSE | ic57d17.met | JD17.020 | 1
21 | CCV1-30 | ic57d17.met | JD17.021 | 1
22 | D138-02 438 µS/cm *PAH | ic57d17.met | JD17.022 | 1
23 | D155-01 424 | ic57d17.met | JD17.023 | 1
24 | D155-02 437 | ic57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography ... Method: ic57d17.met... Method: ic57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

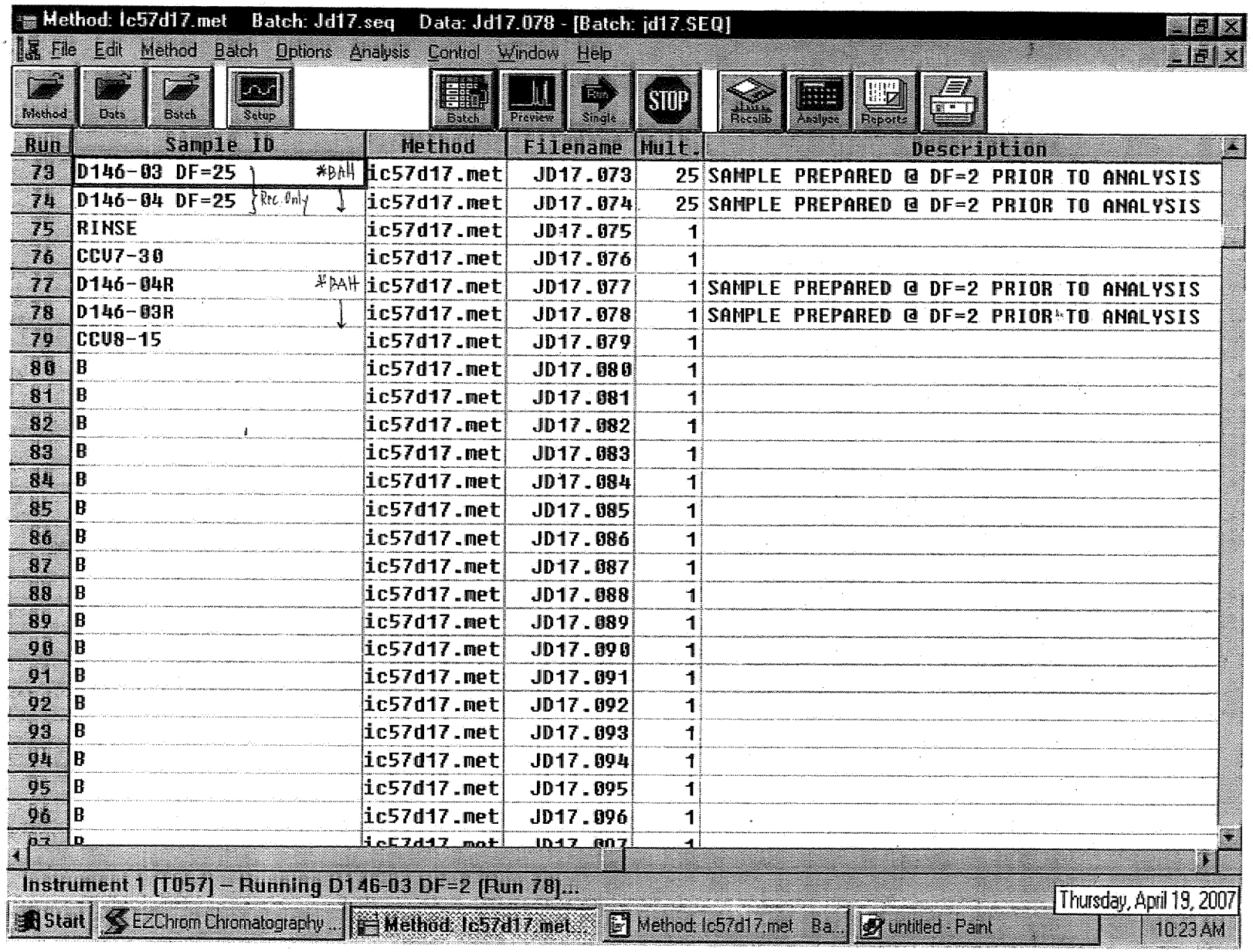
8918


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µS/cm *BAH lc57d17.met JD17.025 1
26 D165-06 2.25 lc57d17.met JD17.026 1
27 D165-08 2.80 lc57d17.met JD17.027 1
28 D165-08D lc57d17.met JD17.028 1
29 D165-08M lc57d17.met JD17.029 1
30 RINSE lc57d17.met JD17.030 1
31 CCV2-15 lc57d17.met JD17.031 1
32 IPCS 4150 µS/cm lc57d17.met JD17.032 1
33 PCD008SB *BAH lc57d17.met JD17.033 1
34 MRL lc57d17.met JD17.034 1
35 PCD008SL *BAH lc57d17.met JD17.035 1
36 PCD008SC lc57d17.met JD17.036 1
37 D134-01 46.2 µS/cm lc57d17.met JD17.037 1
38 D134-02 37.2 lc57d17.met JD17.038 1
39 D134-03 48.7 lc57d17.met JD17.039 1
40 D134-05 8.14 lc57d17.met JD17.040 1
41 D134-06 6.32 lc57d17.met JD17.041 1
42 D134-07 9.63 lc57d17.met JD17.042 1
43 CCV3-30 lc57d17.met JD17.043 1
44 D134-09 40.9 µS/cm *BAH lc57d17.met JD17.044 1
45 D134-10 6.8 lc57d17.met JD17.045 1
46 D134-11 7.63 lc57d17.met JD17.046 1
47 D134-12 17.63 lc57d17.met JD17.047 1
48 D165-02 24.0 lc57d17.met JD17.048 1
Instrument 1 [T057] - Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8919


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1 |
50 | D165-03 5.0 µg/L *PAH | lc57d17.met | JD17.050 | 1 |
51 | D165-04 2.5 | lc57d17.met | JD17.051 | 1 |
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1 |
53 | D165-09D | lc57d17.met | JD17.053 | 1 |
54 | D165-09M | lc57d17.met | JD17.054 | 1 |
55 | D165-10 25.0 µg/L | lc57d17.met | JD17.055 | 1 |
56 | D165-11 6.00 | lc57d17.met | JD17.056 | 1 |
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20 |
58 | D165-04 DF=200 | lc57d17.met | JD17.058 | 200 |
59 | CCV5-30 | lc57d17.met | JD17.059 | 1 |
60 | IPCS | lc57d17.met | JD17.060 | 1 |
61 | PCD009WB *PAH | lc57d17.met | JD17.061 | 1 |
62 | MRL | lc57d17.met | JD17.062 | 1 |
63 | PCD009WL *PAH | lc57d17.met | JD17.063 | 1 |
64 | PCD009WC | lc57d17.met | JD17.064 | 1 |
65 | D138-01R ok 04/19/07 | lc57d17.met | JD17.065 | 1 |
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → ok; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Rec. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1 |
72 | D146-02 DF=25 → Rec. Only *PAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 70]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8629



Run	Sample ID	Method	Filename	Mult.	Description
73	D146-03 DF=25	lc57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74	D146-04 DF=25	lc57d17.met	JD17.074	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75	RINSE	lc57d17.met	JD17.075	1	
76	CCV7-30	lc57d17.met	JD17.076	1	
77	D146-04R	lc57d17.met	JD17.077	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78	D146-03R	lc57d17.met	JD17.078	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79	CCV8-15	lc57d17.met	JD17.079	1	
80	B	lc57d17.met	JD17.080	1	
81	B	lc57d17.met	JD17.081	1	
82	B	lc57d17.met	JD17.082	1	
83	B	lc57d17.met	JD17.083	1	
84	B	lc57d17.met	JD17.084	1	
85	B	lc57d17.met	JD17.085	1	
86	B	lc57d17.met	JD17.086	1	
87	B	lc57d17.met	JD17.087	1	
88	B	lc57d17.met	JD17.088	1	
89	B	lc57d17.met	JD17.089	1	
90	B	lc57d17.met	JD17.090	1	
91	B	lc57d17.met	JD17.091	1	
92	B	lc57d17.met	JD17.092	1	
93	B	lc57d17.met	JD17.093	1	
94	B	lc57d17.met	JD17.094	1	
95	B	lc57d17.met	JD17.095	1	
96	B	lc57d17.met	JD17.096	1	

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH ⇒ SW8A-02-18

* JD19.048 : Confirmation Only *JD19.049 & -050 : Bad injection.

* JD19.096 : Record Only; Bad injection - Not used.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD19

Method File: IC57d17.met

Analytical Batch: PCD010G + PCD011W + PCD012W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

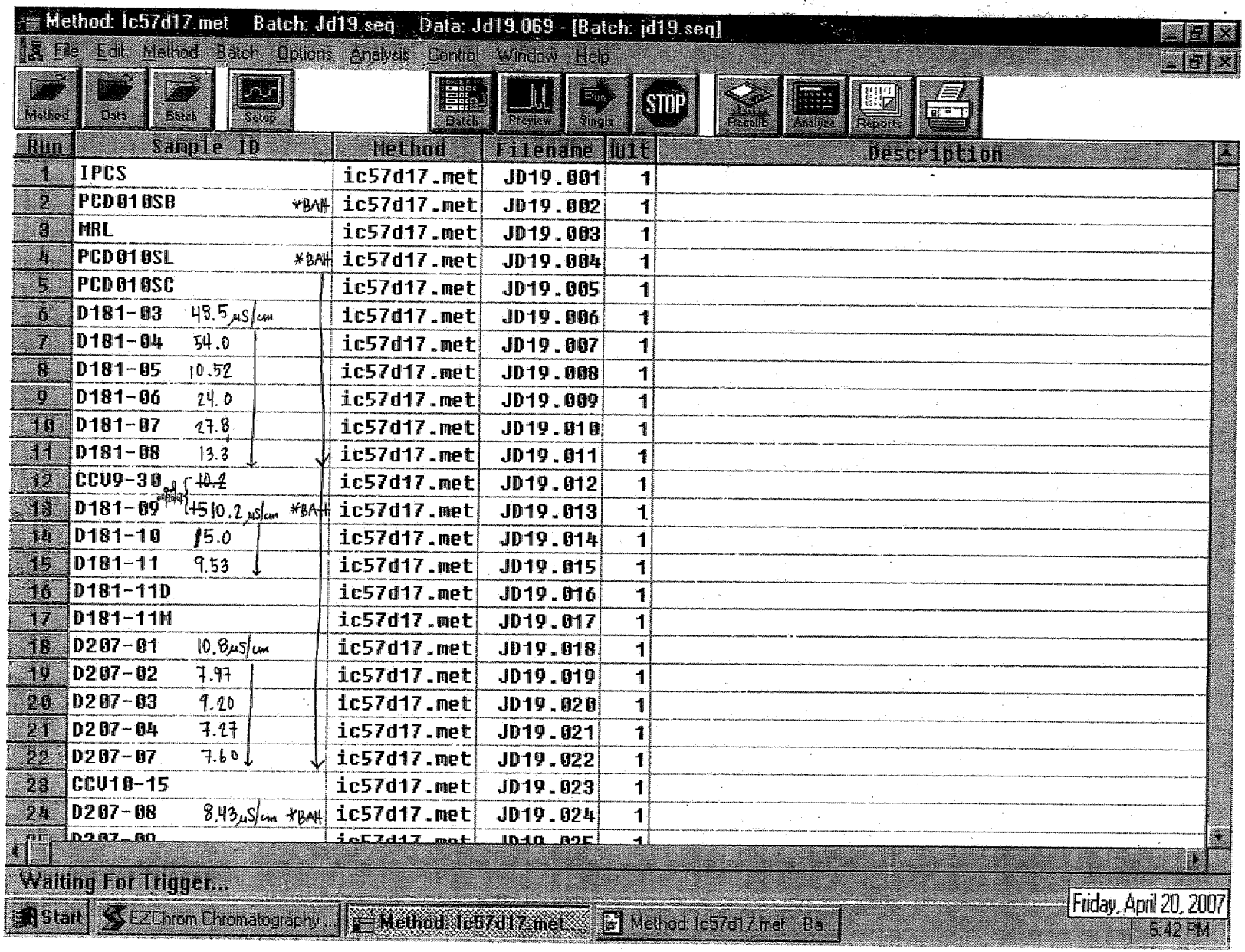
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	938
LCS	936
MS	931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1410	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 04/19/07



Method: Ic57d17.met Batch: Jd19.seq Data: Jd19.069 - [Batch: jd19.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

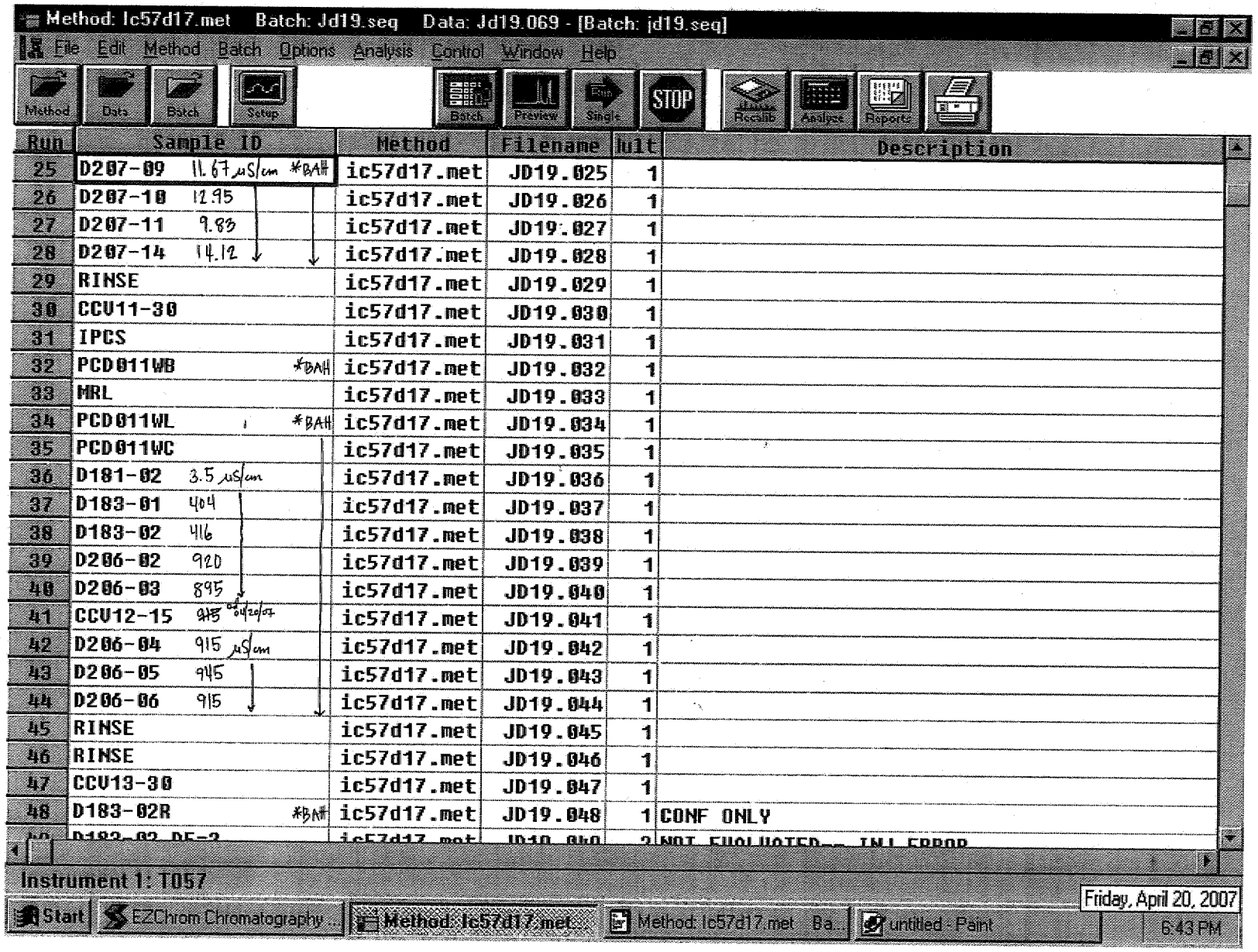
Run	Sample ID		Method	Filename	Mult	Description
1	IPCS		ic57d17.met	JD19.001	1	
2	PCD010SB	*BAH	ic57d17.met	JD19.002	1	
3	MRL		ic57d17.met	JD19.003	1	
4	PCD010SL	*BAH	ic57d17.met	JD19.004	1	
5	PCD010SC		ic57d17.met	JD19.005	1	
6	D181-03	48.5 µS/cm	ic57d17.met	JD19.006	1	
7	D181-04	54.0	ic57d17.met	JD19.007	1	
8	D181-05	10.52	ic57d17.met	JD19.008	1	
9	D181-06	24.0	ic57d17.met	JD19.009	1	
10	D181-07	27.8	ic57d17.met	JD19.010	1	
11	D181-08	13.3	ic57d17.met	JD19.011	1	
12	CCV9-30	~~10.2~~	ic57d17.met	JD19.012	1	
13	D181-09	~~15~~ 10.2 µS/cm *BAH	ic57d17.met	JD19.013	1	
14	D181-10	15.0	ic57d17.met	JD19.014	1	
15	D181-11	9.53	ic57d17.met	JD19.015	1	
16	D181-11D		ic57d17.met	JD19.016	1	
17	D181-11M		ic57d17.met	JD19.017	1	
18	D207-01	10.8 µS/cm	ic57d17.met	JD19.018	1	
19	D207-02	7.97	ic57d17.met	JD19.019	1	
20	D207-03	9.20	ic57d17.met	JD19.020	1	
21	D207-04	7.27	ic57d17.met	JD19.021	1	
22	D207-07	7.60	ic57d17.met	JD19.022	1	
23	CCV10-15		ic57d17.met	JD19.023	1	
24	D207-08	8.43 µS/cm *BAH	ic57d17.met	JD19.024	1	
25	D207-09		ic57d17.met	JD19.025	1	

Waiting For Trigger...

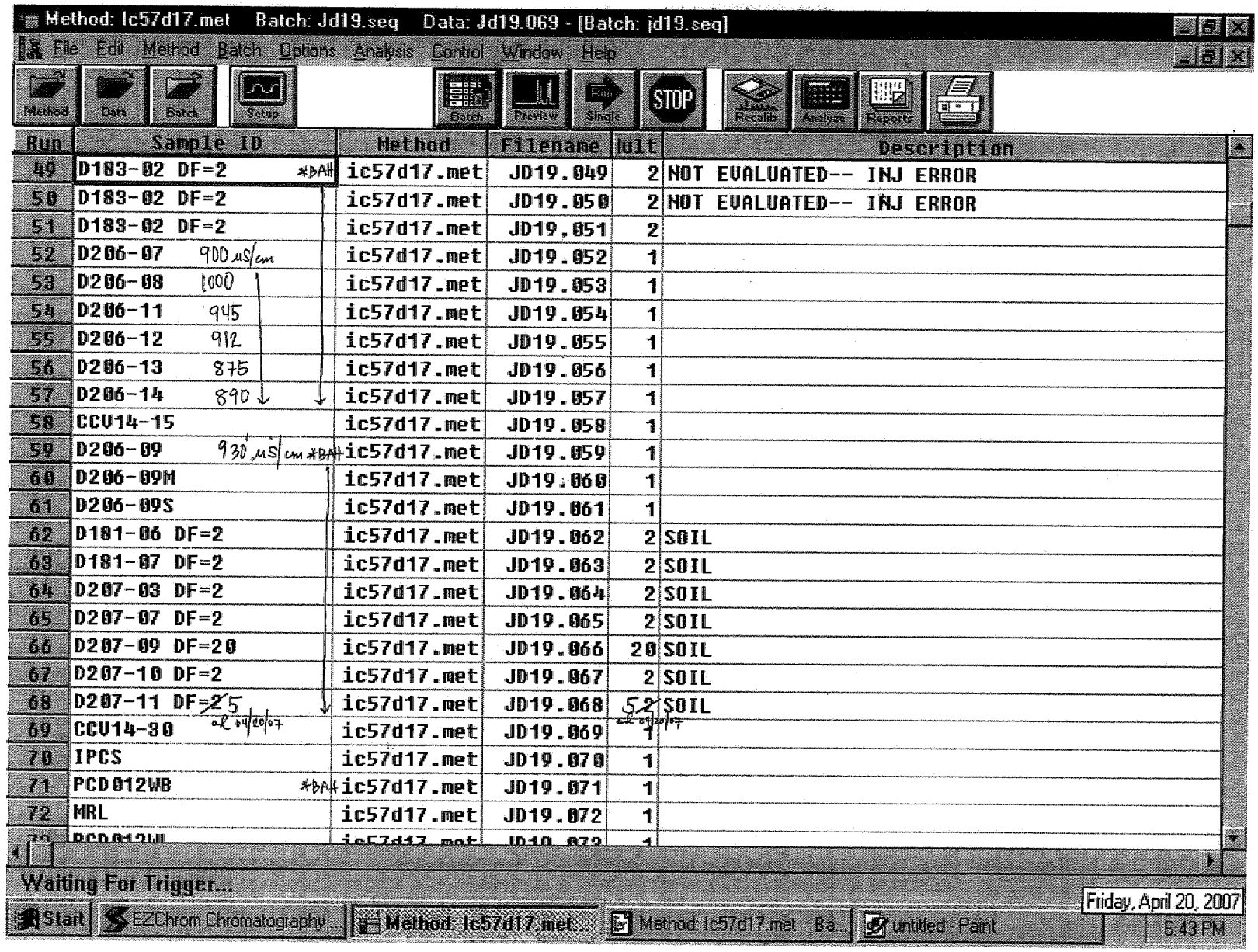
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...

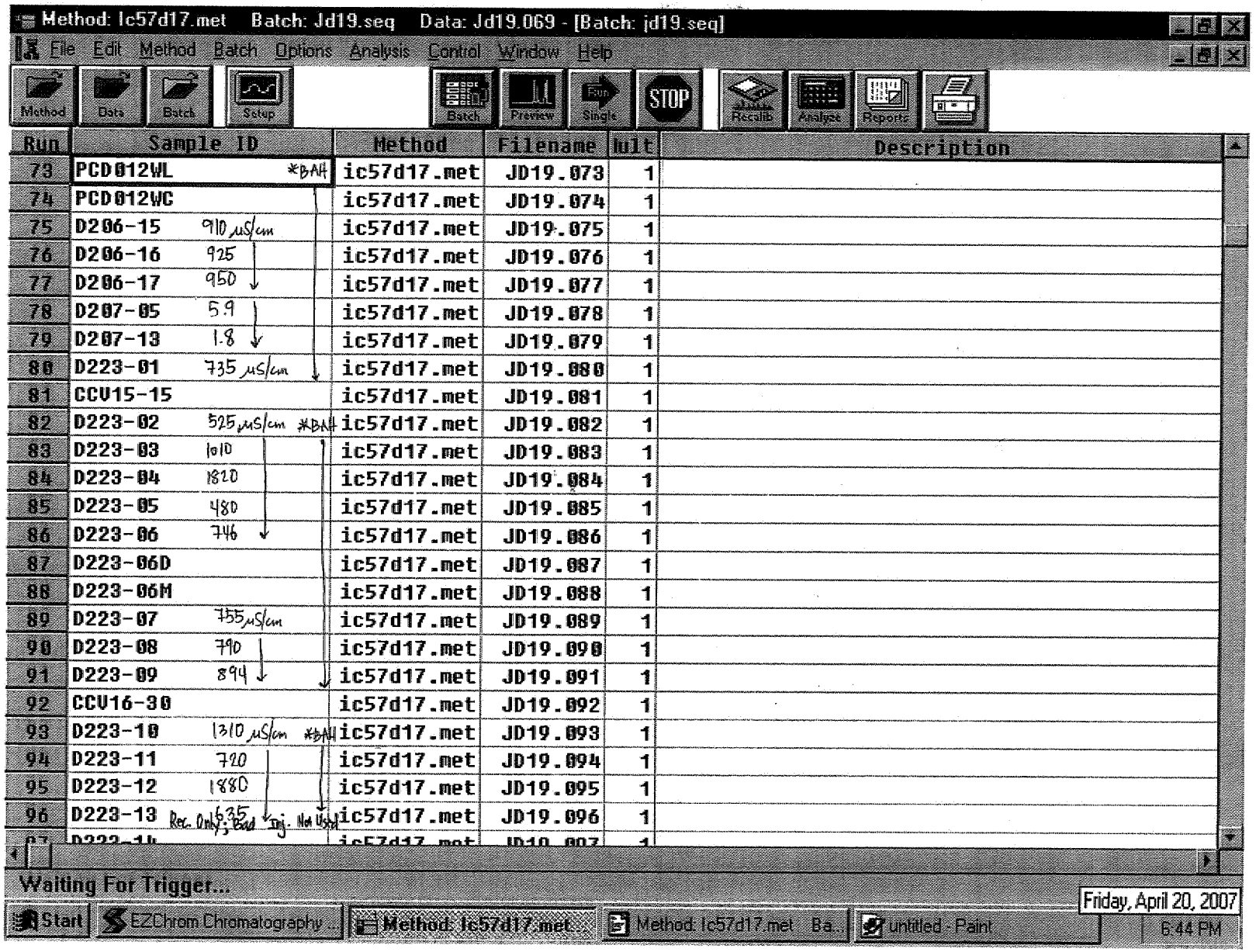
Friday, April 20, 2007 6:42 PM

8023


Method: Ic57d17.met Batch: Jd19.seq Data: Jd19.069 - [Batch: jd19.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Vial Description
25 D207-09 11.67 µS/cm *BAH ic57d17.met JD19.025 1
26 D207-10 12.95 ic57d17.met JD19.026 1
27 D207-11 9.83 ic57d17.met JD19.027 1
28 D207-14 14.12 ic57d17.met JD19.028 1
29 RINSE ic57d17.met JD19.029 1
30 CCV11-30 ic57d17.met JD19.030 1
31 IPCS ic57d17.met JD19.031 1
32 PCD011WB *BAH ic57d17.met JD19.032 1
33 MRL ic57d17.met JD19.033 1
34 PCD011WL *BAH ic57d17.met JD19.034 1
35 PCD011WC ic57d17.met JD19.035 1
36 D181-02 3.5 µS/cm ic57d17.met JD19.036 1
37 D183-01 404 ic57d17.met JD19.037 1
38 D183-02 416 ic57d17.met JD19.038 1
39 D206-02 920 ic57d17.met JD19.039 1
40 D206-03 895 ic57d17.met JD19.040 1
41 CCV12-15 ic57d17.met JD19.041 1
42 D206-04 915 µS/cm ic57d17.met JD19.042 1
43 D206-05 945 ic57d17.met JD19.043 1
44 D206-06 915 ic57d17.met JD19.044 1
45 RINSE ic57d17.met JD19.045 1
46 RINSE ic57d17.met JD19.046 1
47 CCV13-30 ic57d17.met JD19.047 1
48 D183-02R *BAH ic57d17.met JD19.048 1 CONF ONLY
Instrument 1: T057
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba... untitled - Paint
Friday, April 20, 2007
6:43 PM

8021


Method: lc57d17.met Batch: Jd19.seq Data: Jd19.069 - [Batch: jd19.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Vlt | Description
49 | D183-02 DF=2 *DAH | lc57d17.met | JD19.049 | 2 | NOT EVALUATED-- INJ ERROR
50 | D183-02 DF=2 | lc57d17.met | JD19.050 | 2 | NOT EVALUATED-- INJ ERROR
51 | D183-02 DF=2 | lc57d17.met | JD19.051 | 2 |
52 | D206-07 900 uS/cm | lc57d17.met | JD19.052 | 1 |
53 | D206-08 1000 | lc57d17.met | JD19.053 | 1 |
54 | D206-11 945 | lc57d17.met | JD19.054 | 1 |
55 | D206-12 912 | lc57d17.met | JD19.055 | 1 |
56 | D206-13 875 | lc57d17.met | JD19.056 | 1 |
57 | D206-14 890 | lc57d17.met | JD19.057 | 1 |
58 | CCV14-15 | lc57d17.met | JD19.058 | 1 |
59 | D206-09 930 uS/cm *DAH | lc57d17.met | JD19.059 | 1 |
60 | D206-09M | lc57d17.met | JD19.060 | 1 |
61 | D206-09S | lc57d17.met | JD19.061 | 1 |
62 | D181-06 DF=2 | lc57d17.met | JD19.062 | 2 | SOIL
63 | D181-07 DF=2 | lc57d17.met | JD19.063 | 2 | SOIL
64 | D207-03 DF=2 | lc57d17.met | JD19.064 | 2 | SOIL
65 | D207-07 DF=2 | lc57d17.met | JD19.065 | 2 | SOIL
66 | D207-09 DF=20 | lc57d17.met | JD19.066 | 20 | SOIL
67 | D207-10 DF=2 | lc57d17.met | JD19.067 | 2 | SOIL
68 | D207-11 DF=25 | lc57d17.met | JD19.068 | 52 | SOIL
69 | CCV14-30 | lc57d17.met | JD19.069 | 1 |
70 | IPCS | lc57d17.met | JD19.070 | 1 |
71 | PCD012WB *DAH | lc57d17.met | JD19.071 | 1 |
72 | MRL | lc57d17.met | JD19.072 | 1 |
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Friday, April 20, 2007
6:43 PM



Method: lc57d17.met Batch: Jd19.seq Data: Jd19.069 - [Batch: jd19.seq]

File Edit Method Batch Options Analysis Control Window Help

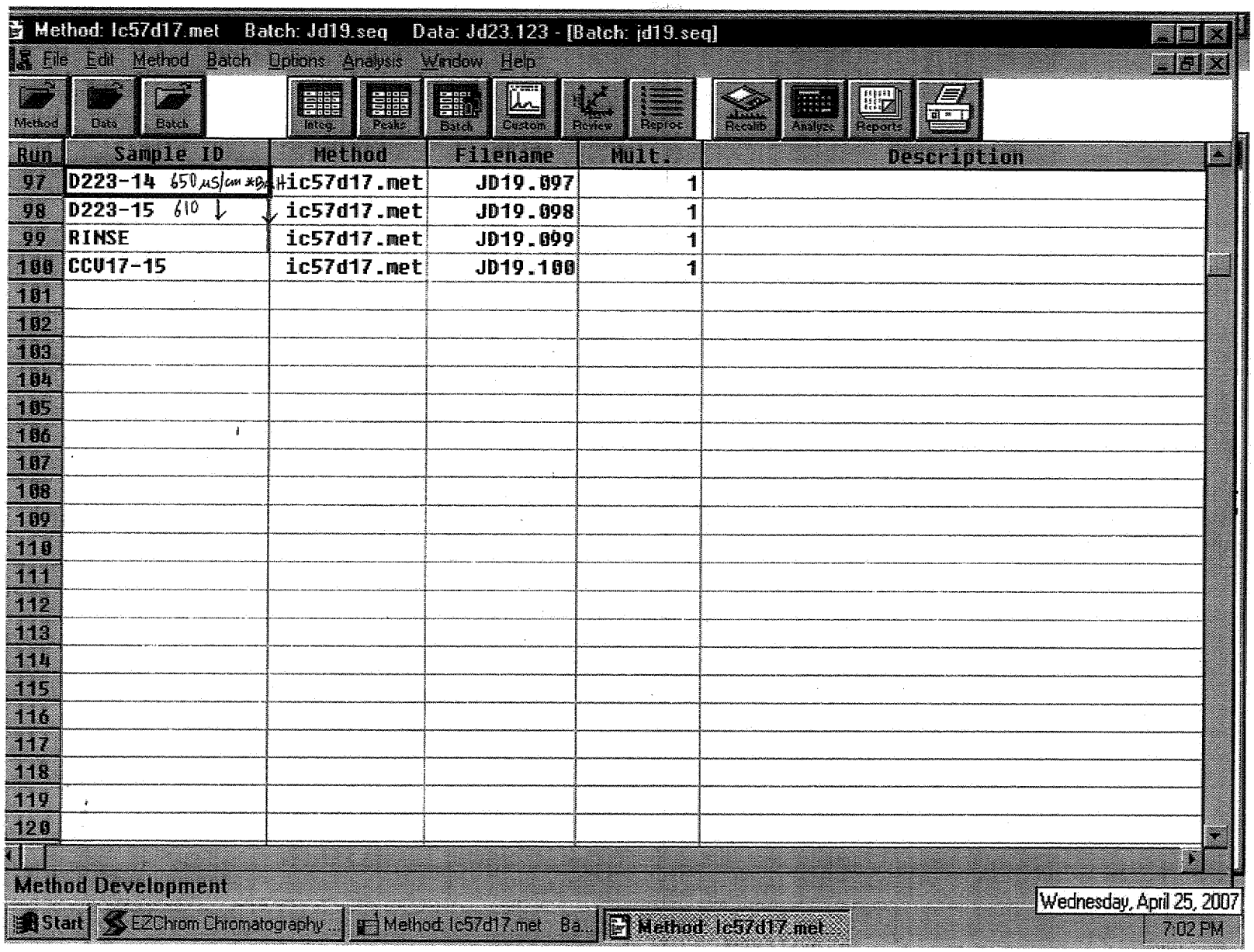
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyst Reports

Run	Sample ID		Method	Filename	Mult	Description
73	PCD012WL	*BAH	ic57d17.met	JD19.073	1	
74	PCD012WC		ic57d17.met	JD19.074	1	
75	D206-15	910 µS/cm	ic57d17.met	JD19.075	1	
76	D206-16	925	ic57d17.met	JD19.076	1	
77	D206-17	950	ic57d17.met	JD19.077	1	
78	D207-05	5.9	ic57d17.met	JD19.078	1	
79	D207-13	1.8	ic57d17.met	JD19.079	1	
80	D223-01	735 µS/cm	ic57d17.met	JD19.080	1	
81	CCV15-15		ic57d17.met	JD19.081	1	
82	D223-02	525 µS/cm *BAH	ic57d17.met	JD19.082	1	
83	D223-03	1010	ic57d17.met	JD19.083	1	
84	D223-04	1820	ic57d17.met	JD19.084	1	
85	D223-05	480	ic57d17.met	JD19.085	1	
86	D223-06	746	ic57d17.met	JD19.086	1	
87	D223-06D		ic57d17.met	JD19.087	1	
88	D223-06M		ic57d17.met	JD19.088	1	
89	D223-07	755 µS/cm	ic57d17.met	JD19.089	1	
90	D223-08	790	ic57d17.met	JD19.090	1	
91	D223-09	894	ic57d17.met	JD19.091	1	
92	CCV16-30		ic57d17.met	JD19.092	1	
93	D223-10	1310 µS/cm *BAH	ic57d17.met	JD19.093	1	
94	D223-11	720	ic57d17.met	JD19.094	1	
95	D223-12	1880	ic57d17.met	JD19.095	1	
96	D223-13	Rec. Only; Bad 635 Inj. Not Used	ic57d17.met	JD19.096	1	

Waiting For Trigger...

Start EZChrom Chromatography ... Method: lc57d17.met Method: lc57d17.met Ba... untitled - Paint Friday, April 20, 2007 6:44 PM

8929


Method: lc57d17.met Batch: Jd19.seq Data: Jd23.123 - [Batch: jd19.seq]
File Edit Method Batch Options Analysis Window Help
Method Data Batch Integ Peaks Batch Custom Review Report Recalib Analysis Reports
Run Sample ID Method Filename Mult. Description
97 D223-14 650 µS/cm *B lc57d17.met JD19.097 1
98 D223-15 610 ↓ ↓ lc57d17.met JD19.098 1
99 RINSE lc57d17.met JD19.099 1
100 CCV17-15 lc57d17.met JD19.100 1
101
102
103
104
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120
Method Development
Start EZChrom Chromatography ... Method: lc57d17.met Ba... Method: lc57d17.met...
Wednesday, April 25, 2007
7:02 PM

8927

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 04/19/07 Time 10:30 End Date 04/19/07 Time 13:40

PREPARATION BATCH # PC0105

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0105B	10.000g	100 ml	100 ml	
*02	SL				
*03	SC				
*04	D181-03				
*05	04				
*06	05				
*07	06				
*08	07				
*09	08				
*10	09				
*11	10				
*12	11				
*13	11D				
*14	11M				
*15	D207-01				
*16	02				
*17	03				
*18	04				
*19	07				
*20	08				
*21	09				
*22	10				
*23	11				
*24	14				
*25					al 04/19/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5ml / 1.0ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8925

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D244**

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GC/MS-VOA	METHOD 5030B/8260B (WATER) METHOD 5035/8260B (SOIL)	2000 – 2027 2028 – 2061
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8039
OTHERS	**	9000 –

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-09-2007
EMAX Batch No.: 07D244

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/20/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
C23-HSAS27-5-6.5	D244-01	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS27-20-21.5	D244-02	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS27-30-31.5	D244-03	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS28-5-6.5	D244-04	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS28-20-21.5	D244-05	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS2801-20-21.5	D244-06	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS28-40-41.5	D244-07	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS2701-5-6.5	D244-08	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS2701-30-31.5	D244-09	04/19/07	SOIL	PERCHLORATE BY IC
LTB-041907	D244-10	04/19/07	WATER	VOLATILE ORGANICS BY GC/MS
C22-HSAS24-55-56.5	D244-11	04/19/07	SOIL	PERCHLORATE BY IC
				VOLATILE ORGANICS BY GC/MS
C22-HSAS24-5-6.5	D244-12	04/19/07	SOIL	PERCHLORATE BY IC
				VOLATILE ORGANICS BY GC/MS
C22-HSAS24-20-21.5	D244-13	04/19/07	SOIL	PERCHLORATE BY IC
				VOLATILE ORGANICS BY GC/MS
LEB-041907	D244-14	04/19/07	WATER	PERCHLORATE BY IC
C22-HSAS24-5-6.5MS	D244-12M	04/19/07	SOIL	PERCHLORATE BY IC
				VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
C22-HSAS24-5-6.5MSD	D244-12S	04/19/07	SOIL	VOLATILE ORGANICS BY GC/MS
C22-HSAS24-5-6.5DUP	D244-12D	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS28-5-6.5MS	D244-04M	04/19/07	SOIL	PERCHLORATE BY IC
C23-HSAS28-5-6.5DUP	D244-04D	04/19/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

07D244 07D244

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391
TT-0618

SHIP TO: EMAX

DATE 4-19-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signature): Holly A Hanke

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	8260 VOC's	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	C23-HSAS27-5-6.5	4-19-07	0845	X		U	S	G	1	NR	
2.	C23-HSAS27-20-21.5	4-19-07	0901	X		U	S	G	1	NR	
3.	C23-HSAS27-30-31.5	4-19-07	0915	X		U	S	G	1	NR	
4.	C23-HSAS28-5-6.5	4-19-07	1013	X		U	S	G	3	NR	MS MSD
5.	C23-HSAS28-20-21.5	4-19-07	1022	X		U	S	G	1	NR	
6.	C23-HSAS2801-20-21.5	4-19-07	1022	X		U	S	G	1	NR	
7.	C23-HSAS28-40-41.5	4-19-07	1049	X		↓	↓	↓	↓	↓	
8.	C23-HSAS2701-5-6.5	4-19-07	0845	X							
9.	C23-HSAS2701-~~30-31.5~~	4-19-07	0914	X		↓	↓	↓	↓	↓	
10.	LTB-041907	4-19-07	0840		X	U	W	G	2	HCL	

TURN-AROUND TIME: Standard

FILTERING: T-5.5
☐ FILTERED ☑ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY: Holly A. Hanke	SIGNATURE	TETRA TECH, INC.	DATE 4-19-07	TIME 1822	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 13 of 34
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 4/20/07	TIME 16:30	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 4/20/07	TIME 18:42	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: CWA	SIGNATURE	COMPANY CWA	DATE 4/20/07	TIME 1842	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

2007

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07D244

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4-19-07 PAGE 2 OF 2

CLIENT: LMC

PROJECT NAME: Site 1 Supplemental Soil Investigation

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures) [signature]

TURN-AROUND TIME: Standard

PARAMETERS

	LINE ITEM	SAMPLE NO.	DATE	TIME	826.0 VOC's	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
11	1.	C22-HSAS24-55-56.5	4-19-07	1511	X		U	S	P	3	NR	
12	2.	C22-HSAS24-55-56.5	4-19-07	1511		X	U	S	G	1	NR	
12	3.	C22-HSAS24-5-6.5	4-19-07	1352	X		U	S	P	9	NR	MSMSD
12	4.	C22-HSAS24-5-6.5	4-19-07	1352		X	U	S	G	3	NR	MSMSD
13	5.	C22-HSAS24-20-21.5	4-19-07	1445	X		U	S	P	3	NR	
13	6.	C22-HSAS24-20-21.5	4-19-07	1445		X	U	S	G	1	NR	
14	7.	LEB-041907	4-19-07	0840		X	U	W	P	1	NR	
	8.											
	9.											
	10.											

[initials] 4/19/07

FILTERING: T = 3.5
☐ FILTERED ☒ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY	SIGNATURE	TETRA TECH, INC.	DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 21 of 34
Holly A. Hanke	[signature]		4-19-07	1822	
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	METHOD OF SHIPMENT/SHIPMENT NO.
A. GALICIA	[signature]	EMAX	4/20/07	16:30	
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	Special Shipping/Handling/Storage Requirements:
A-GALICIA	[signature]	EMAX	4/20/07	18:42	
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	
J-LUNA	[signature]	emax	4/20/07	1842	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1003

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☒ EMAX Courier	SEE COC	ECN 07D244
☐ Client Delivery		Recepient J. Luna
☐ Third Party		Date 4-20-07
		Time 1842

COC Inspection

☐ Client Name	☐ Client PM/FC	☒ Sampler Name	☐ Sampling Date/Time/Location	☒ Sample ID	☐ Matrix
☒ Address	☐ Tel # / Fax #	☐ Courier Signature	☐ Analysis Required	☒ Preservative (if any)	☒ TAT

Safety Issues

☒ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☐ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ Plastic Bag
Temperatures	☐ Cooler 1 3.5 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 4-20-07

SRF _____ Date 4/23/07

PM _____ Date 4/23/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 07D244

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D244

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

One (1) water sample was received on 04/20/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with SW846, 3RD edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D244
Instrument ID : T-0D3

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VOD3E04Q	1	NA	05/02/0704:20	05/02/0704:20	REE028	RDE189	VOD3E04	Method Blank
LCS1W	VOD3E04L	1	NA	05/02/0702:31	05/02/0702:31	REED25	RDE189	VOD3E04	Lab Control Sample (LCS)
LCD1W	VOD3E04C	1	NA	05/02/0703:08	05/02/0703:08	REE026	RDE189	VOD3E04	LCS Duplicate
LTB-041907	D244-10	1	NA	05/02/0710:22	05/02/0710:22	REE038	RDE189	VOD3E04	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 04/19/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/20/07
Batch No. : 07D244	Date Extracted: 05/02/07 10:22
Sample ID: LTB-041907	Date Analyzed: 05/02/07 10:22
Lab Samp ID: D244-10	Dilution Factor: 1
Lab File ID: REE038	Matrix : WATER
Ext Btch ID: VOD3E04	% Moisture : NA
Calib. Ref.: RDE189	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	98	70-140
4-BROMOFLUOROBENZENE	91	70-130
TOLUENE-D8	94	70-140

QC SUMMARIES

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/02/07
Batch No. : 07D244	Date Extracted: 05/02/07 04:20
Sample ID: MBLK1W	Date Analyzed: 05/02/07 04:20
Lab Samp ID: V0D3E04Q	Dilution Factor: 1
Lab File ID: REE028	Matrix : WATER
Ext Btch ID: V0D3E04	% Moisture : NA
Calib. Ref.: RDE189	Instrument ID : T-0D3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	70-140
4-BROMOFLUOROBENZENE	91	70-130
TOLUENE-D8	95	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VOD3E04Q	VOD3E04L	VOD3E04C		
LAB FILE ID:	REE028	REE025	REE026		
DATE EXTRACTED:	05/02/0704:20	05/02/0702:31	05/02/0703:08	DATE COLLECTED:	NA
DATE ANALYZED:	05/02/0704:20	05/02/0702:31	05/02/0703:08	DATE RECEIVED:	05/02/07
PREP. BATCH:	VOD3E04	VOD3E04	VOD3E04		
CALIB. REF:	RDE189	RDE189	RDE189		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	8.63	86	10.0	8.13	81	6	60-130	30
Benzene	ND	10.0	8.33	83	10.0	9.36	94	12	70-130	30
Chlorobenzene	ND	10.0	10.9	109	10.0	11.8	118	8	70-120	30
Toluene	ND	10.0	9.30	93	10.0	10.1	101	8	70-130	30
Trichloroethene	ND	10.0	8.68	87	10.0	10.4	104	18	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.3	103	10.0	9.87	99	70-140
4-Bromofluorobenzene	10.0	8.97	90	10.0	8.44	84	70-130
Toluene-d8	10.0	9.04	90	10.0	9.06	91	70-130

INITIAL CALIBRATIONS

2008

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D244

Lab File ID: RDE182 BFB Injection Date : 04/11/07

Instrument ID: T-0D3 BFB Injection Time : 09:15

GC Column:RTX502.21D:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.58
75	30.0 - 60.0% of mass 95	44.37
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.85
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.60
175	5.0 - 9.0% of mass 174	5.02(7.0)1
176	95.0 - 101.0% of mass 174	69.28(96.8)1
177	5.0 - 9.0% of mass 176	4.46(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	VOD3D111	RDE183	04/11/07	09:51
2	VSTD01	VOD3D113	RDE185	04/11/07	11:03
3	VSTD0.5	VOD3D114	RDE186	04/11/07	11:39
4	VSTD02	VOD3D115	RDE187	04/11/07	12:15
5	VSTD05	VOD3D116	RDE188	04/11/07	12:51
6	VSTD010	VOD3D117	RDE189	04/11/07	13:27
7	VSTD020	VOD3D118	RDE190	04/11/07	14:03
8	VSTD030	VOD3D119	RDE191	04/11/07	14:39
9	VSTD040	VOD3D1110	RDE192	04/11/07	15:15
10	VSTD050	VOD3D1111	RDE193	04/11/07	15:51
11	VSTD010	IVOD3D1102	RDE197	04/11/07	18:24

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :D3
Beginning DateTime :04/11/07 11:03
Spike Units :PPB
IC File :RDE189

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :04/11/07 15:51
HPChem Method :VOD3D11

M	IDX	Parameters	.3 09:51 RDE183	.5 11:39 RDE186	1 11:03 RDE185	2 12:15 RDE187	5 12:51 RDE188	10 13:27 RDE189	20 14:03 RDE190	30 14:39 RDE191	40 15:15 RDE192	50 15:51 RDE193	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	9.8023
	2	Dichlorodifluoromethane	0.327	0.447	0.308	0.270	0.296	0.247	0.266	0.248	0.283	0.292	0.299	19.47	3.2807
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	1.147	0.918	0.749	0.573	0.601	0.514	0.530	0.488	0.560	0.544	0.663	32.38	3.7392
	5	Vinyl chloride	------	0.759	0.634	0.511	0.548	0.433	0.411	------	------	------	0.549	23.77	3.8793
	6	Bromomethane	0.313	0.365	0.338	0.309	0.362	0.326	0.358	0.340	0.385	0.414	0.351	9.29	4.5773
	7	Chloroethane	0.310	0.311	0.307	0.277	0.313	0.275	0.295	0.275	0.309	0.325	0.300	6.01	4.6740
	8	Dichlorofluoromethane	0.769	0.862	0.883	0.784	0.864	0.774	0.824	0.801	0.848	0.957	0.837	7.02	4.7113
	9	Trichlorofluoromethane	0.373	0.496	0.395	0.351	0.401	0.344	0.372	0.342	0.391	0.409	0.387	11.64	5.0417
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	11	Acrolein	------	------	0.021	0.018	0.019	0.019	0.020	0.020	0.023	0.027	0.021	13.72	5.5764
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.202	0.226	0.224	0.214	0.238	0.220	0.231	0.231	0.238	0.283	0.231	9.31	5.6148
2	13	Acetone	------	------	0.065	0.052	0.049	0.044	0.045	0.043	0.049	0.058	0.051	14.91	5.6434
	14	1,1-Dichloroethene	0.431	0.506	0.495	0.465	0.513	0.474	0.491	0.489	0.504	0.594	0.496	8.48	5.8753
5	15	tert-Butyl alcohol	------	------	0.014	0.014	0.016	0.014	0.014	0.014	0.016	0.020	0.015	13.56	5.9002
	16	Methyl acetate	------	0.124	0.115	0.113	0.142	0.112	0.136	0.146	0.165	------	0.132	14.27	6.2407
	17	Iodomethane	------	0.408	0.476	0.503	0.602	0.546	0.586	0.578	0.607	0.683	0.554	14.72	6.3289
	18	Methylene chloride	0.707	0.743	0.598	0.520	0.553	0.472	0.481	0.483	0.522	------	0.564	17.63	6.4926
	19	Carbon disulfide	1.346	1.542	1.544	1.412	1.540	1.406	1.476	1.478	1.562	1.800	1.510	8.23	6.6107
3	20	Acrylonitrile	0.049	0.054	0.056	0.055	0.057	0.052	0.054	0.056	0.064	0.076	0.057	13.31	6.6033
	21	tert-Butyl methyl ether (MTBE)	0.507	0.542	0.529	0.545	0.591	0.501	0.511	0.524	0.573	0.704	0.553	10.94	6.6465
	22	trans-1,2-Dichloroethene	0.515	0.564	0.569	0.516	0.586	0.510	0.559	0.549	0.581	0.677	0.563	8.68	6.8831
	23	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	24	Isopropyl ether (DIPE)	1.401	1.479	1.341	1.288	1.413	1.209	1.271	1.268	1.312	1.606	1.359	8.72	7.1972
	25	Vinyl acetate	0.400	0.427	0.345	0.335	0.381	0.315	0.328	0.346	0.392	0.481	0.375	13.75	7.3327
	26	1,1-Dichloroethane	0.657	0.704	0.717	0.655	0.740	0.669	0.700	0.712	0.741	0.853	0.715	8.05	7.4176
	27	tert-Butyl ethyl ether (ETBE)	0.843	0.891	0.843	0.884	0.963	0.805	0.840	0.856	0.886	1.081	0.889	8.95	7.7198
2	28	2-Butanone	------	0.080	0.072	0.070	0.071	0.064	0.070	0.070	0.079	0.100	0.075	14.01	7.8853
	29	2,2-Dichloropropane	0.377	0.437	0.413	0.388	0.433	0.392	0.413	0.429	0.422	0.520	0.422	9.43	8.1425
	30	cis-1,2-Dichloroethene	0.596	0.638	0.598	0.579	0.644	0.574	0.605	0.617	0.640	0.764	0.626	8.71	8.1976
	31	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Chloroform	0.601	0.651	0.627	0.586	0.645	0.569	0.610	0.612	0.641	0.761	0.630	8.38	8.4015
	33	Bromochloromethane	0.254	0.286	0.296	0.291	0.326	0.282	0.293	0.291	0.320	0.367	0.301	10.16	8.6367
	34	Tetrahydrofuran	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	35	1,1,1-Trichloroethane	0.433	0.436	0.454	0.420	0.470	0.421	0.450	0.441	0.444	0.531	0.450	7.14	8.9493
	36	Cyclohexane	0.595	0.749	0.612	0.643	0.771	0.559	0.687	0.687	0.710	0.870	0.688	13.46	9.0104
	37	tert-Amyl methyl ether (TAME)	0.751	0.798	0.750	0.750	0.843	0.703	0.746	0.742	0.791	0.981	0.785	10.03	9.2262
	38	1,2-Dichloroethane-d4	0.237	0.246	0.237	0.204	0.257	0.200	0.216	0.228	0.219	0.294	0.234	11.87	9.3290
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	15.1658
	40	1,1-Dichloropropene	0.195	0.211	0.201	0.183	0.214	0.194	0.204	0.200	0.202	0.243	0.205	7.81	9.1458
	41	Carbon tetrachloride	0.370	0.400	0.372	0.363	0.424	0.392	0.411	0.414	0.422	0.496	0.406	9.44	9.3141
	42	1,2-Dichloroethane	0.309	0.330	0.305	0.314	0.356	0.311	0.319	0.330	0.355	0.413	0.334	9.90	9.4555
	43	Benzene	1.635	1.661	1.604	1.502	1.732	1.582	1.649	1.676	1.691	1.985	1.672	7.60	9.5225
	44	Methylcyclohexane	0.417	0.691	0.469	0.609	0.783	0.542	0.724	0.706	0.731	------	0.630	20.36	10.4606
	45	Trichloroethene	0.409	0.444	0.427	0.406	0.473	0.434	0.457	0.445	0.451	0.542	0.449	8.61	10.3367
	46	1,2-Dichloropropane	0.457	0.467	0.430	0.420	0.492	0.430	0.448	0.449	0.465	0.567	0.463	9.13	10.5719
	47	Bromodichloromethane	0.489	0.474	0.447	0.441	0.523	0.452	0.470	0.483	0.503	0.597	0.488	9.39	10.9381
	48	Dibromomethane	0.149	0.175	0.159	0.172	0.201	0.170	0.174	0.178	0.193	0.226	0.180	12.24	11.0498
	49	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	50	4-Methyl-2-pentanone	0.308	0.264	0.236	0.215	0.229	0.206	0.212	0.212	0.231	0.291	0.240	14.77	11.3222
	51	cis-1,3-Dichloropropene	0.523	0.571	0.533	0.523	0.623	0.539	0.569	0.578	0.586	0.706	0.575	9.72	11.7554
	52	Toluene-d8	1.387	1.462	1.331	1.059	1.439	1.111	1.206	1.301	1.171	1.580	1.305	12.82	12.2407
	53	Toluene	0.941	1.005	0.951	0.877	1.024	0.940	0.974	0.978	0.988	1.176	0.985	7.94	12.3821
	54	Ethyl methacrylate	0.348	0.357	0.311	0.317	0.361	0.296	0.308	0.316	0.342	0.413	0.337	10.31	12.4818
	55	trans-1,3-Dichloropropene	0.387	0.395	0.363	0.380	0.451	0.390	0.403	0.406	0.430	0.523	0.413	11.12	12.6054
2	56	2-Hexanone	------	0.160	0.141	0.132	0.143	0.128	0.137	0.138	0.150	0.190	0.147	12.75	12.8341
	57	1,1,2-Trichloroethane	0.209	0.236	0.214	0.222	0.252	0.215	0.222	0.226	0.238	0.291	0.233	10.47	12.9329
	58	1,3-Dichloropropane	0.413	0.454	0.422	0.418	0.484	0.424	0.430	0.438	0.468	0.559	0.451	9.81	13.3944

4/13/07

59	Tetrachloroethene	0.275	0.322	0.309	0.282	0.330	0.300	0.318	0.315	0.321	0.382	0.315	9.36	13.6206
60	Dibromochloromethane	0.255	0.263	0.251	0.253	0.304	0.266	0.278	0.286	0.300	0.365	0.282	12.30	14.0002
61	1,2-Dibromoethane	0.187	0.203	0.208	0.207	0.241	0.209	0.217	0.220	0.237	0.282	0.221	12.01	14.4141
62	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
63	1-Chlorohexane	0.692	0.735	0.729	0.658	0.772	0.712	0.760	0.753	0.741	0.887	0.744	8.17	14.5808
64	Chlorobenzene	0.921	0.959	0.917	0.873	1.007	0.912	0.950	0.955	0.971	1.148	0.961	7.84	15.2477
65	1,1,1,2-Tetrachloroethane	0.291	0.310	0.300	0.298	0.342	0.313	0.330	0.333	0.338	0.405	0.326	10.12	15.2938
66	Ethylbenzene	1.844	1.932	1.890	1.743	1.968	1.820	1.911	1.893	1.921	2.227	1.915	6.63	15.3028
2 67	m-Xylene & p-Xylene	1.446	1.492	1.442	1.287	1.503	1.392	1.448	1.443	1.427	1.611	1.449	5.68	15.4591
68	o-Xylene	1.416	1.459	1.473	1.340	1.546	1.392	1.447	1.424	1.465	1.704	1.467	6.80	16.4118
69	Styrene	0.881	1.028	0.972	0.924	1.089	0.982	1.021	1.018	1.037	1.242	1.019	9.63	16.4728
70	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	21.4344
71	Bromoform	0.253	0.328	0.319	0.323	0.378	0.328	0.352	0.361	0.387	------	0.337	11.90	17.2884
72	Isopropylbenzene	4.226	4.610	4.530	4.221	4.748	4.366	4.500	4.539	4.426	5.406	4.557	7.46	17.1680
73	1,1,2,2-Tetrachloroethane	0.779	0.804	0.736	0.727	0.843	0.707	0.747	0.735	0.783	0.994	0.785	10.69	17.5208
74	4-Bromofluorobenzene	------	------	------	1.043	1.344	0.985	1.075	1.167	------	------	1.123	12.46	17.7638
75	1,2,3-Trichloropropane	------	0.141	0.123	0.148	0.166	0.138	0.151	0.152	0.163	------	0.148	9.33	17.8669
76	trans-1,4-Dichloro-2-butene	------	------	0.134	0.153	0.162	0.139	0.148	0.152	0.160	0.205	0.157	13.84	17.9692
77	n-Propylbenzene	6.210	6.706	6.633	5.960	6.792	6.063	6.519	6.340	6.148	7.528	6.490	7.11	18.0776
78	Bromobenzene	0.838	0.965	0.899	0.863	0.993	0.887	0.922	0.916	0.934	1.136	0.935	8.96	18.2577
79	1,3,5-Trimethylbenzene	3.612	3.656	3.698	3.323	3.768	3.368	3.573	3.502	3.500	4.220	3.622	6.96	18.4259
80	2-Chlorotoluene	3.074	3.324	3.274	2.908	3.241	2.976	3.345	3.127	3.016	3.742	3.203	7.56	18.5375
81	4-Chlorotoluene	3.405	3.282	3.433	2.811	3.334	2.969	3.213	3.243	3.056	3.911	3.266	9.19	18.6298
82	tert-Butylbenzene	3.258	3.220	3.349	2.986	3.414	3.135	3.257	3.174	3.146	3.851	3.279	7.12	19.2580
83	1,2,4-Trimethylbenzene	3.526	3.645	3.721	3.350	3.774	3.397	3.576	3.448	3.495	4.148	3.608	6.47	19.3593
84	sec-Butylbenzene	5.185	5.330	5.561	4.873	5.490	5.017	5.271	5.274	5.066	6.239	5.331	7.15	19.7597
85	p-Isopropyltoluene	3.988	4.159	4.298	3.840	4.394	3.905	4.162	4.100	4.057	4.818	4.172	6.76	20.0649
86	1,3-Dichlorobenzene	1.879	1.988	2.023	1.809	2.049	1.839	1.935	1.897	1.905	2.332	1.965	7.63	20.3626
87	1,4-Dichlorobenzene	1.884	2.025	1.991	1.718	1.921	1.705	1.805	1.784	1.809	2.218	1.886	8.39	20.6052
88	n-Butylbenzene	4.630	4.698	4.707	4.188	4.622	4.281	4.509	4.512	4.372	5.165	4.568	5.98	21.0414
89	1,2-Dichlorobenzene	1.580	1.689	1.667	1.589	1.758	1.527	1.599	1.588	1.614	1.955	1.657	7.46	21.5029
90	1,2-Dibromo-3-chloropropane	------	------	0.073	0.090	0.105	0.088	0.096	0.097	0.109	------	0.094	12.58	23.3571
91	1,2,4-Trichlorobenzene	1.026	1.071	1.081	0.965	1.095	0.967	1.031	1.024	1.084	1.280	1.062	8.39	25.5073
92	Hexachlorobutadiene	0.687	0.664	0.763	0.669	0.782	0.713	0.760	0.744	0.743	0.893	0.742	9.03	25.8333
93	Naphthalene	1.614	1.726	1.415	1.361	1.568	1.356	1.453	1.482	1.681	1.981	1.564	12.46	26.1638
94	1,2,3-Trichlorobenzene	0.864	0.906	0.859	0.819	0.918	0.803	0.854	0.848	0.913	1.060	0.884	8.20	26.7577

Spike Amount = Nominal Amount * M
Ave_%RSD : 10.5 Max_%RSD : 32.4

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
2	Dichlorodifluoromethane	0.00341	0.27377	0.9972
4	Chloromethane	0.01853	0.52801	0.9984
5	Vinyl chloride	0.02045	0.41814	0.9953
18	Methylene chloride	0.00853	0.49559	0.9987
44	Methylcyclohexane	-0.00997	0.71063	0.9963

4/13/18

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D11\RDE197.D Vial: 16
Acq On : 11 Apr 2007 6:24 pm Operator: DN
Sample : IVOD3D1102 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Apr 11 18:11:09 2007 * Not evaluated
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	10.000	8.949	10.5	99	0.02
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.56#
4	P,T	Chloromethane	10.000	8.515	14.8	90	0.02
5	C,T	Vinyl chloride	10.000	10.493	-4.9	105	0.02
6	T	Bromomethane	10.000	9.154	8.5	98	0.02
7	T	Chloroethane	10.000	9.411	5.9	102	0.02
8	T	Dichlorofluoromethane	10.000	9.969	0.3	107	0.02
9	T	Trichlorofluoromethane	10.000	9.135	8.7	102	0.02
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	108	0.11
11	T	Acrolein	20.000	21.716	-8.6	119	0.02
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	10.245	-2.4	107	0.00
13	T	Acetone	20.000	20.305	-1.5	116	0.00
14	C,TM	1,1-Dichloroethene	10.000	10.073	-0.7	105	0.00
15	T	tert-Butyl alcohol	50.000	51.956	-3.9	112	0.00
16	T	Methyl acetate *	10.000	1.480	85.2#	17	0.02
17	T	Iodomethane	10.000	10.485	-4.8	105	0.00
18	T	Methylene chloride	10.000	10.245	-2.4	108	0.00
19	T	Carbon disulfide	10.000	9.865	1.3	105	0.00
20	T	Acrylonitrile	30.000	33.276	-10.9	121	0.02
21	T	tert-Butyl methyl ether (MT	10.000	11.059	-10.6	121	0.00
22	T	trans-1,2-Dichloroethene	10.000	10.140	-1.4	111	0.00
23	T	Acetonitrile	-1.000	0.000	0.0	121	0.00
24	T	Isopropyl ether (DIPE)	10.000	10.266	-2.7	114	0.00
25	T	Vinyl acetate	10.000	11.268	-12.7	133	0.00
26	P,T	1,1-Dichloroethane	10.000	10.217	-2.2	108	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	10.789	-7.9	118	0.00
28	T	2-Butanone	20.000	21.951	-9.8	127	0.00
29	T	2,2-Dichloropropane	10.000	9.801	2.0	105	0.02
30	T	cis-1,2-Dichloroethene	10.000	10.164	-1.6	110	0.02
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	116	0.00
32	C,T	Chloroform	10.000	10.266	-2.7	113	0.00
33	T	Bromochloromethane	10.000	10.616	-6.2	112	0.00
34	T	Tetrahydrofuran	-1.000	0.000	0.0	127	0.02
35	T	1,1,1-Trichloroethane	10.000	9.981	0.2	106	0.00
36	T	Cyclohexane *	10.000	0.125	98.8#	2	-0.02
37	T	tert-Amyl methyl ether (TAM	10.000	10.923	-9.2	121	0.02
38	S	1,2-Dichloroethane-d4	10.000	10.071	-0.7	117	0.00
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	98	0.00
40	T	1,1-Dichloropropene	10.000	10.420	-4.2	108	0.00

(#) = Out of Range

4/13/07
2013

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D11\RDE197.D Vial: 16
Acq On : 11 Apr 2007 6:24 pm Operator: DN
Sample : IVOD3D1102 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Apr 11 18:11:09 2007
Response via : Multiple Level Calibration * Not evaluated

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	10.000	10.630	-6.3	108	0.02
42	T	1,2-Dichloroethane	10.000	11.140	-11.4	118	0.00
43	M,T	Benzene	10.000	10.439	-4.4	109	0.00
44	T	Methylcyclohexane *	10.000	0.218	97.8#	1	0.02
45	M,T	Trichloroethene	10.000	10.373	-3.7	106	0.00
46	C,T	1,2-Dichloropropane	10.000	10.629	-6.3	112	0.00
47	T	Bromodichloromethane	10.000	10.768	-7.7	114	0.00
48	T	Dibromomethane	10.000	11.521	-15.2	120	0.00
49	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
50	T	4-Methyl-2-pentanone	20.000	22.429	-12.1	129	0.00
51	T	cis-1,3-Dichloropropene	10.000	10.910	-9.1	115	0.00
52	S	Toluene-d8	10.000	9.553	4.5	110	0.00
53	C,TM	Toluene	10.000	10.612	-6.1	109	0.02
54	T	Ethyl methacrylate	10.000	11.215	-12.1	125	0.00
55	T	trans-1,3-Dichloropropene	10.000	11.123	-11.2	116	0.00
56	T	2-Hexanone	20.000	23.043	-15.2	129	0.02
57	T	1,1,2-Trichloroethane	10.000	11.251	-12.5	120	0.00
58	T	1,3-Dichloropropane	10.000	11.227	-12.3	118	0.00
59	T	Tetrachloroethene	10.000	10.396	-4.0	108	0.02
60	T	Dibromochloromethane	10.000	11.310	-13.1	118	0.00
61	T	1,2-Dibromoethane	10.000	11.346	-13.5	118	0.00
62	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	107	0.00
63	T	1-Chlorohexane	10.000	10.416	-4.2	107	0.00
64	P,M	Chlorobenzene	10.000	10.509	-5.1	109	0.00
65	T	1,1,1,2-Tetrachloroethane	10.000	10.882	-8.8	112	0.00
66	C,T	Ethylbenzene	10.000	10.261	-2.6	106	0.02
67	T	m-Xylene & p-Xylene	20.000	20.359	-1.8	104	0.00
68	T	o-Xylene	10.000	10.215	-2.1	106	0.00
69	T	Styrene	10.000	10.649	-6.5	109	0.00
70	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	102	0.02
71	P,T	Bromoform	10.000	11.633	-16.3	122	0.00
72	T	Isopropylbenzene	10.000	9.880	1.2	105	0.00
73	P,T	1,1,2,2-Tetrachloroethane	10.000	10.935	-9.4	124	0.00
74	S	4-Bromofluorobenzene	10.000	9.695	3.0	113	0.00
75	T	1,2,3-Trichloropropane	10.000	11.551	-15.5	126	0.00
76	T	trans-1,4-Dichloro-2-butene	10.000	10.850	-8.5	125	0.02
77	T	n-Propylbenzene	10.000	9.669	3.3	105	0.00
78	T	Bromobenzene	10.000	10.175	-1.8	109	0.00
79	T	1,3,5-Trimethylbenzene	10.000	9.581	4.2	105	0.00
80	T	2-Chlorotoluene	10.000	10.636	-6.4	117	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D11\RDE197.D Vial: 16
Acq On : 11 Apr 2007 6:24 pm Operator: DN
Sample : IVOD3D1102 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Apr 11 18:11:09 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	10.000	9.882	1.2	111	0.00
82	T	tert-Butylbenzene	10.000	9.639	3.6	103	0.00
83	T	1,2,4-Trimethylbenzene	10.000	9.447	5.5	102	0.00
84	T	sec-Butylbenzene	10.000	9.589	4.1	104	0.00
85	T	p-Isopropyltoluene	10.000	9.544	4.6	104	0.02
86	T	1,3-Dichlorobenzene	10.000	9.835	1.6	107	0.02
87	T	1,4-Dichlorobenzene	10.000	9.600	4.0	108	0.00
88	T	n-Butylbenzene	10.000	9.213	7.9	100	0.00
89	T	1,2-Dichlorobenzene	10.000	9.981	0.2	110	0.00
90	T	1,2-Dibromo-3-chloropropane	10.000	11.463	-14.6	126	0.00
91	T	1,2,4-Trichlorobenzene	10.000	9.884	1.2	111	0.00
92	T	Hexachlorobutadiene	10.000	9.826	1.7	104	0.00
93	T	Naphthalene	10.000	10.295	-2.9	121	0.00
94	T	1,2,3-Trichlorobenzene	10.000	10.127	-1.3	114	0.00

4/13/15
2015

DAILY CALIBRATIONS

2016

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07D244

Lab File ID: REE021 BFB Injection Date : 05/02/07

Instrument ID: T-0D3 BFB Injection Time : 00:07

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.78
75	30.0 - 60.0% of mass 95	41.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.22
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	90.66
175	5.0 - 9.0% of mass 174	6.96(7.7)1
176	95.0 - 101.0% of mass 174	87.50(96.5)1
177	5.0 - 9.0% of mass 176	5.68(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CVOD3D1161	REE023	05/02/07	01:19
2	MBLK1W	VOD3E04Q	REE028	05/02/07	04:20
3	LCS1W	VOD3E04L	REE025	05/02/07	02:31
4	LCD1W	VOD3E04C	REE026	05/02/07	03:08
5	LTB-041907	D244-10	REE038	05/02/07	10:22

2017

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDE189
Instrument ID: T-OD3
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D244
Date Analyzed: 04/11/07
Time Analyzed: 13:27
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2144946	9.80	1822817	15.16	697424	21.43
	UPPER LIMIT	4289892	10.30	3645634	15.66	1394848	21.93
	LOWER LIMIT	1072473	9.30	911409	14.66	348712	20.93
	SAMPLE ID						
1	VSTD010	1352856	9.85	1175270	15.25	576339	21.53
2	MBLK1W	1528943	9.84	1462915	15.24	580053	21.53
3	LCS1W	1479749	9.84	1366167	15.25	615778	21.53
4	LCD1W	1384931	9.87	1267344	15.25	597630	21.53
5	LTB-041907	2129350	9.85	1807308	15.25	711701	21.53

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E01\REE023.D Vial: 3
Acq On : 2 May 2007 1:19 am Operator: DN
Sample : CVOD3D1161 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	63	0.04
2	T	Dichlorodifluoromethane	10.000	10.623	-6.2	75	-0.06
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.56#
4	P,T	Chloromethane	10.000	9.470	5.3	64	-0.04
5	C,T	Vinyl chloride	10.000	10.812	-8.1	69	-0.04
6	T	Bromomethane	10.000	9.512	4.9	65	-0.04
7	T	Chloroethane	10.000	9.825	1.8	68	-0.01
8	T	Dichlorofluoromethane	10.000	9.235	7.7	63	-0.01
9	T	Trichlorofluoromethane	10.000	10.636	-6.4	75	-0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	32	0.00
11	T	Acrolein	20.000	19.219	3.9	67	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.201	8.0	61	-0.01
13	T	Acetone	20.000	18.168	9.2	66	0.02
14	C,TM	1,1-Dichloroethene	10.000	8.878	11.2	59	-0.01
15	T	tert-Butyl alcohol	50.000	42.245	15.5	58	0.02
16	T	Methyl acetate	10.000	0.589	94.1#	4	0.02
17	T	Iodomethane	10.000	5.120	48.8#	33	0.00
18	T	Methylene chloride	10.000	9.172	8.3	62	0.00
19	T	Carbon disulfide	10.000	7.762	22.4#	53	0.00
20	T	Acrylonitrile	30.000	31.063	-3.5	72	0.03
21	T	tert-Butyl methyl ether (MT	10.000	8.001	20.0	56	0.03
22	T	trans-1,2-Dichloroethene	10.000	9.298	7.0	65	0.01
23	T	Acetonitrile	-1.000	0.000	0.0	71	0.03
24	T	Isopropyl ether (DIPE)	10.000	8.603	14.0	61	0.03
25	T	Vinyl acetate	10.000	9.404	6.0	71	0.03
26	P,T	1,1-Dichloroethane	10.000	9.755	2.4	66	0.01
27	T	tert-Butyl ethyl ether (ETB	10.000	8.739	12.6	61	0.04
28	T	2-Butanone	20.000	20.132	-0.7	74	0.04
29	T	2,2-Dichloropropane	10.000	8.758	12.4	60	0.03
30	T	cis-1,2-Dichloroethene	10.000	9.987	0.1	69	0.03
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	71	0.01
32	C,T	Chloroform	10.000	9.782	2.2	68	0.03
33	T	Bromochloromethane	10.000	10.230	-2.3	69	0.03
34	T	Tetrahydrofuran	-1.000	0.000	0.0	60	0.06
35	T	1,1,1-Trichloroethane	10.000	9.794	2.1	66	0.03
36	T	Cyclohexane	10.000	0.174	98.3#	1	0.01
37	T	tert-Amyl methyl ether (TAM	10.000	7.310	26.9#	52	0.06
38	S	1,2-Dichloroethane-d4	10.000	9.653	3.5	71	0.04
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	64	0.09
40	T	1,1-Dichloropropene	10.000	9.120	8.8	62	0.03

(#) = Out of Range

2019

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E01\REE023.D Vial: 3
Acq On : 2 May 2007 1:19 am Operator: DN
Sample : CVOD3D1161 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	10.000	10.421	-4.2	70	0.04
42	T	1,2-Dichloroethane	10.000	11.075	-10.7	77	0.04
43	M,T	Benzene	10.000	9.694	3.1	66	0.04
44	T	Methylcyclohexane	10.000	0.156	98.4#	0	0.06
45	M,T	Trichloroethene	10.000	10.351	-3.5	69	0.04
46	C,T	1,2-Dichloropropane	10.000	10.630	-6.3	74	0.04
47	T	Bromodichloromethane	10.000	9.885	1.2	69	0.06
48	T	Dibromomethane	10.000	11.723	-17.2	80	0.06
49	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.06
50	T	4-Methyl-2-pentanone	20.000	20.389	-1.9	77	0.07
51	T	cis-1,3-Dichloropropene	10.000	9.283	7.2	64	0.07
52	S	Toluene-d8	10.000	8.714	12.9	66	0.06
53	C,TM	Toluene	10.000	9.684	3.2	65	0.07
54	T	Ethyl methacrylate	10.000	8.634	13.7	63	0.07
55	T	trans-1,3-Dichloropropene	10.000	9.240	7.6	63	0.07
56	T	2-Hexanone	20.000	20.584	-2.9	76	0.09
57	T	1,1,2-Trichloroethane	10.000	11.592	-15.9	81	0.07
58	T	1,3-Dichloropropane	10.000	10.271	-2.7	70	0.09
59	T	Tetrachloroethene	10.000	11.131	-11.3	75	0.09
60	T	Dibromochloromethane	10.000	11.352	-13.5	78	0.09
61	T	1,2-Dibromoethane	10.000	12.654	-26.5#	86	0.07
62	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	57	0.07
63	T	1-Chlorohexane	10.000	8.800	12.0	59	0.07
64	P,M	Chlorobenzene	10.000	11.969	-19.7	81	0.09
65	T	1,1,1,2-Tetrachloroethane	10.000	11.364	-13.6	76	0.09
66	C,T	Ethylbenzene	10.000	10.552	-5.5	72	0.09
67	T	m-Xylene & p-Xylene	20.000	20.360	-1.8	68	0.00
68	T	o-Xylene	10.000	10.465	-4.6	71	0.08
69	T	Styrene	10.000	11.876	-18.8	80	0.08
70	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	83	0.10
71	P,T	Bromoform	10.000	11.601	-16.0	98	0.08
72	T	Isopropylbenzene	10.000	9.163	8.4	79	0.08
73	P,T	1,1,2,2-Tetrachloroethane	10.000	9.211	7.9	85	0.08
74	S	4-Bromofluorobenzene	10.000	8.774	12.3	83	0.09
75	T	1,2,3-Trichloropropane	10.000	10.758	-7.6	95	0.08
76	T	trans-1,4-Dichloro-2-butene	10.000	8.449	15.5	79	0.10
77	T	n-Propylbenzene	10.000	8.467	15.3	75	0.08
78	T	Bromobenzene	10.000	9.808	1.9	85	0.08
79	T	1,3,5-Trimethylbenzene	10.000	8.718	12.8	77	0.10
80	T	2-Chlorotoluene	10.000	7.924	20.8#	70	0.08

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E01\REE023.D Vial: 3
Acq On : 2 May 2007 1:19 am Operator: DN
Sample : CVOD3D1161 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	10.000	8.718	12.8	79	0.08
82	T	tert-Butylbenzene	10.000	8.769	12.3	76	0.10
83	T	1,2,4-Trimethylbenzene	10.000	9.123	8.8	80	0.08
84	T	sec-Butylbenzene	10.000	9.495	5.1	83	0.08
85	T	p-Isopropyltoluene	10.000	8.602	14.0	76	0.10
86	T	1,3-Dichlorobenzene	10.000	9.338	6.6	82	0.10
87	T	1,4-Dichlorobenzene	10.000	9.093	9.1	83	0.08
88	T	n-Butylbenzene	10.000	8.298	17.0	73	0.08
89	T	1,2-Dichlorobenzene	10.000	9.579	4.2	86	0.08
90	T	1,2-Dibromo-3-chloropropane	10.000	10.443	-4.4	93	0.08
91	T	1,2,4-Trichlorobenzene	10.000	9.932	0.7	90	0.08
92	T	Hexachlorobutadiene	10.000	8.208	17.9	71	0.08
93	T	Naphthalene	10.000	8.836	11.6	84	0.10
94	T	1,2,3-Trichlorobenzene	10.000	10.430	-4.3	95	0.08

2021

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E01\REE023.D Vial: 3
Acq On : 2 May 2007 1:19 am Operator: DN
Sample : CVOD3D1161 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	63	0.04
2	T	Dichlorodifluoromethane	0.299	0.294	1.7	75	-0.06
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	-3.56#
4	P,T	Chloromethane	0.663	0.519	21.7#	64	-0.04
5	C,T	Vinyl chloride	0.549	0.473	13.8	69	-0.04
6	T	Bromomethane	0.351	0.334	4.8	65	-0.04
7	T	Chloroethane	0.300	0.294	2.0	68	-0.01
8	T	Dichlorofluoromethane	0.837	0.773	7.6	63	-0.01
9	T	Trichlorofluoromethane	0.387	0.412	-6.5	75	-0.01
10	T	sec-Propyl alcohol	0.000	0.000	0.0	32#	0.00
11	T	Acrolein	0.021	0.020	4.8	67	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	0.231	0.212	8.2	61	-0.01
13	T	Acetone	0.051	0.046	9.8	66	0.02
14	C,TM	1,1-Dichloroethene	0.496	0.441	11.1	59	-0.01
15	T	tert-Butyl alcohol	0.015	0.013	13.3	58	0.02
16	T	Methyl acetate	0.132	0.008	93.9#	4#	0.02
17	T	Iodomethane	0.554	0.284	48.7#	33#	0.00
18	T	Methylene chloride	0.564	0.463	17.9	62	0.00
19	T	Carbon disulfide	1.510	1.172	22.4#	53	0.00
20	T	Acrylonitrile	0.057	0.059	-3.5	72	0.03
21	T	tert-Butyl methyl ether (MT	0.553	0.442	20.1#	56	0.03
22	T	trans-1,2-Dichloroethene	0.563	0.523	7.1	65	0.01
23	T	Acetonitrile	0.000	0.000	0.0	71	0.03
24	T	Isopropyl ether (DIPE)	1.359	1.169	14.0	61	0.03
25	T	Vinyl acetate	0.375	0.353	5.9	71	0.03
26	P,T	1,1-Dichloroethane	0.715	0.697	2.5	66	0.01
27	T	tert-Butyl ethyl ether (ETB	0.889	0.777	12.6	61	0.04
28	T	2-Butanone	0.075	0.076	-1.3	74	0.04
29	T	2,2-Dichloropropane	0.422	0.370	12.3	60	0.03
30	T	cis-1,2-Dichloroethene	0.626	0.625	0.2	69	0.03
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	71	0.01
32	C,T	Chloroform	0.630	0.616	2.2	68	0.03
33	T	Bromochloromethane	0.301	0.308	-2.3	69	0.03
34	T	Tetrahydrofuran	0.000	0.000	0.0	60	0.06
35	T	1,1,1-Trichloroethane	0.450	0.441	2.0	66	0.03
36	T	Cyclohexane	0.688	0.012	98.3#	1#	0.01
37	T	tert-Amyl methyl ether (TAM	0.785	0.574	26.9#	52	0.06
38	S	1,2-Dichloroethane-d4	0.234	0.226	3.4	71	0.04
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	64	0.09
40	T	1,1-Dichloropropene	0.205	0.187	8.8	62	0.03

(#) = Out of Range

2022

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E01\REE023.D Vial: 3
Acq On : 2 May 2007 1:19 am Operator: DN
Sample : CVOD3D1161 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.406	0.424	-4.4	70	0.04
42	T	1,2-Dichloroethane	0.334	0.370	-10.8	77	0.04
43	M,T	Benzene	1.672	1.621	3.1	66	0.04
44	T	Methylcyclohexane	0.630	0.001	99.8#	0#	0.06
45	M,T	Trichloroethene	0.449	0.465	-3.6	69	0.04
46	C,T	1,2-Dichloropropane	0.463	0.492	-6.3	74	0.04
47	T	Bromodichloromethane	0.488	0.482	1.2	69	0.06
48	T	Dibromomethane	0.180	0.211	-17.2	80	0.06
49	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.06
50	T	4-Methyl-2-pentanone	0.240	0.245	-2.1	77	0.07
51	T	cis-1,3-Dichloropropene	0.575	0.534	7.1	64	0.07
52	S	Toluene-d8	1.305	1.137	12.9	66	0.06
53	C,TM	Toluene	0.985	0.954	3.1	65	0.07
54	T	Ethyl methacrylate	0.337	0.291	13.6	63	0.07
55	T	trans-1,3-Dichloropropene	0.413	0.382	7.5	63	0.07
56	T	2-Hexanone	0.147	0.151	-2.7	76	0.09
57	T	1,1,2-Trichloroethane	0.233	0.270	-15.9	81	0.07
58	T	1,3-Dichloropropane	0.451	0.463	-2.7	70	0.09
59	T	Tetrachloroethene	0.315	0.351	-11.4	75	0.09
60	T	Dibromochloromethane	0.282	0.320	-13.5	78	0.09
61	T	1,2-Dibromoethane	0.221	0.280	-26.7#	86	0.07
62	T	2-Ethyl-1-butanol	0.000	0.000	0.0	57	0.07
63	T	1-Chlorohexane	0.744	0.655	12.0	59	0.07
64	P,M	Chlorobenzene	0.961	1.151	-19.8	81	0.09
65	T	1,1,1,2-Tetrachloroethane	0.326	0.370	-13.5	76	0.09
66	C,T	Ethylbenzene	1.915	2.021	-5.5	72	0.09
67	T	m-Xylene & p-Xylene	1.449	1.475	-1.8	68	0.00
68	T	o-Xylene	1.467	1.535	-4.6	71	0.08
69	T	Styrene	1.019	1.211	-18.8	80	0.08
70	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	83	0.10
71	P,T	Bromoform	0.337	0.390	-15.7	98	0.08
72	T	Isopropylbenzene	4.557	4.176	8.4	79	0.08
73	P,T	1,1,2,2-Tetrachloroethane	0.785	0.723	7.9	85	0.08
74	S	4-Bromofluorobenzene	1.123	0.985	12.3	83	0.09
75	T	1,2,3-Trichloropropane	0.148	0.159	-7.4	95	0.08
76	T	trans-1,4-Dichloro-2-butene	0.157	0.132	15.9	79	0.10
77	T	n-Propylbenzene	6.490	5.495	15.3	75	0.08
78	T	Bromobenzene	0.935	0.917	1.9	85	0.08
79	T	1,3,5-Trimethylbenzene	3.622	3.158	12.8	77	0.10
80	T	2-Chlorotoluene	3.203	2.538	20.8#	70	0.08

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E01\REE023.D Vial: 3
Acq On : 2 May 2007 1:19 am Operator: DN
Sample : CVOD3D1161 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	3.266	2.847	12.8	79	0.08
82	T	tert-Butylbenzene	3.279	2.875	12.3	76	0.10
83	T	1,2,4-Trimethylbenzene	3.608	3.291	8.8	80	0.08
84	T	sec-Butylbenzene	5.331	5.061	5.1	83	0.08
85	T	p-Isopropyltoluene	4.172	3.589	14.0	76	0.10
86	T	1,3-Dichlorobenzene	1.965	1.835	6.6	82	0.10
87	T	1,4-Dichlorobenzene	1.886	1.715	9.1	83	0.08
88	T	n-Butylbenzene	4.568	3.791	17.0	73	0.08
89	T	1,2-Dichlorobenzene	1.657	1.587	4.2	86	0.08
90	T	1,2-Dibromo-3-chloropropane	0.094	0.098	-4.3	93	0.08
91	T	1,2,4-Trichlorobenzene	1.062	1.055	0.7	90	0.08
92	T	Hexachlorobutadiene	0.742	0.609	17.9	71	0.08
93	T	Naphthalene	1.564	1.382	11.6	84	0.10
94	T	1,2,3-Trichlorobenzene	0.884	0.922	-4.3	95	0.08

2024

ANALYTICAL LOG

2025

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1

Start Date: 4.11.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # AD3 007**

BATCH VOD3D11

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDF182	BFBD3D15 ✓	2ml	NA	NA		8:15am
02		183	VOD3D11 1 ✓	.03/1.0 .15ml				8260.6ms/ket-A/TBA/ACN .3 / 1.6 / 1.5 / 1.9 ppb
03		184	2	.03/.1 .5ml				Bmd spiked >RR
04		185	3 ✓	.1/.2/.5ml				1 / 2 / 5 / 3
05		186	4 ✓	.05/.1 .25ml				.5 / 1 / 2.5 / 1.5
06		187	5 ✓	.2/.4/1ml				2 / 4 / 10 / 6
07		188	6 ✓	.5/1/2.5ml				5 / 10 / 25 / 15
08		189	7 ✓	1/2/5ml				10 / 20 / 50 / 30
09		190	8 ✓	2/4/10ml				20 / 40 / 100 / 60
10		191	9 ✓	3/5/15ml				30 / 60 / 150 / 90
11		192	10 ✓	4/8/20ml				40 / 80 / 200 / 120
12		193	11 ✓	5/10/25ml				50 / 100 / 250 / 150
13		194	IS/SS	.25ml				
14		195	VOD3D15B	↓			•	
15		196	IVOD3D11 01	1/1/5ml				
16		197	↓ 02 ✓	↓	↓	↓		10/20/50/30 ppb (6:34pm)
17								
18								
19								
20								
21								DN 4.11.07
22								
23								
24								
25								

Instrument No.	D3
INITIAL CALIBRATION REFERENCE	
DATE	4.11.07
ICAL ID	VBD3D11

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC 8260	Style.11.58.1	50/250
DCC ket-AA Gases	.58.3 .69.1	250 250
DCC 3 acid	.71.1	250
BFB	.58.1	50
IS/SURR. IS SS	.70.1 .70.2	250 250
LCS 8260	.63.2	50/250
LCS ket-AA	.59.2	250
LCS Bases	.69.3	250

SOLVENT	ID
METHANOL	
DATA FILE	D7D11

Electronic Data Archival

Location	Date
HPCHEM_VOA/TOD3	

Comments:

Analyzed By: DN

Date Disposed: 4.12.07

Disposed By: DN

2923

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1

Start Date: 5.2.07 ☐ 5-ml Purge ☑ 25-ml Purge

Book # AD3 007

BATCH CVOD3D11 61

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	REE 021	BFBD3E 03 ✓	2ml				12:07 am
02	022	04					
03	023	CVOD3D11 61 ✓	1/2/5ml				
04	024	62					
05	025	VOD3E04L ✓					
06	026	C ✓					
07	027	B	25ml				
08	028	Q ✓					
09	029	07D310_01 ✓	25ml	1	<2		
10	030	-02R ✓					
11	031	-09R ✓					
12	032	-12R ✓					
13	033	-05T ✓	25ml	1000			
14	034	-06T ✓					
15	035	-07T ✓	500ml	50			5.2.07
16	036	~~-11T~~ 10T ✓					
17	037	~~-12T~~ 11T ✓					DN
18	038	07D244_10 ✓	25ml	1			10:22 am
19	039	07D310_08T ✓	1ml	25			
20	040	-07R ✓	25ml	1			
21							
22							
23							
24							DN 5.2.07
25							

Instrument No.	D3
INITIAL CALIBRATION REFERENCE	
DATE	4.11.07
ICAL ID	VOD3D11

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	8/1C.11.81.1	
DCC	.80.2	
DCC	.79.3	
BFB	.58.1	50/250
IS/SURR.	.70.3	
LCS	.81.3	
LCS	.80.3	
LCS	.80.1	

SOLVENT	ID
METHANOL	
DATA FILE	07E01

Electronic Data Archival

Location	Date
HPCHEM_VOA/TOD3	

Comments:

Analyzed By: DN

Date Disposed: 5/2/07

Disposed By: DN

2027

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 07D244

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D244

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 04/20/07 for Volatile Organic analysis by Method 5035/8260B in accordance with SW846, 3RD edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample D244-12 was spiked. All recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D244
Instrument ID : T-067

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V067D49Q	1	NA	04/27/0705:24	04/27/0705:24	RDC569	RBC079	V067D49	Method Blank
LCS1S	V067D49L	1	NA	04/27/0703:33	04/27/0703:33	RDC566	RBC079	V067D49	Lab Control Sample (LCS)
LCD1S	V067D49C	1	NA	04/27/0704:10	04/27/0704:10	RDC567	RBC079	V067D49	LCS Duplicate
C22-HSAS24-5-6.5	D244-12	1.0	3.1	04/27/0709:43	04/27/0709:43	RDC576	RBC079	V067D49	Field Sample
C22-HSAS24-55-56.5	D244-11	.94	6.0	04/27/0710:20	04/27/0710:20	RDC577	RBC079	V067D49	Field Sample
C22-HSAS24-20-21.5	D244-13	.96	5.5	04/27/0710:58	04/27/0710:58	RDC578	RBC079	V067D49	Field Sample
C22-HSAS24-5-6.5MS	D244-12M	1.0	3.1	04/27/0711:34	04/27/0711:34	RDC579	RBC079	V067D49	Matrix Spike Sample (MS)
C22-HSAS24-5-6.5MSD	D244-12S	1.0	3.1	04/27/0712:10	04/27/0712:10	RDC580	RBC079	V067D49	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/19/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/20/07
Batch No.	: 07D244	Date Extracted:	04/27/07 10:20
Sample ID:	C22-HSAS24-55-56.5	Date Analyzed:	04/27/07 10:20
Lab Samp ID:	D244-11	Dilution Factor:	.94
Lab File ID:	RDC577	Matrix	: SOIL
Ext Btch ID:	V067D49	% Moisture	: 6.0
Calib. Ref.:	RBC079	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	60-160
4-BROMOFLUOROBENZENE	109	70-150
TOLUENE-D8	103	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/19/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/20/07
Batch No.	: 07D244	Date Extracted:	04/27/07 09:43
Sample ID:	C22-HSAS24-5-6.5	Date Analyzed:	04/27/07 09:43
Lab Samp ID:	D244-12	Dilution Factor:	1.0
Lab File ID:	RDC576	Matrix :	SOIL
Ext Btch ID:	V067D49	% Moisture :	3.1
Calib. Ref.:	RBC079	Instrument ID :	T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.2	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.2	2.1
1,1,2-TRICHLOROETHANE	ND	5.2	2.1
1,1-DICHLOROETHANE	ND	5.2	2.1
1,1-DICHLOROETHENE	ND	5.2	2.1
1,2-DICHLOROETHANE	ND	5.2	2.1
1,2-DICHLOROPROPANE	ND	5.2	2.1
2-BUTANONE	ND	10	5.2
2-HEXANONE	ND	10	5.2
4-METHYL-2-PENTANONE	ND	10	5.2
ACETONE	ND	10	5.2
BENZENE	ND	5.2	2.1
BROMODICHLOROMETHANE	ND	5.2	2.1
BROMOFORM	ND	5.2	2.1
BROMOMETHANE	ND	10	2.1
CARBON DISULFIDE	ND	5.2	2.1
CARBON TETRACHLORIDE	ND	5.2	2.1
CHLOROBENZENE	ND	5.2	2.1
CHLOROETHANE	ND	5.2	2.1
CHLOROFORM	ND	5.2	2.1
CHLOROMETHANE	ND	10	2.1
CIS-1,2-DICHLOROETHENE	ND	5.2	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.2	2.1
DIBROMOCHLOROMETHANE	ND	5.2	2.1
ETHYLBENZENE	ND	5.2	2.1
M/P-XYLENES	ND	10	2.1
MTBE	ND	5.2	2.1
METHYLENE CHLORIDE	ND	10	2.1
O-XYLENE	ND	5.2	2.1
STYRENE	ND	5.2	2.1
TETRACHLOROETHENE	ND	5.2	2.1
TOLUENE	ND	5.2	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.2	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.2	2.1
TRICHLOROETHENE	ND	5.2	2.1
VINYL CHLORIDE	ND	5.2	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	60-160
4-BROMOFLUOROBENZENE	114	70-150
TOLUENE-D8	106	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	04/19/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/20/07
Batch No.	: 07D244	Date Extracted:	04/27/07 10:58
Sample ID:	C22-HSAS24-20-21.5	Date Analyzed:	04/27/07 10:58
Lab Samp ID:	D244-13	Dilution Factor:	.96
Lab File ID:	RDC578	Matrix	: SOIL
Ext Btch ID:	V067D49	% Moisture	: 5.5
Calib. Ref.:	RBC079	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.1	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.1	2.0
1,1,2-TRICHLOROETHANE	ND	5.1	2.0
1,1-DICHLOROETHANE	ND	5.1	2.0
1,1-DICHLOROETHENE	ND	5.1	2.0
1,2-DICHLOROETHANE	ND	5.1	2.0
1,2-DICHLOROPROPANE	ND	5.1	2.0
2-BUTANONE	ND	10	5.1
2-HEXANONE	ND	10	5.1
4-METHYL-2-PENTANONE	ND	10	5.1
ACETONE	ND	10	5.1
BENZENE	ND	5.1	2.0
BROMODICHLOROMETHANE	ND	5.1	2.0
BROMOFORM	ND	5.1	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.1	2.0
CARBON TETRACHLORIDE	ND	5.1	2.0
CHLOROBENZENE	ND	5.1	2.0
CHLOROETHANE	ND	5.1	2.0
CHLOROFORM	ND	5.1	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.1	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.1	2.0
DIBROMOCHLOROMETHANE	ND	5.1	2.0
ETHYLBENZENE	ND	5.1	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.1	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.1	2.0
STYRENE	ND	5.1	2.0
TETRACHLOROETHENE	ND	5.1	2.0
TOLUENE	ND	5.1	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.1	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.1	2.0
TRICHLOROETHENE	ND	5.1	2.0
VINYL CHLORIDE	ND	5.1	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	-60-160
4-BROMOFLUOROBENZENE	110	70-150
TOLUENE-D8	104	70-140

QC SUMMARIES

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/27/07
Batch No. : 07D244	Date Extracted: 04/27/07 05:24
Sample ID: MBLK1S	Date Analyzed: 04/27/07 05:24
Lab Samp ID: V067D49Q	Dilution Factor: 1
Lab File ID: RDC569	Matrix : SOIL
Ext Btch ID: V067D49	% Moisture : NA
Calib. Ref.: RBC079	Instrument ID : T-067

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	87	70-140
4-BROMOFLUOROBENZENE	104	70-130
TOLUENE-D8	102	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V067D49Q	V067D49L	V067D49C		
LAB FILE ID:	RDC569	RDC566	RDC567		
DATE EXTRACTED:	04/27/0705:24	04/27/0703:33	04/27/0704:10	DATE COLLECTED:	NA
DATE ANALYZED:	04/27/0705:24	04/27/0703:33	04/27/0704:10	DATE RECEIVED:	04/27/07
PREP. BATCH:	V067D49	V067D49	V067D49		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	22.0	110	20.0	21.5	107	2	60-130	50
Benzene	ND	20.0	20.6	103	20.0	20.6	103	0	70-130	50
Chlorobenzene	ND	20.0	18.6	93	20.0	18.6	93	0	70-130	50
Toluene	ND	20.0	18.4	92	20.0	18.6	93	1	70-130	50
Trichloroethene	ND	20.0	20.8	104	20.0	21.0	105	1	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	43.2	86	50.0	43.4	87	70-140
4-Bromofluorobenzene	50.0	47.1	94	50.0	47.1	94	70-130
Toluene-d8	50.0	45.3	91	50.0	45.7	91	70-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: SW 5035/8260B

MATRIX: SOIL % MOISTURE: 3.1

DILUTION FACTOR:	1.0	1.0	1.0		
SAMPLE ID:	C22-HSAS24-5-6.5				
LAB SAMP ID:	D244-12	D244-12M	D244-12S		
LAB FILE ID:	RDC576	RDC579	RDC580		
DATE EXTRACTED:	04/27/0709:43	04/27/0711:34	04/27/0712:10	DATE COLLECTED:	04/19/07
DATE ANALYZED:	04/27/0709:43	04/27/0711:34	04/27/0712:10	DATE RECEIVED:	04/20/07
PREP. BATCH:	V067D49	V067D49	V067D49		
CALIB. REF:	RBC079	RBC079	RBC079		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	51.6	55.7	108	51.6	53.2	103	5	50-140	50
Benzene	ND	51.6	55.9	108	51.6	53.8	104	4	60-150	50
Chlorobenzene	ND	51.6	52.1	101	51.6	50.0	97	4	70-130	50
Toluene	ND	51.6	51.0	99	51.6	49.1	95	4	70-140	50
Trichloroethene	ND	51.6	56.4	109	51.6	55.7	108	1	60-140	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	51.6	45.0	87	51.6	45.0	87	60-160
4-Bromofluorobenzene	51.6	48.6	94	51.6	49.5	96	70-150
Toluene-d8	51.6	50.7	98	51.6	50.1	97	70-140

INITIAL CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D244
Lab File ID: RBC074
BFB Injection Date : 02/07/07
Instrument ID: T-067
BFB Injection Time : 18:28
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.67
75	30.0 - 60.0% of mass 95	41.01
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.56
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.94
175	5.0 - 9.0% of mass 174	4.92(6.8)1
176	95.0 - 101.0% of mass 174	70.83(98.5)1
177	5.0 - 9.0% of mass 176	4.71(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD02	V067B071	RBC075	02/07/07	19:04
2	VSTD05	V067B072	RBC076	02/07/07	19:41
3	VSTD010	V067B073	RBC077	02/07/07	20:18
4	VSTD020	V067B074	RBC078	02/07/07	20:55
5	VSTD050	V067B075	RBC079	02/07/07	21:32
6	VSTD080	V067B076	RBC080	02/07/07	22:08
7	VSTD100	V067B077	RBC081	02/07/07	22:45
8	VSTD200	V067B078	RBC082	02/07/07	23:22
9	VSTD300	V067B079	RBC083	02/07/07	23:58
10	VSTD050	IV067B071	RBC086	02/08/07	01:49

PROGRAM: ICALMAX

Input: R:\CAL\8260\2007\V067B07\RBC079.ICL Output: R:\CAL\8260\2007\V067B07\RBC079.MAX

IDX	Parameter	x0	x1	x2	CCF2	MaxMinAmtRatio	MaxMinRespRatio	MaxMinRRF	MaxMinConc
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998	2.23243	0.27666	0.12393	111.6
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996	-6.26479	-1.68957	0.26969	-313.2
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993	-4.45329	-2.14560	0.48180	-222.7
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997	-7.61527	-1.76653	0.23197	-380.8

2074

2/12/A

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T067
Beginning DateTime :02/07/07 19:04
Spike Units :PPB
IC File :RBC079

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :02/07/07 23:58
HPChem Method :V067B07

M	IDX	Parameters	2 19:04 RBC075	5 19:41 RBC076	10 20:18 RBC077	20 20:55 RBC078	50 21:32 RBC079	80 22:08 RBC080	100 22:45 RBC081	200 23:22 RBC082	300 23:58 RBC083	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	10.1403
	2	Dichlorodifluoromethane	0.181	0.215	0.228	0.229	0.240	0.235	0.219	0.208	0.199	0.217	8.72	3.5412
	3	Chloromethane	0.218	0.247	0.258	0.262	0.279	0.287	0.268	0.262	0.245	0.258	7.93	4.0145
	4	Vinyl chloride	0.215	0.246	0.240	0.224	0.190	0.158	0.138	------	------	0.202	20.48	4.1679
	5	Bromomethane	0.200	0.210	0.213	0.212	0.215	0.217	0.205	0.204	0.200	0.209	3.08	4.9065
	6	Chloroethane	0.099	0.121	0.125	0.134	0.145	0.144	0.132	0.128	0.120	0.127	11.03	5.0158
	7	Dichlorofluoromethane	0.467	0.471	0.535	0.501	0.466	0.478	0.445	0.451	0.421	0.471	6.97	5.0571
	8	Trichlorofluoromethane	0.268	0.299	0.314	0.324	0.342	0.336	0.317	0.306	0.293	0.311	7.30	5.3898
4	9	Acrolein	0.027	0.031	0.035	0.037	0.037	0.039	0.035	0.037	0.033	0.035	10.79	5.9442
	10	1,1,2-Trichloro-1,2,2-trifluoroethane	0.199	0.190	0.232	0.210	0.199	0.202	0.192	0.197	0.189	0.201	6.58	5.9525
4	11	Acetone	0.079	0.076	0.073	0.075	0.066	0.069	0.064	0.067	0.062	0.070	8.21	6.0203
	12	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	13	1,1-Dichloroethene	0.358	0.373	0.444	0.408	0.391	0.392	0.370	0.370	0.346	0.383	7.65	6.2371
5	14	tert-Butyl alcohol	0.021	0.023	0.026	0.026	0.023	0.024	0.023	0.024	0.021	0.024	7.53	6.2785
	15	Methyl acetate	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	16	Iodomethane	0.312	0.333	0.415	0.438	0.438	0.439	0.419	0.422	0.395	0.401	11.76	6.7022
	17	Methylene chloride	0.531	0.477	0.491	0.461	0.421	0.430	0.406	0.403	0.381	0.444	10.99	6.8660
5	18	Acrylonitrile	0.079	0.084	0.089	0.095	0.089	0.090	0.082	0.087	0.078	0.086	6.58	6.9835
	19	Carbon disulfide	1.095	1.112	1.258	1.207	1.136	1.128	1.065	1.088	1.009	1.122	6.61	6.9967
	20	Acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	21	tert-Butyl methyl ether (MTBE)	0.537	0.574	0.661	0.646	0.604	0.607	0.576	0.607	0.559	0.597	6.69	7.0017
	22	trans-1,2-Dichloroethene	0.382	0.411	0.480	0.465	0.445	0.438	0.421	0.427	0.407	0.431	6.99	7.2417
	23	Isopropyl ether (DIPE)	0.941	0.971	1.131	1.109	1.053	1.061	1.006	1.069	0.996	1.037	6.12	7.5330
	24	Vinyl acetate	0.425	0.402	0.530	0.531	0.525	0.563	0.554	0.610	0.578	0.524	13.05	7.6836
	25	1,1-Dichloroethane	0.553	0.553	0.622	0.599	0.559	0.554	0.513	0.529	0.507	0.554	6.71	7.7763
	26	tert-Butyl ethyl ether (ETBE)	0.709	0.757	0.867	0.839	0.796	0.801	0.779	0.809	0.758	0.791	5.94	8.0510
4	27	2-Butanone	0.122	0.115	0.117	0.133	0.127	0.132	0.125	0.136	0.131	0.126	5.76	8.2380
	28	2,2-Dichloropropane	0.362	0.366	0.418	0.397	0.375	0.370	0.352	0.365	0.348	0.373	5.96	8.4896
	29	cis-1,2-Dichloroethene	0.478	0.423	0.514	0.548	0.524	0.520	0.493	0.461	0.423	0.487	9.16	8.5541
	30	Chloroform	0.521	0.539	0.616	0.591	0.565	0.563	0.533	0.543	0.522	0.555	5.82	8.7577
	31	Bromochloromethane	0.285	0.302	0.349	0.333	0.306	0.309	0.295	0.288	0.277	0.305	7.63	8.9960
	32	Cyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	33	1,1,1-Trichloroethane	0.402	0.403	0.462	0.431	0.417	0.413	0.394	0.403	0.382	0.412	5.69	9.2939
	34	1,1-Dichloropropene	0.112	0.129	0.155	0.151	0.141	0.144	0.136	0.139	0.129	0.137	9.50	9.4858
	35	tert-Amyl methyl ether (TAME)	0.675	0.722	0.842	0.820	0.770	0.785	0.755	0.788	0.755	0.768	6.49	9.5488
4	36	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	37	Carbon tetrachloride	0.337	0.339	0.400	0.370	0.356	0.361	0.342	0.347	0.334	0.354	5.90	9.6563
	38	1,2-Dichloroethane-d4	0.249	0.275	0.275	0.280	0.313	0.303	0.276	0.272	0.250	0.277	7.61	9.6811
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	15.6936
	40	1,2-Dichloroethane	0.363	0.371	0.424	0.413	0.374	0.371	0.357	0.363	0.329	0.374	7.68	9.8003
	41	Benzene	1.419	1.315	1.465	1.453	1.326	1.331	1.274	1.322	------	1.363	5.26	9.8750
	42	Trichloroethene	0.343	0.347	0.397	0.394	0.366	0.380	0.364	0.378	0.360	0.370	5.11	10.7113
	43	Methylcyclohexane	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	44	1,2-Dichloropropane	0.412	0.385	0.447	0.444	0.408	0.414	0.397	0.400	0.378	0.409	5.79	10.9612
	45	Bromodichloromethane	0.432	0.447	0.503	0.506	0.459	0.472	0.453	0.464	0.443	0.464	5.53	11.3501
	46	Dibromomethane	0.234	0.245	0.278	0.280	0.251	0.253	0.242	0.248	0.229	0.251	6.99	11.4858
	47	2-Chloroethyl vinyl ether	------	0.049	0.057	0.063	0.069	0.078	0.078	0.096	0.095	0.073	23.09	11.6721
4	48	4-Methyl-2-pentanone	0.305	0.290	0.290	0.334	0.317	0.333	0.314	0.343	0.312	0.315	5.92	11.7175
	49	cis-1,3-Dichloropropene	0.417	0.437	0.505	0.518	0.484	0.509	0.503	0.525	0.494	0.488	7.57	12.1826
	50	Toluene-d8	------	1.135	1.140	1.221	1.339	1.286	1.219	1.223	------	1.223	5.98	12.6623
	51	Toluene	1.451	1.388	1.539	1.546	1.414	1.411	1.368	1.399	------	1.440	4.71	12.8112
	52	Ethyl methacrylate	0.234	0.278	0.328	0.359	0.348	0.369	0.360	0.388	------	0.333	15.59	12.8726
	53	trans-1,3-Dichloropropene	0.306	0.321	0.386	0.416	0.387	0.405	0.392	0.417	------	0.379	11.16	13.0346

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2/12/07

4	54	2-Hexanone	0.186	0.161	0.164	0.191	0.185	0.208	0.202	0.223	0.219	0.193	11.30	13.2476
	55	1,1,2-Trichloroethane	0.283	0.302	0.328	0.339	0.304	0.310	0.295	0.306	0.287	0.306	5.88	13.3750
	56	1,3-Dichloropropane	0.478	0.478	0.532	0.551	0.499	0.510	0.497	0.511	0.483	0.504	4.91	13.8500
	57	Tetrachloroethene	0.268	0.265	0.286	0.293	0.267	0.269	0.259	0.265	0.252	0.269	4.82	14.0767
	58	Dibromochloromethane	0.325	0.337	0.381	0.393	0.362	0.376	0.363	0.385	0.367	0.366	6.14	14.4921
	59	1,2-Dibromoethane	0.291	0.316	0.363	0.371	0.341	0.349	0.337	0.359	0.347	0.342	7.26	14.9257
	60	1-Chlorohexane	0.436	0.454	0.531	0.561	0.558	0.563	0.547	0.562	0.542	0.528	9.18	15.0333
	61	Chlorobenzene	0.919	0.900	1.009	1.013	0.937	0.958	0.919	0.938	------	0.949	4.40	15.7752
	62	1,1,1,2-Tetrachloroethane	0.284	0.294	0.333	0.334	0.306	0.309	0.297	0.302	------	0.307	5.80	15.8181
	63	Ethylbenzene	1.472	1.458	1.648	1.682	1.566	1.612	1.548	1.547	------	1.567	5.02	15.8181
2	64	m-Xylene & p-Xylene	1.106	1.103	1.243	1.279	1.171	1.217	1.158	------	------	1.183	5.68	15.9816
	65	o-Xylene	1.143	1.152	1.277	1.326	1.211	1.289	1.230	1.274	1.153	1.228	5.53	16.9916
	66	Styrene	0.749	0.765	0.919	0.954	0.926	0.994	0.963	1.009	0.949	0.914	10.27	17.0561
	67	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	22.4738
	68	Isopropylbenzene	4.240	4.216	4.814	4.508	4.283	4.209	3.991	3.969	------	4.279	6.42	17.7823
	69	Bromoform	0.601	0.605	0.723	0.675	0.624	0.592	0.562	0.582	------	0.621	8.58	17.9629
	70	1,1,2,2-Tetrachloroethane	1.343	1.334	1.533	1.408	1.244	1.212	1.137	1.169	1.143	1.280	10.51	18.1847
	71	4-Bromofluorobenzene	1.345	1.218	1.211	1.214	1.323	1.237	------	------	------	1.258	4.78	18.4392
	72	1,2,3-Trichloropropane	0.216	0.233	0.261	0.251	0.207	0.197	0.192	0.197	0.174	0.214	13.59	18.5554
	73	trans-1,4-Dichloro-2-butene	------	0.133	0.163	0.161	0.159	0.167	0.164	0.180	0.177	0.163	8.78	18.6610
	74	n-Propylbenzene	4.663	4.875	5.741	5.404	5.360	5.343	5.141	4.981	------	5.188	6.62	18.7542
	75	Bromobenzene	0.980	1.001	1.128	1.042	0.976	0.947	0.895	0.909	------	0.985	7.63	18.9907
	76	1,3,5-Trimethylbenzene	3.020	2.934	3.555	3.395	3.293	3.259	3.119	3.158	2.943	3.186	6.58	19.1363
	77	2-Chlorotoluene	3.567	3.270	3.561	3.290	3.348	3.168	2.859	2.889	2.903	3.206	8.55	19.2736
	78	4-Chlorotoluene	2.695	2.848	3.244	3.069	2.677	2.706	2.726	2.742	2.445	2.795	8.40	19.3746
	79	tert-Butylbenzene	2.601	2.606	3.033	2.927	2.827	2.831	2.680	2.686	2.566	2.751	5.89	20.0365
	80	1,2,4-Trimethylbenzene	2.589	2.691	3.190	3.131	3.083	3.054	2.969	3.031	2.881	2.958	6.83	20.1524
	81	sec-Butylbenzene	3.681	3.756	4.567	4.444	4.595	4.541	4.417	4.561	------	4.320	8.72	20.5844
	82	p-Isopropyltoluene	2.141	2.299	2.848	2.857	3.058	3.170	3.088	3.283	------	2.843	14.54	20.9177
	83	1,3-Dichlorobenzene	1.684	1.640	1.905	1.810	1.744	1.750	1.641	1.723	1.706	1.734	4.83	21.2758
	84	1,4-Dichlorobenzene	1.518	1.564	1.823	1.715	1.647	1.667	1.600	1.677	1.649	1.651	5.36	21.5373
	85	n-Butylbenzene	1.438	1.605	2.113	2.259	2.605	2.916	2.800	3.262	------	2.375	26.94	21.9975
	86	1,2-Dichlorobenzene	1.571	1.506	1.745	1.646	1.576	1.576	1.514	1.579	1.548	1.585	4.59	22.5466
	87	1,2-Dibromo-3-chloropropane	0.087	0.106	0.148	0.151	0.151	0.154	0.147	0.168	0.168	0.142	19.23	24.6302
	88	1,2,4-Trichlorobenzene	0.357	0.375	0.488	0.492	0.548	0.618	0.600	0.726	0.782	0.554	26.06	27.0432
	89	Hexachlorobutadiene	0.248	0.247	0.323	0.319	0.351	0.387	0.372	0.411	0.430	0.343	19.08	27.3924
	90	Naphthalene	0.647	0.598	0.764	0.824	0.967	1.142	1.143	1.438	1.562	1.010	33.63	27.7929
	91	1,2,3-Trichlorobenzene	0.325	0.343	0.428	0.428	0.466	0.522	0.506	0.598	0.636	0.472	22.23	28.4698

Spike Amount = Nominal Amount * M
Ave_%RSD : 9.1 Max_%RSD : 33.6

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
4	Vinyl chloride	0.00692	0.15749	0.9827*
47	2-Chloroethyl vinyl ether	-0.00742	0.09175	0.9954
52	Ethyl methacrylate	-0.00783	0.37701	0.9993
85	n-Butylbenzene	-0.11897	3.04198	0.9958
87	1,2-Dibromo-3-chloropropane	-0.00432	0.16381	0.9988
88	1,2,4-Trichlorobenzene	-0.03217	0.71499	0.9930*
89	Hexachlorobutadiene	-0.01333	0.40976	0.9978
90	Naphthalene	-0.07805	1.40017	0.9886*
91	1,2,3-Trichlorobenzene	-0.02325	0.58876	0.9948*

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
4	Vinyl chloride	-0.00069	0.24847	-0.05565	0.9998
88	1,2,4-Trichlorobenzene	-0.01095	0.53589	0.04277	0.9996
90	Naphthalene	-0.02499	0.95238	0.10693	0.9993
91	1,2,3-Trichlorobenzene	-0.00820	0.46179	0.03032	0.9997

ar 2/12/87

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	116	0.00
2	T	Dichlorodifluoromethane	50.000	54.285	-8.6	114	0.00
3	P,T	Chloromethane	50.000	56.283	-12.6	121	-0.01
4	C,T	Vinyl chloride	50.000	49.484	1.0	117	-0.01
5	T	Bromomethane	50.000	52.808	-5.6	119	-0.01
6	T	Chloroethane	50.000	55.465	-10.9	113	-0.01
7	T	Dichlorofluoromethane	50.000	47.741	4.5	112	0.00
8	T	Trichlorofluoromethane	50.000	57.196	-14.4	121	0.00
9	T	Acrolein	200.000	201.489	-0.7	109	0.00
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	49.156	1.7	115	0.00
11	T	Acetone	200.000	186.165	6.9	114	0.00
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	60	0.06
13	C,TM	1,1-Dichloroethene	50.000	59.108	-18.2	135	0.00
14	T	tert-Butyl alcohol	250.000	262.606	-5.0	123	-0.01
15	T	Methyl acetate	-1.000	0.000	0.0	71	0.00
16	T	Iodomethane	50.000	51.871	-3.7	110	0.00
17	T	Methylene chloride	50.000	49.726	0.5	122	0.00
18	T	Acrylonitrile	250.000	257.444	-3.0	116	-0.01
19	T	Carbon disulfide	50.000	52.289	-4.6	120	0.00
20	T	Acetonitrile	-1.000	0.000	0.0	107	0.00
21	T	tert-Butyl methyl ether (MT	50.000	48.369	3.3	111	0.00
22	T	trans-1,2-Dichloroethene	50.000	53.736	-7.5	121	0.00
23	T	Isopropyl ether (DIPE)	50.000	47.711	4.6	109	-0.01
24	T	Vinyl acetate	50.000	42.372	15.3	98	0.00
25	P,T	1,1-Dichloroethane	50.000	51.578	-3.2	119	0.00
26	T	tert-Butyl ethyl ether (ETB	50.000	47.902	4.2	111	0.00
27	T	2-Butanone	200.000	206.098	-3.0	120	0.00
28	T	2,2-Dichloropropane	50.000	46.355	7.3	107	0.00
29	T	cis-1,2-Dichloroethene	50.000	47.567	4.9	103	0.00
30	C,T	Chloroform	50.000	49.113	1.8	112	0.00
31	T	Bromochloromethane	50.000	51.125	-2.3	119	0.00
32	T	Cyclohexane	-1.000	0.000	0.0	15	-0.03
33	T	1,1,1-Trichloroethane	50.000	49.430	1.1	113	0.00
34	T	1,1-Dichloropropene	50.000	51.242	-2.5	116	0.00
35	T	tert-Amyl methyl ether (TAM	50.000	48.916	2.2	113	0.00
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	125	0.00
37	T	Carbon tetrachloride	50.000	50.690	-1.4	117	-0.01
38	S	1,2-Dichloroethane-d4	50.000	47.859	4.3	98	0.00
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	113	0.00
40	T	1,2-Dichloroethane	50.000	48.947	2.1	110	0.00

(#) = Out of Range

2045

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	54.058	-8.1	125	0.00
42	M,T	Trichloroethene	50.000	52.260	-4.5	119	0.00
43	T	Methylcyclohexane	-1.000	0.000	0.0	128	0.00
44	C,T	1,2-Dichloropropane	50.000	50.501	-1.0	114	0.00
45	T	Bromodichloromethane	50.000	49.499	1.0	113	0.00
46	T	Dibromomethane	50.000	49.986	0.0	113	0.00
47	T	2-Chloroethyl vinyl ether	50.000	43.744	12.5	119	-0.01
48	T	4-Methyl-2-pentanone	200.000	207.809	-3.9	116	0.00
49	T	cis-1,3-Dichloropropene	50.000	54.224	-8.4	123	0.00
50	S	Toluene-d8	50.000	49.772	0.5	102	0.00
51	C,TM	Toluene	50.000	49.389	1.2	113	0.00
52	T	Ethyl methacrylate	50.000	48.539	2.9	116	0.00
53	T	trans-1,3-Dichloropropene	50.000	54.432	-8.9	120	0.00
54	T	2-Hexanone	200.000	209.396	-4.7	123	0.00
55	T	1,1,2-Trichloroethane	50.000	48.634	2.7	110	0.00
56	T	1,3-Dichloropropane	50.000	49.986	0.0	114	0.00
57	T	Tetrachloroethene	50.000	50.941	-1.9	116	0.00
58	T	Dibromochloromethane	50.000	50.227	-0.5	114	0.00
59	T	1,2-Dibromoethane	50.000	50.638	-1.3	114	0.00
60	T	1-Chlorohexane	50.000	50.448	-0.9	108	0.00
61	P,M	Chlorobenzene	50.000	50.707	-1.4	116	0.00
62	T	1,1,1,2-Tetrachloroethane	50.000	49.950	0.1	113	0.00
63	C,T	Ethylbenzene	50.000	51.079	-2.2	115	0.00
64	T	m-Xylene & p-Xylene	100.000	100.201	-0.2	114	-0.01
65	T	o-Xylene	50.000	50.020	-0.0	114	0.00
66	T	Styrene	50.000	52.795	-5.6	117	0.00
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	119	-0.01
68	T	Isopropylbenzene	50.000	47.813	4.4	113	0.00
69	P,T	Bromoform	50.000	48.380	3.2	114	0.00
70	P,T	1,1,2,2-Tetrachloroethane	50.000	47.660	4.7	116	0.00
71	S	4-Bromofluorobenzene	50.000	46.192	7.6	104	0.00
72	T	1,2,3-Trichloropropane	50.000	48.387	3.2	119	0.00
73	T	trans-1,4-Dichloro-2-butene	50.000	52.139	-4.3	127	0.00
74	T	n-Propylbenzene	50.000	49.025	2.0	113	0.00
75	T	Bromobenzene	50.000	48.222	3.6	115	0.00
76	T	1,3,5-Trimethylbenzene	50.000	49.887	0.2	115	-0.01
77	T	2-Chlorotoluene	50.000	45.831	8.3	104	0.00
78	T	4-Chlorotoluene	50.000	49.598	0.8	123	-0.01
79	T	tert-Butylbenzene	50.000	49.742	0.5	115	0.00
80	T	1,2,4-Trimethylbenzene	50.000	50.652	-1.3	115	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07B07\RBC086.D Vial: 13
Acq On : 8 Feb 2007 1:49 am Operator: CGM
Sample : IVO67B071 Inst : TO67
Misc : 50ppb 8260/200ppb Ket-AA/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	50.285	-0.6	112	0.00
82	T	p-Isopropyltoluene	50.000	52.720	-5.4	116	0.00
83	T	1,3-Dichlorobenzene	50.000	48.342	3.3	114	0.00
84	T	1,4-Dichlorobenzene	50.000	48.878	2.2	116	0.00
85	T	n-Butylbenzene	50.000	43.936	12.1	116	0.00
86	T	1,2-Dichlorobenzene	50.000	47.375	5.3	113	-0.01
87	T	1,2-Dibromo-3-chloropropane	50.000	46.360	7.3	116	-0.01
88	T	1,2,4-Trichlorobenzene	50.000	46.822	6.4	114	-0.01
89	T	Hexachlorobutadiene	50.000	41.814	16.4	111	0.00
90	T	Naphthalene	50.000	48.936	2.1	124	0.00
91	T	1,2,3-Trichlorobenzene	50.000	46.100	7.8	113	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/12/07

2047

DAILY CALIBRATION

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07D244
Lab File ID: RDC563
BFB Injection Date : 04/27/07
Instrument ID: T-067
BFB Injection Time : 01:42
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.14
75	30.0 - 60.0% of mass 95	38.13
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.63
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	74.76
175	5.0 - 9.0% of mass 174	5.61(7.5)1
176	95.0 - 101.0% of mass 174	71.13(95.1)1
177	5.0 - 9.0% of mass 176	4.83(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV067B07199	RDC564	04/27/07	02:19
2	MBLK1S	V067D49Q	RDC569	04/27/07	05:24
3	LCS1S	V067D49L	RDC566	04/27/07	03:33
4	LCD1S	V067D49C	RDC567	04/27/07	04:10
5	C22-HSAS24-5-6.5	D244-12	RDC576	04/27/07	09:43
6	C22-HSAS24-55-56.5	D244-11	RDC577	04/27/07	10:20
7	C22-HSAS24-20-21.5	D244-13	RDC578	04/27/07	10:58
8	C22-HSAS24-5-6.5MS	D244-12M	RDC579	04/27/07	11:34
9	C22-HSAS24-5-6.5MSD	D244-12S	RDC580	04/27/07	12:10

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RBC079
Instrument ID: T-067
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07D244
Date Analyzed: 02/07/07
Time Analyzed: 21:32
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3224417	10.14	3011586	15.68	1040569	22.47
	UPPER LIMIT	6448834	10.64	6023172	16.18	2081138	22.97
	LOWER LIMIT	1612209	9.64	1505793	15.18	520285	21.97
	SAMPLE ID						
1	VSTD050	3457398	10.17	3163423	15.71	1086991	22.51
2	MBLK1S	3671130	10.17	3043450	15.73	869834	22.50
3	LCS1S	3674023	10.17	3555175	15.73	1063021	22.50
4	LCD1S	3597845	10.17	3461408	15.73	1037728	22.50
5	C22-HSAS24-5-6.5	3427956	10.17	2723983	15.73	640893	22.50
6	C22-HSAS24-55-56.5	3457165	10.17	2862992	15.73	723842	22.50
7	C22-HSAS24-20-21.5	3426162	10.17	2857247	15.71	718689	22.51
8	C22-HSAS24-5-6.5MS	3385140	10.16	3090938	15.72	1043795	22.51
9	C22-HSAS24-5-6.5MSD	3495608	10.17	3160364	15.73	1041849	22.51

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC564.D Vial: 4
Acq On : 27 Apr 2007 2:19 am Operator: CGM
Sample : CVO67B07199 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	107	0.03
2	T	Dichlorodifluoromethane	50.000	51.826	-3.7	101	0.03
3	P,T	Chloromethane	50.000	47.735	4.5	95	0.03
4	C,T	Vinyl chloride	50.000	42.441	15.1	96	0.02
5	T	Bromomethane	50.000	48.968	2.1	102	0.02
6	T	Chloroethane	50.000	47.579	4.8	90	0.00
7	T	Dichlorofluoromethane	50.000	38.525	23.0#	83	0.02
8	T	Trichlorofluoromethane	50.000	44.534	10.9	87	0.02
9	T	Acrolein	200.000	181.558	9.2	91	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	50.000	54.184	-8.4	117	0.03
11	T	Acetone	200.000	175.355	12.3	100	0.02
12	T	sec-Propyl alcohol	-1.000	0.000	0.0	83	0.03
13	C,TM	1,1-Dichloroethene	50.000	47.208	5.6	99	0.03
14	T	tert-Butyl alcohol	250.000	235.756	5.7	102	0.03
15	T	Methyl acetate	-1.000	0.000	0.0	148	0.03
16	T	Iodomethane	50.000	49.705	0.6	98	0.02
17	T	Methylene chloride	50.000	40.827	18.3	92	0.02
18	T	Acrylonitrile	250.000	252.091	-0.8	105	0.02
19	T	Carbon disulfide	50.000	46.140	7.7	98	0.02
20	T	Acetonitrile	-1.000	0.000	0.0	77	0.03
21	T	tert-Butyl methyl ether (MT	50.000	43.950	12.1	93	0.03
22	T	trans-1,2-Dichloroethene	50.000	45.826	8.3	95	0.03
23	T	Isopropyl ether (DIPE)	50.000	45.126	9.7	95	0.02
24	T	Vinyl acetate	50.000	42.699	14.6	91	0.03
25	P,T	1,1-Dichloroethane	50.000	45.233	9.5	96	0.03
26	T	tert-Butyl ethyl ether (ETB	50.000	41.028	17.9	87	0.03
27	T	2-Butanone	200.000	185.279	7.4	99	0.03
28	T	2,2-Dichloropropane	50.000	32.856	34.3#	70	0.03
29	T	cis-1,2-Dichloroethene	50.000	45.672	8.7	91	0.03
30	C,T	Chloroform	50.000	46.899	6.2	99	0.03
31	T	Bromochloromethane	50.000	43.746	12.5	94	0.03
32	T	Cyclohexane	-1.000	0.000	0.0	109	0.03
33	T	1,1,1-Trichloroethane	50.000	40.876	18.2	87	0.03
34	T	1,1-Dichloropropene	50.000	49.819	0.4	104	0.03
35	T	tert-Amyl methyl ether (TAM	50.000	45.453	9.1	97	0.02
36	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	85	0.03
37	T	Carbon tetrachloride	50.000	41.347	17.3	88	0.02
38	S	1,2-Dichloroethane-d4	50.000	41.947	16.1	80	0.03
39	I	CHLOROBENZENE-D5	50.000	50.000	0.0	105	0.03
40	T	1,2-Dichloroethane	50.000	43.622	12.8	92	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC564.D Vial: 4
Acq On : 27 Apr 2007 2:19 am Operator: CGM
Sample : CV067B07199 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	M,T	Benzene	50.000	50.790	-1.6	110	0.03
42	M,T	Trichloroethene	50.000	57.128	-14.3	121	0.03
43	T	Methylcyclohexane	-1.000	0.000	0.0	113	0.03
44	C,T	1,2-Dichloropropane	50.000	47.085	5.8	99	0.03
45	T	Bromodichloromethane	50.000	46.026	7.9	98	0.03
46	T	Dibromomethane	50.000	45.566	8.9	96	0.03
47	T	2-Chloroethyl vinyl ether	50.000	22.531	54.9#	51	0.02
48	T	4-Methyl-2-pentanone	200.000	178.590	10.7	93	0.03
49	T	cis-1,3-Dichloropropene	50.000	46.364	7.3	98	0.03
50	S	Toluene-d8	50.000	47.693	4.6	92	0.03
51	C,TM	Toluene	50.000	48.830	2.3	104	0.03
52	T	Ethyl methacrylate	50.000	49.029	1.9	109	0.03
53	T	trans-1,3-Dichloropropene	50.000	45.985	8.0	95	0.03
54	T	2-Hexanone	200.000	174.533	12.7	96	0.03
55	T	1,1,2-Trichloroethane	50.000	50.889	-1.8	108	0.03
56	T	1,3-Dichloropropane	50.000	49.052	1.9	104	0.03
57	T	Tetrachloroethene	50.000	53.586	-7.2	114	0.03
58	T	Dibromochloromethane	50.000	48.634	2.7	103	0.03
59	T	1,2-Dibromoethane	50.000	41.590	16.8	87	0.03
60	T	1-Chlorohexane	50.000	47.882	4.2	95	0.03
61	P,M	Chlorobenzene	50.000	49.865	0.3	106	0.03
62	T	1,1,1,2-Tetrachloroethane	50.000	51.283	-2.6	108	0.03
63	C,T	Ethylbenzene	50.000	47.699	4.6	100	0.03
64	T	m-Xylene & p-Xylene	100.000	93.653	6.3	99	0.03
65	T	o-Xylene	50.000	47.924	4.2	102	0.03
66	T	Styrene	50.000	51.375	-2.8	107	0.03
67	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	104	0.03
68	T	Isopropylbenzene	50.000	48.392	3.2	101	0.03
69	P,T	Bromoform	50.000	47.991	4.0	100	0.03
70	P,T	1,1,2,2-Tetrachloroethane	50.000	48.941	2.1	105	0.03
71	S	4-Bromofluorobenzene	50.000	45.370	9.3	90	0.03
72	T	1,2,3-Trichloropropane	50.000	47.175	5.7	102	0.02
73	T	trans-1,4-Dichloro-2-butene	50.000	36.045	27.9#	77	0.03
74	T	n-Propylbenzene	50.000	47.075	5.8	95	0.03
75	T	Bromobenzene	50.000	52.996	-6.0	112	0.03
76	T	1,3,5-Trimethylbenzene	50.000	49.400	1.2	100	0.02
77	T	2-Chlorotoluene	50.000	45.282	9.4	91	0.03
78	T	4-Chlorotoluene	50.000	48.432	3.1	106	0.03
79	T	tert-Butylbenzene	50.000	50.905	-1.8	103	0.03
80	T	1,2,4-Trimethylbenzene	50.000	48.647	2.7	98	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC564.D Vial: 4
Acq On : 27 Apr 2007 2:19 am Operator: CGM
Sample : CVO67B07199 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	50.000	48.739	2.5	96	0.03
82	T	p-Isopropyltoluene	50.000	51.199	-2.4	99	0.03
83	T	1,3-Dichlorobenzene	50.000	51.684	-3.4	107	0.03
84	T	1,4-Dichlorobenzene	50.000	51.058	-2.1	107	0.03
85	T	n-Butylbenzene	50.000	37.845	24.3#	88	0.03
86	T	1,2-Dichlorobenzene	50.000	51.409	-2.8	108	0.03
87	T	1,2-Dibromo-3-chloropropane	50.000	49.051	1.9	108	0.02
88	T	1,2,4-Trichlorobenzene	50.000	47.884	4.2	103	0.03
89	T	Hexachlorobutadiene	50.000	48.860	2.3	115	0.03
90	T	Naphthalene	50.000	50.145	-0.3	112	0.03
91	T	1,2,3-Trichlorobenzene	50.000	49.233	1.5	107	0.05

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC564.D Vial: 4
Acq On : 27 Apr 2007 2:19 am Operator: CGM
Sample : CVO67B07199 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	107	0.03
2	T	Dichlorodifluoromethane	0.217	0.225	-3.7	101	0.03
3	P,T	Chloromethane	0.258	0.247	4.3	95	0.03
4	C,T	Vinyl chloride	0.202	0.170	15.8	96	0.02
5	T	Bromomethane	0.209	0.204	2.4	102	0.02
6	T	Chloroethane	0.127	0.121	4.7	90	0.00
7	T	Dichlorofluoromethane	0.471	0.363	22.9#	83	0.02
8	T	Trichlorofluoromethane	0.311	0.277	10.9	87	0.02
9	T	Acrolein	0.035	0.031	11.4	91	0.02
10	T	1,1,2-Trichloro-1,2,2-trifl	0.201	0.218	-8.5	117	0.03
11	T	Acetone	0.070	0.062	11.4	100	0.02
12	T	sec-Propyl alcohol	0.000	0.000	0.0	83	0.03
13	C,TM	1,1-Dichloroethene	0.383	0.362	5.5	99	0.03
14	T	tert-Butyl alcohol	0.024	0.022	8.3	102	0.03
15	T	Methyl acetate	0.000	0.000	0.0	148	0.03
16	T	Iodomethane	0.401	0.399	0.5	98	0.02
17	T	Methylene chloride	0.444	0.363	18.2	92	0.02
18	T	Acrylonitrile	0.086	0.087	-1.2	105	0.02
19	T	Carbon disulfide	1.122	1.035	7.8	98	0.02
20	T	Acetonitrile	0.000	0.000	0.0	77	0.03
21	T	tert-Butyl methyl ether (MT	0.597	0.525	12.1	93	0.03
22	T	trans-1,2-Dichloroethene	0.431	0.395	8.4	95	0.03
23	T	Isopropyl ether (DIPE)	1.037	0.936	9.7	95	0.02
24	T	Vinyl acetate	0.524	0.448	14.5	91	0.03
25	P,T	1,1-Dichloroethane	0.554	0.501	9.6	96	0.03
26	T	tert-Butyl ethyl ether (ETB	0.791	0.649	18.0	87	0.03
27	T	2-Butanone	0.126	0.117	7.1	99	0.03
28	T	2,2-Dichloropropane	0.373	0.245	34.3#	70	0.03
29	T	cis-1,2-Dichloroethene	0.487	0.445	8.6	91	0.03
30	C,T	Chloroform	0.555	0.520	6.3	99	0.03
31	T	Bromochloromethane	0.305	0.267	12.5	94	0.03
32	T	Cyclohexane	0.000	0.000	0.0	109	0.03
33	T	1,1,1-Trichloroethane	0.412	0.336	18.4	87	0.03
34	T	1,1-Dichloropropene	0.137	0.137	0.0	104	0.03
35	T	tert-Amyl methyl ether (TAM	0.768	0.698	9.1	97	0.02
36	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	85	0.03
37	T	Carbon tetrachloride	0.354	0.293	17.2	88	0.02
38	S	1,2-Dichloroethane-d4	0.277	0.232	16.2	80	0.03
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	105	0.03
40	T	1,2-Dichloroethane	0.374	0.326	12.8	92	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC564.D Vial: 4
Acq On : 27 Apr 2007 2:19 am Operator: CGM
Sample : CV067B07199 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	M,T	Benzene	1.363	1.385	-1.6	110	0.03
42	M,T	Trichloroethene	0.370	0.423	-14.3	121	0.03
43	T	Methylcyclohexane	0.000	0.000	0.0	113	0.03
44	C,T	1,2-Dichloropropane	0.409	0.386	5.6	99	0.03
45	T	Bromodichloromethane	0.464	0.427	8.0	98	0.03
46	T	Dibromomethane	0.251	0.229	8.8	96	0.03
47	T	2-Chloroethyl vinyl ether	0.073	0.034	53.4#	51	0.02
48	T	4-Methyl-2-pentanone	0.315	0.282	10.5	93	0.03
49	T	cis-1,3-Dichloropropene	0.488	0.452	7.4	98	0.03
50	S	Toluene-d8	1.223	1.167	4.6	92	0.03
51	C,TM	Toluene	1.440	1.406	2.4	104	0.03
52	T	Ethyl methacrylate	0.333	0.362	-8.7	109	0.03
53	T	trans-1,3-Dichloropropene	0.379	0.348	8.2	95	0.03
54	T	2-Hexanone	0.193	0.169	12.4	96	0.03
55	T	1,1,2-Trichloroethane	0.306	0.311	-1.6	108	0.03
56	T	1,3-Dichloropropane	0.504	0.495	1.8	104	0.03
57	T	Tetrachloroethene	0.269	0.289	-7.4	114	0.03
58	T	Dibromochloromethane	0.366	0.356	2.7	103	0.03
59	T	1,2-Dibromoethane	0.342	0.284	17.0	87	0.03
60	T	1-Chlorohexane	0.528	0.506	4.2	95	0.03
61	P,M	Chlorobenzene	0.949	0.947	0.2	106	0.03
62	T	1,1,1,2-Tetrachloroethane	0.307	0.315	-2.6	108	0.03
63	C,T	Ethylbenzene	1.567	1.495	4.6	100	0.03
64	T	m-Xylene & p-Xylene	1.183	1.108	6.3	99	0.03
65	T	o-Xylene	1.228	1.177	4.2	102	0.03
66	T	Styrene	0.914	0.939	-2.7	107	0.03
67	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	104	0.03
68	T	Isopropylbenzene	4.279	4.141	3.2	101	0.03
69	P,T	Bromoform	0.621	0.596	4.0	100	0.03
70	P,T	1,1,2,2-Tetrachloroethane	1.280	1.253	2.1	105	0.03
71	S	4-Bromofluorobenzene	1.258	1.142	9.2	90	0.03
72	T	1,2,3-Trichloropropane	0.214	0.202	5.6	102	0.02
73	T	trans-1,4-Dichloro-2-butene	0.163	0.117	28.2#	77	0.03
74	T	n-Propylbenzene	5.188	4.885	5.8	95	0.03
75	T	Bromobenzene	0.985	1.044	-6.0	112	0.03
76	T	1,3,5-Trimethylbenzene	3.186	3.148	1.2	100	0.02
77	T	2-Chlorotoluene	3.206	2.903	9.5	91	0.03
78	T	4-Chlorotoluene	2.795	2.707	3.1	106	0.03
79	T	tert-Butylbenzene	2.751	2.801	-1.8	103	0.03
80	T	1,2,4-Trimethylbenzene	2.958	2.878	2.7	98	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D26\RDC564.D Vial: 4
Acq On : 27 Apr 2007 2:19 am Operator: CGM
Sample : CVO67B07199 Inst : TO67
Misc : 200ppb Ket-AA/50ppb 8260/250ppb TBA Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : D:\HPCHEM\1\METHODS\VO67B07.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Thu Feb 08 11:38:58 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	sec-Butylbenzene	4.320	4.211	2.5	96	0.03
82	T	p-Isopropyltoluene	2.843	2.911	-2.4	99	0.03
83	T	1,3-Dichlorobenzene	1.734	1.792	-3.3	107	0.03
84	T	1,4-Dichlorobenzene	1.651	1.686	-2.1	107	0.03
85	T	n-Butylbenzene	2.375	2.184	8.0	88	0.03
86	T	1,2-Dichlorobenzene	1.585	1.629	-2.8	108	0.03
87	T	1,2-Dibromo-3-chloropropane	0.142	0.156	-9.9	108	0.02
88	T	1,2,4-Trichlorobenzene	0.554	0.541	2.3	103	0.03
89	T	Hexachlorobutadiene	0.343	0.387	-12.8	115	0.03
90	T	Naphthalene	1.010	1.038	-2.8	112	0.03
91	T	1,2,3-Trichlorobenzene	0.472	0.476	-0.8	107	0.05

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ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 2/7/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -027**

BATCH VO67B075

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RBC074		BFB67B06 ✓	2µL				~~Ket/AA 8260 TBA~~
02	075		VO67B071 ✓	4µL/2µL/.04µL				8 2 10 ppb
03	076		2 ✓	.4µL/5µL/.1µL				20 5 25
04	077		3 ✓	.8µL/1µL/.2µL				40 10 50
05	078		4 ✓	1.6µL/2µL/.4µL				80 20 100
06	079		5 ✓	4µL/5µL/1µL				200 50 250
07	080		6 ✓	6.4µL/8µL/1.6µL				320 80 400
08	081		7 ✓	8µL/10µL/2µL				400 100 500
09	082		8 ✓	11.2µL/14µL/2.8µL				800 200 1000
10	083		9 ✓	24µL/30µL/6µL				1200 300 1500
11	084		Rinse					
12	085		VO67B06B					
13	086		VO67B071 ✓	4µL/5µL/1µL				200 50 250
14	087		2	4µL/5µL/1µL				200 50 250
15	088		Rinse					
16	089		Rinse					
17								
18								
19								
20								
21								
22								
23								
24								
25								CGM 2/7/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	VO67B07

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SVIC-11-63-1	250
DCC 8260	SVIC-11-60-1	50/250
DCC Gases	SVIC-11-60-3	250
BFB	SVIC-11-49-3	50
IS/SURR.	SVIC-11-62-2	250
LCS Ket/AA	SVIC-11-59-3	250
LCS 8260	SVIC-11-63-2	50/250
LCS Gases	SVIC-11-61-3	250
SOLVENT 15	SVIC-11-62-1 ID	250
METHANOL 55	SVIC-11-62-3	250
DATA FILE	07B07	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 2/8/07

Disposed By: CGM

2959

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 4/27/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A67 -028**

BATCH CV067B04199

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RDC562	BFB67D48	2ml				
02		563	" 49	"				01:42
03		564	CV067B07199	4.5ml				
04		565	" 200	"				
05		566	V067D49L	10ml	1.0			
06		567	" C	"	"			
07		568	" B	5.0g	"			
08		569	" Q	"	"			
09		570	07D249-03	"	"		✓	
10		571	" -04	"	"		✓	
11		572	" -05	"	"		✓	
12		573	" -06	"	"		✓	
13		574	" -07	"	"		✓	
14		575	" -08	"	"		✓	
15		576	07D244-12	4.9g	10		✓	
16		577	" -11	5.3g	0.94		✓	
17		578	" -13	5.2g	0.96		✓	
18		579	" -12MS	5.0g	1.0		✓	
19		580	" -12S	4.9g	1.0		✓	12:10
20								
21								
22								
23								
24								
25								CGM 4/26/07

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	2/7/07
ICAL ID	V067B07

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SVIC-11-80-2	250
DCC	-81-1	50/250
DCC	-79-3	250
BFB	-58-1	50
IS/SURR.	-79-1	250
LCS	-80-3	250
LCS	-81-3	50-1000
LCS	-80-1	250

SOLVENT	ID
METHANOL	
DATA FILE	V7D76

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO67	

Comments:

Analyzed By: CGM

Date Disposed: 4/27/07

Disposed By: CGM

EXTRACTION LOGS

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-016

Matrix: SOIL STARTING DATE 4/26/07 15:50 Ending Date 4/26/07 16:25

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.	
BLANK	30.1	35.1	5.0	1.00	
07D207-01	31.7	37.0	5.3	0.94	
07D207-02	31.6	36.9	5.3	0.94	
07D207-03	31.6	37.3	5.7	0.88	
07D207-04	31.6	36.7	5.1	0.98	
07D207-07	31.6	37.0	5.4	0.93	
07D207-08	31.7	37.3	5.6	0.89	
07D207-09	31.8	36.5	4.7	1.06	
07D207-10	31.6	37.1	5.5	0.91	
07D207-11	31.7	37.4	5.7	0.88	
07D207-14	31.6	34.2	2.6	1.92	
07D211-01	31.5	36.2	4.7	1.06	
07D244-11	31.6	36.9	5.3	0.94	✓
07D244-12	31.6	36.5	4.9	1.02	✓
07D244-12M	31.7	36.7	5.0	1.00	✓
07D244-12S	31.7	36.6	4.9	1.02	✓
07D244-13	31.6	36.8	5.2	0.96	✓

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20		
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML

VOLUME METRIC FLUSH.

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: CGM

Extract Received By: CM

Extract Location	N/A

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D244

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D244

METHOD 314.0
PERCHLORATE

One (1) water and twelve (12) soil samples were received on 04/20/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of MRL.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Samples D244-04 and -12 were analyzed for duplicate. %RPDs were within QC limit.

5. **Matrix Spike**

   Samples D244-04 and -12 were spiked. %Recoveries were within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D244

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD014WB	ND	1	NA	2.00	0.500	04/24/0704:45	NA	JD23034	JD23033	PCD014W	NA	NA
LCS1W	PCD014WL	25.1	1	NA	2.00	0.500	04/24/0705:26	NA	JD23036	JD23033	PCD014W	NA	NA
LCD1W	PCD014WC	24.8	1	NA	2.00	0.500	04/24/0705:46	NA	JD23037	JD23033	PCD014W	NA	NA
LEB-041907	D244-14	ND	1	NA	2.00	0.500	04/24/0717:21	NA	JD23067	JD23065	PCD014W	04/19/0708:40	04/20/07

3003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D244

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD013SQ	ND	1	NA	20.0	10.0	04/24/0709:49	04/23/0714:50	JD23049	JD23048	PCD013S	NA	04/23/07
LCS1S	PCD013SX	253	1	NA	20.0	10.0	04/24/0710:29	04/23/0714:50	JD23051	JD23048	PCD013S	NA	04/23/07
LCD1S	PCD013SY	251	1	NA	20.0	10.0	04/24/0710:50	04/23/0714:50	JD23052	JD23048	PCD013S	NA	04/23/07
C23-HSAS27-5-6.5	D244-01R	ND	1	2.9	20.6	10.3	04/24/0718:02	04/23/0714:50	JD23069	JD23065	PCD013S	04/19/0708:45	04/20/07
C23-HSAS27-20-21.5	D244-02R	ND	1	4.2	20.9	10.4	04/24/0718:22	04/23/0714:50	JD23070	JD23065	PCD013S	04/19/0709:01	04/20/07
C23-HSAS27-30-31.5	D244-03R	ND	1	1.6	20.3	10.2	04/24/0719:54	04/23/0714:50	JD23071	JD23065	PCD013S	04/19/0709:15	04/20/07
C23-HSAS28-20-21.5	D244-05R	ND	1	9.8	22.2	11.1	04/24/0721:15	04/23/0714:50	JD23075	JD23065	PCD013S	04/19/0710:22	04/20/07
C23-HSAS2801-20-21.5	D244-06R	ND	1	8.5	21.9	10.9	04/24/0721:55	04/23/0714:50	JD23077	JD23076	PCD013S	04/19/0710:22	04/20/07
C23-HSAS28-40-41.5	D244-07R	ND	1	3.1	20.6	10.3	04/24/0722:15	04/23/0714:50	JD23078	JD23076	PCD013S	04/19/0710:49	04/20/07
C23-HSAS2701-5-6.5	D244-08R	ND	1	3.2	20.7	10.3	04/24/0722:36	04/23/0714:50	JD23079	JD23076	PCD013S	04/19/0708:45	04/20/07
C23-HSAS2701-30-31.5	D244-09R	ND	1	1.3	20.3	10.1	04/24/0722:56	04/23/0714:50	JD23080	JD23076	PCD013S	04/19/0709:14	04/20/07
C22-HSAS24-55-56.5	D244-11R	ND	1	6.0	21.3	10.6	04/24/0723:16	04/23/0714:50	JD23081	JD23076	PCD013S	04/19/0715:11	04/20/07
C23-HSAS28-5-6.5	D244-04R	ND	1	3.5	20.7	10.4	04/25/0720:33	04/23/0714:50	JD25009	JD25001	PCD013S	04/19/0710:13	04/20/07
C23-HSAS28-5-6.5	D244-04Z	ND	1	3.5	20.7	10.4	04/25/0720:54	04/23/0714:50	JD25010	JD25001	PCD013S	04/19/0710:13	04/20/07
C23-HSAS28-5-6.5MS	D244-04G	112	1	3.5	20.7	10.4	04/25/0721:14	04/23/0714:50	JD25011	JD25001	PCD013S	04/19/0710:13	04/20/07
C22-HSAS24-5-6.5	D244-12R	110	1	3.1	20.6	10.3	04/25/0721:54	04/23/0714:50	JD25013	JD25012	PCD013S	04/19/0713:52	04/20/07
C22-HSAS24-5-6.5	D244-12Z	108	1	3.1	20.6	10.3	04/25/0722:15	04/23/0714:50	JD25014	JD25012	PCD013S	04/19/0713:52	04/20/07
C22-HSAS24-5-6.5MS	D244-12G	213	1	3.1	20.6	10.3	04/25/0722:35	04/23/0714:50	JD25015	JD25012	PCD013S	04/19/0713:52	04/20/07
C22-HSAS24-20-21.5	D244-13	651	5	5.5	106	52.9	04/25/0722:55	04/23/0714:50	JD25016	JD25012	PCD013S	04/19/0714:45	04/20/07

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD014WB	PCD014WL	PCD014WC		
LAB FILE ID:	JD23034	JD23036	JD23037		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/0704:45	04/24/0705:26	04/24/0705:46	DATE RECEIVED:	NA
PREP. BATCH:	PCD014W	PCD014W	PCD014W		
CALIB. REF:	JD23033	JD23033	JD23033		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.1	100	25.0	24.8	99	1	85-115	20

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EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD013SQ	PCD013SX	PCD013SY		
LAB FILE ID:	JD23049	JD23051	JD23052		
DATE EXTRACTED:	04/23/0714:50	04/23/0714:50	04/23/0714:50	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/0709:49	04/24/0710:29	04/24/0710:50	DATE RECEIVED:	04/23/07
PREP. BATCH:	PCD013S	PCD013S	PCD013S		
CALIB. REF:	JD23048	JD23048	JD23048		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	253	101	250	251	100	1	85-115	20

9691

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 3.5
DILUTION FACTOR: 1 1
SAMPLE ID: C23-HSAS28-5-6.5
LAB SAMP ID: D244-04R D244-04G
LAB FILE ID: JD25009 JD25011
DATE EXTRACTED: 04/23/0714:50 04/23/0714:50 DATE COLLECTED: 04/19/07 10:13
DATE ANALYZED: 04/25/0720:33 04/25/0721:14 DATE RECEIVED: 04/20/07
PREP. BATCH: PCD013S PCD013S
CALIB. REF: JD25001 JD25001

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	ND	104	112	108	80-120

8908

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 3.1
DILUTION FACTOR: 1 1
SAMPLE ID: C22-HSAS24-5-6.5
LAB SAMP ID: D244-12R D244-12G
LAB FILE ID: JD25013 JD25015
DATE EXTRACTED: 04/23/0714:50 04/23/0714:50 DATE COLLECTED: 04/19/07 13:52
DATE ANALYZED: 04/25/0721:54 04/25/0722:35 DATE RECEIVED: 04/20/07
PREP. BATCH: PCD013S PCD013S
CALIB. REF: JD25012 JD25012

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	110	103	213	99	80-120

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 3.5
DILUTION FACTOR: 1 1
SAMPLE ID: C23-HSAS28-5-6.5
EMAX SAMP ID: D244-04R D244-04Z
LAB FILE ID: JD25009 JD25010
DATE EXTRACTED: 04/23/0714:50 04/23/0714:50 DATE COLLECTED: 04/19/07 10:13
DATE ANALYZED: 04/25/0720:33 04/25/0720:54 DATE RECEIVED: 04/20/07
PREP. BATCH: PCD013S PCD013S
CALIB. REF: JD25001 JD25001

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	ND	ND	0	20

8516

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D244
METHOD: METHOD 314.0

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MATRIX:	SOIL		% MOISTURE:	3.1
DILUTION FACTOR:	1	1		
SAMPLE ID:	C22-HSAS24-5-6.5			
EMAX SAMP ID:	D244-12R	D244-12Z		
LAB FILE ID:	JD25013	JD25014		
DATE EXTRACTED:	04/23/0714:50	04/23/0714:50	DATE COLLECTED:	04/19/07 13:52
DATE ANALYZED:	04/25/0721:54	04/25/0722:15	DATE RECEIVED:	04/20/07
PREP. BATCH:	PCD013S	PCD013S		
CALIB. REF:	JD25012	JD25012		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	110	108	2	20

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

PR 4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

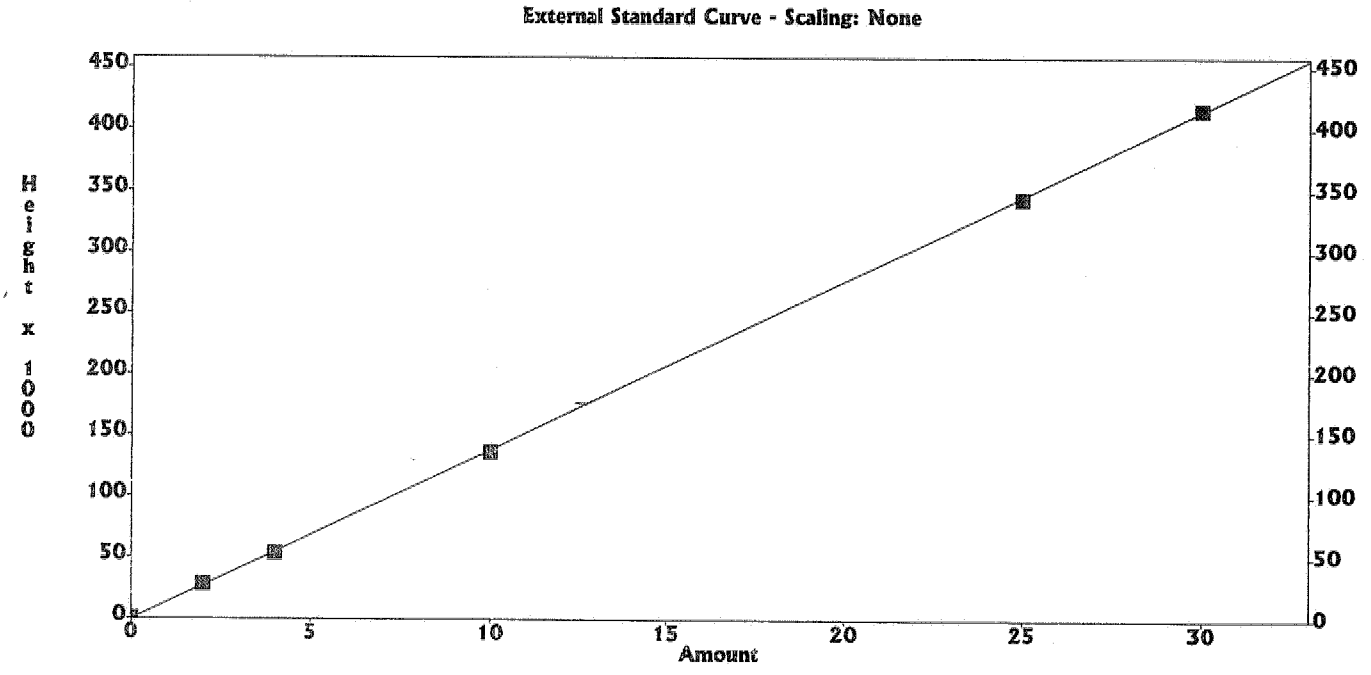
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-07

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD23001	IPCS	P	82.1%	04/23/0716:17	1
JD23002	PCD013SB	P	.000	04/23/0716:38	1
JD23003	MRL	P	97.9%	04/23/0716:58	1
JD23004	PCD013SL	P	24.3	04/23/0717:18	1
JD23005	PCD013SC	P	24.3	04/23/0717:38	1
JD23006	D197-01	P	.000	04/23/0719:18	1
JD23007	D244-01	P	.000	04/23/0719:38	1
JD23008	D244-02	P	.000	04/23/0719:58	1
JD23009	D244-03	P	.000	04/23/0720:19	1
JD23010	D244-04	P	.000	04/23/0720:39	1
JD23011	D244-04D	P	.000	04/23/0720:59	1
JD23012	D244-04M	P	10.2	04/23/0721:19	1
JD23013	D244-05	P	.000	04/23/0721:40	1
JD23014	D244-06	P	.000	04/23/0722:00	1
JD23015	D244-07	P	.000	04/23/0722:20	1
JD23016	D244-08	P	.000	04/23/0722:40	1
JD23017	D244-09	P	.000	04/23/0723:01	1
JD23018	D244-11	P	.000	04/23/0723:21	1
JD23019	D244-12	P	.000	04/23/0723:41	1
JD23020	D244-13	P	20.6	04/24/0700:01	1
JD23021	D245-02	P	2.8	04/24/0700:22	1
JD23022	CCV19-15	P	101%	04/24/0700:42	1
JD23023	D245-03	*	55.5E	04/24/0701:02	1
JD23024	D245-04	P	18.7	04/24/0701:22	1
JD23025	D245-05	P	18.3	04/24/0701:43	1
JD23026	D245-06	*	55.1E	04/24/0702:03	1
JD23027	D245-07	P	4.4	04/24/0702:23	1
JD23028	D245-08	P	19.8	04/24/0702:43	1
JD23029	D244-12D	P	.000	04/24/0703:04	1
JD23030	D244-12M	P	15.5	04/24/0703:24	1
JD23031	RINSE	P	.000	04/24/0703:44	1
JD23032	CCV20-30	P	106%	04/24/0704:05	1
JD23033	IPCS	P	84.5%	04/24/0704:25	1
JD23034	PCD014WB	P	.000	04/24/0704:45	1
JD23035	MRL	P	101%	04/24/0705:05	1
JD23036	PCD014WL	P	25.1	04/24/0705:26	1
JD23037	PCD014WC	P	24.8	04/24/0705:46	1
JD23038	D223-14	*	.000	04/24/0706:06	20
JD23039	D223-15R	*	.000	04/24/0706:26	20
JD23040	D223-06R	*	.000	04/24/0706:47	1
JD23041	D223-06Z	*	1.3	04/24/0707:07	1
JD23042	D223-06G	*	16.5	04/24/0707:27	1
JD23043	CCV21-15	P	101%	04/24/0707:47	1
JD23044	D223-16	*	.000	04/24/0708:08	1
JD23045	D223-17	*	.000	04/24/0708:28	1
JD23046	D223-18	P	9.86	04/24/0708:48	1
JD23047	D223-19	P	.000	04/24/0709:08	1
JD23048	IPCS	P	85.4%	04/24/0709:29	1
JD23049	PCD013SQ	P	.000	04/24/0709:49	1
JD23050	MRL	P	97.7%	04/24/0710:09	1
JD23051	PCD013SX	P	25.3	04/24/0710:29	1
JD23052	PCD013SY	P	25.1	04/24/0710:50	1
JD23053	D197-01R	P	.000	04/24/0711:10	1
JD23054	CCV22-30	P	108%	04/24/0711:30	1
JD23055	D223-20	P	.000	04/24/0713:18	1
JD23056	D223-21	*	37.8E	04/24/0713:38	1
JD23057	D223-22	P	26.3	04/24/0713:59	1
JD23058	D223-23	P	.000	04/24/0714:19	1
JD23059	D223-24	P	5.76	04/24/0714:39	1
JD23060	D223-25	P	.000	04/24/0714:59	1
JD23061	D223-26	P	2.47	04/24/0715:20	1
JD23062	D224-01	P	.000	04/24/0715:40	1
JD23063	D224-02	P	6.29	04/24/0716:00	1
JD23064	D205-01	P	.000	04/24/0716:20	1
JD23065	CCV23-15	P	104%	04/24/0716:41	1
JD23066	D205-02	P	5.34	04/24/0717:01	1
JD23067	D244-14	P	.000	04/24/0717:21	1
JD23068	D245-01	P	.000	04/24/0717:41	1
JD23069	D244-01R	P	.000	04/24/0718:02	1
JD23070	D244-02R	P	.000	04/24/0718:22	1
JD23071	D244-03R	P	.000	04/24/0719:54	1
JD23072	D244-04R	P	.000	04/24/0720:14	1
JD23073	D244-04Z	P	.000	04/24/0720:34	1
JD23074	D244-04G	P	.000	04/24/0720:54	1

JD23075	D244-05R	P	.000	04/24/0721:15	1
JD23076	CCV24-30	P	109%	04/24/0721:35	1
JD23077	D244-06R	P	.000	04/24/0721:55	1
JD23078	D244-07R	P	.000	04/24/0722:15	1
JD23079	D244-08R	P	.000	04/24/0722:36	1
JD23080	D244-09R	P	.000	04/24/0722:56	1
JD23081	D244-11R	P	.000	04/24/0723:16	1
JD23082	D244-12R	P	5.02	04/24/0723:36	1
JD23083	D244-12Z	P	.000	04/24/0723:57	1
JD23084	D244-12G	P	15	04/25/0700:17	1
JD23085	D244-13R	*	50.8E	04/25/0700:37	1
JD23086	D245-02R	P	2.43	04/25/0700:57	1
JD23087	CCV25-15	P	106%	04/25/0701:18	1
JD23088	IPCS	P	87.7%	04/25/0701:38	1
JD23089	PCD015SB	P	.000	04/25/0701:58	1
JD23090	MRL	P	108%	04/25/0702:18	1
JD23091	PCD015SL	P	25.7	04/25/0702:39	1
JD23092	PCD015SC	P	25.7	04/25/0702:59	1
JD23093	D245-09	P	4.33	04/25/0703:19	1
JD23094	D245-10	*	59.7E	04/25/0703:39	1
JD23095	D245-11	P	.000	04/25/0704:00	1
JD23096	D245-12	P	5.64	04/25/0704:20	1
JD23097	D245-13	P	2.1 ✓	04/25/0704:40	1
JD23098	CCV26-30	P	112%*	04/25/0705:00	1
JD23099	D245-14	P	3.57	04/25/0705:21	1
JD23100	D245-15	P	17.9	04/25/0705:41	1
JD23101	D245-16	P	18.3	04/25/0706:01	1
JD23102	D245-17	P	2.27	04/25/0706:21	1
JD23103	D245-18	P	18.8	04/25/0706:42	1
JD23104	D245-19	P	8.38	04/25/0707:02	1
JD23105	D245-19D	P	8.23	04/25/0707:22	1
JD23106	D245-19M	P	18.3	04/25/0707:42	1
JD23107	CCV27-15	P	107%	04/25/0708:03	1
JD23108	IPCS	P	87.9%	04/25/0708:23	1
JD23109	PCD016WB	P	.000	04/25/0708:43	1
JD23110	MRL	P	104%	04/25/0709:03	1
JD23111	PCD016WL	P	25.7	04/25/0709:24	1
JD23112	PCD016WC	P	26	04/25/0709:44	1
JD23113	D245-03	P	147	04/25/0710:04	20
JD23114	D245-06	P	518	04/25/0711:20	20
JD23115	D223-13R	*	.000	04/25/0711:40	1
JD23116	D223-14R	*	.000	04/25/0712:01	1
JD23117	D223-16	P	.000 ✓	04/25/0712:21	20
JD23118	CCV28-30	P	111%*	04/25/0712:41	1
JD23119	D223-17R	*	55.3E	04/25/0713:01	1
JD23120	D223-21	*	121E	04/25/0713:22	2
JD23121	CCV29-15	P	107%	04/25/0713:42	1
JD23122	D223-14	*	309E	04/25/0714:23	10
JD23123	D223-17	P	79.8 ✓	04/25/0714:43	10
JD23124	CCV30-30	P	111%*	04/25/0715:14	1

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE		DateTime	Df
JD25001	IPCS	P	89%		04/25/0716:20	1
JD25002	PCD017WB	P	.000		04/25/0716:40	1
JD25003	MRL	P	114%		04/25/0717:00	1
JD25004	PCD017WL	P	26		04/25/0717:20	1
JD25005	PCD017WC	P	25.7		04/25/0719:12	1
JD25006	D223-13	P	220		04/25/0719:33	20
JD25007	D223-14	P	304		04/25/0719:53	20
JD25008	D223-21	P	235		04/25/0720:13	20
JD25009	D244-04R	P	.000		04/25/0720:33	1
JD25010	D244-04Z	P	.000		04/25/0720:54	1
JD25011	D244-04G	P	10.8		04/25/0721:14	1
JD25012	CCV31-15	P	106%		04/25/0721:34	1
JD25013	D244-12R	P	10.7		04/25/0721:54	1
JD25014	D244-12Z	P	10.5		04/25/0722:15	1
JD25015	D244-12G	P	20.6		04/25/0722:35	1
JD25016	D244-13	P	61.5		04/25/0722:55	5
JD25017	D245-10	P	82.5		04/25/0723:15	20
JD25018	D266-01	P	.000		04/25/0723:36	1
JD25019	D266-13	P	.000		04/25/0723:56	1
JD25020	RINSE	P	.000	✓	04/26/0700:16	1
JD25021	CCV32-30	P	110%*		04/26/0700:36	1
JD25022	IPCS	P	87.8%		04/26/0700:57	1
JD25023	PCD018SB	P	.000		04/26/0701:17	1
JD25024	MRL	P	120%		04/26/0701:37	1
JD25025	PCD018SL	P	26		04/26/0701:57	1
JD25026	PCD018SC	P	25.8		04/26/0702:18	1
JD25027	D266-02	P	2.26		04/26/0702:38	1
JD25028	D266-03	P	1.51		04/26/0702:58	1
JD25029	D266-04	P	9.72		04/26/0703:18	1
JD25030	D266-05	P	21.7		04/26/0703:39	1
JD25031	D266-06	P	8.89		04/26/0703:59	1
JD25032	D266-07	P	8.25		04/26/0704:19	1
JD25033	CCV33-15	P	107%		04/26/0704:39	1
JD25034	D266-08	P	7.45		04/26/0705:00	1
JD25035	D266-09	P	9.6		04/26/0705:20	1
JD25036	D266-10	P	.000		04/26/0705:40	1
JD25037	D266-11	P	4		04/26/0706:00	1
JD25038	D266-12	P	10.8		04/26/0706:21	1
JD25039	RINSE	P	.000	✓	04/26/0706:41	1
JD25040	CCV34-30	P	110%*		04/26/0707:01	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A-02-18

* JD23.001 → JD23.005 : Record Only.
* JD23.006 → JD23.021 : Re-run samples due to no CCV. in between.
* JD23.029 & JD23.030 : Rec. Only & MS=spiked at 10 ppb.
* JD23.038 : Not used; rec. only.
* JD23.039 → JD23.042 : For confirmation only.
* JD23.042 : Spiked at 10 ppb.
* JD23.056 : Bad injection ; not used.
* JD23.072 → JD23.074 : Rec. only ; bad injection. Re-run
* JD23.082 : Contamination ; so re-run JD23.082 → JD23.084
* JD23.115 ; JD23.116 & JD23.119 : For confirmation only.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD23

Method File: IC57d17.met

Analytical Batch: PCD0135 & PCD014W & PCD015S & PCD016W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

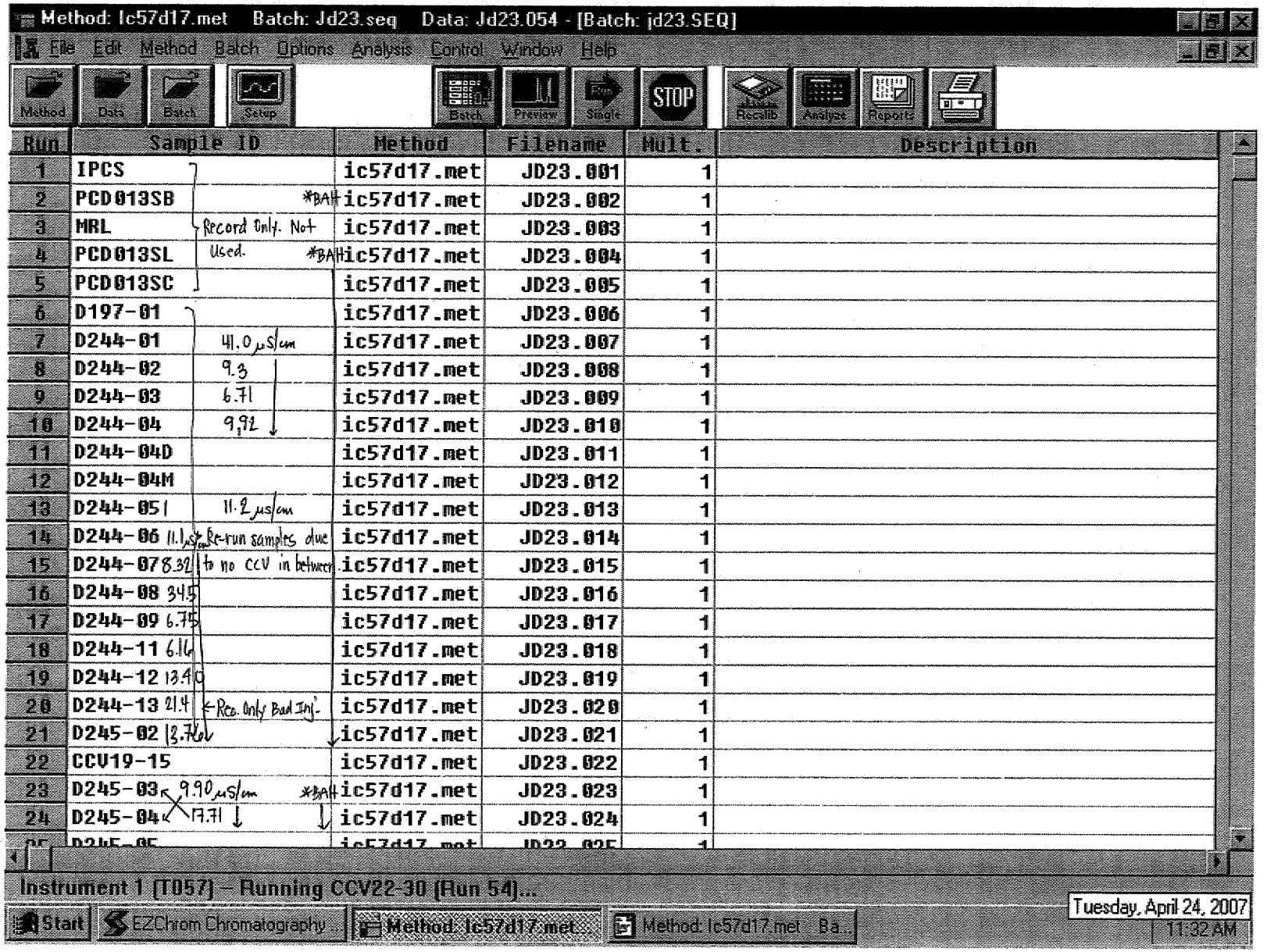
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	938
LCS	936
MS	931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1409	(±) 30	25°C

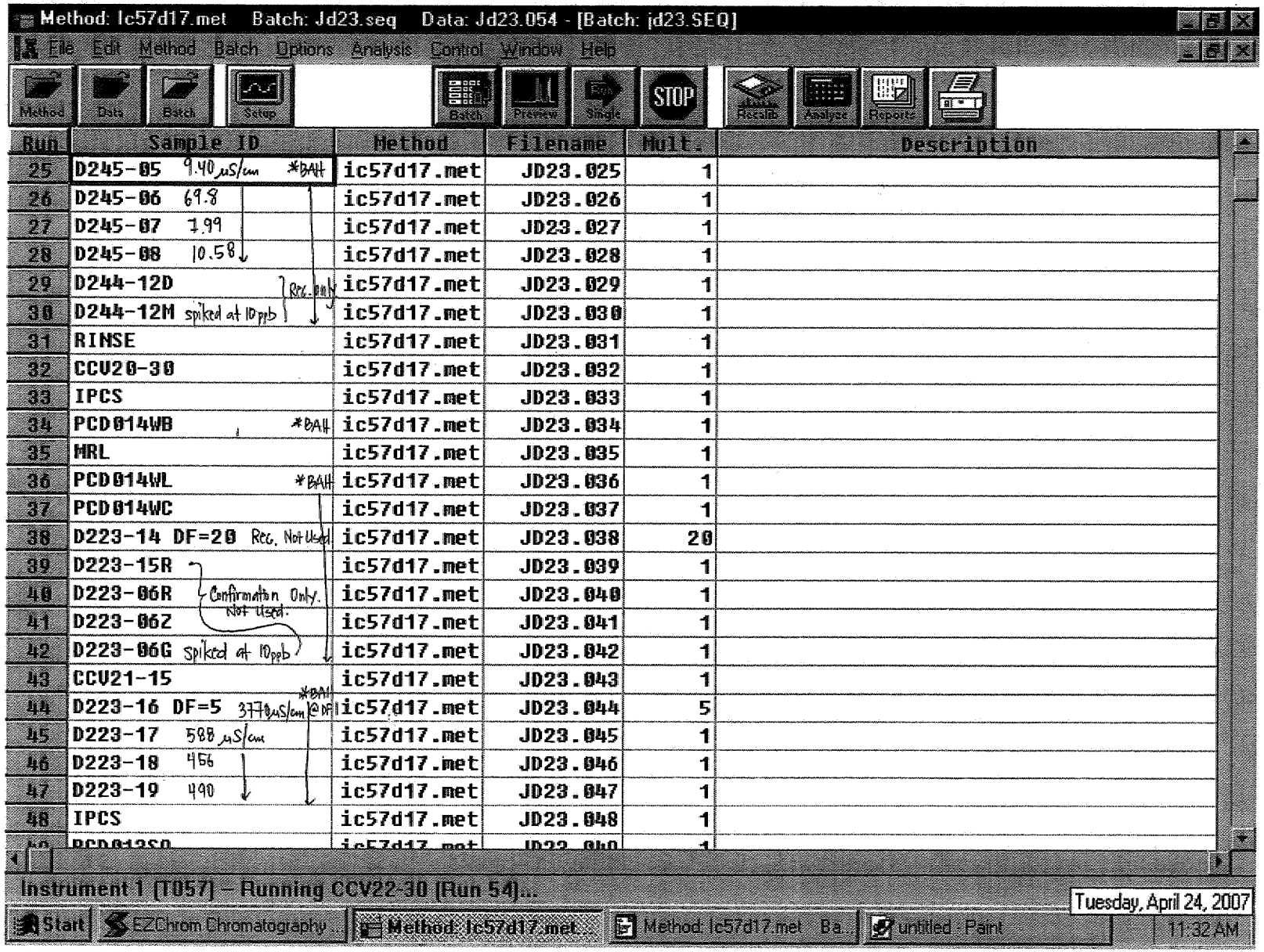
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

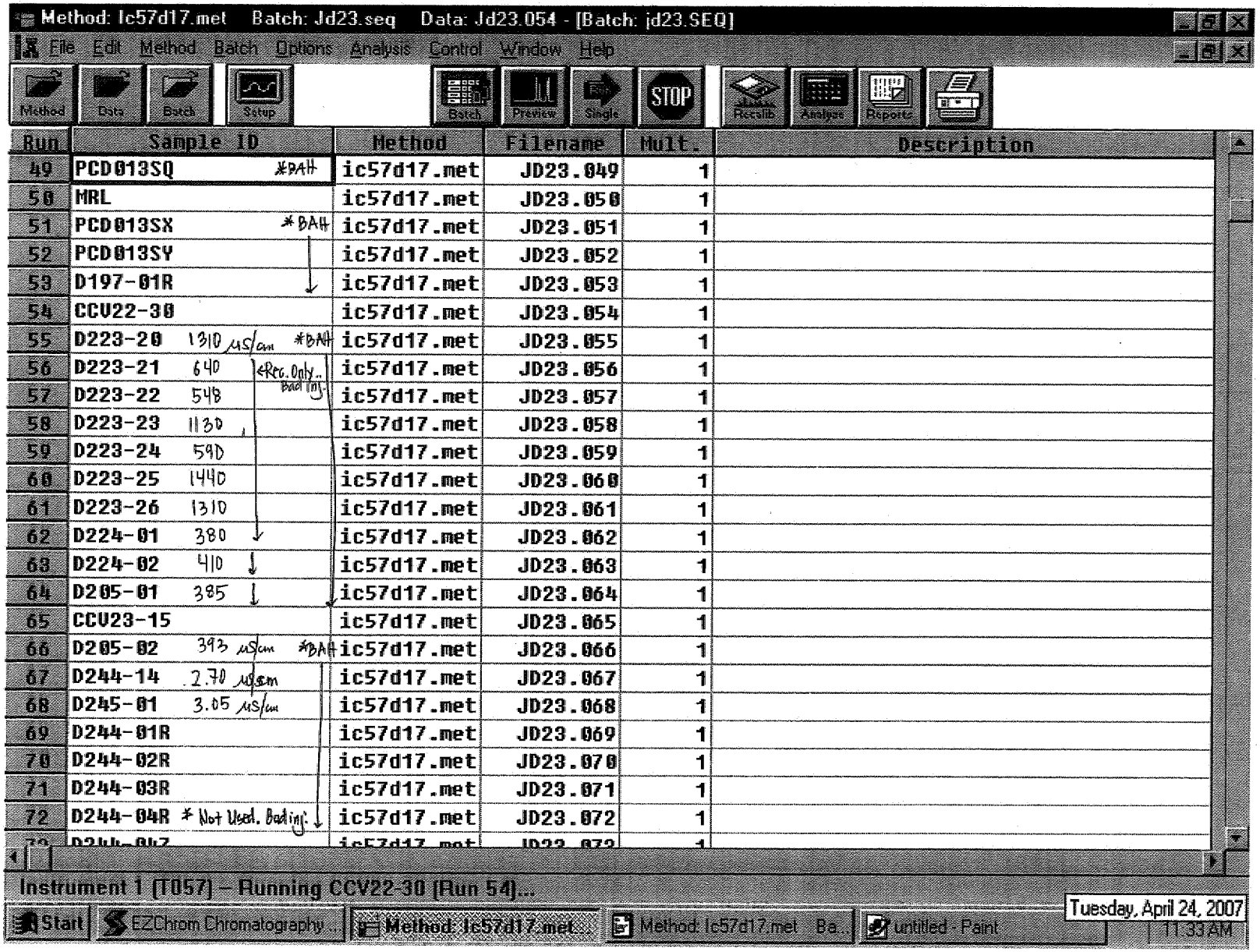
Analyzed By: ad

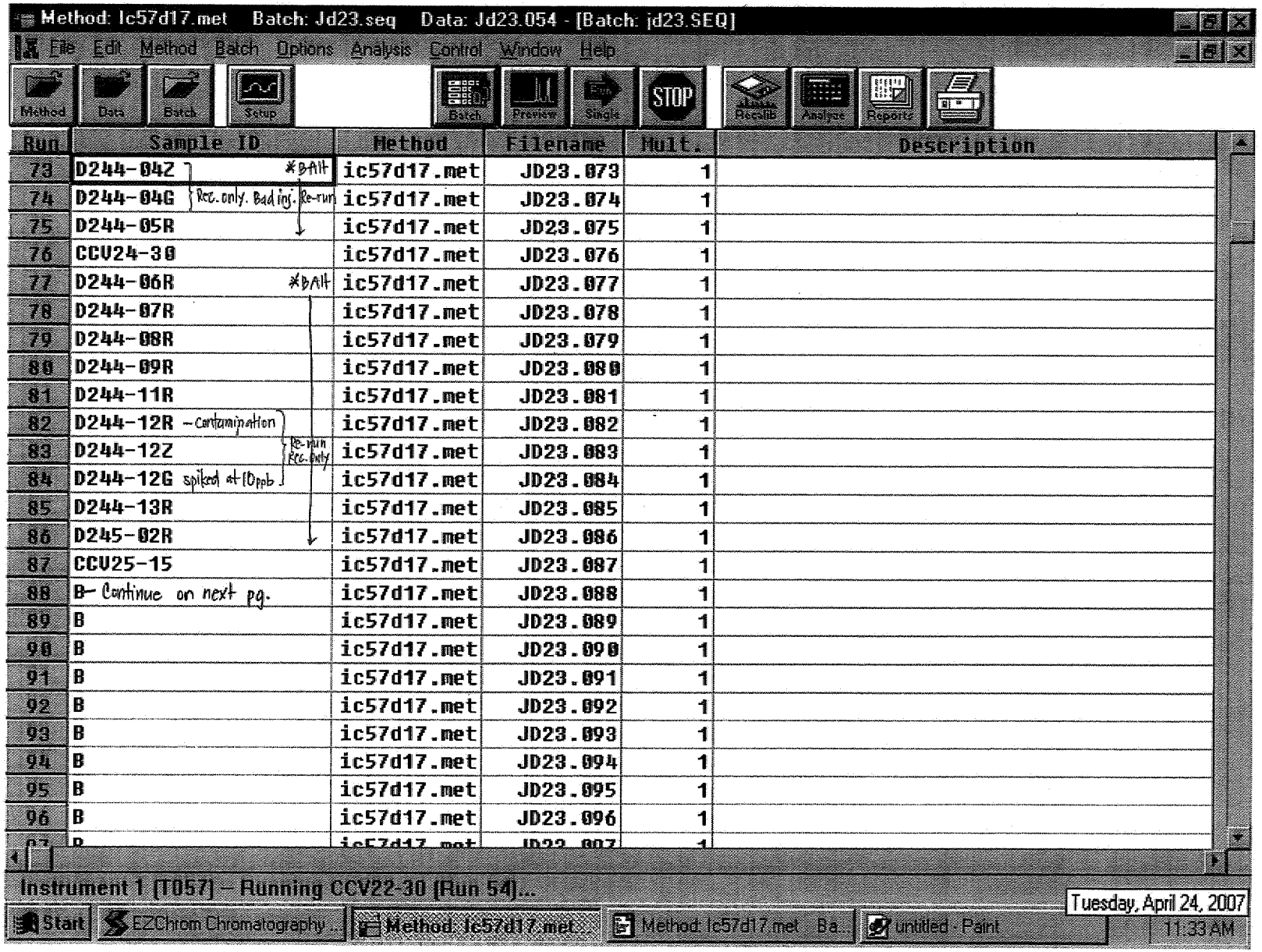
Date: 04/23/07 & 04/24/07


Method: Ic57d17.met Batch: Jd23.seq Data: Jd23.054 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyst Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 IPCS | ic57d17.met | JD23.001 | 1
2 PCD013SB *BA | ic57d17.met | JD23.002 | 1
3 MRL | ic57d17.met | JD23.003 | 1
4 PCD013SL *BA | ic57d17.met | JD23.004 | 1
5 PCD013SC | ic57d17.met | JD23.005 | 1
6 D197-01 | ic57d17.met | JD23.006 | 1
7 D244-01 | ic57d17.met | JD23.007 | 1
8 D244-02 | ic57d17.met | JD23.008 | 1
9 D244-03 | ic57d17.met | JD23.009 | 1
10 D244-04 | ic57d17.met | JD23.010 | 1
11 D244-04D | ic57d17.met | JD23.011 | 1
12 D244-04M | ic57d17.met | JD23.012 | 1
13 D244-05 | ic57d17.met | JD23.013 | 1
14 D244-06 | ic57d17.met | JD23.014 | 1
15 D244-07 | ic57d17.met | JD23.015 | 1
16 D244-08 | ic57d17.met | JD23.016 | 1
17 D244-09 | ic57d17.met | JD23.017 | 1
18 D244-11 | ic57d17.met | JD23.018 | 1
19 D244-12 | ic57d17.met | JD23.019 | 1
20 D244-13 | ic57d17.met | JD23.020 | 1
21 D245-02 | ic57d17.met | JD23.021 | 1
22 CCV19-15 | ic57d17.met | JD23.022 | 1
23 D245-03 *BA | ic57d17.met | JD23.023 | 1
24 D245-04 | ic57d17.met | JD23.024 | 1
Record Only. Not Used.
41.0 µS/cm
9.3
6.71
9.92
11.2 µs/cm
11.1 µS/cm
8.32
34.5
6.75
6.16
13.40
21.4
3.76
9.90 µS/cm
17.71
Re-run samples due to no CCV in between
← Rec. Only Bad Inj.
Instrument 1 [TD57] – Running CCV22-30 [Run 54]...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Tuesday, April 24, 2007
11:32 AM

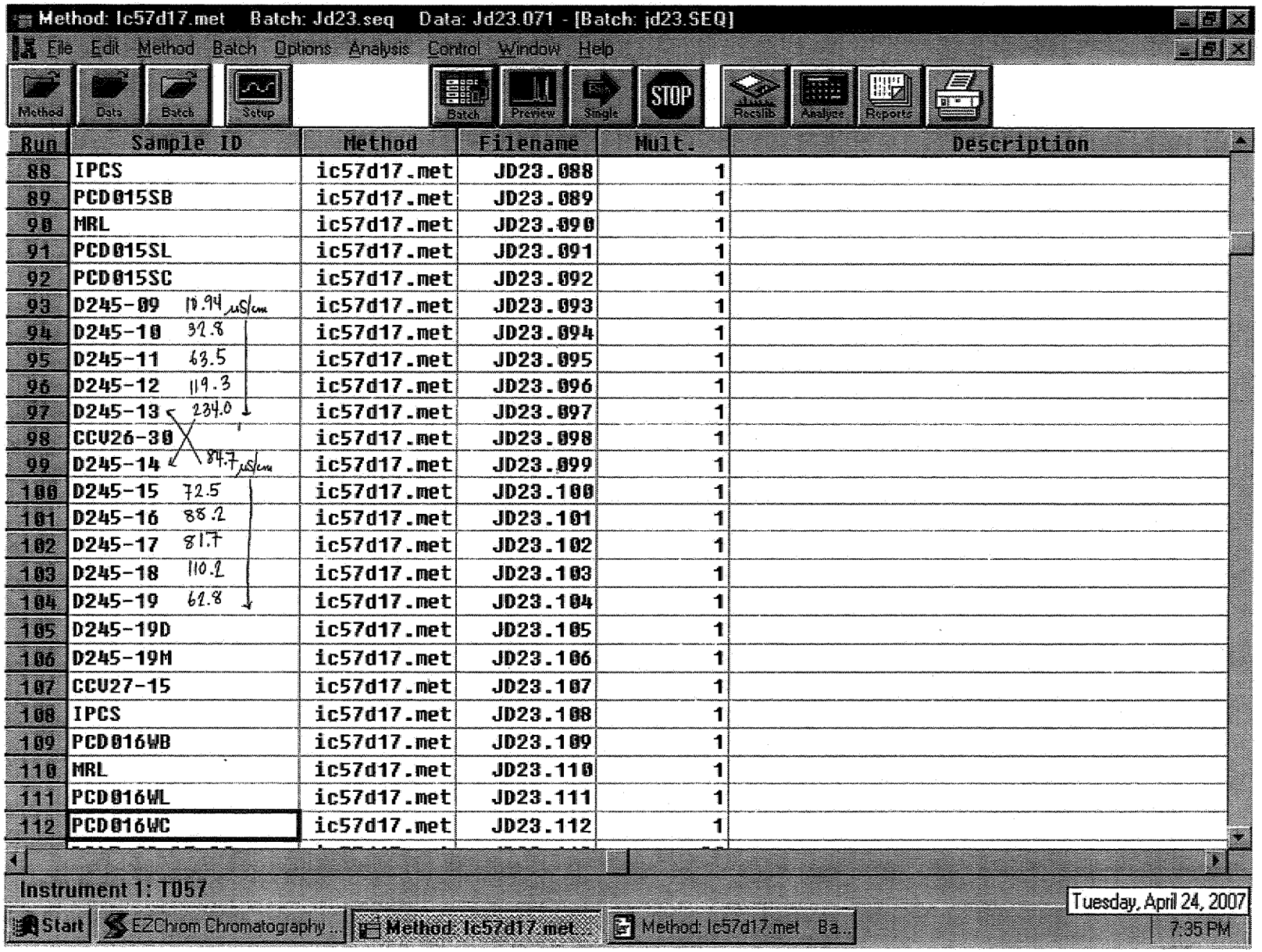
8023


Method: lc57d17.met Batch: Jd23.seq Data: Jd23.054 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Results Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | D245-05 9.40 µS/cm *BAH | lc57d17.met | JD23.025 | 1
26 | D245-06 69.8 | lc57d17.met | JD23.026 | 1
27 | D245-07 7.99 | lc57d17.met | JD23.027 | 1
28 | D245-08 10.58 | lc57d17.met | JD23.028 | 1
29 | D244-12D Rec. only | lc57d17.met | JD23.029 | 1
30 | D244-12M spiked at 10ppb | lc57d17.met | JD23.030 | 1
31 | RINSE | lc57d17.met | JD23.031 | 1
32 | CCV20-30 | lc57d17.met | JD23.032 | 1
33 | IPCS | lc57d17.met | JD23.033 | 1
34 | PCD014WB *BAH | lc57d17.met | JD23.034 | 1
35 | MRL | lc57d17.met | JD23.035 | 1
36 | PCD014WL *BAH | lc57d17.met | JD23.036 | 1
37 | PCD014WC | lc57d17.met | JD23.037 | 1
38 | D223-14 DF=20 Rec. Not Used | lc57d17.met | JD23.038 | 20
39 | D223-15R | lc57d17.met | JD23.039 | 1
40 | D223-06R Confirmation Only. Not Used. | lc57d17.met | JD23.040 | 1
41 | D223-06Z | lc57d17.met | JD23.041 | 1
42 | D223-06G spiked at 10ppb | lc57d17.met | JD23.042 | 1
43 | CCV21-15 | lc57d17.met | JD23.043 | 1
44 | D223-16 DF=5 377µS/cm *BAH @DF | lc57d17.met | JD23.044 | 5
45 | D223-17 588 µS/cm | lc57d17.met | JD23.045 | 1
46 | D223-18 466 | lc57d17.met | JD23.046 | 1
47 | D223-19 490 | lc57d17.met | JD23.047 | 1
48 | IPCS | lc57d17.met | JD23.048 | 1
Instrument 1 [T057] – Running CCV22-30 [Run 54]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Tuesday, April 24, 2007
11:32 AM


Method: lc57d17.met Batch: Jd23.seq Data: Jd23.054 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
49 PCD013SQ *BAH ic57d17.met JD23.049 1
50 MRL ic57d17.met JD23.050 1
51 PCD013SX *BAH ic57d17.met JD23.051 1
52 PCD013SY ic57d17.met JD23.052 1
53 D197-01R ic57d17.met JD23.053 1
54 CCV22-30 ic57d17.met JD23.054 1
55 D223-20 1310 uS/cm *BAH ic57d17.met JD23.055 1
56 D223-21 640 <Rec. Only.. Bad Inj. ic57d17.met JD23.056 1
57 D223-22 548 ic57d17.met JD23.057 1
58 D223-23 1130 ic57d17.met JD23.058 1
59 D223-24 590 ic57d17.met JD23.059 1
60 D223-25 1440 ic57d17.met JD23.060 1
61 D223-26 1310 ic57d17.met JD23.061 1
62 D224-01 380 ic57d17.met JD23.062 1
63 D224-02 410 ic57d17.met JD23.063 1
64 D205-01 385 ic57d17.met JD23.064 1
65 CCV23-15 ic57d17.met JD23.065 1
66 D205-02 393 uS/cm *BAH ic57d17.met JD23.066 1
67 D244-14 2.70 uS/cm ic57d17.met JD23.067 1
68 D245-01 3.05 uS/cm ic57d17.met JD23.068 1
69 D244-01R ic57d17.met JD23.069 1
70 D244-02R ic57d17.met JD23.070 1
71 D244-03R ic57d17.met JD23.071 1
72 D244-04R * Not Used. Bad inj. ic57d17.met JD23.072 1
Instrument 1 [T057] – Running CCV22-30 [Run 54]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Tuesday, April 24, 2007
11:33 AM

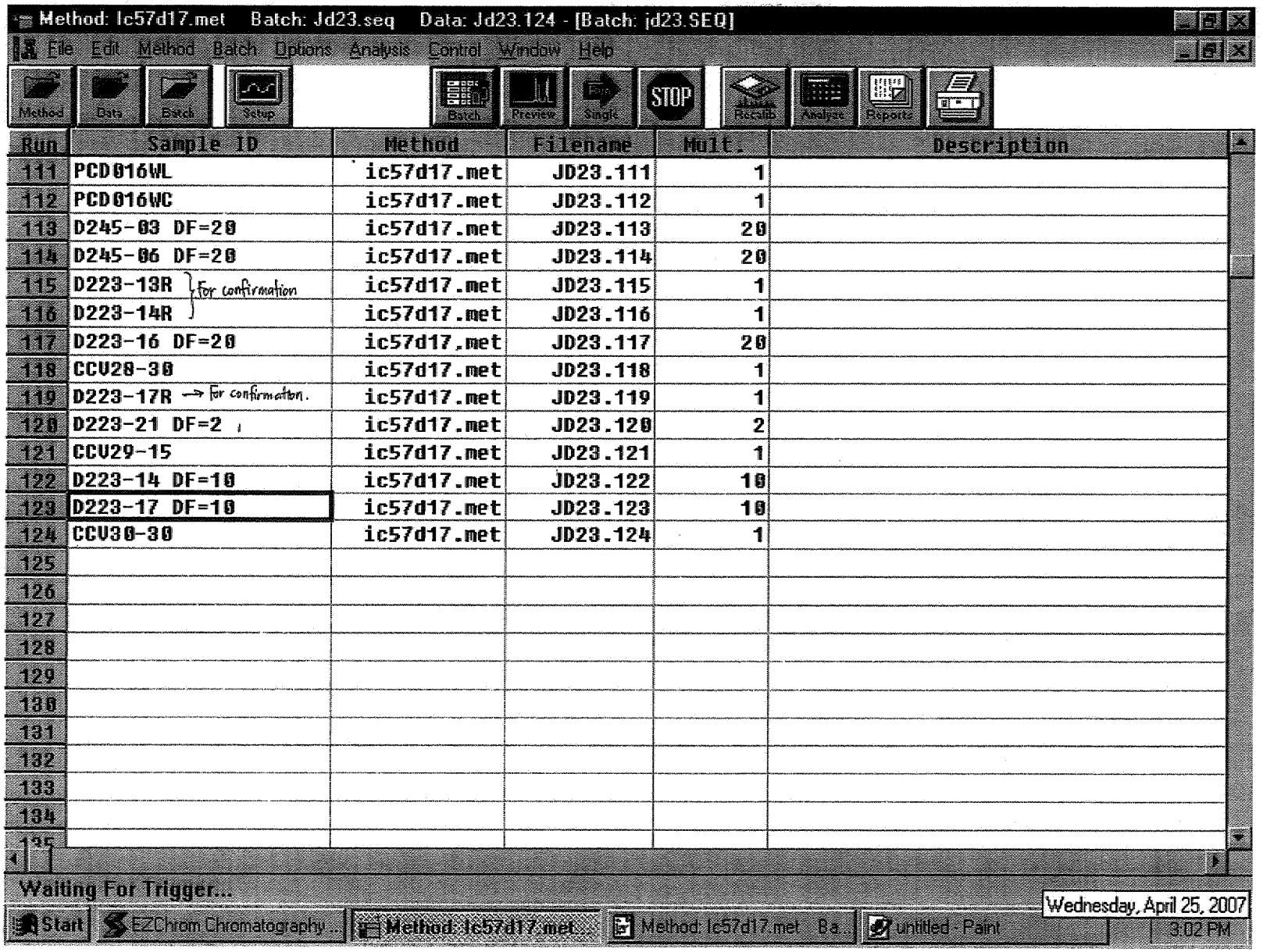

Method: lc57d17.met Batch: Jd23.seq Data: Jd23.054 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D244-04Z | *BAlt | ic57d17.met | JD23.073 | 1
74 | D244-04G | Rec. only. Bad inj. Re-run | ic57d17.met | JD23.074 | 1
75 | D244-05R | ic57d17.met | JD23.075 | 1
76 | CCV24-30 | ic57d17.met | JD23.076 | 1
77 | D244-06R | *BAlt | ic57d17.met | JD23.077 | 1
78 | D244-07R | ic57d17.met | JD23.078 | 1
79 | D244-08R | ic57d17.met | JD23.079 | 1
80 | D244-09R | ic57d17.met | JD23.080 | 1
81 | D244-11R | ic57d17.met | JD23.081 | 1
82 | D244-12R - contamination | ic57d17.met | JD23.082 | 1
83 | D244-12Z | Re-run Rec. only | ic57d17.met | JD23.083 | 1
84 | D244-12G spiked at 10ppb | ic57d17.met | JD23.084 | 1
85 | D244-13R | ic57d17.met | JD23.085 | 1
86 | D245-02R | ic57d17.met | JD23.086 | 1
87 | CCV25-15 | ic57d17.met | JD23.087 | 1
88 | B- Continue on next pg. | ic57d17.met | JD23.088 | 1
89 | B | ic57d17.met | JD23.089 | 1
90 | B | ic57d17.met | JD23.090 | 1
91 | B | ic57d17.met | JD23.091 | 1
92 | B | ic57d17.met | JD23.092 | 1
93 | B | ic57d17.met | JD23.093 | 1
94 | B | ic57d17.met | JD23.094 | 1
95 | B | ic57d17.met | JD23.095 | 1
96 | B | ic57d17.met | JD23.096 | 1
Instrument 1 [T057] – Running CCV22-30 [Run 54]...
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met - Ba... untitled - Paint
Tuesday, April 24, 2007
11:33 AM

8626



19.94 µS/cm
32.8
63.5
119.3
234.0
84.7 µS/cm
72.5
88.2
81.7
110.2
62.8

6027


Method: Ic57d17.met Batch: Jd23.seq Data: Jd23.124 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
111 | PCD016WL | ic57d17.met | JD23.111 | 1 |
112 | PCD016WC | ic57d17.met | JD23.112 | 1 |
113 | D245-03 DF=20 | ic57d17.met | JD23.113 | 20 |
114 | D245-06 DF=20 | ic57d17.met | JD23.114 | 20 |
115 | D223-13R } For confirmation | ic57d17.met | JD23.115 | 1 |
116 | D223-14R } | ic57d17.met | JD23.116 | 1 |
117 | D223-16 DF=20 | ic57d17.met | JD23.117 | 20 |
118 | CCV28-30 | ic57d17.met | JD23.118 | 1 |
119 | D223-17R → For confirmation. | ic57d17.met | JD23.119 | 1 |
120 | D223-21 DF=2 | ic57d17.met | JD23.120 | 2 |
121 | CCV29-15 | ic57d17.met | JD23.121 | 1 |
122 | D223-14 DF=10 | ic57d17.met | JD23.122 | 10 |
123 | D223-17 DF=10 | ic57d17.met | JD23.123 | 10 |
124 | CCV30-30 | ic57d17.met | JD23.124 | 1 |
125
126
127
128
129
130
131
132
133
134
135
Waiting For Trigger...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met - Ba... untitled - Paint
Wednesday, April 25, 2007
3:02 PM

3628

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH: SW8A - 02-18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD25

Method File: IC57d17.met

Analytical Batch: PCD017W + PCD018G

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

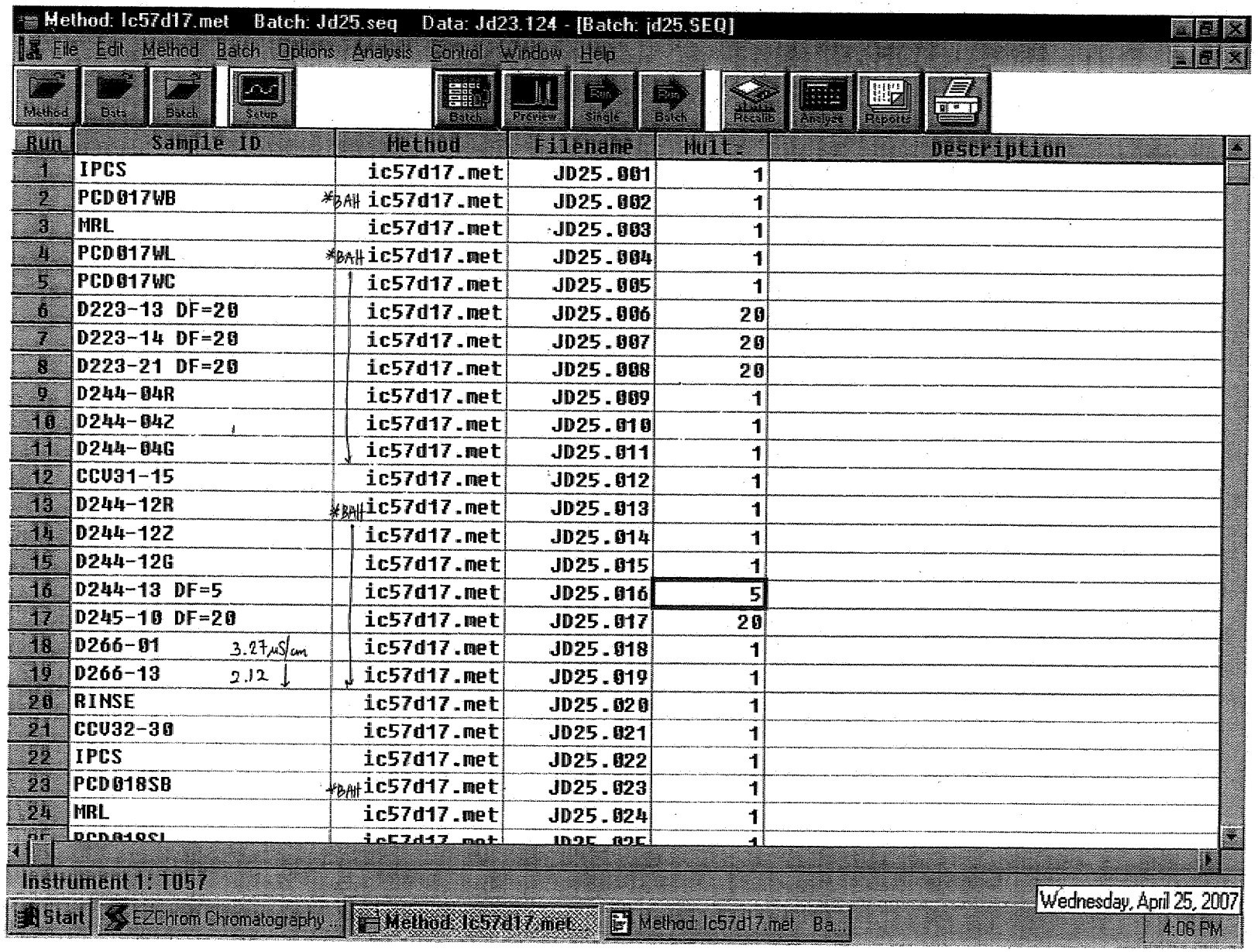
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	938
LCS	936
MS	931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1412	(±) 30	25°C

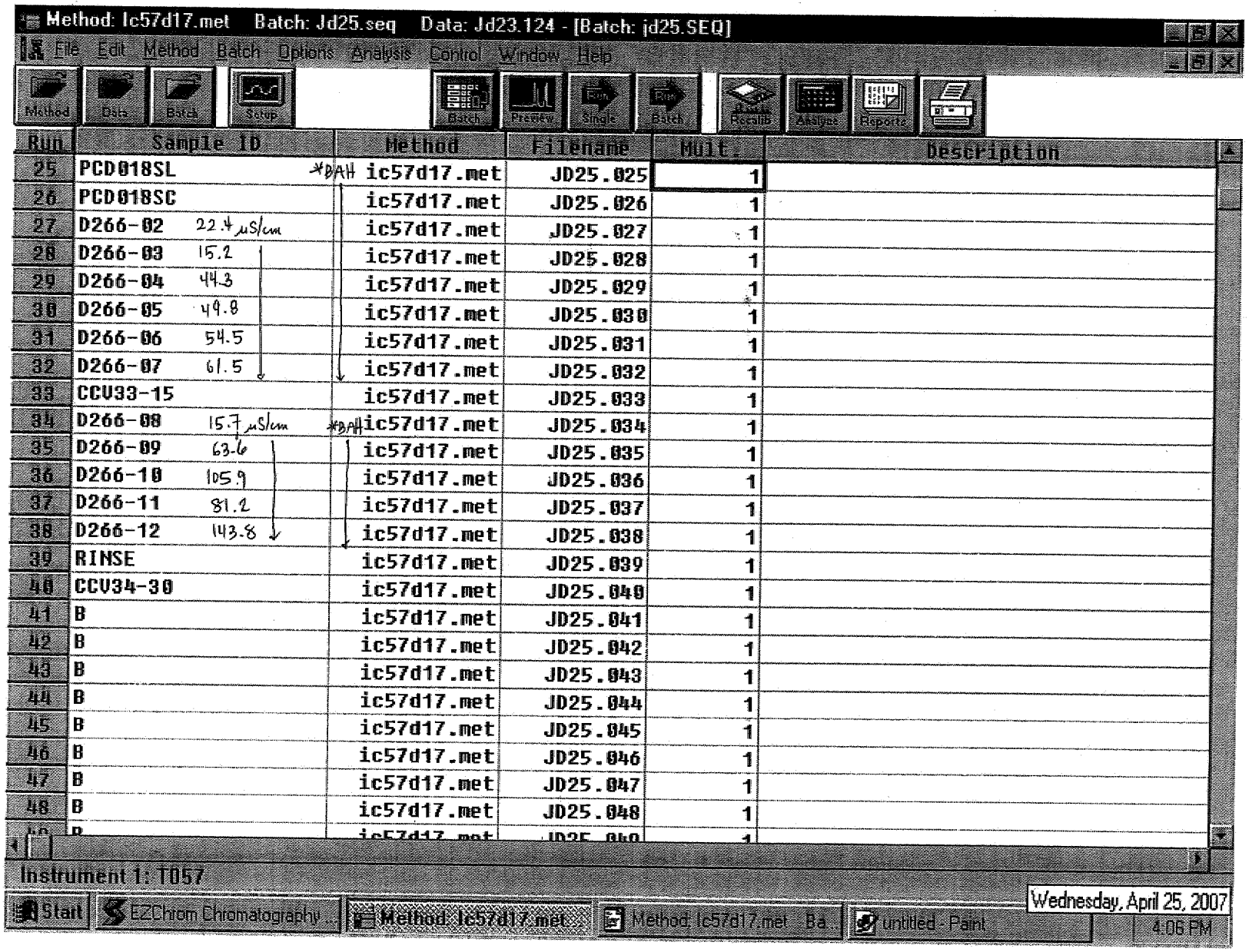
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 04/25/07


Method: lc57d17.met Batch: Jd25.seq Data: Jd23.124 - [Batch: jd25.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Batch
Setup
Preview
Single
Results
Analysis
Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IPCS | ic57d17.met | JD25.001 | 1
2 | PCD017WB | *BAH ic57d17.met | JD25.002 | 1
3 | MRL | ic57d17.met | JD25.003 | 1
4 | PCD017WL | *BAH ic57d17.met | JD25.004 | 1
5 | PCD017WC | ic57d17.met | JD25.005 | 1
6 | D223-13 DF=20 | ic57d17.met | JD25.006 | 20
7 | D223-14 DF=20 | ic57d17.met | JD25.007 | 20
8 | D223-21 DF=20 | ic57d17.met | JD25.008 | 20
9 | D244-04R | ic57d17.met | JD25.009 | 1
10 | D244-04Z | ic57d17.met | JD25.010 | 1
11 | D244-04G | ic57d17.met | JD25.011 | 1
12 | CCV31-15 | ic57d17.met | JD25.012 | 1
13 | D244-12R | *BAH ic57d17.met | JD25.013 | 1
14 | D244-12Z | ic57d17.met | JD25.014 | 1
15 | D244-12G | ic57d17.met | JD25.015 | 1
16 | D244-13 DF=5 | ic57d17.met | JD25.016 | 5
17 | D245-10 DF=20 | ic57d17.met | JD25.017 | 20
18 | D266-01 3.27 µS/cm | ic57d17.met | JD25.018 | 1
19 | D266-13 2.12 | ic57d17.met | JD25.019 | 1
20 | RINSE | ic57d17.met | JD25.020 | 1
21 | CCV32-30 | ic57d17.met | JD25.021 | 1
22 | IPCS | ic57d17.met | JD25.022 | 1
23 | PCD018SB | *BAH ic57d17.met | JD25.023 | 1
24 | MRL | ic57d17.met | JD25.024 | 1
Instrument 1: TOS7
Start
EZChrom Chromatography...
Method: lc57d17.met...
Method: lc57d17.met Ba...
Wednesday, April 25, 2007
4:06 PM

8636


Method: Ic57d17.met Batch: Jd25.seq Data: Jd23.124 - [Batch: jd25.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Batch Results Analysis Reports
Run Sample ID Method Filename Mult. Description
25 PCD018SL *DAH ic57d17.met JD25.025 1
26 PCD018SC ic57d17.met JD25.026 1
27 D266-02 22.4 µS/cm ic57d17.met JD25.027 1
28 D266-03 15.2 ic57d17.met JD25.028 1
29 D266-04 44.3 ic57d17.met JD25.029 1
30 D266-05 49.8 ic57d17.met JD25.030 1
31 D266-06 54.5 ic57d17.met JD25.031 1
32 D266-07 61.5 ic57d17.met JD25.032 1
33 CCV33-15 ic57d17.met JD25.033 1
34 D266-08 15.7 µS/cm *DAH ic57d17.met JD25.034 1
35 D266-09 63.6 ic57d17.met JD25.035 1
36 D266-10 105.9 ic57d17.met JD25.036 1
37 D266-11 81.2 ic57d17.met JD25.037 1
38 D266-12 143.8 ic57d17.met JD25.038 1
39 RINSE ic57d17.met JD25.039 1
40 CCV34-30 ic57d17.met JD25.040 1
41 B ic57d17.met JD25.041 1
42 B ic57d17.met JD25.042 1
43 B ic57d17.met JD25.043 1
44 B ic57d17.met JD25.044 1
45 B ic57d17.met JD25.045 1
46 B ic57d17.met JD25.046 1
47 B ic57d17.met JD25.047 1
48 B ic57d17.met JD25.048 1
Instrument 1: T057
Start EZChrom Chromatography Method: Ic57d17.met Method: Ic57d17.met - Ba... untitled - Paint
Wednesday, April 25, 2007
4:06 PM

8931

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: * IC57d17.mef

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev.#
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

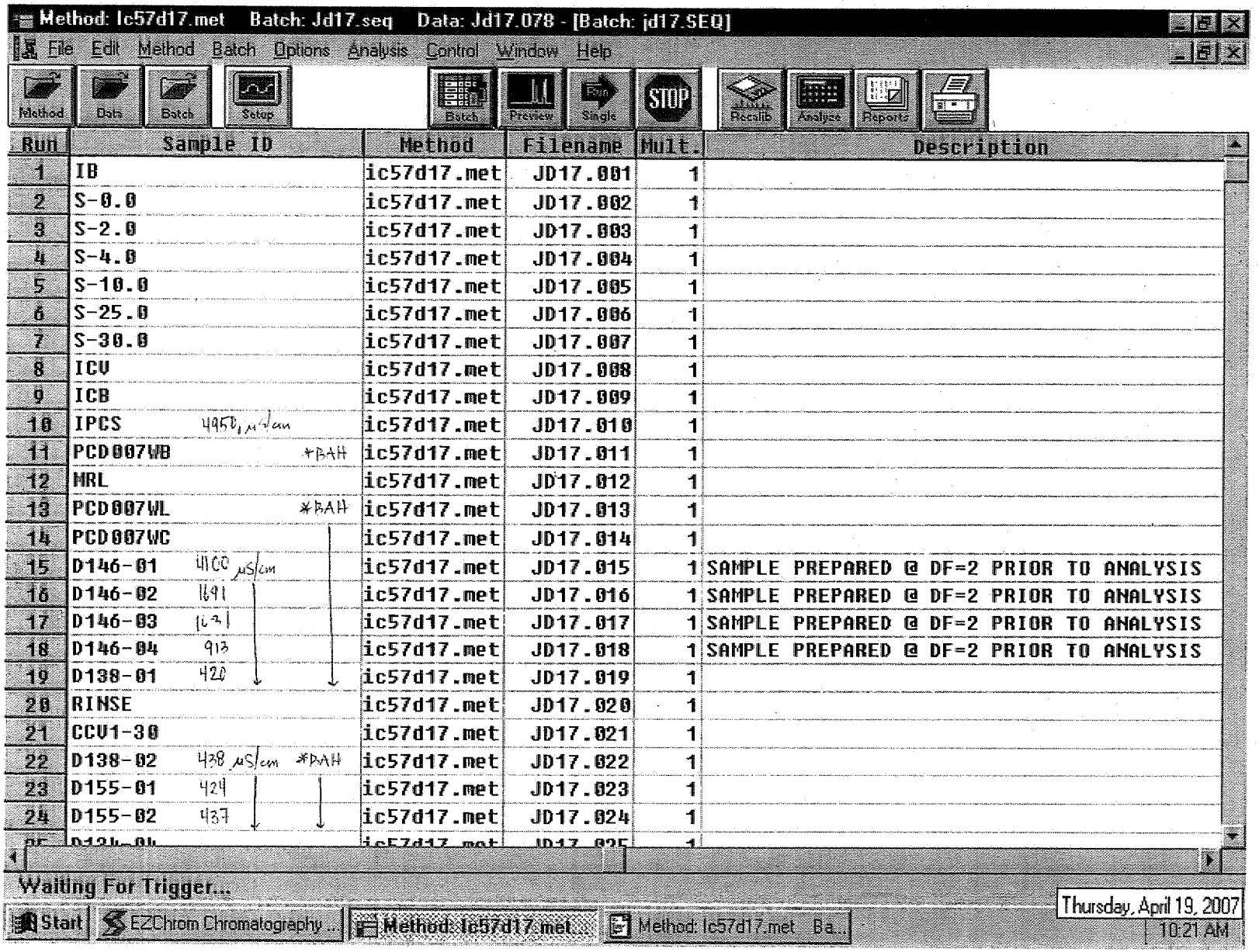
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

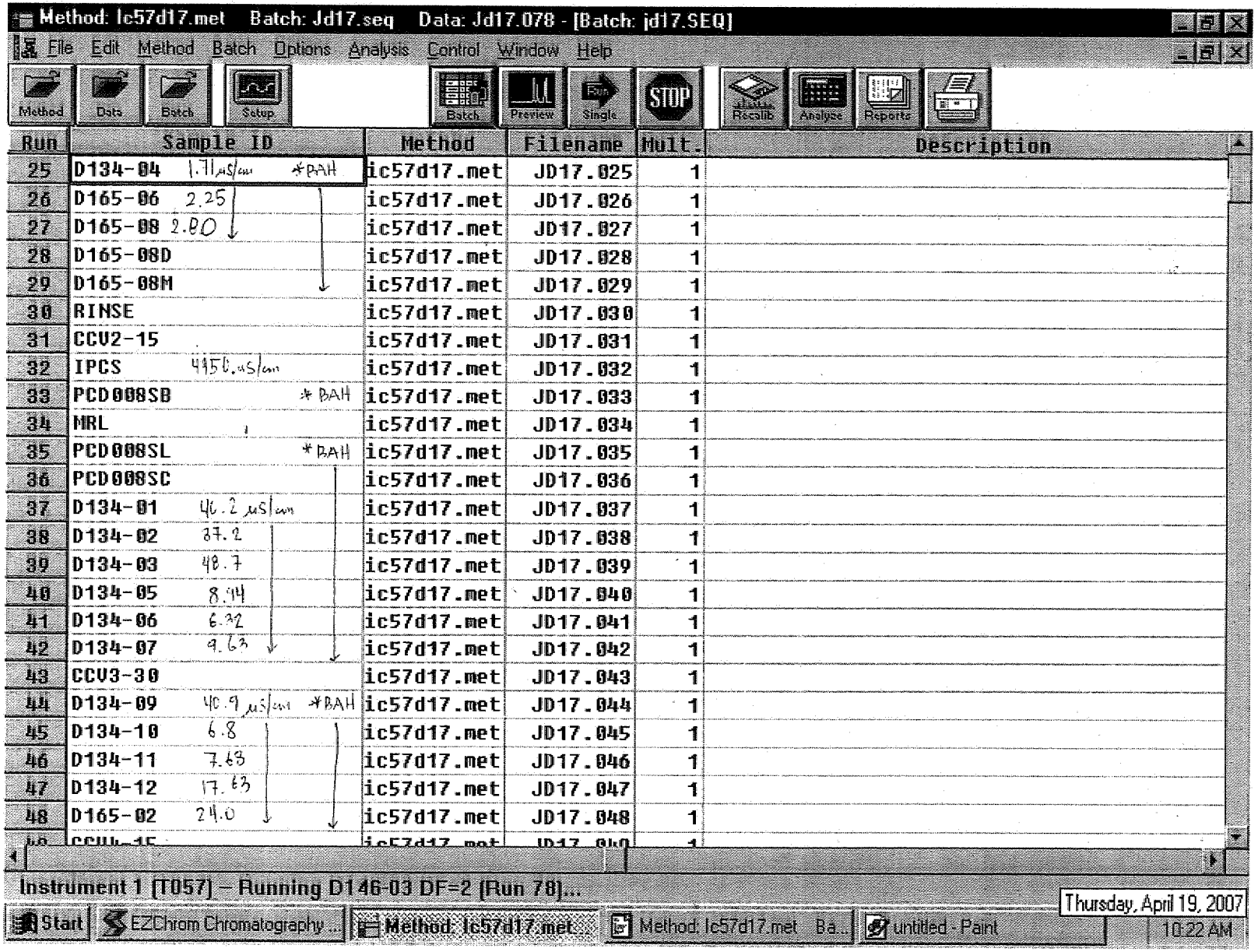
CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: al

Date: 04/17/07


Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 IB ic57d17.met JD17.001 1
2 S-0.0 ic57d17.met JD17.002 1
3 S-2.0 ic57d17.met JD17.003 1
4 S-4.0 ic57d17.met JD17.004 1
5 S-10.0 ic57d17.met JD17.005 1
6 S-25.0 ic57d17.met JD17.006 1
7 S-30.0 ic57d17.met JD17.007 1
8 ICV ic57d17.met JD17.008 1
9 ICB ic57d17.met JD17.009 1
10 IPCS 4950 µS/cm ic57d17.met JD17.010 1
11 PCD007WB *BAH ic57d17.met JD17.011 1
12 MRL ic57d17.met JD17.012 1
13 PCD007WL *BAH ic57d17.met JD17.013 1
14 PCD007WC ic57d17.met JD17.014 1
15 D146-01 4100 µS/cm ic57d17.met JD17.015 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 D146-02 1691 ic57d17.met JD17.016 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 D146-03 1631 ic57d17.met JD17.017 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 D146-04 913 ic57d17.met JD17.018 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 D138-01 420 ic57d17.met JD17.019 1
20 RINSE ic57d17.met JD17.020 1
21 CCV1-30 ic57d17.met JD17.021 1
22 D138-02 438 µS/cm *BAH ic57d17.met JD17.022 1
23 D155-01 424 ic57d17.met JD17.023 1
24 D155-02 437 ic57d17.met JD17.024 1
Waiting For Trigger...
Start EZChrom Chromatography ... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Thursday, April 19, 2007
10:21 AM



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

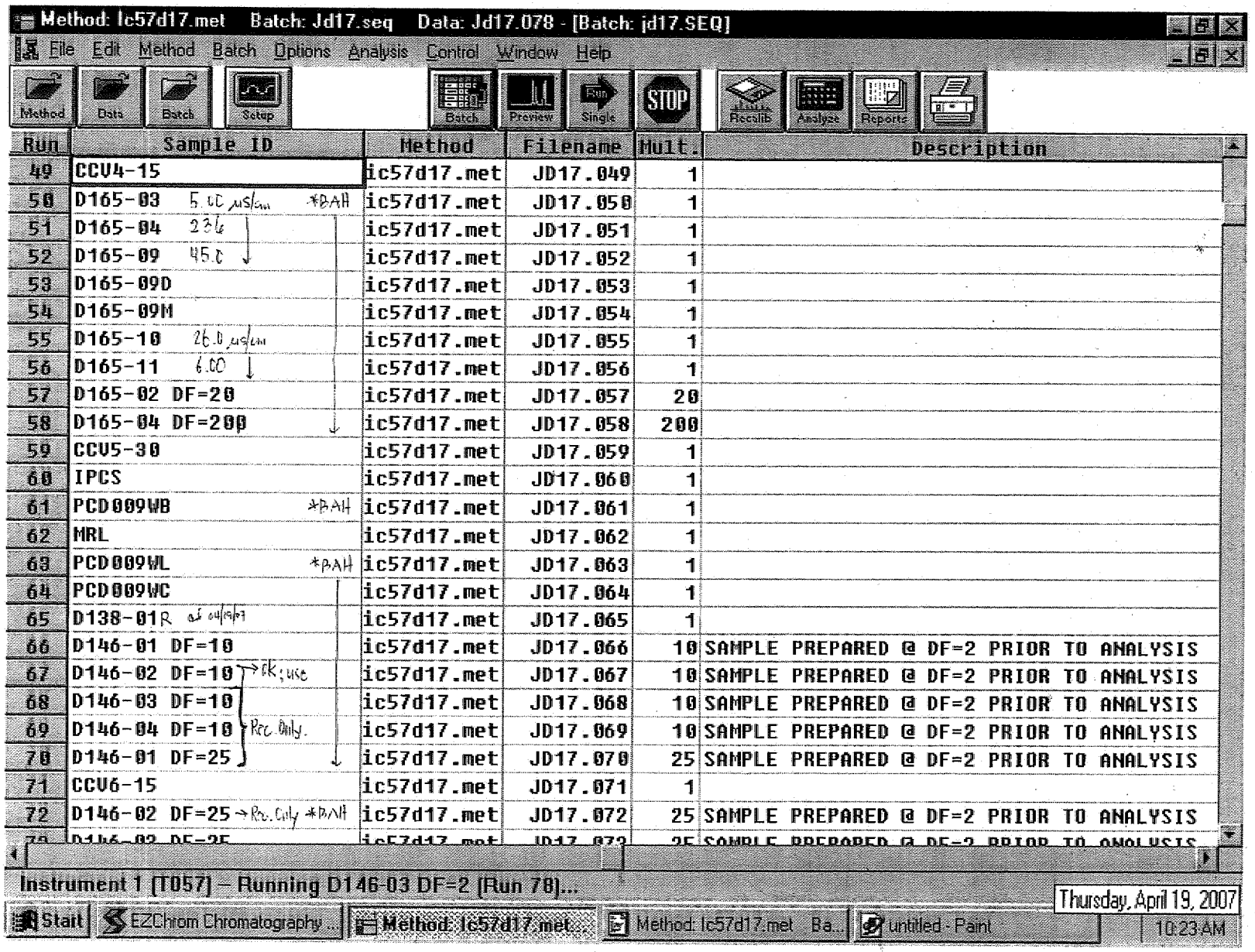
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

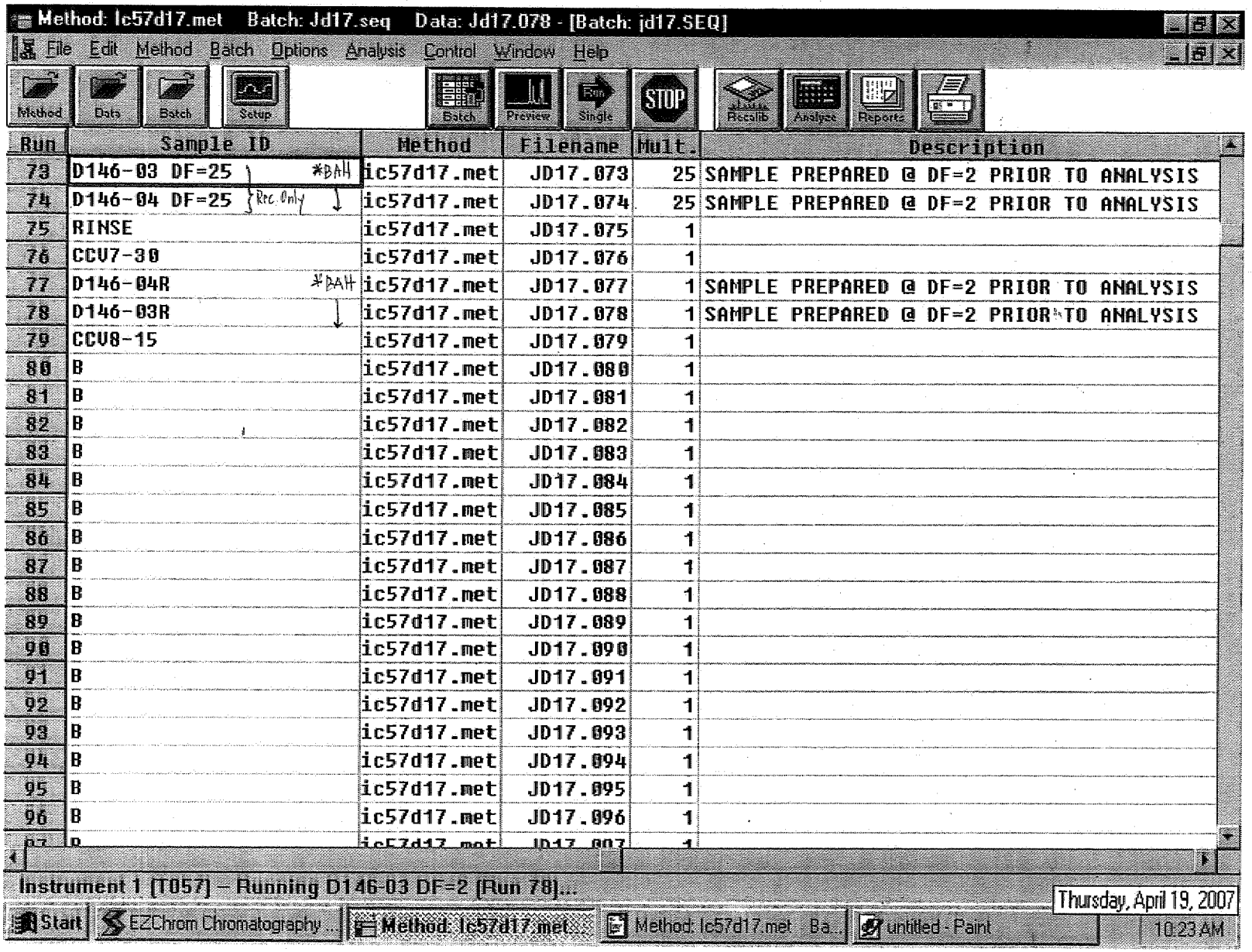
Run	Sample ID	Method	Filename	Mult.	Description
25	D134-04 1.71 µS/cm *BAH	ic57d17.met	JD17.025	1	
26	D165-06 2.25	ic57d17.met	JD17.026	1	
27	D165-08 2.80	ic57d17.met	JD17.027	1	
28	D165-08D	ic57d17.met	JD17.028	1	
29	D165-08M	ic57d17.met	JD17.029	1	
30	RINSE	ic57d17.met	JD17.030	1	
31	CCV2-15	ic57d17.met	JD17.031	1	
32	IPCS 4950 µS/cm	ic57d17.met	JD17.032	1	
33	PCD008SB *BAH	ic57d17.met	JD17.033	1	
34	MRL	ic57d17.met	JD17.034	1	
35	PCD008SL *BAH	ic57d17.met	JD17.035	1	
36	PCD008SC	ic57d17.met	JD17.036	1	
37	D134-01 46.2 µS/cm	ic57d17.met	JD17.037	1	
38	D134-02 37.2	ic57d17.met	JD17.038	1	
39	D134-03 48.7	ic57d17.met	JD17.039	1	
40	D134-05 8.94	ic57d17.met	JD17.040	1	
41	D134-06 6.32	ic57d17.met	JD17.041	1	
42	D134-07 9.63	ic57d17.met	JD17.042	1	
43	CCV3-30	ic57d17.met	JD17.043	1	
44	D134-09 40.9 µS/cm *BAH	ic57d17.met	JD17.044	1	
45	D134-10 6.8	ic57d17.met	JD17.045	1	
46	D134-11 7.63	ic57d17.met	JD17.046	1	
47	D134-12 17.63	ic57d17.met	JD17.047	1	
48	D165-02 24.0	ic57d17.met	JD17.048	1	
49	CCV4-15	ic57d17.met	JD17.049	1	

Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...

Start | EZChrom Chromatography ... | Method: Ic57d17.met... | Method: Ic57d17.met Ba... | untitled - Paint | Thursday, April 19, 2007 | 10:22 AM

8034


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP ReoLib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1 |
50 | D165-03 5.00 µs/cm *BAH | lc57d17.met | JD17.050 | 1 |
51 | D165-04 23.6 | lc57d17.met | JD17.051 | 1 |
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1 |
53 | D165-09D | lc57d17.met | JD17.053 | 1 |
54 | D165-09M | lc57d17.met | JD17.054 | 1 |
55 | D165-10 26.0 µs/cm | lc57d17.met | JD17.055 | 1 |
56 | D165-11 6.00 | lc57d17.met | JD17.056 | 1 |
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20 |
58 | D165-04 DF=200 | lc57d17.met | JD17.058 | 200 |
59 | CCV5-30 | lc57d17.met | JD17.059 | 1 |
60 | IPCS | lc57d17.met | JD17.060 | 1 |
61 | PCD009WB *BAH | lc57d17.met | JD17.061 | 1 |
62 | MRL | lc57d17.met | JD17.062 | 1 |
63 | PCD009WL *BAH | lc57d17.met | JD17.063 | 1 |
64 | PCD009WC | lc57d17.met | JD17.064 | 1 |
65 | D138-01R as 04/04/07 | lc57d17.met | JD17.065 | 1 |
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → ok; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Rec. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1 |
72 | D146-02 DF=25 → Rec. Only *BAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [TD57] – Running D146-03 DF=2 [Run 70]...
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
79 D146-03 DF=25 *BAH ic57d17.met JD17.073 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 D146-04 DF=25 Rec. Only ic57d17.met JD17.074 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 RINSE ic57d17.met JD17.075 1
76 CCV7-30 ic57d17.met JD17.076 1
77 D146-04R *BAH ic57d17.met JD17.077 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 D146-03R ic57d17.met JD17.078 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 CCV8-15 ic57d17.met JD17.079 1
80 B ic57d17.met JD17.080 1
81 B ic57d17.met JD17.081 1
82 B ic57d17.met JD17.082 1
83 B ic57d17.met JD17.083 1
84 B ic57d17.met JD17.084 1
85 B ic57d17.met JD17.085 1
86 B ic57d17.met JD17.086 1
87 B ic57d17.met JD17.087 1
88 B ic57d17.met JD17.088 1
89 B ic57d17.met JD17.089 1
90 B ic57d17.met JD17.090 1
91 B ic57d17.met JD17.091 1
92 B ic57d17.met JD17.092 1
93 B ic57d17.met JD17.093 1
94 B ic57d17.met JD17.094 1
95 B ic57d17.met JD17.095 1
96 B ic57d17.met JD17.096 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8036

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 04/23/07 Time 14:50 End Date 04/23/07 Time 16:00

PREPARATION BATCH # PLD0135

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PLD0135B	10.000g	100ml	100ml	Screen as SQ
*02	SL				SX
*03	SC				SY
*04	D197-01				
*05	D244-01				
*06	02				
*07	03				
*08	04				
*09	04D				
*10	04M				
*11	05				
*12	06				
*13	07				
*14	08				
*15	09				
*16	11				
*17	12				
*18	13				
*19	D245-02				
*20	03				
*21	04				
*22	05				
*23	06				
*24	07				
*25	08				

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-981	2.5ml/1.0ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: dl

Standard Added By: dl

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 04/23/07 Time 14:50 End Date 04/23/07 Time 16:00

PREPARATION BATCH # PLD0135

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	D244-12D	10.000g	100 ml	100 ml	
*02	↓ 12M	↓	↓	↓	
*03					
*04					
*05					
*06					
*07					
*08					
*09					
*10					
*11					
*12					
*13					
*14					
*15					
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5 ml / 1.0 ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

04/23/07

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5998

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D245**

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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8039
OTHERS	**	9000 –

** - Not Requested

LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-09-2007
EMAX Batch No.: 07D245

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/20/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB-041807	D245-01	04/18/07	WATER	PERCHLORATE BY IC
B19-HSAS18-5-6.5	D245-02	04/18/07	SOIL	PERCHLORATE BY IC
B19-HSAS18-10-11.5	D245-03	04/18/07	SOIL	PERCHLORATE BY IC
B19-HSAS18-20-21.5	D245-04	04/18/07	SOIL	PERCHLORATE BY IC
B9-HSAS2-5-6.5	D245-05	04/18/07	SOIL	PERCHLORATE BY IC
B9-HSAS2-10-11.5	D245-06	04/18/07	SOIL	PERCHLORATE BY IC
B9-HSAS2-20-21.5	D245-07	04/18/07	SOIL	PERCHLORATE BY IC
B9-HSAS3-5-6.5	D245-08	04/18/07	SOIL	PERCHLORATE BY IC
B9-HSAS3-10-11.5	D245-09	04/18/07	SOIL	PERCHLORATE BY IC
B9-HSAS3-20-21.5	D245-10	04/18/07	SOIL	PERCHLORATE BY IC
B14-HSAS13-5-6.5	D245-11	04/18/07	SOIL	PERCHLORATE BY IC
B14-HSAS13-10-11.5	D245-12	04/18/07	SOIL	PERCHLORATE BY IC
B14-HSAS13-25-26.5	D245-13	04/18/07	SOIL	PERCHLORATE BY IC
B10-HSAS4-5-6.5	D245-14	04/18/07	SOIL	PERCHLORATE BY IC
B10-HSAS4-15-16.5	D245-15	04/18/07	SOIL	PERCHLORATE BY IC
B10-HSAS4-30-31.5	D245-16	04/18/07	SOIL	PERCHLORATE BY IC
B14-HSAS12-5-6.5	D245-17	04/18/07	SOIL	PERCHLORATE BY IC
B14-HSAS12-10-11.5	D245-18	04/18/07	SOIL	PERCHLORATE BY IC
B14-HSAS12-25-26.5	D245-19	04/18/07	SOIL	PERCHLORATE BY IC

Sample ID	Control #	Col Date	Matrix	Analysis

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

07D245

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Emax
1835 W. 205th St
Torrance CA
90501

DATE 4-18-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures) L. Margullis

PARAMETERS: 314.0 Perchlorate

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LEB-041807	4-18-07	0833	X	U	W	P	1	NR
2.	B19-HSAS18-5-6.5	4-18-07	0850	X		S	G		
3.	B19-HSAS18-10-11.5	"	0853	X					
4.	B19-HSAS18-20-21.5	"	0859	X					
5.	B9-HSAS2-5-6.5	"	0954	X					
6.	B9-HSAS2-10-11.5	"	0956	X					
7.	B9-HSAS2-20-21.5	"	1004	X					
8.	B9-HSAS3-5-6.5	"	1057	X					
9.	B9-HSAS3-10-11.5	"	1102	X					
10.	B9-HSAS3-20-21.5	"	1108	X					

FILTERING: T = 2.9°C
☐ FILTERED ☒ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NaOH
NR (None required)
H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY:
Brenda Margullis	Brenda Margullis	TETRA TECH, INC.	4-18-07	1800	10 of 19
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: Emax	DATE: 4/20/07	TIME: 1630	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: Emax	DATE: 4/20/07	TIME: 18:42	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: - LUNA	SIGNATURE	COMPANY: emax	DATE: 4/20/07	TIME: 1842	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

2001

X:\GIS\ATT-MISC\COCR.CDR

07D245

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Emax
1835 W. 205TH St.
Torrance Ca
90501

DATE 4-18-07 PAGE 2 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures) L. Margullis

PARAMETERS

TURN-AROUND TIME: Standard

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
11.	B14-HSAS13-5-6.5	4-18-07	1332	X	U	S	G	1	NR	
12.	B14-HSAS13-10-11.5	"	1336	X						
13.	B14-HSAS13-25-26.5	"	1351	X						
14.	B10-HSAS4-5-6.5	"	1449	X						
15.	B10-HSAS4-15-16.5	"	1456	X						
16.	B10-HSAS4-30-31.5	"	1513	X						
17.	B14-HSAB12-5-6.5	"	1554	X						
18.	B14-HSAB12-10-11.5	"	1556	X						
19.	B14-HSAB12-25-26.5	"	1608	X						
10.					L. Marquis 4-18-07					

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

	SIGNATURE		DATE	TIME	
RELINQUISHED BY: L. Margullis	Linda Margullis	TETRA TECH, INC.	4-18-07	1800	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 9 of 19
RECEIVED BY: A. CHUCUM	SIGNATURE	COMPANY: EMAX	DATE 4/20/07	TIME 16:30	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. CHUCUM	SIGNATURE	COMPANY: EMAX	DATE 4/20/07	TIME 18:42	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: LUNA	SIGNATURE	COMPANY: emax	DATE 4/20/07	TIME 18:42	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1003

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	See COC	ECN 070245
☐ Client Delivery		Recepient JONLUNA
☐ Third Party		Date 4-20-07
		Time 1842

COC Inspection

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☐ Analysis Required	☐ Preservative (if any)	☑ TAT

Safety Issues

☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures	☑ Cooler 1 2.9 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 4/20/07

SRF _____ Date 4/21/07

PM _____ Date 4/21/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

SAMPLE RECEIPT FORM 2

SAMPLES RECEIVED FOR ECN: 07D245

LSID (*)	LSCID	CONTAINER TYPE								CHEMICAL PRESERVATIVE									Filtered	
		Jar	Amber	HDPE	Encore	Vial	Tube	Bag	Other	NONE	HCl	HNO3	H2SO4	ZnAc + NaOH	Picric Acid	Na2SO4	NaOH	Other	Yes	No
1	* 1			✓						✓										
2	* 2	✓																		
3	* 3	✓																		
4	* 4	✓																		
5	* 5	✓																		
6	* 6	✓																		
7	* 7	✓																		
8	* 8	✓																		
9	* 9	✓																		
10	* 10	✓																		
11	* 1	✓																		
12	* 2	✓																		
13	* 3	✓																		
14	* 4	✓																		
15	* 5	✓																		
16	* 6	✓																		
17	* 7	✓																		
18	* 8	✓																		
19	* 9	✓																		
	* 10																			
	* 1																			
	* 2																			
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	* 5																			
	* 6																			
	* 7																			
	* 8																			
	* 9																			
	* 10																			

4/20/07

LSID Lab Sample ID
LSCID Lab Smple Container ID

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D245

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D245

METHOD 314.0
PERCHLORATE

One (1) water and eighteen (18) soil samples were received on 04/20/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Sample D245-19 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   Sample D245-19 was spiked. %Recovery was within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D245

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
B19-HSAS18-20-21.5	D245-04	217	1	14.0	23.3	11.6	04/24/0701:22	04/23/0714:50	JD23024	JD23022	PCD013S	04/18/0708:59	04/20/07
B9-HSAS2-5-6.5	D245-05	193	1	5.3	21.1	10.6	04/24/0701:43	04/23/0714:50	JD23025	JD23022	PCD013S	04/18/0709:54	04/20/07
B9-HSAS2-20-21.5	D245-07	45.7	1	3.8	20.8	10.4	04/24/0702:23	04/23/0714:50	JD23027	JD23022	PCD013S	04/18/0710:04	04/20/07
B9-HSAS3-5-6.5	D245-08	208	1	4.8	21.0	10.5	04/24/0702:43	04/23/0714:50	JD23028	JD23022	PCD013S	04/18/0710:57	04/20/07
MBLK1S	PCD013SQ	ND	1	NA	20.0	10.0	04/24/0709:49	04/23/0714:50	JD23049	JD23048	PCD013S	NA	04/23/07
LCS1S	PCD013SX	253	1	NA	20.0	10.0	04/24/0710:29	04/23/0714:50	JD23051	JD23048	PCD013S	NA	04/23/07
LCD1S	PCD013SY	251	1	NA	20.0	10.0	04/24/0710:50	04/23/0714:50	JD23052	JD23048	PCD013S	NA	04/23/07
B19-HSAS18-5-6.5	D245-02R	26.6	1	8.5	21.9	10.9	04/25/0700:57	04/23/0714:50	JD23086	JD23076	PCD013S	04/18/0708:50	04/20/07
MBLK2S	PCD015SB	ND	1	NA	20.0	10.0	04/25/0701:58	04/24/0710:00	JD23089	JD23088	PCD015S	NA	04/24/07
LCS2S	PCD015SL	257	1	NA	20.0	10.0	04/25/0702:39	04/24/0710:00	JD23091	JD23088	PCD015S	NA	04/24/07
LCD2S	PCD015SC	257	1	NA	20.0	10.0	04/25/0702:59	04/24/0710:00	JD23092	JD23088	PCD015S	NA	04/24/07
B9-HSAS3-10-11.5	D245-09	46.4	1	6.6	21.4	10.7	04/25/0703:19	04/24/0710:00	JD23093	JD23088	PCD015S	04/18/0711:02	04/20/07
B14-HSAS13-5-6.5	D245-11	15.5J	1	6.5	21.4	10.7	04/25/0704:00	04/24/0710:00	JD23095	JD23088	PCD015S	04/18/0713:32	04/20/07
B14-HSAS13-10-11.5	D245-12	64.2	1	12.1	22.8	11.4	04/25/0704:20	04/24/0710:00	JD23096	JD23088	PCD015S	04/18/0713:36	04/20/07
B14-HSAS13-25-26.5	D245-13	24.6	1	14.5	23.4	11.7	04/25/0704:40	04/24/0710:00	JD23097	JD23088	PCD015S	04/18/0713:51	04/20/07
B10-HSAS4-5-6.5	D245-14	40.6	1	12.0	22.7	11.4	04/25/0705:21	04/24/0710:00	JD23099	JD23098	PCD015S	04/18/0714:49	04/20/07
B10-HSAS4-15-16.5	D245-15	196	1	8.8	21.9	11.0	04/25/0705:41	04/24/0710:00	JD23100	JD23098	PCD015S	04/18/0714:56	04/20/07
B10-HSAS4-30-31.5	D245-16	206	1	11.0	22.5	11.2	04/25/0706:01	04/24/0710:00	JD23101	JD23098	PCD015S	04/18/0715:13	04/20/07
B14-HSAS12-5-6.5	D245-17	24.2	1	6.1	21.3	10.6	04/25/0706:21	04/24/0710:00	JD23102	JD23098	PCD015S	04/18/0715:54	04/20/07
B14-HSAS12-10-11.5	D245-18	210	1	10.3	22.3	11.1	04/25/0706:42	04/24/0710:00	JD23103	JD23098	PCD015S	04/18/0715:56	04/20/07
B14-HSAS12-25-26.5	D245-19	92.5	1	9.4	22.1	11.0	04/25/0707:02	04/24/0710:00	JD23104	JD23098	PCD015S	04/18/0716:08	04/20/07
B14-HSAS12-25-26.5DUP	D245-19D	90.8	1	9.4	22.1	11.0	04/25/0707:22	04/24/0710:00	JD23105	JD23098	PCD015S	04/18/0716:08	04/20/07
B14-HSAS12-25-26.5MS	D245-19M	202	1	9.4	22.1	11.0	04/25/0707:42	04/24/0710:00	JD23106	JD23098	PCD015S	04/18/0716:08	04/20/07
B19-HSAS18-10-11.5	D245-03	1550	20	4.9	421	210	04/25/0710:04	04/23/0714:50	JD23113	JD23108	PCD013S	04/18/0708:53	04/20/07
B9-HSAS2-10-11.5	D245-06	5480	20	5.4	423	211	04/25/0711:20	04/23/0714:50	JD23114	JD23108	PCD013S	04/18/0709:56	04/20/07
B9-HSAS3-20-21.5	D245-10	960	20	14.1	466	233	04/25/0723:15	04/24/0710:00	JD25017	JD25012	PCD015S	04/18/0711:08	04/20/07

C993

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D245

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD014WB	ND	1	NA	2.00	0.500	04/24/0704:45	NA	JD23034	JD23033	PCD014W	NA	NA
LCS1W	PCD014WL	25.1	1	NA	2.00	0.500	04/24/0705:26	NA	JD23036	JD23033	PCD014W	NA	NA
LCD1W	PCD014WC	24.8	1	NA	2.00	0.500	04/24/0705:46	NA	JD23037	JD23033	PCD014W	NA	NA
LEB-041807	D245-01	ND	1	NA	2.00	0.500	04/24/0717:41	NA	JD23068	JD23065	PCD014W	04/18/0708:33	04/20/07

6951

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D245
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD014WB	PCD014WL	PCD014WC		
LAB FILE ID:	JD23034	JD23036	JD23037		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/0704:45	04/24/0705:26	04/24/0705:46	DATE RECEIVED:	NA
PREP. BATCH:	PCD014W	PCD014W	PCD014W		
CALIB. REF:	JD23033	JD23033	JD23033		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.1	100	25.0	24.8	99	1	85-115	20

8999

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D245
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD013SQ	PCD013SX	PCD013SY		
LAB FILE ID:	JD23049	JD23051	JD23052		
DATE EXTRACTED:	04/23/0714:50	04/23/0714:50	04/23/0714:50	DATE COLLECTED:	NA
DATE ANALYZED:	04/24/0709:49	04/24/0710:29	04/24/0710:50	DATE RECEIVED:	04/23/07
PREP. BATCH:	PCD013S	PCD013S	PCD013S		
CALIB. REF:	JD23048	JD23048	JD23048		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	253	101	250	251	100	1	85-115	20

1698

6

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D245
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2S				
LAB SAMP ID:	PCD015SB	PCD015SL	PCD015SC		
LAB FILE ID:	JD23089	JD23091	JD23092		
DATE EXTRACTED:	04/24/0710:00	04/24/0710:00	04/24/0710:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/25/0701:58	04/25/0702:39	04/25/0702:59	DATE RECEIVED:	04/24/07
PREP. BATCH:	PCD015S	PCD015S	PCD015S		
CALIB. REF:	JD23088	JD23088	JD23088		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	257	103	250	257	103	0	85-115	20

0558

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D245
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 9.4
DILUTION FACTOR: 1 1
SAMPLE ID: B14-HSAS12-25-26.5
EMAX SAMP ID: D245-19 D245-19D
LAB FILE ID: JD23104 JD23105
DATE EXTRACTED: 04/24/0710:00 04/24/0710:00 DATE COLLECTED: 04/18/07 16:08
DATE ANALYZED: 04/25/0707:02 04/25/0707:22 DATE RECEIVED: 04/20/07
PREP. BATCH: PCD015S PCD015S
CALIB. REF: JD23098 JD23098

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	92.5	90.8	2	20

6

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D245
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 9.4
DILUTION FACTOR: 1 1
SAMPLE ID: B14-HSAS12-25-26.5
LAB SAMP ID: D245-19 D245-19M
LAB FILE ID: JD23104 JD23106
DATE EXTRACTED: 04/24/0710:00 04/24/0710:00 DATE COLLECTED: 04/18/07 16:08
DATE ANALYZED: 04/25/0707:02 04/25/0707:42 DATE RECEIVED: 04/20/07
PREP. BATCH: PCD015S PCD015S
CALIB. REF: JD23098 JD23098

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	92.5	110	202	99	80-120

S016

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

pw 4-24-07

Method : c:\ezchrom\methods\ic57d17.met * - Replicate Not Used
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

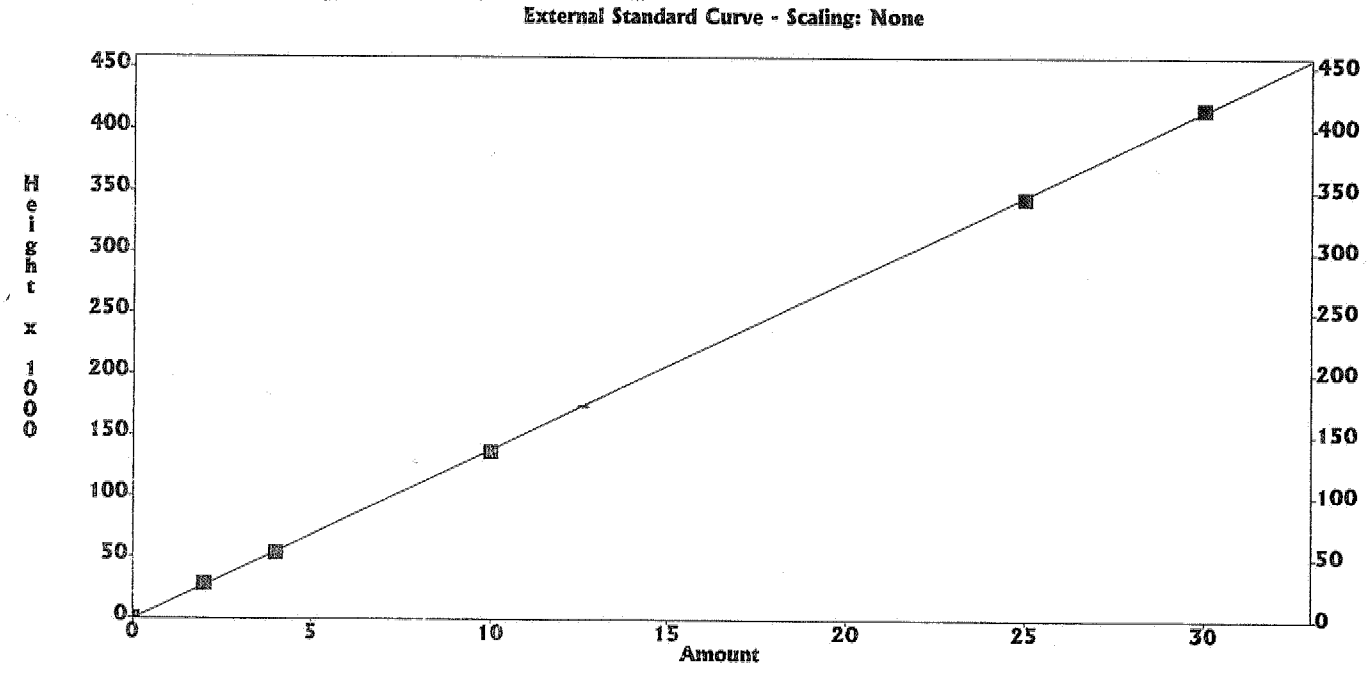
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8013

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4/4-24-01

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD23001	IPCS	P	82.1%	04/23/0716:17	1
JD23002	PCD013SB	P	.000	04/23/0716:38	1
JD23003	MRL	P	97.9%	04/23/0716:58	1
JD23004	PCD013SL	P	24.3	04/23/0717:18	1
JD23005	PCD013SC	P	24.3	04/23/0717:38	1
JD23006	D197-01	P	.000	04/23/0719:18	1
JD23007	D244-01	P	.000	04/23/0719:38	1
JD23008	D244-02	P	.000	04/23/0719:58	1
JD23009	D244-03	P	.000	04/23/0720:19	1
JD23010	D244-04	P	.000	04/23/0720:39	1
JD23011	D244-04D	P	.000	04/23/0720:59	1
JD23012	D244-04M	P	10.2	04/23/0721:19	1
JD23013	D244-05	P	.000	04/23/0721:40	1
JD23014	D244-06	P	.000	04/23/0722:00	1
JD23015	D244-07	P	.000	04/23/0722:20	1
JD23016	D244-08	P	.000	04/23/0722:40	1
JD23017	D244-09	P	.000	04/23/0723:01	1
JD23018	D244-11	P	.000	04/23/0723:21	1
JD23019	D244-12	P	.000	04/23/0723:41	1
JD23020	D244-13	P	20.6	04/24/0700:01	1
JD23021	D245-02	P	2.8	04/24/0700:22	1
JD23022	CCV19-15	P	101%	04/24/0700:42	1
JD23023	D245-03	*	55.5E	04/24/0701:02	1
JD23024	D245-04	P	18.7	04/24/0701:22	1
JD23025	D245-05	P	18.3	04/24/0701:43	1
JD23026	D245-06	*	55.1E	04/24/0702:03	1
JD23027	D245-07	P	4.4	04/24/0702:23	1
JD23028	D245-08	P	19.8	04/24/0702:43	1
JD23029	D244-12D	P	.000	04/24/0703:04	1
JD23030	D244-12M	P	15.5	04/24/0703:24	1
JD23031	RINSE	P	.000	04/24/0703:44	1
JD23032	CCV20-30	P	106%	04/24/0704:05	1
JD23033	IPCS	P	84.5%	04/24/0704:25	1
JD23034	PCD014WB	P	.000	04/24/0704:45	1
JD23035	MRL	P	101%	04/24/0705:05	1
JD23036	PCD014WL	P	25.1	04/24/0705:26	1
JD23037	PCD014WC	P	24.8	04/24/0705:46	1
JD23038	D223-14	*	.000	04/24/0706:06	20
JD23039	D223-15R	*	.000	04/24/0706:26	20
JD23040	D223-06R	*	.000	04/24/0706:47	1
JD23041	D223-06Z	*	1.3	04/24/0707:07	1
JD23042	D223-06G	*	16.5	04/24/0707:27	1
JD23043	CCV21-15	P	101%	04/24/0707:47	1
JD23044	D223-16	*	.000	04/24/0708:08	1
JD23045	D223-17	*	.000	04/24/0708:28	1
JD23046	D223-18	P	9.86	04/24/0708:48	1
JD23047	D223-19	P	.000	04/24/0709:08	1
JD23048	IPCS	P	85.4%	04/24/0709:29	1
JD23049	PCD013SQ	P	.000	04/24/0709:49	1
JD23050	MRL	P	97.7%	04/24/0710:09	1
JD23051	PCD013SX	P	25.3	04/24/0710:29	1
JD23052	PCD013SY	P	25.1	04/24/0710:50	1
JD23053	D197-01R	P	.000	04/24/0711:10	1
JD23054	CCV22-30	P	108%	04/24/0711:30	1
JD23055	D223-20	P	.000	04/24/0713:18	1
JD23056	D223-21	*	37.8E	04/24/0713:38	1
JD23057	D223-22	P	26.3	04/24/0713:59	1
JD23058	D223-23	P	.000	04/24/0714:19	1
JD23059	D223-24	P	5.76	04/24/0714:39	1
JD23060	D223-25	P	.000	04/24/0714:59	1
JD23061	D223-26	P	2.47	04/24/0715:20	1
JD23062	D224-01	P	.000	04/24/0715:40	1
JD23063	D224-02	P	6.29	04/24/0716:00	1
JD23064	D205-01	P	.000	04/24/0716:20	1
JD23065	CCV23-15	P	104%	04/24/0716:41	1
JD23066	D205-02	P	5.34	04/24/0717:01	1
JD23067	D244-14	P	.000	04/24/0717:21	1
JD23068	D245-01	P	.000	04/24/0717:41	1
JD23069	D244-01R	P	.000	04/24/0718:02	1
JD23070	D244-02R	P	.000	04/24/0718:22	1
JD23071	D244-03R	P	.000	04/24/0719:54	1
JD23072	D244-04R	P	.000	04/24/0720:14	1
JD23073	D244-04Z	P	.000	04/24/0720:34	1
JD23074	D244-04G	P	.000	04/24/0720:54	1

JD23075	D244-05R	P	.000	04/24/0721:15	1
JD23076	CCV24-30	P	109%	04/24/0721:35	1
JD23077	D244-06R	P	.000	04/24/0721:55	1
JD23078	D244-07R	P	.000	04/24/0722:15	1
JD23079	D244-08R	P	.000	04/24/0722:36	1
JD23080	D244-09R	P	.000	04/24/0722:56	1
JD23081	D244-11R	P	.000	04/24/0723:16	1
JD23082	D244-12R	P	5.02	04/24/0723:36	1
JD23083	D244-12Z	P	.000	04/24/0723:57	1
JD23084	D244-12G	P	15	04/25/0700:17	1
JD23085	D244-13R	*	50.8E	04/25/0700:37	1
JD23086	D245-02R	P	2.43	04/25/0700:57	1
JD23087	CCV25-15	P	106%	04/25/0701:18	1
JD23088	IPCS	P	87.7%	04/25/0701:38	1
JD23089	PCD015SB	P	.000	04/25/0701:58	1
JD23090	MRL	P	108%	04/25/0702:18	1
JD23091	PCD015SL	P	25.7	04/25/0702:39	1
JD23092	PCD015SC	P	25.7	04/25/0702:59	1
JD23093	D245-09	P	4.33	04/25/0703:19	1
JD23094	D245-10	*	59.7E	04/25/0703:39	1
JD23095	D245-11	P	.000	04/25/0704:00	1
JD23096	D245-12	P	5.64	04/25/0704:20	1
JD23097	D245-13	P	2.1	04/25/0704:40	1
JD23098	CCV26-30	P	112%*	04/25/0705:00	1
JD23099	D245-14	P	3.57	04/25/0705:21	1
JD23100	D245-15	P	17.9	04/25/0705:41	1
JD23101	D245-16	P	18.3	04/25/0706:01	1
JD23102	D245-17	P	2.27	04/25/0706:21	1
JD23103	D245-18	P	18.8	04/25/0706:42	1
JD23104	D245-19	P	8.38	04/25/0707:02	1
JD23105	D245-19D	P	8.23	04/25/0707:22	1
JD23106	D245-19M	P	18.3	04/25/0707:42	1
JD23107	CCV27-15	P	107%	04/25/0708:03	1
JD23108	IPCS	P	87.9%	04/25/0708:23	1
JD23109	PCD016WB	P	.000	04/25/0708:43	1
JD23110	MRL	P	104%	04/25/0709:03	1
JD23111	PCD016WL	P	25.7	04/25/0709:24	1
JD23112	PCD016WC	P	26	04/25/0709:44	1
JD23113	D245-03	P	147	04/25/0710:04	20
JD23114	D245-06	P	518	04/25/0711:20	20
JD23115	D223-13R	*	.000	04/25/0711:40	1
JD23116	D223-14R	*	.000	04/25/0712:01	1
JD23117	D223-16	P	.000	04/25/0712:21	20
JD23118	CCV28-30	P	111%*	04/25/0712:41	1
JD23119	D223-17R	*	55.3E	04/25/0713:01	1
JD23120	D223-21	*	121E	04/25/0713:22	2
JD23121	CCV29-15	P	107%	04/25/0713:42	1
JD23122	D223-14	*	309E	04/25/0714:23	10
JD23123	D223-17	P	79.8	04/25/0714:43	10
JD23124	CCV30-30	P	111%*	04/25/0715:14	1

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD25001	IPCS	P	89%	04/25/0716:20	1
JD25002	PCD017WB	P	.000	04/25/0716:40	1
JD25003	MRL	P	114%	04/25/0717:00	1
JD25004	PCD017WL	P	26	04/25/0717:20	1
JD25005	PCD017WC	P	25.7	04/25/0719:12	1
JD25006	D223-13	P	220	04/25/0719:33	20
JD25007	D223-14	P	304	04/25/0719:53	20
JD25008	D223-21	P	235	04/25/0720:13	20
JD25009	D244-04R	P	.000	04/25/0720:33	1
JD25010	D244-04Z	P	.000	04/25/0720:54	1
JD25011	D244-04G	P	10.8	04/25/0721:14	1
JD25012	CCV31-15	P	106%	04/25/0721:34	1
JD25013	D244-12R	P	10.7	04/25/0721:54	1
JD25014	D244-12Z	P	10.5	04/25/0722:15	1
JD25015	D244-12G	P	20.6	04/25/0722:35	1
JD25016	D244-13	P	61.5	04/25/0722:55	5
JD25017	D245-10	P	82.5	04/25/0723:15	20
JD25018	D266-01	P	.000	04/25/0723:36	1
JD25019	D266-13	P	.000	04/25/0723:56	1
JD25020	RINSE	P	.000	04/26/0700:16	1
JD25021	CCV32-30	P	110%*	04/26/0700:36	1
JD25022	IPCS	P	87.8%	04/26/0700:57	1
JD25023	PCD018SB	P	.000	04/26/0701:17	1
JD25024	MRL	P	120%	04/26/0701:37	1
JD25025	PCD018SL	P	26	04/26/0701:57	1
JD25026	PCD018SC	P	25.8	04/26/0702:18	1
JD25027	D266-02	P	2.26	04/26/0702:38	1
JD25028	D266-03	P	1.51	04/26/0702:58	1
JD25029	D266-04	P	9.72	04/26/0703:18	1
JD25030	D266-05	P	21.7	04/26/0703:39	1
JD25031	D266-06	P	8.89	04/26/0703:59	1
JD25032	D266-07	P	8.25	04/26/0704:19	1
JD25033	CCV33-15	P	107%	04/26/0704:39	1
JD25034	D266-08	P	7.45	04/26/0705:00	1
JD25035	D266-09	P	9.6	04/26/0705:20	1
JD25036	D266-10	P	.000	04/26/0705:40	1
JD25037	D266-11	P	4	04/26/0706:00	1
JD25038	D266-12	P	10.8	04/26/0706:21	1
JD25039	RINSE	P	.000	04/26/0706:41	1
JD25040	CCV34-30	P	110%*	04/26/0707:01	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02-18

* JD23.001 → JD23.005 : Record Only.
* JD23.006 → JD23.021 : Re-run samples due to no CCV. in between.
* JD23.029 & JD23.030 : Rec. Only & MS=Spiked at 10 ppb.
* JD23.038 : Not used; rec. only.
* JD23.039 → JD23.042 : For confirmation only.
* JD23.042 : Spiked at 10ppb.
* JD23.056 : Bad injection ; not used.
* JD23.072 → JD23.074 : Rec. only ; bad injection. Re-run
* JD23.082 : Contamination ; so re-run JD23.082 → JD23.084
* JD23.115 ; JD23.116 & JD23.119 : For confirmation only.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD23

Method File: IC57d17.met

Analytical Batch: PCD0135 & PCD014W & PCD015S & PCD016W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

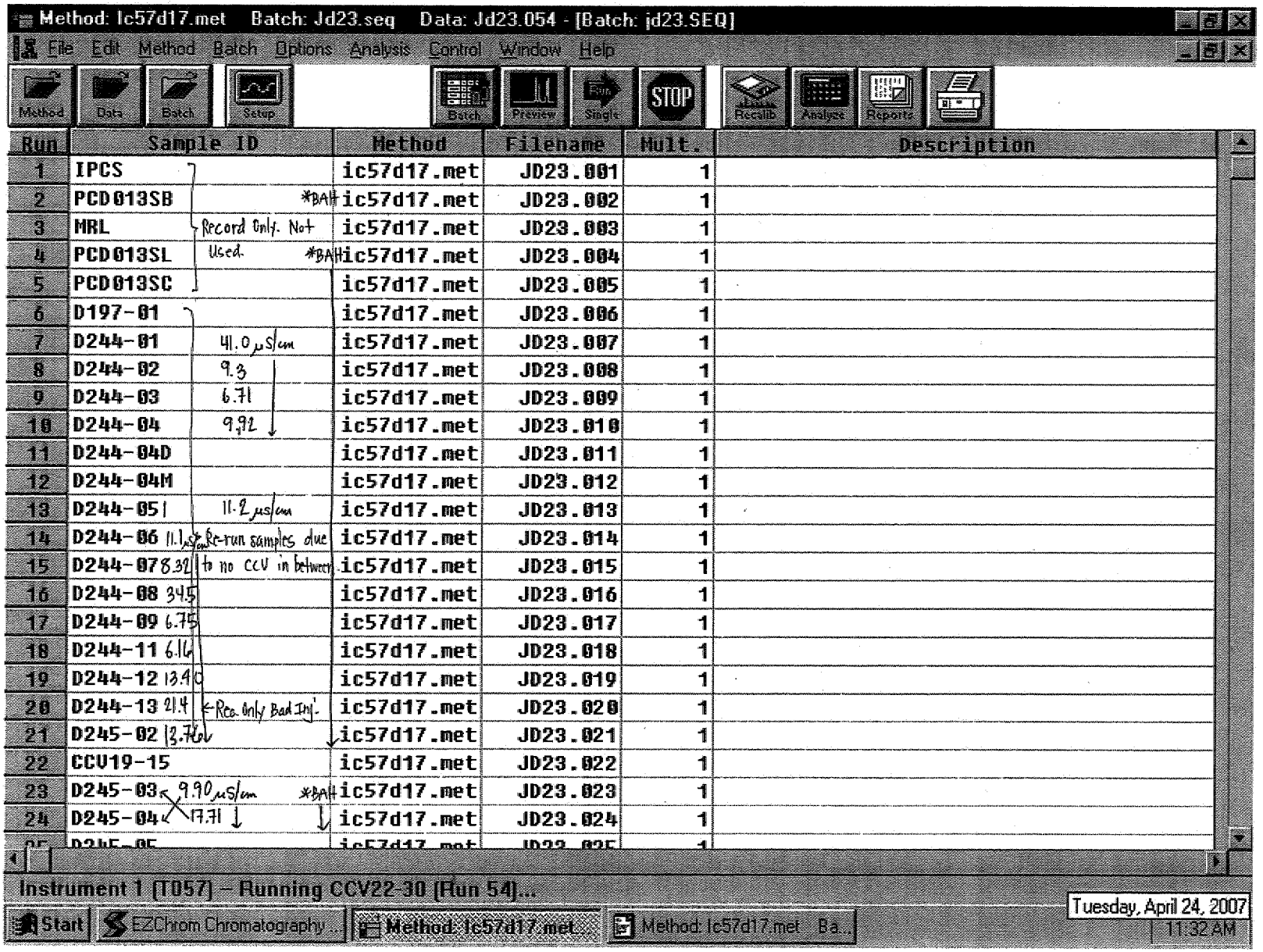
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	938
LCS	936
MS	931
IPC	934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1409	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cd

Date: 04/23/07 & 04/24/07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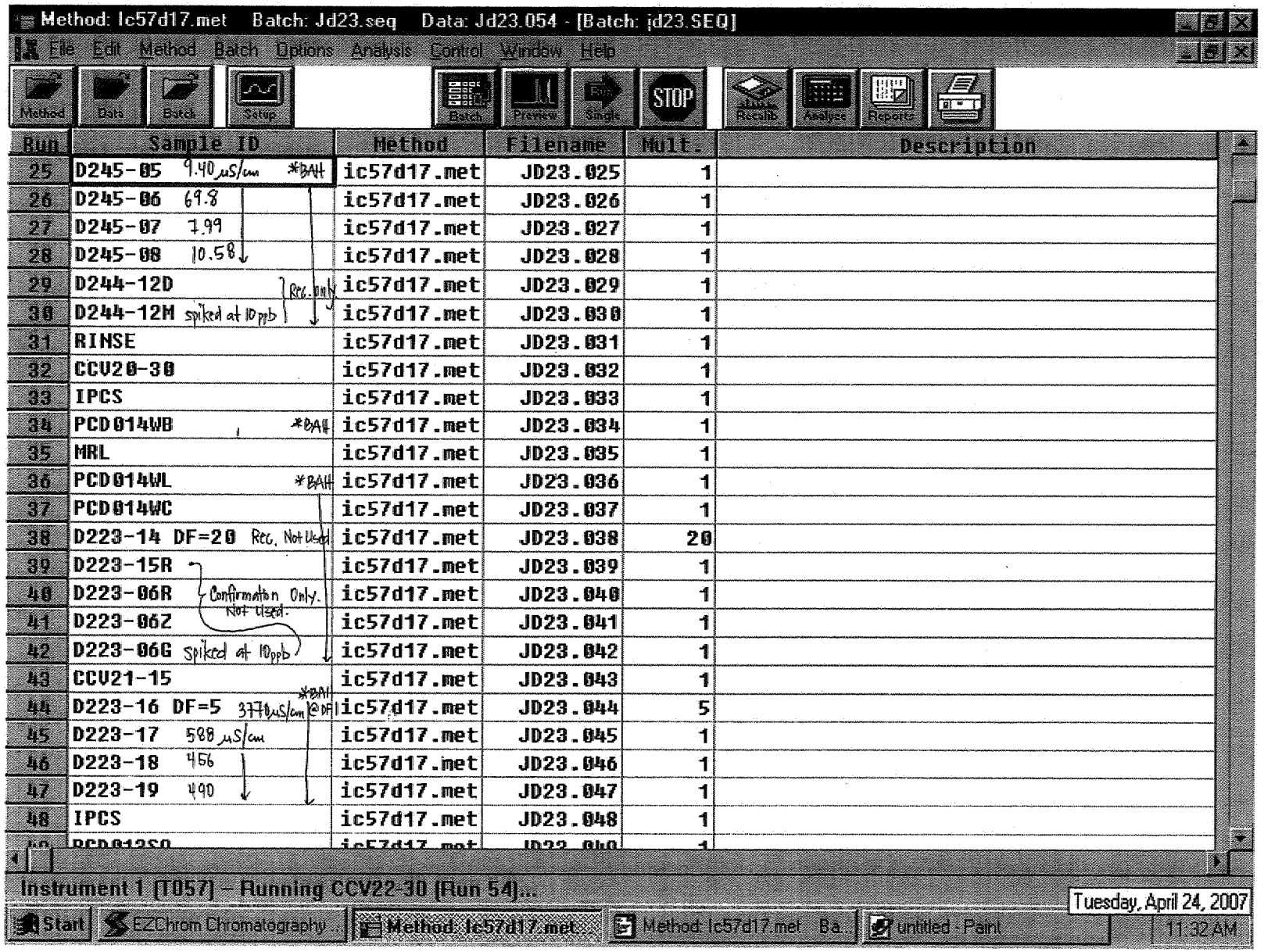
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 IPCS ic57d17.met JD23.001 1
2 PCD013SB *BAH ic57d17.met JD23.002 1
3 MRL Record Only. Not ic57d17.met JD23.003 1
4 PCD013SL Used. *BAH ic57d17.met JD23.004 1
5 PCD013SC ic57d17.met JD23.005 1
6 D197-01 ic57d17.met JD23.006 1
7 D244-01 41.0 µS/cm ic57d17.met JD23.007 1
8 D244-02 9.3 ic57d17.met JD23.008 1
9 D244-03 6.71 ic57d17.met JD23.009 1
10 D244-04 9.92 ic57d17.met JD23.010 1
11 D244-04D ic57d17.met JD23.011 1
12 D244-04M ic57d17.met JD23.012 1
13 D244-05 11.2 µs/cm ic57d17.met JD23.013 1
14 D244-06 11.1 µs/cm Re-run samples due ic57d17.met JD23.014 1
15 D244-07 8.32 to no CCV in between ic57d17.met JD23.015 1
16 D244-08 34.5 ic57d17.met JD23.016 1
17 D244-09 6.75 ic57d17.met JD23.017 1
18 D244-11 6.16 ic57d17.met JD23.018 1
19 D244-12 13.40 ic57d17.met JD23.019 1
20 D244-13 21.4 ← Rec. Only Bad Inj. ic57d17.met JD23.020 1
21 D245-02 13.76 ic57d17.met JD23.021 1
22 CCV19-15 ic57d17.met JD23.022 1
23 D245-03 9.90 µS/cm *BAH ic57d17.met JD23.023 1
24 D245-04 17.31 ic57d17.met JD23.024 1
Instrument 1 [TD57] – Running CCV22-30 [Run 54]...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met - Ba...
Tuesday, April 24, 2007
11:32 AM

0022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File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | D245-05 9.40 µS/cm *BAH | ic57d17.met | JD23.025 | 1
26 | D245-06 69.8 | ic57d17.met | JD23.026 | 1
27 | D245-07 7.99 | ic57d17.met | JD23.027 | 1
28 | D245-08 10.58 | ic57d17.met | JD23.028 | 1
29 | D244-12D Rec. only | ic57d17.met | JD23.029 | 1
30 | D244-12M spiked at 10ppb | ic57d17.met | JD23.030 | 1
31 | RINSE | ic57d17.met | JD23.031 | 1
32 | CCV20-30 | ic57d17.met | JD23.032 | 1
33 | IPCS | ic57d17.met | JD23.033 | 1
34 | PCD014WB *BAH | ic57d17.met | JD23.034 | 1
35 | MRL | ic57d17.met | JD23.035 | 1
36 | PCD014WL *BAH | ic57d17.met | JD23.036 | 1
37 | PCD014WC | ic57d17.met | JD23.037 | 1
38 | D223-14 DF=20 Rec. Not Used | ic57d17.met | JD23.038 | 20
39 | D223-15R | ic57d17.met | JD23.039 | 1
40 | D223-06R Confirmation Only. Not used. | ic57d17.met | JD23.040 | 1
41 | D223-06Z | ic57d17.met | JD23.041 | 1
42 | D223-06G spiked at 10ppb | ic57d17.met | JD23.042 | 1
43 | CCV21-15 | ic57d17.met | JD23.043 | 1
44 | D223-16 DF=5 3770µS/cm *BAH @DF | ic57d17.met | JD23.044 | 5
45 | D223-17 588 µS/cm | ic57d17.met | JD23.045 | 1
46 | D223-18 456 | ic57d17.met | JD23.046 | 1
47 | D223-19 490 | ic57d17.met | JD23.047 | 1
48 | IPCS | ic57d17.met | JD23.048 | 1
Instrument 1 [TD57] - Running CCV22-30 [Run 54]...
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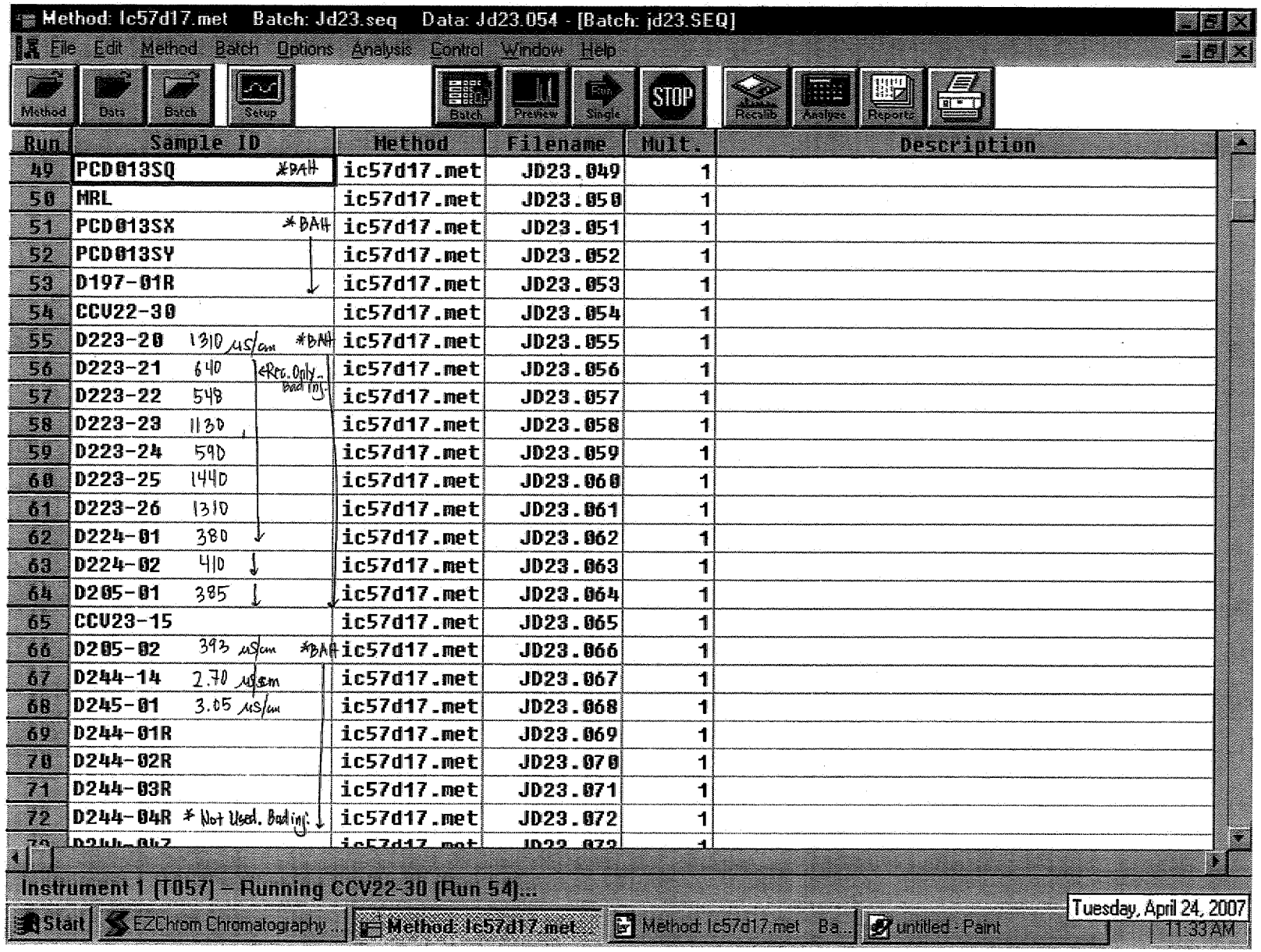
Tuesday, April 24, 2007
11:32 AM

8023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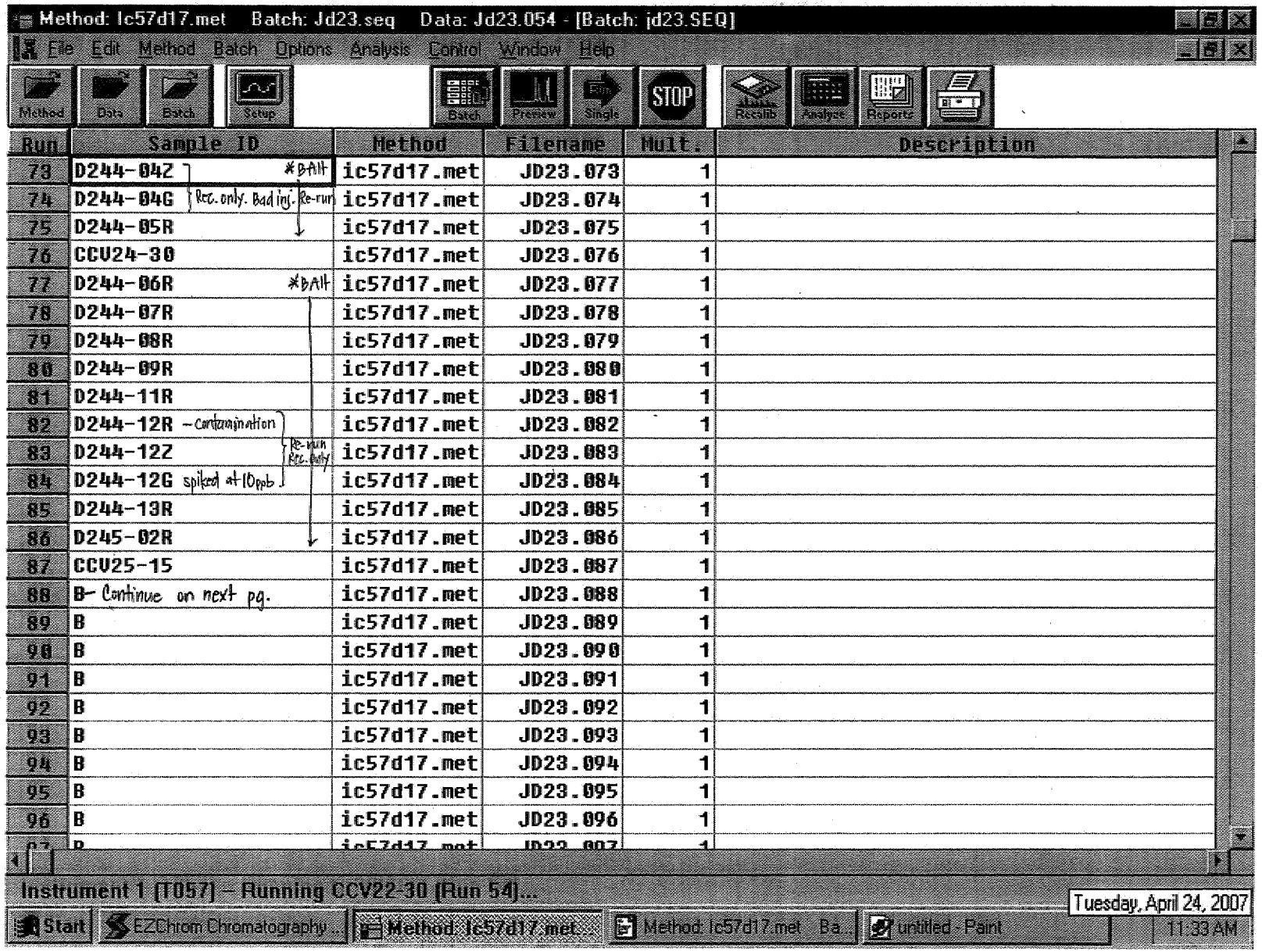
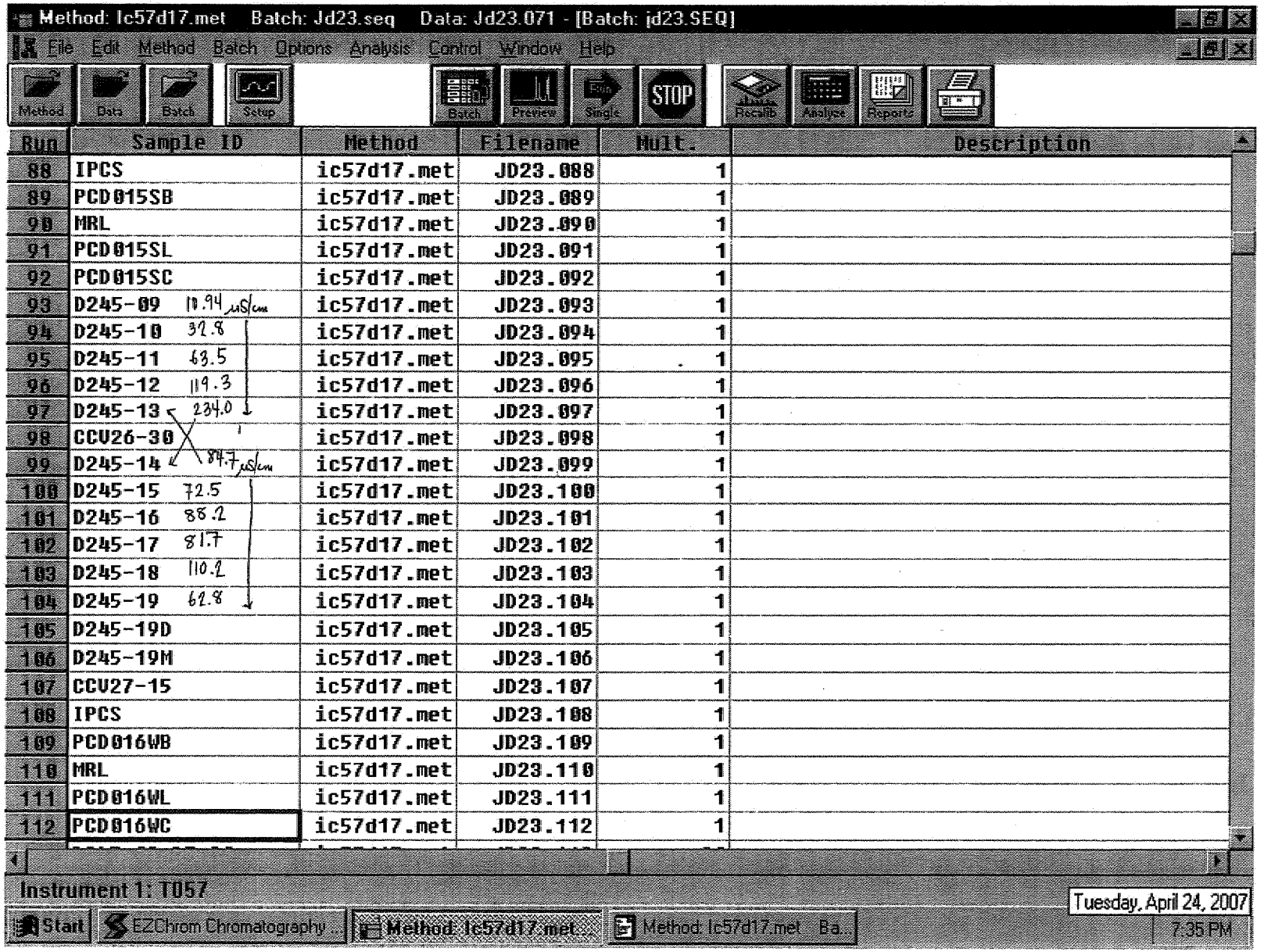
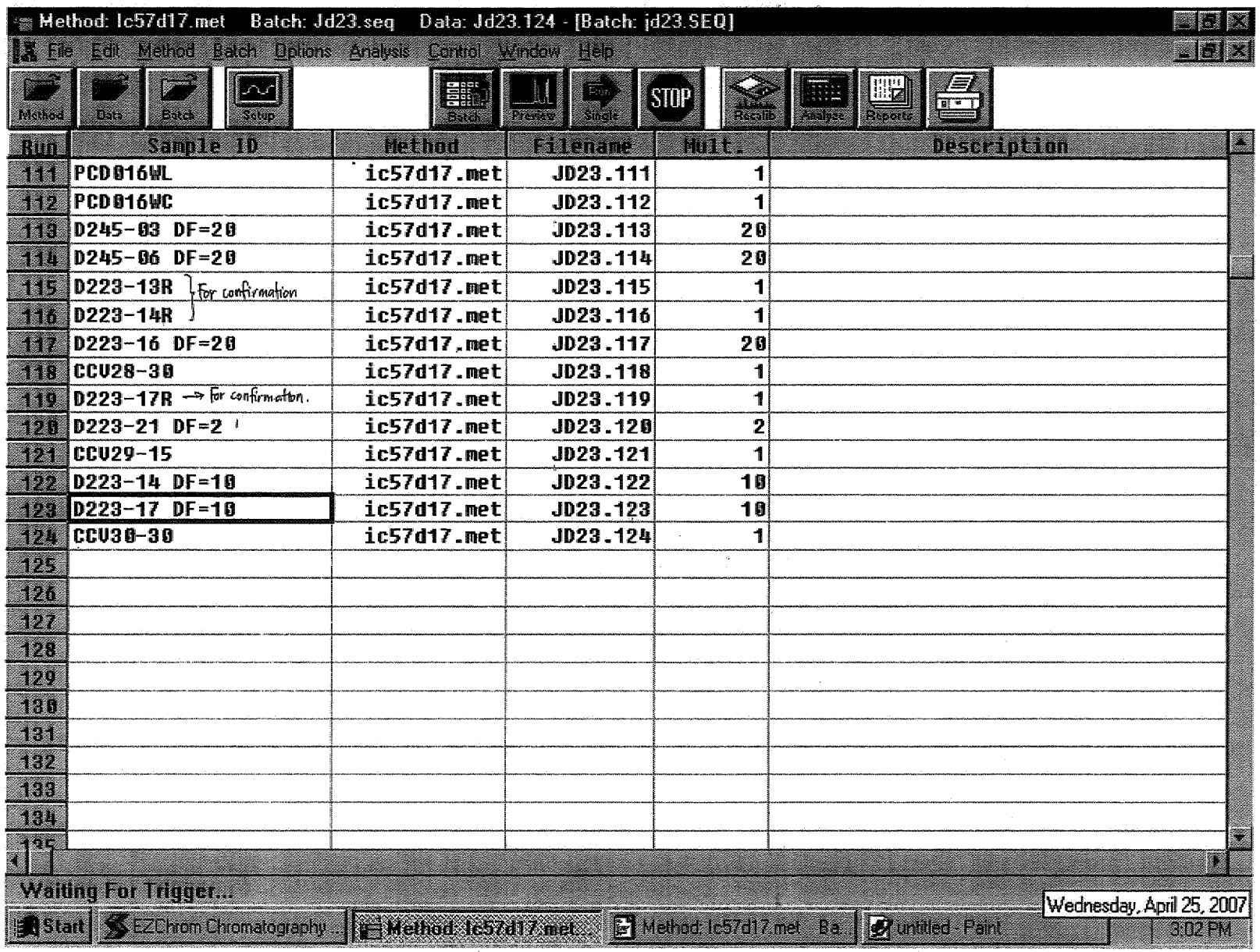
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | PCD013SQ *DAH | lc57d17.met | JD23.049 | 1
50 | MRL | lc57d17.met | JD23.050 | 1
51 | PCD013SX *DAH | lc57d17.met | JD23.051 | 1
52 | PCD013SY | lc57d17.met | JD23.052 | 1
53 | D197-01R | lc57d17.met | JD23.053 | 1
54 | CCV22-30 | lc57d17.met | JD23.054 | 1
55 | D223-20 1310 µS/cm *DAH | lc57d17.met | JD23.055 | 1
56 | D223-21 640 <Rec. Only - bad inj. | lc57d17.met | JD23.056 | 1
57 | D223-22 548 | lc57d17.met | JD23.057 | 1
58 | D223-23 1130 | lc57d17.met | JD23.058 | 1
59 | D223-24 590 | lc57d17.met | JD23.059 | 1
60 | D223-25 1440 | lc57d17.met | JD23.060 | 1
61 | D223-26 1310 | lc57d17.met | JD23.061 | 1
62 | D224-01 380 | lc57d17.met | JD23.062 | 1
63 | D224-02 410 | lc57d17.met | JD23.063 | 1
64 | D205-01 385 | lc57d17.met | JD23.064 | 1
65 | CCV23-15 | lc57d17.met | JD23.065 | 1
66 | D205-02 393 µS/cm *DAH | lc57d17.met | JD23.066 | 1
67 | D244-14 2.70 µS/cm | lc57d17.met | JD23.067 | 1
68 | D245-01 3.05 µS/cm | lc57d17.met | JD23.068 | 1
69 | D244-01R | lc57d17.met | JD23.069 | 1
70 | D244-02R | lc57d17.met | JD23.070 | 1
71 | D244-03R | lc57d17.met | JD23.071 | 1
72 | D244-04R * Not Used. Bad inj. | lc57d17.met | JD23.072 | 1
Instrument 1 [T057] – Running CCV22-30 [Run 54]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Tuesday, April 24, 2007
11:33 AM

8921-4


Method: Ic57d17.met Batch: Jd23.seq Data: Jd23.054 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
73 D244-04Z *BAlt ic57d17.met JD23.073 1
74 D244-04G Rec. only. Bad inj. Re-run ic57d17.met JD23.074 1
75 D244-05R ic57d17.met JD23.075 1
76 CCV24-30 ic57d17.met JD23.076 1
77 D244-06R *BAlt ic57d17.met JD23.077 1
78 D244-07R ic57d17.met JD23.078 1
79 D244-08R ic57d17.met JD23.079 1
80 D244-09R ic57d17.met JD23.080 1
81 D244-11R ic57d17.met JD23.081 1
82 D244-12R - contamination ic57d17.met JD23.082 1
83 D244-12Z Re-run Rec. only ic57d17.met JD23.083 1
84 D244-12G spiked at 10ppb ic57d17.met JD23.084 1
85 D244-13R ic57d17.met JD23.085 1
86 D245-02R ic57d17.met JD23.086 1
87 CCV25-15 ic57d17.met JD23.087 1
88 B- Continue on next pg. ic57d17.met JD23.088 1
89 B ic57d17.met JD23.089 1
90 B ic57d17.met JD23.090 1
91 B ic57d17.met JD23.091 1
92 B ic57d17.met JD23.092 1
93 B ic57d17.met JD23.093 1
94 B ic57d17.met JD23.094 1
95 B ic57d17.met JD23.095 1
96 B ic57d17.met JD23.096 1
Instrument 1 [T057] - Running CCV22-30 [Run 54]...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba... untitled - Paint
Tuesday, April 24, 2007
11:33 AM


Method: Ic57d17.met Batch: Jd23.seq Data: Jd23.071 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
88 IPCS ic57d17.met JD23.088 1
89 PCD015SB ic57d17.met JD23.089 1
90 MRL ic57d17.met JD23.090 1
91 PCD015SL ic57d17.met JD23.091 1
92 PCD015SC ic57d17.met JD23.092 1
93 D245-09 10.94 µS/cm ic57d17.met JD23.093 1
94 D245-10 32.8 ic57d17.met JD23.094 1
95 D245-11 63.5 ic57d17.met JD23.095 1
96 D245-12 119.3 ic57d17.met JD23.096 1
97 D245-13 234.0 ic57d17.met JD23.097 1
98 CCV26-30 ic57d17.met JD23.098 1
99 D245-14 84.7 µS/cm ic57d17.met JD23.099 1
100 D245-15 72.5 ic57d17.met JD23.100 1
101 D245-16 88.2 ic57d17.met JD23.101 1
102 D245-17 81.7 ic57d17.met JD23.102 1
103 D245-18 110.2 ic57d17.met JD23.103 1
104 D245-19 62.8 ic57d17.met JD23.104 1
105 D245-19D ic57d17.met JD23.105 1
106 D245-19M ic57d17.met JD23.106 1
107 CCV27-15 ic57d17.met JD23.107 1
108 IPCS ic57d17.met JD23.108 1
109 PCD016WB ic57d17.met JD23.109 1
110 MRL ic57d17.met JD23.110 1
111 PCD016WL ic57d17.met JD23.111 1
112 PCD016WC ic57d17.met JD23.112 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Tuesday, April 24, 2007
7:35 PM

0926


Method: lc57d17.met Batch: Jd23.seq Data: Jd23.124 - [Batch: jd23.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
111 | PCD016WL | lc57d17.met | JD23.111 | 1 |
112 | PCD016WC | lc57d17.met | JD23.112 | 1 |
113 | D245-03 DF=20 | lc57d17.met | JD23.113 | 20 |
114 | D245-06 DF=20 | lc57d17.met | JD23.114 | 20 |
115 | D223-13R } For confirmation | lc57d17.met | JD23.115 | 1 |
116 | D223-14R } | lc57d17.met | JD23.116 | 1 |
117 | D223-16 DF=20 | lc57d17.met | JD23.117 | 20 |
118 | CCV28-30 | lc57d17.met | JD23.118 | 1 |
119 | D223-17R → For confirmation. | lc57d17.met | JD23.119 | 1 |
120 | D223-21 DF=2 | lc57d17.met | JD23.120 | 2 |
121 | CCV29-15 | lc57d17.met | JD23.121 | 1 |
122 | D223-14 DF=10 | lc57d17.met | JD23.122 | 10 |
123 | D223-17 DF=10 | lc57d17.met | JD23.123 | 10 |
124 | CCV30-30 | lc57d17.met | JD23.124 | 1 |
125
126
127
128
129
130
131
132
133
134
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Wednesday, April 25, 2007
3:02 PM

9927

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH: SW8A - 02-18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD25

Method File: IC57d17.met

Analytical Batch: PCD017W + PCD018S

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

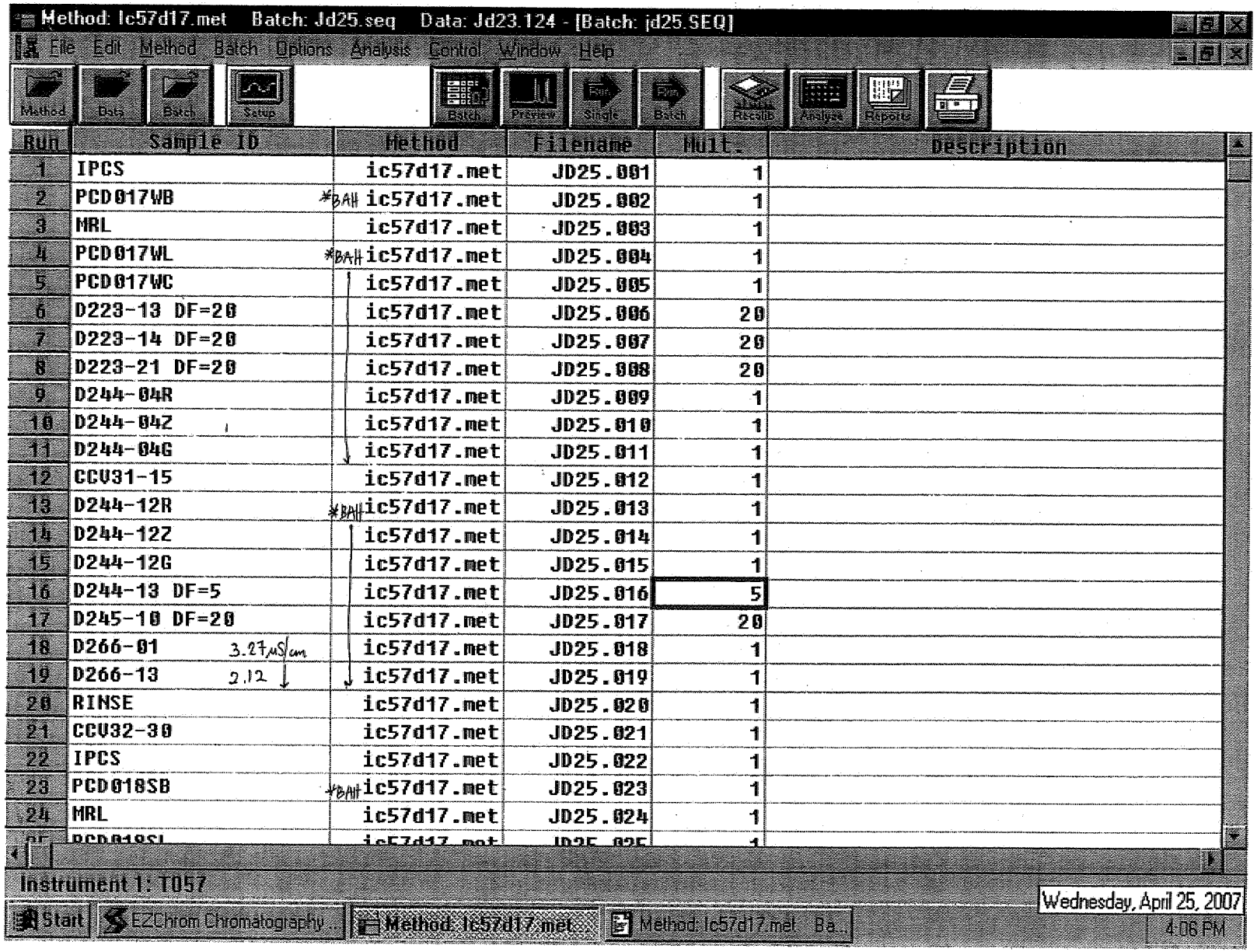
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1412	(±) 30	25°C

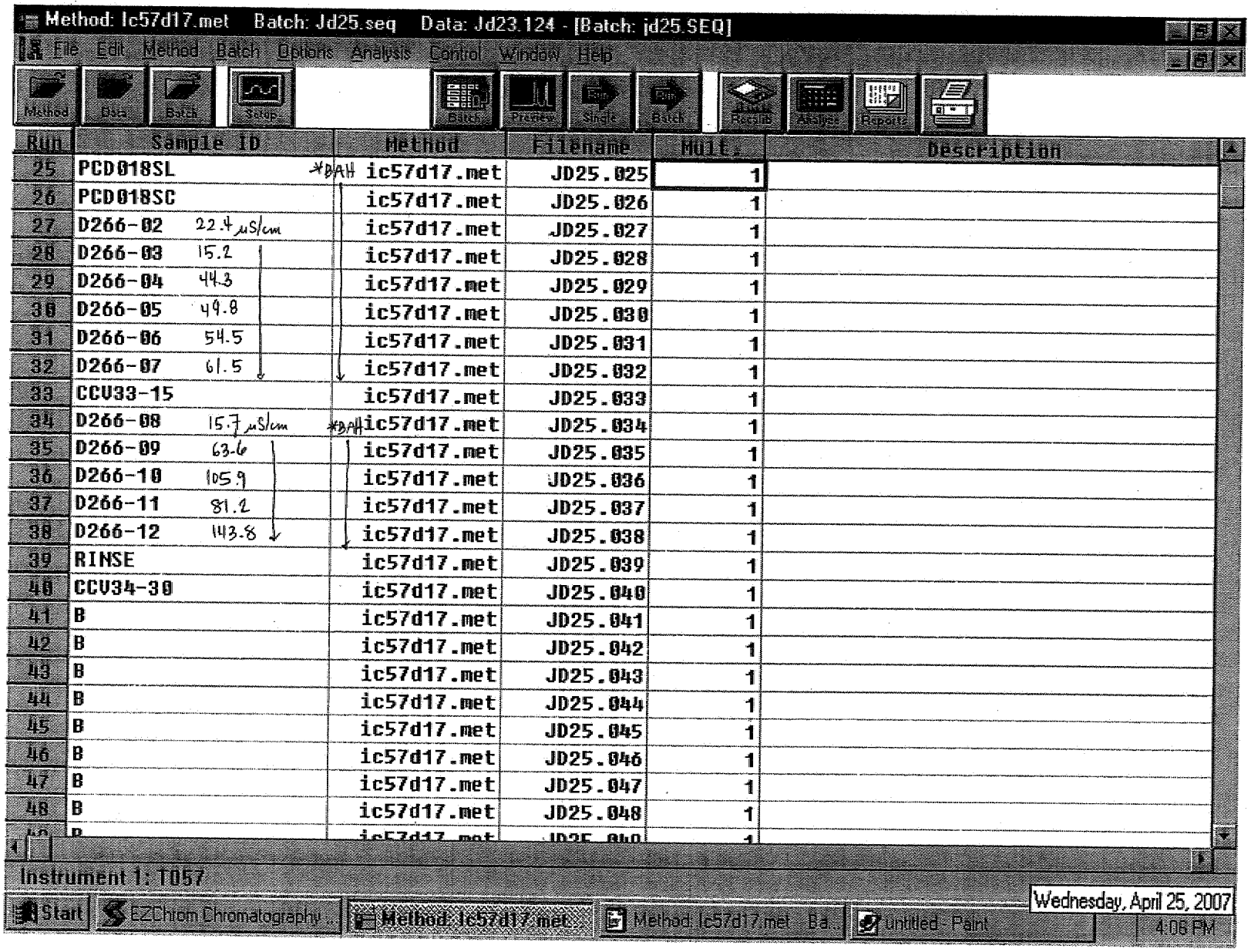
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 04/25/07


Method: Ic57d17.met Batch: Jd25.seq Data: Jd23.124 - [Batch: jd25.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Results Analyse Reports
Run Sample ID Method Filename Mult. Description
1 IPCS ic57d17.met JD25.001 1
2 PCD017WB *BAH ic57d17.met JD25.002 1
3 MRL ic57d17.met JD25.003 1
4 PCD017WL *BAH ic57d17.met JD25.004 1
5 PCD017WC ic57d17.met JD25.005 1
6 D223-13 DF=20 ic57d17.met JD25.006 20
7 D223-14 DF=20 ic57d17.met JD25.007 20
8 D223-21 DF=20 ic57d17.met JD25.008 20
9 D244-04R ic57d17.met JD25.009 1
10 D244-04Z ic57d17.met JD25.010 1
11 D244-04G ic57d17.met JD25.011 1
12 CCV31-15 ic57d17.met JD25.012 1
13 D244-12R *BAH ic57d17.met JD25.013 1
14 D244-12Z ic57d17.met JD25.014 1
15 D244-12G ic57d17.met JD25.015 1
16 D244-13 DF=5 ic57d17.met JD25.016 5
17 D245-10 DF=20 ic57d17.met JD25.017 20
18 D266-01 3.27 µS/cm ic57d17.met JD25.018 1
19 D266-13 2.12 ic57d17.met JD25.019 1
20 RINSE ic57d17.met JD25.020 1
21 CCV32-30 ic57d17.met JD25.021 1
22 IPCS ic57d17.met JD25.022 1
23 PCD018SB *BAH ic57d17.met JD25.023 1
24 MRL ic57d17.met JD25.024 1
Instrument 1: TQ57
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Wednesday, April 25, 2007
4:06 PM

6929


Method: lc57d17.met Batch: Jd25.seq Data: Jd23.124 - [Batch: jd25.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Results Analysis Reports
Run Sample ID Method Filename Mult. Description
25 PCD018SL *BAH lc57d17.met JD25.025 1
26 PCD018SC lc57d17.met JD25.026 1
27 D266-02 22.4 µS/cm lc57d17.met JD25.027 1
28 D266-03 15.2 lc57d17.met JD25.028 1
29 D266-04 44.3 lc57d17.met JD25.029 1
30 D266-05 49.8 lc57d17.met JD25.030 1
31 D266-06 54.5 lc57d17.met JD25.031 1
32 D266-07 61.5 lc57d17.met JD25.032 1
33 CCV33-15 lc57d17.met JD25.033 1
34 D266-08 15.7 µS/cm *BAH lc57d17.met JD25.034 1
35 D266-09 63.6 lc57d17.met JD25.035 1
36 D266-10 105.9 lc57d17.met JD25.036 1
37 D266-11 81.2 lc57d17.met JD25.037 1
38 D266-12 143.8 lc57d17.met JD25.038 1
39 RINSE lc57d17.met JD25.039 1
40 CCV34-30 lc57d17.met JD25.040 1
41 B lc57d17.met JD25.041 1
42 B lc57d17.met JD25.042 1
43 B lc57d17.met JD25.043 1
44 B lc57d17.met JD25.044 1
45 B lc57d17.met JD25.045 1
46 B lc57d17.met JD25.046 1
47 B lc57d17.met JD25.047 1
48 B lc57d17.met JD25.048 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met - Ba... untitled - Paint
Wednesday, April 25, 2007
4:06 PM

8936

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02 -18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev.#
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

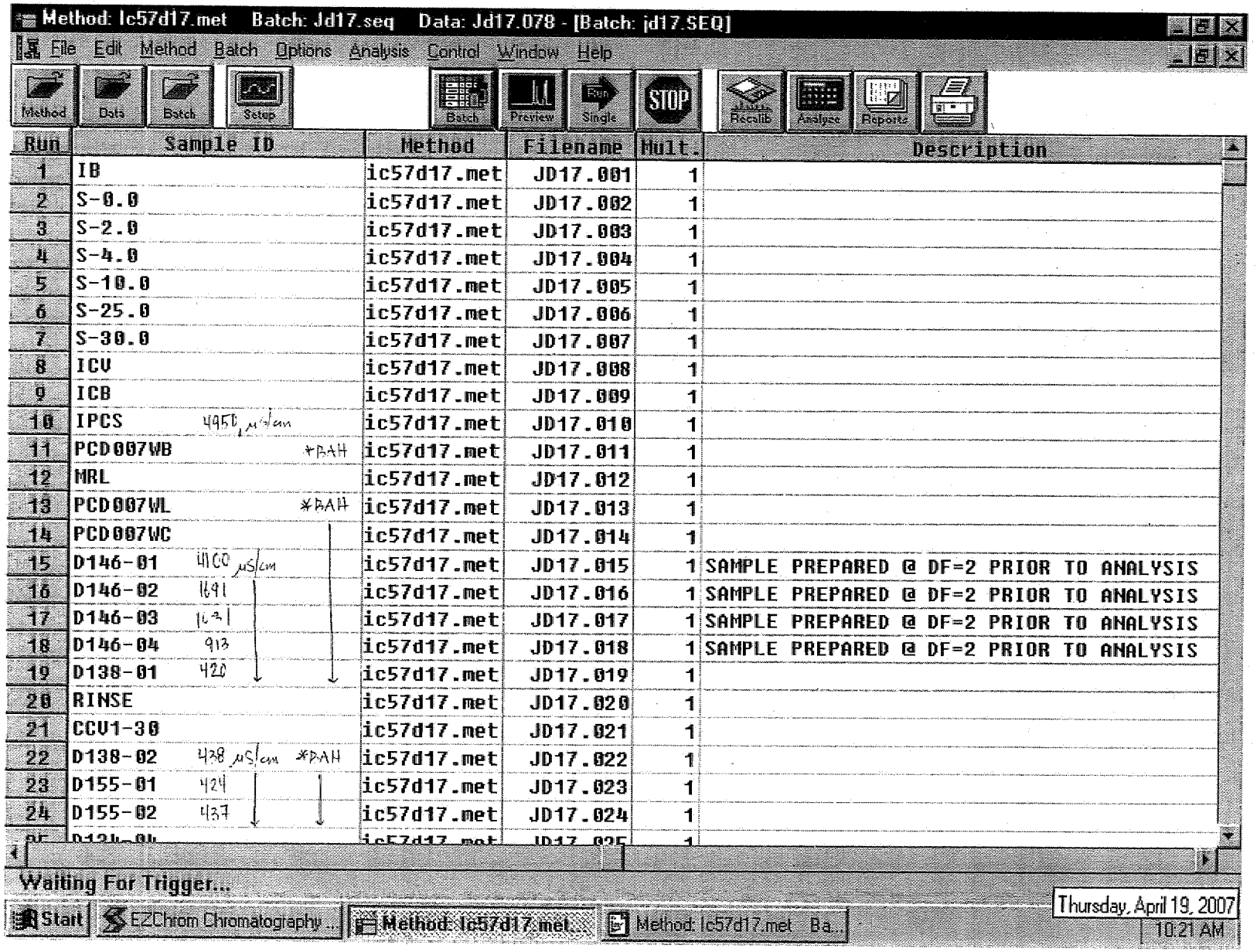
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: al

Date: 04/17/07



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports

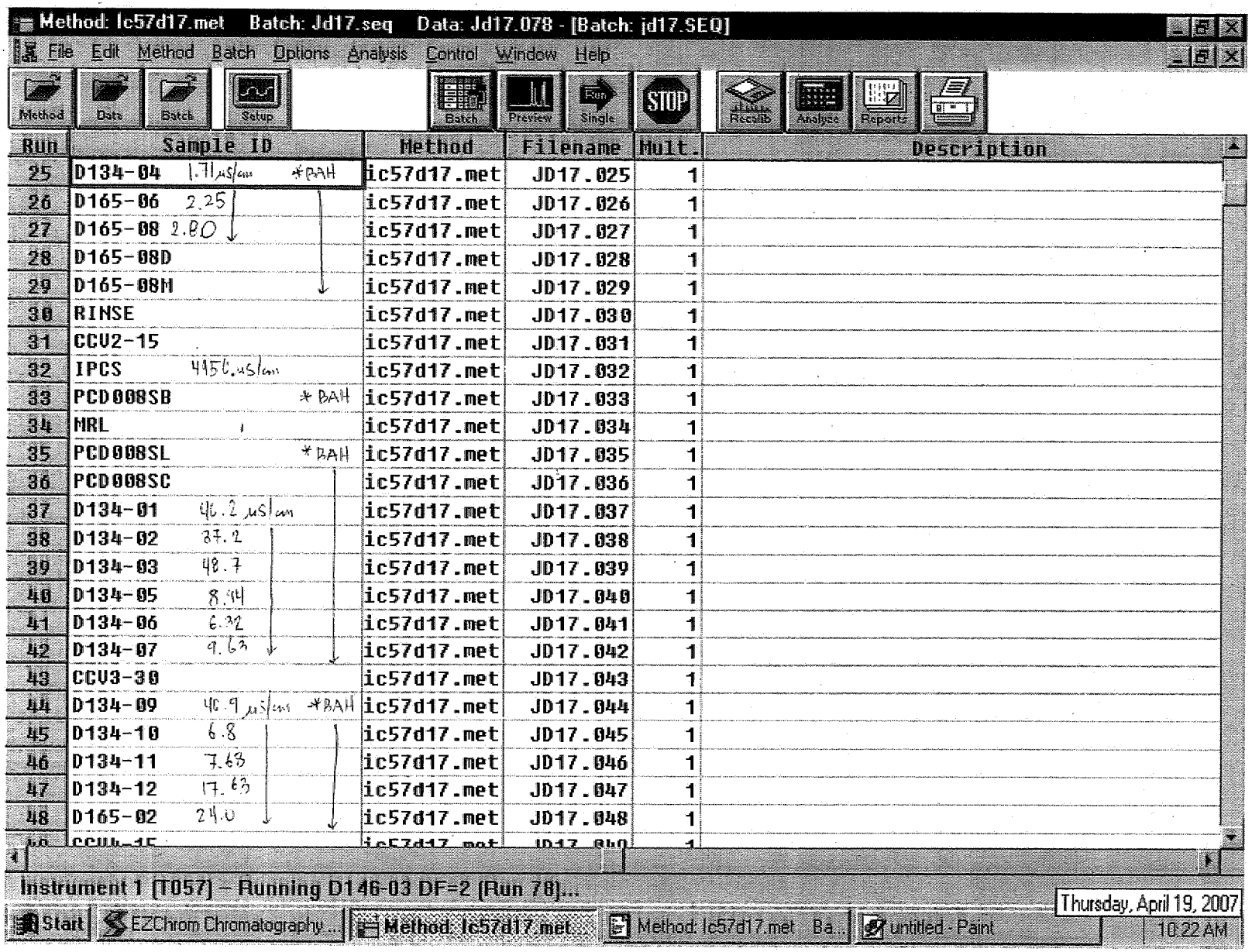
Run	Sample ID	Method	Filename	Mult.	Description
1	IB	ic57d17.met	JD17.001	1	
2	S-0.0	ic57d17.met	JD17.002	1	
3	S-2.0	ic57d17.met	JD17.003	1	
4	S-4.0	ic57d17.met	JD17.004	1	
5	S-10.0	ic57d17.met	JD17.005	1	
6	S-25.0	ic57d17.met	JD17.006	1	
7	S-30.0	ic57d17.met	JD17.007	1	
8	ICV	ic57d17.met	JD17.008	1	
9	ICB	ic57d17.met	JD17.009	1	
10	IPCS 4950 µs/cm	ic57d17.met	JD17.010	1	
11	PCD007WB *DAH	ic57d17.met	JD17.011	1	
12	MRL	ic57d17.met	JD17.012	1	
13	PCD007WL *DAH	ic57d17.met	JD17.013	1	
14	PCD007WC	ic57d17.met	JD17.014	1	
15	D146-01 4160 µs/cm	ic57d17.met	JD17.015	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16	D146-02 1691	ic57d17.met	JD17.016	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17	D146-03 1631	ic57d17.met	JD17.017	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18	D146-04 913	ic57d17.met	JD17.018	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19	D138-01 420	ic57d17.met	JD17.019	1	
20	RINSE	ic57d17.met	JD17.020	1	
21	CCV1-30	ic57d17.met	JD17.021	1	
22	D138-02 428 µs/cm *DAH	ic57d17.met	JD17.022	1	
23	D155-01 424	ic57d17.met	JD17.023	1	
24	D155-02 437	ic57d17.met	JD17.024	1	

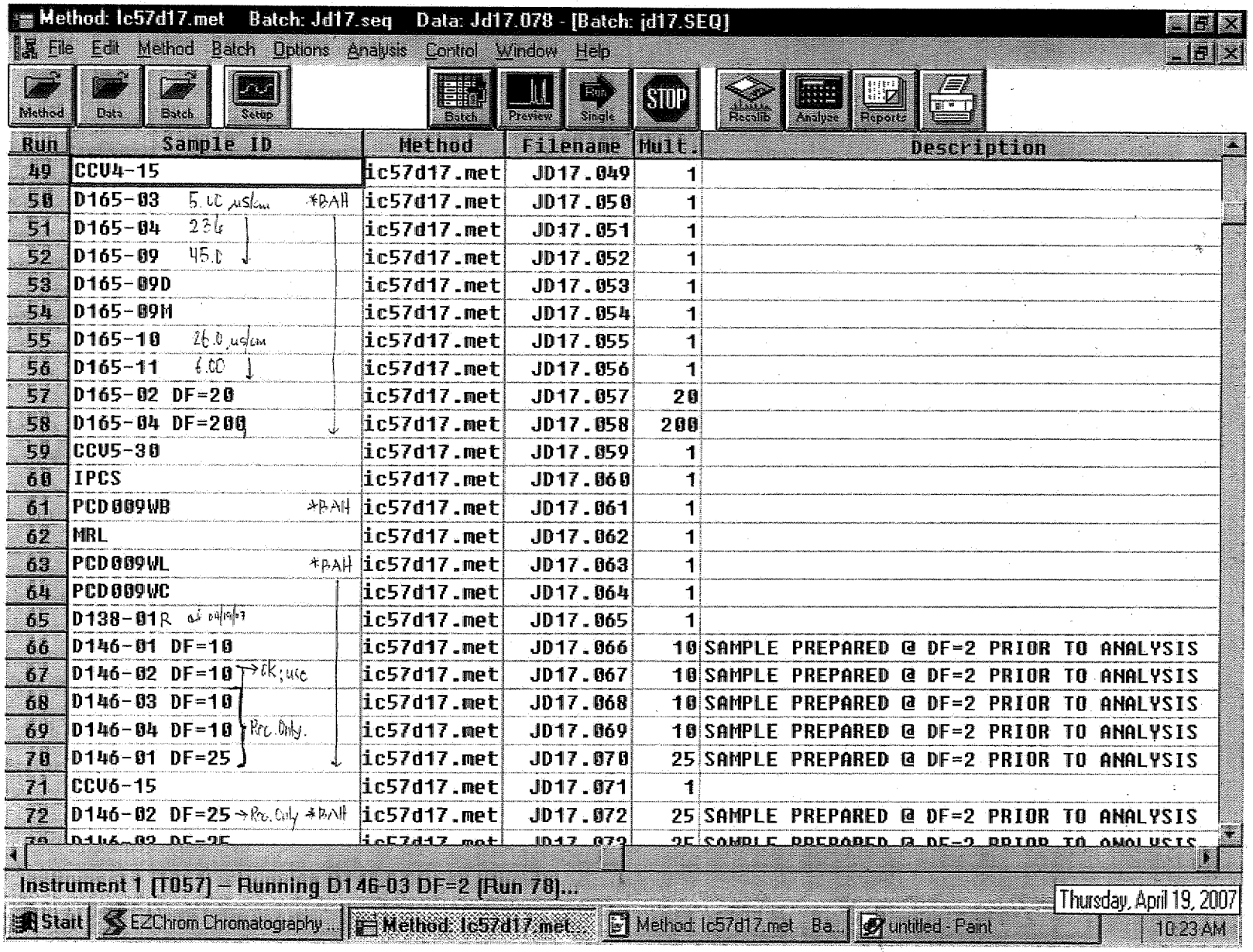
Waiting For Trigger...

Start EZChrom Chromatography ... Method: Ic57d17.met... Method: Ic57d17.met Ba...

Thursday, April 19, 2007 10:21 AM

6932


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Report
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µs/cm *BAH lc57d17.met JD17.025 1
26 D165-06 2.25 lc57d17.met JD17.026 1
27 D165-08 2.80 lc57d17.met JD17.027 1
28 D165-08D lc57d17.met JD17.028 1
29 D165-08M lc57d17.met JD17.029 1
30 RINSE lc57d17.met JD17.030 1
31 CCV2-15 lc57d17.met JD17.031 1
32 IPCS 415C.µs/cm lc57d17.met JD17.032 1
33 PCD008SB *BAH lc57d17.met JD17.033 1
34 MRL lc57d17.met JD17.034 1
35 PCD008SL *BAH lc57d17.met JD17.035 1
36 PCD008SC lc57d17.met JD17.036 1
37 D134-01 46.2 µs/cm lc57d17.met JD17.037 1
38 D134-02 37.2 lc57d17.met JD17.038 1
39 D134-03 48.7 lc57d17.met JD17.039 1
40 D134-05 8.94 lc57d17.met JD17.040 1
41 D134-06 6.32 lc57d17.met JD17.041 1
42 D134-07 9.63 lc57d17.met JD17.042 1
43 CCV3-30 lc57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *BAH lc57d17.met JD17.044 1
45 D134-10 6.8 lc57d17.met JD17.045 1
46 D134-11 7.63 lc57d17.met JD17.046 1
47 D134-12 17.63 lc57d17.met JD17.047 1
48 D165-02 24.0 lc57d17.met JD17.048 1
Instrument 1 [T057] - Running D146-03 DF=2 (Run 78)...
Start EZChrom Chromatography ... Method: lc57d17.met Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

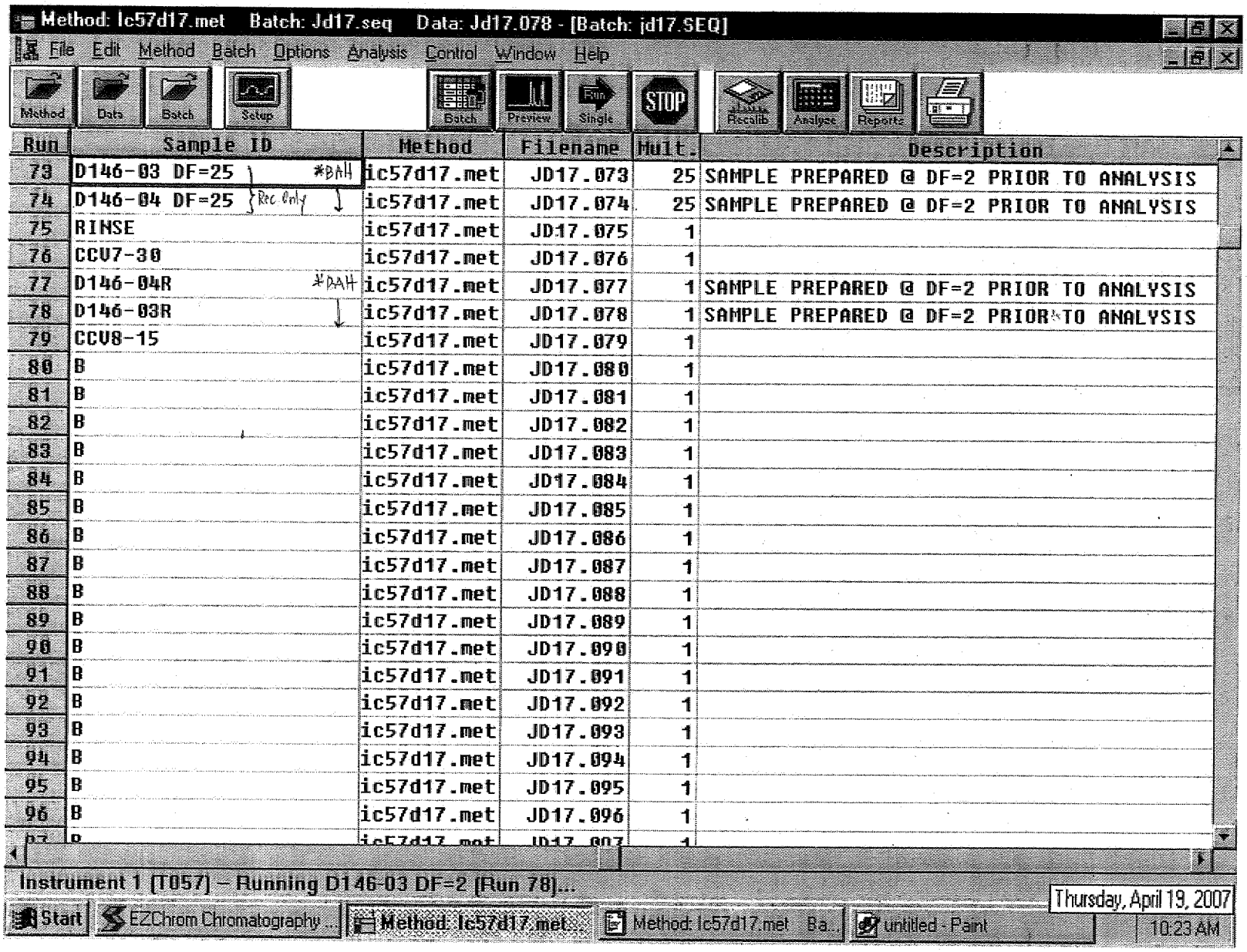

Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1 |
50 | D165-03 5.0 µs/cm *BAH | lc57d17.met | JD17.050 | 1 |
51 | D165-04 23.6 | lc57d17.met | JD17.051 | 1 |
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1 |
53 | D165-09D | lc57d17.met | JD17.053 | 1 |
54 | D165-09M | lc57d17.met | JD17.054 | 1 |
55 | D165-10 26.0 µs/cm | lc57d17.met | JD17.055 | 1 |
56 | D165-11 4.00 | lc57d17.met | JD17.056 | 1 |
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20 |
58 | D165-04 DF=200 | lc57d17.met | JD17.058 | 200 |
59 | CCV5-30 | lc57d17.met | JD17.059 | 1 |
60 | IPCS | lc57d17.met | JD17.060 | 1 |
61 | PCD009WB *BAH | lc57d17.met | JD17.061 | 1 |
62 | MRL | lc57d17.met | JD17.062 | 1 |
63 | PCD009WL *BAH | lc57d17.met | JD17.063 | 1 |
64 | PCD009WC | lc57d17.met | JD17.064 | 1 |
65 | D138-01R | lc57d17.met | JD17.065 | 1 |
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → ok; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Rec. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1 |
72 | D146-02 DF=25 → Rec. Only *BAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 70]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM

h303

Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports



Run	Sample ID	Method	Filename	Mult.	Description
73	D146-03 DF=25 *BAH	ic57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74	D146-04 DF=25 Rec Only	ic57d17.met	JD17.074	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75	RINSE	ic57d17.met	JD17.075	1	
76	CCV7-30	ic57d17.met	JD17.076	1	
77	D146-04R *BAH	ic57d17.met	JD17.077	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78	D146-03R	ic57d17.met	JD17.078	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79	CCV8-15	ic57d17.met	JD17.079	1	
80	B	ic57d17.met	JD17.080	1	
81	B	ic57d17.met	JD17.081	1	
82	B	ic57d17.met	JD17.082	1	
83	B	ic57d17.met	JD17.083	1	
84	B	ic57d17.met	JD17.084	1	
85	B	ic57d17.met	JD17.085	1	
86	B	ic57d17.met	JD17.086	1	
87	B	ic57d17.met	JD17.087	1	
88	B	ic57d17.met	JD17.088	1	
89	B	ic57d17.met	JD17.089	1	
90	B	ic57d17.met	JD17.090	1	
91	B	ic57d17.met	JD17.091	1	
92	B	ic57d17.met	JD17.092	1	
93	B	ic57d17.met	JD17.093	1	
94	B	ic57d17.met	JD17.094	1	
95	B	ic57d17.met	JD17.095	1	
96	B	ic57d17.met	JD17.096	1	
97	B	ic57d17.met	JD17.097	1	

Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...

Thursday, April 19, 2007

Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba... untitled - Paint 10:23 AM

8035

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 04/23/07 Time 14:50 End Date 04/23/07 Time 16:00

PREPARATION BATCH # PLD0135

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PLD0135B	10.000g	100ml	100ml	
*02	SL				
*03	SC				
*04	D197-01				
*05	D244-01				
*06	02				
*07	03				
*08	04				
*09	04D				
*10	04M				
*11	05				
*12	06				
*13	07				
*14	08				
*15	09				
*16	11				
*17	12				
*18	13				
*19	D245-02				
*20	03				
*21	04				
*22	05				
*23	06				
*24	07				
*25	08				

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5ml/1.0ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: ad

Standard Added By: ad

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8937

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 04/23/07 Time 14:50 End Date 04/23/07 Time 16:00

PREPARATION BATCH # PLD0135

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	D244-12D	10.000g	100 ml	100 ml	
*02	↓ 12M	↓	↓	↓	
*03					
*04					
*05					
*06					
*07					
*08					
*09					
*10					
*11					
*12					
*13					
*14					
*15					
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

04/23/07 cd

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5 ml / 1.0 ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: cd

Standard Added By: cd

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 04/24/07 Time 10:00 End Date 04/24/07 Time 12:00

PREPARATION BATCH # PCD0155

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0155B	10.000g	100 ml	100ml	
*02	SL				
*03	SC				
*04	D245-09				
*05	10				
*06	11				
*07	12				
*08	13				
*09	14				
*10	15				
*11	16				
*12	17				
*13	18				
*14	19				
*15					
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

ad 04/23/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS	SW9B-02-931	2.5ml ~~1.0ml~~ ad 04/23
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: ad

Standard Added By: ad

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D266**

SECTION		PAGE
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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8025
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-10-2007
EMAX Batch No.: 07D266

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/24/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB-042307	D266-01	04/23/07	WATER	PERCHLORATE BY IC
B10-HSAS7-5-6.5	D266-02	04/23/07	SOIL	PERCHLORATE BY IC
B10-HSAS7-15-16.5	D266-03	04/23/07	SOIL	PERCHLORATE BY IC
B10-HSAS7-30-31.5	D266-04	04/23/07	SOIL	PERCHLORATE BY IC
B20-HSAS19-30-31.5	D266-05	04/23/07	SOIL	PERCHLORATE BY IC
B20-HSAS19-15-16.5	D266-06	04/23/07	SOIL	PERCHLORATE BY IC
B20-HSAS19-10-11.5	D266-07	04/23/07	SOIL	PERCHLORATE BY IC
B20-HSAS19-25-26.5	D266-08	04/23/07	SOIL	PERCHLORATE BY IC
B20-HSAS1901-10-11.5	D266-09	04/23/07	SOIL	PERCHLORATE BY IC
F33-HSAS15-20-21.5	D266-10	04/20/07	SOIL	PERCHLORATE BY IC
F33-HSAS15-10-11.5	D266-11	04/20/07	SOIL	PERCHLORATE BY IC
F33-HSAS15-15-16.5	D266-12	04/20/07	SOIL	PERCHLORATE BY IC
LEB-042007	D266-13	04/20/07	WATER	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY RECORD

070266

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

TT-0618-

SHIP TO: EMAX

DATE 4-23-07 PAGE 1 OF 1

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation

PROJECT MANAGER: Brenda Meyer

TC #: 19967.02

SAMPLERS (Signatures): Holly A. Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	3+4.D Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LEB-042307	4-23-07	0900	X	U	W	P	1	NR
2.	B10-HSA57-5-6.5	4-23-07	1335	X	U	S	G	1	NR
3.	B10-HSA57-15-16.5	4-23-07	1345	X					
4.	B10-HSA57-30-31.5	4-23-07	1401	X					
5.	B20-HSA519-30-31.5	4-23-07	1524	X					
6.	B20-HSA519-15-16.5	4-23-07	1508	X					
7.	B20-HSA519-10-11.5	4-23-07	1505	X					
8.	B20-HSA519-25-26.5	4-23-07	1518	X					
9.	B20-HSA51901-10-11.5	4-23-07	1505	X					
~~10.~~									

HH

FILTERING: T=8.6° C
☐ FILTERED ☑ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY:
Holly A. Hanke	Holly A. Hanke	TETRA TECH, INC.	4-23-07	1740	9 of 9
RECEIVED BY: GEORGE Lim	SIGNATURE	COMPANY: EMAX	DATE: 4/24/07	TIME: 10:35	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE Lim	SIGNATURE	COMPANY: EMAX	DATE: 4/24/07	TIME: 12:10	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J-LUND	SIGNATURE	COMPANY: emax	DATE: 4/24/07	TIME: 1210	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1901

X:\GIS\ATT-MISC\COCR.CDR

CHAIN OF CUSTODY RECORD

07D266

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4-20-07 PAGE 1 OF 1

CLIENT: LMC

PROJECT NAME: Site 1 Supplemental Soil Investigation

PROJECT MANAGER: Brenda Meyer

TC #: 19967-07

SAMPLERS (Signatures): Holly A. Hanke

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

PARAMETERS: 3/4 oz Perchlorate

LINE ITEM	SAMPLE NO.	DATE	TIME	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
10 1	F33-HSAS15-20-21.5	4-20-07	0909	U	S	G	1	NR
11 2	F33-HSAS15-10-11.5	4-20-07	0903	U	S	G	1	NR
12 3	F33-HSAS15-15-16.5	4-20-07	0906	U	S	G	1	NR
13 4	LEB-042007	4-20-07	0855	U	W	P	1	NR
5								
6.								
7.								
8.								
9.								
10.								

LM

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

	SIGNATURE		DATE	TIME	
RELINQUISHED BY: Holly A. Hanke	Holly A. Hanke	TETRA TECH, INC.	4-24-07	9:45	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 4
RECEIVED BY: GEORGE LIM		COMPANY: EMAX	DATE: 4/24/07	TIME: 10:35	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: GEORGE LIM		COMPANY: EMAX	DATE: 4/24/07	TIME: 12:10	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: J- LUNA		COMPANY: EMAX	DATE: 4/24/07	TIME: 1211	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1 of 2

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D266
☑ EMAX Courier	See COC	Recepient JONLUNA
☐ Client Delivery		Date 10-24-06
☐ Third Party		Time 1210

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT

Safety Issues

☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ _____
Temperatures	☑ Cooler 1 3.6 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 4/26/07

SRF _____ Date 4/27/07

PM _____ Date 4/26/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	_____
H2	_____

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	_____
R6	_____

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D266

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D266

METHOD 314.0
PERCHLORATE

Two (2) water and eleven (11) soil samples were received on 04/24/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Matrix Spike**

   No MS/MSD sample was designated in this SDG.

5. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D266

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD018SB	ND	1	NA	20.0	10.0	04/26/0701:17	04/25/0710:00	JD25023	JD25022	PCD018S	NA	04/25/07
LCS1S	PCD018SL	260	1	NA	20.0	10.0	04/26/0701:57	04/25/0710:00	JD25025	JD25022	PCD018S	NA	04/25/07
LCD1S	PCD018SC	258	1	NA	20.0	10.0	04/26/0702:18	04/25/0710:00	JD25026	JD25022	PCD018S	NA	04/25/07
B10-HSAS7-5-6.5	D266-02	25.5	1	11.2	22.5	11.3	04/26/0702:38	04/25/0710:00	JD25027	JD25022	PCD018S	04/23/0713:35	04/24/07
B10-HSAS7-15-16.5	D266-03	17.0J	1	11.3	22.5	11.3	04/26/0702:58	04/25/0710:00	JD25028	JD25022	PCD018S	04/23/0713:45	04/24/07
B10-HSAS7-30-31.5	D266-04	105	1	7.5	21.6	10.8	04/26/0703:18	04/25/0710:00	JD25029	JD25022	PCD018S	04/23/0714:01	04/24/07
B20-HSAS19-30-31.5	D266-05	270	1	19.7	24.9	12.5	04/26/0703:39	04/25/0710:00	JD25030	JD25022	PCD018S	04/23/0715:24	04/24/07
B20-HSAS19-15-16.5	D266-06	94.4	1	5.8	21.2	10.6	04/26/0703:59	04/25/0710:00	JD25031	JD25022	PCD018S	04/23/0715:08	04/24/07
B20-HSAS19-10-11.5	D266-07	85.4	1	3.4	20.7	10.4	04/26/0704:19	04/25/0710:00	JD25032	JD25022	PCD018S	04/23/0715:05	04/24/07
B20-HSAS19-25-26.5	D266-08	77.7	1	4.1	20.9	10.4	04/26/0705:00	04/25/0710:00	JD25034	JD25033	PCD018S	04/23/0715:18	04/24/07
B20-HSAS1901-10-11.5	D266-09	99.0	1	3.0	20.6	10.3	04/26/0705:20	04/25/0710:00	JD25035	JD25033	PCD018S	04/23/0715:05	04/24/07
F33-HSAS15-20-21.5	D266-10	ND	1	13.8	23.2	11.6	04/26/0705:40	04/25/0710:00	JD25036	JD25033	PCD018S	04/20/0709:09	04/24/07
F33-HSAS15-10-11.5	D266-11	44.2	1	9.4	22.1	11.0	04/26/0706:00	04/25/0710:00	JD25037	JD25033	PCD018S	04/20/0709:03	04/24/07
F33-HSAS15-15-16.5	D266-12	119	1	9.5	22.1	11.0	04/26/0706:21	04/25/0710:00	JD25038	JD25033	PCD018S	04/20/0709:06	04/24/07

8903

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D266

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD017WB	ND	1	NA	2.00	0.500	04/25/0716:40	NA	JD25002	JD25001	PCD017W	NA	NA
LCS1W	PCD017WL	26.0	1	NA	2.00	0.500	04/25/0717:20	NA	JD25004	JD25001	PCD017W	NA	NA
LCD1W	PCD017WC	25.7	1	NA	2.00	0.500	04/25/0719:12	NA	JD25005	JD25001	PCD017W	NA	NA
LEB-042307	D266-01	ND	1	NA	2.00	0.500	04/25/0723:36	NA	JD25018	JD25012	PCD017W	04/23/0709:00	04/24/07
LEB-042007	D266-13	ND	1	NA	2.00	0.500	04/25/0723:56	NA	JD25019	JD25012	PCD017W	04/20/0708:55	04/24/07

6691

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D266
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD017WB	PCD017WL	PCD017WC		
LAB FILE ID:	JD25002	JD25004	JD25005		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	04/25/0716:40	04/25/0717:20	04/25/0719:12	DATE RECEIVED:	NA
PREP. BATCH:	PCD017W	PCD017W	PCD017W		
CALIB. REF:	JD25001	JD25001	JD25001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	26.0	104	25.0	25.7	103	1	85-115	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D266
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD018SB	PCD018SL	PCD018SC		
LAB FILE ID:	JD25023	JD25025	JD25026		
DATE EXTRACTED:	04/25/0710:00	04/25/0710:00	04/25/0710:00	DATE COLLECTED:	NA
DATE ANALYZED:	04/26/0701:17	04/26/0701:57	04/26/0702:18	DATE RECEIVED:	04/25/07
PREP. BATCH:	PCD018S	PCD018S	PCD018S		
CALIB. REF:	JD25022	JD25022	JD25022		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	260	104	250	258	103	1	85-115	20

8951

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

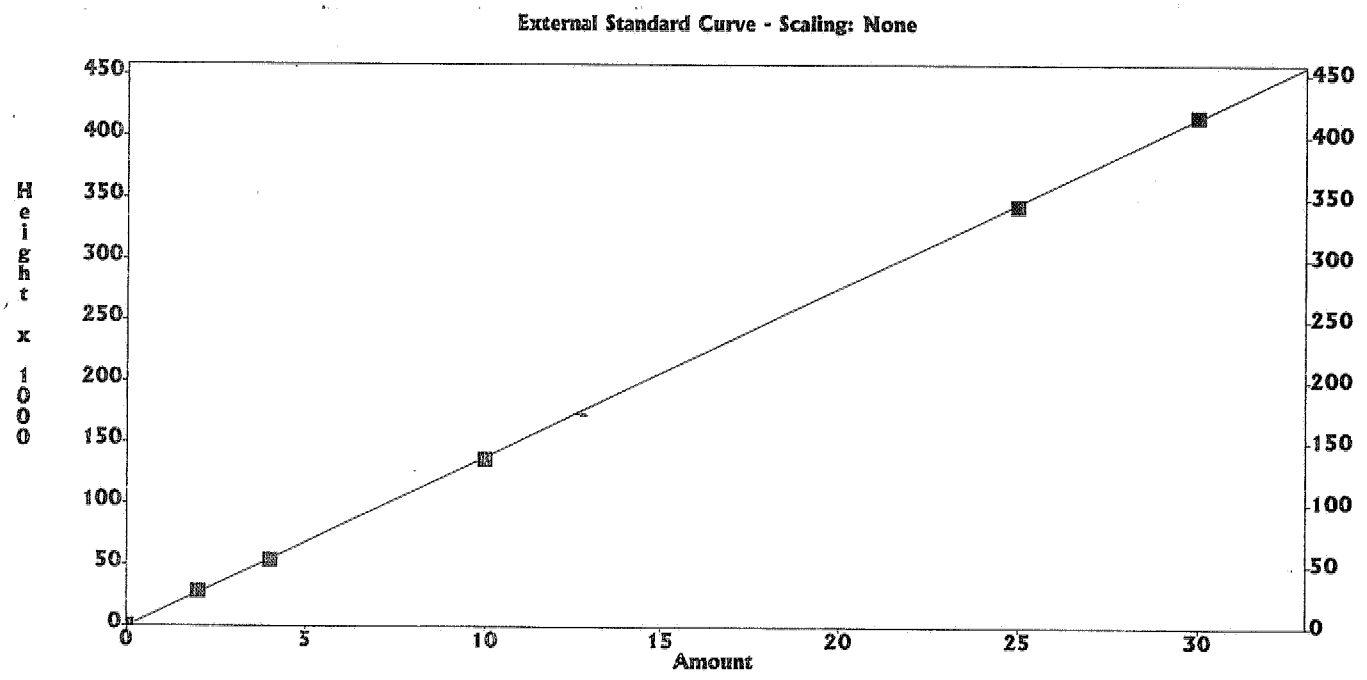
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8010

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4/4-24-01

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD25001	IPCS	P	89%	04/25/0716:20	1
JD25002	PCD017WB	P	.000	04/25/0716:40	1
JD25003	MRL	P	114%	04/25/0717:00	1
JD25004	PCD017WL	P	26	04/25/0717:20	1
JD25005	PCD017WC	P	25.7	04/25/0719:12	1
JD25006	D223-13	P	220	04/25/0719:33	20
JD25007	D223-14	P	304	04/25/0719:53	20
JD25008	D223-21	P	235	04/25/0720:13	20
JD25009	D244-04R	P	.000	04/25/0720:33	1
JD25010	D244-04Z	P	.000	04/25/0720:54	1
JD25011	D244-04G	P	10.8	04/25/0721:14	1
JD25012	CCV31-15	P	106%	04/25/0721:34	1
JD25013	D244-12R	P	10.7	04/25/0721:54	1
JD25014	D244-12Z	P	10.5	04/25/0722:15	1
JD25015	D244-12G	P	20.6	04/25/0722:35	1
JD25016	D244-13	P	61.5	04/25/0722:55	5
JD25017	D245-10	P	82.5	04/25/0723:15	20
JD25018	D266-01	P	.000	04/25/0723:36	1
JD25019	D266-13	P	.000	04/25/0723:56	1
JD25020	RINSE	P	.000	04/26/0700:16	1
JD25021	CCV32-30	P	110%*	04/26/0700:36	1
JD25022	IPCS	P	87.8%	04/26/0700:57	1
JD25023	PCD018SB	P	.000	04/26/0701:17	1
JD25024	MRL	P	120%	04/26/0701:37	1
JD25025	PCD018SL	P	26	04/26/0701:57	1
JD25026	PCD018SC	P	25.8	04/26/0702:18	1
JD25027	D266-02	P	2.26	04/26/0702:38	1
JD25028	D266-03	P	1.51	04/26/0702:58	1
JD25029	D266-04	P	9.72	04/26/0703:18	1
JD25030	D266-05	P	21.7	04/26/0703:39	1
JD25031	D266-06	P	8.89	04/26/0703:59	1
JD25032	D266-07	P	8.25	04/26/0704:19	1
JD25033	CCV33-15	P	107%	04/26/0704:39	1
JD25034	D266-08	P	7.45	04/26/0705:00	1
JD25035	D266-09	P	9.6	04/26/0705:20	1
JD25036	D266-10	P	.000	04/26/0705:40	1
JD25037	D266-11	P	4	04/26/0706:00	1
JD25038	D266-12	P	10.8	04/26/0706:21	1
JD25039	RINSE	P	.000	04/26/0706:41	1
JD25040	CCV34-30	P	110%*	04/26/0707:01	1

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: I057d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

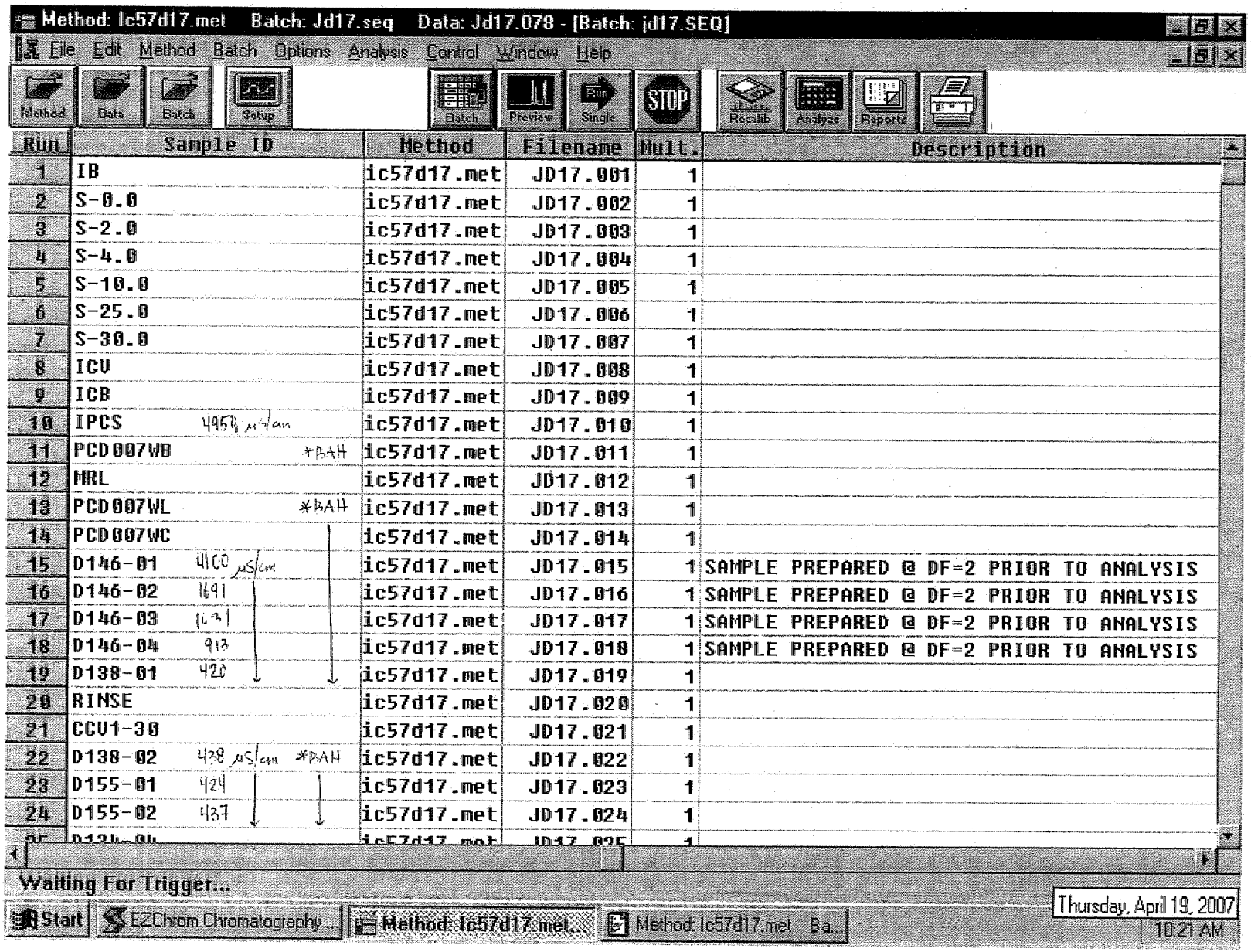
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	938
LCS	936
MS	931
IPC	934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 04/17/07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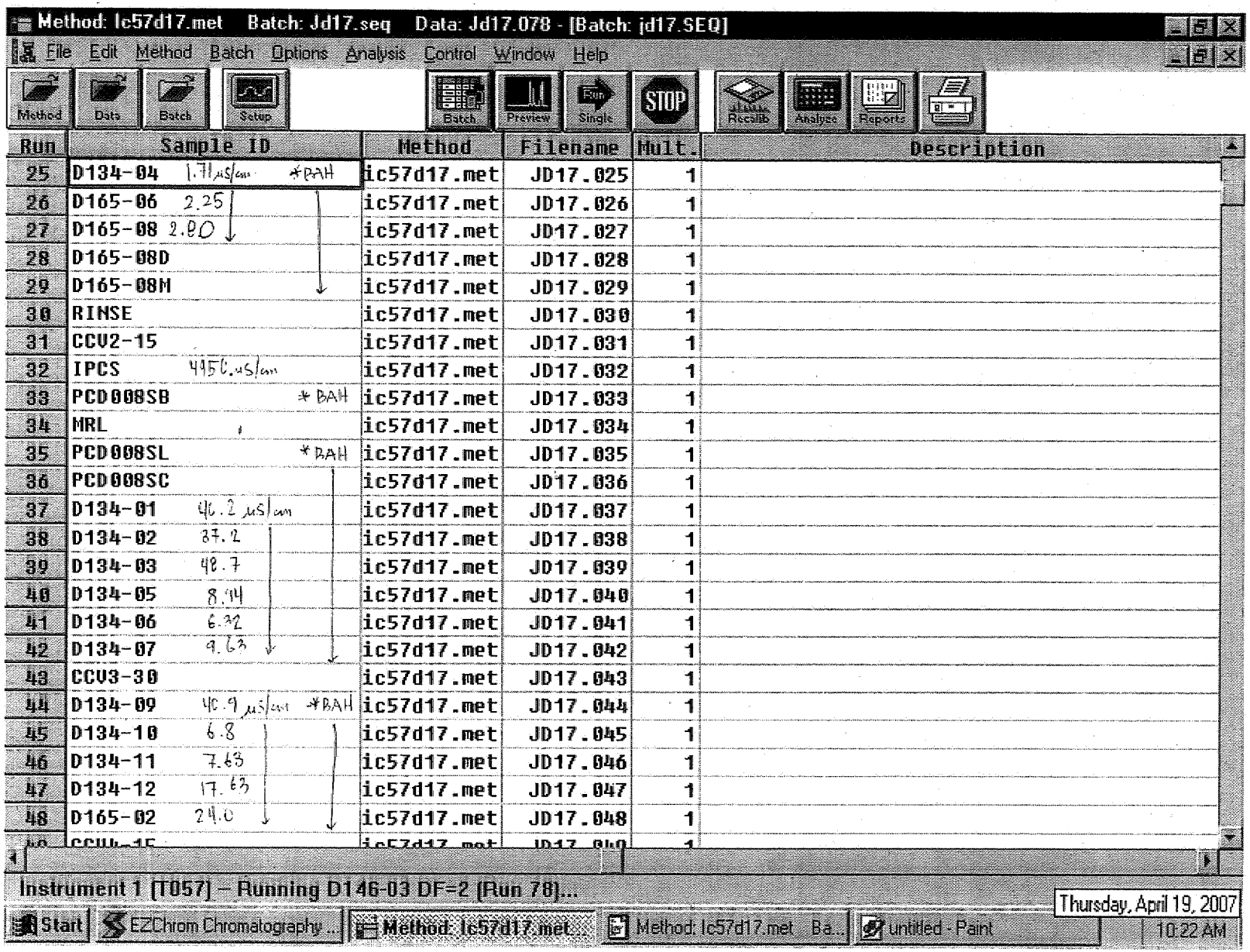
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d17.met | JD17.001 | 1
2 | S-0.0 | ic57d17.met | JD17.002 | 1
3 | S-2.0 | ic57d17.met | JD17.003 | 1
4 | S-4.0 | ic57d17.met | JD17.004 | 1
5 | S-10.0 | ic57d17.met | JD17.005 | 1
6 | S-25.0 | ic57d17.met | JD17.006 | 1
7 | S-30.0 | ic57d17.met | JD17.007 | 1
8 | ICV | ic57d17.met | JD17.008 | 1
9 | ICB | ic57d17.met | JD17.009 | 1
10 | IPCS 4957 µS/cm | ic57d17.met | JD17.010 | 1
11 | PCD007WB *BAH | ic57d17.met | JD17.011 | 1
12 | MRL | ic57d17.met | JD17.012 | 1
13 | PCD007WL *BAH | ic57d17.met | JD17.013 | 1
14 | PCD007WC | ic57d17.met | JD17.014 | 1
15 | D146-01 4100 µS/cm | ic57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | ic57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1631 | ic57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | ic57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | ic57d17.met | JD17.019 | 1
20 | RINSE | ic57d17.met | JD17.020 | 1
21 | CCV1-30 | ic57d17.met | JD17.021 | 1
22 | D138-02 438 µS/cm *BAH | ic57d17.met | JD17.022 | 1
23 | D155-01 429 | ic57d17.met | JD17.023 | 1
24 | D155-02 437 | ic57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

8017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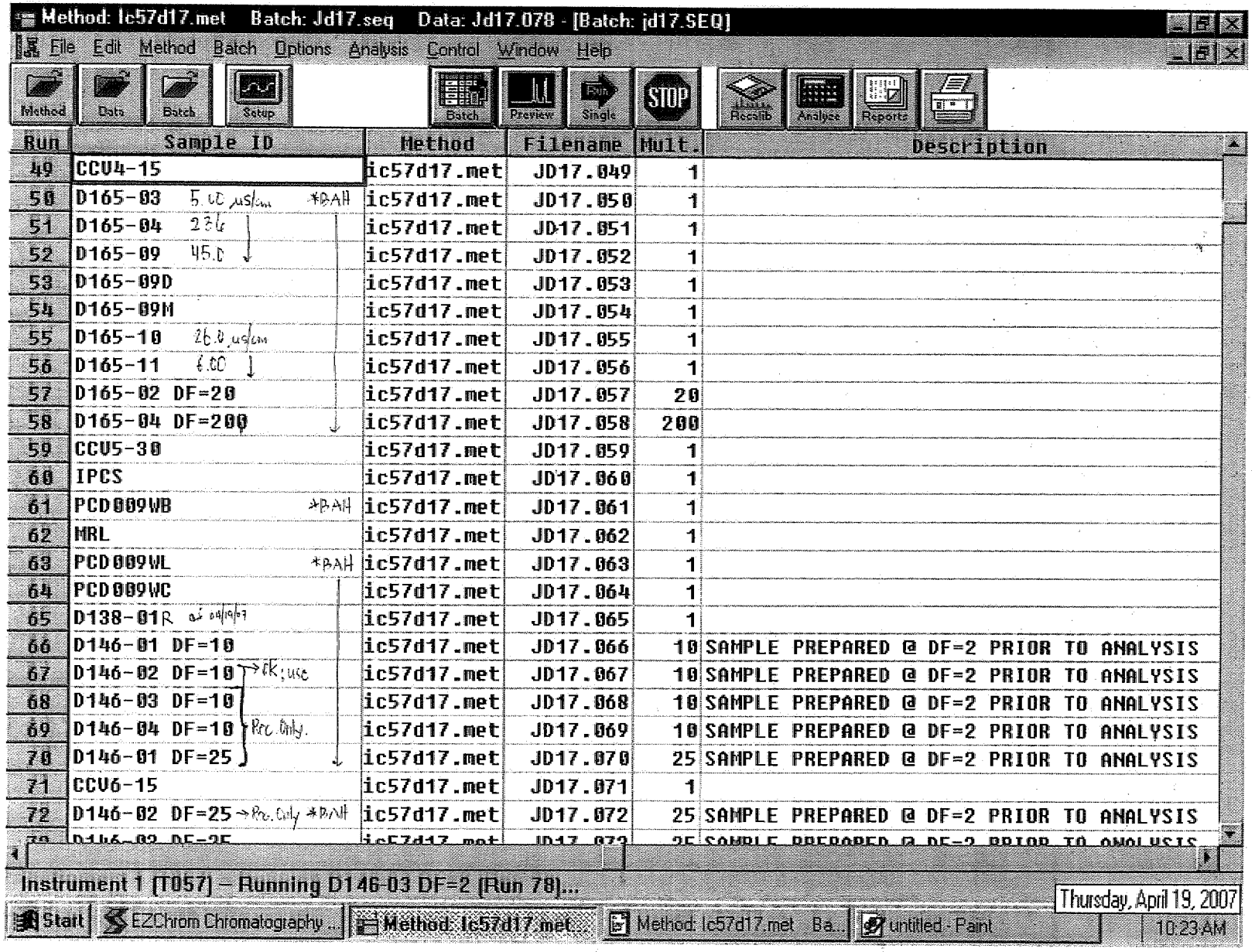
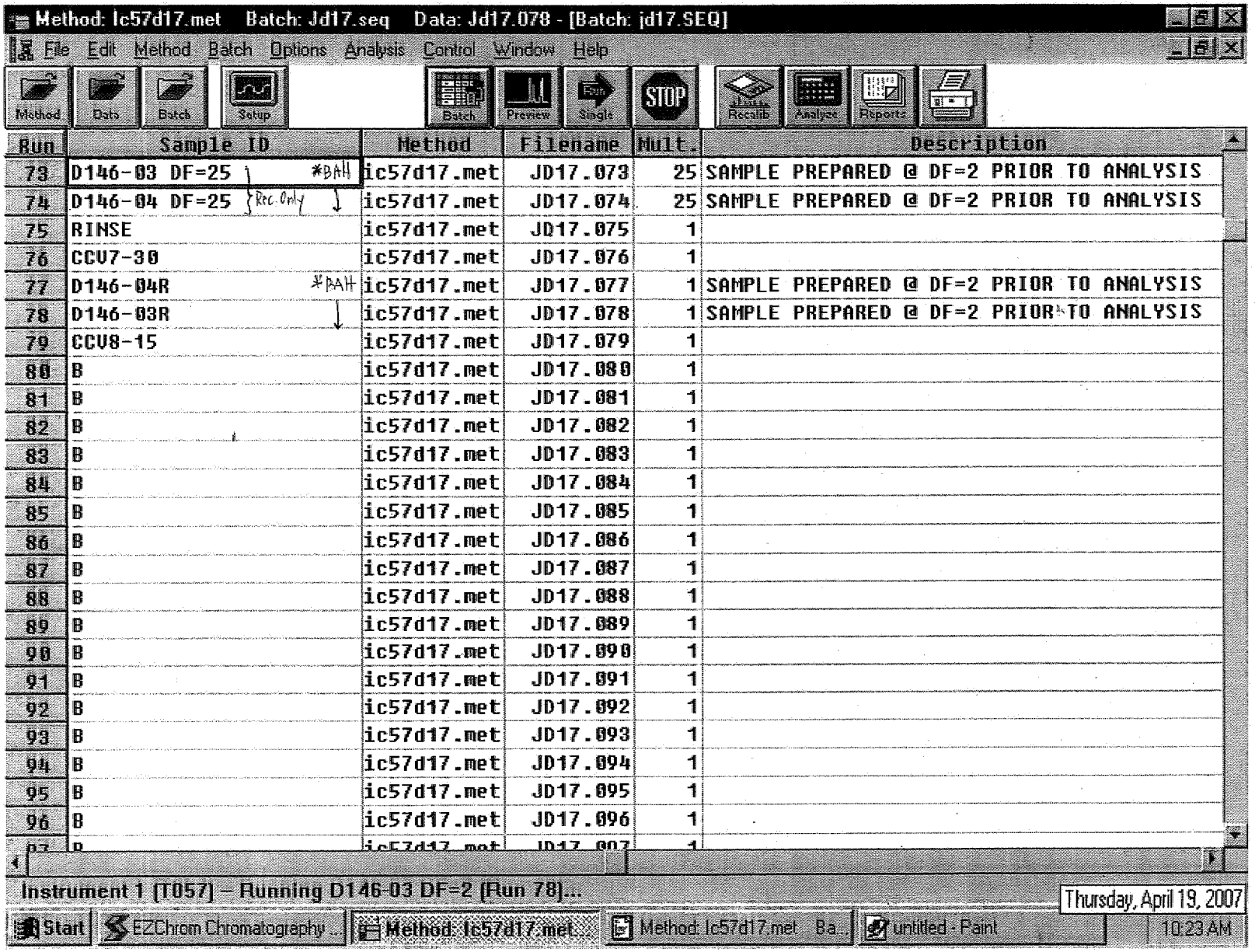
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71µs/cm *BAH ic57d17.met JD17.025 1
26 D165-06 2.25 ic57d17.met JD17.026 1
27 D165-08 2.80 ic57d17.met JD17.027 1
28 D165-08D ic57d17.met JD17.028 1
29 D165-08M ic57d17.met JD17.029 1
30 RINSE ic57d17.met JD17.030 1
31 CCV2-15 ic57d17.met JD17.031 1
32 IPCS 4456.µs/cm ic57d17.met JD17.032 1
33 PCD008SB *BAH ic57d17.met JD17.033 1
34 MRL ic57d17.met JD17.034 1
35 PCD008SL *BAH ic57d17.met JD17.035 1
36 PCD008SC ic57d17.met JD17.036 1
37 D134-01 46.2 µs/cm ic57d17.met JD17.037 1
38 D134-02 37.2 ic57d17.met JD17.038 1
39 D134-03 48.7 ic57d17.met JD17.039 1
40 D134-05 8.14 ic57d17.met JD17.040 1
41 D134-06 6.32 ic57d17.met JD17.041 1
42 D134-07 9.63 ic57d17.met JD17.042 1
43 CCV3-30 ic57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *BAH ic57d17.met JD17.044 1
45 D134-10 6.8 ic57d17.met JD17.045 1
46 D134-11 7.63 ic57d17.met JD17.046 1
47 D134-12 17.63 ic57d17.met JD17.047 1
48 D165-02 24.0 ic57d17.met JD17.048 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography ... Method: lc57d17.met Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8018


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1 |
50 | D165-03 5.00 µs/cm *BAH | lc57d17.met | JD17.050 | 1 |
51 | D165-04 23.6 | lc57d17.met | JD17.051 | 1 |
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1 |
53 | D165-09D | lc57d17.met | JD17.053 | 1 |
54 | D165-09M | lc57d17.met | JD17.054 | 1 |
55 | D165-10 26.0 µs/cm | lc57d17.met | JD17.055 | 1 |
56 | D165-11 6.00 | lc57d17.met | JD17.056 | 1 |
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20 |
58 | D165-04 DF=200 | lc57d17.met | JD17.058 | 200 |
59 | CCV5-30 | lc57d17.met | JD17.059 | 1 |
60 | IPCS | lc57d17.met | JD17.060 | 1 |
61 | PCD009WB *BAH | lc57d17.met | JD17.061 | 1 |
62 | MRL | lc57d17.met | JD17.062 | 1 |
63 | PCD009WL *BAH | lc57d17.met | JD17.063 | 1 |
64 | PCD009WC | lc57d17.met | JD17.064 | 1 |
65 | D138-01R as of 04/19/07 | lc57d17.met | JD17.065 | 1 |
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → ok; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Prc. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1 |
72 | D146-02 DF=25 → Prc. Only *BAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyse
Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D146-03 DF=25 *PAH | lc57d17.met | JD17.073 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 | D146-04 DF=25 Rec Only | lc57d17.met | JD17.074 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 | RINSE | lc57d17.met | JD17.075 | 1 |
76 | CCV7-30 | lc57d17.met | JD17.076 | 1 |
77 | D146-04R *PAH | lc57d17.met | JD17.077 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 | D146-03R | lc57d17.met | JD17.078 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 | CCV8-15 | lc57d17.met | JD17.079 | 1 |
80 | B | lc57d17.met | JD17.080 | 1 |
81 | B | lc57d17.met | JD17.081 | 1 |
82 | B | lc57d17.met | JD17.082 | 1 |
83 | B | lc57d17.met | JD17.083 | 1 |
84 | B | lc57d17.met | JD17.084 | 1 |
85 | B | lc57d17.met | JD17.085 | 1 |
86 | B | lc57d17.met | JD17.086 | 1 |
87 | B | lc57d17.met | JD17.087 | 1 |
88 | B | lc57d17.met | JD17.088 | 1 |
89 | B | lc57d17.met | JD17.089 | 1 |
90 | B | lc57d17.met | JD17.090 | 1 |
91 | B | lc57d17.met | JD17.091 | 1 |
92 | B | lc57d17.met | JD17.092 | 1 |
93 | B | lc57d17.met | JD17.093 | 1 |
94 | B | lc57d17.met | JD17.094 | 1 |
95 | B | lc57d17.met | JD17.095 | 1 |
96 | B | lc57d17.met | JD17.096 | 1 |
Instrument 1 [T057] – Running D146-03 DF=2 (Run 78)...
Thursday, April 19, 2007
Start
EZChrom Chromatography ...
Method: lc57d17.met
Method: lc57d17.met Ba...
untitled - Paint
10:23 AM

8020

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH: SW8A - 02-18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD25

Method File: IC57d17.met

Analytical Batch: PCD017W + PCD018S

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

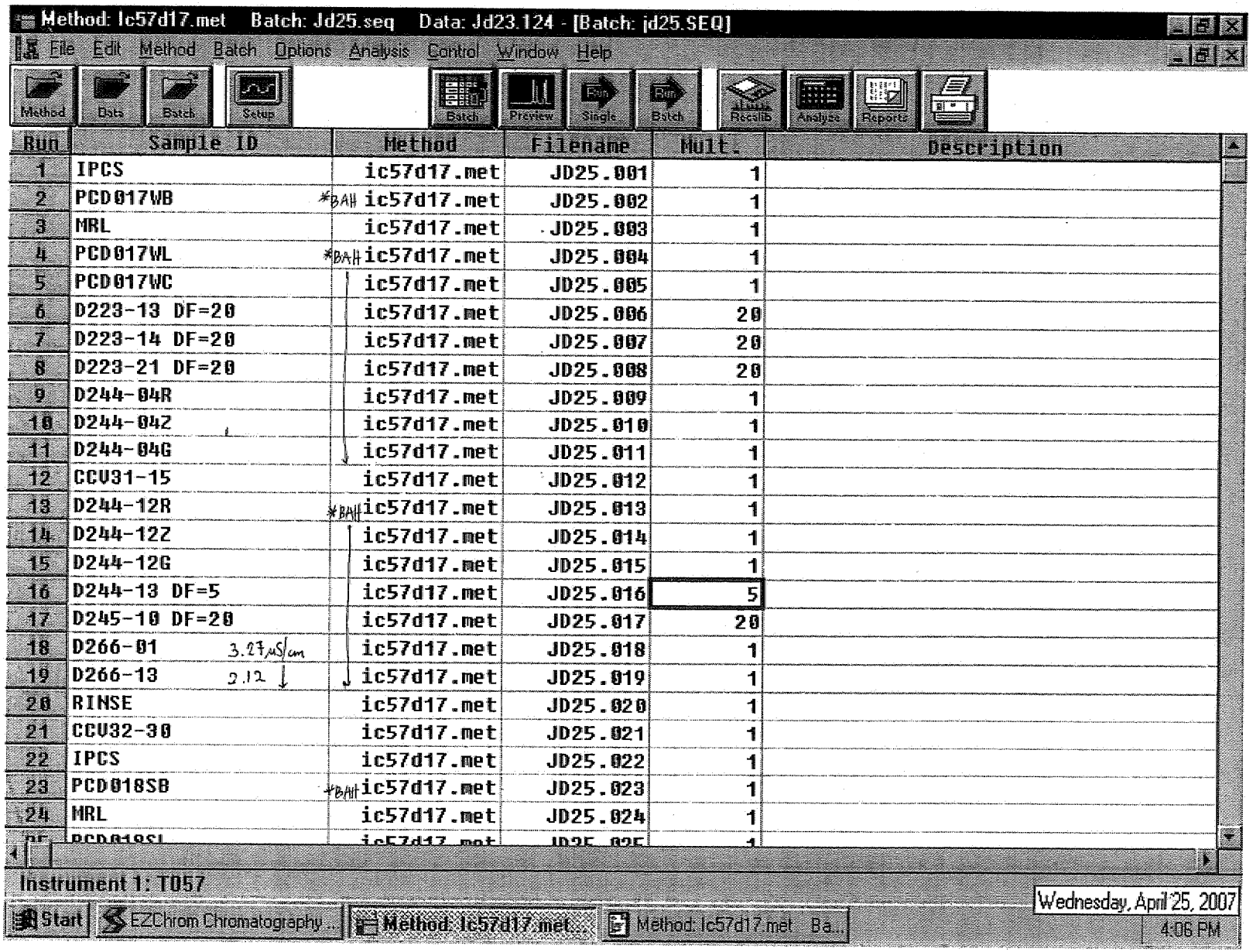
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW 8B - 02 - 937
CCV-30	938
LCS	936
MS	931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1412	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 04/25/07


Method: lc57d17.met Batch: Jd25.seq Data: Jd23.124 - [Batch: jd25.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch ResLib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 IPCS ic57d17.met JD25.001 1
2 PCD017WB *BAH ic57d17.met JD25.002 1
3 MRL ic57d17.met JD25.003 1
4 PCD017WL *BAH ic57d17.met JD25.004 1
5 PCD017WC ic57d17.met JD25.005 1
6 D223-13 DF=20 ic57d17.met JD25.006 20
7 D223-14 DF=20 ic57d17.met JD25.007 20
8 D223-21 DF=20 ic57d17.met JD25.008 20
9 D244-04R ic57d17.met JD25.009 1
10 D244-04Z ic57d17.met JD25.010 1
11 D244-04G ic57d17.met JD25.011 1
12 CCV31-15 ic57d17.met JD25.012 1
13 D244-12R *BAH ic57d17.met JD25.013 1
14 D244-12Z ic57d17.met JD25.014 1
15 D244-12G ic57d17.met JD25.015 1
16 D244-13 DF=5 ic57d17.met JD25.016 5
17 D245-10 DF=20 ic57d17.met JD25.017 20
18 D266-01 3.27 µS/cm ic57d17.met JD25.018 1
19 D266-13 2.12 ic57d17.met JD25.019 1
20 RINSE ic57d17.met JD25.020 1
21 CCV32-30 ic57d17.met JD25.021 1
22 IPCS ic57d17.met JD25.022 1
23 PCD018SB *BAH ic57d17.met JD25.023 1
24 MRL ic57d17.met JD25.024 1
Instrument 1: TOC7
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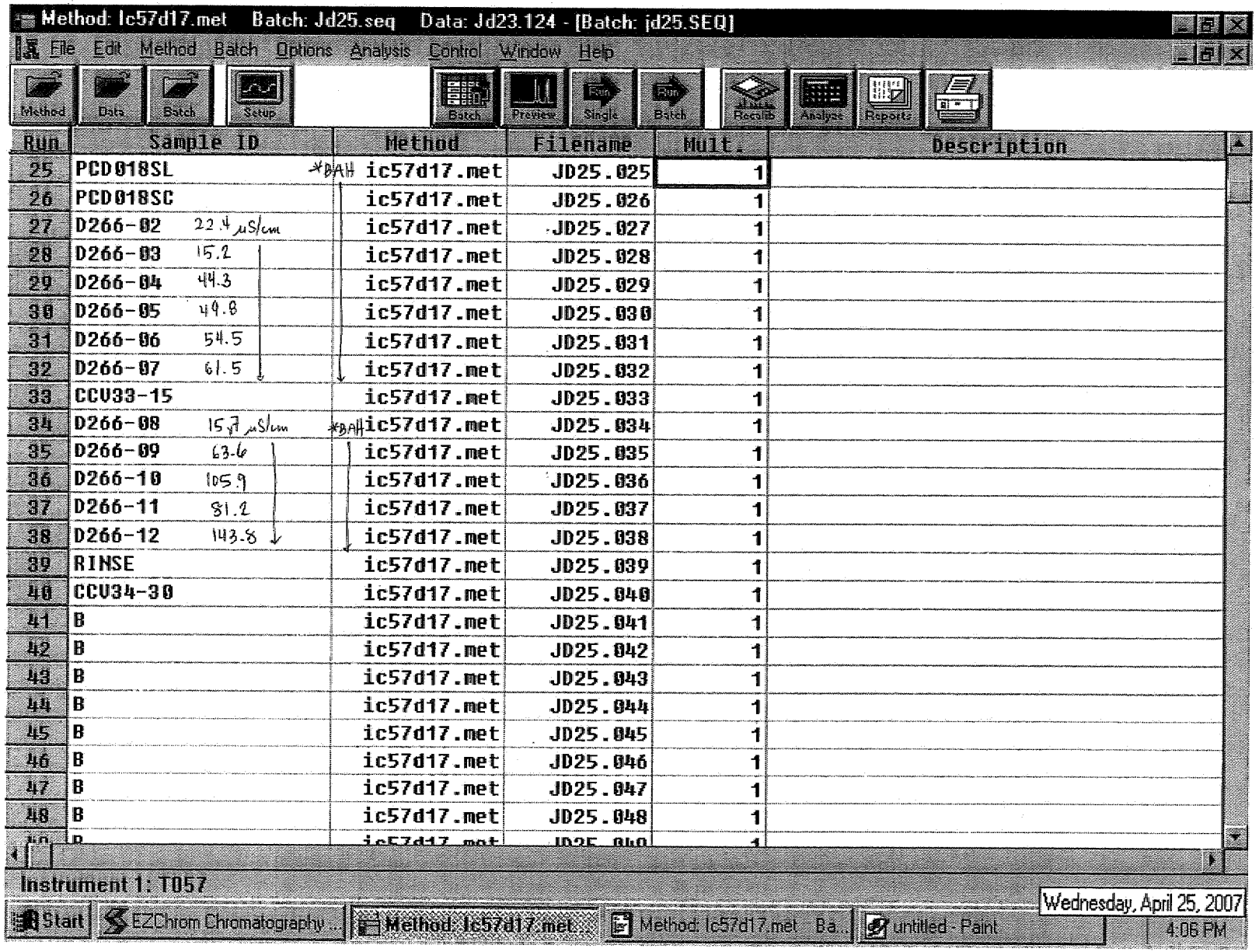
Wednesday, April 25, 2007
4:06 PM

8022


Method: Ic57d17.met Batch: Jd25.seq Data: Jd23.124 - [Batch: jd25.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 PCD018SL *BAH ic57d17.met JD25.025 1
26 PCD018SC ic57d17.met JD25.026 1
27 D266-02 22.4 µS/cm ic57d17.met JD25.027 1
28 D266-03 15.2 ic57d17.met JD25.028 1
29 D266-04 44.3 ic57d17.met JD25.029 1
30 D266-05 49.8 ic57d17.met JD25.030 1
31 D266-06 54.5 ic57d17.met JD25.031 1
32 D266-07 61.5 ic57d17.met JD25.032 1
33 CCV33-15 ic57d17.met JD25.033 1
34 D266-08 15.7 µS/cm *BAH ic57d17.met JD25.034 1
35 D266-09 63.6 ic57d17.met JD25.035 1
36 D266-10 105.9 ic57d17.met JD25.036 1
37 D266-11 81.2 ic57d17.met JD25.037 1
38 D266-12 143.8 ic57d17.met JD25.038 1
39 RINSE ic57d17.met JD25.039 1
40 CCV34-30 ic57d17.met JD25.040 1
41 B ic57d17.met JD25.041 1
42 B ic57d17.met JD25.042 1
43 B ic57d17.met JD25.043 1
44 B ic57d17.met JD25.044 1
45 B ic57d17.met JD25.045 1
46 B ic57d17.met JD25.046 1
47 B ic57d17.met JD25.047 1
48 B ic57d17.met JD25.048 1
Instrument 1: T057
Start EZChrom Chromatography... Method: Ic57d17.met Method: Ic57d17.met Ba... untitled - Paint
Wednesday, April 25, 2007
4:06 PM

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 04/25/07 Time 10:00 End Date 04/25/07 Time 11:20

PREPARATION BATCH # PC10189

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PC10185B	10.000g	100 ml	100 ml	
*02	SL				
*03	SC				
*04	D266-02				
*05	03				
*06	04				
*07	05				
*08	06				
*09	07				
*10	08				
*11	09				
*12	10				
*13	11				
*14	12				
*15					
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS	SW8B-02-931	2.5ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

04/25/07

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D314**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1004
GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8030
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-16-2007
EMAX Batch No.: 07D314

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/27/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB-042407	D314-01	04/24/07	WATER	PERCHLORATE BY IC
B20-HSAS20-20-21.5	D314-02	04/24/07	SOIL	PERCHLORATE BY IC
B20-HSAS20-25-26.5	D314-03	04/24/07	SOIL	PERCHLORATE BY IC
B20-HSAS20-30-31.5	D314-04	04/24/07	SOIL	PERCHLORATE BY IC
B20-HSAS20-10-11.5	D314-05	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS5-25-26.5	D314-06	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS-15-16.5	D314-07	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS5-20-21.5	D314-08	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS501-15-16.5	D314-09	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS6-30-31.5	D314-10	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS6-10-11.5	D314-11	04/24/07	SOIL	PERCHLORATE BY IC
B10-HSAS6-20-21.5	D314-12	04/24/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

for

Kam Y. Pang, Ph.D.
Laboratory Director

TT. 0618

07D314

CHAIN OF CUSTODY RECORD

07D314

DATE 4-24-07 PAGE 1 OF 2

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation

PROJECT MANAGER: Brooke Meyer

TC #: 19967-02

SAMPLERS (Signatures) Holly A. K

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LEB-042407	4-24-07	0824	X	U	W	P	1	NR
2.	B20-HSA520-20-21.5	4-24-07	0841	X	U	S	G	1	NR
3.	B20-HSA520-25-26.5	4-24-07	0848	X					
4.	B20-HSA520-30-31.5	4-24-07	0853	X					
5.	B20-HSA520-10-11.5	4-24-07	0840	X					
6.	B10-HSA5-25-26.5	4-24-07	1014	X					
7.	B10-HSA5-15-16.5	4-24-07	1003	X					
8.	B10-HSA5-20-21.5	4-24-07	1006 ~~2003~~	X					
9.	B10-HSA5 501-15-16.5	4-24-07	1003	X					
10.	B10-HSA6-30-31.5	4-24-07	1553	X					

FILTERING: ☐ FILTERED ☑ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Holly Hankle	SIGNATURE: Holly A K	TETRA TECH, INC.	DATE: 4-24-07	TIME: 1810	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10 of 12
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/27/07	TIME: 9:45	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/27/07	TIME: 15:39	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: INDRA PATEL	SIGNATURE	COMPANY: EMAX	DATE: 4-27-07	TIME: 1539	T=3.4

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1004

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TT-0618

07D314

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4-24-07 PAGE 2 OF 2

CLIENT: Lmc

PROJECT NAME: Supplemental Soil Investigation Site 1

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures): Holly A. Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
11 1.	BIO-HSA56-10-11.5	4-24-07	1542	X	U	S	G	1	NR
12 2.	BIO-HSA56-20-21.5	4-24-07	1547	X	↓	↓	↓	↓	↓
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 2 of 12
Holly Hanke	Holly A. Hanke	TETRA TECH, INC.	4-24-07	1810	
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE 4/27/07	TIME 9:45	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE 4/27/07	TIME 15:39	Special Shipping/Handling/Storage Requirements:
RECEIVED BY	SIGNATURE: INDRAJATEL	COMPANY: EMAX	DATE 4-27-07	TIME 1539	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1 of 2

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D314
☑ EMAX Courier	SEE COC	Recepient I PATEL
☐ Client Delivery		Date 4-27-07
☐ Third Party		Time 1539

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT

Safety Issues
☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☑ plastic bag
Temperatures	☑ Cooler 1 3.4 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 4-27-07

SRF _____ Date 4/27/07

PM _____ Date 4/27/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	_____
H2	_____

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	_____
R6	_____

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D314

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D314

METHOD 314.0
PERCHLORATE

One (1) water and eleven (11) soil samples were received on 04/27/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Sample D314-12 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   Sample D314-12 was spiked. %Recovery was within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D314

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD021WB	ND	1	NA	2.00	0.500	05/02/0710:03	NA	JE01047	JE01046	PCD021W	NA	NA
LCS1W	PCD021WL	25.1	1	NA	2.00	0.500	05/02/0710:43	NA	JE01049	JE01046	PCD021W	NA	NA
LCD1W	PCD021WC	25.4	1	NA	2.00	0.500	05/02/0711:03	NA	JE01050	JE01046	PCD021W	NA	NA
LEB-042407	D314-01	ND	1	NA	2.00	0.500	05/02/0711:24	NA	JE01051	JE01046	PCD021W	04/24/0708:24	04/27/07

0003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D314

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD019SB	ND	1	NA	20.0	10.0	05/01/0718:51	04/30/0709:50	JE01002	JE01001	PCD019S	NA	04/30/07
LCS1S	PCD019SL	251	1	NA	20.0	10.0	05/01/0719:32	04/30/0709:50	JE01004	JE01001	PCD019S	NA	04/30/07
LCD1S	PCD019SC	248	1	NA	20.0	10.0	05/01/0719:52	04/30/0709:50	JE01005	JE01001	PCD019S	NA	04/30/07
B20-HSAS20-20-21.5	D314-02	224	1	16.9	24.1	12.0	05/01/0721:33	04/30/0709:50	JE01010	JE01001	PCD019S	04/24/0708:46	04/27/07
B20-HSAS20-25-26.5	D314-03	322	1	21.8	25.6	12.8	05/01/0721:53	04/30/0709:50	JE01011	JE01001	PCD019S	04/24/0708:48	04/27/07
B20-HSAS20-30-31.5	D314-04	302	1	22.6	25.8	12.9	05/01/0722:34	04/30/0709:50	JE01013	JE01012	PCD019S	04/24/0708:53	04/27/07
B20-HSAS20-10-11.5	D314-05	68.2	1	3.5	20.7	10.4	05/01/0722:54	04/30/0709:50	JE01014	JE01012	PCD019S	04/24/0708:40	04/27/07
B10-HSAS5-25-26.5	D314-06	155	1	13.0	23.0	11.5	05/01/0723:14	04/30/0709:50	JE01015	JE01012	PCD019S	04/24/0710:14	04/27/07
B10-HSAS-15-16.5	D314-07	189	1	14.1	23.3	11.6	05/01/0723:35	04/30/0709:50	JE01016	JE01012	PCD019S	04/24/0710:03	04/27/07
B10-HSAS5-20-21.5	D314-08	328	1	20.1	25.0	12.5	05/01/0723:55	04/30/0709:50	JE01017	JE01012	PCD019S	04/24/0710:06	04/27/07
B10-HSAS501-15-16.5	D314-09	209	1	12.0	22.7	11.4	05/02/0700:15	04/30/0709:50	JE01018	JE01012	PCD019S	04/24/0710:03	04/27/07
B10-HSAS6-30-31.5	D314-10	286	1	25.2	26.7	13.4	05/02/0700:35	04/30/0709:50	JE01019	JE01012	PCD019S	04/24/0715:33	04/27/07
B10-HSAS6-20-21.5	D314-12	181	1	14.2	23.3	11.7	05/02/0701:16	04/30/0709:50	JE01021	JE01012	PCD019S	04/24/0715:47	04/27/07
B10-HSAS6-20-21.5DUP	D314-12D	181	1	14.2	23.3	11.7	05/02/0701:36	04/30/0709:50	JE01022	JE01012	PCD019S	04/24/0715:47	04/27/07
B10-HSAS6-20-21.5MS	D314-12M	294	1	14.2	23.3	11.7	05/02/0702:17	04/30/0709:50	JE01024	JE01023	PCD019S	04/24/0715:47	04/27/07
B10-HSAS6-10-11.5	D314-11	1080	10	14.7	234	117	05/02/0716:52	04/30/0709:50	JE01063	JE01056	PCD019S	04/24/0715:42	04/27/07

9061

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D314
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD021WB	PCD021WL	PCD021WC		
LAB FILE ID:	JE01047	JE01049	JE01050		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	05/02/0710:03	05/02/0710:43	05/02/0711:03	DATE RECEIVED:	NA
PREP. BATCH:	PCD021W	PCD021W	PCD021W		
CALIB. REF:	JE01046	JE01046	JE01046		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.1	100	25.0	25.4	102	1	85-115	20

8966

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D314
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 14.2
DILUTION FACTOR: 1 1
SAMPLE ID: B10-HSAS6-20-21.5
LAB SAMP ID: D314-12 D314-12M
LAB FILE ID: JE01021 JE01024
DATE EXTRACTED: 04/30/0709:50 04/30/0709:50 DATE COLLECTED: 04/24/07 15:47
DATE ANALYZED: 05/02/0701:16 05/02/0702:17 DATE RECEIVED: 04/27/07
PREP. BATCH: PCD019S PCD019S
CALIB. REF: JE01012 JE01023

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	181	117	294	97	80-120

8967

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D314
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: PCD019SB PCD019SL PCD019SC
LAB FILE ID: JE01002 JE01004 JE01005
DATE EXTRACTED: 04/30/0709:50 04/30/0709:50 04/30/0709:50 DATE COLLECTED: NA
DATE ANALYZED: 05/01/0718:51 05/01/0719:32 05/01/0719:52 DATE RECEIVED: 04/30/07
PREP. BATCH: PCD019S PCD019S PCD019S
CALIB. REF: JE01001 JE01001 JE01001

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	251	100	250	248	99	1	85-115	20

8998

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D314
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	14.2
DILUTION FACTOR:	1	1		
SAMPLE ID:	B10-HSAS6-20-21.5			
EMAX SAMP ID:	D314-12	D314-12D		
LAB FILE ID:	JE01021	JE01022		
DATE EXTRACTED:	04/30/0709:50	04/30/0709:50	DATE COLLECTED:	04/24/07 15:47
DATE ANALYZED:	05/02/0701:16	05/02/0701:36	DATE RECEIVED:	04/27/07
PREP. BATCH:	PCD019S	PCD019S		
CALIB. REF:	JE01012	JE01012		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	181	181	0	20

6009

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

MP 4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

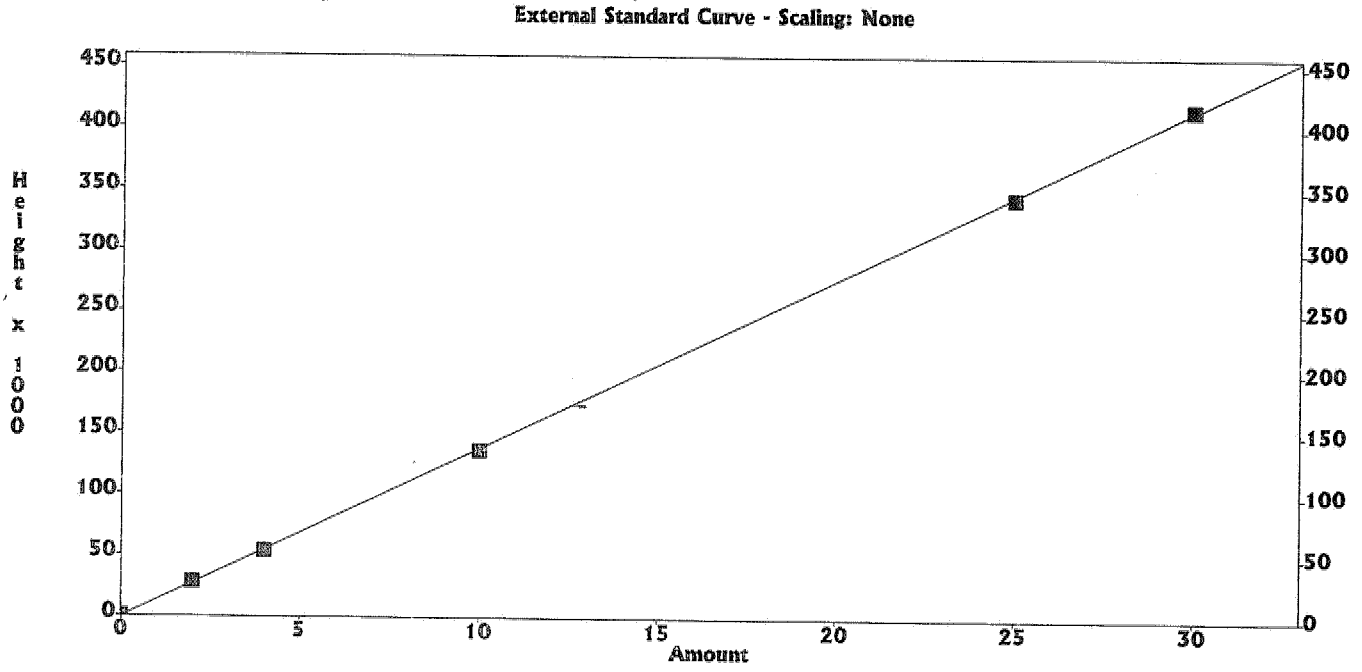
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8012

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4/4 4-24-01

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE01001	IPCS	P	83.9%	05/01/0718:31	1
JE01002	PCD019SB	P	.000	05/01/0718:51	1
JE01003	MRL	P	97.2%	05/01/0719:11	1
JE01004	PCD019SL	P	25.1	05/01/0719:32	1
JE01005	PCD019SC	P	24.8	05/01/0719:52	1
JE01006	D278-04	P	.000	05/01/0720:12	1
JE01007	D278-01	P	.000	05/01/0720:32	1
JE01008	D278-02	P	.000	05/01/0720:53	1
JE01009	D278-03	P	.000	05/01/0721:13	1
JE01010	D314-02	P	18.6	05/01/0721:33	1
JE01011	D314-03	P	25.2	05/01/0721:53	1
JE01012	CCV35-15	P	101%	05/01/0722:14	1
JE01013	D314-04	P	23.4	05/01/0722:34	1
JE01014	D314-05	P	6.58	05/01/0722:54	1
JE01015	D314-06	P	13.5	05/01/0723:14	1
JE01016	D314-07	P	16.2	05/01/0723:35	1
JE01017	D314-08	P	26.2	05/01/0723:55	1
JE01018	D314-09	P	18.4	05/02/0700:15	1
JE01019	D314-10	P	21.4	05/02/0700:35	1
JE01020	D314-11	*	58.1E	05/02/0700:56	1
JE01021	D314-12	P	15.5	05/02/0701:16	1
JE01022	D314-12D	P	15.5	05/02/0701:36	1
JE01023	CCV36-30	P	106%	05/02/0701:56	1
JE01024	D314-12M	P	25.2	05/02/0702:17	1
JE01025	D315-02	*	61.5E	05/02/0702:37	1
JE01026	D315-03	*	62.7E	05/02/0702:57	1
JE01027	D315-04	P	17.4	05/02/0703:18	1
JE01028	D315-05	P	1.86	05/02/0703:38	1
JE01029	IPCS	P	85.2%	05/02/0703:58	1
JE01030	PCD020SB	P	.000	05/02/0704:18	1
JE01031	MRL	P	98.4%	05/02/0704:39	1
JE01032	PCD020SL	P	25.3	05/02/0704:59	1
JE01033	PCD020SC	P	25.3	05/02/0705:19	1
JE01034	CCV37-15	P	99.7%	05/02/0705:39	1
JE01035	D315-06	P	3.62	05/02/0706:00	1
JE01036	D315-07	P	2.55	05/02/0706:20	1
JE01037	D315-08	P	.000	05/02/0706:40	1
JE01038	D315-09	P	.000	05/02/0707:00	1
JE01039	D315-10	P	2.05	05/02/0707:21	1
JE01040	D315-10D	P	2.07	05/02/0707:41	1
JE01041	D315-10M	P	11.9	05/02/0708:01	1
JE01042	D315-11	P	.000	05/02/0708:21	1
JE01043	D315-12	P	.000	05/02/0708:42	1
JE01044	D315-13	P	.000	05/02/0709:02	1
JE01045	CCV38-30	P	106%	05/02/0709:22	1
JE01046	IPCS	P	85.7%	05/02/0709:42	1
JE01047	PCD021WB	P	.000	05/02/0710:03	1
JE01048	MRL	P	99.3%	05/02/0710:23	1
JE01049	PCD021WL	P	25.1	05/02/0710:43	1
JE01050	PCD021WC	P	25.4	05/02/0711:03	1
JE01051	D314-01	P	.000	05/02/0711:24	1
JE01052	D315-01	P	.000	05/02/0711:44	1
JE01053	D320-01	P	.000	05/02/0712:04	1
JE01054	D320-02	P	.000	05/02/0712:24	1
JE01055	D320-03	P	1.3	05/02/0712:45	1
JE01056	CCV39-15	P	101%	05/02/0713:05	1
JE01057	D320-03D	P	1.21	05/02/0714:47	1
JE01058	D320-03M	P	11.1	05/02/0715:07	1
JE01059	D155-02R	*	51.8E	05/02/0715:28	1
JE01060	D320-01R	P	.000	05/02/0715:48	1
JE01061	D155-02	P	12.6	05/02/0716:08	5
JE01062	D155-02R	*	35.5E	05/02/0716:32	1
JE01063	D314-11	P	91.7	05/02/0716:52	10
JE01064	D155-02	*	52E	05/02/0717:12	1
JE01065	D155-02	*	52.7E	05/02/0717:32	1
JE01066	CCV40-30	P	109%	05/02/0717:53	1
JE01067	D155-02	P	56.6	05/02/0718:13	5
JE01068	D155-02	P	52.2	05/02/0718:33	5
JE01069	D315-02	P	269	05/02/0718:53	20
JE01070	D315-03	P	489	05/02/0719:14	20
JE01071	RINSE	P	.000	05/02/0719:34	1
JE01072	CCV40-15	P	101%	05/02/0719:54	1

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JE01001	IPCS	P	IC57D17	05/01/0718:31	1
JE01002	PCD019SB	P	IC57D17	05/01/0718:51	1
JE01003	MRL	P	IC57D17	05/01/0719:11	1
JE01004	PCD019SL	P	IC57D17	05/01/0719:32	1
JE01005	PCD019SC	P	IC57D17	05/01/0719:52	1
JE01006	D278-04	P	IC57D17	05/01/0720:12	1
JE01007	D278-01	P	IC57D17	05/01/0720:32	1
JE01008	D278-02	P	IC57D17	05/01/0720:53	1
JE01009	D278-03	P	IC57D17	05/01/0721:13	1
JE01010	D314-02	P	IC57D17	05/01/0721:33	1
JE01011	D314-03	P	IC57D17	05/01/0721:53	1
JE01012	CCV35-15	P	IC57D17	05/01/0722:14	1
JE01013	D314-04	P	IC57D17	05/01/0722:34	1
JE01014	D314-05	P	IC57D17	05/01/0722:54	1
JE01015	D314-06	P	IC57D17	05/01/0723:14	1
JE01016	D314-07	P	IC57D17	05/01/0723:35	1
JE01017	D314-08	P	IC57D17	05/01/0723:55	1
JE01018	D314-09	P	IC57D17	05/02/0700:15	1
JE01019	D314-10	P	IC57D17	05/02/0700:35	1
JE01020	D314-11	*	IC57D17	05/02/0700:56	1
JE01021	D314-12	P	IC57D17	05/02/0701:16	1
JE01022	D314-12D	P	IC57D17	05/02/0701:36	1
JE01023	CCV36-30	P	IC57D17	05/02/0701:56	1
JE01024	D314-12M	P	IC57D17	05/02/0702:17	1
JE01025	D315-02	*	IC57D17	05/02/0702:37	1
JE01026	D315-03	*	IC57D17	05/02/0702:57	1
JE01027	D315-04	P	IC57D17	05/02/0703:18	1
JE01028	D315-05	P	IC57D17	05/02/0703:38	1
JE01029	IPCS	P	IC57D17	05/02/0703:58	1
JE01030	PCD020SB	P	IC57D17	05/02/0704:18	1
JE01031	MRL	P	IC57D17	05/02/0704:39	1
JE01032	PCD020SL	P	IC57D17	05/02/0704:59	1
JE01033	PCD020SC	P	IC57D17	05/02/0705:19	1
JE01034	CCV37-15	P	IC57D17	05/02/0705:39	1
JE01035	D315-06	P	IC57D17	05/02/0706:00	1
JE01036	D315-07	P	IC57D17	05/02/0706:20	1
JE01037	D315-08	P	IC57D17	05/02/0706:40	1
JE01038	D315-09	P	IC57D17	05/02/0707:00	1
JE01039	D315-10	P	IC57D17	05/02/0707:21	1
JE01040	D315-10D	P	IC57D17	05/02/0707:41	1
JE01041	D315-10M	P	IC57D17	05/02/0708:01	1
JE01042	D315-11	P	IC57D17	05/02/0708:21	1
JE01043	D315-12	P	IC57D17	05/02/0708:42	1
JE01044	D315-13	P	IC57D17	05/02/0709:02	1
JE01045	CCV38-30	P	IC57D17	05/02/0709:22	1
JE01046	IPCS	P	IC57D17	05/02/0709:42	1
JE01047	PCD021WB	P	IC57D17	05/02/0710:03	1
JE01048	MRL	P	IC57D17	05/02/0710:23	1
JE01049	PCD021WL	P	IC57D17	05/02/0710:43	1
JE01050	PCD021WC	P	IC57D17	05/02/0711:03	1
JE01051	D314-01	P	IC57D17	05/02/0711:24	1
JE01052	D315-01	P	IC57D17	05/02/0711:44	1
JE01053	D320-01	P	IC57D17	05/02/0712:04	1
JE01054	D320-02	P	IC57D17	05/02/0712:24	1
JE01055	D320-03	P	IC57D17	05/02/0712:45	1
JE01056	CCV39-15	P	IC57D17	05/02/0713:05	1
JE01057	D320-03D	P	IC57D17	05/02/0714:47	1
JE01058	D320-03M	P	IC57D17	05/02/0715:07	1
JE01059	D155-02R	*	IC57D17	05/02/0715:28	1
JE01060	D320-01R	P	IC57D17	05/02/0715:48	1
JE01061	D155-02	P	IC57D17	05/02/0716:08	5
JE01062	D155-02R	*	IC57D17	05/02/0716:32	1
JE01063	D314-11	P	IC57D17	05/02/0716:52	10
JE01064	D155-02	*	IC57D17	05/02/0717:12	1
JE01065	D155-02	*	IC57D17	05/02/0717:32	1
JE01066	CCV40-30	P	IC57D17	05/02/0717:53	1
JE01067	D155-02	P	IC57D17	05/02/0718:13	5
JE01068	D155-02	P	IC57D17	05/02/0718:33	5
JE01069	D315-02	P	IC57D17	05/02/0718:53	20
JE01070	D315-03	P	IC57D17	05/02/0719:14	20
JE01071	RINSE	P	IC57D17	05/02/0719:34	1
JE01072	CCV40-15	P	IC57D17	05/02/0719:54	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH: SW8A-02-18

* JE01.059, -0.60, -0.64, -0.65 : For confirmation only.

* JE01.061, -0.62, -0.64, 065 & -0.67: Bad injection. Not used.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JE01

Method File: IC57d17.mct

Analytical Batch: PCD0195 + PCD0206 + PCD021W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

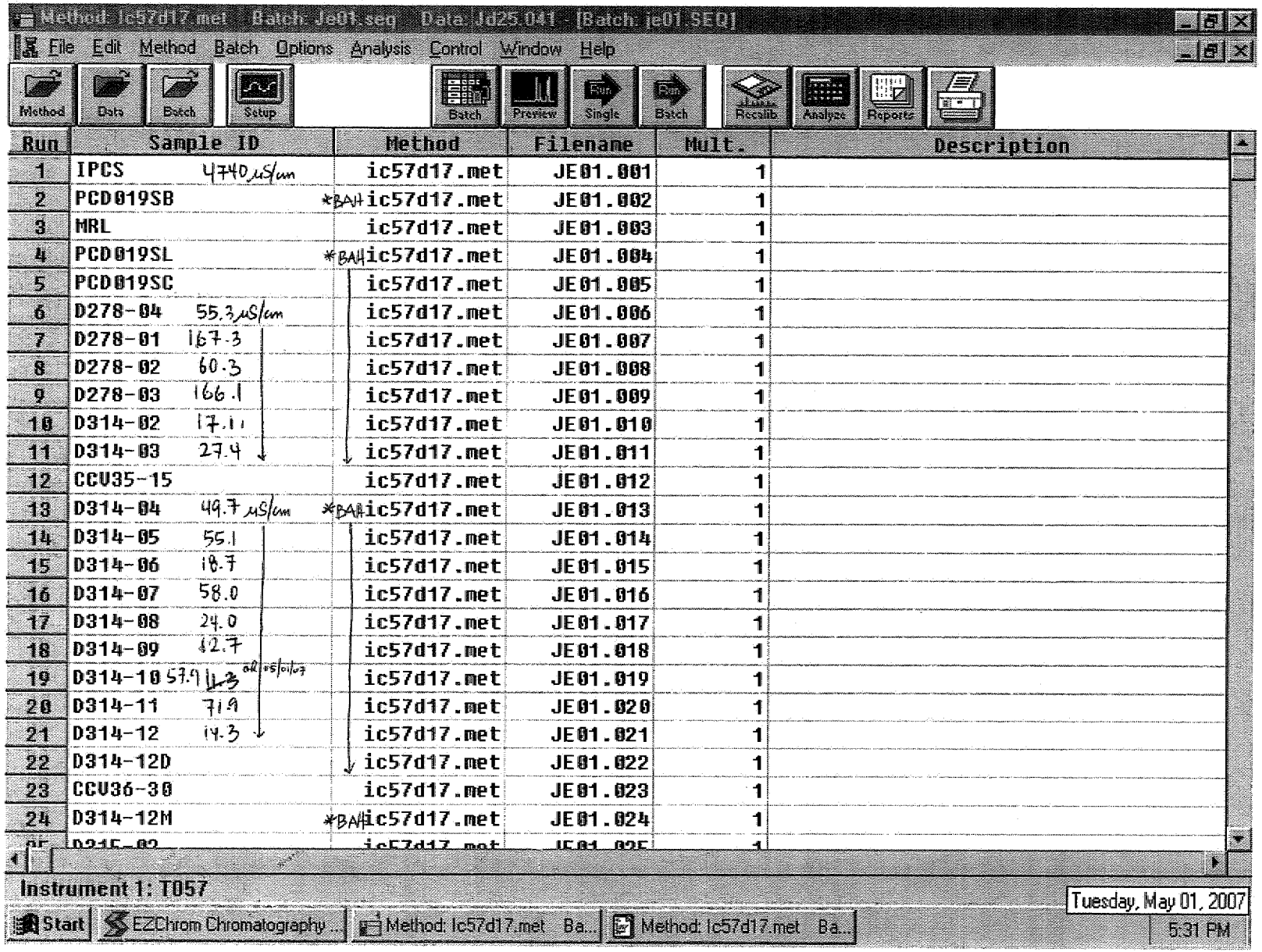
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	SW8B-02-934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1408	(±) 30	25°C

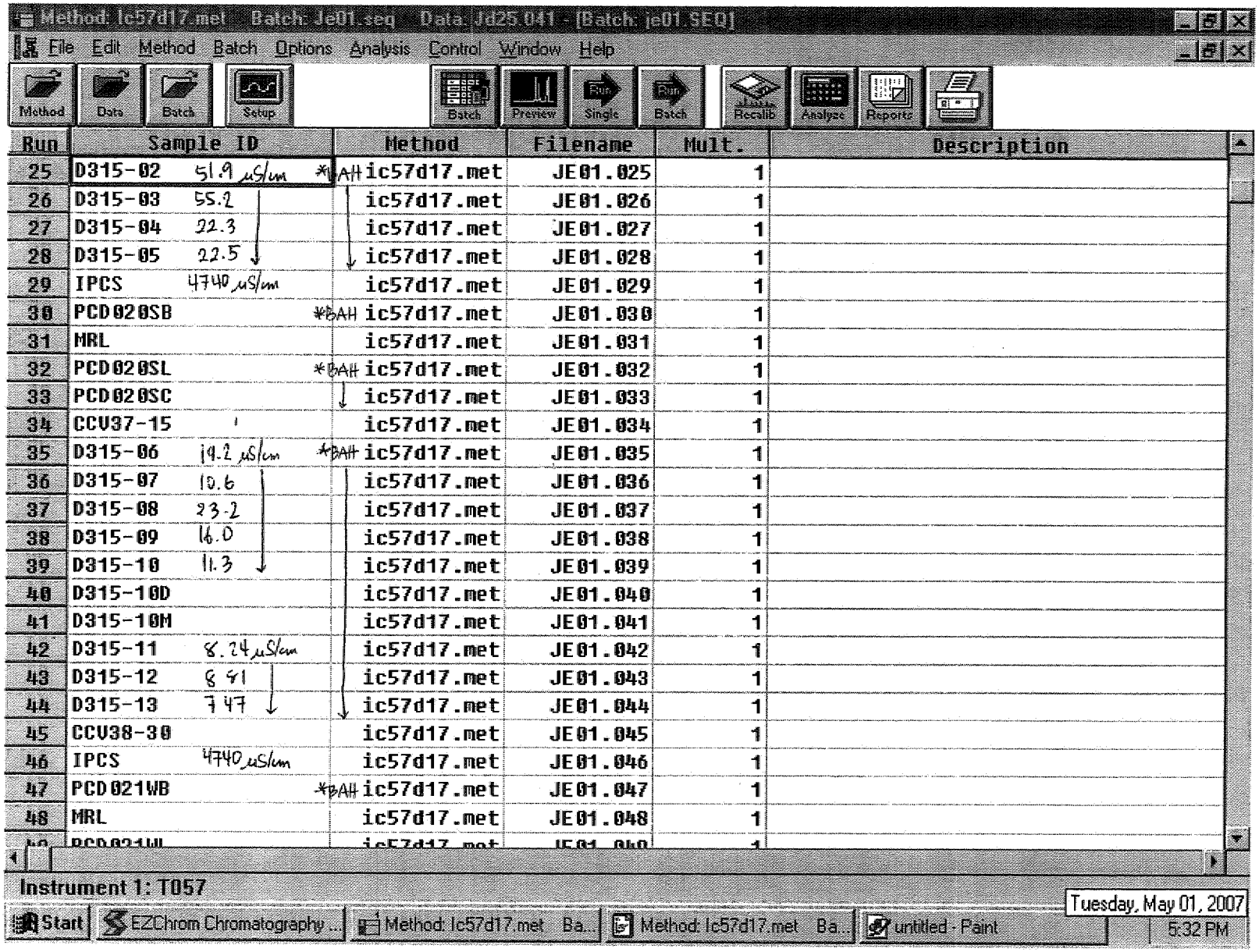
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

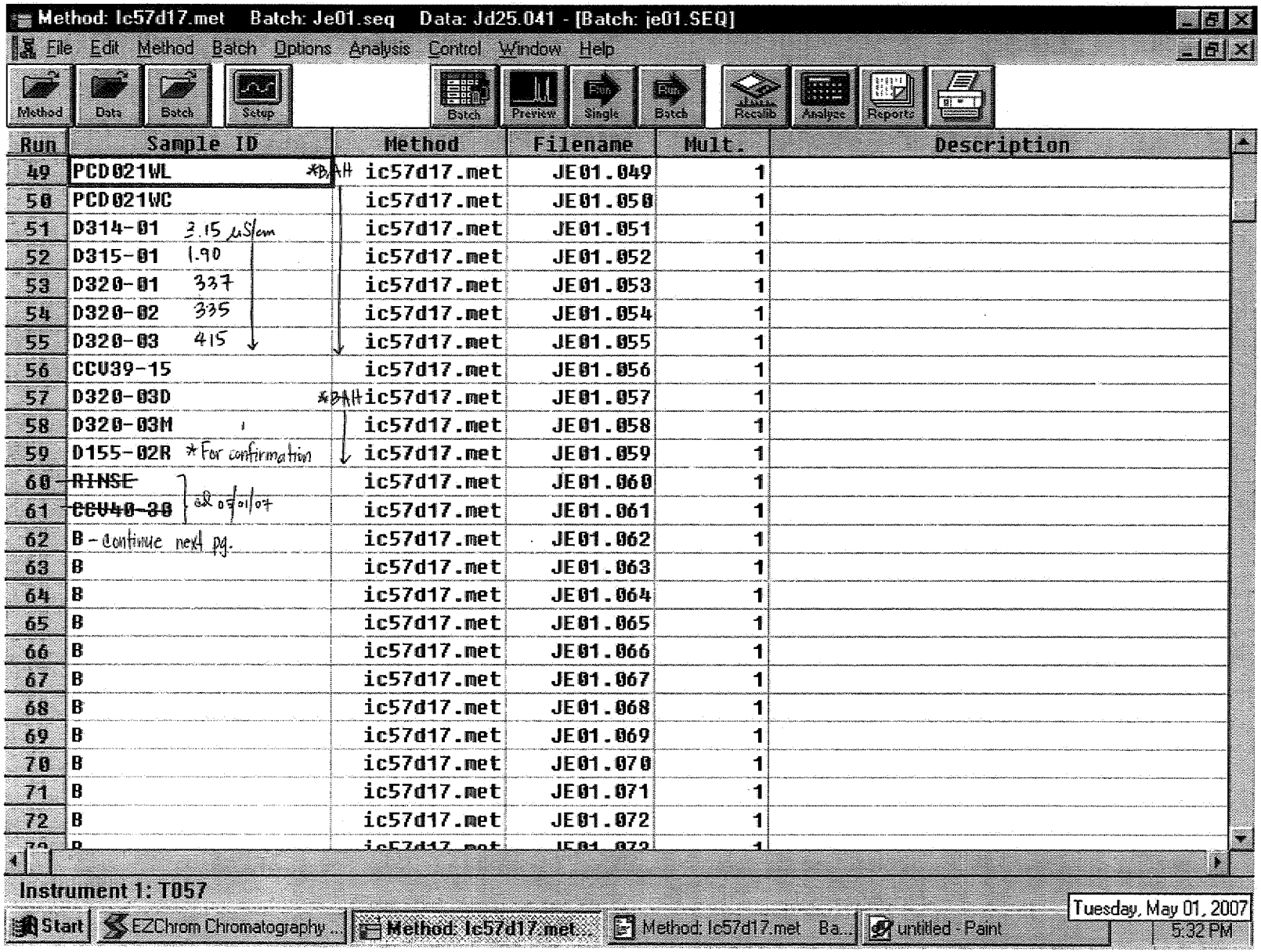
Analyzed By: al

Date: 05/01/07 & 05/02/07

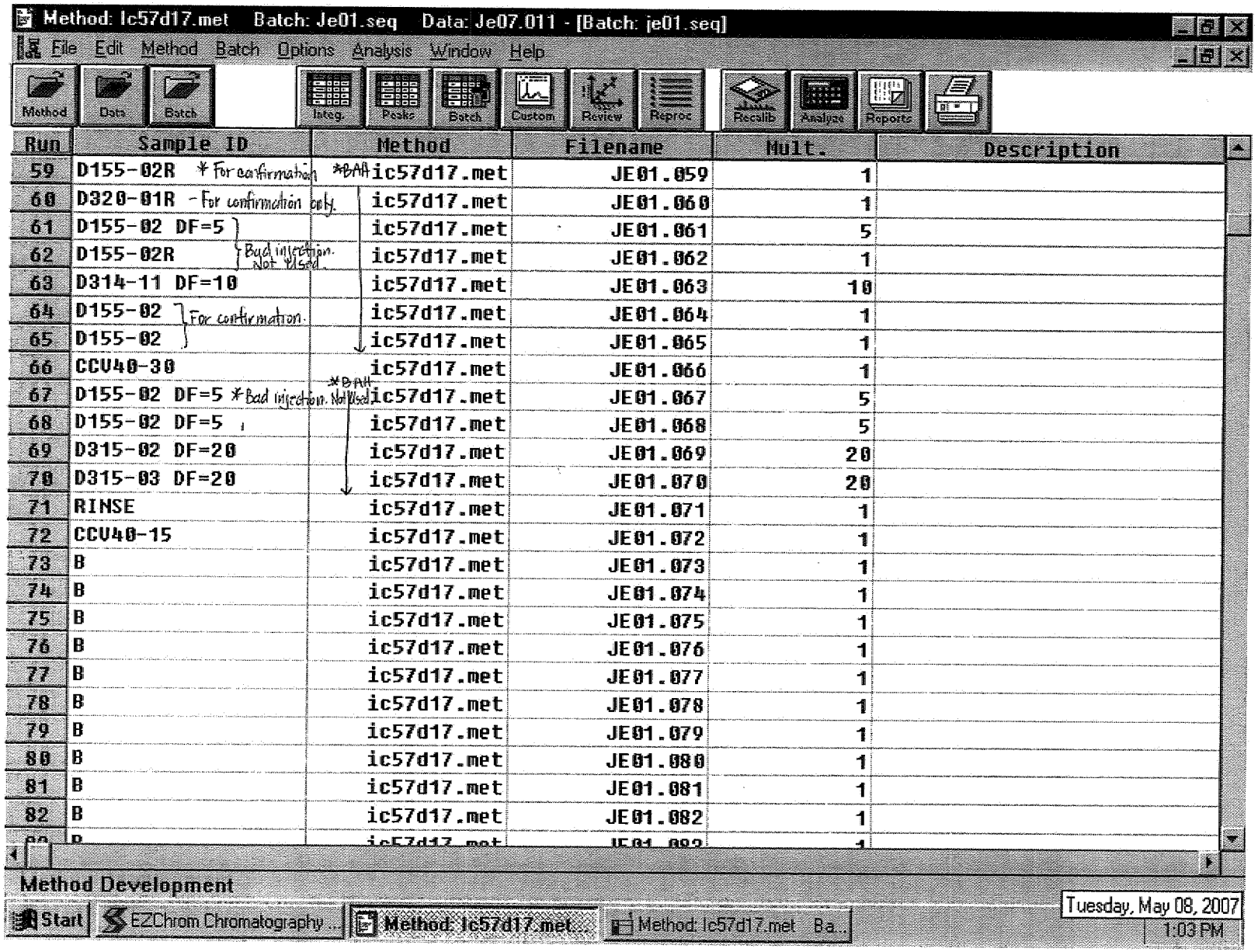

Method: ic57d17.met Batch: je01.seq Date: 4/25/04 [Batch: je01.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 IPCS 4740 µS/cm ic57d17.met JE01.001 1
2 PCD019SB *BAH ic57d17.met JE01.002 1
3 MRL ic57d17.met JE01.003 1
4 PCD019SL *BAH ic57d17.met JE01.004 1
5 PCD019SC ic57d17.met JE01.005 1
6 D278-04 55.3 µS/cm ic57d17.met JE01.006 1
7 D278-01 167.3 ic57d17.met JE01.007 1
8 D278-02 60.3 ic57d17.met JE01.008 1
9 D278-03 166.1 ic57d17.met JE01.009 1
10 D314-02 17.11 ic57d17.met JE01.010 1
11 D314-03 27.4 ic57d17.met JE01.011 1
12 CCV35-15 ic57d17.met JE01.012 1
13 D314-04 49.7 µS/cm *BAH ic57d17.met JE01.013 1
14 D314-05 55.1 ic57d17.met JE01.014 1
15 D314-06 18.7 ic57d17.met JE01.015 1
16 D314-07 58.0 ic57d17.met JE01.016 1
17 D314-08 24.0 ic57d17.met JE01.017 1
18 D314-09 42.7 ic57d17.met JE01.018 1
19 D314-10 57.9 ic57d17.met JE01.019 1
20 D314-11 71.9 ic57d17.met JE01.020 1
21 D314-12 14.3 ic57d17.met JE01.021 1
22 D314-12D ic57d17.met JE01.022 1
23 CCV36-30 ic57d17.met JE01.023 1
24 D314-12M *BAH ic57d17.met JE01.024 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: ic57d17.met Ba... Method: ic57d17.met Ba...
Tuesday, May 01, 2007
5:31 PM

8828


Method: Ic57d17.met Batch: JE01.seq Data: Jd25 041 - [Batch: JE01 SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 D315-02 51.9 µS/cm *BAH ic57d17.met JE01.025 1
26 D315-03 55.2 ic57d17.met JE01.026 1
27 D315-04 22.3 ic57d17.met JE01.027 1
28 D315-05 22.5 ic57d17.met JE01.028 1
29 IPCS 4740 µS/cm ic57d17.met JE01.029 1
30 PCD020SB *BAH ic57d17.met JE01.030 1
31 MRL ic57d17.met JE01.031 1
32 PCD020SL *BAH ic57d17.met JE01.032 1
33 PCD020SC ic57d17.met JE01.033 1
34 CCV37-15 ic57d17.met JE01.034 1
35 D315-06 19.2 µS/cm *BAH ic57d17.met JE01.035 1
36 D315-07 10.6 ic57d17.met JE01.036 1
37 D315-08 23.2 ic57d17.met JE01.037 1
38 D315-09 16.0 ic57d17.met JE01.038 1
39 D315-10 11.3 ic57d17.met JE01.039 1
40 D315-10D ic57d17.met JE01.040 1
41 D315-10M ic57d17.met JE01.041 1
42 D315-11 8.24 µS/cm ic57d17.met JE01.042 1
43 D315-12 8.91 ic57d17.met JE01.043 1
44 D315-13 7.47 ic57d17.met JE01.044 1
45 CCV38-30 ic57d17.met JE01.045 1
46 IPCS 4740 µS/cm ic57d17.met JE01.046 1
47 PCD021WB *BAH ic57d17.met JE01.047 1
48 MRL ic57d17.met JE01.048 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: Ic57d17.met Ba... Method: Ic57d17.met Ba... untitled - Paint
Tuesday, May 01, 2007
5:32 PM


Method: lc57d17.met Batch: Je01.seq Data: Jd25.041 - [Batch: je01.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 PCD021WL *DAH ic57d17.met JE01.049 1
50 PCD021WC ic57d17.met JE01.050 1
51 D314-01 3.15 µS/cm ic57d17.met JE01.051 1
52 D315-01 1.90 ic57d17.met JE01.052 1
53 D320-01 337 ic57d17.met JE01.053 1
54 D320-02 335 ic57d17.met JE01.054 1
55 D320-03 415 ic57d17.met JE01.055 1
56 CCV39-15 ic57d17.met JE01.056 1
57 D320-03D *DAH ic57d17.met JE01.057 1
58 D320-03M ic57d17.met JE01.058 1
59 D155-02R * For confirmation ic57d17.met JE01.059 1
60 RINSE ic57d17.met JE01.060 1
61 CCV40-30 ic57d17.met JE01.061 1
62 B - continue next pg. ic57d17.met JE01.062 1
63 B ic57d17.met JE01.063 1
64 B ic57d17.met JE01.064 1
65 B ic57d17.met JE01.065 1
66 B ic57d17.met JE01.066 1
67 B ic57d17.met JE01.067 1
68 B ic57d17.met JE01.068 1
69 B ic57d17.met JE01.069 1
70 B ic57d17.met JE01.070 1
71 B ic57d17.met JE01.071 1
72 B ic57d17.met JE01.072 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met Ba... untitled - Paint
Tuesday, May 01, 2007
5:32 PM

8922


Method: Ic57d17.met Batch: Je01.seq Data: Je07.011 - [Batch: je01.seq]
File Edit Method Batch Options Analysis Window Help
Method Data Batch Integ Peaks Batch Custom Review Reproc Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
59 D155-02R *For confirmation *BAH ic57d17.met JE01.059 1
60 D320-01R -For confirmation only. ic57d17.met JE01.060 1
61 D155-02 DF=5 ic57d17.met JE01.061 5
62 D155-02R Bad injection. Not used. ic57d17.met JE01.062 1
63 D314-11 DF=10 ic57d17.met JE01.063 10
64 D155-02 For confirmation. ic57d17.met JE01.064 1
65 D155-02 ic57d17.met JE01.065 1
66 CCV40-30 ic57d17.met JE01.066 1
67 D155-02 DF=5 *Bad injection. Not used *BAH ic57d17.met JE01.067 5
68 D155-02 DF=5 ic57d17.met JE01.068 5
69 D315-02 DF=20 ic57d17.met JE01.069 20
70 D315-03 DF=20 ic57d17.met JE01.070 20
71 RINSE ic57d17.met JE01.071 1
72 CCV40-15 ic57d17.met JE01.072 1
73 B ic57d17.met JE01.073 1
74 B ic57d17.met JE01.074 1
75 B ic57d17.met JE01.075 1
76 B ic57d17.met JE01.076 1
77 B ic57d17.met JE01.077 1
78 B ic57d17.met JE01.078 1
79 B ic57d17.met JE01.079 1
80 B ic57d17.met JE01.080 1
81 B ic57d17.met JE01.081 1
82 B ic57d17.met JE01.082 1
Method Development
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Tuesday, May 08, 2007
1:03 PM

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

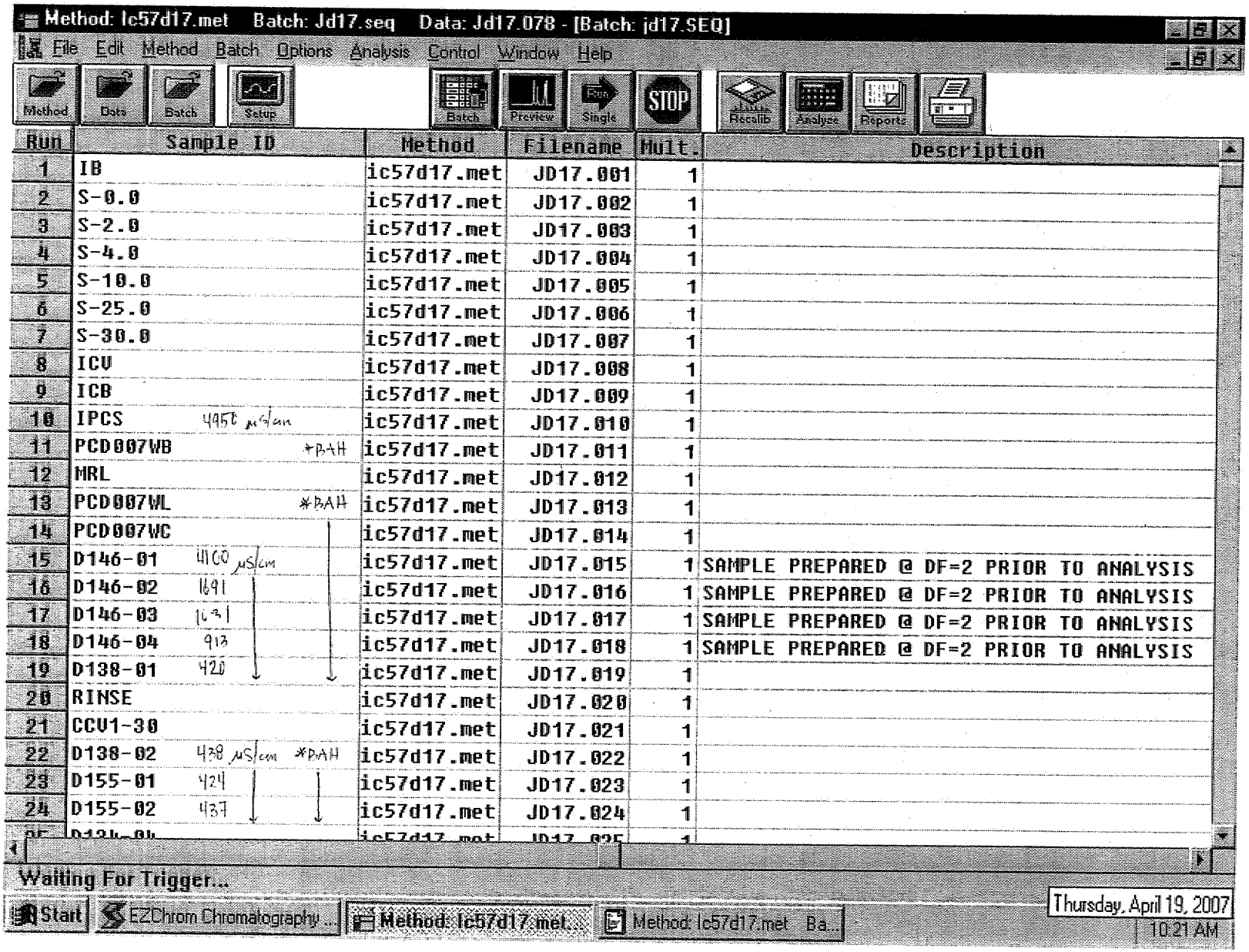
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

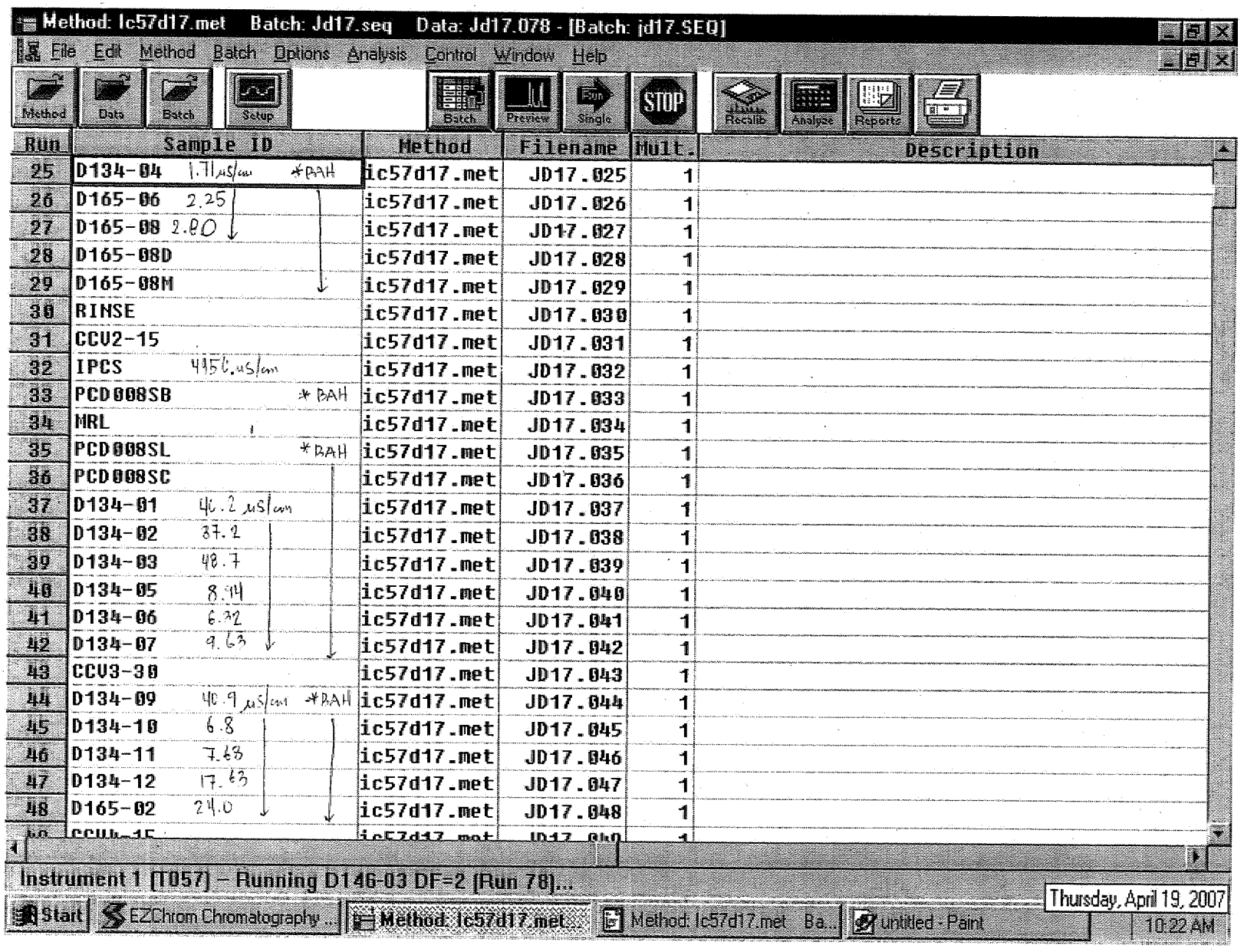
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: el

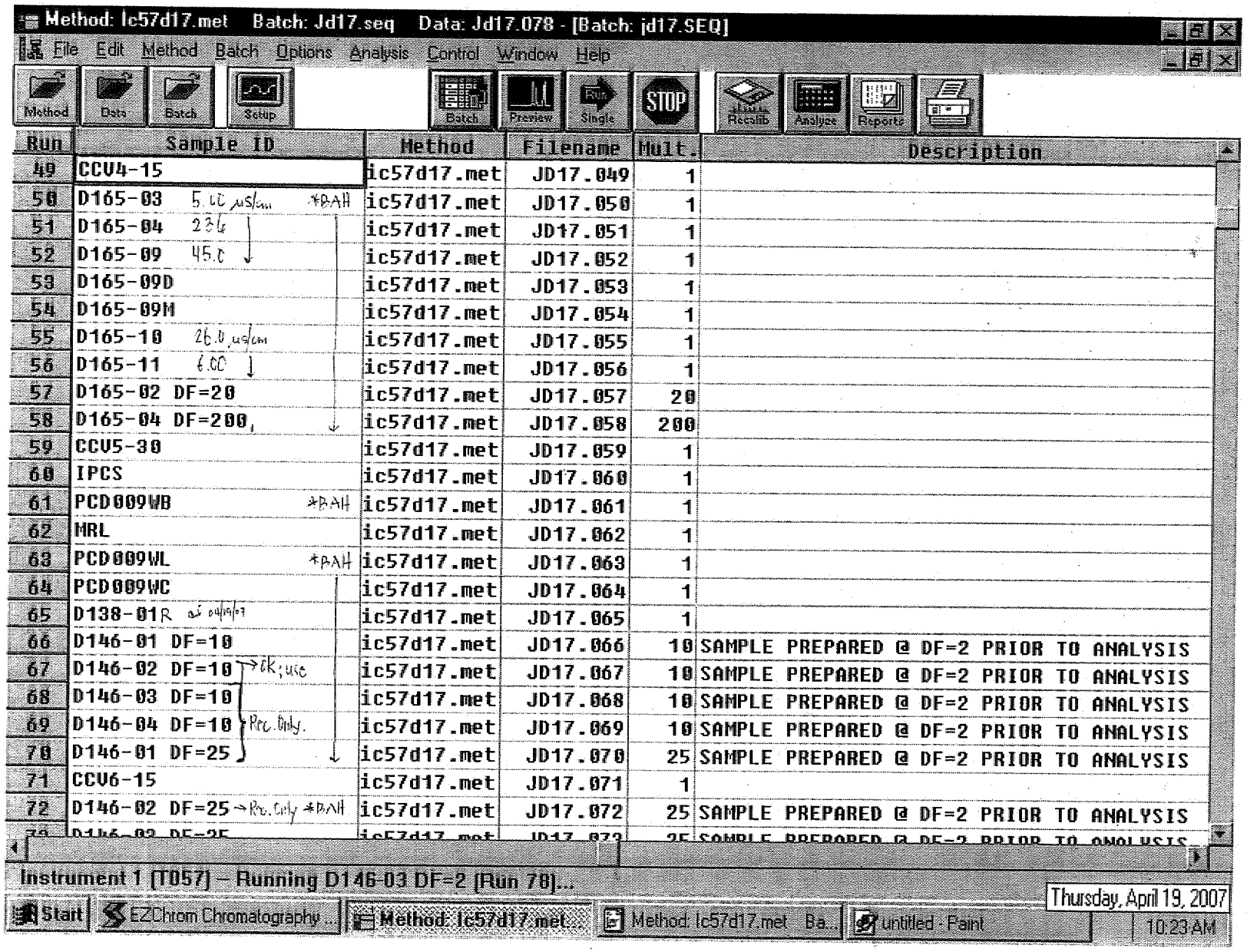
Date: 04/17/07


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d17.met | JD17.001 | 1
2 | S-0.0 | ic57d17.met | JD17.002 | 1
3 | S-2.0 | ic57d17.met | JD17.003 | 1
4 | S-4.0 | ic57d17.met | JD17.004 | 1
5 | S-10.0 | ic57d17.met | JD17.005 | 1
6 | S-25.0 | ic57d17.met | JD17.006 | 1
7 | S-30.0 | ic57d17.met | JD17.007 | 1
8 | ICV | ic57d17.met | JD17.008 | 1
9 | ICB | ic57d17.met | JD17.009 | 1
10 | IPCS 4950 µS/cm | ic57d17.met | JD17.010 | 1
11 | PCD007WB *BAH | ic57d17.met | JD17.011 | 1
12 | MRL | ic57d17.met | JD17.012 | 1
13 | PCD007WL *BAH | ic57d17.met | JD17.013 | 1
14 | PCD007WC | ic57d17.met | JD17.014 | 1
15 | D146-01 4160 µS/cm | ic57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | ic57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1031 | ic57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | ic57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | ic57d17.met | JD17.019 | 1
20 | RINSE | ic57d17.met | JD17.020 | 1
21 | CCV1-30 | ic57d17.met | JD17.021 | 1
22 | D138-02 438 µS/cm *BAH | ic57d17.met | JD17.022 | 1
23 | D155-01 424 | ic57d17.met | JD17.023 | 1
24 | D155-02 437 | ic57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

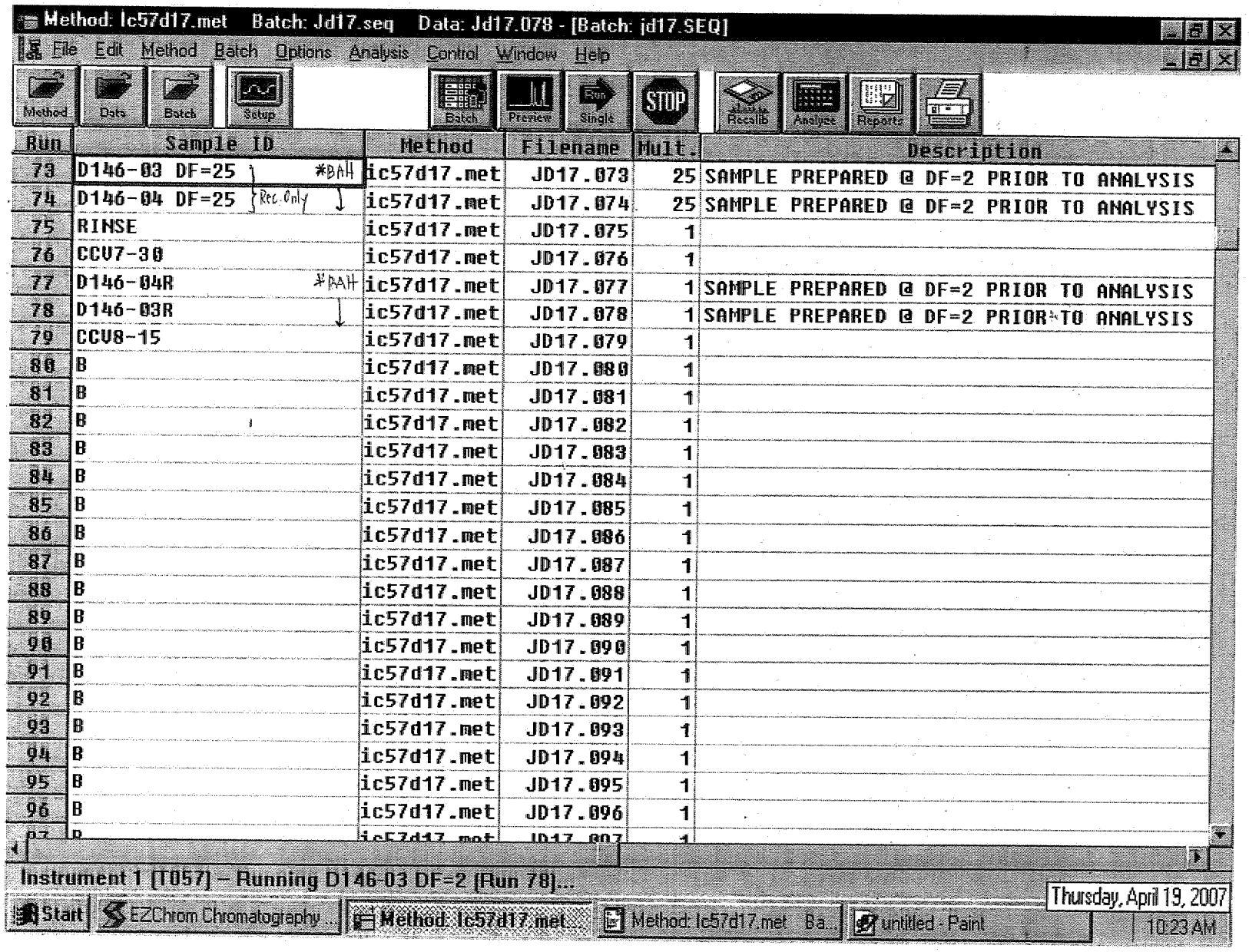
8025


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Reslib Analyse Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µs/cm *PAH lc57d17.met JD17.025 1
26 D165-06 2.25 lc57d17.met JD17.026 1
27 D165-08 2.80 lc57d17.met JD17.027 1
28 D165-08D lc57d17.met JD17.028 1
29 D165-08M lc57d17.met JD17.029 1
30 RINSE lc57d17.met JD17.030 1
31 CCV2-15 lc57d17.met JD17.031 1
32 IPCS 4156.us/cm lc57d17.met JD17.032 1
33 PCD008SB *PAH lc57d17.met JD17.033 1
34 MRL lc57d17.met JD17.034 1
35 PCD008SL *PAH lc57d17.met JD17.035 1
36 PCD008SC lc57d17.met JD17.036 1
37 D134-01 46.2 µs/cm lc57d17.met JD17.037 1
38 D134-02 37.2 lc57d17.met JD17.038 1
39 D134-03 48.7 lc57d17.met JD17.039 1
40 D134-05 8.14 lc57d17.met JD17.040 1
41 D134-06 6.32 lc57d17.met JD17.041 1
42 D134-07 9.63 lc57d17.met JD17.042 1
43 CCV3-30 lc57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *PAH lc57d17.met JD17.044 1
45 D134-10 6.8 lc57d17.met JD17.045 1
46 D134-11 7.63 lc57d17.met JD17.046 1
47 D134-12 17.63 lc57d17.met JD17.047 1
48 D165-02 24.0 lc57d17.met JD17.048 1
Instrument 1 [1057] - Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8026


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Reslib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1
50 | D165-03 5.0C µs/cm *BAH | lc57d17.met | JD17.050 | 1
51 | D165-04 23.6 | lc57d17.met | JD17.051 | 1
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1
53 | D165-09D | lc57d17.met | JD17.053 | 1
54 | D165-09M | lc57d17.met | JD17.054 | 1
55 | D165-10 26.0 µs/cm | lc57d17.met | JD17.055 | 1
56 | D165-11 6.0C | lc57d17.met | JD17.056 | 1
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20
58 | D165-04 DF=200, | lc57d17.met | JD17.058 | 200
59 | CCV5-30 | lc57d17.met | JD17.059 | 1
60 | IPCS | lc57d17.met | JD17.060 | 1
61 | PCD009WB *BAH | lc57d17.met | JD17.061 | 1
62 | MRL | lc57d17.met | JD17.062 | 1
63 | PCD009WL *BAH | lc57d17.met | JD17.063 | 1
64 | PCD009WC | lc57d17.met | JD17.064 | 1
65 | D138-01R | lc57d17.met | JD17.065 | 1
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → ok; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Prc. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1
72 | D146-02 DF=25 → Prc. Only *BAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 70]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM

J528



Run	Sample ID	Method	Filename	Mult.	Description
73	D146-03 DF=25	lc57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74	D146-04 DF=25	lc57d17.met	JD17.074	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75	RINSE	lc57d17.met	JD17.075	1	
76	CCV7-30	lc57d17.met	JD17.076	1	
77	D146-04R	lc57d17.met	JD17.077	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78	D146-03R	lc57d17.met	JD17.078	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79	CCV8-15	lc57d17.met	JD17.079	1	
80	B	lc57d17.met	JD17.080	1	
81	B	lc57d17.met	JD17.081	1	
82	B	lc57d17.met	JD17.082	1	
83	B	lc57d17.met	JD17.083	1	
84	B	lc57d17.met	JD17.084	1	
85	B	lc57d17.met	JD17.085	1	
86	B	lc57d17.met	JD17.086	1	
87	B	lc57d17.met	JD17.087	1	
88	B	lc57d17.met	JD17.088	1	
89	B	lc57d17.met	JD17.089	1	
90	B	lc57d17.met	JD17.090	1	
91	B	lc57d17.met	JD17.091	1	
92	B	lc57d17.met	JD17.092	1	
93	B	lc57d17.met	JD17.093	1	
94	B	lc57d17.met	JD17.094	1	
95	B	lc57d17.met	JD17.095	1	
96	B	lc57d17.met	JD17.096	1	

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M al 05/01/07 Book # EOP-001

Matrix SOIL Start Date 04/30/07 Time 9:50 End Date 04/30/07 Time 12:20 10:30

PREPARATION BATCH # PLD0142

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PLD0195B	10.000g	100 ml	100 ml	
*02	SL				
*03	SL				
*04	D278-04				
*05	01				
*06	02				
*07	03				
*08	D314-02				
*09	03				
*10	04				
*11	05				
*12	06				
*13	07				
*14	08				
*15	09				
*16	10				
*17	11				
*18	12				
*19	12D				
*20	12M				
*21					
*22	D315-02	10.000g	100ml	100ml	
*23	03	al 04/30/07			Add lines ✓ pK 04/30/07
*24	04				
*25	05				

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5 ml / 1.0 ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D315**

SECTION		PAGE
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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8032
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-16-2007
EMAX Batch No.: 07D315

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/27/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB-042507	D315-01	04/25/07	WATER	PERCHLORATE BY IC
B14-HSAS11-10-11.5	D315-02	04/25/07	SOIL	PERCHLORATE BY IC
B14-HSAS11-20-21.5	D315-03	04/25/07	SOIL	PERCHLORATE BY IC
B14-HSAS11-30-31.5	D315-04	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS15-5-6.5	D315-05	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS15-15-16.5	D315-06	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS15-20-21.5	D315-07	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS16-5-6.5	D315-08	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS16-10-11.5	D315-09	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS16-20-21.5	D315-10	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS14-5-6.5	D315-11	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS14-15-16.5	D315-12	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS14-20-21.5	D315-13	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS16-20-21.5MS	D315-10M	04/25/07	SOIL	PERCHLORATE BY IC
B18-HSAS16-20-21.5DUP	D315-10D	04/25/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

TE-0618

07D315

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Eilax
1835 W. 208th St
Torrance CA
90501

DATE 4-25-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: D. Meyer
TC #: 19967
SAMPLERS (Signatures): Linda Margulis

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LEB-042507	4-25-07	900	X	UF	W	P	1	NR
2.	B14-HSAS11 10-11.5	"	926	X	U	S	G	1	NR
3.	B14-HSAS11 20-21.5	"	932	X					
4.	B14-HSAS11 30-31.5	"	940	X					
5.	B18-HSAS15 5-6.5	"	1533	X					
6.	B18-HSAS15 15-16.5	"	1537	X					
7.	B18-HSAS15 20-21.5	"	1539	X					
8.	B18-HSAS16 5-6.5	"	1610	X					
9.	B18-HSAS16 10-11.5	"	1613	X					
10.	B18-HSAS16 20-21.5	"	1619	X					

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Linda Margulis	Linda Margulis	TETRA TECH, INC.	4-25-07	1810	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/27/07	TIME: 9:45	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/27/07	TIME: 15:39	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: INDRA PATEL	SIGNATURE	COMPANY: EMAX	DATE: 4-27-07	TIME: 1539	T=3.4

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1001

X:\GIS\ATT-MISC\COCR.CDR

TL-0618

07D315

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX
1835 W. 205th St
Torrance CA
90501

DATE 4-25-07 PAGE 2 OF 2

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: B. Meyer
TC #: 19967
SAMPLERS (Signatures): Linda Magulis

LINE ITEM	SAMPLE NO.	DATE	TIME	340 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
10 1.	B18-HSAS16 20-21.5	4-25-07	1619	X	U	S	G	2	NR	MS/MSD
11 2.	B18-HSAS14 5-6.5	"	1641	X	↓	↓	↓	1	↓	
12 3.	B18-HSAS14 15-16.5	"	1646	X				1		
13 4.	B18-HSAS14 20-21.5	"	1649	X	↓	↓	↓	1	↓	
5.										
6.										
7.										
8.										
9.										
10.										

LM

TURN-AROUND TIME: Standard

PARAMETERS

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Linda Magulis	SIGNATURE: Linda Magulis	TETRA TECH, INC.	DATE: 4-25-07	TIME: 1810	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 5
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 4/27/07	TIME: 9:45	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 4/27/07	TIME: 15:39	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: INDRA PATEL	SIGNATURE:	COMPANY: EMAX	DATE: 4-27-07	TIME: 1539	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1502

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07D135
☒ EMAX Courier	SEE COC	Recepient J PATEL
☐ Client Delivery		Date 4-27-07
☐ Third Party		Time 1539

COC Inspection

☒ Client Name ☒ Client PM/FC ☒ Sampler Name ☒ Sampling Date/Time/Location ☒ Sample ID ☒ Matrix
☒ Address ☒ Tel # / Fax # ☒ Courier Signature ☒ Analysis Required ☒ Preservative (if any) ☒ TAT

Safety Issues

☒ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☒ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☒ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☒ Sufficient	☒ Plastic Bag
Temperatures	☒ Cooler 1 3.4 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 4-27-07

SRF _____ Date 4/27/07

PM _____ Date 4/27/05

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-a-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07D315

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D315

METHOD 314.0
PERCHLORATE

One (1) water and twelve (12) soil samples were received on 04/27/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at half of reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Sample D315-10 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   Sample D315-10 was spiked. %Recovery was within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE RESULTS

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D315

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD021WB	ND	1	NA	2.00	0.500	05/02/0710:03	NA	JE01047	JE01046	PCD021W	NA	NA
LCS1W	PCD021WL	25.1	1	NA	2.00	0.500	05/02/0710:43	NA	JE01049	JE01046	PCD021W	NA	NA
LCD1W	PCD021WC	25.4	1	NA	2.00	0.500	05/02/0711:03	NA	JE01050	JE01046	PCD021W	NA	NA
LEB-042507	D315-01	ND	1	NA	2.00	0.500	05/02/0711:44	NA	JE01052	JE01046	PCD021W	04/25/0709:00	04/27/07

C003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07D315

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD019SB	ND	1	NA	20.0	10.0	05/01/0718:51	04/30/0709:50	JE01002	JE01001	PCD019S	NA	04/30/07
LCS1S	PCD019SL	251	1	NA	20.0	10.0	05/01/0719:32	04/30/0709:50	JE01004	JE01001	PCD019S	NA	04/30/07
LCD1S	PCD019SC	248	1	NA	20.0	10.0	05/01/0719:52	04/30/0709:50	JE01005	JE01001	PCD019S	NA	04/30/07
B14-HSAS11-30-31.5	D315-04	198	1	12.2	22.8	11.4	05/02/0703:18	04/30/0709:50	JE01027	JE01023	PCD019S	04/25/0709:40	04/27/07
B18-HSAS15-5-6.5	D315-05	19.2J	1	3.3	20.7	10.3	05/02/0703:38	04/30/0709:50	JE01028	JE01023	PCD019S	04/25/0715:33	04/27/07
MBLK2S	PCD020SB	ND	1	NA	20.0	10.0	05/02/0704:18	04/30/0710:30	JE01030	JE01029	PCD020S	NA	04/30/07
LCS2S	PCD020SL	253	1	NA	20.0	10.0	05/02/0704:59	04/30/0710:30	JE01032	JE01029	PCD020S	NA	04/30/07
LCD2S	PCD020SC	253	1	NA	20.0	10.0	05/02/0705:19	04/30/0710:30	JE01033	JE01029	PCD020S	NA	04/30/07
B18-HSAS15-15-16.5	D315-06	41.8	1	13.5	23.1	11.6	05/02/0706:00	04/30/0710:30	JE01035	JE01034	PCD020S	04/25/0715:37	04/27/07
B18-HSAS15-20-21.5	D315-07	27.7	1	7.8	21.7	10.8	05/02/0706:20	04/30/0710:30	JE01036	JE01034	PCD020S	04/25/0715:39	04/27/07
B18-HSAS16-5-6.5	D315-08	ND	1	3.8	20.8	10.4	05/02/0706:40	04/30/0710:30	JE01037	JE01034	PCD020S	04/25/0716:10	04/27/07
B18-HSAS16-10-11.5	D315-09	ND	1	5.4	21.1	10.6	05/02/0707:00	04/30/0710:30	JE01038	JE01034	PCD020S	04/25/0716:13	04/27/07
B18-HSAS16-20-21.5	D315-10	22.0	1	6.7	21.4	10.7	05/02/0707:21	04/30/0710:30	JE01039	JE01034	PCD020S	04/25/0716:19	04/27/07
B18-HSAS16-20-21.5DUP	D315-10D	22.2	1	6.7	21.4	10.7	05/02/0707:41	04/30/0710:30	JE01040	JE01034	PCD020S	04/25/0716:19	04/27/07
B18-HSAS16-20-21.5MS	D315-10M	128	1	6.7	21.4	10.7	05/02/0708:01	04/30/0710:30	JE01041	JE01034	PCD020S	04/25/0716:19	04/27/07
B18-HSAS14-5-6.5	D315-11	ND	1	2.6	20.5	10.3	05/02/0708:21	04/30/0710:30	JE01042	JE01034	PCD020S	04/25/0716:41	04/27/07
B18-HSAS14-15-16.5	D315-12	ND	1	9.2	22.0	11.0	05/02/0708:42	04/30/0710:30	JE01043	JE01034	PCD020S	04/25/0716:46	04/27/07
B18-HSAS14-20-21.5	D315-13	ND	1	5.9	21.3	10.6	05/02/0709:02	04/30/0710:30	JE01044	JE01034	PCD020S	04/25/0716:49	04/27/07
B14-HSAS11-10-11.5	D315-02	3200	20	15.9	476	238	05/02/0718:53	04/30/0709:50	JE01069	JE01066	PCD019S	04/25/0709:26	04/27/07
B14-HSAS11-20-21.5	D315-03	5360	20	8.8	439	219	05/02/0719:14	04/30/0709:50	JE01070	JE01066	PCD019S	04/25/0709:32	04/27/07

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D315
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD021WB	PCD021WL	PCD021WC		
LAB FILE ID:	JE01047	JE01049	JE01050		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	05/02/0710:03	05/02/0710:43	05/02/0711:03	DATE RECEIVED:	NA
PREP. BATCH:	PCD021W	PCD021W	PCD021W		
CALIB. REF:	JE01046	JE01046	JE01046		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.1	100	25.0	25.4	102	1	85-115	20

3066

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D315
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD019SB	PCD019SL	PCD019SC		
LAB FILE ID:	JE01002	JE01004	JE01005		
DATE EXTRACTED:	04/30/0709:50	04/30/0709:50	04/30/0709:50	DATE COLLECTED:	NA
DATE ANALYZED:	05/01/0718:51	05/01/0719:32	05/01/0719:52	DATE RECEIVED:	04/30/07
PREP. BATCH:	PCD019S	PCD019S	PCD019S		
CALIB. REF:	JE01001	JE01001	JE01001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	251	100	250	248	99	1	85-115	20

1998

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D315
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2S				
LAB SAMP ID:	PCD020SB	PCD020SL	PCD020SC		
LAB FILE ID:	JE01030	JE01032	JE01033		
DATE EXTRACTED:	04/30/0710:30	04/30/0710:30	04/30/0710:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/02/0704:18	05/02/0704:59	05/02/0705:19	DATE RECEIVED:	04/30/07
PREP. BATCH:	PCD020S	PCD020S	PCD020S		
CALIB. REF:	JE01029	JE01029	JE01029		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	253	101	250	253	101	0	85-115	20

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D315
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	6.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	B18-HSAS16-20-21.5			
EMAX SAMP ID:	D315-10	D315-10D		
LAB FILE ID:	JE01039	JE01040		
DATE EXTRACTED:	04/30/0710:30	04/30/0710:30	DATE COLLECTED:	04/25/07 16:19
DATE ANALYZED:	05/02/0707:21	05/02/0707:41	DATE RECEIVED:	04/27/07
PREP. BATCH:	PCD020S	PCD020S		
CALIB. REF:	JE01034	JE01034		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	22	22.2	1	20

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D315
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	6.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	B18-HSAS16-20-21.5			
LAB SAMP ID:	D315-10	D315-10M		
LAB FILE ID:	JE01039	JE01041		
DATE EXTRACTED:	04/30/0710:30	04/30/0710:30	DATE COLLECTED:	04/25/07 16:19
DATE ANALYZED:	05/02/0707:21	05/02/0708:01	DATE RECEIVED:	04/27/07
PREP. BATCH:	PCD020S	PCD020S		
CALIB. REF:	JE01034	JE01034		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	22.0	107	128	98	80-120

8260

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

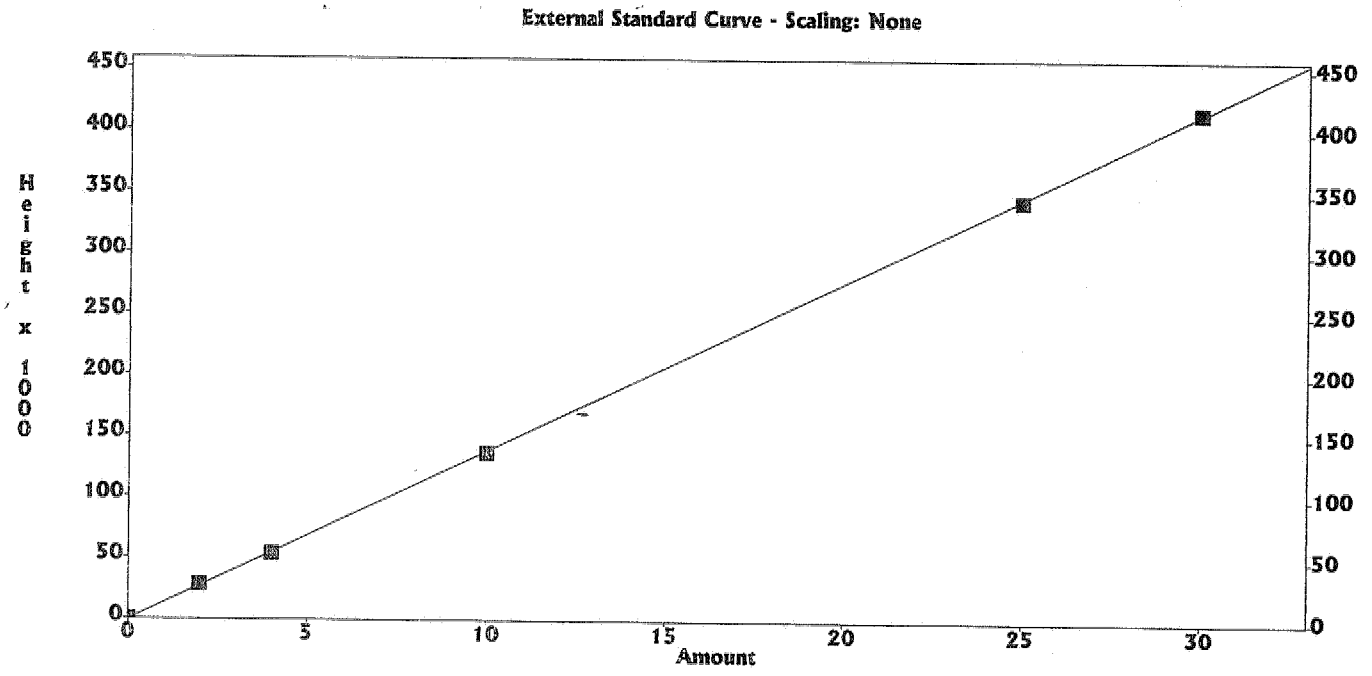
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-14-07

8013

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-01

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHL0314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE01001	IPCS	P	83.9%	05/01/0718:31	1
JE01002	PCD019SB	P	.000	05/01/0718:51	1
JE01003	MRL	P	97.2%	05/01/0719:11	1
JE01004	PCD019SL	P	25.1	05/01/0719:32	1
JE01005	PCD019SC	P	24.8	05/01/0719:52	1
JE01006	D278-04	P	.000	05/01/0720:12	1
JE01007	D278-01	P	.000	05/01/0720:32	1
JE01008	D278-02	P	.000	05/01/0720:53	1
JE01009	D278-03	P	.000	05/01/0721:13	1
JE01010	D314-02	P	18.6	05/01/0721:33	1
JE01011	D314-03	P	25.2	05/01/0721:53	1
JE01012	CCV35-15	P	101%	05/01/0722:14	1
JE01013	D314-04	P	23.4	05/01/0722:34	1
JE01014	D314-05	P	6.58	05/01/0722:54	1
JE01015	D314-06	P	13.5	05/01/0723:14	1
JE01016	D314-07	P	16.2	05/01/0723:35	1
JE01017	D314-08	P	26.2	05/01/0723:55	1
JE01018	D314-09	P	18.4	05/02/0700:15	1
JE01019	D314-10	P	21.4	05/02/0700:35	1
JE01020	D314-11	*	58.1E	05/02/0700:56	1
JE01021	D314-12	P	15.5	05/02/0701:16	1
JE01022	D314-12D	P	15.5	05/02/0701:36	1
JE01023	CCV36-30	P	106%	05/02/0701:56	1
JE01024	D314-12M	P	25.2	05/02/0702:17	1
JE01025	D315-02	*	61.5E	05/02/0702:37	1
JE01026	D315-03	*	62.7E	05/02/0702:57	1
JE01027	D315-04	P	17.4	05/02/0703:18	1
JE01028	D315-05	P	1.86	05/02/0703:38	1
JE01029	IPCS	P	85.2%	05/02/0703:58	1
JE01030	PCD020SB	P	.000	05/02/0704:18	1
JE01031	MRL	P	98.4%	05/02/0704:39	1
JE01032	PCD020SL	P	25.3	05/02/0704:59	1
JE01033	PCD020SC	P	25.3	05/02/0705:19	1
JE01034	CCV37-15	P	99.7%	05/02/0705:39	1
JE01035	D315-06	P	3.62	05/02/0706:00	1
JE01036	D315-07	P	2.55	05/02/0706:20	1
JE01037	D315-08	P	.000	05/02/0706:40	1
JE01038	D315-09	P	.000	05/02/0707:00	1
JE01039	D315-10	P	2.05	05/02/0707:21	1
JE01040	D315-10D	P	2.07	05/02/0707:41	1
JE01041	D315-10M	P	11.9	05/02/0708:01	1
JE01042	D315-11	P	.000	05/02/0708:21	1
JE01043	D315-12	P	.000	05/02/0708:42	1
JE01044	D315-13	P	.000	05/02/0709:02	1
JE01045	CCV38-30	P	106%	05/02/0709:22	1
JE01046	IPCS	P	85.7%	05/02/0709:42	1
JE01047	PCD021WB	P	.000	05/02/0710:03	1
JE01048	MRL	P	99.3%	05/02/0710:23	1
JE01049	PCD021WL	P	25.1	05/02/0710:43	1
JE01050	PCD021WC	P	25.4	05/02/0711:03	1
JE01051	D314-01	P	.000	05/02/0711:24	1
JE01052	D315-01	P	.000	05/02/0711:44	1
JE01053	D320-01	P	.000	05/02/0712:04	1
JE01054	D320-02	P	.000	05/02/0712:24	1
JE01055	D320-03	P	1.3	05/02/0712:45	1
JE01056	CCV39-15	P	101%	05/02/0713:05	1
JE01057	D320-03D	P	1.21	05/02/0714:47	1
JE01058	D320-03M	P	11.1	05/02/0715:07	1
JE01059	D155-02R	*	51.8E	05/02/0715:28	1
JE01060	D320-01R	P	.000	05/02/0715:48	1
JE01061	D155-02	P	12.6	05/02/0716:08	5
JE01062	D155-02R	*	35.5E	05/02/0716:32	1
JE01063	D314-11	P	91.7	05/02/0716:52	10
JE01064	D155-02	*	52E	05/02/0717:12	1
JE01065	D155-02	*	52.7E	05/02/0717:32	1
JE01066	CCV40-30	P	109%	05/02/0717:53	1
JE01067	D155-02	P	56.6	05/02/0718:13	5
JE01068	D155-02	P	52.2	05/02/0718:33	5
JE01069	D315-02	P	269	05/02/0718:53	20
JE01070	D315-03	P	489	05/02/0719:14	20
JE01071	RINSE	P	.000	05/02/0719:34	1
JE01072	CCV40-15	P	101%	05/02/0719:54	1

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JE01001	IPCS	P	IC57D17	05/01/0718:31	1
JE01002	PCD019SB	P	IC57D17	05/01/0718:51	1
JE01003	MRL	P	IC57D17	05/01/0719:11	1
JE01004	PCD019SL	P	IC57D17	05/01/0719:32	1
JE01005	PCD019SC	P	IC57D17	05/01/0719:52	1
JE01006	D278-04	P	IC57D17	05/01/0720:12	1
JE01007	D278-01	P	IC57D17	05/01/0720:32	1
JE01008	D278-02	P	IC57D17	05/01/0720:53	1
JE01009	D278-03	P	IC57D17	05/01/0721:13	1
JE01010	D314-02	P	IC57D17	05/01/0721:33	1
JE01011	D314-03	P	IC57D17	05/01/0721:53	1
JE01012	CCV35-15	P	IC57D17	05/01/0722:14	1
JE01013	D314-04	P	IC57D17	05/01/0722:34	1
JE01014	D314-05	P	IC57D17	05/01/0722:54	1
JE01015	D314-06	P	IC57D17	05/01/0723:14	1
JE01016	D314-07	P	IC57D17	05/01/0723:35	1
JE01017	D314-08	P	IC57D17	05/01/0723:55	1
JE01018	D314-09	P	IC57D17	05/02/0700:15	1
JE01019	D314-10	P	IC57D17	05/02/0700:35	1
JE01020	D314-11	*	IC57D17	05/02/0700:56	1
JE01021	D314-12	P	IC57D17	05/02/0701:16	1
JE01022	D314-12D	P	IC57D17	05/02/0701:36	1
JE01023	CCV36-30	P	IC57D17	05/02/0701:56	1
JE01024	D314-12M	P	IC57D17	05/02/0702:17	1
JE01025	D315-02	*	IC57D17	05/02/0702:37	1
JE01026	D315-03	*	IC57D17	05/02/0702:57	1
JE01027	D315-04	P	IC57D17	05/02/0703:18	1
JE01028	D315-05	P	IC57D17	05/02/0703:38	1
JE01029	IPCS	P	IC57D17	05/02/0703:58	1
JE01030	PCD020SB	P	IC57D17	05/02/0704:18	1
JE01031	MRL	P	IC57D17	05/02/0704:39	1
JE01032	PCD020SL	P	IC57D17	05/02/0704:59	1
JE01033	PCD020SC	P	IC57D17	05/02/0705:19	1
JE01034	CCV37-15	P	IC57D17	05/02/0705:39	1
JE01035	D315-06	P	IC57D17	05/02/0706:00	1
JE01036	D315-07	P	IC57D17	05/02/0706:20	1
JE01037	D315-08	P	IC57D17	05/02/0706:40	1
JE01038	D315-09	P	IC57D17	05/02/0707:00	1
JE01039	D315-10	P	IC57D17	05/02/0707:21	1
JE01040	D315-10D	P	IC57D17	05/02/0707:41	1
JE01041	D315-10M	P	IC57D17	05/02/0708:01	1
JE01042	D315-11	P	IC57D17	05/02/0708:21	1
JE01043	D315-12	P	IC57D17	05/02/0708:42	1
JE01044	D315-13	P	IC57D17	05/02/0709:02	1
JE01045	CCV38-30	P	IC57D17	05/02/0709:22	1
JE01046	IPCS	P	IC57D17	05/02/0709:42	1
JE01047	PCD021WB	P	IC57D17	05/02/0710:03	1
JE01048	MRL	P	IC57D17	05/02/0710:23	1
JE01049	PCD021WL	P	IC57D17	05/02/0710:43	1
JE01050	PCD021WC	P	IC57D17	05/02/0711:03	1
JE01051	D314-01	P	IC57D17	05/02/0711:24	1
JE01052	D315-01	P	IC57D17	05/02/0711:44	1
JE01053	D320-01	P	IC57D17	05/02/0712:04	1
JE01054	D320-02	P	IC57D17	05/02/0712:24	1
JE01055	D320-03	P	IC57D17	05/02/0712:45	1
JE01056	CCV39-15	P	IC57D17	05/02/0713:05	1
JE01057	D320-03D	P	IC57D17	05/02/0714:47	1
JE01058	D320-03M	P	IC57D17	05/02/0715:07	1
JE01059	D155-02R	*	IC57D17	05/02/0715:28	1
JE01060	D320-01R	P	IC57D17	05/02/0715:48	1
JE01061	D155-02	P	IC57D17	05/02/0716:08	5
JE01062	D155-02R	*	IC57D17	05/02/0716:32	1
JE01063	D314-11	P	IC57D17	05/02/0716:52	10
JE01064	D155-02	*	IC57D17	05/02/0717:12	1
JE01065	D155-02	*	IC57D17	05/02/0717:32	1
JE01066	CCV40-30	P	IC57D17	05/02/0717:53	1
JE01067	D155-02	P	IC57D17	05/02/0718:13	5
JE01068	D155-02	P	IC57D17	05/02/0718:33	5
JE01069	D315-02	P	IC57D17	05/02/0718:53	20
JE01070	D315-03	P	IC57D17	05/02/0719:14	20
JE01071	RINSE	P	IC57D17	05/02/0719:34	1
JE01072	CCV40-15	P	IC57D17	05/02/0719:54	1

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH: SW8A - 02 - 18

* JE01.059, -0.60, -0.64, -0.65 : For confirmation only.

* JE01.061, -0.62, -0.64, 065 & -0.67: Bad injection. Not used.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JE01

Method File: IC57d17.met

Analytical Batch: PCD0195 + PCD0205 + PCD021W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	I
☐ EMAX-9056	3
☐ EMAX-	

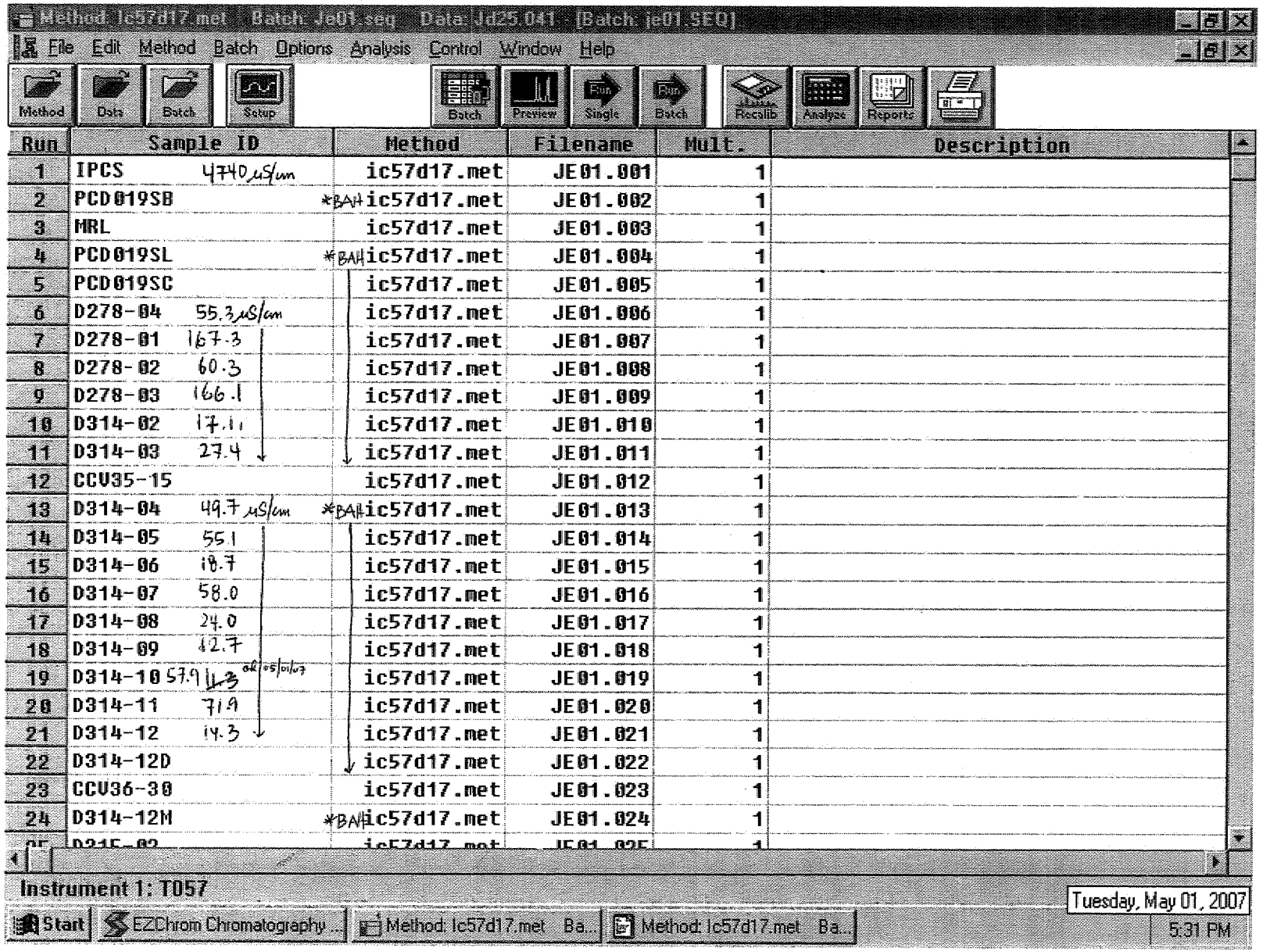
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	SW8B-02-934
CMC	SW3B-02-951
MRL	SW8B-02-933

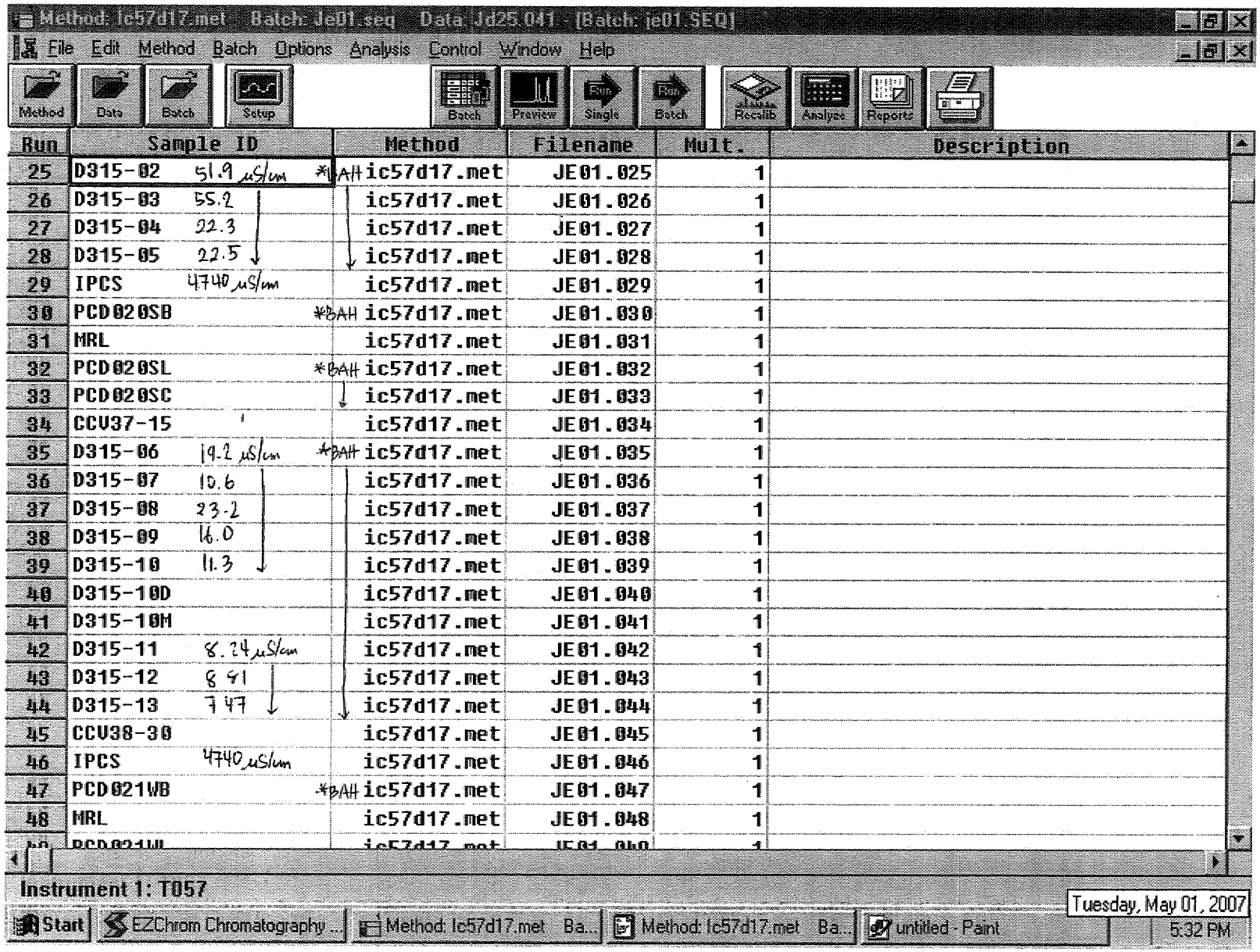
CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1408	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

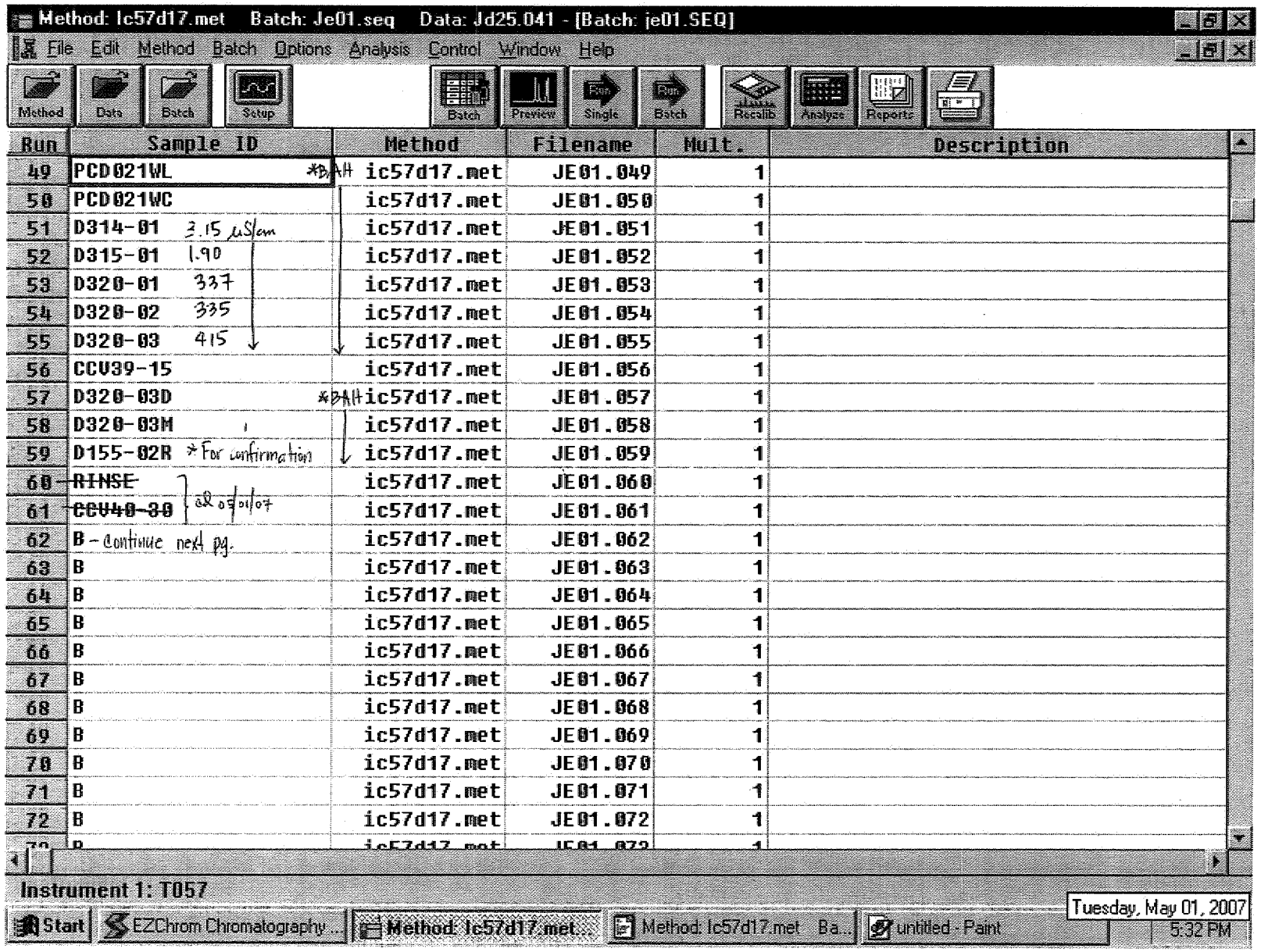
Analyzed By: al

Date: 05/01/07 & 05/02/07

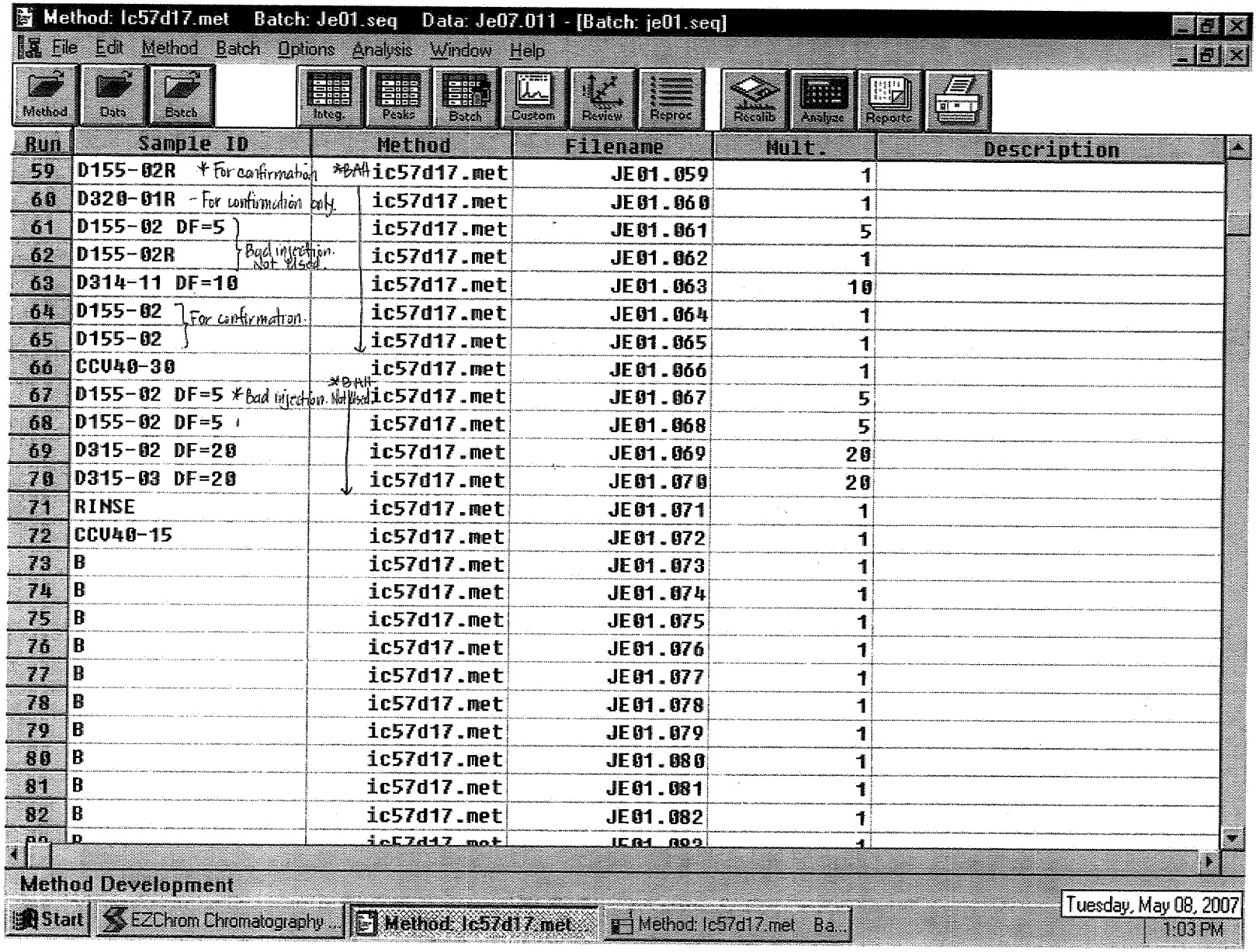

Method: ic57d17.met Batch: JE01.seq Data: JE2501 [Batch: JE01.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyse Reports
Run Sample ID Method Filename Mult. Description
1 IPCS 4740 uS/cm ic57d17.met JE01.001 1
2 PCD019SB *BAT ic57d17.met JE01.002 1
3 MRL ic57d17.met JE01.003 1
4 PCD019SL *BAT ic57d17.met JE01.004 1
5 PCD019SC ic57d17.met JE01.005 1
6 D278-04 55.3 uS/cm ic57d17.met JE01.006 1
7 D278-01 167.3 ic57d17.met JE01.007 1
8 D278-02 60.3 ic57d17.met JE01.008 1
9 D278-03 166.1 ic57d17.met JE01.009 1
10 D314-02 17.1 ic57d17.met JE01.010 1
11 D314-03 27.4 ic57d17.met JE01.011 1
12 CCV35-15 ic57d17.met JE01.012 1
13 D314-04 49.7 uS/cm *BAT ic57d17.met JE01.013 1
14 D314-05 55.1 ic57d17.met JE01.014 1
15 D314-06 18.7 ic57d17.met JE01.015 1
16 D314-07 58.0 ic57d17.met JE01.016 1
17 D314-08 24.0 ic57d17.met JE01.017 1
18 D314-09 42.7 ic57d17.met JE01.018 1
19 D314-10 57.9 ic57d17.met JE01.019 1
20 D314-11 71.9 ic57d17.met JE01.020 1
21 D314-12 14.3 ic57d17.met JE01.021 1
22 D314-12D ic57d17.met JE01.022 1
23 CCV36-30 ic57d17.met JE01.023 1
24 D314-12M *BAT ic57d17.met JE01.024 1
Instrument 1: T057
Tuesday, May 01, 2007
Start EZChrom Chromatography ... Method: ic57d17.met Ba... Method: ic57d17.met Ba...
5:31 PM


Method: ic57d17.met Batch: JE01.seq Data: Jd25.0.1 [Batch: je01.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D315-02 51.9 µS/cm *BAH ic57d17.met JE01.025 1
26 D315-03 55.2 ic57d17.met JE01.026 1
27 D315-04 22.3 ic57d17.met JE01.027 1
28 D315-05 22.5 ic57d17.met JE01.028 1
29 IPCS 4740 µS/cm ic57d17.met JE01.029 1
30 PCD020SB *BAH ic57d17.met JE01.030 1
31 MRL ic57d17.met JE01.031 1
32 PCD020SL *BAH ic57d17.met JE01.032 1
33 PCD020SC ic57d17.met JE01.033 1
34 CCV37-15 ic57d17.met JE01.034 1
35 D315-06 19.2 µS/cm *BAH ic57d17.met JE01.035 1
36 D315-07 10.6 ic57d17.met JE01.036 1
37 D315-08 23.2 ic57d17.met JE01.037 1
38 D315-09 16.0 ic57d17.met JE01.038 1
39 D315-10 11.3 ic57d17.met JE01.039 1
40 D315-10D ic57d17.met JE01.040 1
41 D315-10M ic57d17.met JE01.041 1
42 D315-11 8.24 µS/cm ic57d17.met JE01.042 1
43 D315-12 8.41 ic57d17.met JE01.043 1
44 D315-13 7.47 ic57d17.met JE01.044 1
45 CCV38-30 ic57d17.met JE01.045 1
46 IPCS 4740 µS/cm ic57d17.met JE01.046 1
47 PCD021WB *BAH ic57d17.met JE01.047 1
48 MRL ic57d17.met JE01.048 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: ic57d17.met Ba... Method: ic57d17.met Ba... untitled - Paint
Tuesday, May 01, 2007
5:32 PM

8022


Method: Ic57d17.met Batch: Je01.seq Data: Jd25.041 - [Batch: je01.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
49 PCD021WL *DAH ic57d17.met JE01.049 1
50 PCD021WC ic57d17.met JE01.050 1
51 D314-01 3.15 µS/cm ic57d17.met JE01.051 1
52 D315-01 1.90 ic57d17.met JE01.052 1
53 D320-01 337 ic57d17.met JE01.053 1
54 D320-02 335 ic57d17.met JE01.054 1
55 D320-03 415 ic57d17.met JE01.055 1
56 CCV39-15 ic57d17.met JE01.056 1
57 D320-03D *DAH ic57d17.met JE01.057 1
58 D320-03M ic57d17.met JE01.058 1
59 D155-02R * For confirmation ic57d17.met JE01.059 1
60 RINSE ic57d17.met JE01.060 1
61 CCV40-30 ic57d17.met JE01.061 1
62 B - Continue next pg. ic57d17.met JE01.062 1
63 B ic57d17.met JE01.063 1
64 B ic57d17.met JE01.064 1
65 B ic57d17.met JE01.065 1
66 B ic57d17.met JE01.066 1
67 B ic57d17.met JE01.067 1
68 B ic57d17.met JE01.068 1
69 B ic57d17.met JE01.069 1
70 B ic57d17.met JE01.070 1
71 B ic57d17.met JE01.071 1
72 B ic57d17.met JE01.072 1
Instrument 1: T057
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba... untitled - Paint
Tuesday, May 01, 2007
5:32 PM

8223


Method: Ic57d17.met Batch: Je01.seq Data: Je07.011 - [Batch: je01.seq]
File Edit Method Batch Options Analysis Window Help
Method
Data
Batch
Integ.
Peaks
Batch
Custom
Review
Reproc
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
59 | D155-02R *For confirmation *BMH | ic57d17.met | JE01.059 | 1
60 | D320-01R - For confirmation only | ic57d17.met | JE01.060 | 1
61 | D155-02 DF=5 | ic57d17.met | JE01.061 | 5
62 | D155-02R Bad injection. Not used. | ic57d17.met | JE01.062 | 1
63 | D314-11 DF=10 | ic57d17.met | JE01.063 | 10
64 | D155-02 For confirmation. | ic57d17.met | JE01.064 | 1
65 | D155-02 | ic57d17.met | JE01.065 | 1
66 | CCV40-30 | ic57d17.met | JE01.066 | 1
67 | D155-02 DF=5 *Bad injection. *BMH Not Used | ic57d17.met | JE01.067 | 5
68 | D155-02 DF=5 | ic57d17.met | JE01.068 | 5
69 | D315-02 DF=20 | ic57d17.met | JE01.069 | 20
70 | D315-03 DF=20 | ic57d17.met | JE01.070 | 20
71 | RINSE | ic57d17.met | JE01.071 | 1
72 | CCV40-15 | ic57d17.met | JE01.072 | 1
73 | B | ic57d17.met | JE01.073 | 1
74 | B | ic57d17.met | JE01.074 | 1
75 | B | ic57d17.met | JE01.075 | 1
76 | B | ic57d17.met | JE01.076 | 1
77 | B | ic57d17.met | JE01.077 | 1
78 | B | ic57d17.met | JE01.078 | 1
79 | B | ic57d17.met | JE01.079 | 1
80 | B | ic57d17.met | JE01.080 | 1
81 | B | ic57d17.met | JE01.081 | 1
82 | B | ic57d17.met | JE01.082 | 1
Method Development
Start
EZChrom Chromatography ...
Method: Ic57d17.met ...
Method: Ic57d17.met Ba...
Tuesday, May 08, 2007
1:03 PM

8025

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: * IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

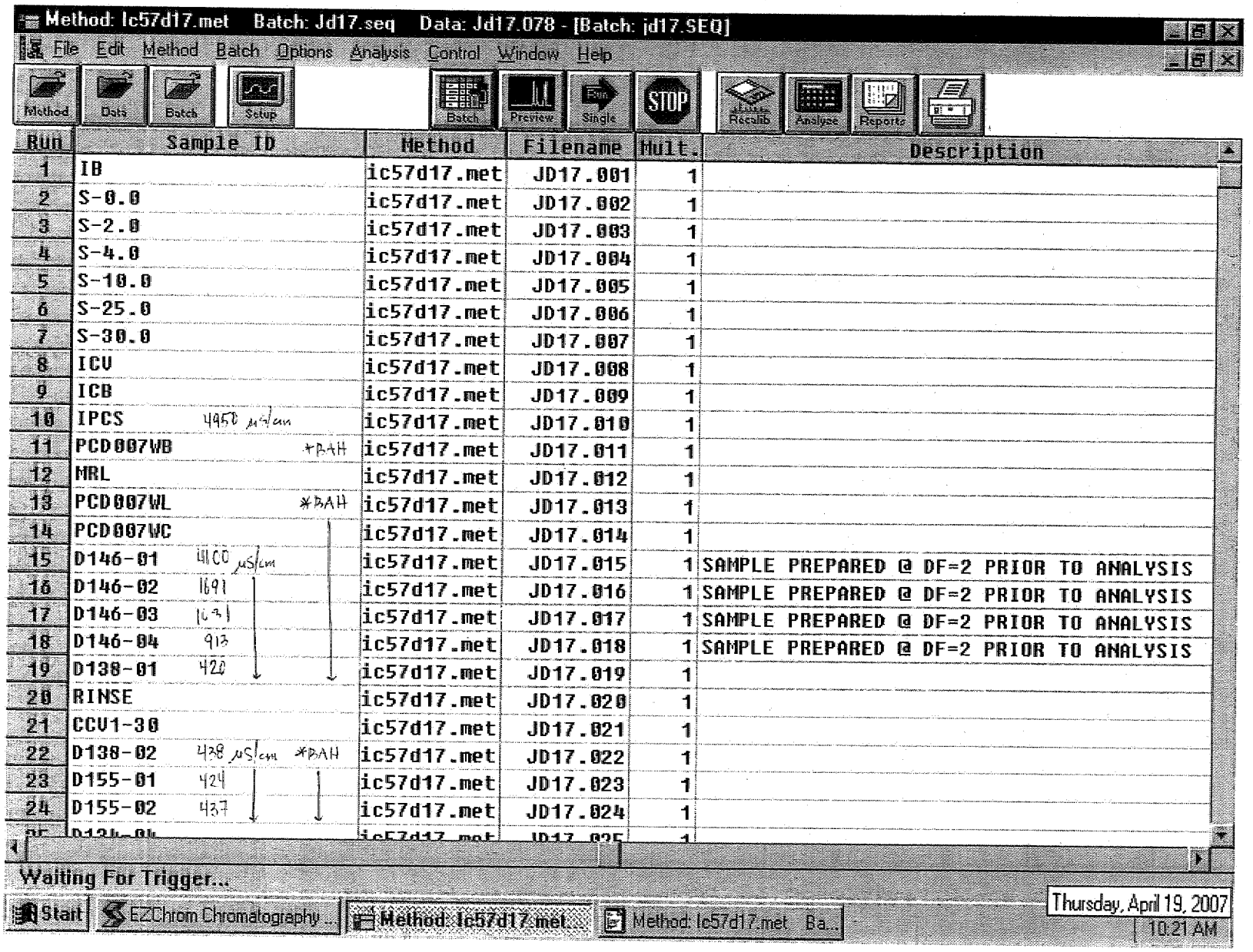
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

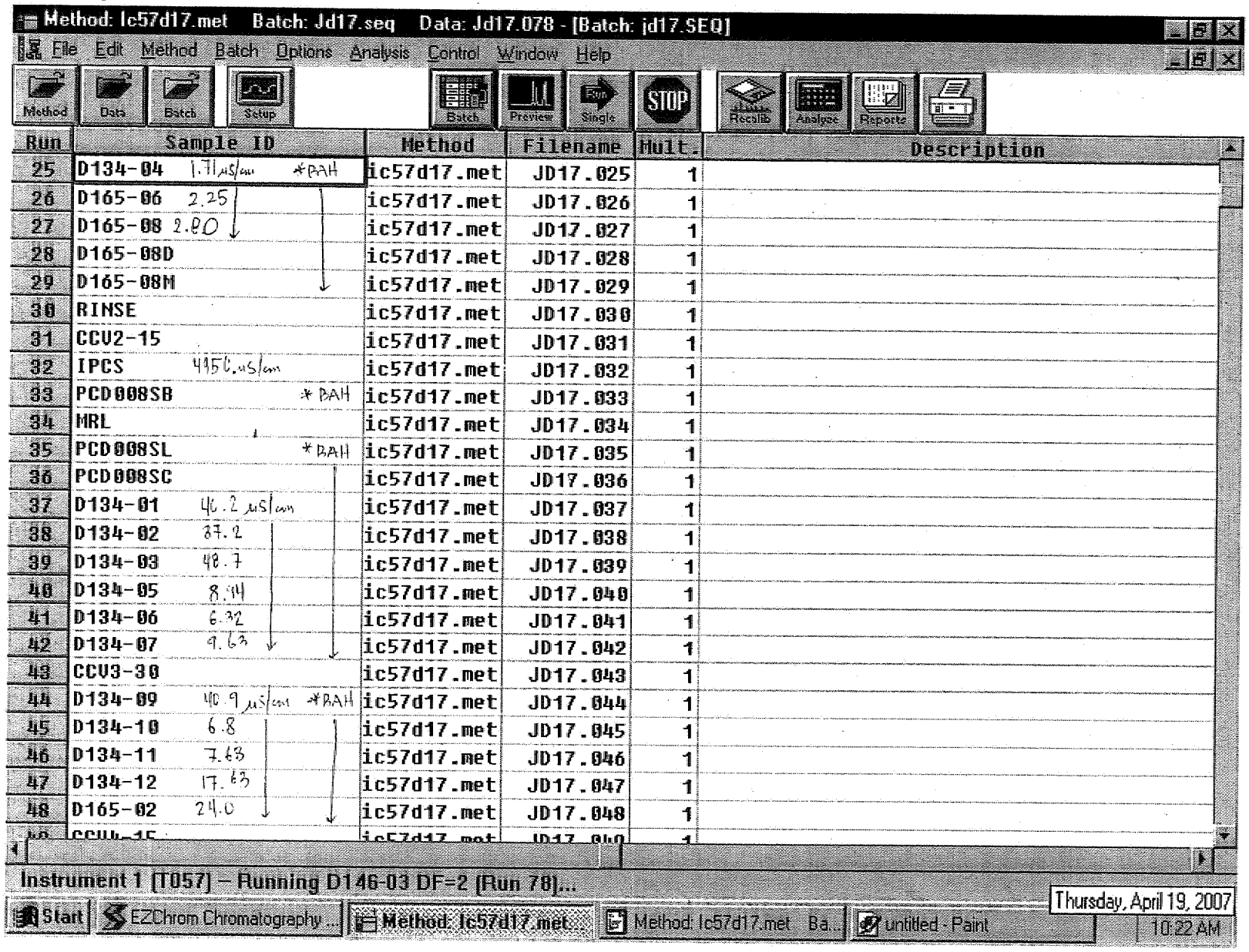
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cl

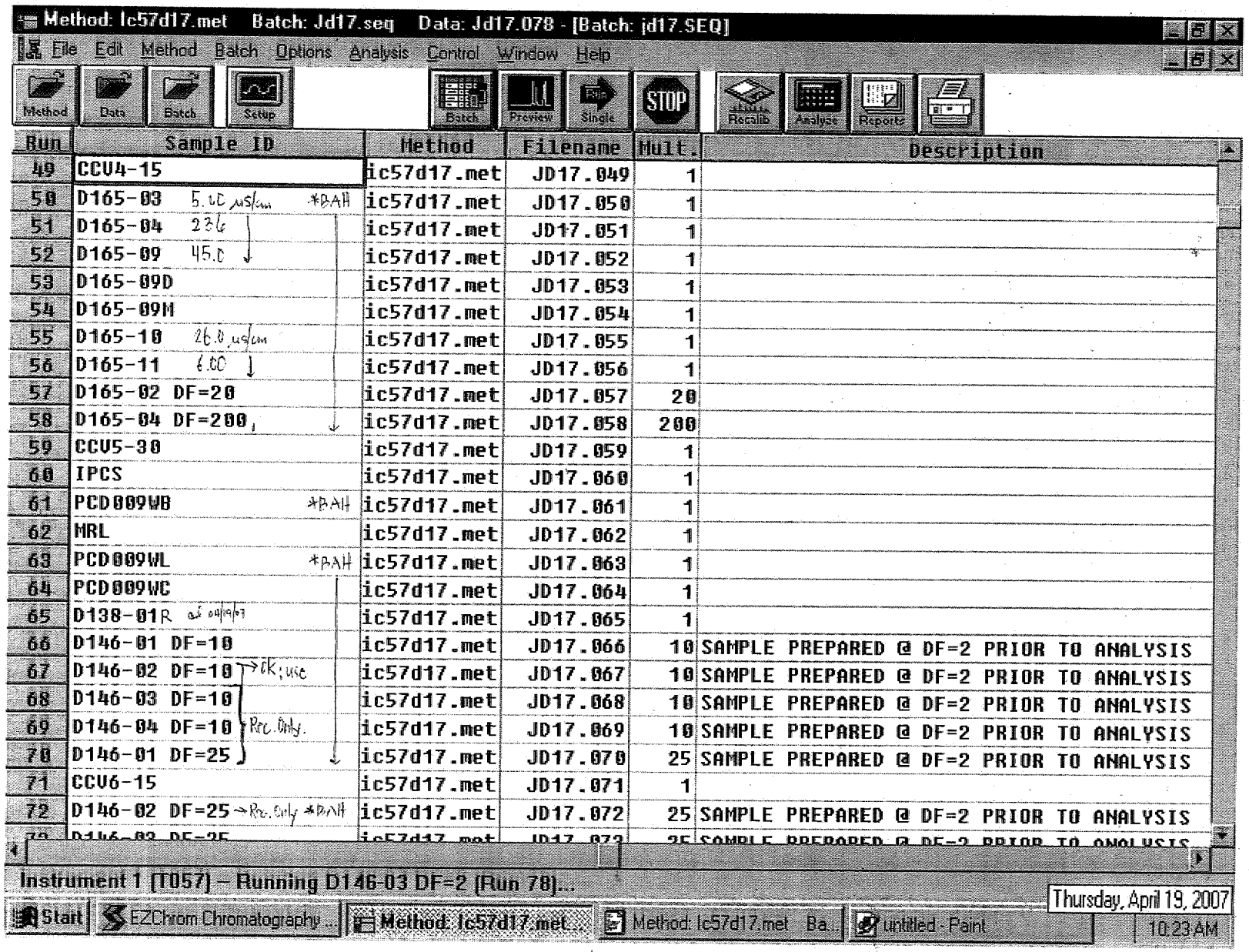
Date: 04/17/07


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d17.met | JD17.001 | 1
2 | S-0.0 | ic57d17.met | JD17.002 | 1
3 | S-2.0 | ic57d17.met | JD17.003 | 1
4 | S-4.0 | ic57d17.met | JD17.004 | 1
5 | S-10.0 | ic57d17.met | JD17.005 | 1
6 | S-25.0 | ic57d17.met | JD17.006 | 1
7 | S-30.0 | ic57d17.met | JD17.007 | 1
8 | ICV | ic57d17.met | JD17.008 | 1
9 | ICB | ic57d17.met | JD17.009 | 1
10 | IPCS 4950 µS/cm | ic57d17.met | JD17.010 | 1
11 | PCD007WB *PAH | ic57d17.met | JD17.011 | 1
12 | MRL | ic57d17.met | JD17.012 | 1
13 | PCD007WL *PAH | ic57d17.met | JD17.013 | 1
14 | PCD007WC | ic57d17.met | JD17.014 | 1
15 | D146-01 4160 µS/cm | ic57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | ic57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1631 | ic57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | ic57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | ic57d17.met | JD17.019 | 1
20 | RINSE | ic57d17.met | JD17.020 | 1
21 | CCV1-30 | ic57d17.met | JD17.021 | 1
22 | D138-02 438 µS/cm *PAH | ic57d17.met | JD17.022 | 1
23 | D155-01 424 | ic57d17.met | JD17.023 | 1
24 | D155-02 437 | ic57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

8929


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µs/cm *PAH ic57d17.met JD17.025 1
26 D165-06 2.25 ic57d17.met JD17.026 1
27 D165-08 2.80 ic57d17.met JD17.027 1
28 D165-08D ic57d17.met JD17.028 1
29 D165-08M ic57d17.met JD17.029 1
30 RINSE ic57d17.met JD17.030 1
31 CCV2-15 ic57d17.met JD17.031 1
32 IPCS 4950 µs/cm ic57d17.met JD17.032 1
33 PCD008SB *PAH ic57d17.met JD17.033 1
34 MRL ic57d17.met JD17.034 1
35 PCD008SL *PAH ic57d17.met JD17.035 1
36 PCD008SC ic57d17.met JD17.036 1
37 D134-01 46.2 µs/cm ic57d17.met JD17.037 1
38 D134-02 37.2 ic57d17.met JD17.038 1
39 D134-03 48.7 ic57d17.met JD17.039 1
40 D134-05 8.34 ic57d17.met JD17.040 1
41 D134-06 6.32 ic57d17.met JD17.041 1
42 D134-07 9.63 ic57d17.met JD17.042 1
43 CCV3-30 ic57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *PAH ic57d17.met JD17.044 1
45 D134-10 6.8 ic57d17.met JD17.045 1
46 D134-11 7.63 ic57d17.met JD17.046 1
47 D134-12 17.63 ic57d17.met JD17.047 1
48 D165-02 24.0 ic57d17.met JD17.048 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography ... Method: lc57d17.met ... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8027



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

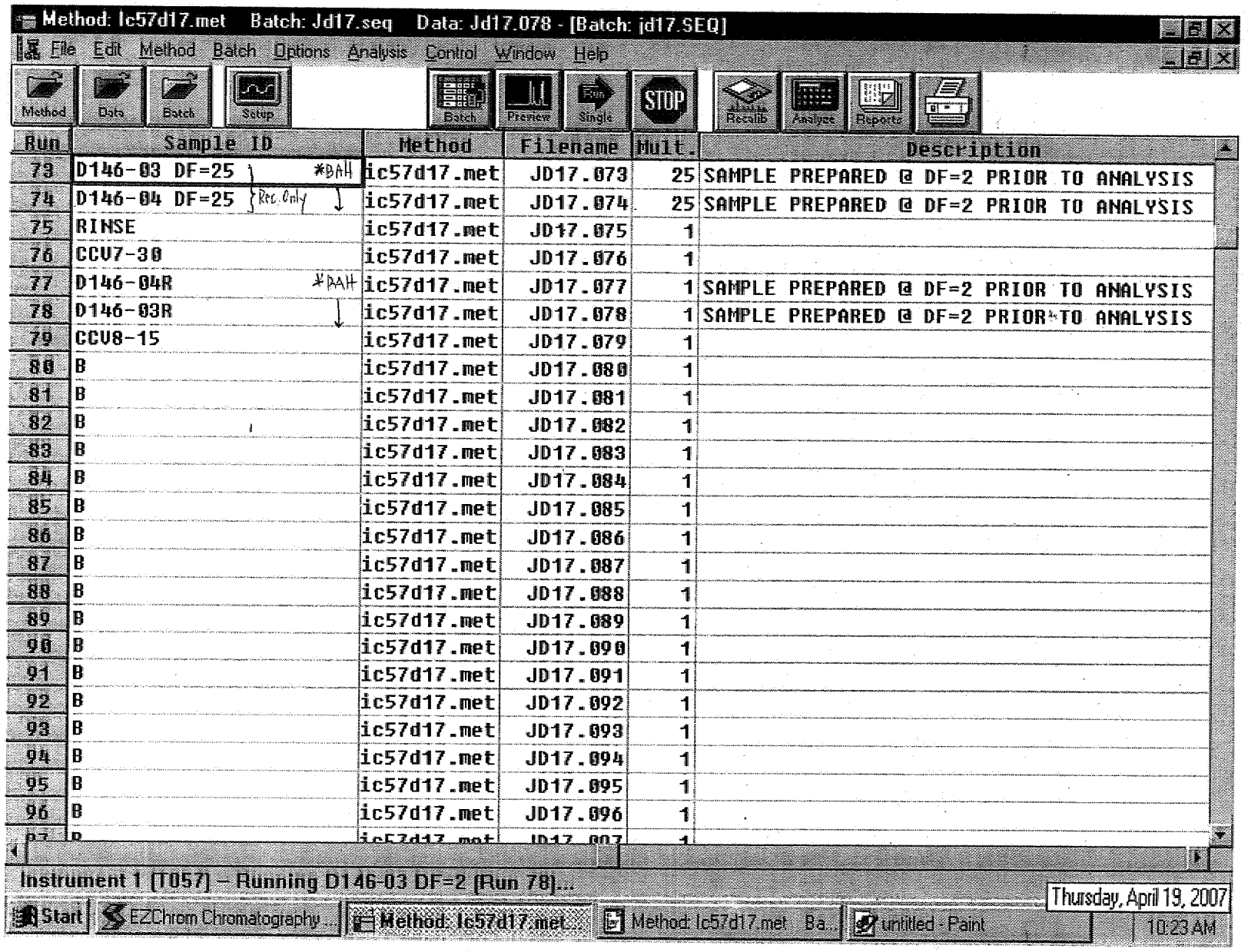
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Mult.	Description
49	CCV4-15	ic57d17.met	JD17.049	1	
50	D165-03 5.00 µs/cm *BAH	ic57d17.met	JD17.050	1	
51	D165-04 23.6	ic57d17.met	JD17.051	1	
52	D165-09 45.0	ic57d17.met	JD17.052	1	
53	D165-09D	ic57d17.met	JD17.053	1	
54	D165-09M	ic57d17.met	JD17.054	1	
55	D165-10 26.0 µs/cm	ic57d17.met	JD17.055	1	
56	D165-11 6.00	ic57d17.met	JD17.056	1	
57	D165-02 DF=20	ic57d17.met	JD17.057	20	
58	D165-04 DF=200,	ic57d17.met	JD17.058	200	
59	CCV5-30	ic57d17.met	JD17.059	1	
60	IPCS	ic57d17.met	JD17.060	1	
61	PCD009WB *BAH	ic57d17.met	JD17.061	1	
62	MRL	ic57d17.met	JD17.062	1	
63	PCD009WL *BAH	ic57d17.met	JD17.063	1	
64	PCD009WC	ic57d17.met	JD17.064	1	
65	D138-01R ad 04/19/07	ic57d17.met	JD17.065	1	
66	D146-01 DF=10	ic57d17.met	JD17.066	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67	D146-02 DF=10 → ok; use	ic57d17.met	JD17.067	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68	D146-03 DF=10	ic57d17.met	JD17.068	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69	D146-04 DF=10 Rec. Only.	ic57d17.met	JD17.069	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70	D146-01 DF=25	ic57d17.met	JD17.070	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71	CCV6-15	ic57d17.met	JD17.071	1	
72	D146-02 DF=25 → Rec. Only *BAH	ic57d17.met	JD17.072	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
73	D146-03 DF=25	ic57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS

Instrument 1 (T057) – Running D146-03 DF=2 (Run 78)...

Start | EZChrom Chromatography ... | Method: Ic57d17.met... | Method: Ic57d17.met Ba... | untitled - Paint | Thursday, April 19, 2007 | 10:23 AM

8028


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
*BAH
Rec. Only
*BAH
Run | Sample ID | Method | Filename | Mult. | Description
73 | D146-03 DF=25 | ic57d17.met | JD17.073 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 | D146-04 DF=25 | ic57d17.met | JD17.074 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 | RINSE | ic57d17.met | JD17.075 | 1 |
76 | CCV7-30 | ic57d17.met | JD17.076 | 1 |
77 | D146-04R | ic57d17.met | JD17.077 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 | D146-03R | ic57d17.met | JD17.078 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 | CCV8-15 | ic57d17.met | JD17.079 | 1 |
80 | B | ic57d17.met | JD17.080 | 1 |
81 | B | ic57d17.met | JD17.081 | 1 |
82 | B | ic57d17.met | JD17.082 | 1 |
83 | B | ic57d17.met | JD17.083 | 1 |
84 | B | ic57d17.met | JD17.084 | 1 |
85 | B | ic57d17.met | JD17.085 | 1 |
86 | B | ic57d17.met | JD17.086 | 1 |
87 | B | ic57d17.met | JD17.087 | 1 |
88 | B | ic57d17.met | JD17.088 | 1 |
89 | B | ic57d17.met | JD17.089 | 1 |
90 | B | ic57d17.met | JD17.090 | 1 |
91 | B | ic57d17.met | JD17.091 | 1 |
92 | B | ic57d17.met | JD17.092 | 1 |
93 | B | ic57d17.met | JD17.093 | 1 |
94 | B | ic57d17.met | JD17.094 | 1 |
95 | B | ic57d17.met | JD17.095 | 1 |
96 | B | ic57d17.met | JD17.096 | 1 |
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M — cl 05/01/07 — Book # EOP-001

Matrix SOIL — Start Date 04/30/07 Time 9:50 — End Date 04/30/07 Time ~~17:20~~ 10:30

PREPARATION BATCH # PCD0196

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0196B	10.000g	100 ml	100 ml	
*02	SL				
*03	SL				
*04	D278-04				
*05	01				
*06	02				
*07	03				
*08	D314-02				
*09	03				
*10	04				
*11	05				
*12	06				
*13	07				
*14	08				
*15	09				
*16	10				
*17	11				
*18	12				
*19	12D				
*20	12M				
~~*21~~					
*22	D315-02 ✓	10.000g	100 ml	100 ml	Add Lines ✓ ok cl 04/20/07
*23	03 ✓	cl	04/30/07		
*24	04 ✓				
*25	05 ✓				

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SWBB-02-931	2.5 ml / 1.0 ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: cl

Standard Added By: cl

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M el 05/01/07 Book # EOP-001

Matrix SOIL Start Date 04/30/07 Time ~~9:50~~ 10:30 End Date 04/30/07 Time 12:20

PREPARATION BATCH # PCD0205

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0205B	10.000g	100 ml	100 ml	
*02	↓ SL	↓	↓	↓	
*03	↓ SC				
*04	D315 - 06				
*05	07				
*06	08				
*07	09				
*08	10				
*09	10D				
*10	10M				
*11	11				
*12	12				
*13	↓ 13	↓	↓	↓	
*14					
*15					
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

el 04/30/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5 ml / 10 ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: el

Standard Added By: el

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

Supplemental Soil Investigation Report
Historical Operational Areas A, B, C, D, F, G, and H
Lockheed Martin Corporation, Beaumont Site 1
Beaumont, California



Volume III

LOCKHEED MARTIN

TETRA TECH

348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408

TC# 19967-05 / May 2008

Appendix F (continued)

Laboratory Data Packages

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07D316**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1003
GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3520C/3550B/8082	5000 – 5043
HPLC	**	6000 –
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-15-2007
EMAX Batch No.: 07D316

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 04/27/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB-042607	D316-01	04/26/07	WATER	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS1101-25-26.5	D316-02	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS11-10-11.5	D316-03	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS11-25-26.5	D316-04	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS11-35-36.5	D316-05	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS10-15-16.5	D316-06	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS10-10-11.5	D316-07	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS10-20-21.5	D316-08	04/26/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

TC. 0618 07D316

07D316 ~~07D136~~ 4-27-07

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 4-26-07 PAGE 1 OF 1

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation Site 1
PROJECT MANAGER: Brenda Meyer
TC #: 19967.02
SAMPLERS (Signatures): Holly A. Z

LINE ITEM	SAMPLE NO.	DATE	TIME	8082 PCB's	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
01	1. LEB-042607	4-26-07	1055	X		U	W	G	1	NR	
N/A	~~2. LEB-042607~~	~~4-26-07~~	~~1055~~		X	U	W	P	1	NR	
02	3. H49-HSAS1101-25-26.5	4-26-07	1123	X		U	S	G	1	NR	
03	4. H49-HSAS11-10-11.5	4-26-07	1104	X		U	S	G	1	NR	
04	5. H49-HSAS11-25-26.5	4-26-07	1123	X		U	S	G	1	NR	
05	6. H49-HSAS11-35-36.5	4-26-07	1137	X		U	S	G	1	NR	
06	7. H49-HSAS10-15-16.5	4-26-07	1456	X							
07	8. H49-HSAS10-10-11.5	4-26-07	1452	X							
08	9. H49-HSAS10-20-21.5	4-26-07	1502	X							
N/A	10.										

PARAMETERS

TURN-AROUND TIME: Standard

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 8 of 8
Holly Hanke	Holly A Z	TETRA TECH, INC.	4-26-07	1845	
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/27/07	TIME: 9:45	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 4/27/07	TIME: 15:39	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: INDRA PATEL	SIGNATURE	COMPANY: EMAX	DATE: 4-27-07	TIME: 1539	T=3.4°C

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

1501

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	SEE COC	ECN 07D316
☐ Client Delivery		Recepient I PATEL
☐ Third Party		Date 4-27-07
		Time 1539

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☑ Preservative (if any) ☑ TAT

Safety Issues

☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	Plastic Bag
Temperatures	☑ Cooler 3.4 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 4-27-07

SRF _____ Date 4/27/07

PM _____ Date 4/30/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8082
PCBs

SDG#: 07D316

5000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07D316

METHOD 3520C/3550B/8082
PCBs

One (1) water and seven (7) soil samples were received on 04/27/07 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was six points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07D316
Instrument ID : GCT071

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CPD044WB	1	NA	05/02/0706:50	04/30/0717:00	KE01031A	KE01029A	CPD044W	Method Blank
LCS1W	60D044WL	1	NA	05/02/0707:16	04/30/0717:00	KE01032A	KE01029A	CPD044W	Lab Control Sample (LCS)
LCD1W	60D044WC	1	NA	05/02/0707:41	04/30/0717:00	KE01033A	KE01029A	CPD044W	LCS Duplicate
LEB-042607	D316-01	.96	NA	05/02/0708:07	04/30/0717:00	KE01034A	KE01029A	CPD044W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60E001SB	1	NA	05/01/0719:47	05/01/0715:00	KE01005A	KE01003A	60E001S	Method Blank
LCS1S	60E001SL	1	NA	05/01/0720:13	05/01/0715:00	KE01006A	KE01003A	60E001S	Lab Control Sample (LCS)
LCD1S	60E001SC	1	NA	05/01/0720:38	05/01/0715:00	KE01007A	KE01003A	60E001S	LCS Duplicate
H49-HSAS1101-25-26.5	D316-02	1	16.9	05/02/0702:35	05/01/0715:00	KE01021A	KE01016A	60E001S	Field Sample
H49-HSAS11-10-11.5	D316-03	1	15.5	05/02/0703:00	05/01/0715:00	KE01022A	KE01016A	60E001S	Field Sample
H49-HSAS11-25-26.5	D316-04	1	5.1	05/02/0703:26	05/01/0715:00	KE01023A	KE01016A	60E001S	Field Sample
H49-HSAS11-35-36.5	D316-05	1	6.9	05/02/0703:51	05/01/0715:00	KE01024A	KE01016A	60E001S	Field Sample
H49-HSAS10-15-16.5	D316-06	1	17.7	05/02/0704:17	05/01/0715:00	KE01025A	KE01016A	60E001S	Field Sample
H49-HSAS10-10-11.5	D316-07	1	5.5	05/02/0704:43	05/01/0715:00	KE01026A	KE01016A	60E001S	Field Sample
H49-HSAS10-20-21.5	D316-08	1	21.2	05/02/0705:08	05/01/0715:00	KE01027A	KE01016A	60E001S	Field Sample

FN - Filename
% Moist - Percent Moisture

2659

SAMPLE

METHOD 3520C/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	04/30/07 17:00
Sample ID:	LEB-042607	Date Analyzed:	05/02/07 08:07
Lab Samp ID:	D316-01	Dilution Factor:	.96
Lab File ID:	KE01034A	Matrix	: WATER
Ext Btch ID:	CPD044W	% Moisture	: NA
Calib. Ref.:	KE01029A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	0.96	0.48 | 0.48
PCB-1221	(ND) | ND	0.96	0.48 | 0.48
PCB-1232	(ND) | ND	0.96	0.48 | 0.48
PCB-1242	(ND) | ND	0.96	0.48 | 0.48
PCB-1248	(ND) | ND	0.96	0.48 | 0.48
PCB-1254	(ND) | ND	0.96	0.48 | 0.48
PCB-1260	(ND) | ND	0.96	0.48 | 0.48

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(74) | 73	30-140
DECACHLOROBIPHENYL	(107) | 108	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	05/01/07 15:00
Sample ID:	H49-HSAS1101-25-26.5	Date Analyzed:	05/02/07 02:35
Lab Samp ID:	D316-02	Dilution Factor:	1
Lab File ID:	KE01021A	Matrix :	SOIL
Ext Btch ID:	60E001S	% Moisture :	16.9
Calib. Ref.:	KE01016A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	60	24 | 24
PCB-1221	(ND) | ND	60	24 | 24
PCB-1232	(ND) | ND	60	24 | 24
PCB-1242	(ND) | ND	60	24 | 24
PCB-1248	(ND) | ND	60	24 | 24
PCB-1254	(ND) | ND	60	24 | 24
PCB-1260	(ND) | ND	60	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(81) | 84	10-160
DECACHLOROBIPHENYL	(130) | 104	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	05/01/07 15:00
Sample ID:	H49-HSAS11-10-11.5	Date Analyzed:	05/02/07 03:00
Lab Samp ID:	D316-03	Dilution Factor:	1
Lab File ID:	KE01022A	Matrix :	SOIL
Ext Btch ID:	60E001S	% Moisture :	15.5
Calib. Ref.:	KE01016A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	59	24 | 24
PCB-1221	(ND) | ND	59	24 | 24
PCB-1232	(ND) | ND	59	24 | 24
PCB-1242	(ND) | ND	59	24 | 24
PCB-1248	(ND) | ND	59	24 | 24
PCB-1254	(ND) | ND	59	24 | 24
PCB-1260	(ND) | ND	59	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(82) | 81	10-160
DECACHLOROBIPHENYL	(108) | 107	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 04/27/07
Batch No. : 07D316	Date Extracted: 05/01/07 15:00
Sample ID: H49-HSAS11-25-26.5	Date Analyzed: 05/02/07 03:26
Lab Samp ID: D316-04	Dilution Factor: 1
Lab File ID: KE01023A	Matrix : SOIL
Ext Btch ID: 60E001S	% Moisture : 5.1
Calib. Ref.: KE01016A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79) | 76	10-160
DECACHLOROBIPHENYL	(106) | 105	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	05/01/07 15:00
Sample ID	: H49-HSAS11-35-36.5	Date Analyzed:	05/02/07 03:51
Lab Samp ID	: D316-05	Dilution Factor:	1
Lab File ID	: KE01024A	Matrix :	SOIL
Ext Btch ID	: 60E001S	% Moisture :	6.9
Calib. Ref.	: KE01016A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	54	21 | 21
PCB-1221	(ND) | ND	54	21 | 21
PCB-1232	(ND) | ND	54	21 | 21
PCB-1242	(ND) | ND	54	21 | 21
PCB-1248	(ND) | ND	54	21 | 21
PCB-1254	(ND) | ND	54	21 | 21
PCB-1260	(ND) | ND	54	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 82	10-160
DECACHLOROBIPHENYL	(105) | 105	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	05/01/07 15:00
Sample ID:	H49-HSAS10-15-16.5	Date Analyzed:	05/02/07 04:17
Lab Samp ID:	D316-06	Dilution Factor:	1
Lab File ID:	KE01025A	Matrix :	SOIL
Ext Btch ID:	60E001S	% Moisture :	17.7
Calib. Ref.:	KE01016A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	61	24 | 24
PCB-1221	(ND) | ND	61	24 | 24
PCB-1232	(ND) | ND	61	24 | 24
PCB-1242	(ND) | ND	61	24 | 24
PCB-1248	(ND) | ND	61	24 | 24
PCB-1254	(ND) | ND	61	24 | 24
PCB-1260	(ND) | ND	61	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79) | 79	10-160
DECACHLOROBIPHENYL	(106) | 106	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	05/01/07 15:00
Sample ID:	H49-HSAS10-10-11.5	Date Analyzed:	05/02/07 04:43
Lab Samp ID:	D316-07	Dilution Factor:	1
Lab File ID:	KE01026A	Matrix :	SOIL
Ext Btch ID:	60E001S	% Moisture :	5.5
Calib. Ref.:	KE01016A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79) | 77	10-160
DECACHLOROBIPHENYL	(105) | 105	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	04/27/07
Batch No.	: 07D316	Date Extracted:	05/01/07 15:00
Sample ID:	H49-HSAS10-20-21.5	Date Analyzed:	05/02/07 05:08
Lab Samp ID:	D316-08	Dilution Factor:	1
Lab File ID:	KE01027A	Matrix :	SOIL
Ext Btch ID:	60E001S	% Moisture :	21.2
Calib. Ref.:	KE01016A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	63	25 | 25
PCB-1221	(ND) | ND	63	25 | 25
PCB-1232	(ND) | ND	63	25 | 25
PCB-1242	(ND) | ND	63	25 | 25
PCB-1248	(ND) | ND	63	25 | 25
PCB-1254	(ND) | ND	63	25 | 25
PCB-1260	(ND) | ND	63	25 | 25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 95	10-160
DECACHLOROBIPHENYL	(109) | 116	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARY

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 04/30/07
Batch No. : 07D316	Date Extracted: 04/30/07 17:00
Sample ID: MBLK1W	Date Analyzed: 05/02/07 06:50
Lab Samp ID: CPD044WB	Dilution Factor: 1
Lab File ID: KE01031A	Matrix : WATER
Ext Btch ID: CPD044W	% Moisture : NA
Calib. Ref.: KE01029A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 84	30-130
DECACHLOROBIPHENYL	(114) | 116	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D316
METHOD: METHOD 3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID:	MBLK1W		
LAB SAMP ID:	CPD044WB	60D044WL	60D044WC
LAB FILE ID:	KE01031A	KE01032A	KE01033A
DATE EXTRACTED:	04/30/0717:00	04/30/0717:00	04/30/0717:00
DATE ANALYZED:	05/02/0706:50	05/02/0707:16	05/02/0707:41
PREP. BATCH:	CPD044W	CPD044W	CPD044W
CALIB. REF:	KE01029A	KE01029A	KE01029A

DATE COLLECTED: NA
DATE RECEIVED: 04/30/07

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5.00	(4.96) | 4.92	(99) | 98	5.00	(5.18) | 4.94	(104) | 99	(4) | 0	50-130	30
PCB-1260	(ND) | ND	5.00	(5.06) | 5.10	(101) | 102	5.00	(5.16) | 5.10	(103) | 102	(2) | 0	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	0.400	(0.339) | 0.371	(85) | 93	0.400	(0.368) | 0.377	(92) | 94	30-130
Decachlorobiphenyl	0.400	(0.465) | 0.472	(116) | 118	0.400	(0.469) | 0.471	(117) | 118	40-150

USEPA

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07D316	Date Extracted: 05/01/07 15:00
Sample ID: MBLK1S	Date Analyzed: 05/01/07 19:47
Lab Samp ID: 60E001SB	Dilution Factor: 1
Lab File ID: KE01005A	Matrix : SOIL
Ext Btch ID: 60E001S	% Moisture : NA
Calib. Ref.: KE01003A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(80) | 82	40-130
DECACHLOROBIPHENYL	(103) | 101	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07D316
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60E001SB	60E001SL	60E001SC		
LAB FILE ID:	KE01005A	KED1006A	KE01007A		
DATE EXTRACTED:	05/01/0715:00	05/01/0715:00	05/01/0715:00	DATE COLLECTED:	NA
DATE ANALYZED:	05/01/0719:47	05/01/0720:13	05/01/0720:38	DATE RECEIVED:	05/01/07
PREP. BATCH:	60E001S	60E001S	60E001S		
CALIB. REF:	KE01003A	KE01003A	KE01003A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(165) | 158	(99) | 95	167	(162) | 158	(97) | 95	(2) | 0	50-130	50
PCB-1260	(ND) | ND	167	(184) | 175	(110) | 105	167	(182) | 179	(109) | 107	(1) | 2	70-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(10.9) | 11.4	(82) | 85	13.3	(11.2) | 11.7	(84) | 88	40-130
Decachlorobiphenyl	13.3	(13.7) | 13.7	(103) | 103	13.3	(14.5) | 14.0	(109) | 105	40-160

INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
LFID & Datetime: KD17002A 04/17/07 11:05
LFID & Datetime: KD17003A 04/17/07 11:27
LFID & Datetime: KD17004A 04/17/07 11:48
LFID & Datetime: KD17005A 04/17/07 12:10
LFID & Datetime: KD17006A 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1222.85	1270.50	1181.34	1023.15	923.31	1124.23	13.0
PCB1016-2	20.00	1405.05	1541.56	1431.64	1298.23	1179.83	1371.26	10.0
PCB1016-3	20.00	5276.95	4988.12	4510.80	3878.04	3478.53	4426.49	16.9
PCB1016-4	20.00	1289.20	1511.80	1422.99	1326.13	1201.69	1350.36	8.9
PCB1016-5	20.00	1166.50	1430.44	1181.47	1212.29	1068.37	1211.81	11.0
PCB1260-1	20.00	3494.15	3529.02	3133.71	2851.14	2409.67	3083.54	15.2
PCB1260-2	20.00	5729.00	5652.56	5436.91	4869.33	4439.66	5225.49	10.6
PCB1260-3	20.00	3469.70	3441.72	3396.39	3041.85	2752.14	3220.36	9.7
PCB1260-4	20.00	7270.55	8008.74	7756.66	7290.90	6554.21	7376.21	7.5
PCB1260-5	20.00	4389.70	4642.28	4442.28	4319.34	4017.51	4362.22	5.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10592	10679	10499	9850	9496	10223	5.1
DCB	5.00	14372	14235	13795	12178	11471	13210	9.9

MM 4-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
LFID & Datetime: KD17002B 04/17/07 11:05
LFID & Datetime: KD17003B 04/17/07 11:27
LFID & Datetime: KD17004B 04/17/07 11:48
LFID & Datetime: KD17005B 04/17/07 12:10
LFID & Datetime: KD17006B 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1454.55	1424.40	1292.03	1118.69	998.03	1257.54	15.6
PCB1016-2	20.00	2781.45	2675.90	2441.52	2076.26	1841.45	2363.32	16.8
PCB1016-3	20.00	5437.50	4996.70	4563.71	3882.20	3497.18	4475.46	17.7
PCB1016-4	20.00	1510.30	1427.08	1400.76	1267.94	1181.01	1357.42	9.7
PCB1016-5	20.00	1152.80	1291.20	1216.05	1177.94	1124.06	1192.41	5.4
PCB1260-1	20.00	4650.55	4444.38	4379.77	3723.10	3400.99	4119.76	12.9
PCB1260-2	20.00	3411.65	3196.48	3273.92	2870.77	2590.60	3068.68	10.9
PCB1260-3	20.00	3093.25	2986.02	3162.32	2717.71	2477.88	2887.43	9.9
PCB1260-4	20.00	7807.60	7652.78	7640.60	6670.01	6202.79	7194.76	9.9
PCB1260-5	20.00	5368.85	5467.36	5552.58	5030.22	4645.39	5212.88	7.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10583	10930	11041	10247	10105	10581	3.9
DCB	5.00	14855	14247	13516	12432	11744	13359	9.6

pw 4-19-07

SECOND SOURCE

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007A 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			954.565	5		15
PCB1260				1000.0			1003.852	0		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.333	4.282	4.384	50.0	10223.2	501063	49.01	-2		15
DCB	12.783	12.708	12.858	50.0	13210.2	726987	55.03	10		15

4-19-07

5021

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007B 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			956.404	4		15
PCB1260				1000.0			978.074	2		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.992	2.963	3.021	50.0	10581.1	503048	47.54	-5		15
DCB	9.700	9.657	9.743	50.0	13358.7	701265	52.49	5		15

dlw 4-19-07

5022

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01003A 05/01/2007 18:56
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			943.506	6		15
PCB1260				1000.0			965.436	3		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.300	4.249	4.351	50.0	10223.2	532932	52.13	4		15
DCB	12.692	12.617	12.767	50.0	13210.2	612745	46.38	-7		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01003B 05/01/2007 18:56
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			973.167	3		15
PCB1260				1000.0			1013.484	1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.958	2.929	2.987	50.0	10581.1	554671	52.42	5		15
DCB	9.633	9.590	9.676	50.0	13358.7	598774	44.82	-10		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01016A 05/02/2007 00:27
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1015.982	2		15
PCB1260				1000.0			1062.450	6		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.283	4.232	4.334	50.0	10223.2	565088	55.28	11		15
DCB	12.658	12.583	12.733	50.0	13210.2	671349	50.82	2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01016B 05/02/2007 00:27
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			988.062	1		15
PCB1260				1000.0			1045.749	5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.942	2.913	2.971	50.0	10581.1	583448	55.14	10		15
DCB	9.617	9.574	9.660	50.0	13358.7	681808	51.04	2		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01029A 05/02/2007 05:59
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1062.132	6		15
PCB1260				1000.0			1032.870	3		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.283	4.232	4.334	50.0	10223.2	582755	57.00	14		15
DCB	12.650	12.575	12.725	50.0	13210.2	695522	52.65	5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01029B 05/02/2007 05:59
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			998.832	0		15
PCB1260				1000.0			1059.323	6		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.942	2.913	2.971	50.0	10581.1	584888	55.28	11		15
DCB	9.608	9.565	9.651	50.0	13358.7	701183	52.49	5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01037A 05/02/2007 09:23
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1051.507	5		15
PCB1260				1000.0			998.317	0		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.275	4.224	4.326	50.0	10223.2	592158	57.92	16	*	15
DCB	12.633	12.558	12.708	50.0	13210.2	708490	53.63	7		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE01037B 05/02/2007 09:23
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			963.867	4		15
PCB1260				1000.0			992.173	1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.942	2.913	2.971	50.0	10581.1	604631	57.14	14		15
DCB	9.600	9.557	9.643	50.0	13358.7	719059	53.83	8		15

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD17

Method File: 6071D17 · 5471D17 · 4871D17

Analytical Batch: KD17026A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4/17/09
54 ↓	↓	↓
48 ↓	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	45059	N/A
1660 ICAL	551B-05-62-2	100-2000ppb
↓ ICV	↓ 3	↓
1248 ICAL	551B-05-63-3	↓
↓ ICV	↓ 64-1	↓
1354 ICAL	551B-05-63-1	↓
↓ ICV	↓ -2	↓
1221 ICAL	551B-05-54-1	100-2000ppb
1232 ↓	2	↓
1247 ↓	3	↓
1262 ↓	551B-05-64-2	↓
1268 ICV	↓ 3	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

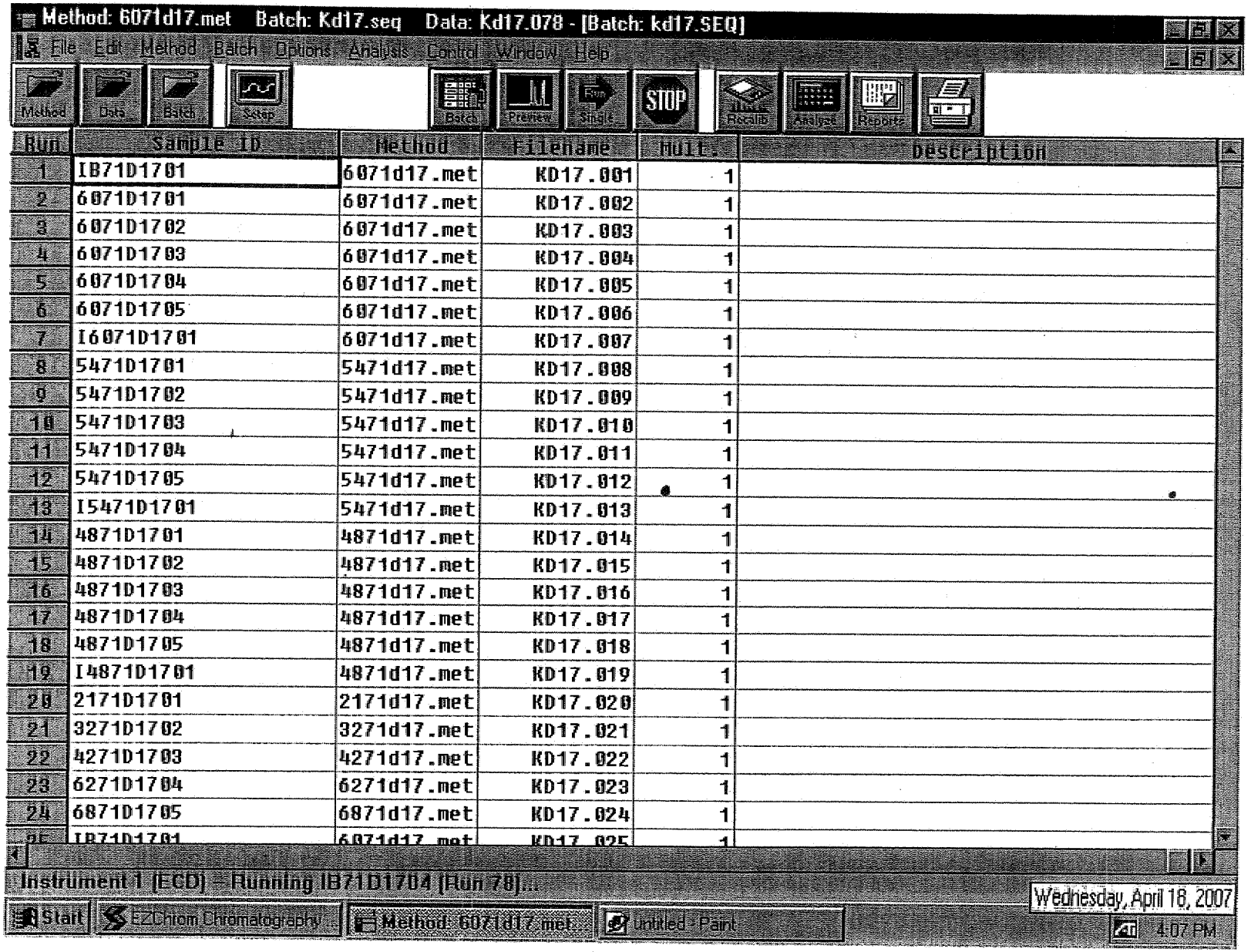
ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC_4_Pesticides	
☐	

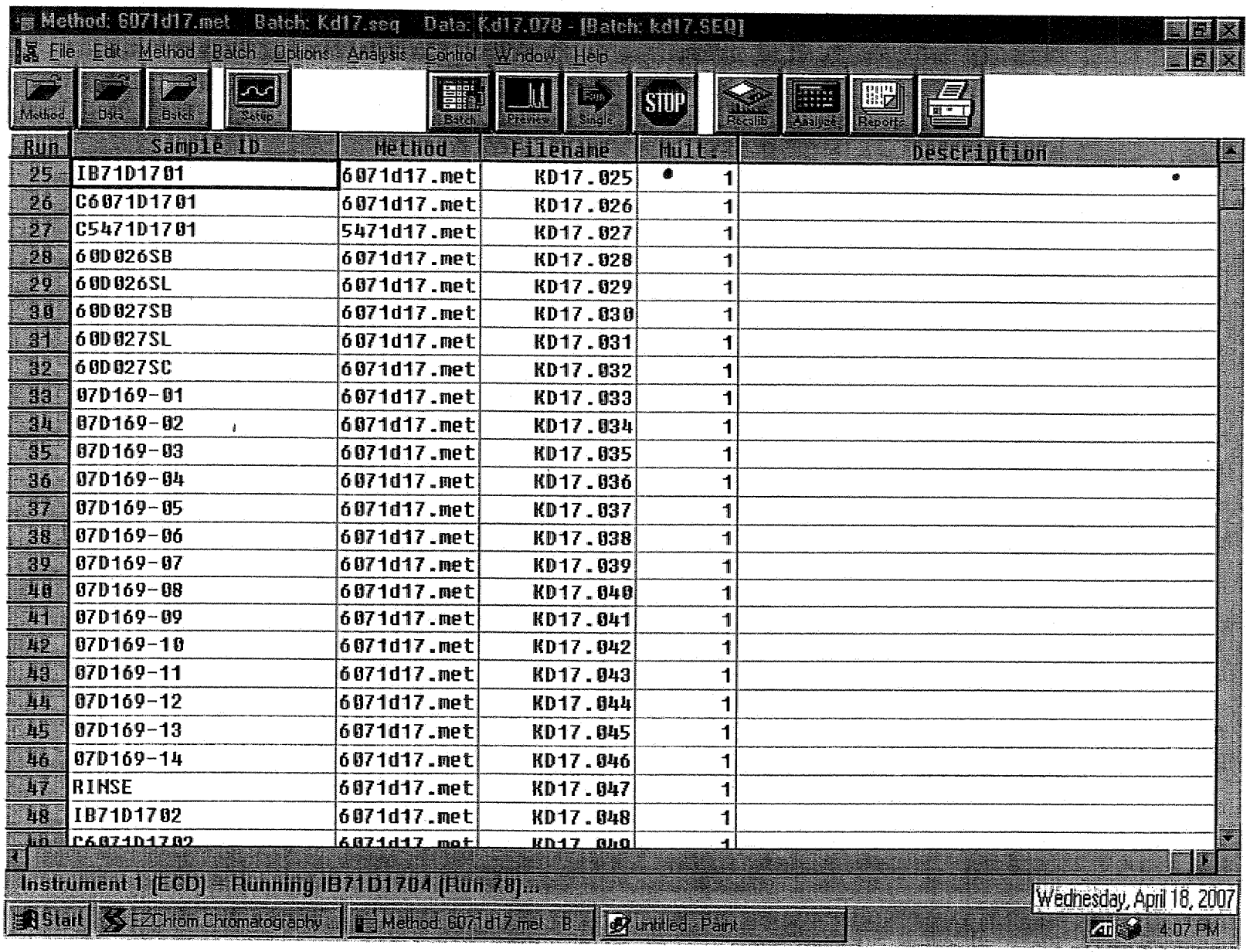
Analyzed By: JK Date: 4/17/09

Date Disposed: Disposed By:

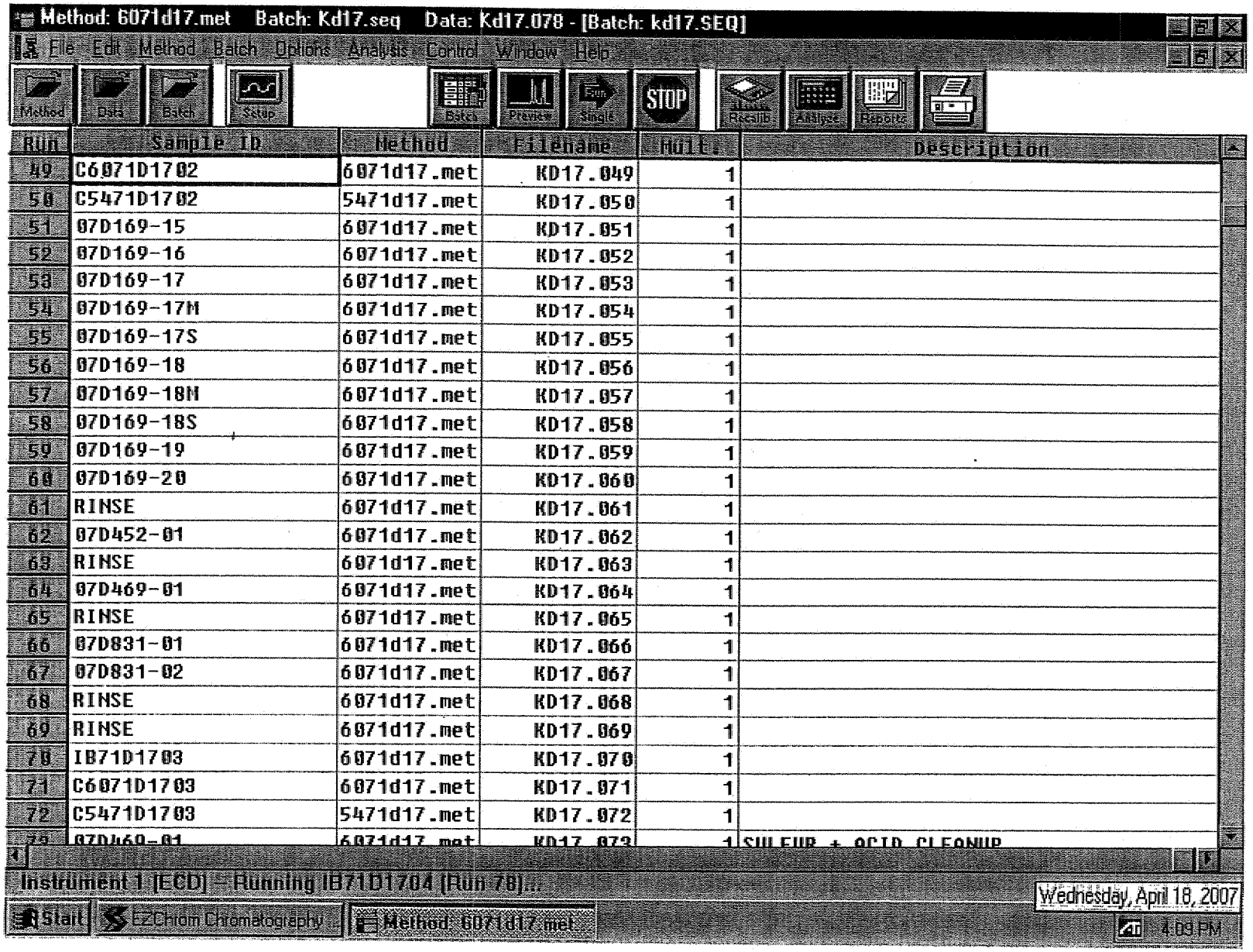
This page is checked during data review.


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Results
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1701 | 6071d17.met | KD17.001 | 1
2 | 6071D1701 | 6071d17.met | KD17.002 | 1
3 | 6071D1702 | 6071d17.met | KD17.003 | 1
4 | 6071D1703 | 6071d17.met | KD17.004 | 1
5 | 6071D1704 | 6071d17.met | KD17.005 | 1
6 | 6071D1705 | 6071d17.met | KD17.006 | 1
7 | I6071D1701 | 6071d17.met | KD17.007 | 1
8 | 5471D1701 | 5471d17.met | KD17.008 | 1
9 | 5471D1702 | 5471d17.met | KD17.009 | 1
10 | 5471D1703 | 5471d17.met | KD17.010 | 1
11 | 5471D1704 | 5471d17.met | KD17.011 | 1
12 | 5471D1705 | 5471d17.met | KD17.012 | 1
13 | I5471D1701 | 5471d17.met | KD17.013 | 1
14 | 4871D1701 | 4871d17.met | KD17.014 | 1
15 | 4871D1702 | 4871d17.met | KD17.015 | 1
16 | 4871D1703 | 4871d17.met | KD17.016 | 1
17 | 4871D1704 | 4871d17.met | KD17.017 | 1
18 | 4871D1705 | 4871d17.met | KD17.018 | 1
19 | I4871D1701 | 4871d17.met | KD17.019 | 1
20 | 2171D1701 | 2171d17.met | KD17.020 | 1
21 | 3271D1702 | 3271d17.met | KD17.021 | 1
22 | 4271D1703 | 4271d17.met | KD17.022 | 1
23 | 6271D1704 | 6271d17.met | KD17.023 | 1
24 | 6871D1705 | 6871d17.met | KD17.024 | 1
Instrument 1 (ECD) = Running IB71D1704 (Run 78)...
Start
EZChrom Chromatography...
Method: 6071d17.met...
Untitled - Paint
Wednesday, April 18, 2007
4:07 PM

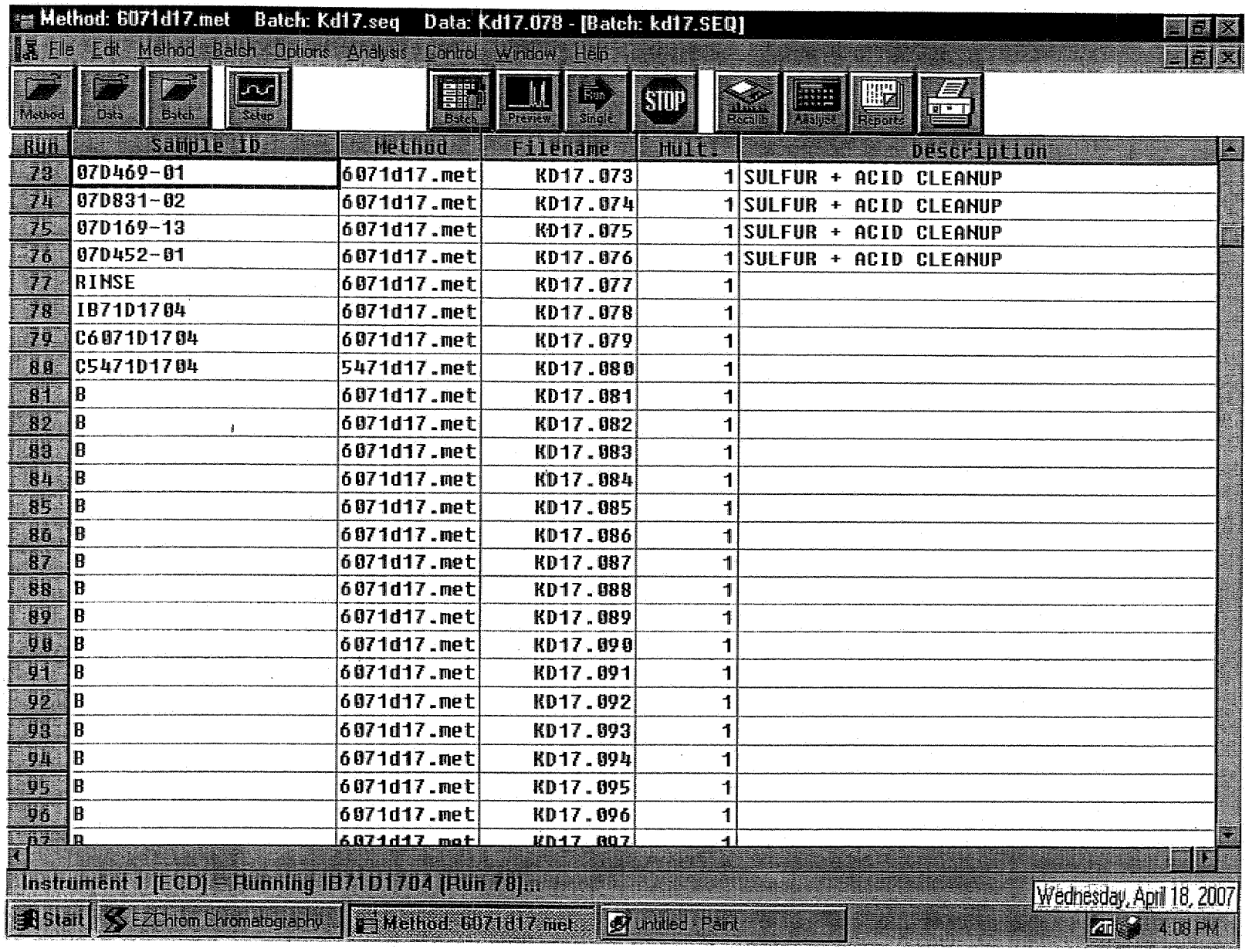
h89s


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
DAR
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyze
Report
Run
Sample ID
Method
Filename
Mult.
Description
25 IB71D1701 6071d17.met KD17.025 1
26 C6071D1701 6071d17.met KD17.026 1
27 C5471D1701 5471d17.met KD17.027 1
28 60D026SB 6071d17.met KD17.028 1
29 60D026SL 6071d17.met KD17.029 1
30 60D027SB 6071d17.met KD17.030 1
31 60D027SL 6071d17.met KD17.031 1
32 60D027SC 6071d17.met KD17.032 1
33 07D169-01 6071d17.met KD17.033 1
34 07D169-02 6071d17.met KD17.034 1
35 07D169-03 6071d17.met KD17.035 1
36 07D169-04 6071d17.met KD17.036 1
37 07D169-05 6071d17.met KD17.037 1
38 07D169-06 6071d17.met KD17.038 1
39 07D169-07 6071d17.met KD17.039 1
40 07D169-08 6071d17.met KD17.040 1
41 07D169-09 6071d17.met KD17.041 1
42 07D169-10 6071d17.met KD17.042 1
43 07D169-11 6071d17.met KD17.043 1
44 07D169-12 6071d17.met KD17.044 1
45 07D169-13 6071d17.met KD17.045 1
46 07D169-14 6071d17.met KD17.046 1
47 RINSE 6071d17.met KD17.047 1
48 IB71D1702 6071d17.met KD17.048 1
Instrument 1 (ECD) - Running IB71D1704 (Run 78)...
Start
EZChrom Chromatography...
Method: 6071d17.met - B...
untitled - Paint
Wednesday, April 18, 2007
4:07 PM

5935


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Results
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | C6071D1702 | 6071d17.met | KD17.049 | 1
50 | C5471D1702 | 5471d17.met | KD17.050 | 1
51 | 07D169-15 | 6071d17.met | KD17.051 | 1
52 | 07D169-16 | 6071d17.met | KD17.052 | 1
53 | 07D169-17 | 6071d17.met | KD17.053 | 1
54 | 07D169-17M | 6071d17.met | KD17.054 | 1
55 | 07D169-17S | 6071d17.met | KD17.055 | 1
56 | 07D169-18 | 6071d17.met | KD17.056 | 1
57 | 07D169-18M | 6071d17.met | KD17.057 | 1
58 | 07D169-18S | 6071d17.met | KD17.058 | 1
59 | 07D169-19 | 6071d17.met | KD17.059 | 1
60 | 07D169-20 | 6071d17.met | KD17.060 | 1
61 | RINSE | 6071d17.met | KD17.061 | 1
62 | 07D452-01 | 6071d17.met | KD17.062 | 1
63 | RINSE | 6071d17.met | KD17.063 | 1
64 | 07D469-01 | 6071d17.met | KD17.064 | 1
65 | RINSE | 6071d17.met | KD17.065 | 1
66 | 07D831-01 | 6071d17.met | KD17.066 | 1
67 | 07D831-02 | 6071d17.met | KD17.067 | 1
68 | RINSE | 6071d17.met | KD17.068 | 1
69 | RINSE | 6071d17.met | KD17.069 | 1
70 | IB71D1703 | 6071d17.met | KD17.070 | 1
71 | C6071D1703 | 6071d17.met | KD17.071 | 1
72 | C5471D1703 | 5471d17.met | KD17.072 | 1
Instrument 1 [ECD] - Running IB71D1704 [Run 70]...
Start
EzChrom Chromatography
Method: 6071d17.met
Wednesday, April 18, 2007
4:09 PM

5036


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run
Single
STOP
Results
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
78 | 07D469-01 | 6071d17.met | KD17.073 | 1 | SULFUR + ACID CLEANUP
74 | 07D831-02 | 6071d17.met | KD17.074 | 1 | SULFUR + ACID CLEANUP
75 | 07D169-13 | 6071d17.met | KD17.075 | 1 | SULFUR + ACID CLEANUP
76 | 07D452-01 | 6071d17.met | KD17.076 | 1 | SULFUR + ACID CLEANUP
77 | RINSE | 6071d17.met | KD17.077 | 1
78 | IB71D1704 | 6071d17.met | KD17.078 | 1
79 | C6071D1704 | 6071d17.met | KD17.079 | 1
80 | C5471D1704 | 5471d17.met | KD17.080 | 1
81 | B | 6071d17.met | KD17.081 | 1
82 | B | 6071d17.met | KD17.082 | 1
83 | B | 6071d17.met | KD17.083 | 1
84 | B | 6071d17.met | KD17.084 | 1
85 | B | 6071d17.met | KD17.085 | 1
86 | B | 6071d17.met | KD17.086 | 1
87 | B | 6071d17.met | KD17.087 | 1
88 | B | 6071d17.met | KD17.088 | 1
89 | B | 6071d17.met | KD17.089 | 1
90 | B | 6071d17.met | KD17.090 | 1
91 | B | 6071d17.met | KD17.091 | 1
92 | B | 6071d17.met | KD17.092 | 1
93 | B | 6071d17.met | KD17.093 | 1
94 | B | 6071d17.met | KD17.094 | 1
95 | B | 6071d17.met | KD17.095 | 1
96 | B | 6071d17.met | KD17.096 | 1
Instrument 1 [ECD] - Running IB71D1704 [Run 78]...
Start
EZChrom Chromatography...
Method: 6071d17.met
Untitled - Paint
Wednesday, April 18, 2007
4:08 PM

5037

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
PESTICIDES

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KE01

Method File: 6071D17 ; 5471D17

Analytical Batch: KE01003A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	ICD17	~~4/17/07~~ 4/17/07 4
5471D17	↓	4/17/07

STANDARDS ID			Conc (µg/L)
Hexane	45059		N/A
1660 ICAL	SSIB-05-62-2		100-2000 ppb
1254 ↓	↓	63-1	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

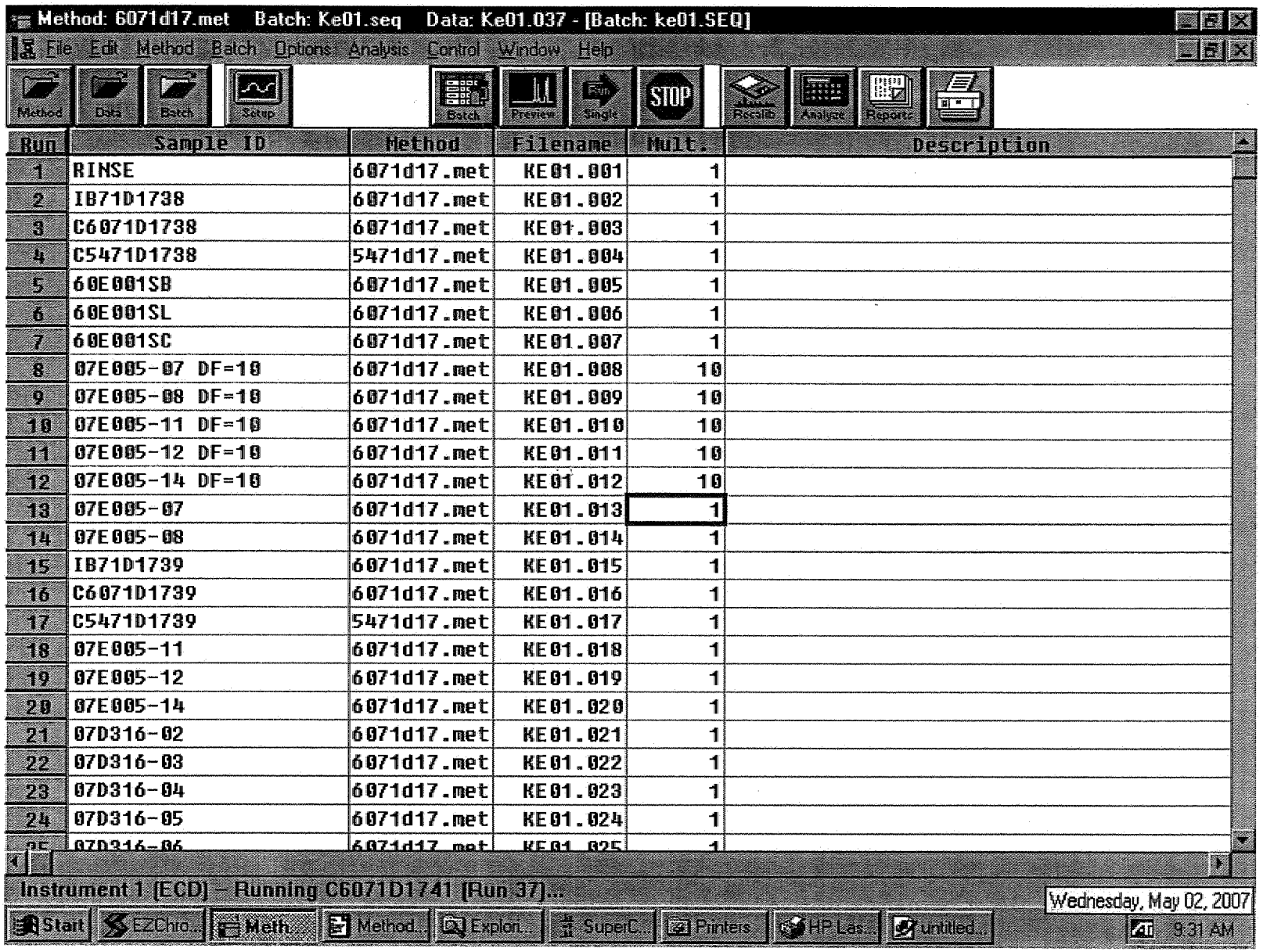
ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC_4_Pesticides	
☐	

Analyzed By: JH Date: 5/1/07

Date Disposed: Disposed By:

This page is checked during data review.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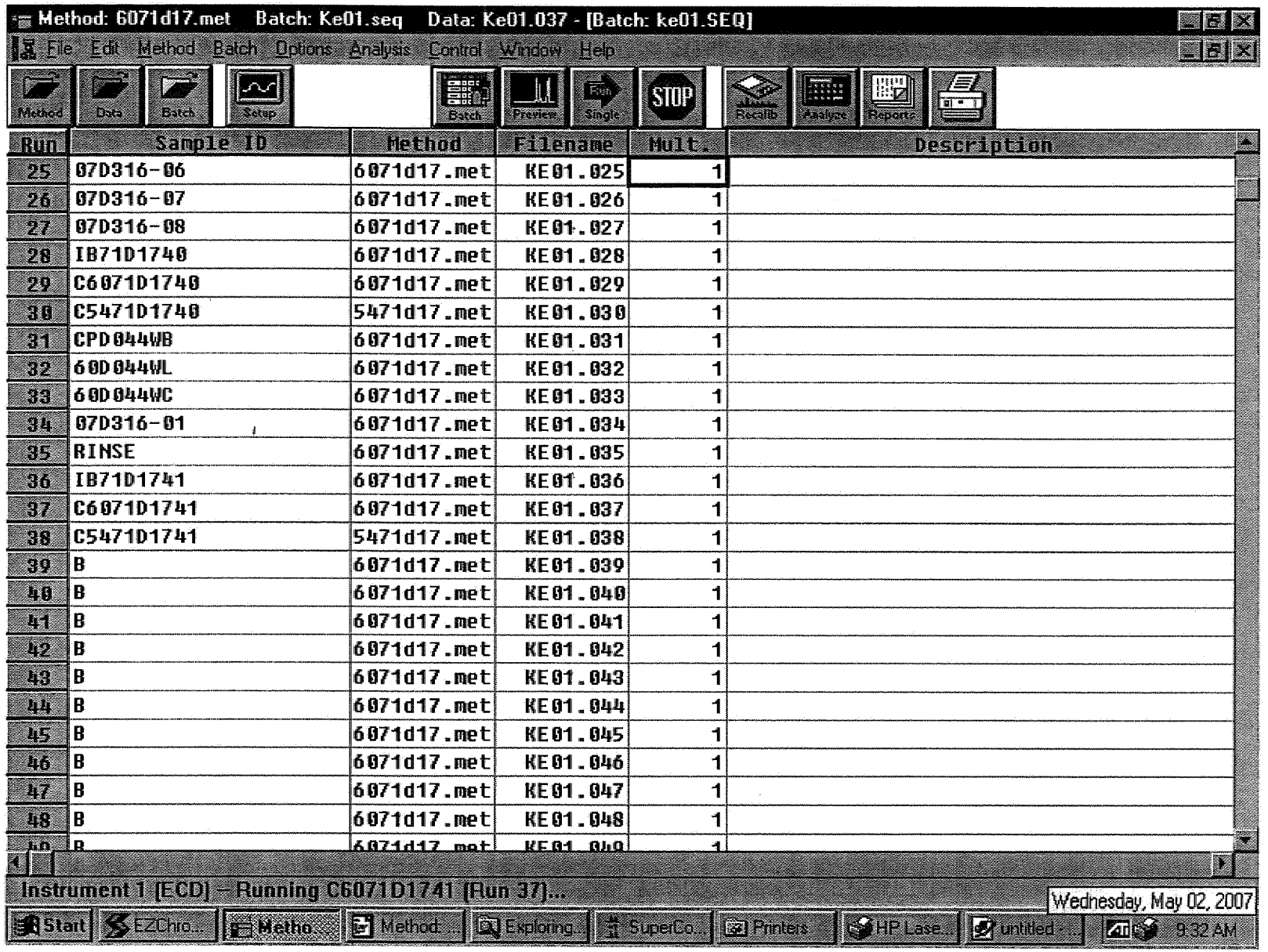
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyze
Report
Run | Sample ID | Method | Filename | Mult. | Description
1 | RINSE | 6071d17.met | KE01.001 | 1
2 | IB71D1738 | 6071d17.met | KE01.002 | 1
3 | C6071D1738 | 6071d17.met | KE01.003 | 1
4 | C5471D1738 | 5471d17.met | KE01.004 | 1
5 | 60E001SB | 6071d17.met | KE01.005 | 1
6 | 60E001SL | 6071d17.met | KE01.006 | 1
7 | 60E001SC | 6071d17.met | KE01.007 | 1
8 | 07E005-07 DF=10 | 6071d17.met | KE01.008 | 10
9 | 07E005-08 DF=10 | 6071d17.met | KE01.009 | 10
10 | 07E005-11 DF=10 | 6071d17.met | KE01.010 | 10
11 | 07E005-12 DF=10 | 6071d17.met | KE01.011 | 10
12 | 07E005-14 DF=10 | 6071d17.met | KE01.012 | 10
13 | 07E005-07 | 6071d17.met | KE01.013 | 1
14 | 07E005-08 | 6071d17.met | KE01.014 | 1
15 | IB71D1739 | 6071d17.met | KE01.015 | 1
16 | C6071D1739 | 6071d17.met | KE01.016 | 1
17 | C5471D1739 | 5471d17.met | KE01.017 | 1
18 | 07E005-11 | 6071d17.met | KE01.018 | 1
19 | 07E005-12 | 6071d17.met | KE01.019 | 1
20 | 07E005-14 | 6071d17.met | KE01.020 | 1
21 | 07D316-02 | 6071d17.met | KE01.021 | 1
22 | 07D316-03 | 6071d17.met | KE01.022 | 1
23 | 07D316-04 | 6071d17.met | KE01.023 | 1
24 | 07D316-05 | 6071d17.met | KE01.024 | 1
Instrument 1 (ECD) - Running C6071D1741 [Run 37]...
Wednesday, May 02, 2007
Start EZChro... Meth... Method... Explori... SuperC... Printers HP Las... untitled...
9:31 AM


Method: 6071d17.met Batch: Ke01.seq Data: Ke01.037 - [Batch: ke01.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | 07D316-06 | 6071d17.met | KE01.025 | 1
26 | 07D316-07 | 6071d17.met | KE01.026 | 1
27 | 07D316-08 | 6071d17.met | KE01.027 | 1
28 | IB71D1740 | 6071d17.met | KE01.028 | 1
29 | C6071D1740 | 6071d17.met | KE01.029 | 1
30 | C5471D1740 | 5471d17.met | KE01.030 | 1
31 | CPD044WB | 6071d17.met | KE01.031 | 1
32 | 60D044WL | 6071d17.met | KE01.032 | 1
33 | 60D044WC | 6071d17.met | KE01.033 | 1
34 | 07D316-01 | 6071d17.met | KE01.034 | 1
35 | RINSE | 6071d17.met | KE01.035 | 1
36 | IB71D1741 | 6071d17.met | KE01.036 | 1
37 | C6071D1741 | 6071d17.met | KE01.037 | 1
38 | C5471D1741 | 5471d17.met | KE01.038 | 1
39 | B | 6071d17.met | KE01.039 | 1
40 | B | 6071d17.met | KE01.040 | 1
41 | B | 6071d17.met | KE01.041 | 1
42 | B | 6071d17.met | KE01.042 | 1
43 | B | 6071d17.met | KE01.043 | 1
44 | B | 6071d17.met | KE01.044 | 1
45 | B | 6071d17.met | KE01.045 | 1
46 | B | 6071d17.met | KE01.046 | 1
47 | B | 6071d17.met | KE01.047 | 1
48 | B | 6071d17.met | KE01.048 | 1
Instrument 1 (ECD) - Running C6071D1741 (Run 37)...
Wednesday, May 02, 2007
Start
EZChro...
Metho...
Method:...
Exploring...
SuperCo...
Printers
HP Lase...
untitled -...
9:32 AM

EXTRACTION LOG

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☒ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: Water Starting Date: 4/30/07 Time: 17:00 Ending Date: 5/01/07 Time: ~~9:00~~ 11:00 Book # ECP-030

PREPARATION BATCH * LZ 4/30 CPD044W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	CPD044-WB	N/A	1000	—	10		
*02	-WL*		1000	—	10		
*03	WC*		1000	—	10		
*04	60D044-WL▼		1000	—	10		
*05	-WC▼		1000	—	10		
*06	07D296-01		1040	7	10		
*07	-02		1040	7	10		
*08	-03		1030	7	10		
*09	-04		1030	7	10		
*10	-05		1020	7	10		
*11	-06		1040	7	10		
*12	-07		1030	7	10		
*13	07D316-01		1040	6	10		
*14							
*15							
*16							
*17							
*18							
*19							
*20							
*21							
*22		SD	05/01/07				
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID SD 5/01/07	Amount Added (ml)
Surrogate	SS1B-05-67-1	1.0
LCS/MS full list (Pest*)	SS1B-05-60-3	2.5
LCS (PCB▼)	SS1B-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	—
NaOH	—
Silica Sand	

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3	35	35
4	35	35
5	60	60

Comments: Test thermometer = T_1

Prepared By: TZ Checked By: JM

Witnessed By: TZ Received By: [signature]

Standard Added By: JM Disposed By:

Extract Location: SE02-04 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W 205th St. Torrance, CA 90501

5042

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: Soil Starting Date: 5/1/07 Time: 15:00 Ending Date: 5/1/07 Time: 16:55 Book # ECP-03

PREPARATION BATCH # 60E0015

	Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60E001	– SB	9	30.00		10		
*02		– SL	3	30.01		10		
*03		– SC	3	30.02		10		
*04	07E005	– 07	1	30.00		10		
*05		–08	3	30.01		10		
*06		–11	3	30.02		10		
*07		–12	3	30.00		10		
*08		–14	3	30.01		10		
*09	07D316	–02	3	30.00		10		
*10		–03	1	30.02		10		
*11		–04	3	30.03		10		
*12		–05	3	30.01		10		
*13		–06	3	30.02		10		
*14		–07	1	30.01		10		
*15		–08	1	30.00		10		
*16								
*17								
*18								
*19								
*20								
*21								
*22								
*23			SD	5/1/07				
*24								
*25								
*26								
*27								
*28								
*29								
*30								

Standards	ID	Amount Added (ml)
Surrogate	SSIB-05-67-1	1.0
LCS/MS	SSIB-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	460806 19
H_2SO_4	46023
NaOH	–
Silica Sand	44273

TUNING

Sonicator #	Reading
1	NA
3	89%

Concentrator Water Bath Temp.(oC)

1	35	35
2		
3	35	35
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: YK/SD Checked By: ML

Witnessed By: SD Received By: JC 5/1/07

Standard Added By: YK Disposed By:

Extract Location: SE02-5 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07E016**

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GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3520C/3550B/8082	5000 – 5045
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8030
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-24-2007
EMAX Batch No.: 07E016

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 05/01/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
H49-HSAS7-15-16.5	E016-01	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS7-45-46.5	E016-02	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS7-30-31.5	E016-03	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS7-5-6.5	E016-04	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS13-15-16.5	E016-05	04/27/07	SOIL	PERCHLORATE BY IC
				POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS13-5-6.5	E016-06	04/27/07	SOIL	HOLD
H49-HSAS13-25-26.5	E016-07	04/27/07	SOIL	PERCHLORATE BY IC
				POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS8-10-11.5	E016-08	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS8-25-26.5	E016-09	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS8-40-41.5	E016-10	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS13-20-21.5	E016-11	04/27/07	SOIL	PERCHLORATE BY IC
				POLYCHLORINATED BIPHENYLS (PCBS)
LEB2-042707	E016-12	04/27/07	WATER	POLYCHLORINATED BIPHENYLS (PCBS)
LEB1-042707	E016-13	04/27/07	WATER	PERCHLORATE BY IC
H49-HSAS7-15-16.5MS	E016-01M	04/27/07	SOIL	PERCHLORATE BY IC
H49-HSAS7-15-16.5DUP	E016-01D	04/27/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

for

Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

TT-0618

SHIP TO: EMAX

07E016

DATE 4-27-07 PAGE 1 OF 2

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation Site 1

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures): Holly A. H

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	8082 PCB	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	H49-HSAS7-15-16.5	4-27-07	1146	X	X	U	S	G	3	NR	MS/MSD
2.	H49-HSAS7-45-46.5		1221	X	X	U	S	G	1	NR	
3.	H49-HSAS7-30-31.5		1202	X	X	↓	↓	↓	↓	↓	
4.	H49-HSAS7-5-6.5		1130	X	X						
5.	H49-HSAS13-15-16.5		1546	X	X	U	S	G	1	NR	
6.	H49-HSAS13-5-6.5		1534								Hold until further notice
7.	H49-HSAS13-25-26.5		1602	X	X						
8.	H49-HSAS8-10-11.5		0917	X							
9.	H49-HSAS8-25-26.5		0940	X							
10.	H49-HSAS8-40-41.5	↓	1005	X		↓	↓	↓	↓	↓	

TURN-AROUND TIME
Standard

FILTERING:
☒ FILTERED ☐ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY	SIGNATURE		COMPANY	DATE	TIME
Holly Hawk	Holly A H	TETRA TECH, INC.		4-27-07	1910
RECEIVED BY: A. GALICIA	SIGNATURE		COMPANY EMAX	DATE 5/1/07	TIME 1505
RELINQUISHED BY: A. GALICIA	SIGNATURE		COMPANY EMAX	DATE 5/1/07	TIME 18:18
RECEIVED BY: A. FLORENDO	SIGNATURE		COMPANY EMAX	DATE 5-1-07	TIME 18:18

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 12/15

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements:

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

① T-3.4 ② T-3.5°C ③ T3.0°C

X:\GIS\ATT-MISC\COOR.CDR

T0617

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

07E016

DATE 4-27-07 PAGE 2 OF 2

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation Site 1

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures): Holly A. Hawkins

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	8082 PCB	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
11	H49-HSAS13-20-21.5	4-27-07	1553	X	X	U	S	G	1	NR
12.	LEB2-042707	↓	0835	X		U	W	G	1	NR
13.	LEB1-042707	↓	0830		X	U	W	P	1	NR
4.										
5.										
6.										
7.										
8.										
9.										
10.										

HH

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
Holly Hawkins	Holly A. Hawkins	TETRA TECH, INC.	4-27-07	1910	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 3/15
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 15:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 18:18	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: A. FLORENDO	SIGNATURE	COMPANY: EMAX	DATE: 5-1-07	TIME: 1818	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

2001

X:\GIS\ATT-MISC\COCR.CDR

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	SHP WC	ECN 07E016
☐ Client Delivery		Recepient A. FLORENDO
☐ Third Party		Date 050107
		Time 1618

COC Inspection

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☑ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☐ TAT

Safety Issues

☐ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☑ Lightly
Temperatures	☑ Cooler 1 3.4 °C	☑ Cooler 2 3.5 °C	☑ Cooler 3 3.0 °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ SRF _____ PM _____

Date 5/1/07 5/1/07 Date 5/2/07 Date 5/2/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container
C2	Broken container
C3	Leaking container
D1	Date/and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8082
PCBs

SDG#: 07E016

5000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E016

METHOD 3520C/3550B/8082
PCBs

One (1) water and three (3) soil samples were received on 05/01/07 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07E016
Instrument ID : GCT071

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	60E008WB	1	NA	05/04/0713:35	05/03/0717:00	KE04008A	KE04002A	60E008W	Method Blank
LCS1W	60E008WL	1	NA	05/04/0713:57	05/03/0717:00	KE04009A	KE04002A	60E008W	Lab Control Sample (LCS)
LCD1W	60E008WC	1	NA	05/04/0714:18	05/03/0717:00	KE04010A	KE04002A	60E008W	LCS Duplicate
LEB2-042707	E016-12	0.94	NA	05/04/0716:28	05/03/0717:00	KE04016A	KE04002A	60E008W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60E005SB	1	NA	05/05/0701:26	05/03/0714:30	KE04041A	KE04039A	60E005S	Method Blank
LCS1S	60E005SL	1	NA	05/05/0701:47	05/03/0714:30	KE04042A	KE04039A	60E005S	Lab Control Sample (LCS)
LCD1S	60E005SC	1	NA	05/05/0702:09	05/03/0714:30	KE04043A	KE04039A	60E005S	LCS Duplicate
H49-HSAS13-15-16.5	E016-05	1	31.4	05/05/0710:46	05/03/0714:30	KE04067A	KE04065A	60E005S	Field Sample
H49-HSAS13-25-26.5	E016-07	1	28.6	05/05/0711:08	05/03/0714:30	KE04068A	KE04065A	60E005S	Field Sample
H49-HSAS13-20-21.5	E016-11	1	25.1	05/05/0711:29	05/03/0714:30	KE04069A	KE04065A	60E005S	Field Sample

FN - Filename
% Moist - Percent Moisture

5092

SAMPLE RESULTS

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/27/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E016	Date Extracted: 05/03/07 14:30
Sample ID: H49-HSAS13-15-16.5	Date Analyzed: 05/05/07 10:46
Lab Samp ID: E016-05	Dilution Factor: 1
Lab File ID: KE04067A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : 31.4
Calib. Ref.: KE04065A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	73	29 | 29
PCB-1221	(ND) | ND	73	29 | 29
PCB-1232	(ND) | ND	73	29 | 29
PCB-1242	(ND) | ND	73	29 | 29
PCB-1248	(ND) | ND	73	29 | 29
PCB-1254	(ND) | ND	73	29 | 29
PCB-1260	(ND) | ND	73	29 | 29

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(92) | 88	10-160
DECACHLOROBIPHENYL	(126) | 123	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/27/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/01/07
Batch No.	: 07E016	Date Extracted:	05/03/07 14:30
Sample ID:	H49-HSAS13-25-26.5	Date Analyzed:	05/05/07 11:08
Lab Samp ID:	E016-07	Dilution Factor:	1
Lab File ID:	KE04068A	Matrix :	SOIL
Ext Btch ID:	60E005S	% Moisture :	28.6
Calib. Ref.:	KE04065A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	70	28 | 28
PCB-1221	(ND) | ND	70	28 | 28
PCB-1232	(ND) | ND	70	28 | 28
PCB-1242	(ND) | ND	70	28 | 28
PCB-1248	(ND) | ND	70	28 | 28
PCB-1254	(ND) | ND	70	28 | 28
PCB-1260	(ND) | ND	70	28 | 28

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(91) | 86	10-160
DECACHLOROBIPHENYL	(127) | 123	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/27/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E016	Date Extracted: 05/03/07 14:30
Sample ID: H49-HSAS13-20-21.5	Date Analyzed: 05/05/07 11:29
Lab Samp ID: E016-11	Dilution Factor: 1
Lab File ID: KE04069A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : 25.1
Calib. Ref.: KE04065A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	67	27 | 27
PCB-1221	(ND) | ND	67	27 | 27
PCB-1232	(ND) | ND	67	27 | 27
PCB-1242	(ND) | ND	67	27 | 27
PCB-1248	(ND) | ND	67	27 | 27
PCB-1254	(ND) | ND	67	27 | 27
PCB-1260	(ND) | ND	67	27 | 27

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(103) | 95	10-160
DECACHLOROBIPHENYL	(130) | 126	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/27/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E016	Date Extracted: 05/03/07 17:00
Sample ID: LEB2-042707	Date Analyzed: 05/04/07 16:28
Lab Samp ID: E016-12	Dilution Factor: 0.94
Lab File ID: KE04016A	Matrix : WATER
Ext Btch ID: 60E008W	% Moisture : NA
Calib. Ref.: KE04002A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	0.94	0.47 | 0.47
PCB-1221	(ND) | ND	0.94	0.47 | 0.47
PCB-1232	(ND) | ND	0.94	0.47 | 0.47
PCB-1242	(ND) | ND	0.94	0.47 | 0.47
PCB-1248	(ND) | ND	0.94	0.47 | 0.47
PCB-1254	(ND) | ND	0.94	0.47 | 0.47
PCB-1260	(ND) | ND	0.94	0.47 | 0.47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(34) | 31	30-140
DECACHLOROBIPHENYL	(78) | 79	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/03/07
Batch No. : 07E016	Date Extracted: 05/03/07 17:00
Sample ID: MBLK1W	Date Analyzed: 05/04/07 13:35
Lab Samp ID: 60E008WB	Dilution Factor: 1
Lab File ID: KE04008A	Matrix : WATER
Ext Btch ID: 60E008W	% Moisture : NA
Calib. Ref.: KE04002A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.0	0.50 | 0.50
PCB-1221	(ND) | ND	1.0	0.50 | 0.50
PCB-1232	(ND) | ND	1.0	0.50 | 0.50
PCB-1242	(ND) | ND	1.0	0.50 | 0.50
PCB-1248	(ND) | ND	1.0	0.50 | 0.50
PCB-1254	(ND) | ND	1.0	0.50 | 0.50
PCB-1260	(ND) | ND	1.0	0.50 | 0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(77) | 78	30-130
DECACHLOROBIPHENYL	(105) | 96	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E016
METHOD: METHOD 3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	60E008WB	60E008WL	60E008WC		
LAB FILE ID:	KE04008A	KE04009A	KE04010A		
DATE EXTRACTED:	05/03/0717:00	05/03/0717:00	05/03/0717:00	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/0713:35	05/04/0713:57	05/04/0714:18	DATE RECEIVED:	05/03/07
PREP. BATCH:	60E008W	60E008W	60E008W		
CALIB. REF:	KE04002A	KE04002A	KE04002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5.00	(4.18) | 3.49	(84) | 70	5.00	(3.19) | 3.09	(64) | 62	(27) | 12	50-130	30
PCB-1260	(ND) | ND	5.00	(3.51) | 3.37	(70.2) | 67*	5.00	(4.22) | 4.29	(84) | 86	(18) | 24	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	0.400	(0.206) | 0.172	(51) | 43	0.400	(0.167) | 0.176	(42) | 44	30-130
Decachlorobiphenyl	0.400	(0.310) | 0.296	(78) | 74	0.400	(0.330) | 0.363	(83) | 91	40-150

SGS

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/03/07
Batch No. : 07E016	Date Extracted: 05/03/07 14:30
Sample ID: MBLK1S	Date Analyzed: 05/05/07 01:26
Lab Samp ID: 60E005SB	Dilution Factor: 1
Lab File ID: KE04041A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : NA
Calib. Ref.: KE04039A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	50	20|20
PCB-1221	(ND)|ND	50	20|20
PCB-1232	(ND)|ND	50	20|20
PCB-1242	(ND)|ND	50	20|20
PCB-1248	(ND)|ND	50	20|20
PCB-1254	(ND)|ND	50	20|20
PCB-1260	(ND)|ND	50	20|20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(86)|82	40-130
DECACHLOROBIPHENYL	(115)|115	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E016
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60E005SB	60E005SL	60E005SC		
LAB FILE ID:	KE04041A	KE04042A	KE04043A		
DATE EXTRACTED:	05/03/0714:30	05/03/0714:30	05/03/0714:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/05/0701:26	05/05/0701:47	05/05/0702:09	DATE RECEIVED:	05/03/07
PREP. BATCH:	60E005S	60E005S	60E005S		
CALIB. REF:	KE04039A	KE04039A	KE04039A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(167) | 145	(100) | 87	167	(165) | 156	(99) | 94	(1) | 7	50-130	50
PCB-1260	(ND) | ND	167	(182) | 160	(109) | 96	167	(180) | 166	(108) | 100	(1) | 4	70-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(11.5) | 11.1	(86) | 83	13.3	(11.3) | 11.0	(85) | 82	40-130
Decachlorobiphenyl	13.3	(16.0) | 16.0	(120) | 120	13.3	(15.2) | 15.3	(114) | 114	40-160

562

INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
LFID & Datetime: KD17002A 04/17/07 11:05
LFID & Datetime: KD17003A 04/17/07 11:27
LFID & Datetime: KD17004A 04/17/07 11:48
LFID & Datetime: KD17005A 04/17/07 12:10
LFID & Datetime: KD17006A 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1222.85	1270.50	1181.34	1023.15	923.31	1124.23	13.0
PCB1016-2	20.00	1405.05	1541.56	1431.64	1298.23	1179.83	1371.26	10.0
PCB1016-3	20.00	5276.95	4988.12	4510.80	3878.04	3478.53	4426.49	16.9
PCB1016-4	20.00	1289.20	1511.80	1422.99	1326.13	1201.69	1350.36	8.9
PCB1016-5	20.00	1166.50	1430.44	1181.47	1212.29	1068.37	1211.81	11.0
PCB1260-1	20.00	3494.15	3529.02	3133.71	2851.14	2409.67	3083.54	15.2
PCB1260-2	20.00	5729.00	5652.56	5436.91	4869.33	4439.66	5225.49	10.6
PCB1260-3	20.00	3469.70	3441.72	3396.39	3041.85	2752.14	3220.36	9.7
PCB1260-4	20.00	7270.55	8008.74	7756.66	7290.90	6554.21	7376.21	7.5
PCB1260-5	20.00	4389.70	4642.28	4442.28	4319.34	4017.51	4362.22	5.2

SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10592	10679	10499	9850	9496	10223	5.1
DCB	5.00	14372	14235	13795	12178	11471	13210	9.9

MW 4-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
LFID & Datetime: KD17002B 04/17/07 11:05
LFID & Datetime: KD17003B 04/17/07 11:27
LFID & Datetime: KD17004B 04/17/07 11:48
LFID & Datetime: KD17005B 04/17/07 12:10
LFID & Datetime: KD17006B 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1454.55	1424.40	1292.03	1118.69	998.03	1257.54	15.6
PCB1016-2	20.00	2781.45	2675.90	2441.52	2076.26	1841.45	2363.32	16.8
PCB1016-3	20.00	5437.50	4996.70	4563.71	3882.20	3497.18	4475.46	17.7
PCB1016-4	20.00	1510.30	1427.08	1400.76	1267.94	1181.01	1357.42	9.7
PCB1016-5	20.00	1152.80	1291.20	1216.05	1177.94	1124.06	1192.41	5.4
PCB1260-1	20.00	4650.55	4444.38	4379.77	3723.10	3400.99	4119.76	12.9
PCB1260-2	20.00	3411.65	3196.48	3273.92	2870.77	2590.60	3068.68	10.9
PCB1260-3	20.00	3093.25	2986.02	3162.32	2717.71	2477.88	2887.43	9.9
PCB1260-4	20.00	7807.60	7652.78	7640.60	6670.01	6202.79	7194.76	9.9
PCB1260-5	20.00	5368.85	5467.36	5552.58	5030.22	4645.39	5212.88	7.2

SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10583	10930	11041	10247	10105	10581	3.9
DCB	5.00	14855	14247	13516	12432	11744	13359	9.6

pw 4-19-07

5015

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007A 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			954.565	5		15
PCB1260				1000.0			1003.852	0		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.333	4.282	4.384	50.0	10223.2	501063	49.01	-2		15
DCB	12.783	12.708	12.858	50.0	13210.2	726987	55.03	10		15

4-19-07

5017

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007B 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			956.404	4		15
PCB1260				1000.0			978.074	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.992	2.963	3.021	50.0	10581.1	503048	47.54	-5		15
DCB	9.700	9.657	9.743	50.0	13358.7	701265	52.49	5		15

dw 4-19-07

5018

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04002A 05/04/2007 10:57
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1050.900	5		15
PCB1260				1000.0			1083.800	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.275	4.224	4.326	50.0	10223.2	574781	56.22	12		15
DCB	12.633	12.558	12.708	50.0	13210.2	640969	48.52	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04002B 05/04/2007 10:57
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1027.510	3		15
PCB1260				1000.0			1111.918	11		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	574319	54.28	9		15
DCB	9.592	9.549	9.635	50.0	13358.7	646485	48.39	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04013A 05/04/2007 15:23
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1045.370	5		15
PCB1260				1000.0			1067.003	7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.275	4.224	4.326	50.0	10223.2	565510	55.32	11		15
DCB	12.617	12.542	12.692	50.0	13210.2	654212	49.52	-1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04013B 05/04/2007 15:23
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1014.216	1		15
PCB1260				1000.0			1037.671	4		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	561268	53.04	6		15
DCB	9.592	9.549	9.635	50.0	13358.7	659256	49.35	-1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04039A 05/05/2007 00:43
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1062.599	6		15
PCB1260				1000.0			1134.596	13		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	587237	57.44	15		15
DCB	12.608	12.533	12.683	50.0	13210.2	699156	52.93	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04039B 05/05/2007 00:43
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1042.991	4		15
PCB1260				1000.0			1096.431	10		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.933	2.904	2.962	50.0	10581.1	585860	55.37	11		15
DCB	9.583	9.540	9.626	50.0	13358.7	708317	53.02	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04052A 05/05/2007 05:22
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1011.865	1		15
PCB1260				1000.0			1082.690	8		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.267	4.216	4.318	50.0	10223.2	576437	56.38	13		15
DCB	12.608	12.533	12.683	50.0	13210.2	810009	61.32	23	*	15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04052B 05/05/2007 05:22
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1018.668	2		15
PCB1260				1000.0			1117.488	12		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.925	2.896	2.954	50.0	10581.1	568688	53.75	7		15
DCB	9.583	9.540	9.626	50.0	13358.7	706376	52.88	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04065A 05/05/2007 10:03
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1064.060	6		15
PCB1260				1000.0			1075.921	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	582746	57.00	14		15
DCB	12.600	12.525	12.675	50.0	13210.2	702082	53.15	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04065B 05/05/2007 10:03
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1035.265	4		15
PCB1260				1000.0			1144.496	14		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.925	2.896	2.954	50.0	10581.1	571913	54.05	8		15
DCB	9.575	9.532	9.618	50.0	13358.7	703473	52.66	5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04088A 05/05/2007 18:19
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1027.558	3		15
PCB1260				1000.0			1088.644	9		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	565176	55.28	11		15
DCB	12.608	12.533	12.683	50.0	13210.2	659733	49.94	-0		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04088B 05/05/2007 18:19
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1006.473	1		15
PCB1260				1000.0			1066.425	7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	552459	52.21	4		15
DCB	9.583	9.540	9.626	50.0	13358.7	668146	50.02	0		15

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD17

Method File: 6071D17, 5471D17, 4871D17

Analytical Batch: KD17026A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4/17/07
54 ↓	↓	↓
48 ↓		

STANDARDS ID		Conc (µg/L)
Hexane	450559	N/A
1660 ICAL	SS1B-05-62-2	100-2000ppb
↓ ICV	↓ 3	
1248 ICAL	SS1B-05-63-3	
↓ ICV	↓ 64-1	
1254 ICAL	SS1B-05-63-1	
↓ ICV	↓ -2	
1221 ICAL	SS1B-05-54-1	100-2000ppb
1232	2	
1242	↓ 3	
1262	↓ SS1B-05-64-2	
1268 ICV	↓ 3	

Column	A. RTX CLPEST I	B. RTX CLPEST II

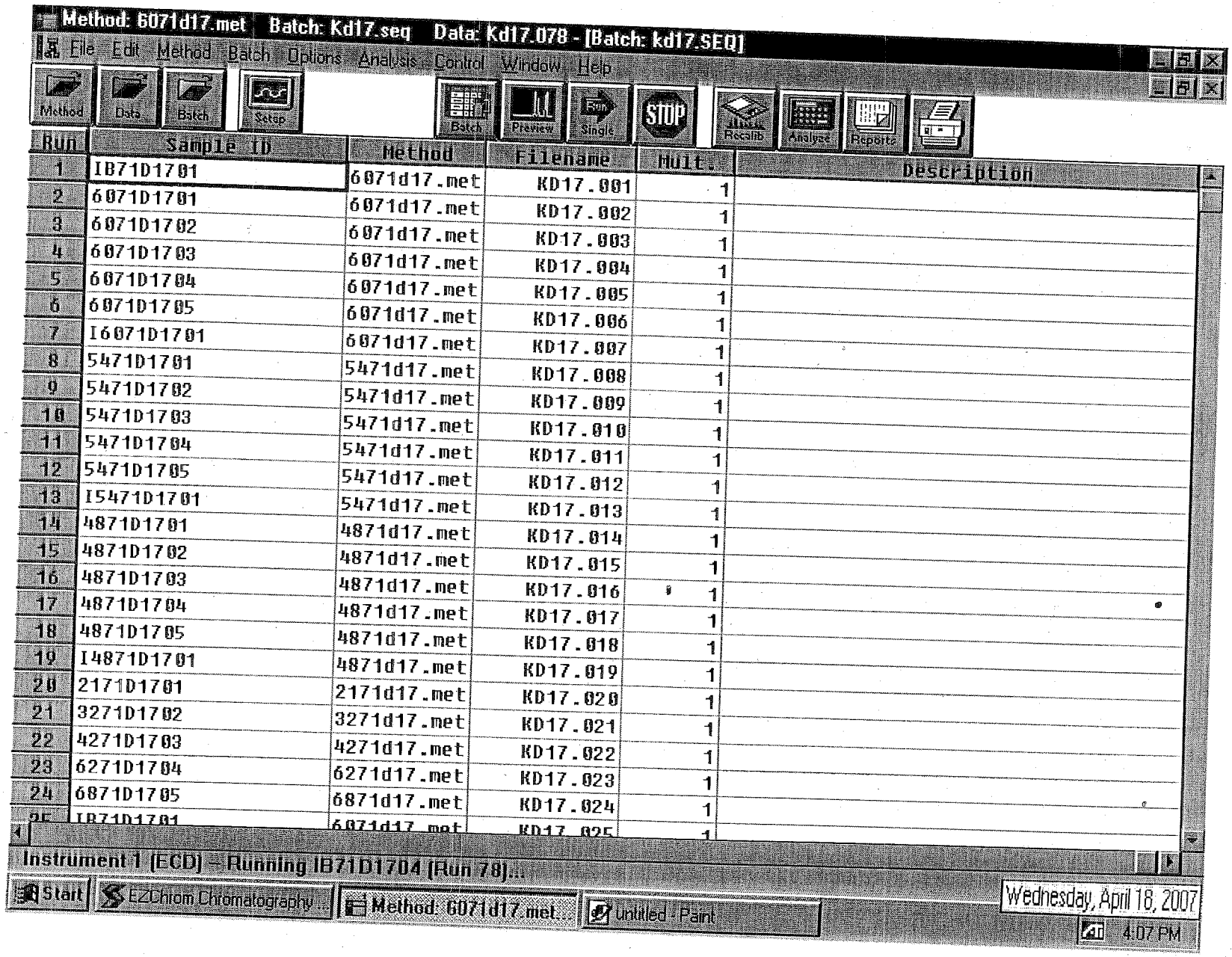
ELECTRONIC DATA ARCHIVAL

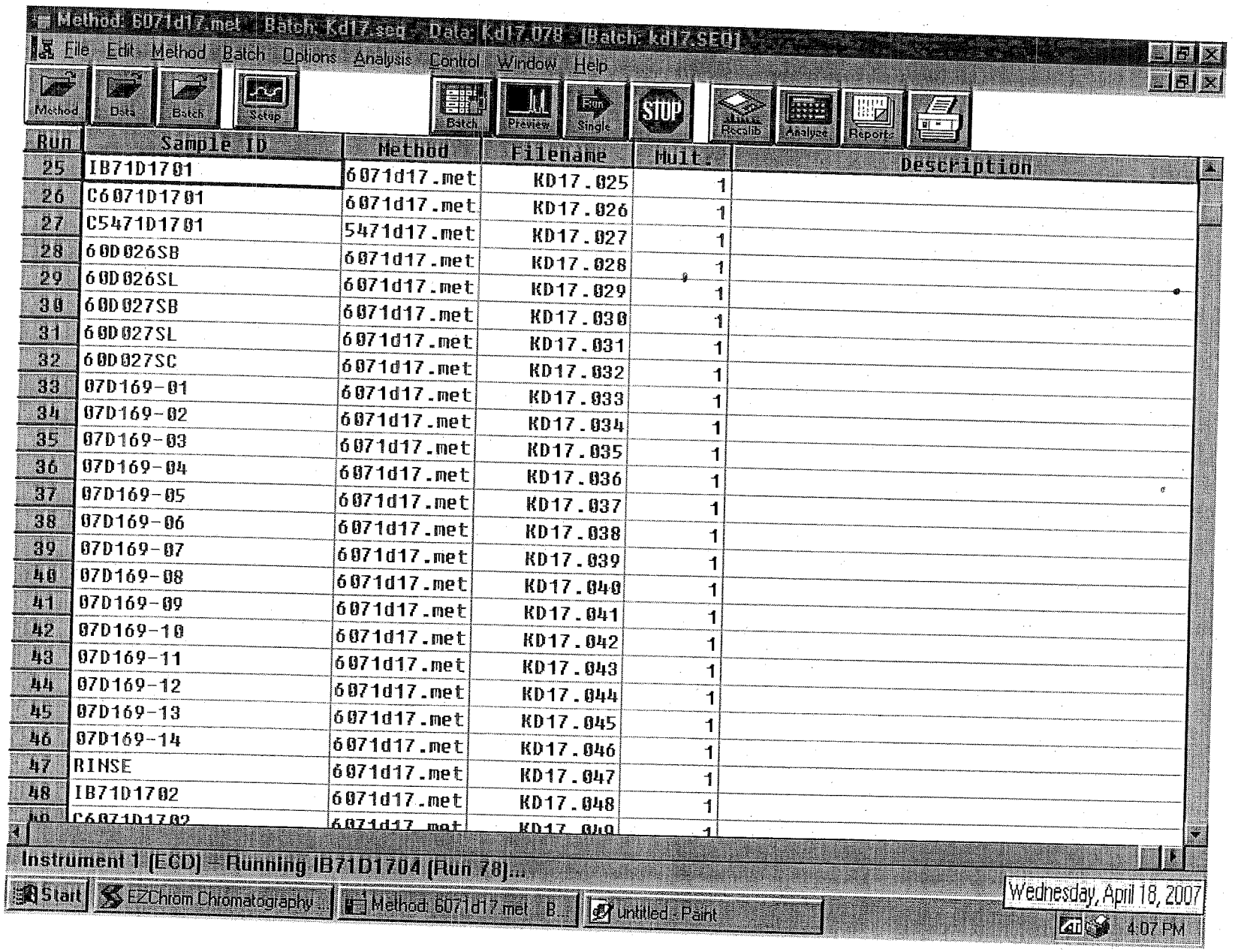
Location	Date
☑ EZC_4_Pesticides	
☐	

Analyzed By: JC Date: 4/17/07

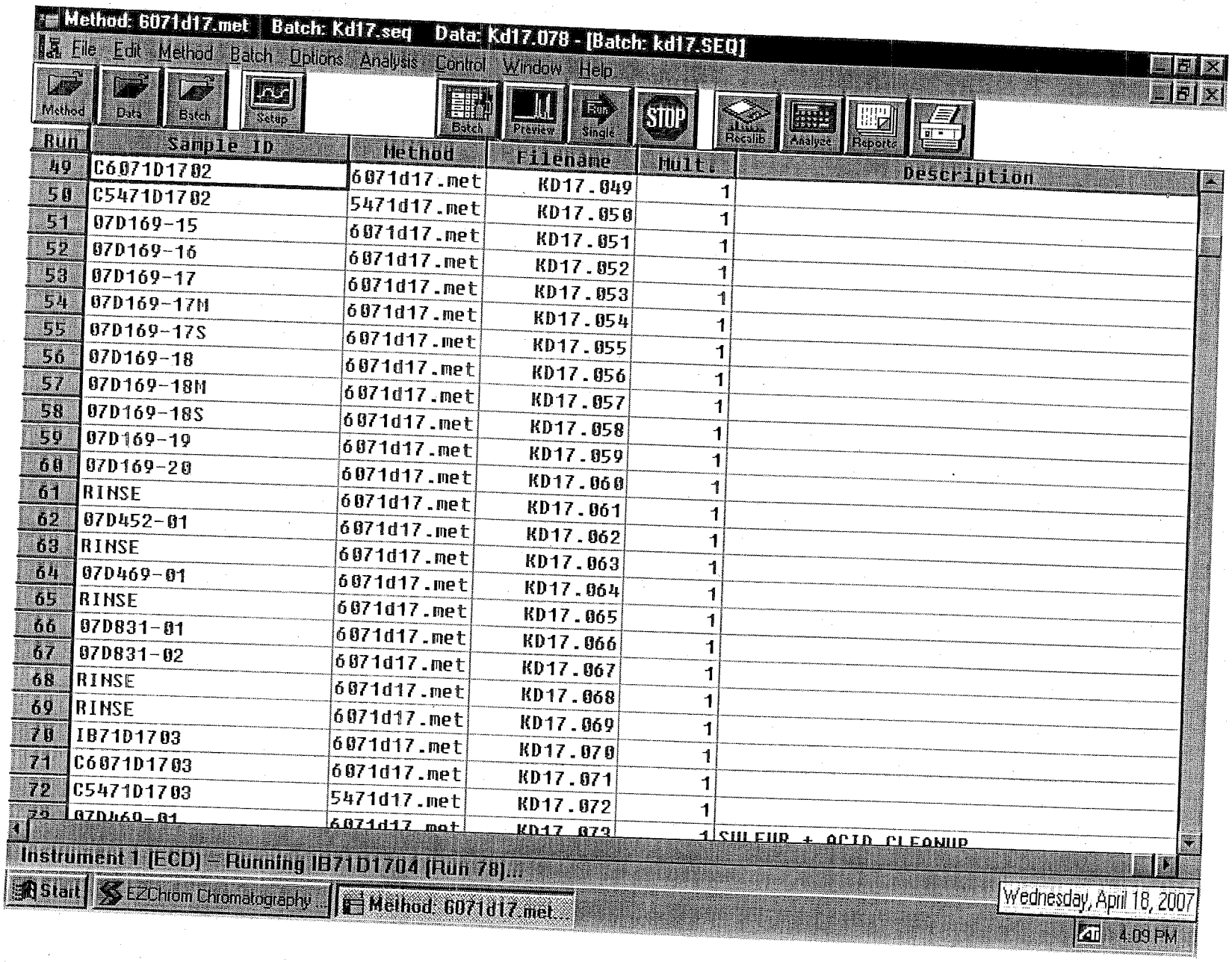
Date Disposed: Disposed By:

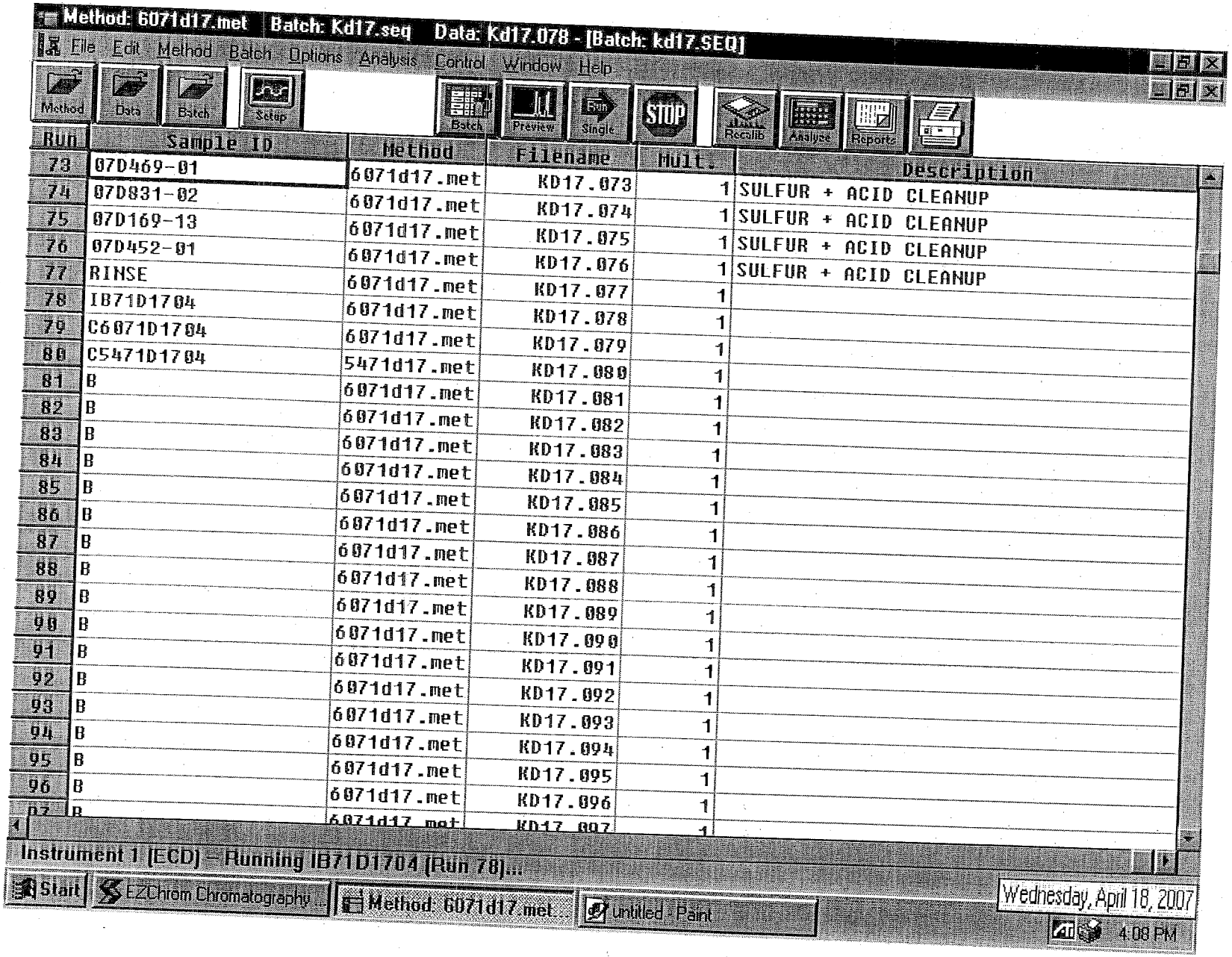
This page is checked during data review.


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run
Single
STOP
Recalib
Analyse
Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1701 | 6071d17.met | KD17.001 | 1
2 | 6071D1701 | 6071d17.met | KD17.002 | 1
3 | 6071D1702 | 6071d17.met | KD17.003 | 1
4 | 6071D1703 | 6071d17.met | KD17.004 | 1
5 | 6071D1704 | 6071d17.met | KD17.005 | 1
6 | 6071D1705 | 6071d17.met | KD17.006 | 1
7 | I6071D1701 | 6071d17.met | KD17.007 | 1
8 | 5471D1701 | 5471d17.met | KD17.008 | 1
9 | 5471D1702 | 5471d17.met | KD17.009 | 1
10 | 5471D1703 | 5471d17.met | KD17.010 | 1
11 | 5471D1704 | 5471d17.met | KD17.011 | 1
12 | 5471D1705 | 5471d17.met | KD17.012 | 1
13 | I5471D1701 | 5471d17.met | KD17.013 | 1
14 | 4871D1701 | 4871d17.met | KD17.014 | 1
15 | 4871D1702 | 4871d17.met | KD17.015 | 1
16 | 4871D1703 | 4871d17.met | KD17.016 | 1
17 | 4871D1704 | 4871d17.met | KD17.017 | 1
18 | 4871D1705 | 4871d17.met | KD17.018 | 1
19 | I4871D1701 | 4871d17.met | KD17.019 | 1
20 | 2171D1701 | 2171d17.met | KD17.020 | 1
21 | 3271D1702 | 3271d17.met | KD17.021 | 1
22 | 4271D1703 | 4271d17.met | KD17.022 | 1
23 | 6271D1704 | 6271d17.met | KD17.023 | 1
24 | 6871D1705 | 6871d17.met | KD17.024 | 1
Instrument 1 (ECD) - Running IB71D1704 [Run 78]...
Start
EZChrom Chromatography...
Method: 6071d17.met...
Untitled - Paint
Wednesday, April 18, 2007
4:07 PM


Method: 6071d17.met - Batch: Kd17.seq - Data: KD17078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run Single
STOP
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | IB71D1701 | 6071d17.met | KD17.025 | 1
26 | C6071D1701 | 6071d17.met | KD17.026 | 1
27 | C5471D1701 | 5471d17.met | KD17.027 | 1
28 | 60D026SB | 6071d17.met | KD17.028 | 1
29 | 60D026SL | 6071d17.met | KD17.029 | 1
30 | 60D027SB | 6071d17.met | KD17.030 | 1
31 | 60D027SL | 6071d17.met | KD17.031 | 1
32 | 60D027SC | 6071d17.met | KD17.032 | 1
33 | 07D169-01 | 6071d17.met | KD17.033 | 1
34 | 07D169-02 | 6071d17.met | KD17.034 | 1
35 | 07D169-03 | 6071d17.met | KD17.035 | 1
36 | 07D169-04 | 6071d17.met | KD17.036 | 1
37 | 07D169-05 | 6071d17.met | KD17.037 | 1
38 | 07D169-06 | 6071d17.met | KD17.038 | 1
39 | 07D169-07 | 6071d17.met | KD17.039 | 1
40 | 07D169-08 | 6071d17.met | KD17.040 | 1
41 | 07D169-09 | 6071d17.met | KD17.041 | 1
42 | 07D169-10 | 6071d17.met | KD17.042 | 1
43 | 07D169-11 | 6071d17.met | KD17.043 | 1
44 | 07D169-12 | 6071d17.met | KD17.044 | 1
45 | 07D169-13 | 6071d17.met | KD17.045 | 1
46 | 07D169-14 | 6071d17.met | KD17.046 | 1
47 | RINSE | 6071d17.met | KD17.047 | 1
48 | IB71D1702 | 6071d17.met | KD17.048 | 1
Instrument 1 (ECD) - Running IB71D1704 (Run 78)...
Start
EZChrom Chromatography ...
Method: 6071d17.met - B...
Untitled - Paint
Wednesday, April 18, 2007
4:07 PM

5035


Method: 6071d17.met
Batch: Kd17.seq
Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run Single
STOP
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | C6071D1702 | 6071d17.met | KD17.049 | 1
50 | C5471D1702 | 5471d17.met | KD17.050 | 1
51 | 07D169-15 | 6071d17.met | KD17.051 | 1
52 | 07D169-16 | 6071d17.met | KD17.052 | 1
53 | 07D169-17 | 6071d17.met | KD17.053 | 1
54 | 07D169-17M | 6071d17.met | KD17.054 | 1
55 | 07D169-17S | 6071d17.met | KD17.055 | 1
56 | 07D169-18 | 6071d17.met | KD17.056 | 1
57 | 07D169-18M | 6071d17.met | KD17.057 | 1
58 | 07D169-18S | 6071d17.met | KD17.058 | 1
59 | 07D169-19 | 6071d17.met | KD17.059 | 1
60 | 07D169-20 | 6071d17.met | KD17.060 | 1
61 | RINSE | 6071d17.met | KD17.061 | 1
62 | 07D452-01 | 6071d17.met | KD17.062 | 1
63 | RINSE | 6071d17.met | KD17.063 | 1
64 | 07D469-01 | 6071d17.met | KD17.064 | 1
65 | RINSE | 6071d17.met | KD17.065 | 1
66 | 07D831-01 | 6071d17.met | KD17.066 | 1
67 | 07D831-02 | 6071d17.met | KD17.067 | 1
68 | RINSE | 6071d17.met | KD17.068 | 1
69 | RINSE | 6071d17.met | KD17.069 | 1
70 | IB71D1703 | 6071d17.met | KD17.070 | 1
71 | C6071D1703 | 6071d17.met | KD17.071 | 1
72 | C5471D1703 | 5471d17.met | KD17.072 | 1
Instrument 1 [ECD] - Running IB71D1704 (Run 70)...
Start
EZChrom Chromatography...
Method: 6071d17.met...
Wednesday, April 18, 2007
4:09 PM


Method: 6071d17.met
Batch: Kd17.seq
Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run Single
STOP
RecalIB
Analyse
Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | 07D469-01 | 6071d17.met | KD17.073 | 1 | SULFUR + ACID CLEANUP
74 | 07D831-02 | 6071d17.met | KD17.074 | 1 | SULFUR + ACID CLEANUP
75 | 07D169-13 | 6071d17.met | KD17.075 | 1 | SULFUR + ACID CLEANUP
76 | 07D452-01 | 6071d17.met | KD17.076 | 1 | SULFUR + ACID CLEANUP
77 | RINSE | 6071d17.met | KD17.077 | 1
78 | IB71D1704 | 6071d17.met | KD17.078 | 1
79 | C6071D1704 | 6071d17.met | KD17.079 | 1
80 | C5471D1704 | 5471d17.met | KD17.080 | 1
81 | B | 6071d17.met | KD17.081 | 1
82 | B | 6071d17.met | KD17.082 | 1
83 | B | 6071d17.met | KD17.083 | 1
84 | B | 6071d17.met | KD17.084 | 1
85 | B | 6071d17.met | KD17.085 | 1
86 | B | 6071d17.met | KD17.086 | 1
87 | B | 6071d17.met | KD17.087 | 1
88 | B | 6071d17.met | KD17.088 | 1
89 | B | 6071d17.met | KD17.089 | 1
90 | B | 6071d17.met | KD17.090 | 1
91 | B | 6071d17.met | KD17.091 | 1
92 | B | 6071d17.met | KD17.092 | 1
93 | B | 6071d17.met | KD17.093 | 1
94 | B | 6071d17.met | KD17.094 | 1
95 | B | 6071d17.met | KD17.095 | 1
96 | B | 6071d17.met | KD17.096 | 1
Instrument 1 [ECD] - Running IB71D1704 [Run 78]...
Start
EZChrom Chromatography...
Method: 6071d17.met...
Untitled - Paint
Wednesday, April 18, 2007
4:08 PM

5937

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KE04

Method File: 607ID17, 547ID17

Analytical Batch: KE04003

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
607ID17	KD17	4-17-07
547ID17	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
1660 ICAL	SSIB-05-62-2	100-2000
1254 ICAL	SSIB-05-63-1	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

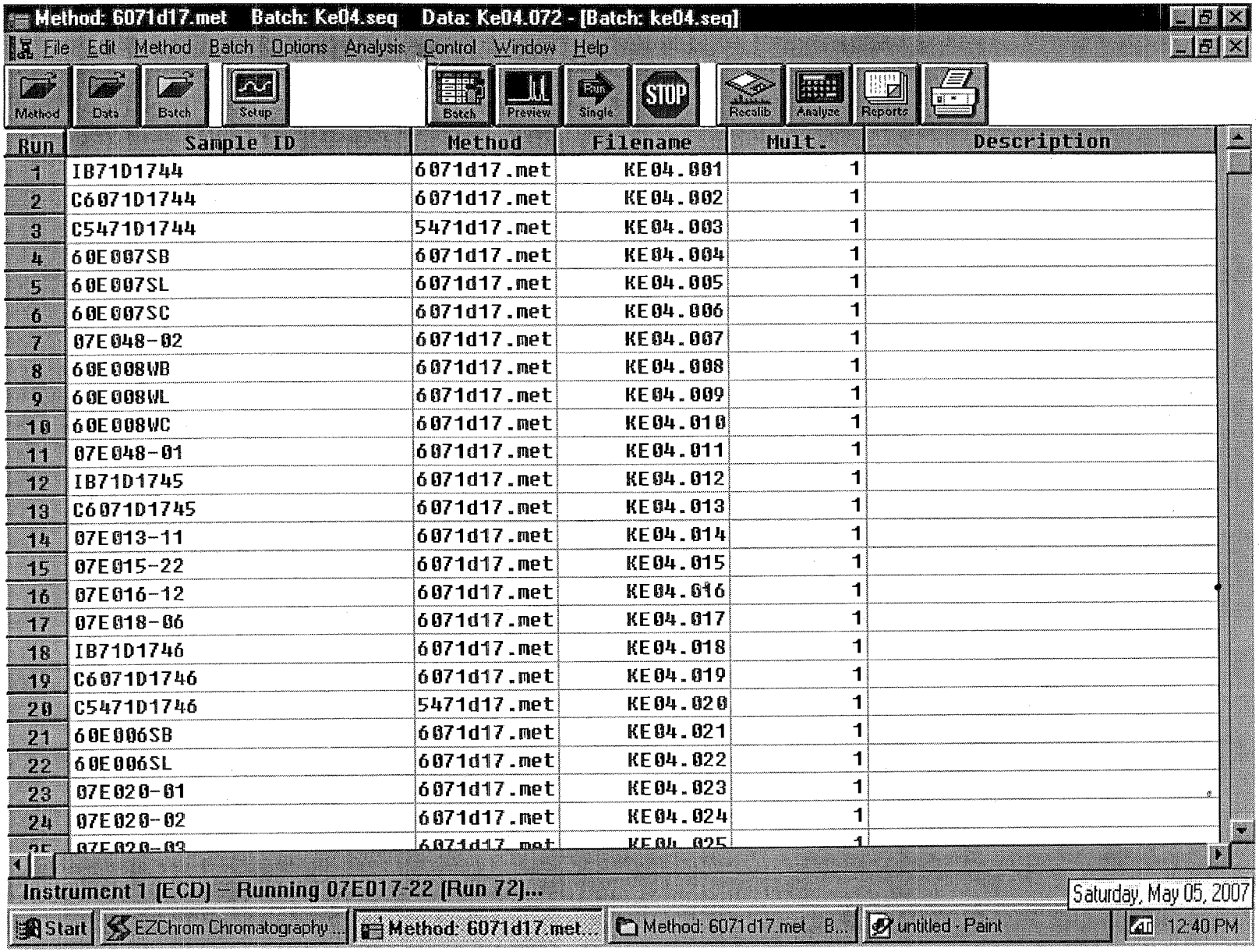
ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: [illegible] Date: 5/4/07

Date Disposed: Disposed By:

This page is checked during data review.



Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports

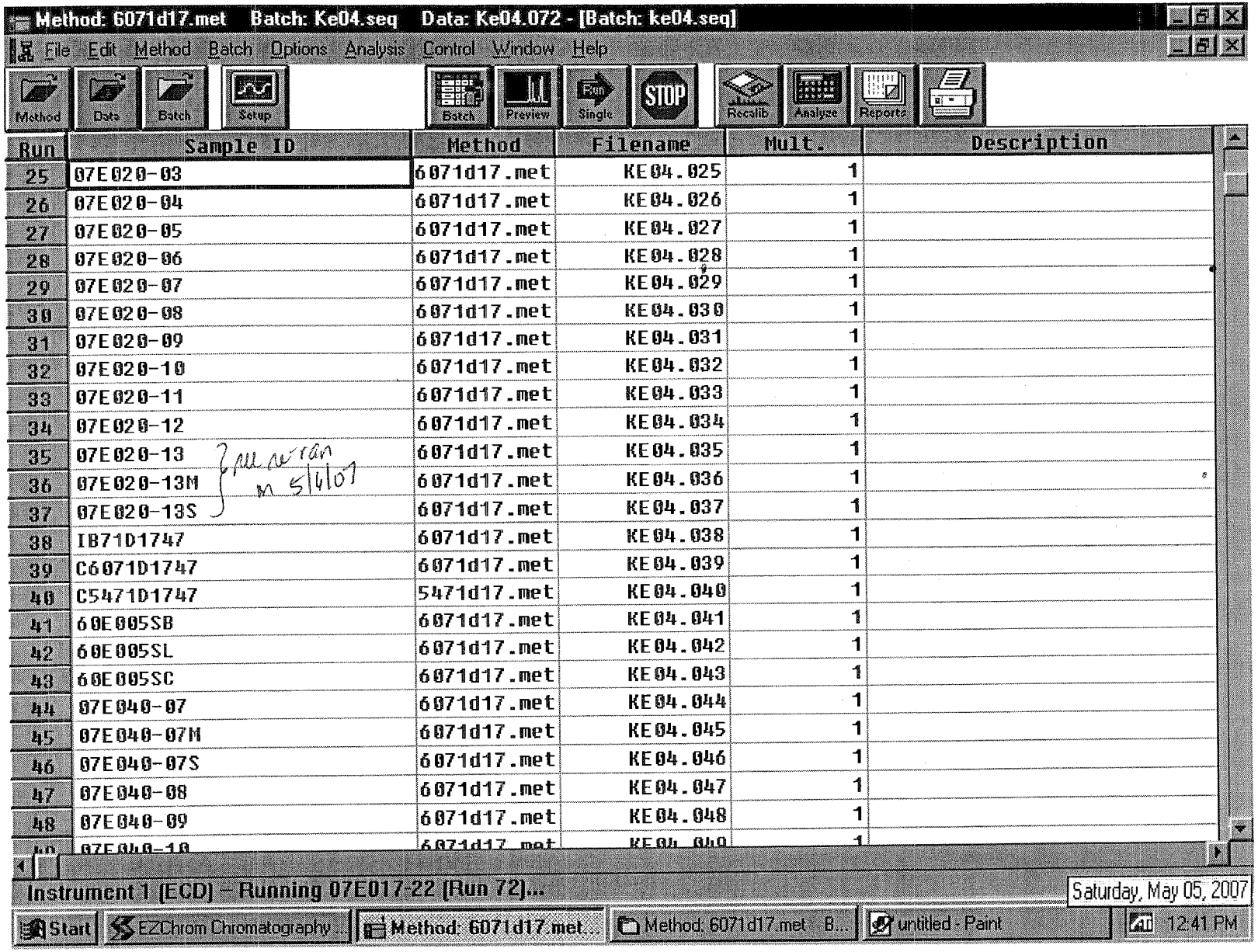
Run	Sample ID	Method	Filename	Mult.	Description
1	IB71D1744	6071d17.met	KE04.001	1	
2	C6071D1744	6071d17.met	KE04.002	1	
3	C5471D1744	5471d17.met	KE04.003	1	
4	60E007SB	6071d17.met	KE04.004	1	
5	60E007SL	6071d17.met	KE04.005	1	
6	60E007SC	6071d17.met	KE04.006	1	
7	07E048-02	6071d17.met	KE04.007	1	
8	60E008WB	6071d17.met	KE04.008	1	
9	60E008WL	6071d17.met	KE04.009	1	
10	60E008WC	6071d17.met	KE04.010	1	
11	07E048-01	6071d17.met	KE04.011	1	
12	IB71D1745	6071d17.met	KE04.012	1	
13	C6071D1745	6071d17.met	KE04.013	1	
14	07E013-11	6071d17.met	KE04.014	1	
15	07E015-22	6071d17.met	KE04.015	1	
16	07E016-12	6071d17.met	KE04.016	1	
17	07E018-06	6071d17.met	KE04.017	1	
18	IB71D1746	6071d17.met	KE04.018	1	
19	C6071D1746	6071d17.met	KE04.019	1	
20	C5471D1746	5471d17.met	KE04.020	1	
21	60E006SB	6071d17.met	KE04.021	1	
22	60E006SL	6071d17.met	KE04.022	1	
23	07E020-01	6071d17.met	KE04.023	1	
24	07E020-02	6071d17.met	KE04.024	1	
25	07E020-03	6071d17.met	KE04.025	1	

Instrument 1 (ECD) – Running 07E017-22 (Run 72)...

Saturday, May 05, 2007

Start | EZChrom Chromatography ... | Method: 6071d17.met... | Method: 6071d17.met B... | untitled - Paint | 12:40 PM

5039



Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Mult.	Description
25	07E020-03	6071d17.met	KE04.025	1	
26	07E020-04	6071d17.met	KE04.026	1	
27	07E020-05	6071d17.met	KE04.027	1	
28	07E020-06	6071d17.met	KE04.028	1	
29	07E020-07	6071d17.met	KE04.029	1	
30	07E020-08	6071d17.met	KE04.030	1	
31	07E020-09	6071d17.met	KE04.031	1	
32	07E020-10	6071d17.met	KE04.032	1	
33	07E020-11	6071d17.met	KE04.033	1	
34	07E020-12	6071d17.met	KE04.034	1	
35	07E020-13	6071d17.met	KE04.035	1	
36	07E020-13M	6071d17.met	KE04.036	1	
37	07E020-13S	6071d17.met	KE04.037	1	
38	IB71D1747	6071d17.met	KE04.038	1	
39	C6071D1747	6071d17.met	KE04.039	1	
40	C5471D1747	5471d17.met	KE04.040	1	
41	60E005SB	6071d17.met	KE04.041	1	
42	60E005SL	6071d17.met	KE04.042	1	
43	60E005SC	6071d17.met	KE04.043	1	
44	07E040-07	6071d17.met	KE04.044	1	
45	07E040-07M	6071d17.met	KE04.045	1	
46	07E040-07S	6071d17.met	KE04.046	1	
47	07E040-08	6071d17.met	KE04.047	1	
48	07E040-09	6071d17.met	KE04.048	1	
49	07E040-10	6071d17.met	KE04.049	1	

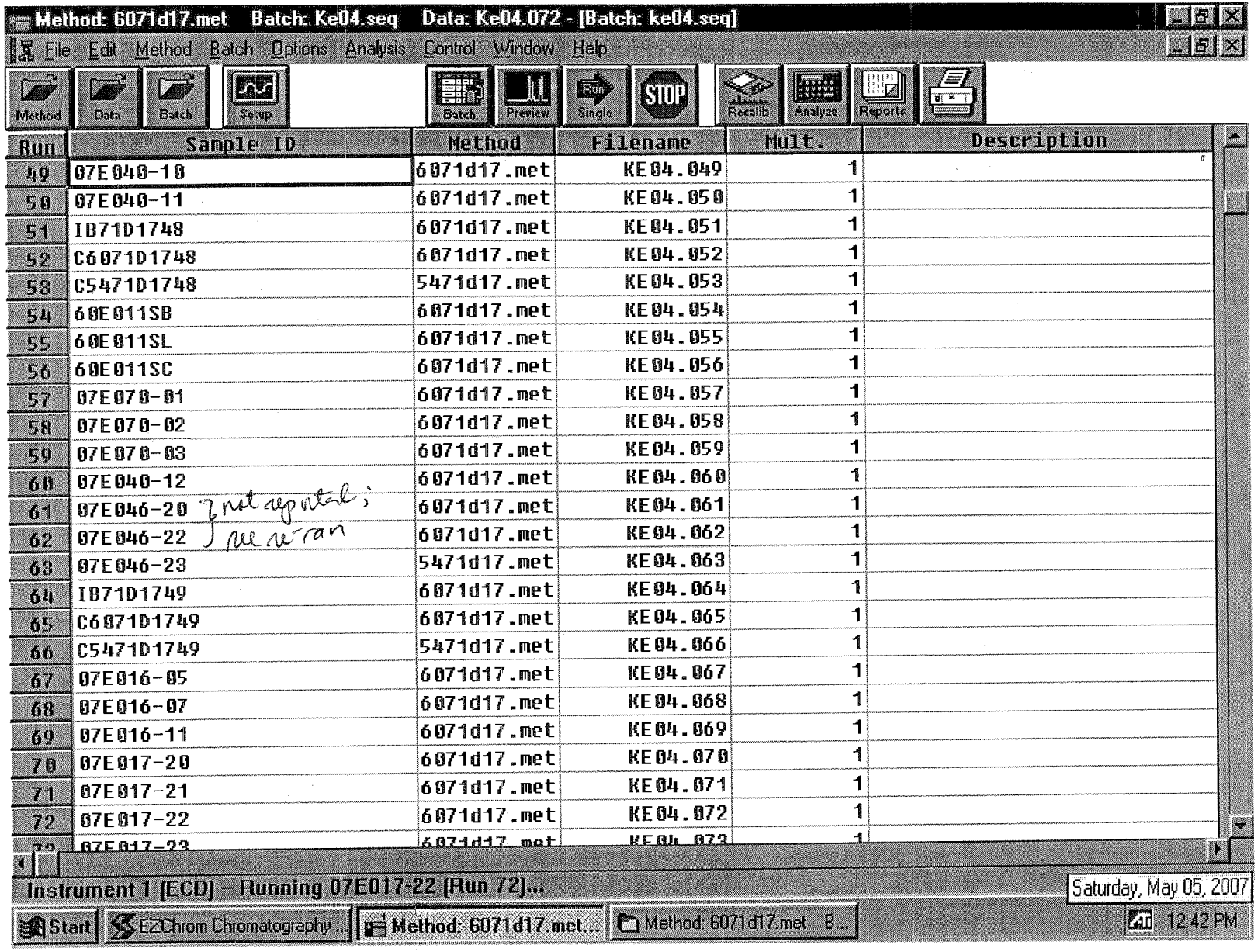
} see re-ran on 5/4/07

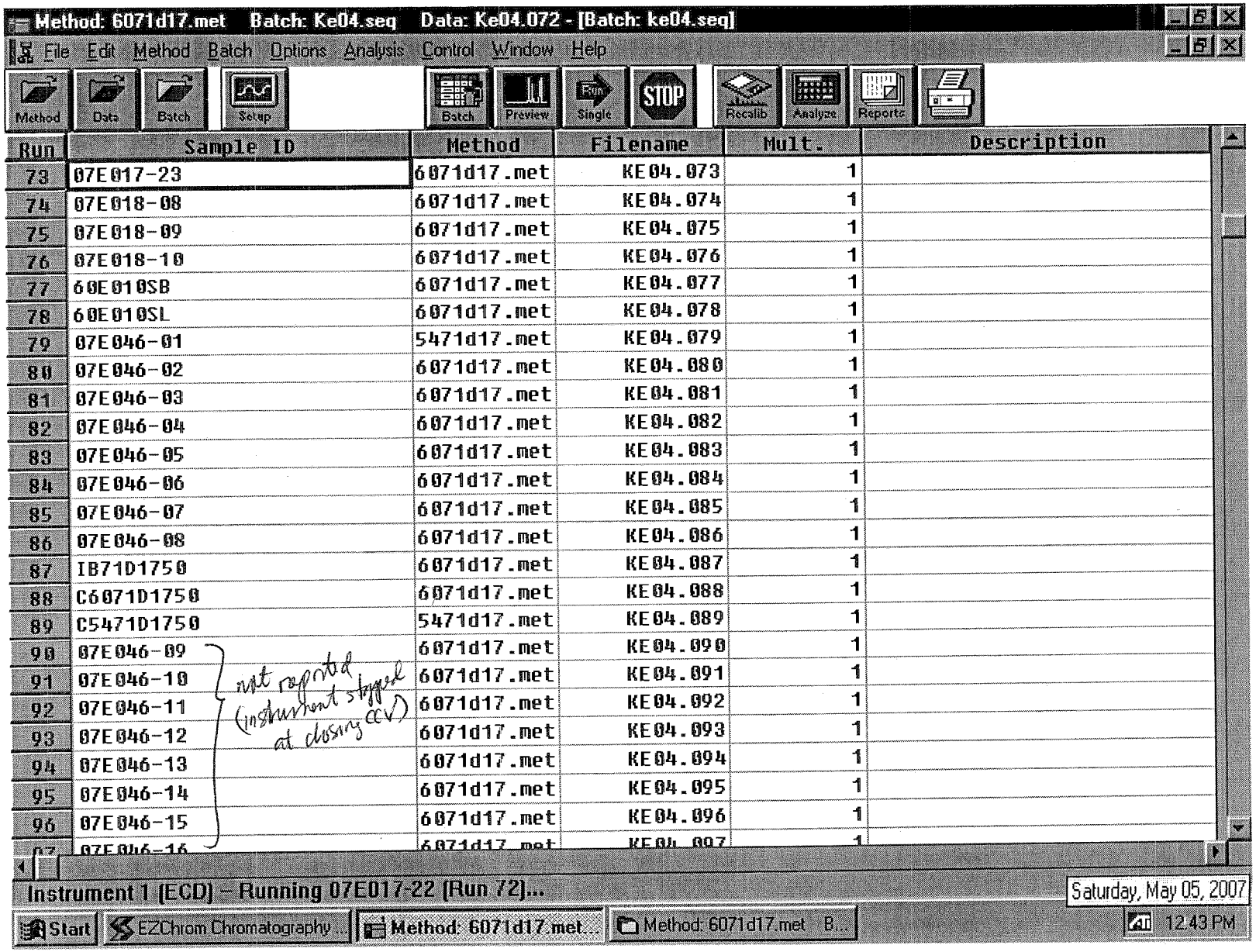
Instrument 1 (ECD) – Running 07E017-22 (Run 72)...

Saturday, May 05, 2007

Start | EZChrom Chromatography... | Method: 6071d17.met... | Method: 6071d17.met B... | untitled - Paint | 12:41 PM

5040


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | 07E040-10 | 6071d17.met | KE04.049 | 1
50 | 07E040-11 | 6071d17.met | KE04.050 | 1
51 | IB71D1748 | 6071d17.met | KE04.051 | 1
52 | C6071D1748 | 6071d17.met | KE04.052 | 1
53 | C5471D1748 | 5471d17.met | KE04.053 | 1
54 | 60E011SB | 6071d17.met | KE04.054 | 1
55 | 60E011SL | 6071d17.met | KE04.055 | 1
56 | 60E011SC | 6071d17.met | KE04.056 | 1
57 | 07E070-01 | 6071d17.met | KE04.057 | 1
58 | 07E070-02 | 6071d17.met | KE04.058 | 1
59 | 07E070-03 | 6071d17.met | KE04.059 | 1
60 | 07E040-12 | 6071d17.met | KE04.060 | 1
61 | 07E046-20 not reported; | 6071d17.met | KE04.061 | 1
62 | 07E046-22 re-ran | 6071d17.met | KE04.062 | 1
63 | 07E046-23 | 5471d17.met | KE04.063 | 1
64 | IB71D1749 | 6071d17.met | KE04.064 | 1
65 | C6071D1749 | 6071d17.met | KE04.065 | 1
66 | C5471D1749 | 5471d17.met | KE04.066 | 1
67 | 07E016-05 | 6071d17.met | KE04.067 | 1
68 | 07E016-07 | 6071d17.met | KE04.068 | 1
69 | 07E016-11 | 6071d17.met | KE04.069 | 1
70 | 07E017-20 | 6071d17.met | KE04.070 | 1
71 | 07E017-21 | 6071d17.met | KE04.071 | 1
72 | 07E017-22 | 6071d17.met | KE04.072 | 1
07E017-23 6071d17.met KE04.073 1
Instrument 1 [ECD] - Running 07E017-22 (Run 72)...
Saturday, May 05, 2007
Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B...
12:42 PM


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | 07E017-23 | 6071d17.met | KE04.073 | 1
74 | 07E018-08 | 6071d17.met | KE04.074 | 1
75 | 07E018-09 | 6071d17.met | KE04.075 | 1
76 | 07E018-10 | 6071d17.met | KE04.076 | 1
77 | 60E010SB | 6071d17.met | KE04.077 | 1
78 | 60E010SL | 6071d17.met | KE04.078 | 1
79 | 07E046-01 | 5471d17.met | KE04.079 | 1
80 | 07E046-02 | 6071d17.met | KE04.080 | 1
81 | 07E046-03 | 6071d17.met | KE04.081 | 1
82 | 07E046-04 | 6071d17.met | KE04.082 | 1
83 | 07E046-05 | 6071d17.met | KE04.083 | 1
84 | 07E046-06 | 6071d17.met | KE04.084 | 1
85 | 07E046-07 | 6071d17.met | KE04.085 | 1
86 | 07E046-08 | 6071d17.met | KE04.086 | 1
87 | IB71D1750 | 6071d17.met | KE04.087 | 1
88 | C6071D1750 | 6071d17.met | KE04.088 | 1
89 | C5471D1750 | 5471d17.met | KE04.089 | 1
90 | 07E046-09 | 6071d17.met | KE04.090 | 1
91 | 07E046-10 | 6071d17.met | KE04.091 | 1
92 | 07E046-11 | 6071d17.met | KE04.092 | 1
93 | 07E046-12 | 6071d17.met | KE04.093 | 1
94 | 07E046-13 | 6071d17.met | KE04.094 | 1
95 | 07E046-14 | 6071d17.met | KE04.095 | 1
96 | 07E046-15 | 6071d17.met | KE04.096 | 1
07E046-16 6071d17.met KE04.097 1
not reported (instrument stopped at closing CCV)
Instrument 1 (ECD) - Running 07E017-22 (Run 72)...
Saturday, May 05, 2007
Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B...
12:43 PM

2-165

EXTRACTION LOG

EMAX LABORATORIES, INC.

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☑ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: Water Starting Date: 5/3/07 Time: 17:00 Ending Date: 5/4/07 Time: 11:00 Book # ECP-031

PREPARATION BATCH # 60E0056

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60E0056-MB	NA	1000	-	10		
*02	-WL		1000	-	10		
*03	-WC		1000	-	10		
*04	07E013-11		1060	5	10		
*05	07E015-22		1040	5	10		
*06	07E016-12		1060	5	10		
*07	07E018-06		1060	5	10		
*08	07E048-01		100	7	10	KCl	Reduced vol. made due to viscosity
*09							
*10							
*11							
*12							
*13							
*14							
*15					5/4/07 JM		
*16							
*17							
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SSIB-05-67-1	1.0
LCS/MS	SSIB-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	46023
NaOH	-
Silica Sand	

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3		
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JM/SD Checked By: ML

Witnessed By: SD Received By: [illegible] 5/4/07

Standard Adde JM Disposed By:

Extract Locatic SE02-13 Disposal Date:

This page is checked during data review.

https

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: SOIL Starting Date: 5/3/07 Time: 14:30 Ending Date: 5/3/07 Time: 17:15 Book # ECP-030

PREPARATION BATCH # 60E0055

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60E005 -SB	1	30.01		10	AC10	
*02	-SL	3	30.03		10		
*03	-SC	3	30.02		10		
*04	07E016 -05	1	30.03		10		
*05	-07	3	30.01		10		
*06	-11	3	30.03		10		
*07	07E017 -20	3	30.00		10		
*08	-21	3	30.01		10		
*09	-22	1	30.03		10		
*10	-23	3	30.02		10		
*11	07E018 -08	3	30.01		10		
*12	-09	1	30.03		10		
*13	-10	3	30.01		10		
*14	07E020 -07	3	30.02		10		
*15	-07M	3	30.00		10		
*16	-07S	3	30.01		10		
*17	-08	1	30.03		10		
*18	-09	1	30.02		10		
*19	-10	3	30.01		10		
*20	-11	3	30.03		10		
*21	-12	1	30.02		10		
*22			JR 5/3/07				
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SS1B-05-07-1	1.0
LCS/MS (PCB)	SS1B-05-07-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	247010
Hexane	246300
Na_2SO_4	2460806/9
H_2SO_4	46023
NaOH	-
Silica Sand	244273

TUNING

Sonicator #	Reading
1	2/4
3	95%

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3	35	35
4	35	35
5	60	60

Comments: Test thermometer = T_1

Prepared By: JR Checked By: ML

Witnessed By: JM Received By: EK 5/4/07

Standard Added By: JR Disposed By:

Extract Location: SE02 # 13 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

MAXXAM LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07E016

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E016

METHOD 314.0
PERCHLORATE

One (1) water and ten (10) soil samples were received on 05/01/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   Sample E016-01 was analyzed for duplicate. %RPD was within QC limit.

5. **Matrix Spike**

   Sample E016-01 was spiked. %Recovery was within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E016

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD023WB	ND	1	NA	2.00	0.500	05/04/0707:48	NA	JE03031	JE03030	PCD023W	NA	NA
LCS1W	PCD023WL	25.4	1	NA	2.00	0.500	05/04/0708:28	NA	JE03033	JE03030	PCD023W	NA	NA
LCD1W	PCD023WC	25.0	1	NA	2.00	0.500	05/04/0708:48	NA	JE03034	JE03030	PCD023W	NA	NA
LEB1-042707	E016-13	ND	1	NA	2.00	0.500	05/04/0709:31	NA	JE03036	JE03030	PCD023W	04/27/0708:30	05/01/07

2002

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E016

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD022SB	ND	1	NA	20.0	10.0	05/03/0722:00	05/02/0716:50	JE03002	JE03001	PCD022S	NA	05/02/07
LCS1S	PCD022SL	251	1	NA	20.0	10.0	05/03/0722:41	05/02/0716:50	JE03004	JE03001	PCD022S	NA	05/02/07
LCD1S	PCD022SC	254	1	NA	20.0	10.0	05/03/0723:01	05/02/0716:50	JE03005	JE03001	PCD022S	NA	05/02/07
H49-HSAS7-15-16.5	E016-01	55.0	1	18.7	24.6	12.3	05/03/0723:21	05/02/0716:50	JE03006	JE03001	PCD022S	04/27/0711:46	05/01/07
H49-HSAS7-15-16.5DUP	E016-01D	60.6	1	18.7	24.6	12.3	05/03/0723:42	05/02/0716:50	JE03007	JE03001	PCD022S	04/27/0711:46	05/01/07
H49-HSAS7-15-16.5MS	E016-01M	176	1	18.7	24.6	12.3	05/04/0700:02	05/02/0716:50	JE03008	JE03001	PCD022S	04/27/0711:46	05/01/07
H49-HSAS7-45-46.5	E016-02	ND	1	5.2	21.1	10.5	05/04/0700:22	05/02/0716:50	JE03009	JE03001	PCD022S	04/27/0712:21	05/01/07
H49-HSAS7-30-31.5	E016-03	ND	1	18.2	24.4	12.2	05/04/0700:42	05/02/0716:50	JE03010	JE03001	PCD022S	04/27/0712:02	05/01/07
H49-HSAS7-5-6.5	E016-04	40.1	1	12.8	22.9	11.5	05/04/0701:03	05/02/0716:50	JE03011	JE03001	PCD022S	04/27/0711:30	05/01/07
H49-HSAS13-15-16.5	E016-05	ND	1	31.4	29.2	14.6	05/04/0701:43	05/02/0716:50	JE03013	JE03012	PCD022S	04/27/0715:46	05/01/07
H49-HSAS13-25-26.5	E016-07	ND	1	28.6	28.0	14.0	05/04/0702:03	05/02/0716:50	JE03014	JE03012	PCD022S	04/27/0716:02	05/01/07
H49-HSAS8-10-11.5	E016-08	ND	1	4.3	20.9	10.4	05/04/0702:24	05/02/0716:50	JE03015	JE03012	PCD022S	04/27/0709:17	05/01/07
H49-HSAS8-25-26.5	E016-09	ND	1	3.9	20.8	10.4	05/04/0702:44	05/02/0716:50	JE03016	JE03012	PCD022S	04/27/0709:40	05/01/07
H49-HSAS8-40-41.5	E016-10	ND	1	4.4	20.9	10.5	05/04/0703:04	05/02/0716:50	JE03017	JE03012	PCD022S	04/27/0710:05	05/01/07
H49-HSAS13-20-21.5	E016-11	ND	1	25.1	26.7	13.4	05/04/0703:24	05/02/0716:50	JE03018	JE03012	PCD022S	04/27/0715:53	05/01/07

QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E016
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD023WB	PCD023WL	PCD023WC		
LAB FILE ID:	JE03031	JE03033	JE03034		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/0707:48	05/04/0708:28	05/04/0708:48	DATE RECEIVED:	NA
PREP. BATCH:	PCD023W	PCD023W	PCD023W		
CALIB. REF:	JE03030	JE03030	JE03030		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.4	102	25.0	25.0	100	2	85-115	20

0005

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E016
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD022SB	PCD022SL	PCD022SC		
LAB FILE ID:	JE03002	JE03004	JE03005		
DATE EXTRACTED:	05/02/0716:50	05/02/0716:50	05/02/0716:50	DATE COLLECTED:	NA
DATE ANALYZED:	05/03/0722:00	05/03/0722:41	05/03/0723:01	DATE RECEIVED:	05/02/07
PREP. BATCH:	PCD022S	PCD022S	PCD022S		
CALIB. REF:	JE03001	JE03001	JE03001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	251	100	250	254	102	1	85-115	20

5005

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E016
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 18.7
DILUTION FACTOR: 1 1
SAMPLE ID: H49-HSAS7-15-16.5
LAB SAMP ID: E016-01 E016-01M
LAB FILE ID: JE03006 JE03008
DATE EXTRACTED: 05/02/0716:50 05/02/0716:50 DATE COLLECTED: 04/27/07 11:46
DATE ANALYZED: 05/03/0723:21 05/04/0700:02 DATE RECEIVED: 05/01/07
PREP. BATCH: PCD022S PCD022S
CALIB. REF: JE03001 JE03001

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	55.0	123	176	98	80-120

3008

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E016
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	18.7
DILUTION FACTOR:	1	1		
SAMPLE ID:	H49-HSAS7-15-16.5			
EMAX SAMP ID:	E016-01	E016-01D		
LAB FILE ID:	JE03006	JE03007		
DATE EXTRACTED:	05/02/0716:50	05/02/0716:50	DATE COLLECTED:	04/27/07 11:46
DATE ANALYZED:	05/03/0723:21	05/03/0723:42	DATE RECEIVED:	05/01/07
PREP. BATCH:	PCD022S	PCD022S		
CALIB. REF:	JE03001	JE03001		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	55	60.6	10	20

8666

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

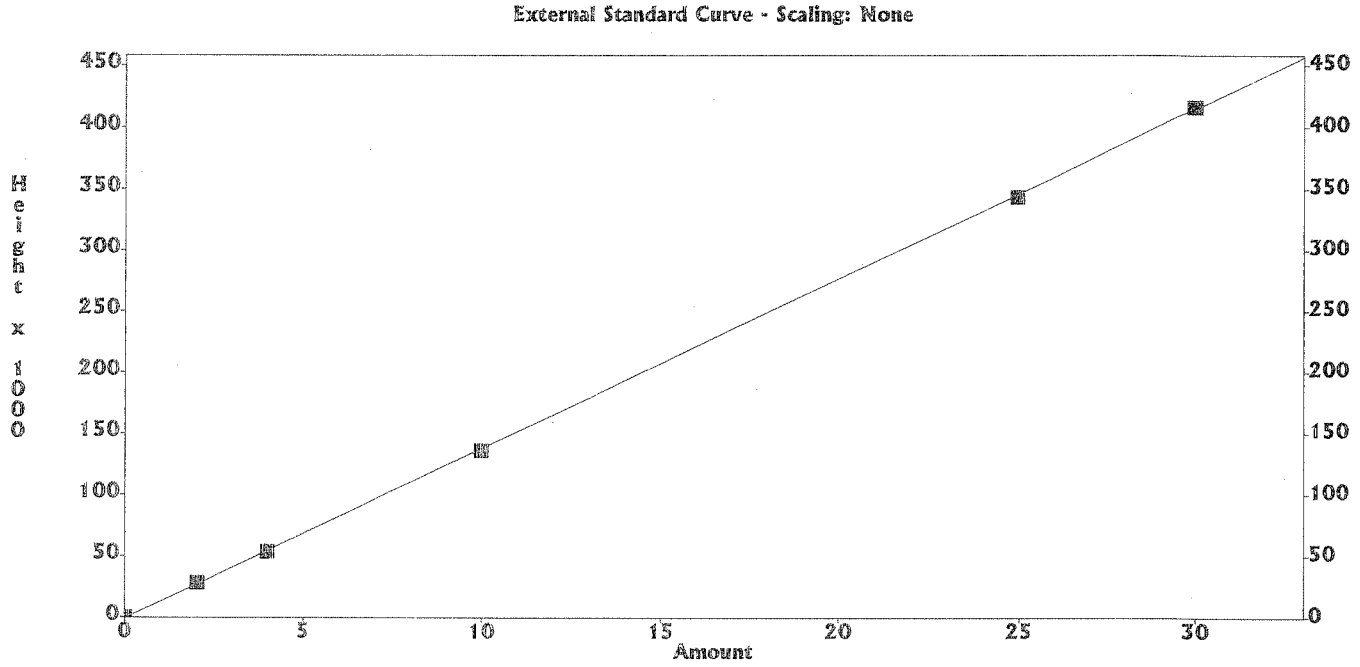
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8012

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-07

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE03001	IPCS	P	85%	05/03/0721:40	1
JE03002	PCD022SB	P	.000	05/03/0722:00	1
JE03003	MRL	P	112%	05/03/0722:21	1
JE03004	PCD022SL	P	25.1	05/03/0722:41	1
JE03005	PCD022SC	P	25.4	05/03/0723:01	1
JE03006	E016-01	P	4.47	05/03/0723:21	1
JE03007	E016-01D	P	4.93	05/03/0723:42	1
JE03008	E016-01M	P	14.3	05/04/0700:02	1
JE03009	E016-02	P	.000	05/04/0700:22	1
JE03010	E016-03	P	.000	05/04/0700:42	1
JE03011	E016-04	P	3.5	05/04/0701:03	1
JE03012	CCV43-30	P	106%	05/04/0701:23	1
JE03013	E016-05	P	.000	05/04/0701:43	1
JE03014	E016-07	P	.000	05/04/0702:03	1
JE03015	E016-08	P	.000	05/04/0702:24	1
JE03016	E016-09	P	.000	05/04/0702:44	1
JE03017	E016-10	P	.000	05/04/0703:04	1
JE03018	E016-11	P	.000	05/04/0703:24	1
JE03019	E017-03	P	10.5	05/04/0703:45	1
JE03020	E017-04	P	5.09	05/04/0704:05	1
JE03021	E017-05	P	.000	05/04/0704:25	1
JE03022	E017-07	P	2.07	05/04/0704:45	1
JE03023	CCV44-15	P	104%	05/04/0705:06	1
JE03024	E017-08	P	1.59	05/04/0705:26	1
JE03025	E017-09	*	31.2E	05/04/0705:46	1
JE03026	E017-10	P	.000	05/04/0706:06	1
JE03027	E017-11	P	.000	05/04/0706:27	1
JE03028	E017-12	P	.000	05/04/0706:47	1
JE03029	CCV45-30	P	110%*	05/04/0707:07	1
JE03030	IPCS	P	86.3%	05/04/0707:27	1
JE03031	PCD023WB	P	.000	05/04/0707:48	1
JE03032	MRL	P	104%	05/04/0708:08	1
JE03033	PCD023WL	P	25.4	05/04/0708:28	1
JE03034	PCD023WC	P	25	05/04/0708:48	1
JE03035	D205-02	P	50.5	05/04/0709:09	5
JE03036	E016-13	P	.000	05/04/0709:31	1
JE03037	E017-01	P	.000	05/04/0709:52	1
JE03038	E017-06	*	50E	05/04/0710:12	1
JE03039	E017-19	P	.000	05/04/0710:32	1
JE03040	E018-07	P	.000	05/04/0710:52	1
JE03041	CCV46-15	P	101%	05/04/0711:13	1
JE03042	E013-01	P	.000	05/04/0711:33	1
JE03043	E013-02	P	.000	05/04/0711:53	1
JE03044	E013-03	P	.000	05/04/0712:13	1
JE03045	E013-04	P	.000	05/04/0712:34	1
JE03046	E013-05	P	.000	05/04/0712:54	1
JE03047	E013-06	P	.000	05/04/0713:14	1
JE03048	E013-07	P	.000	05/04/0713:35	1
JE03049	E013-08	P	.000	05/04/0713:55	1
JE03050	E013-10	P	1.31	05/04/0714:15	1
JE03051	E013-10D	P	1.28	05/04/0714:35	1
JE03052	CCV47-30	P	110%	05/04/0714:56	1
JE03053	E013-10M	P	11.9	05/04/0715:16	1
JE03054	E013-11	P	.000	05/04/0715:36	1
JE03055	E013-12	P	.000	05/04/0715:56	1
JE03056	CCV48-15	P	104%	05/04/0716:17	1
JE03057	IPCS	P	82.3%	05/04/0716:37	1
JE03058	PCD024WB	P	.000	05/04/0716:57	1
JE03059	MRL	P	112%	05/04/0719:15	1
JE03060	PCD024WL	P	24.9	05/04/0719:35	1
JE03061	PCD024WC	P	24.8	05/04/0719:56	1
JE03062	D324-02	P	8.59	05/04/0720:16	1
JE03063	D324-03	P	8.49	05/04/0720:36	1
JE03064	D324-04	P	.000	05/04/0720:56	1
JE03065	D324-05	P	.000	05/04/0721:17	1
JE03066	D324-06	P	.000	05/04/0721:37	1
JE03067	D324-07	P	.000	05/04/0721:57	1
JE03068	CCV49-30	P	106%	05/04/0722:17	1
JE03069	E031-01	P	.000	05/04/0722:38	1
JE03070	E031-02	P	50.4	05/04/0722:58	5
JE03071	E051-04	P	.000	05/04/0723:18	1
JE03072	D138-02R	*	50.6E	05/04/0723:39	1
JE03073	D138-02	P	50.1	05/04/0723:59	5
JE03074	D223-06G	P	20.1	05/05/0700:19	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 -18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

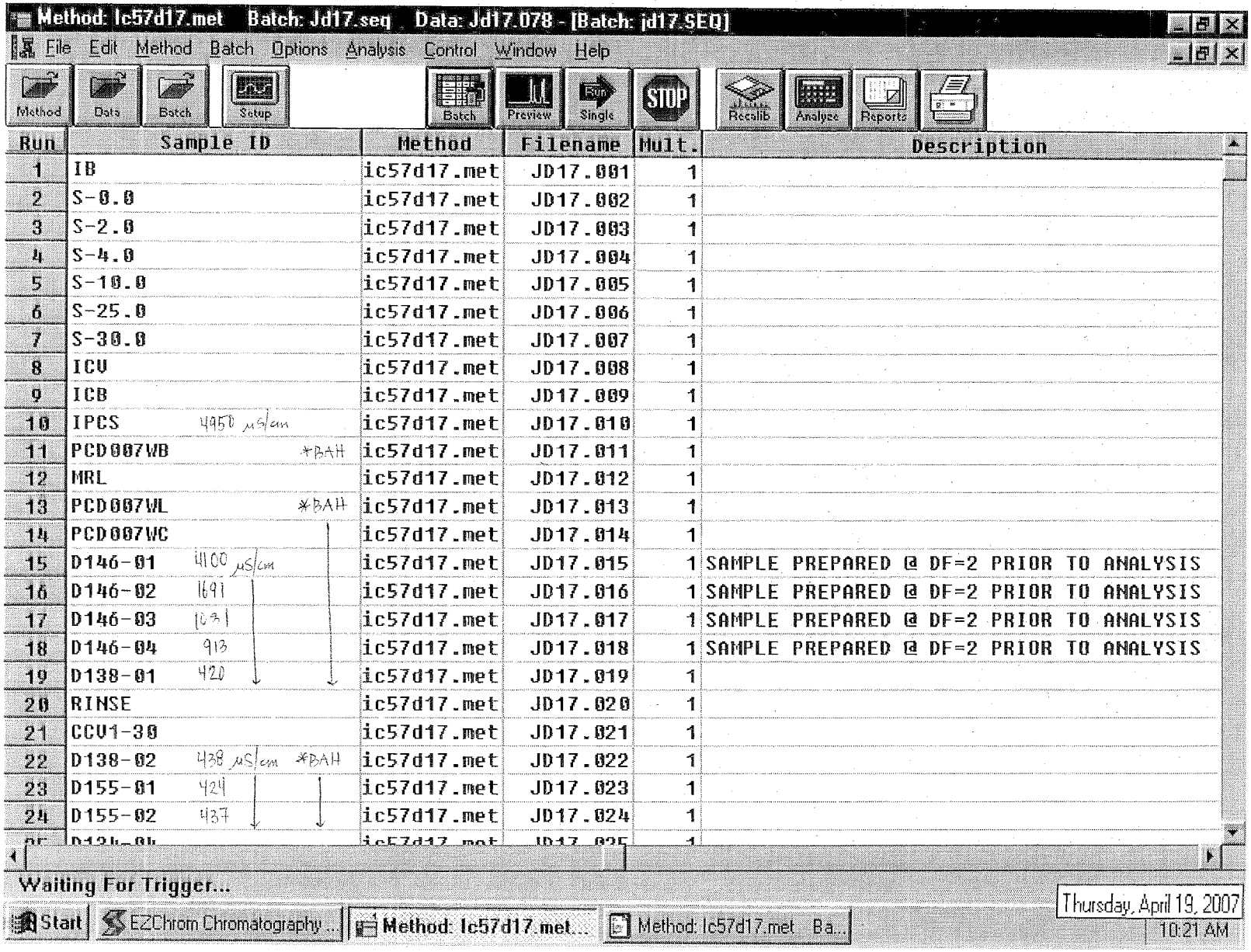
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cl

Date: 04/17/07


Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
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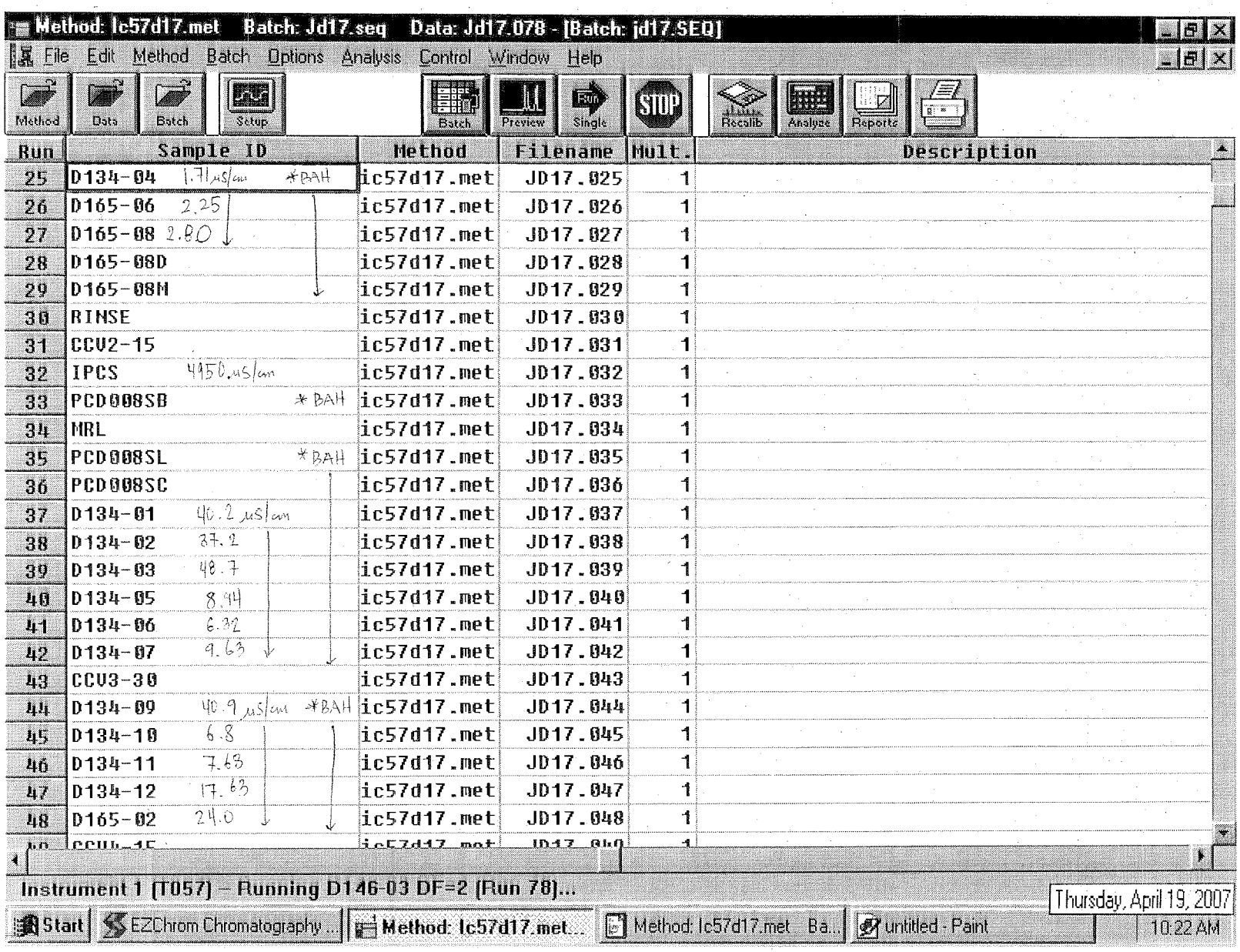
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | ic57d17.met | JD17.001 | 1
2 | S-0.0 | ic57d17.met | JD17.002 | 1
3 | S-2.0 | ic57d17.met | JD17.003 | 1
4 | S-4.0 | ic57d17.met | JD17.004 | 1
5 | S-10.0 | ic57d17.met | JD17.005 | 1
6 | S-25.0 | ic57d17.met | JD17.006 | 1
7 | S-30.0 | ic57d17.met | JD17.007 | 1
8 | ICV | ic57d17.met | JD17.008 | 1
9 | ICB | ic57d17.met | JD17.009 | 1
10 | IPCS 4950 µs/cm | ic57d17.met | JD17.010 | 1
11 | PCD007WB *BAH | ic57d17.met | JD17.011 | 1
12 | MRL | ic57d17.met | JD17.012 | 1
13 | PCD007WL *BAH | ic57d17.met | JD17.013 | 1
14 | PCD007WC | ic57d17.met | JD17.014 | 1
15 | D146-01 4100 µS/cm | ic57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | ic57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1631 | ic57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | ic57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | ic57d17.met | JD17.019 | 1
20 | RINSE | ic57d17.met | JD17.020 | 1
21 | CCV1-30 | ic57d17.met | JD17.021 | 1
22 | D138-02 438 µS/cm *BAH | ic57d17.met | JD17.022 | 1
23 | D155-01 424 | ic57d17.met | JD17.023 | 1
24 | D155-02 437 | ic57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: Ic57d17.met... Method: Ic57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

6708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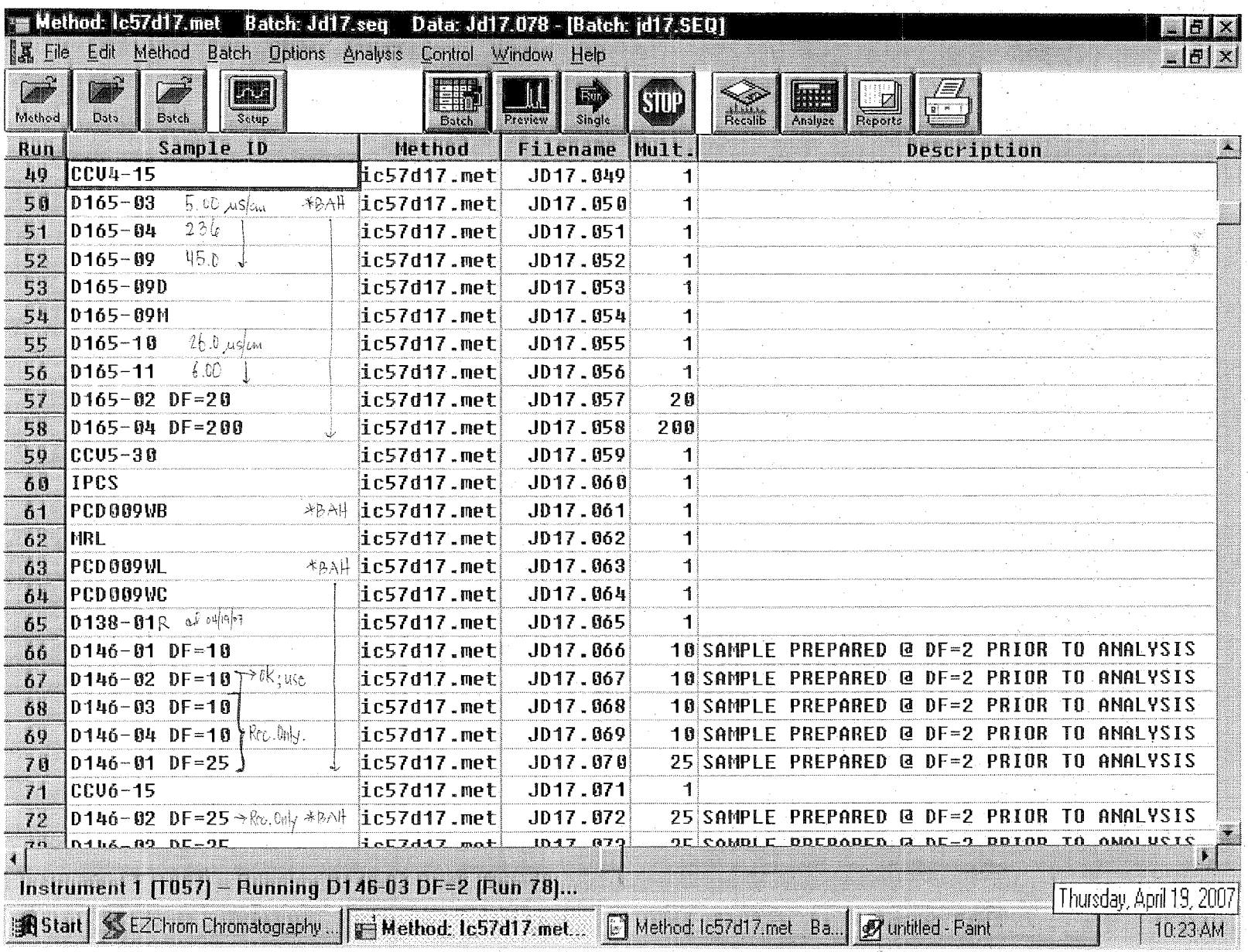
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 D134-04 1.71 µs/cm *BAH | ic57d17.met | JD17.025 | 1
26 D165-06 2.25 | ic57d17.met | JD17.026 | 1
27 D165-08 2.80 | ic57d17.met | JD17.027 | 1
28 D165-08D | ic57d17.met | JD17.028 | 1
29 D165-08M | ic57d17.met | JD17.029 | 1
30 RINSE | ic57d17.met | JD17.030 | 1
31 CCV2-15 | ic57d17.met | JD17.031 | 1
32 IPCS 4950 µs/cm | ic57d17.met | JD17.032 | 1
33 PCD008SB *BAH | ic57d17.met | JD17.033 | 1
34 MRL | ic57d17.met | JD17.034 | 1
35 PCD008SL *BAH | ic57d17.met | JD17.035 | 1
36 PCD008SC | ic57d17.met | JD17.036 | 1
37 D134-01 40.2 µs/cm | ic57d17.met | JD17.037 | 1
38 D134-02 37.2 | ic57d17.met | JD17.038 | 1
39 D134-03 48.7 | ic57d17.met | JD17.039 | 1
40 D134-05 8.94 | ic57d17.met | JD17.040 | 1
41 D134-06 6.32 | ic57d17.met | JD17.041 | 1
42 D134-07 9.63 | ic57d17.met | JD17.042 | 1
43 CCV3-30 | ic57d17.met | JD17.043 | 1
44 D134-09 40.9 µs/cm *BAH | ic57d17.met | JD17.044 | 1
45 D134-10 6.8 | ic57d17.met | JD17.045 | 1
46 D134-11 7.63 | ic57d17.met | JD17.046 | 1
47 D134-12 17.63 | ic57d17.met | JD17.047 | 1
48 D165-02 24.0 | ic57d17.met | JD17.048 | 1
Instrument 1 (T057) – Running D146-03 DF=2 (Run 78)...
Thursday, April 19, 2007
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:22 AM

8020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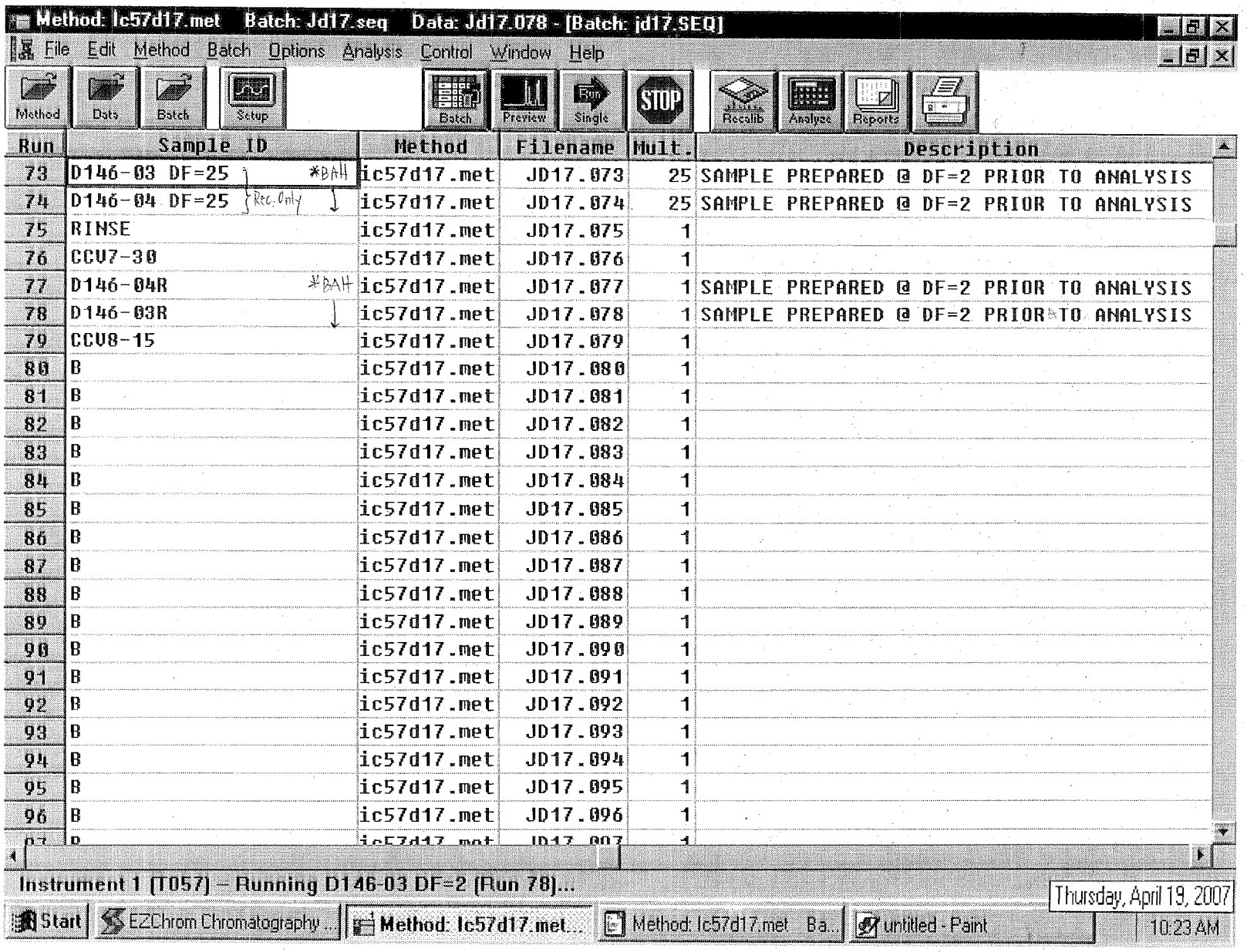
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 CCV4-15 lc57d17.met JD17.049 1
50 D165-03 5.00 µs/cm *BAH lc57d17.met JD17.050 1
51 D165-04 23.6 lc57d17.met JD17.051 1
52 D165-09 45.0 lc57d17.met JD17.052 1
53 D165-09D lc57d17.met JD17.053 1
54 D165-09M lc57d17.met JD17.054 1
55 D165-10 26.0 µs/cm lc57d17.met JD17.055 1
56 D165-11 6.00 lc57d17.met JD17.056 1
57 D165-02 DF=20 lc57d17.met JD17.057 20
58 D165-04 DF=200 lc57d17.met JD17.058 200
59 CCV5-30 lc57d17.met JD17.059 1
60 IPCS lc57d17.met JD17.060 1
61 PCD009WB *BAH lc57d17.met JD17.061 1
62 MRL lc57d17.met JD17.062 1
63 PCD009WL *BAH lc57d17.met JD17.063 1
64 PCD009WC lc57d17.met JD17.064 1
65 D138-01R of 04/19/07 lc57d17.met JD17.065 1
66 D146-01 DF=10 lc57d17.met JD17.066 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 D146-02 DF=10 → OK; use lc57d17.met JD17.067 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 D146-03 DF=10 lc57d17.met JD17.068 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 D146-04 DF=10 Rec. Only. lc57d17.met JD17.069 10 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 D146-01 DF=25 lc57d17.met JD17.070 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 CCV6-15 lc57d17.met JD17.071 1
72 D146-02 DF=25 → Rec. Only *BAH lc57d17.met JD17.072 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 (T057) – Running D146-03 DF=2 (Run 78)...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8021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File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D146-03 DF=25 | *BAH | ic57d17.met | JD17.073 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 | D146-04 DF=25 | Rec. Only | ic57d17.met | JD17.074 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 | RINSE | ic57d17.met | JD17.075 | 1 |
76 | CCV7-30 | ic57d17.met | JD17.076 | 1 |
77 | D146-04R | *BAH | ic57d17.met | JD17.077 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 | D146-03R | ic57d17.met | JD17.078 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 | CCV8-15 | ic57d17.met | JD17.079 | 1 |
80 | B | ic57d17.met | JD17.080 | 1 |
81 | B | ic57d17.met | JD17.081 | 1 |
82 | B | ic57d17.met | JD17.082 | 1 |
83 | B | ic57d17.met | JD17.083 | 1 |
84 | B | ic57d17.met | JD17.084 | 1 |
85 | B | ic57d17.met | JD17.085 | 1 |
86 | B | ic57d17.met | JD17.086 | 1 |
87 | B | ic57d17.met | JD17.087 | 1 |
88 | B | ic57d17.met | JD17.088 | 1 |
89 | B | ic57d17.met | JD17.089 | 1 |
90 | B | ic57d17.met | JD17.090 | 1 |
91 | B | ic57d17.met | JD17.091 | 1 |
92 | B | ic57d17.met | JD17.092 | 1 |
93 | B | ic57d17.met | JD17.093 | 1 |
94 | B | ic57d17.met | JD17.094 | 1 |
95 | B | ic57d17.met | JD17.095 | 1 |
96 | B | ic57d17.met | JD17.096 | 1
Instrument 1 (T057) – Running D146-03 DF=2 (Run 78)...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8022

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

NaOH : SW8A-02-18

* ~~JE03.101 → .104~~ 05/03/07 : Injection error. Not used; re-run.
* JE03.098 → 100 : Record only; not used — no ending CCV.
* JE03.009 & JE03.010 : Not used.
* JE03.070 : Not used; re-run.
* JE03.072 : For confirmation.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JE03

Method File: IC57d17.met

Analytical Batch: PCD0225+PCD023W+PCD024W+PCD0255

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

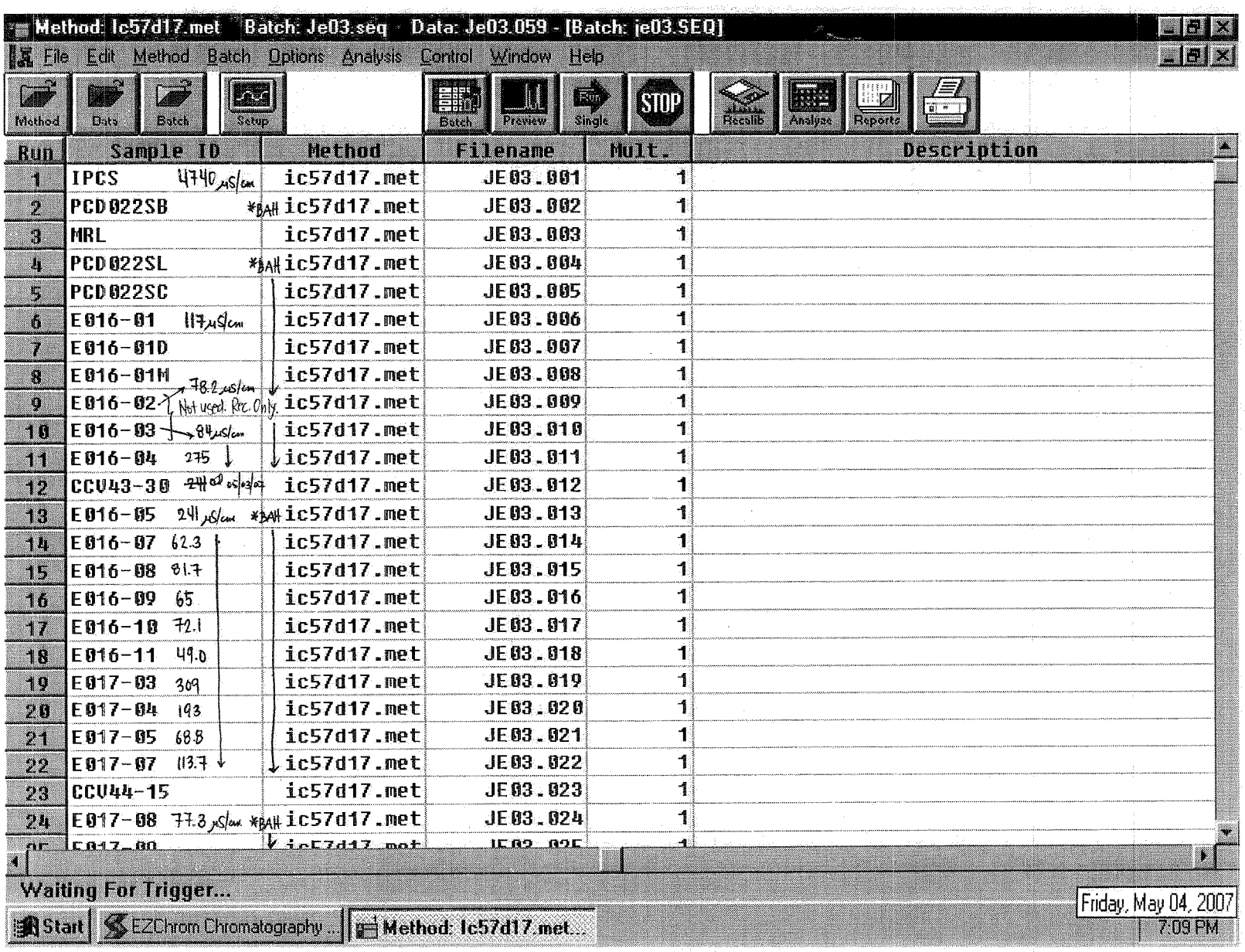
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	SW8B-02-936
MS	↓ 931
IPC	SW8B-02-934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1410	(±) 30	

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 05/03/07 & 05/04/07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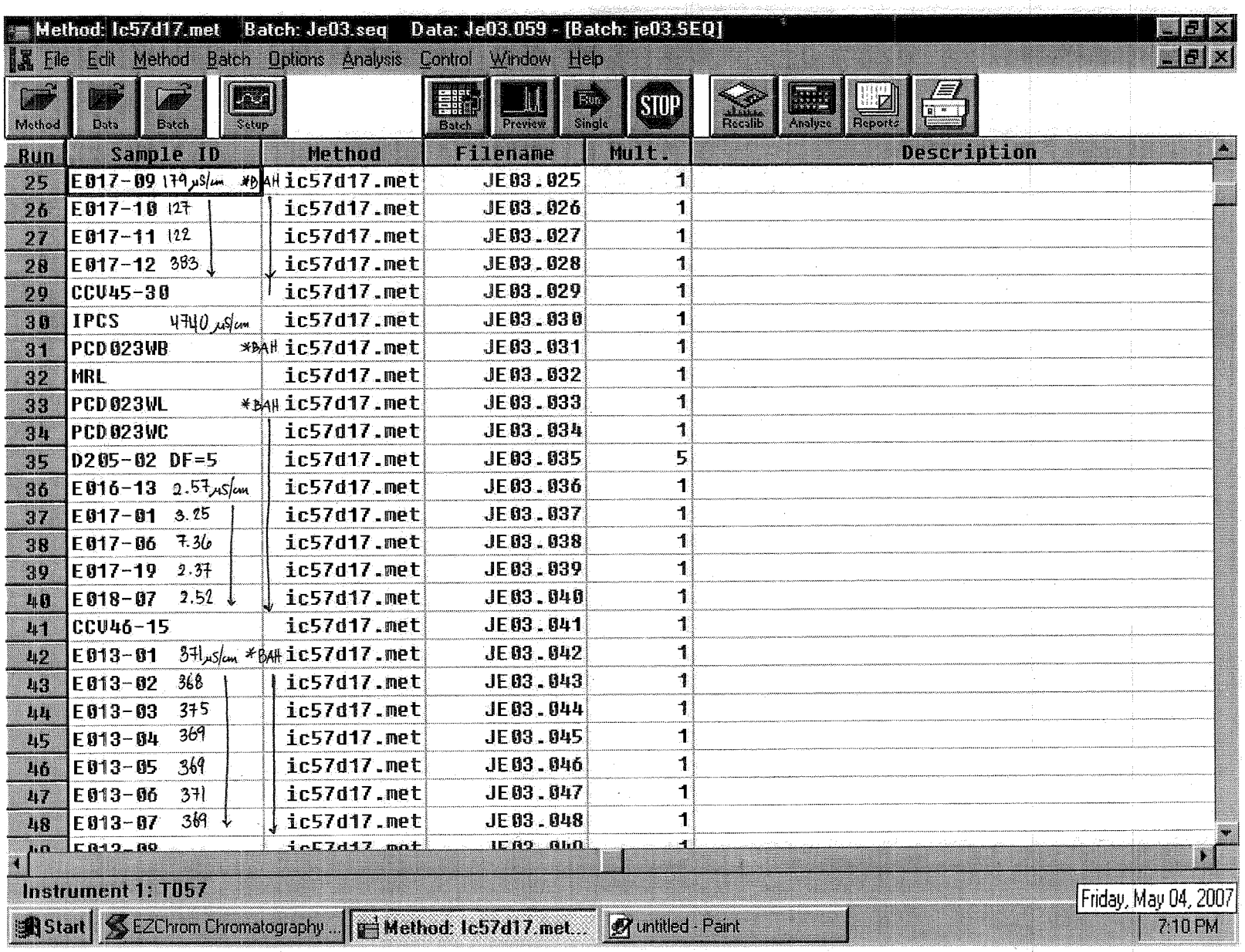
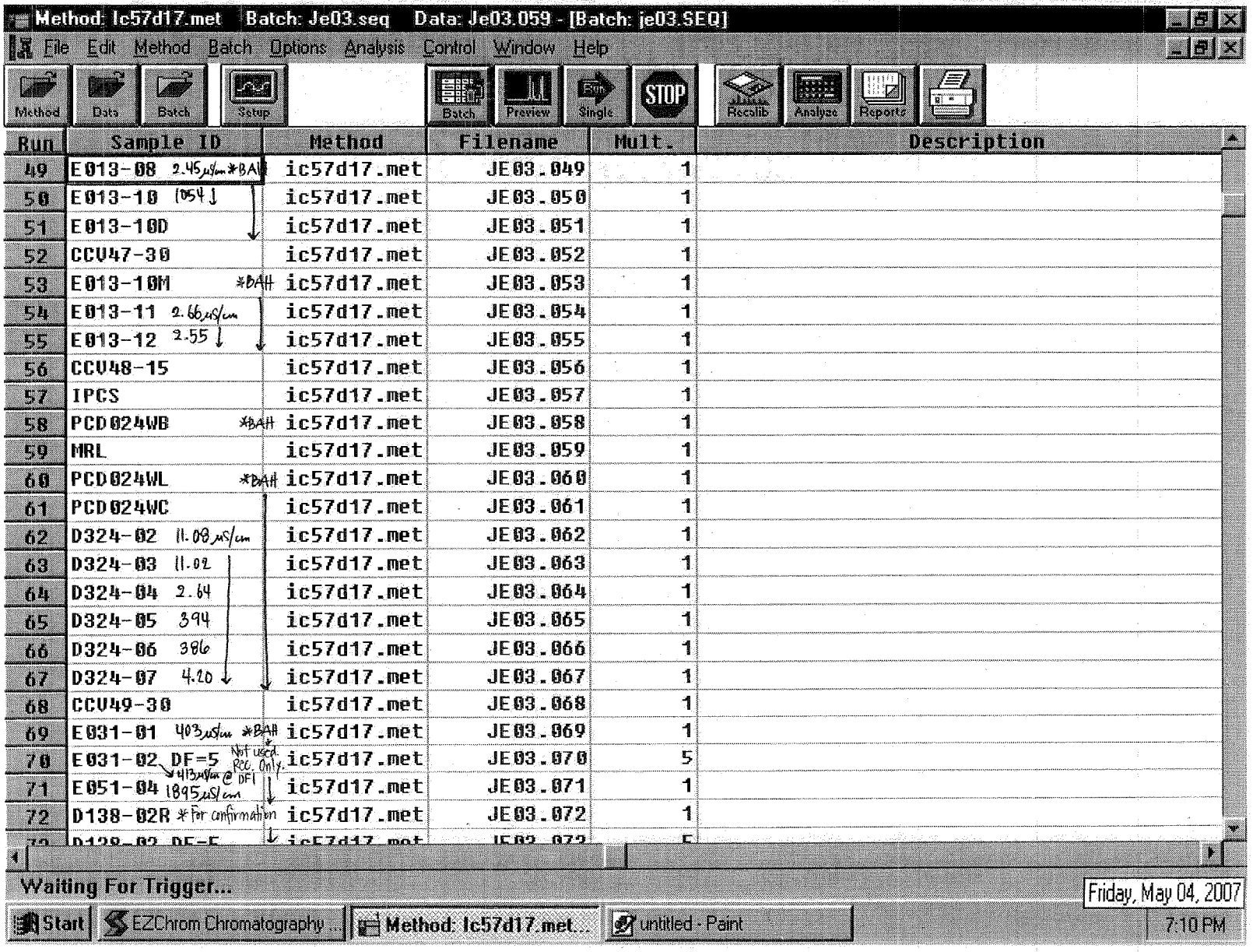
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 IPCS 4740 µS/cm | ic57d17.met | JE03.001 | 1
2 PCD022SB *BAH | ic57d17.met | JE03.002 | 1
3 MRL | ic57d17.met | JE03.003 | 1
4 PCD022SL *BAH | ic57d17.met | JE03.004 | 1
5 PCD022SC | ic57d17.met | JE03.005 | 1
6 E016-01 117 µS/cm | ic57d17.met | JE03.006 | 1
7 E016-01D | ic57d17.met | JE03.007 | 1
8 E016-01M | ic57d17.met | JE03.008 | 1
9 E016-02 78.2 µS/cm Not used. Rec. Only. | ic57d17.met | JE03.009 | 1
10 E016-03 84 µS/cm | ic57d17.met | JE03.010 | 1
11 E016-04 275 | ic57d17.met | JE03.011 | 1
12 CCV43-30 | ic57d17.met | JE03.012 | 1
13 E016-05 241 µS/cm *BAH | ic57d17.met | JE03.013 | 1
14 E016-07 62.3 | ic57d17.met | JE03.014 | 1
15 E016-08 81.7 | ic57d17.met | JE03.015 | 1
16 E016-09 65 | ic57d17.met | JE03.016 | 1
17 E016-10 72.1 | ic57d17.met | JE03.017 | 1
18 E016-11 49.0 | ic57d17.met | JE03.018 | 1
19 E017-03 309 | ic57d17.met | JE03.019 | 1
20 E017-04 193 | ic57d17.met | JE03.020 | 1
21 E017-05 68.8 | ic57d17.met | JE03.021 | 1
22 E017-07 113.7 | ic57d17.met | JE03.022 | 1
23 CCV44-15 | ic57d17.met | JE03.023 | 1
24 E017-08 77.3 µS/cm *BAH | ic57d17.met | JE03.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: Ic57d17.met...
Friday, May 04, 2007
7:09 PM

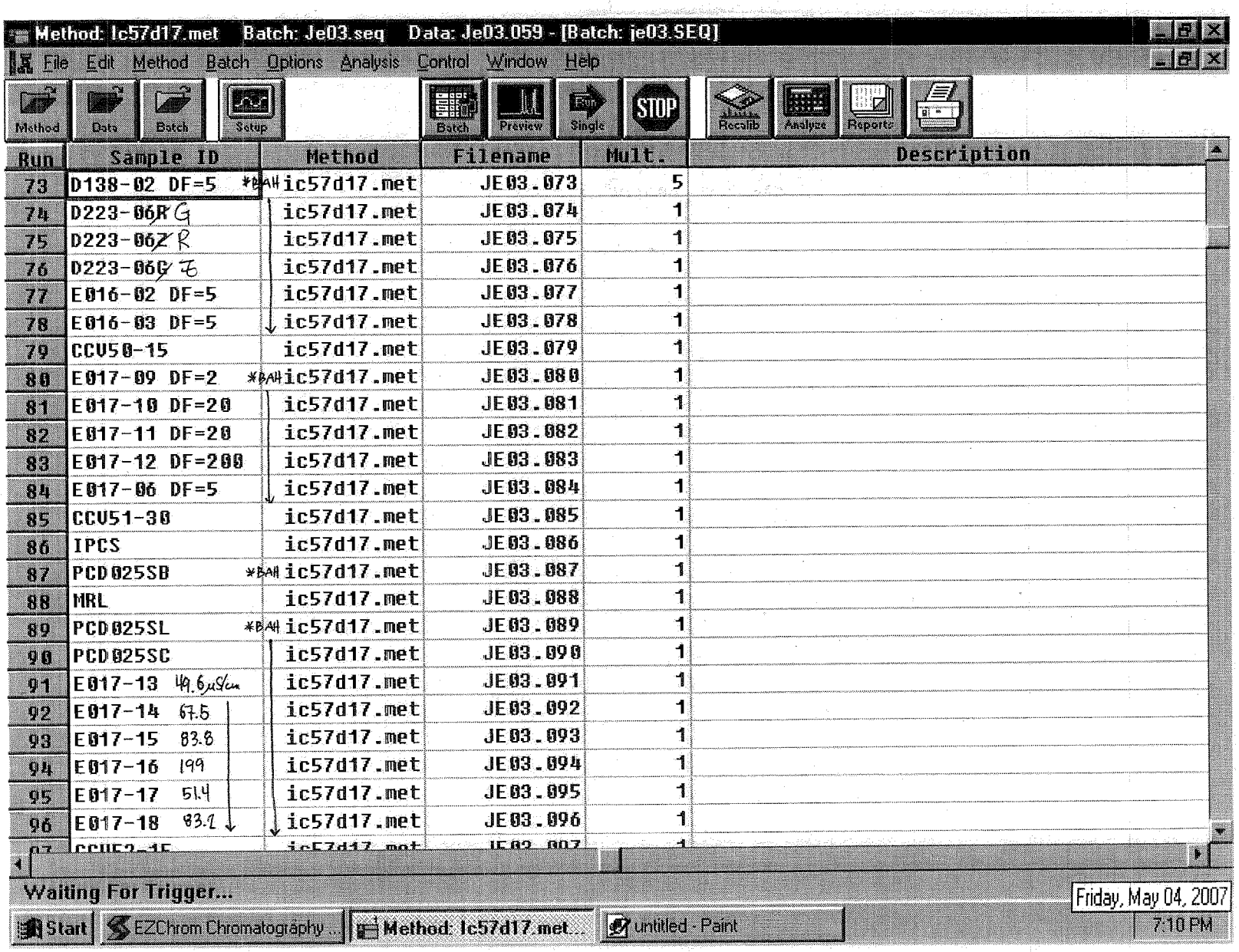
1208


Method: Ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | E017-09 179 µS/cm *BAH | ic57d17.met | JE03.025 | 1
26 | E017-10 127 | ic57d17.met | JE03.026 | 1
27 | E017-11 122 | ic57d17.met | JE03.027 | 1
28 | E017-12 383 | ic57d17.met | JE03.028 | 1
29 | CCV45-30 | ic57d17.met | JE03.029 | 1
30 | IPCS 4740 µS/cm | ic57d17.met | JE03.030 | 1
31 | PCD023WB *BAH | ic57d17.met | JE03.031 | 1
32 | MRL | ic57d17.met | JE03.032 | 1
33 | PCD023WL *BAH | ic57d17.met | JE03.033 | 1
34 | PCD023WC | ic57d17.met | JE03.034 | 1
35 | D205-02 DF=5 | ic57d17.met | JE03.035 | 5
36 | E016-13 2.57 µS/cm | ic57d17.met | JE03.036 | 1
37 | E017-01 3.25 | ic57d17.met | JE03.037 | 1
38 | E017-06 7.36 | ic57d17.met | JE03.038 | 1
39 | E017-19 2.37 | ic57d17.met | JE03.039 | 1
40 | E018-07 2.52 | ic57d17.met | JE03.040 | 1
41 | CCV46-15 | ic57d17.met | JE03.041 | 1
42 | E013-01 371 µS/cm *BAH | ic57d17.met | JE03.042 | 1
43 | E013-02 368 | ic57d17.met | JE03.043 | 1
44 | E013-03 375 | ic57d17.met | JE03.044 | 1
45 | E013-04 369 | ic57d17.met | JE03.045 | 1
46 | E013-05 369 | ic57d17.met | JE03.046 | 1
47 | E013-06 371 | ic57d17.met | JE03.047 | 1
48 | E013-07 369 | ic57d17.met | JE03.048 | 1
Instrument 1: T057
Start EZChrom Chromatography... Method: Ic57d17.met... untitled - Paint
Friday, May 04, 2007
7:10 PM

8025


Method: Ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
49 E013-08 2.45µS/cm *BAH ic57d17.met JE03.049 1
50 E013-10 1054 ic57d17.met JE03.050 1
51 E013-10D ic57d17.met JE03.051 1
52 CCV47-30 ic57d17.met JE03.052 1
53 E013-10M *BAH ic57d17.met JE03.053 1
54 E013-11 2.66µS/cm ic57d17.met JE03.054 1
55 E013-12 2.55 ic57d17.met JE03.055 1
56 CCV48-15 ic57d17.met JE03.056 1
57 IPCS ic57d17.met JE03.057 1
58 PCD024WB *BAH ic57d17.met JE03.058 1
59 MRL ic57d17.met JE03.059 1
60 PCD024WL *BAH ic57d17.met JE03.060 1
61 PCD024WC ic57d17.met JE03.061 1
62 D324-02 11.08µS/cm ic57d17.met JE03.062 1
63 D324-03 11.02 ic57d17.met JE03.063 1
64 D324-04 2.64 ic57d17.met JE03.064 1
65 D324-05 394 ic57d17.met JE03.065 1
66 D324-06 386 ic57d17.met JE03.066 1
67 D324-07 4.20 ic57d17.met JE03.067 1
68 CCV49-30 ic57d17.met JE03.068 1
69 E031-01 403µS/cm *BAH ic57d17.met JE03.069 1
70 E031-02 DF=5 Not used. Rec. Only. ic57d17.met JE03.070 5
71 E051-04 1895µS/cm ic57d17.met JE03.071 1
72 D138-02R *For confirmation ic57d17.met JE03.072 1
Waiting For Trigger...
Friday, May 04, 2007
Start EZChrom Chromatography... Method: Ic57d17.met... untitled - Paint 7:10 PM

6926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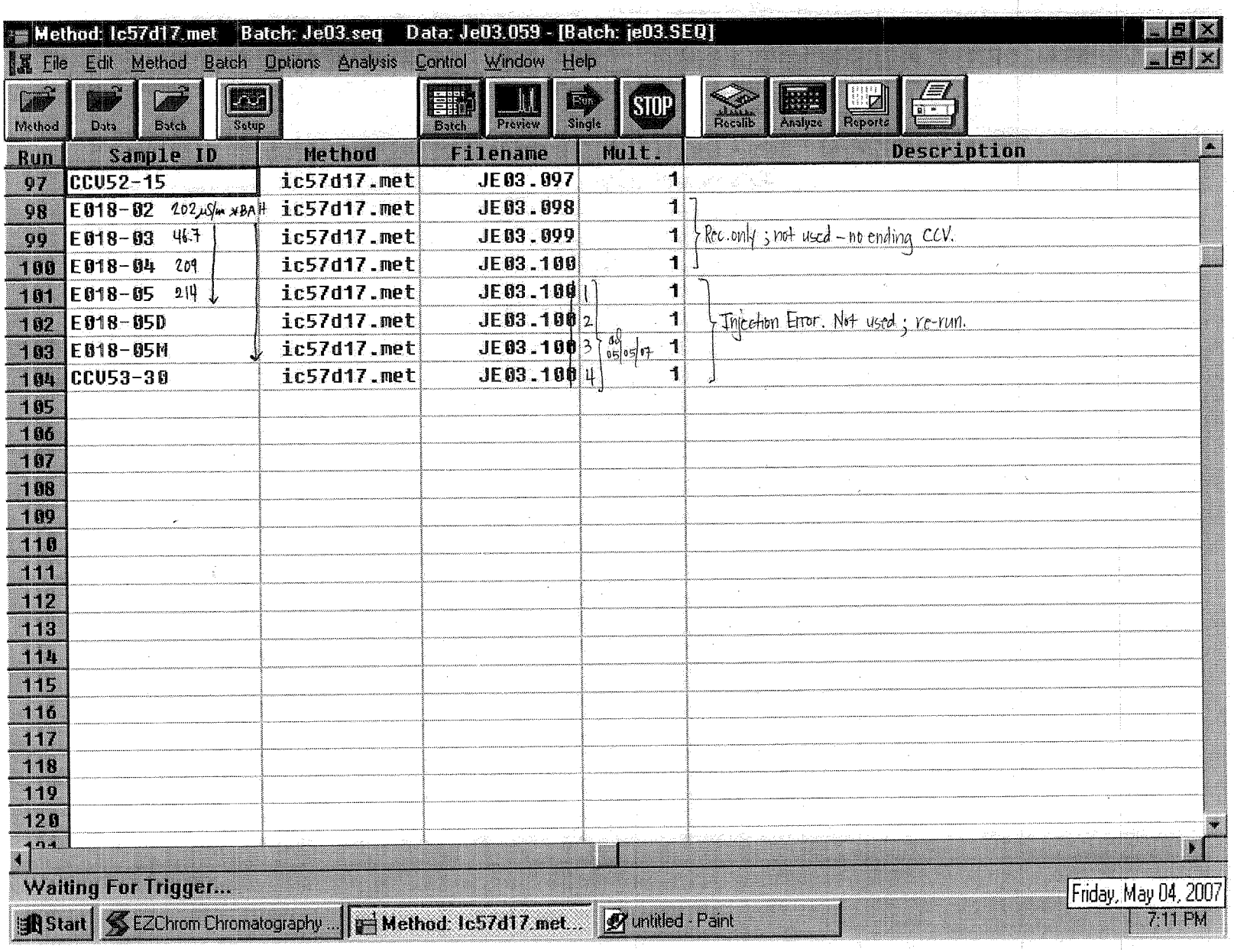
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
73 D138-02 DF=5 *BAH lc57d17.met JE03.073 5
74 D223-06R G lc57d17.met JE03.074 1
75 D223-06Z R lc57d17.met JE03.075 1
76 D223-06G Z lc57d17.met JE03.076 1
77 E016-02 DF=5 lc57d17.met JE03.077 1
78 E016-03 DF=5 lc57d17.met JE03.078 1
79 CCV50-15 lc57d17.met JE03.079 1
80 E017-09 DF=2 *BAH lc57d17.met JE03.080 1
81 E017-10 DF=20 lc57d17.met JE03.081 1
82 E017-11 DF=20 lc57d17.met JE03.082 1
83 E017-12 DF=200 lc57d17.met JE03.083 1
84 E017-06 DF=5 lc57d17.met JE03.084 1
85 CCV51-30 lc57d17.met JE03.085 1
86 IPCS lc57d17.met JE03.086 1
87 PCD025SB *BAH lc57d17.met JE03.087 1
88 MRL lc57d17.met JE03.088 1
89 PCD025SL *BAH lc57d17.met JE03.089 1
90 PCD025SC lc57d17.met JE03.090 1
91 E017-13 49.6µS/cm lc57d17.met JE03.091 1
92 E017-14 67.5 lc57d17.met JE03.092 1
93 E017-15 83.8 lc57d17.met JE03.093 1
94 E017-16 199 lc57d17.met JE03.094 1
95 E017-17 51.4 lc57d17.met JE03.095 1
96 E017-18 83.2 lc57d17.met JE03.096 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... untitled - Paint
Friday, May 04, 2007
7:10 PM

8027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Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
97 CCV52-15 lc57d17.met JE03.097 1
98 E018-02 202 µS/m xBA# lc57d17.met JE03.098 1
99 E018-03 46.7 lc57d17.met JE03.099 1
100 E018-04 209 lc57d17.met JE03.100 1
101 E018-05 214 lc57d17.met JE03.100 1
102 E018-05D lc57d17.met JE03.100 2 1
103 E018-05M lc57d17.met JE03.100 3 1
104 CCV53-30 lc57d17.met JE03.100 4 1
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120
Rec. only; not used - no ending CCV.
Injection Error. Not used; re-run.
ad 05/05/07
Waiting For Trigger...
Friday, May 04, 2007
7:11 PM
Start EZChrom Chromatography ... Method: lc57d17.met... untitled - Paint

8028

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 05/02/07 Time 16:50 End Date 05/02/07 Time 17:55

PREPARATION BATCH # PCD0225

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD0225B	10.000g	100 ml	100 ml	
*02	SL				
*03	SC				
*04	E016-01				
*05	01D				
*06	01M				
*07	02				
*08	03				
*09	04				
*10	05				
*11	07				
*12	08				
*13	09				
*14	10				
*15	11				
*16	E017-03				
*17	04				
*18	05				
*19	07				
*20	08				
*21	09				
*22	10				
*23	11				
*24	12				
*25					

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
~~Lactate~~ ad 05/02/07 LCS/MS	SW8B-02-931	2.5ml / 1.0ml
Perchlorate		
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: ad

Standard Added By: ad

Checked By:

ad 05/02/07

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

00236

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07E017**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1006
GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3550B/8082	5000 – 5039
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8035
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-24-2007
EMAX Batch No.: 07E017

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 05/01/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB01-042707	E017-01	04/27/07	WATER	PERCHLORATE BY IC
F33-HSAS10-5-6.5	E017-02	04/27/07	SOIL	HOLD
F33-HSAS10-10-11.5	E017-03	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS10-15-16.5	E017-04	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS10-20-21.5	E017-05	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS10GW	E017-06	04/27/07	WATER	PERCHLORATE BY IC
F33-HAS11@.5	E017-07	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS11@5	E017-08	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS14-5-6.5	E017-09	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS14-10-11.5	E017-10	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS14-15-16.5	E017-11	04/27/07	SOIL	PERCHLORATE BY IC
F33-HSAS14-20-21.5	E017-12	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS12@.5	E017-13	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS12@5.0	E017-14	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS13@.5	E017-15	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS13@5.0	E017-16	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS16@.5	E017-17	04/27/07	SOIL	PERCHLORATE BY IC
F33-HAS16@5	E017-18	04/27/07	SOIL	PERCHLORATE BY IC
LEB-042707	E017-19	04/27/07	WATER	PERCHLORATE BY IC

Sample ID	Control #	Col Date	Matrix	Analysis
H49-HSAS9-10-11.5	E017-20	04/27/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS9-20-21.5	E017-21	04/27/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS901-20-21.5	E017-22	04/27/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS9-35-36.5	E017-23	04/27/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS9-40-41.5	E017-24	04/27/07	SOIL	HOLD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

for

Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMax
1835 W 205th St
Torrance CA
90501

07E017

DATE 4-27-07 PAGE 1 OF 3

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: B. Meyer
TC #: 19967
SAMPLERS (Signatures): L. Margullis, R. Santoyo

TURN-AROUND TIME: Standard

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	LEB01-042707	4-27-07	855	X	U	W	P	1	NR	
2.	F33-HSAS10 5-6.5	"	910	X		S	G	1		hold
3.	F33-HSAS10 10-11.5		912	X		S	G	1		
4.	F33-HSAS10 15-16.5		915	X		S	G	1		
5.	F33-HSAS10 20-21.5		919	X		S	G	1		
6.	F33-HSAS10GW		927	X		W	P	1		
7.	F33-HSAS11@.5		912	X		S	G	1		
8.	F33-HSAS11@5		930	X		S	G	1		
9.	F33-HSAS14 5-6.5		1012	X		S	G	1		
10.	F33-HSAS14 10-11.5		1014	X		S	G	1		

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME
Linda Margullis	Linda Margullis	TETRA TECH, INC.	4-27-07	1830
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 15:05
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 18:18
RECEIVED BY: A FLORES	SIGNATURE	COMPANY: EMAX	DATE: 5-1-07	TIME: 1818

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10 of 24

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements:

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

① T-3.4°C ② T-3.5°C ③ T-3.0°C

2005

X:\GIS\ATT-MISC\COCR.CDR

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX
1835 W 205th St
Torrance CA
90501

07E017

DATE 4-27-07 PAGE 2 OF 3

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: B. Meyer
TC #: 19967
SAMPLERS (Signatures) L. Margullis

TURN-AROUND TIME: Standard

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	340 Perchlorate	8082 PCBs	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	F33-HSAS14 15-16.5	4-27-07	1016	X		X	S	G	1	NR	
2.	F33-HSAS14 20-21.5	"	1018	X		X	S	G	1	"	
3.	F33-HSAS12@.5	"	1024	X		"	"	"	"	"	
4.	F33-HAS12@5.0	"	1037	X		"	"	"	"	"	
5.	F33-HAS13@.5	"	1114	X		"	"	"	"	"	
6.	F33-HAS13@5.0	"	1128	X		"	"	"	"	"	
7.	F33-HAS16@.5	"	1157	X		"	"	"	"	"	
8.	F33-HAS16@5	"	1210	X		"	"	"	"	"	
9.	LEB042707	"	1230	X		"	W	P	"	"	
10.	H49-HSAS9 10-11.5	"	1439		X	"	S	G	1	NR	

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10 of 24
Linda Margullis	Linda Margullis	TETRA TECH, INC.	4-27-07	1830	
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 5/1/07	TIME 15:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 5/1/07	TIME 18:18	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: A. FUENTES	SIGNATURE	COMPANY EMAX	DATE 5-1-07	TIME 18:18	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COC.CDR

1 of 3

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX
1835 W. 205th St
Torrance CA
90501

07E017

DATE 4-27-07 PAGE 3 OF 3

CLIENT: LMC
PROJECT NAME: Site 1 Supplemental Soil Investigation
PROJECT MANAGER: B. Mayer
TC #: 19967
SAMPLERS (Signatures): L Margulis

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 PCBs	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	H49-HSA59-20-21.5	4-27-07	1444	X		US	G	1	NR	
2.	H49-HSA5901 20-21.5	"	"	X						DUP
3.	H49-HSA59 35-36.5	"	1454	X						[redacted]
4.	H49-HSA59 40-41.5	"	1458	X						* hold
5.										
6.										
7.										
8.										
9.										
10.										

TURN-AROUND TIME: Standard

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		COMPANY	DATE	TIME
Linda Margulis	Linda Margulis	TETRA TECH, INC.		4-27-07	1830
RECEIVED BY: A. GALICIA	SIGNATURE		EMAX	5/1/07	15:65
RELINQUISHED BY: A. GALICIA	SIGNATURE		EMAX	5/1/07	18:18
RECEIVED BY: A. FLORENDO	SIGNATURE		EMAX	5-1-07	1818

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 4 of 24

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements:

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

19967

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07E017
☑ EMAX Courier	See COC	Recepient A. FLORENDO
☐ Client Delivery		Date 050107
☐ Third Party		Time 1818

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☐ TAT

Safety Issues

☐ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☑ Plastic Bag
Temperatures	☑ Cooler 1 3-4 °C	☑ Cooler 2 3-5 °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling [signature] Date 050107/5 5/1/07

SRF [signature] Date 5/1/07

PM [signature] Date 5/2/07

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC	E1	Preservative needed; sample has no preservative	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label	E2	Preservative not needed but sample is preserved	R2	Proceed as indicated in COC
A3	Analysis is inconsistent in COC vis-à-vis label	F1	Not enough quantity of samples	R3	Refer to attached instruction
B1	Sample ID is not indicated in COC	F2	Bubble is> 6mm	R4	Cancel the analysis
B2	Sample ID is not indicated in label	G1	Temperature is out of range (4 +_ 2°C)	R5	
B3	Sample ID is inconsistent in COC vis-à-vis label	G2	Out of Holding Time	R6	
C1	Wrong container	G3	>20 % solid particle		
C2	Broken container	H1			
C3	Leaking container	H2			
D1	Date and/or time is not indicated in COC				
D2	Date and/or time is not indicated in label				
D3	Date and/or time is inconsistent in COC vis-à-vis label				

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3550B/8082
PCBs

SDG#: 07E017

5000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E017

METHOD 3550B/8082
PCBs

Four (4) soil samples were received on 05/01/07 for PCBs analysis by Method 3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07E017
Instrument ID : GCT071

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60E005SB	1	NA	05/05/0701:26	05/03/0714:30	KE04041A	KE04039A	60E005S	Method Blank
LCS1S	60E005SL	1	NA	05/05/0701:47	05/03/0714:30	KE04042A	KE04039A	60E005S	Lab Control Sample (LCS)
LCD1S	60E005SC	1	NA	05/05/0702:09	05/03/0714:30	KE04043A	KE04039A	60E005S	LCS Duplicate
H49-HSAS9-10-11.5	E017-20	1	4.5	05/05/0711:51	05/03/0714:30	KE04070A	KE04065A	60E005S	Field Sample
H49-HSAS9-20-21.5	E017-21	1	7.4	05/05/0712:13	05/03/0714:30	KE04071A	KE04065A	60E005S	Field Sample
H49-HSAS901-20-21.5	E017-22	1	7.2	05/05/0712:34	05/03/0714:30	KE04072A	KE04065A	60E005S	Field Sample
H49-HSAS9-35-36.5	E017-23	1	2.8	05/05/0712:56	05/03/0714:30	KE04073A	KE04065A	60E005S	Field Sample

FN - Filename
% Moist - Percent Moisture

5902

SAMPLE RESULTS

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/27/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/01/07
Batch No.	: 07E017	Date Extracted:	05/03/07 14:30
Sample ID:	H49-HSAS9-10-11.5	Date Analyzed:	05/05/07 11:51
Lab Samp ID:	E017-20	Dilution Factor:	1
Lab File ID:	KE04070A	Matrix	: SOIL
Ext Btch ID:	60E005S	% Moisture	: 4.5
Calib. Ref.:	KE04065A	Instrument ID	: GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	52	21 | 21
PCB-1221	(ND) | ND	52	21 | 21
PCB-1232	(ND) | ND	52	21 | 21
PCB-1242	(ND) | ND	52	21 | 21
PCB-1248	(ND) | ND	52	21 | 21
PCB-1254	(ND) | ND	52	21 | 21
PCB-1260	(ND) | ND	52	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(94) | 109	10-160
DECACHLOROBIPHENYL	(118) | 123	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/27/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E017	Date Extracted: 05/03/07 14:30
Sample ID: H49-HSAS9-20-21.5	Date Analyzed: 05/05/07 12:13
Lab Samp ID: E017-21	Dilution Factor: 1
Lab File ID: KE04071A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : 7.4
Calib. Ref.: KE04065A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	54	22|22
PCB-1221	(ND)|ND	54	22|22
PCB-1232	(ND)|ND	54	22|22
PCB-1242	(ND)|ND	54	22|22
PCB-1248	(ND)|ND	54	22|22
PCB-1254	(ND)|ND	54	22|22
PCB-1260	(ND)|ND	54	22|22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(86)|78	10-160
DECACHLOROBIPHENYL	(114)|118	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/27/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/01/07
Batch No.	: 07E017	Date Extracted:	05/03/07 14:30
Sample ID:	H49-HSAS901-20-21.5	Date Analyzed:	05/05/07 12:34
Lab Samp ID:	E017-22	Dilution Factor:	1
Lab File ID:	KE04072A	Matrix :	SOIL
Ext Btch ID:	60E005S	% Moisture :	7.2
Calib. Ref.:	KE04065A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	54	22 | 22
PCB-1221	(ND) | ND	54	22 | 22
PCB-1232	(ND) | ND	54	22 | 22
PCB-1242	(ND) | ND	54	22 | 22
PCB-1248	(ND) | ND	54	22 | 22
PCB-1254	(ND) | ND	54	22 | 22
PCB-1260	(ND) | ND	54	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(83) | 100	10-160
DECACHLOROBIPHENYL	(113) | 114	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/27/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/01/07
Batch No.	: 07E017	Date Extracted:	05/03/07 14:30
Sample ID:	H49-HSAS9-35-36.5	Date Analyzed:	05/05/07 12:56
Lab Samp ID:	E017-23	Dilution Factor:	1
Lab File ID:	KE04073A	Matrix :	SOIL
Ext Btch ID:	60E005S	% Moisture :	2.8
Calib. Ref.:	KE04065A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	51	21 | 21
PCB-1221	(ND) | ND	51	21 | 21
PCB-1232	(ND) | ND	51	21 | 21
PCB-1242	(ND) | ND	51	21 | 21
PCB-1248	(ND) | ND	51	21 | 21
PCB-1254	(ND) | ND	51	21 | 21
PCB-1260	(ND) | ND	51	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(87) | 105	10-160
DECACHLOROBIPHENYL	(117) | 118	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/03/07
Batch No. : 07E017	Date Extracted: 05/03/07 14:30
Sample ID: MBLK1S	Date Analyzed: 05/05/07 01:26
Lab Samp ID: 60E005SB	Dilution Factor: 1
Lab File ID: KE04041A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : NA
Calib. Ref.: KE04039A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(86) | 82	40-130
DECACHLOROBIPHENYL	(115) | 115	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E017
METHOD: METHOD 3550B/8082

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60E005SB	60E005SL	60E005SC		
LAB FILE ID:	KE04041A	KE04042A	KE04043A		
DATE EXTRACTED:	05/03/0714:30	05/03/0714:30	05/03/0714:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/05/0701:26	05/05/0701:47	05/05/0702:09	DATE RECEIVED:	05/03/07
PREP. BATCH:	60E005S	60E005S	60E005S		
CALIB. REF:	KE04039A	KE04039A	KE04039A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(167) | 145	(100) | 87	167	(165) | 156	(99) | 94	(1) | 7	50-130	50
PCB-1260	(ND) | ND	167	(182) | 160	(109) | 96	167	(180) | 166	(108) | 100	(1) | 4	70-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(11.5) | 11.1	(86) | 83	13.3	(11.3) | 11.0	(85) | 82	40-130
Decachlorobiphenyl	13.3	(16.0) | 16.0	(120) | 120	13.3	(15.2) | 15.3	(114) | 114	40-160

5010

INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
LFID & Datetime: KD17002A 04/17/07 11:05
LFID & Datetime: KD17003A 04/17/07 11:27
LFID & Datetime: KD17004A 04/17/07 11:48
LFID & Datetime: KD17005A 04/17/07 12:10
LFID & Datetime: KD17006A 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1222.85	1270.50	1181.34	1023.15	923.31	1124.23	13.0
PCB1016-2	20.00	1405.05	1541.56	1431.64	1298.23	1179.83	1371.26	10.0
PCB1016-3	20.00	5276.95	4988.12	4510.80	3878.04	3478.53	4426.49	16.9
PCB1016-4	20.00	1289.20	1511.80	1422.99	1326.13	1201.69	1350.36	8.9
PCB1016-5	20.00	1166.50	1430.44	1181.47	1212.29	1068.37	1211.81	11.0
PCB1260-1	20.00	3494.15	3529.02	3133.71	2851.14	2409.67	3083.54	15.2
PCB1260-2	20.00	5729.00	5652.56	5436.91	4869.33	4439.66	5225.49	10.6
PCB1260-3	20.00	3469.70	3441.72	3396.39	3041.85	2752.14	3220.36	9.7
PCB1260-4	20.00	7270.55	8008.74	7756.66	7290.90	6554.21	7376.21	7.5
PCB1260-5	20.00	4389.70	4642.28	4442.28	4319.34	4017.51	4362.22	5.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10592	10679	10499	9850	9496	10223	5.1
DCB	5.00	14372	14235	13795	12178	11471	13210	9.9

4-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
LFID & Datetime: KD17002B 04/17/07 11:05
LFID & Datetime: KD17003B 04/17/07 11:27
LFID & Datetime: KD17004B 04/17/07 11:48
LFID & Datetime: KD17005B 04/17/07 12:10
LFID & Datetime: KD17006B 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1454.55	1424.40	1292.03	1118.69	998.03	1257.54	15.6
PCB1016-2	20.00	2781.45	2675.90	2441.52	2076.26	1841.45	2363.32	16.8
PCB1016-3	20.00	5437.50	4996.70	4563.71	3882.20	3497.18	4475.46	17.7
PCB1016-4	20.00	1510.30	1427.08	1400.76	1267.94	1181.01	1357.42	9.7
PCB1016-5	20.00	1152.80	1291.20	1216.05	1177.94	1124.06	1192.41	5.4
PCB1260-1	20.00	4650.55	4444.38	4379.77	3723.10	3400.99	4119.76	12.9
PCB1260-2	20.00	3411.65	3196.48	3273.92	2870.77	2590.60	3068.68	10.9
PCB1260-3	20.00	3093.25	2986.02	3162.32	2717.71	2477.88	2887.43	9.9
PCB1260-4	20.00	7807.60	7652.78	7640.60	6670.01	6202.79	7194.76	9.9
PCB1260-5	20.00	5368.85	5467.36	5552.58	5030.22	4645.39	5212.88	7.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10583	10930	11041	10247	10105	10581	3.9
DCB	5.00	14855	14247	13516	12432	11744	13359	9.6

pw 4-19-07

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007A 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			954.565	5		15
PCB1260				1000.0			1003.852	0		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.333	4.282	4.384	50.0	10223.2	501063	49.01	-2		15
DCB	12.783	12.708	12.858	50.0	13210.2	726987	55.03	10		15

4-19-07

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007B 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			956.404	4		15
PCB1260				1000.0			978.074	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.992	2.963	3.021	50.0	10581.1	503048	47.54	-5		15
DCB	9.700	9.657	9.743	50.0	13358.7	701265	52.49	5		15

4-19-07

5016

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04039A 05/05/2007 00:43
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1062.599	6		15
PCB1260				1000.0			1134.596	13		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	587237	57.44	15		15
DCB	12.608	12.533	12.683	50.0	13210.2	699156	52.93	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04039B 05/05/2007 00:43
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1042.991	4		15
PCB1260				1000.0			1096.431	10		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	585860	55.37	11		15
DCB	9.583	9.540	9.626	50.0	13358.7	708317	53.02	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04052A 05/05/2007 05:22
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1011.865	1		15
PCB1260				1000.0			1082.690	8		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.267	4.216	4.318	50.0	10223.2	576437	56.38	13		15
DCB	12.608	12.533	12.683	50.0	13210.2	810009	61.32	23	*	15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04052B 05/05/2007 05:22
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1018.668	2		15
PCB1260				1000.0			1117.488	12		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.925	2.896	2.954	50.0	10581.1	568688	53.75	7		15
DCB	9.583	9.540	9.626	50.0	13358.7	706376	52.88	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04065A 05/05/2007 10:03
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1064.060	6		15
PCB1260				1000.0			1075.921	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	582746	57.00	14		15
DCB	12.600	12.525	12.675	50.0	13210.2	702082	53.15	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04065B 05/05/2007 10:03
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1035.265	4		15
PCB1260				1000.0			1144.496	14		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.925	2.896	2.954	50.0	10581.1	571913	54.05	8		15
DCB	9.575	9.532	9.618	50.0	13358.7	703473	52.66	5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04088A 05/05/2007 18:19
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1027.558	3		15
PCB1260				1000.0			1088.644	9		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	565176	55.28	11		15
DCB	12.608	12.533	12.683	50.0	13210.2	659733	49.94	-0		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04088B 05/05/2007 18:19
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	% %D LIMITS
PCB1016				1000.0			1006.473	1		15
PCB1260				1000.0			1066.425	7		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.933	2.904	2.962	50.0	10581.1	552459	52.21	4		15
DCB	9.583	9.540	9.626	50.0	13358.7	668146	50.02	0		15

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
PESTICIDES

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD17

Method File: 6071D17; 5471D17; 4871D17

Analytical Batch: KD17026A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4/17/07
54 ↓	↓	↓
48 ↓	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	45059	N/A
1660 ICAL	SSIB-05-62-2	100-2000ppb
↓ ICV	↓ 3	
1248 ICAL	SSIB-05-63-3	
↓ ICV	↓ 64-1	
1254 ICAL	SSIB-05-63-1	
↓ ICV	↓ -2	
1221 ICAL	SSIB-05-54-1	100-2000ppb
1232	↓ 2	
1242	↓ 3	
1262 ↓	SSIB-05-64-2	
1268 ICV	↓ 3	

Column	A. RTX CLPEST I	B. RTX CLPEST II

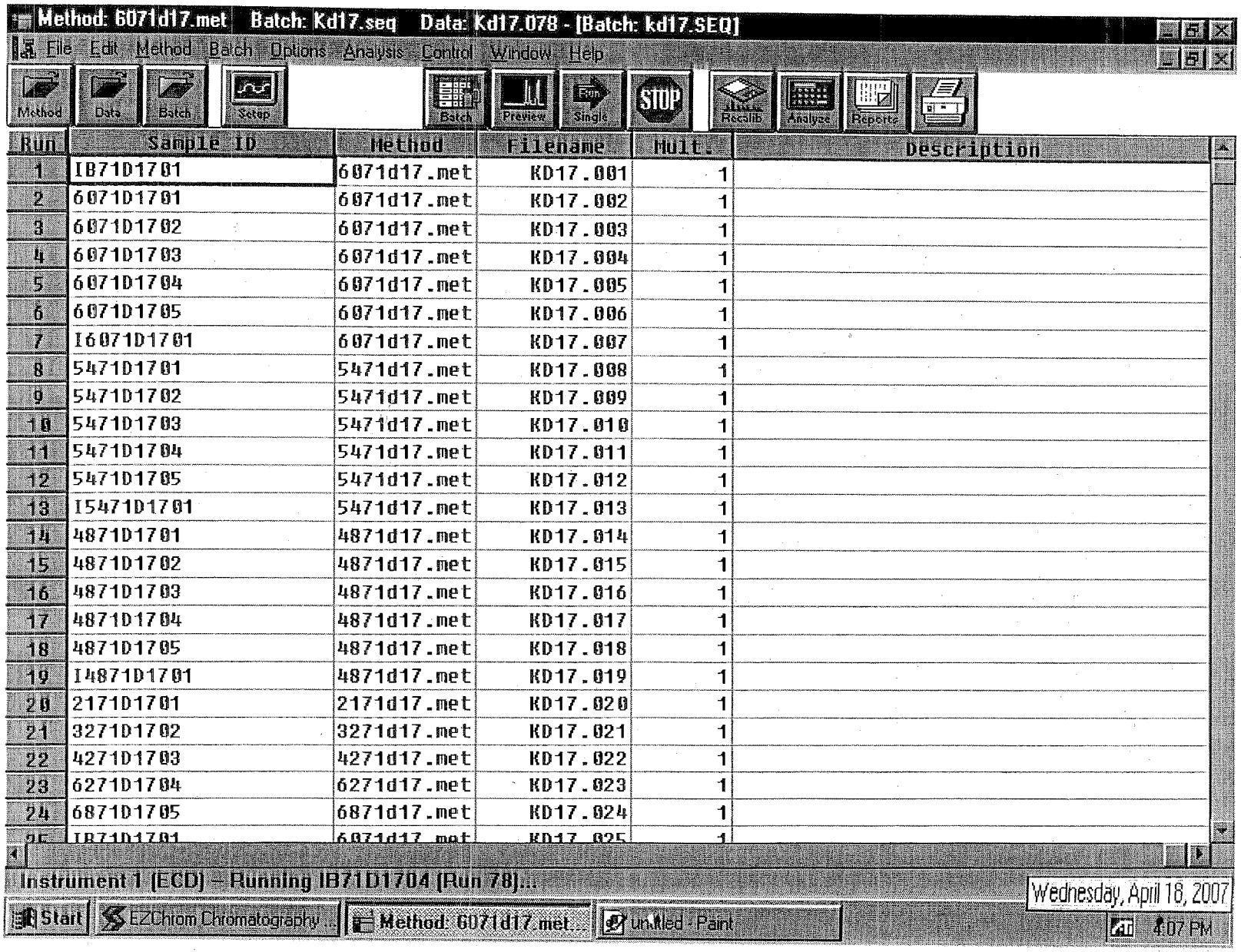
ELECTRONIC DATA ARCHIVAL

Location	Date
☑ EZC_4_Pesticides	
☐	

Analyzed By: JK Date: 4/17/07

Date Disposed: Disposed By:

This page is checked during data review.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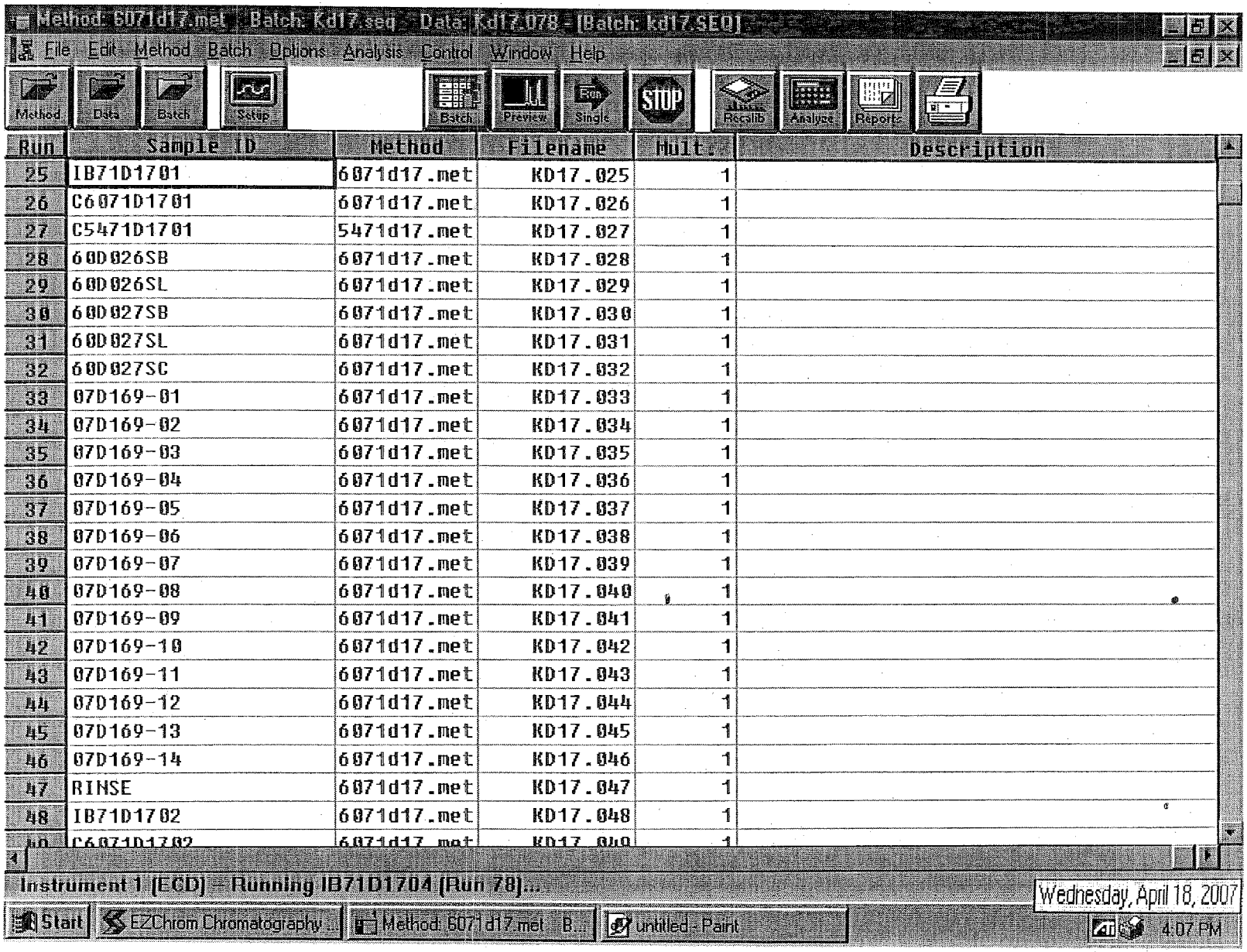
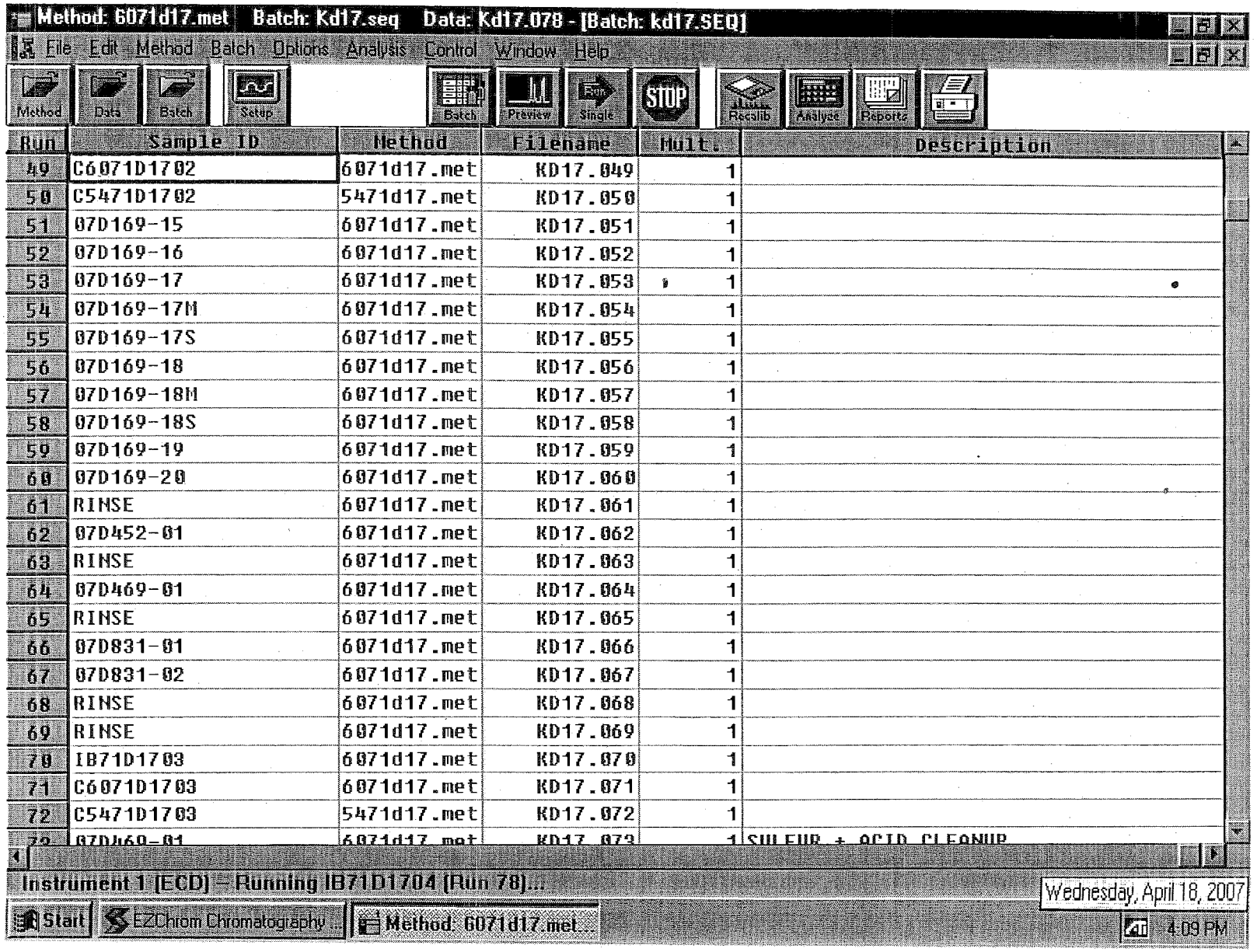
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1701 | 6071d17.met | KD17.001 | 1
2 | 6071D1701 | 6071d17.met | KD17.002 | 1
3 | 6071D1702 | 6071d17.met | KD17.003 | 1
4 | 6071D1703 | 6071d17.met | KD17.004 | 1
5 | 6071D1704 | 6071d17.met | KD17.005 | 1
6 | 6071D1705 | 6071d17.met | KD17.006 | 1
7 | I6071D1701 | 6071d17.met | KD17.007 | 1
8 | 5471D1701 | 5471d17.met | KD17.008 | 1
9 | 5471D1702 | 5471d17.met | KD17.009 | 1
10 | 5471D1703 | 5471d17.met | KD17.010 | 1
11 | 5471D1704 | 5471d17.met | KD17.011 | 1
12 | 5471D1705 | 5471d17.met | KD17.012 | 1
13 | I5471D1701 | 5471d17.met | KD17.013 | 1
14 | 4871D1701 | 4871d17.met | KD17.014 | 1
15 | 4871D1702 | 4871d17.met | KD17.015 | 1
16 | 4871D1703 | 4871d17.met | KD17.016 | 1
17 | 4871D1704 | 4871d17.met | KD17.017 | 1
18 | 4871D1705 | 4871d17.met | KD17.018 | 1
19 | I4871D1701 | 4871d17.met | KD17.019 | 1
20 | 2171D1701 | 2171d17.met | KD17.020 | 1
21 | 3271D1702 | 3271d17.met | KD17.021 | 1
22 | 4271D1703 | 4271d17.met | KD17.022 | 1
23 | 6271D1704 | 6271d17.met | KD17.023 | 1
24 | 6871D1705 | 6871d17.met | KD17.024 | 1
Instrument 1 (ECD) - Running IB71D1704 (Run 78)...
Start EZChrom Chromatography... Method: 6071d17.met... untitled - Paint
Wednesday, April 18, 2007
4:07 PM

5028


Method 6071d17.met - Batch: Kd17.seq - Data: Kd17A078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run
Single
STOP
RecalIB
Analyze
Report
Run | Sample ID | Method | Filename | Mult. | Description
25 | IB71D1701 | 6071d17.met | KD17.025 | 1
26 | C6071D1701 | 6071d17.met | KD17.026 | 1
27 | C5471D1701 | 5471d17.met | KD17.027 | 1
28 | 60D026SB | 6071d17.met | KD17.028 | 1
29 | 60D026SL | 6071d17.met | KD17.029 | 1
30 | 60D027SB | 6071d17.met | KD17.030 | 1
31 | 60D027SL | 6071d17.met | KD17.031 | 1
32 | 60D027SC | 6071d17.met | KD17.032 | 1
33 | 07D169-01 | 6071d17.met | KD17.033 | 1
34 | 07D169-02 | 6071d17.met | KD17.034 | 1
35 | 07D169-03 | 6071d17.met | KD17.035 | 1
36 | 07D169-04 | 6071d17.met | KD17.036 | 1
37 | 07D169-05 | 6071d17.met | KD17.037 | 1
38 | 07D169-06 | 6071d17.met | KD17.038 | 1
39 | 07D169-07 | 6071d17.met | KD17.039 | 1
40 | 07D169-08 | 6071d17.met | KD17.040 | 1
41 | 07D169-09 | 6071d17.met | KD17.041 | 1
42 | 07D169-10 | 6071d17.met | KD17.042 | 1
43 | 07D169-11 | 6071d17.met | KD17.043 | 1
44 | 07D169-12 | 6071d17.met | KD17.044 | 1
45 | 07D169-13 | 6071d17.met | KD17.045 | 1
46 | 07D169-14 | 6071d17.met | KD17.046 | 1
47 | RINSE | 6071d17.met | KD17.047 | 1
48 | IB71D1702 | 6071d17.met | KD17.048 | 1
Instrument 1 [ECD] - Running IB71D1704 (Run 78)...
Wednesday, April 18, 2007
Start
EZChrom Chromatography ...
Method 6071d17.met - B...
untitled - Paint
4:07 PM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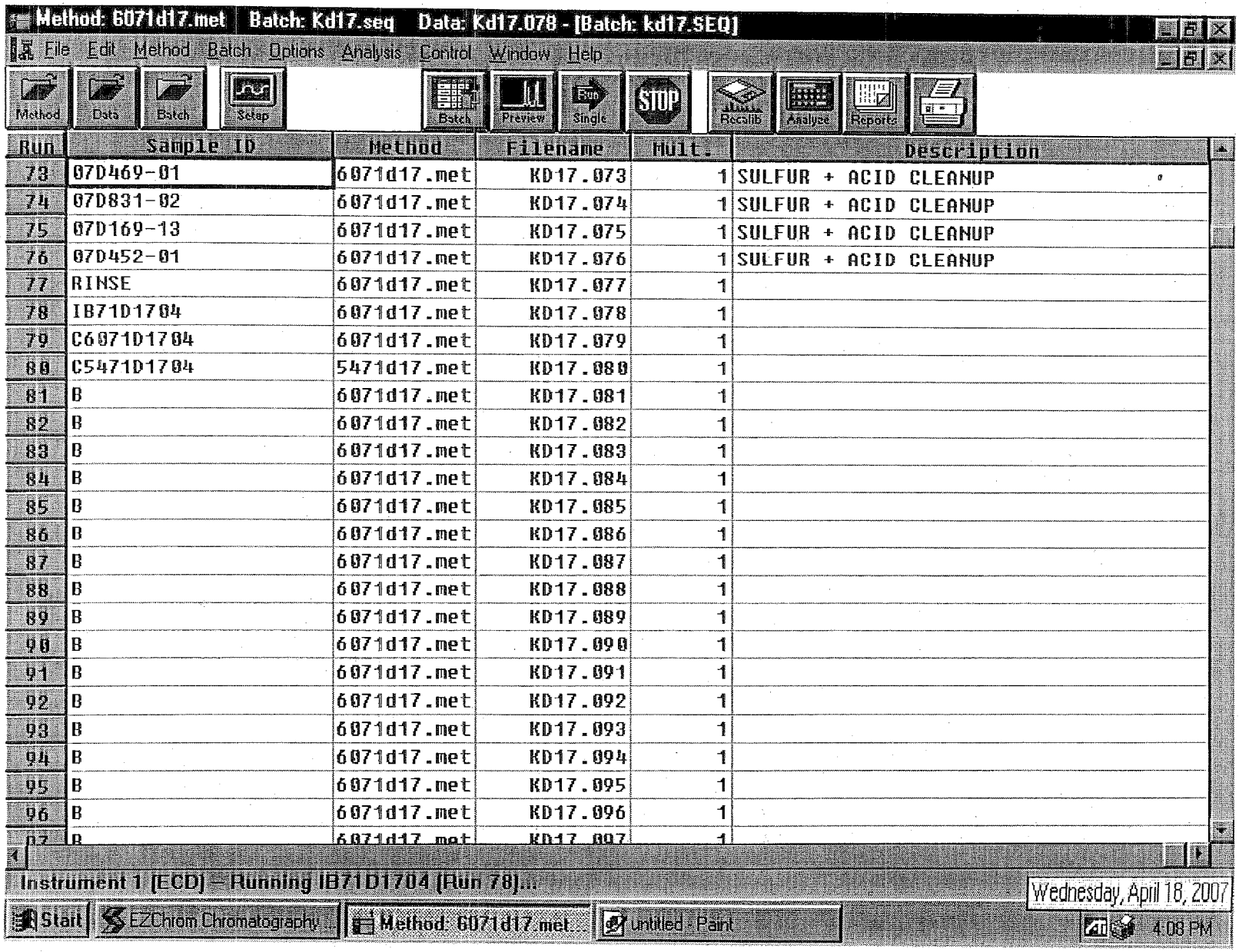
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
49 C6071D1702 6071d17.met KD17.049 1
50 C5471D1702 5471d17.met KD17.050 1
51 07D169-15 6071d17.met KD17.051 1
52 07D169-16 6071d17.met KD17.052 1
53 07D169-17 6071d17.met KD17.053 1
54 07D169-17M 6071d17.met KD17.054 1
55 07D169-17S 6071d17.met KD17.055 1
56 07D169-18 6071d17.met KD17.056 1
57 07D169-18M 6071d17.met KD17.057 1
58 07D169-18S 6071d17.met KD17.058 1
59 07D169-19 6071d17.met KD17.059 1
60 07D169-20 6071d17.met KD17.060 1
61 RINSE 6071d17.met KD17.061 1
62 07D452-01 6071d17.met KD17.062 1
63 RINSE 6071d17.met KD17.063 1
64 07D469-01 6071d17.met KD17.064 1
65 RINSE 6071d17.met KD17.065 1
66 07D831-01 6071d17.met KD17.066 1
67 07D831-02 6071d17.met KD17.067 1
68 RINSE 6071d17.met KD17.068 1
69 RINSE 6071d17.met KD17.069 1
70 IB71D1703 6071d17.met KD17.070 1
71 C6071D1703 6071d17.met KD17.071 1
72 C5471D1703 5471d17.met KD17.072 1
07D469-01 6071d17.met KD17.073 1 SULFUR + ACID CLEANUP
Instrument 1 [ECD] - Running IB71D1704 (Run 78)...
Wednesday, April 18, 2007
Start EZChrom Chromatography... Method: 6071d17.met...
4:09 PM

5030


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run Sample ID Method Filename Mult. Description
73 07D469-01 6071d17.met KD17.073 1 SULFUR + ACID CLEANUP
74 07D831-02 6071d17.met KD17.074 1 SULFUR + ACID CLEANUP
75 07D169-13 6071d17.met KD17.075 1 SULFUR + ACID CLEANUP
76 07D452-01 6071d17.met KD17.076 1 SULFUR + ACID CLEANUP
77 RINSE 6071d17.met KD17.077 1
78 IB71D1704 6071d17.met KD17.078 1
79 C6071D1704 6071d17.met KD17.079 1
80 C5471D1704 5471d17.met KD17.080 1
81 B 6071d17.met KD17.081 1
82 B 6071d17.met KD17.082 1
83 B 6071d17.met KD17.083 1
84 B 6071d17.met KD17.084 1
85 B 6071d17.met KD17.085 1
86 B 6071d17.met KD17.086 1
87 B 6071d17.met KD17.087 1
88 B 6071d17.met KD17.088 1
89 B 6071d17.met KD17.089 1
90 B 6071d17.met KD17.090 1
91 B 6071d17.met KD17.091 1
92 B 6071d17.met KD17.092 1
93 B 6071d17.met KD17.093 1
94 B 6071d17.met KD17.094 1
95 B 6071d17.met KD17.095 1
96 B 6071d17.met KD17.096 1
Instrument 1 [ECD] - Running IB71D1704 [Run 78]...
Wednesday, April 18, 2007
Start EZChrom Chromatography... Method: 6071d17.met... untitled - Paint
4:08 PM

5691

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KE04

Method File: 607ID17, 547ID17

Analytical Batch: KE04003

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
607ID17	KDI7	4-17-07
547ID17	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
1660 ICAL	SSIB-05-62-2	100-2000
1254 ICAL	SSIB-05-63-1	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

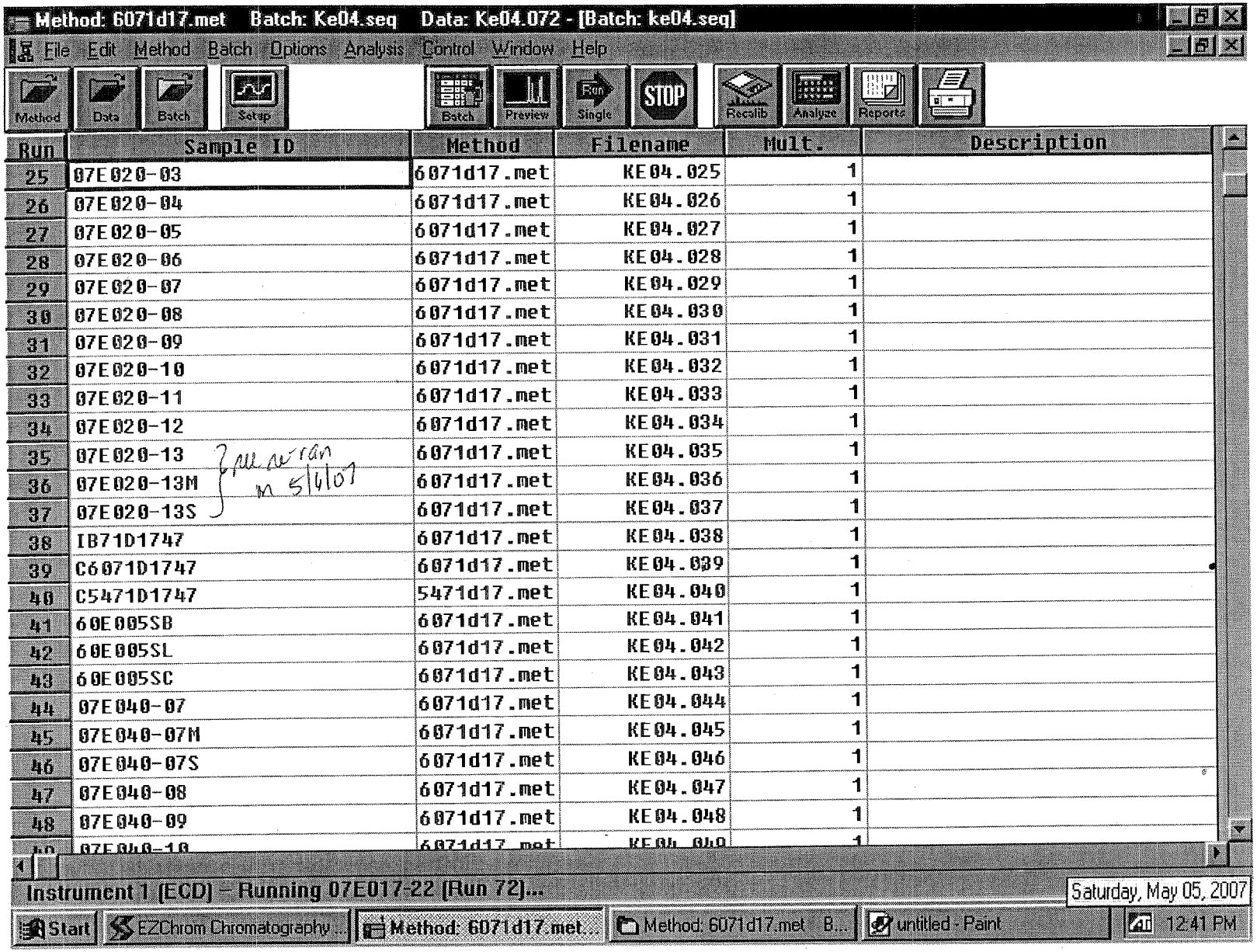
ELECTRONIC DATA ARCHIVAL

Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: ESR Date: 5/4/07

Date Disposed: Disposed By:

This page is checked during data review.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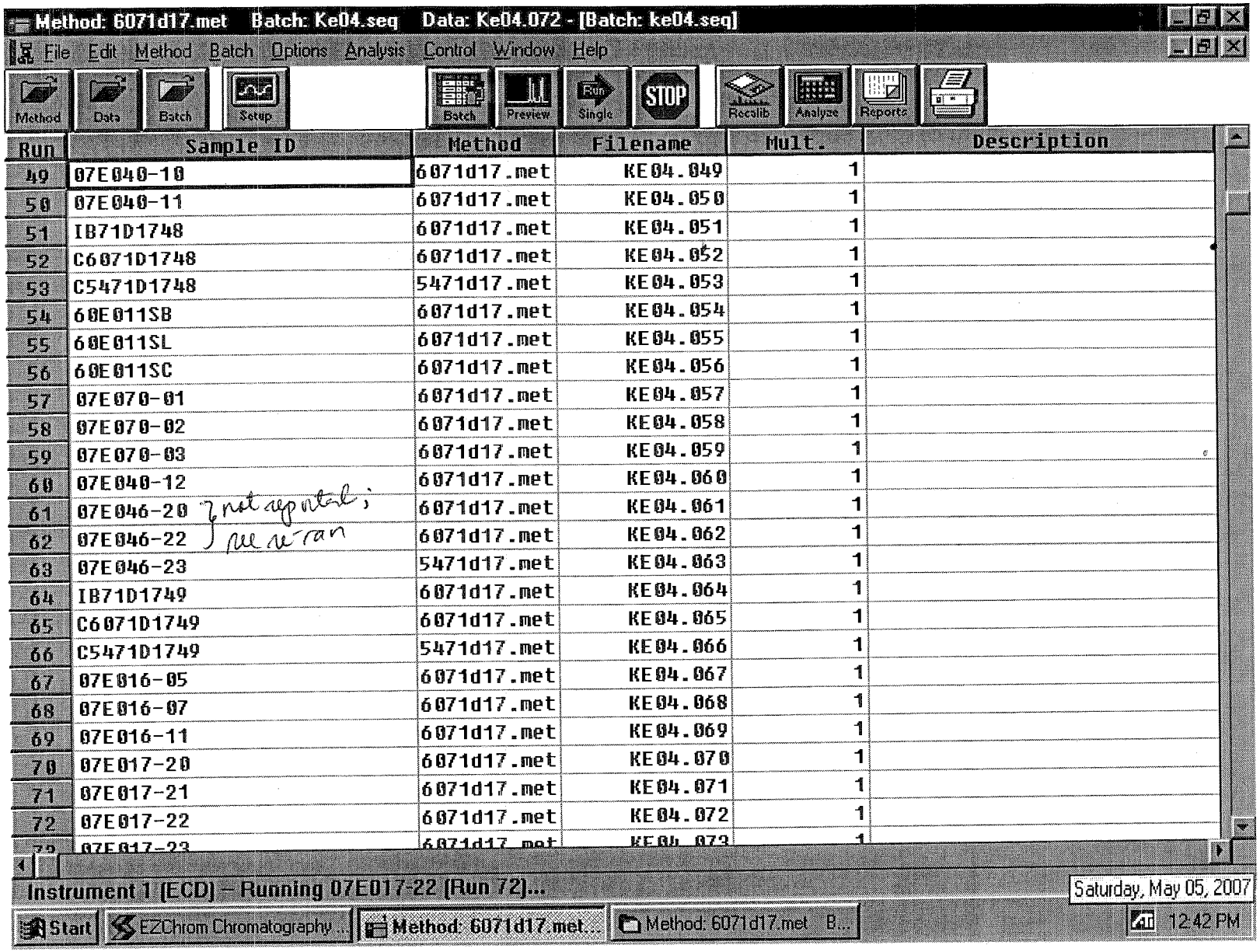
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | 07E020-03 | 6071d17.met | KE04.025 | 1
26 | 07E020-04 | 6071d17.met | KE04.026 | 1
27 | 07E020-05 | 6071d17.met | KE04.027 | 1
28 | 07E020-06 | 6071d17.met | KE04.028 | 1
29 | 07E020-07 | 6071d17.met | KE04.029 | 1
30 | 07E020-08 | 6071d17.met | KE04.030 | 1
31 | 07E020-09 | 6071d17.met | KE04.031 | 1
32 | 07E020-10 | 6071d17.met | KE04.032 | 1
33 | 07E020-11 | 6071d17.met | KE04.033 | 1
34 | 07E020-12 | 6071d17.met | KE04.034 | 1
35 | 07E020-13 | 6071d17.met | KE04.035 | 1
36 | 07E020-13M | 6071d17.met | KE04.036 | 1
37 | 07E020-13S | 6071d17.met | KE04.037 | 1
38 | IB71D1747 | 6071d17.met | KE04.038 | 1
39 | C6071D1747 | 6071d17.met | KE04.039 | 1
40 | C5471D1747 | 5471d17.met | KE04.040 | 1
41 | 60E005SB | 6071d17.met | KE04.041 | 1
42 | 60E005SL | 6071d17.met | KE04.042 | 1
43 | 60E005SC | 6071d17.met | KE04.043 | 1
44 | 07E040-07 | 6071d17.met | KE04.044 | 1
45 | 07E040-07M | 6071d17.met | KE04.045 | 1
46 | 07E040-07S | 6071d17.met | KE04.046 | 1
47 | 07E040-08 | 6071d17.met | KE04.047 | 1
48 | 07E040-09 | 6071d17.met | KE04.048 | 1
all ran in 5/16/07
Instrument 1 (ECD) - Running 07E017-22 (Run 72)...
Saturday, May 05, 2007
Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B... untitled - Paint 12:41 PM

5989



Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports

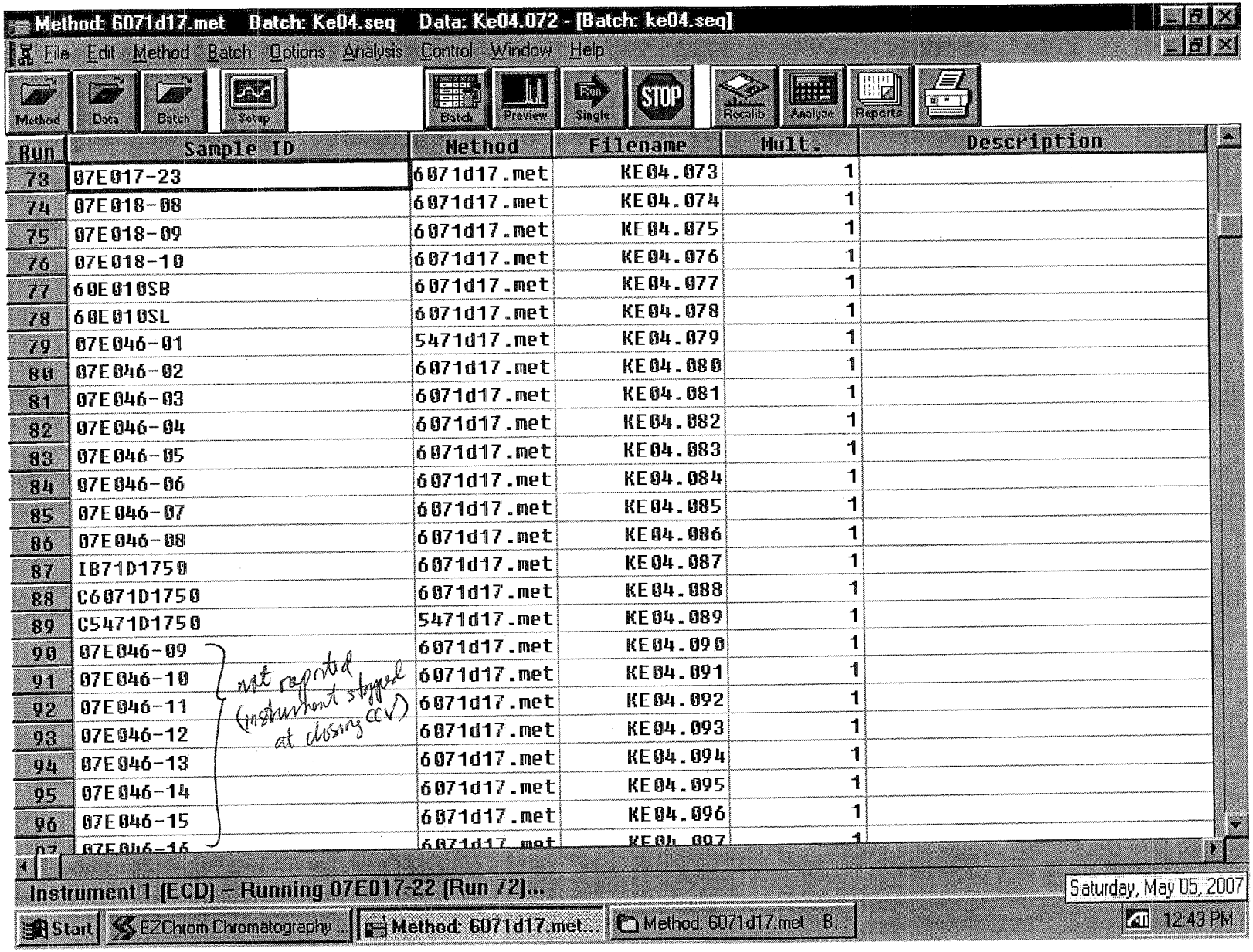
Run	Sample ID	Method	Filename	Mult.	Description
49	07E040-10	6071d17.met	KE04.049	1	
50	07E040-11	6071d17.met	KE04.050	1	
51	IB71D1748	6071d17.met	KE04.051	1	
52	C6071D1748	6071d17.met	KE04.052	1	
53	C5471D1748	5471d17.met	KE04.053	1	
54	60E011SB	6071d17.met	KE04.054	1	
55	60E011SL	6071d17.met	KE04.055	1	
56	60E011SC	6071d17.met	KE04.056	1	
57	07E070-01	6071d17.met	KE04.057	1	
58	07E070-02	6071d17.met	KE04.058	1	
59	07E070-03	6071d17.met	KE04.059	1	
60	07E040-12	6071d17.met	KE04.060	1	
61	07E046-20 } not reported;	6071d17.met	KE04.061	1	
62	07E046-22 } see re-ran	6071d17.met	KE04.062	1	
63	07E046-23	5471d17.met	KE04.063	1	
64	IB71D1749	6071d17.met	KE04.064	1	
65	C6071D1749	6071d17.met	KE04.065	1	
66	C5471D1749	5471d17.met	KE04.066	1	
67	07E016-05	6071d17.met	KE04.067	1	
68	07E016-07	6071d17.met	KE04.068	1	
69	07E016-11	6071d17.met	KE04.069	1	
70	07E017-20	6071d17.met	KE04.070	1	
71	07E017-21	6071d17.met	KE04.071	1	
72	07E017-22	6071d17.met	KE04.072	1	
73	07E017-23	6071d17.met	KE04.073	1	

Instrument 1 [ECD] – Running 07E017-22 [Run 72]...

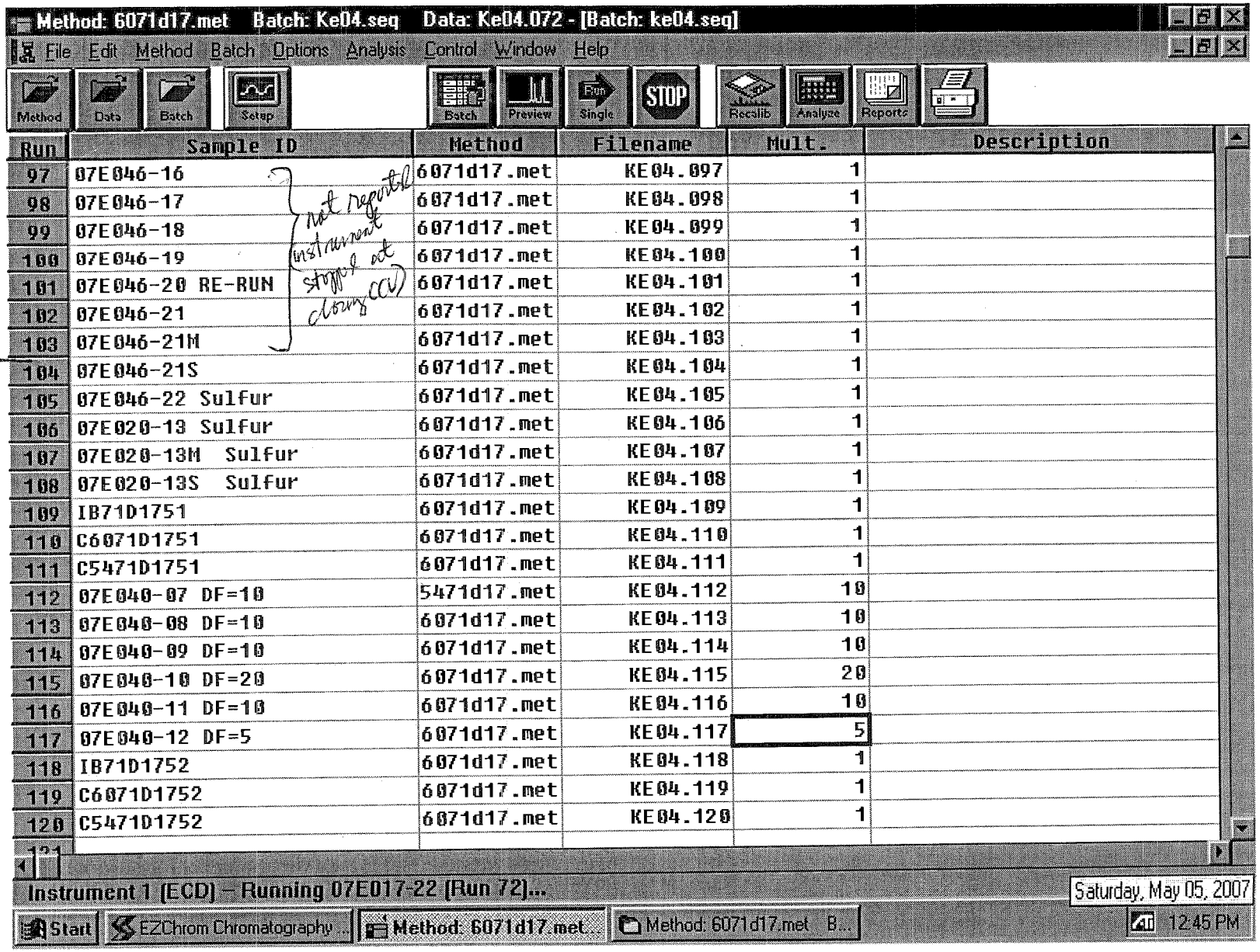
Saturday, May 05, 2007

Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B... 12:42 PM

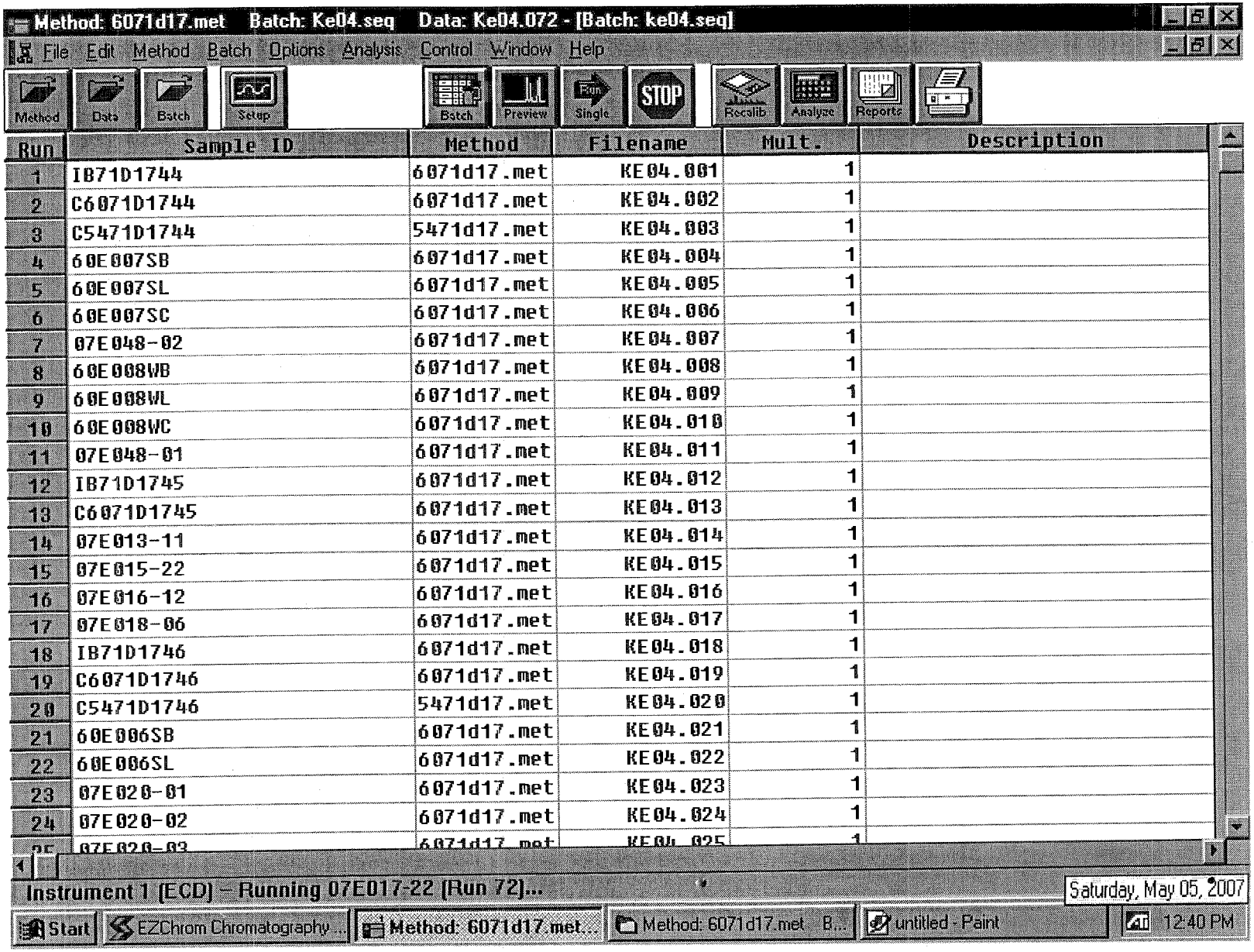
5034


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | 07E017-23 | 6071d17.met | KE04.073 | 1
74 | 07E018-08 | 6071d17.met | KE04.074 | 1
75 | 07E018-09 | 6071d17.met | KE04.075 | 1
76 | 07E018-10 | 6071d17.met | KE04.076 | 1
77 | 60E010SB | 6071d17.met | KE04.077 | 1
78 | 60E010SL | 6071d17.met | KE04.078 | 1
79 | 07E046-01 | 5471d17.met | KE04.079 | 1
80 | 07E046-02 | 6071d17.met | KE04.080 | 1
81 | 07E046-03 | 6071d17.met | KE04.081 | 1
82 | 07E046-04 | 6071d17.met | KE04.082 | 1
83 | 07E046-05 | 6071d17.met | KE04.083 | 1
84 | 07E046-06 | 6071d17.met | KE04.084 | 1
85 | 07E046-07 | 6071d17.met | KE04.085 | 1
86 | 07E046-08 | 6071d17.met | KE04.086 | 1
87 | IB71D1750 | 6071d17.met | KE04.087 | 1
88 | C6071D1750 | 6071d17.met | KE04.088 | 1
89 | C5471D1750 | 5471d17.met | KE04.089 | 1
90 | 07E046-09 | 6071d17.met | KE04.090 | 1
91 | 07E046-10 | 6071d17.met | KE04.091 | 1
92 | 07E046-11 | 6071d17.met | KE04.092 | 1
93 | 07E046-12 | 6071d17.met | KE04.093 | 1
94 | 07E046-13 | 6071d17.met | KE04.094 | 1
95 | 07E046-14 | 6071d17.met | KE04.095 | 1
96 | 07E046-15 | 6071d17.met | KE04.096 | 1
not reported (instrument stopped at closing CCV)
Instrument 1 [ECD] - Running 07E017-22 [Run 72]...
Saturday, May 05, 2007
Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B...
12:43 PM

5085


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
not reported instrument stopped at closing CCV
Run | Sample ID | Method | Filename | Mult. | Description
97 | 07E046-16 | 6071d17.met | KE04.097 | 1
98 | 07E046-17 | 6071d17.met | KE04.098 | 1
99 | 07E046-18 | 6071d17.met | KE04.099 | 1
100 | 07E046-19 | 6071d17.met | KE04.100 | 1
101 | 07E046-20 RE-RUN | 6071d17.met | KE04.101 | 1
102 | 07E046-21 | 6071d17.met | KE04.102 | 1
103 | 07E046-21M | 6071d17.met | KE04.103 | 1
104 | 07E046-21S | 6071d17.met | KE04.104 | 1
105 | 07E046-22 Sulfur | 6071d17.met | KE04.105 | 1
106 | 07E020-13 Sulfur | 6071d17.met | KE04.106 | 1
107 | 07E020-13M Sulfur | 6071d17.met | KE04.107 | 1
108 | 07E020-13S Sulfur | 6071d17.met | KE04.108 | 1
109 | IB71D1751 | 6071d17.met | KE04.109 | 1
110 | C6071D1751 | 6071d17.met | KE04.110 | 1
111 | C5471D1751 | 6071d17.met | KE04.111 | 1
112 | 07E040-07 DF=10 | 5471d17.met | KE04.112 | 10
113 | 07E040-08 DF=10 | 6071d17.met | KE04.113 | 10
114 | 07E040-09 DF=10 | 6071d17.met | KE04.114 | 10
115 | 07E040-10 DF=20 | 6071d17.met | KE04.115 | 20
116 | 07E040-11 DF=10 | 6071d17.met | KE04.116 | 10
117 | 07E040-12 DF=5 | 6071d17.met | KE04.117 | 5
118 | IB71D1752 | 6071d17.met | KE04.118 | 1
119 | C6071D1752 | 6071d17.met | KE04.119 | 1
120 | C5471D1752 | 6071d17.met | KE04.120 | 1
Instrument 1 [ECD] - Running 07E017-22 [Run 72]...
Saturday, May 05, 2007
Start EZChrom Chromatography ... Method: 6071d17.met... Method: 6071d17.met B...
12:46 PM

5555


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Run Single
STOP
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1744 | 6071d17.met | KE04.001 | 1
2 | C6071D1744 | 6071d17.met | KE04.002 | 1
3 | C5471D1744 | 5471d17.met | KE04.003 | 1
4 | 60E007SB | 6071d17.met | KE04.004 | 1
5 | 60E007SL | 6071d17.met | KE04.005 | 1
6 | 60E007SC | 6071d17.met | KE04.006 | 1
7 | 07E048-02 | 6071d17.met | KE04.007 | 1
8 | 60E008WB | 6071d17.met | KE04.008 | 1
9 | 60E008WL | 6071d17.met | KE04.009 | 1
10 | 60E008WC | 6071d17.met | KE04.010 | 1
11 | 07E048-01 | 6071d17.met | KE04.011 | 1
12 | IB71D1745 | 6071d17.met | KE04.012 | 1
13 | C6071D1745 | 6071d17.met | KE04.013 | 1
14 | 07E013-11 | 6071d17.met | KE04.014 | 1
15 | 07E015-22 | 6071d17.met | KE04.015 | 1
16 | 07E016-12 | 6071d17.met | KE04.016 | 1
17 | 07E018-06 | 6071d17.met | KE04.017 | 1
18 | IB71D1746 | 6071d17.met | KE04.018 | 1
19 | C6071D1746 | 6071d17.met | KE04.019 | 1
20 | C5471D1746 | 5471d17.met | KE04.020 | 1
21 | 60E006SB | 6071d17.met | KE04.021 | 1
22 | 60E006SL | 6071d17.met | KE04.022 | 1
23 | 07E020-01 | 6071d17.met | KE04.023 | 1
24 | 07E020-02 | 6071d17.met | KE04.024 | 1
Instrument 1 [ECD] - Running 07E017-22 [Run 72]...
Saturday, May 05, 2007
Start
EZChrom Chromatography ...
Method: 6071d17.met...
Method: 6071d17.met B...
untitled - Paint
12:40 PM

J595

EXTRACTION LOG

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: SOIL Starting Date: 5/3/07 Time: 14:30 Ending Date: 5/3/07 Time: 17:15 Book # ECP-030

PREPARATION BATCH * 60E005S

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60E005 -SB	1	30.01		10	ACID	
*02	-SL	3	30.03		10		
*03	-SC	3	30.02		10		
*04	07E016 -05	1	30.03		10		
*05	-07	3	30.01		10		
*06	-11	3	30.03		10		
*07	07E017 -20	3	30.00		10		
*08	-21	3	30.01		10		
*09	-22	1	30.03		10		
*10	-23	3	30.02		10		
*11	07E018 -08	3	30.01		10		
*12	-09	1	30.03		10		
*13	-10	3	30.01		10		
*14	07E040 -07	3	30.02		10		
*15	-07M	3	30.00		10		
*16	-07S	3	30.01		10		
*17	-08	1	30.03		10		
*18	-09	1	30.02		10		
*19	-10	3	30.01		10		
*20	-11	3	30.03		10		
*21	-12	1	30.02		10		
*22			JV 5/3/07				
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SS1B-05-67-1	1.0
LCS/MS (PCB)	SS1B-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	46023
NaOH	-
Silica Sand	44273

TUNING

Sonicator #	Reading
1	N/A
3	95%

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3	35	35
4	35	35
5	60	60

Comments: Test thermometer = T_1

Prepared By: JV Checked By: ML

Witnessed By: JM Received By: [illegible] 5/4/07

Standard Added By: JV Disposed By:

Extract Location: SE02 # 13 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5039

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07E017

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E017

METHOD 314.0
PERCHLORATE

Three (3) water and fifteen (15) soil samples were received on 05/01/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control sample results were within QC limits.

4. **Duplicate**

   No Duplicate sample was designated in this SDG.

5. **Matrix Spike**

   No MS sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E017

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD023WB	ND	1	NA	2.00	0.500	05/04/0707:48	NA	JE03031	JE03030	PCD023W	NA	NA
LCS1W	PCD023WL	25.4	1	NA	2.00	0.500	05/04/0708:28	NA	JE03033	JE03030	PCD023W	NA	NA
LCD1W	PCD023WC	25.0	1	NA	2.00	0.500	05/04/0708:48	NA	JE03034	JE03030	PCD023W	NA	NA
LEB01-042707	E017-01	ND	1	NA	2.00	0.500	05/04/0709:52	NA	JE03037	JE03030	PCD023W	04/27/0708:55	05/01/07
LEB-042707	E017-19	ND	1	NA	2.00	0.500	05/04/0710:32	NA	JE03039	JE03030	PCD023W	04/27/0712:30	05/01/07
MBLK2W	PCD024WB	ND	1	NA	2.00	0.500	05/04/0716:57	NA	JE03058	JE03056	PCD024W	NA	NA
LCS2W	PCD024WL	24.9	1	NA	2.00	0.500	05/04/0719:35	NA	JE03060	JE03056	PCD024W	NA	NA
LCD2W	PCD024WC	24.8	1	NA	2.00	0.500	05/04/0719:56	NA	JE03061	JE03056	PCD024W	NA	NA
F33-HSAS10GW	E017-06	54.9	5	NA	10.0	2.50	05/05/0703:42	NA	JE03084	JE03079	PCD024W	04/27/0709:27	05/01/07

8003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E017

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD022SB	ND	1	NA	20.0	10.0	05/03/0722:00	05/02/0716:50	JE03002	JE03001	PCD022S	NA	05/02/07
LCS1S	PCD022SL	251	1	NA	20.0	10.0	05/03/0722:41	05/02/0716:50	JE03004	JE03001	PCD022S	NA	05/02/07
LCD1S	PCD022SC	254	1	NA	20.0	10.0	05/03/0723:01	05/02/0716:50	JE03005	JE03001	PCD022S	NA	05/02/07
F33-HSAS10-10-11.5	E017-03	111	1	5.6	21.2	10.6	05/04/0703:45	05/02/0716:50	JE03019	JE03012	PCD022S	04/27/0709:12	05/01/07
F33-HSAS10-15-16.5	E017-04	54.9	1	7.3	21.6	10.8	05/04/0704:05	05/02/0716:50	JE03020	JE03012	PCD022S	04/27/0709:15	05/01/07
F33-HSAS10-20-21.5	E017-05	ND	1	12.2	22.8	11.4	05/04/0704:25	05/02/0716:50	JE03021	JE03012	PCD022S	04/27/0709:19	05/01/07
F33-HAS11@.5	E017-07	22.3	1	7.2	21.6	10.8	05/04/0704:45	05/02/0716:50	JE03022	JE03012	PCD022S	04/27/0709:12	05/01/07
F33-HAS11@5	E017-08	17.2J	1	7.7	21.7	10.8	05/04/0705:26	05/02/0716:50	JE03024	JE03023	PCD022S	04/27/0709:30	05/01/07
F33-HSAS14-5-6.5	E017-09	328	2	4.2	41.8	20.9	05/05/0702:21	05/02/0716:50	JE03080	JE03079	PCD022S	04/27/0710:12	05/01/07
F33-HSAS14-10-11.5	E017-10	6260	20	6.5	428	214	05/05/0702:41	05/02/0716:50	JE03081	JE03079	PCD022S	04/27/0710:14	05/01/07
F33-HSAS14-20-21.5	E017-12	51100	200	21.6	5100	2550	05/05/0703:21	05/02/0716:50	JE03083	JE03079	PCD022S	04/27/0710:18	05/01/07
MBLK2S	PCD025SB	ND	1	NA	20.0	10.0	05/05/0704:42	05/03/0710:15	JE03087	JE03086	PCD025S	NA	05/03/07
LCS2S	PCD025SL	255	1	NA	20.0	10.0	05/05/0705:23	05/03/0710:15	JE03089	JE03086	PCD025S	NA	05/03/07
LCD2S	PCD025SC	255	1	NA	20.0	10.0	05/05/0705:43	05/03/0710:15	JE03090	JE03086	PCD025S	NA	05/03/07
F33-HAS12@.5	E017-13	212	1	3.5	20.7	10.4	05/05/0706:03	05/03/0710:15	JE03091	JE03086	PCD025S	04/27/0710:24	05/01/07
F33-HAS12@5.0	E017-14	100	1	4.0	20.8	10.4	05/05/0706:24	05/03/0710:15	JE03092	JE03086	PCD025S	04/27/0710:37	05/01/07
F33-HAS13@.5	E017-15	18.0J	1	3.6	20.7	10.4	05/05/0706:44	05/03/0710:15	JE03093	JE03086	PCD025S	04/27/0711:14	05/01/07
F33-HAS13@5.0	E017-16	ND	1	14.1	23.3	11.6	05/05/0707:04	05/03/0710:15	JE03094	JE03086	PCD025S	04/27/0711:28	05/01/07
F33-HAS16@.5	E017-17	ND	1	6.9	21.5	10.7	05/05/0707:24	05/03/0710:15	JE03095	JE03086	PCD025S	04/27/0711:57	05/01/07
F33-HAS16@5	E017-18	ND	1	19.3	24.8	12.4	05/05/0707:45	05/03/0710:15	JE03096	JE03086	PCD025S	04/27/0712:10	05/01/07
F33-HSAS14-15-16.5	E017-11	14400	100	5.0	2110	1050	05/07/0721:02	05/03/0710:15	JE07017	JE07012	PCD025S	04/27/0710:16	05/01/07

3951

dn

QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E017
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD023WB	PCD023WL	PCD023WC		
LAB FILE ID:	JE03031	JE03033	JE03034		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/0707:48	05/04/0708:28	05/04/0708:48	DATE RECEIVED:	NA
PREP. BATCH:	PCD023W	PCD023W	PCD023W		
CALIB. REF:	JE03030	JE03030	JE03030		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.4	102	25.0	25.0	100	2	85-115	20

8006

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E017
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	PCD024WB	PCD024WL	PCD024WC		
LAB FILE ID:	JE03058	JE03060	JE03061		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/0716:57	05/04/0719:35	05/04/0719:56	DATE RECEIVED:	NA
PREP. BATCH:	PCD024W	PCD024W	PCD024W		
CALIB. REF:	JE03056	JE03056	JE03056		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	24.9	100	25.0	24.8	99	0	85-115	20

8007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E017
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD022SB	PCD022SL	PCD022SC		
LAB FILE ID:	JE03002	JE03004	JE03005		
DATE EXTRACTED:	05/02/0716:50	05/02/0716:50	05/02/0716:50	DATE COLLECTED:	NA
DATE ANALYZED:	05/03/0722:00	05/03/0722:41	05/03/0723:01	DATE RECEIVED:	05/02/07
PREP. BATCH:	PCD022S	PCD022S	PCD022S		
CALIB. REF:	JE03001	JE03001	JE03001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	251	100	250	254	102	1	85-115	20

3055

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E017
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2S				
LAB SAMP ID:	PCD025SB	PCD025SL	PCD025SC		
LAB FILE ID:	JE03087	JE03089	JE03090		
DATE EXTRACTED:	05/03/0710:15	05/03/0710:15	05/03/0710:15	DATE COLLECTED:	NA
DATE ANALYZED:	05/05/0704:42	05/05/0705:23	05/05/0705:43	DATE RECEIVED:	05/03/07
PREP. BATCH:	PCD025S	PCD025S	PCD025S		
CALIB. REF:	JE03086	JE03086	JE03086		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	255	102	250	255	102	0	85-115	20

9006

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

pre 4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

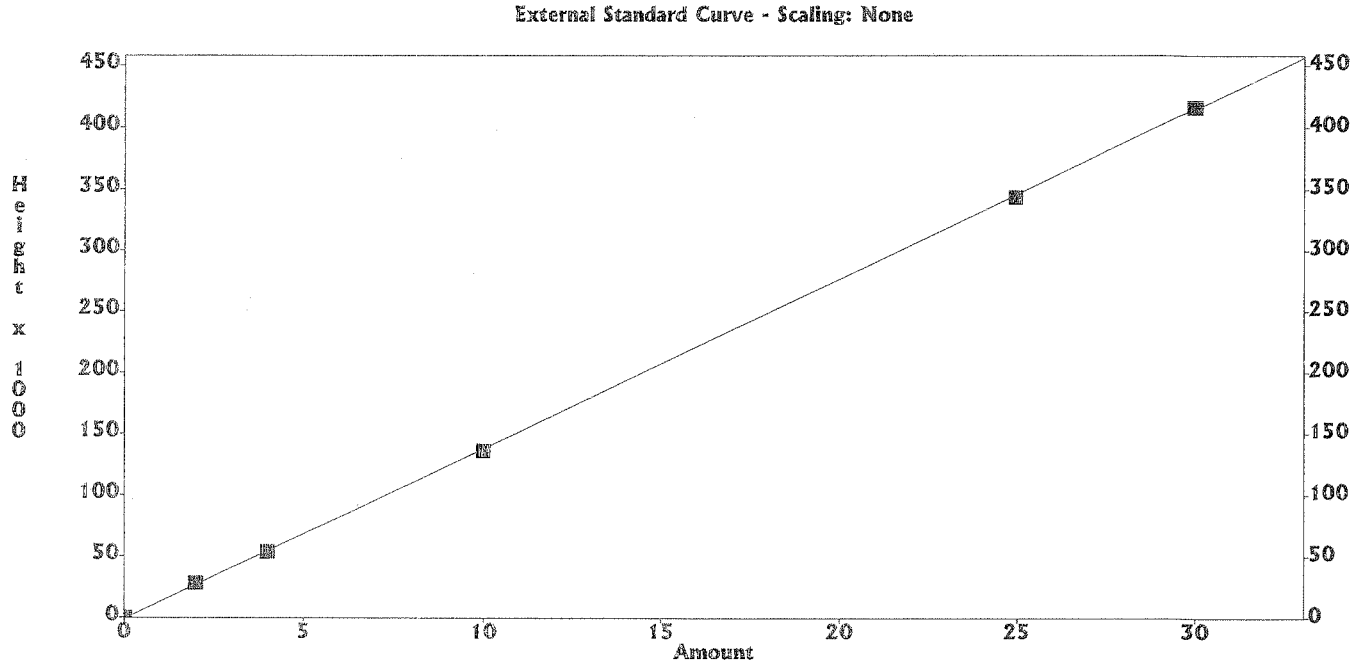
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-07

8014

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE03001	IPCS	P	85%	05/03/0721:40	1
JE03002	PCD022SB	P	.000	05/03/0722:00	1
JE03003	MRL	P	112%	05/03/0722:21	1
JE03004	PCD022SL	P	25.1	05/03/0722:41	1
JE03005	PCD022SC	P	25.4	05/03/0723:01	1
JE03006	E016-01	P	4.47	05/03/0723:21	1
JE03007	E016-01D	P	4.93	05/03/0723:42	1
JE03008	E016-01M	P	14.3	05/04/0700:02	1
JE03009	E016-02	P	.000	05/04/0700:22	1
JE03010	E016-03	P	.000	05/04/0700:42	1
JE03011	E016-04	P	3.5	05/04/0701:03	1
JE03012	CCV43-30	P	106%	05/04/0701:23	1
JE03013	E016-05	P	.000	05/04/0701:43	1
JE03014	E016-07	P	.000	05/04/0702:03	1
JE03015	E016-08	P	.000	05/04/0702:24	1
JE03016	E016-09	P	.000	05/04/0702:44	1
JE03017	E016-10	P	.000	05/04/0703:04	1
JE03018	E016-11	P	.000	05/04/0703:24	1
JE03019	E017-03	P	10.5	05/04/0703:45	1
JE03020	E017-04	P	5.09	05/04/0704:05	1
JE03021	E017-05	P	.000	05/04/0704:25	1
JE03022	E017-07	P	2.07	05/04/0704:45	1
JE03023	CCV44-15	P	104%	05/04/0705:06	1
JE03024	E017-08	P	1.59	05/04/0705:26	1
JE03025	E017-09	*	31.2E	05/04/0705:46	1
JE03026	E017-10	P	.000	05/04/0706:06	1
JE03027	E017-11	P	.000	05/04/0706:27	1
JE03028	E017-12	P	.000	05/04/0706:47	1
JE03029	CCV45-30	P	110%*	05/04/0707:07	1
JE03030	IPCS	P	86.3%	05/04/0707:27	1
JE03031	PCD023WB	P	.000	05/04/0707:48	1
JE03032	MRL	P	104%	05/04/0708:08	1
JE03033	PCD023WL	P	25.4	05/04/0708:28	1
JE03034	PCD023WC	P	25	05/04/0708:48	1
JE03035	D205-02	P	50.5	05/04/0709:09	5
JE03036	E016-13	P	.000	05/04/0709:31	1
JE03037	E017-01	P	.000	05/04/0709:52	1
JE03038	E017-06	*	50E	05/04/0710:12	1
JE03039	E017-19	P	.000	05/04/0710:32	1
JE03040	E018-07	P	.000	05/04/0710:52	1
JE03041	CCV46-15	P	101%	05/04/0711:13	1
JE03042	E013-01	P	.000	05/04/0711:33	1
JE03043	E013-02	P	.000	05/04/0711:53	1
JE03044	E013-03	P	.000	05/04/0712:13	1
JE03045	E013-04	P	.000	05/04/0712:34	1
JE03046	E013-05	P	.000	05/04/0712:54	1
JE03047	E013-06	P	.000	05/04/0713:14	1
JE03048	E013-07	P	.000	05/04/0713:35	1
JE03049	E013-08	P	.000	05/04/0713:55	1
JE03050	E013-10	P	1.31	05/04/0714:15	1
JE03051	E013-10D	P	1.28	05/04/0714:35	1
JE03052	CCV47-30	P	110%	05/04/0714:56	1
JE03053	E013-10M	P	11.9	05/04/0715:16	1
JE03054	E013-11	P	.000	05/04/0715:36	1
JE03055	E013-12	P	.000	05/04/0715:56	1
JE03056	CCV48-15	P	104%	05/04/0716:17	1
JE03057	IPCS	P	82.3%	05/04/0716:37	1
JE03058	PCD024WB	P	.000	05/04/0716:57	1
JE03059	MRL	P	112%	05/04/0719:15	1
JE03060	PCD024WL	P	24.9	05/04/0719:35	1
JE03061	PCD024WC	P	24.8	05/04/0719:56	1
JE03062	D324-02	P	8.59	05/04/0720:16	1
JE03063	D324-03	P	8.49	05/04/0720:36	1
JE03064	D324-04	P	.000	05/04/0720:56	1
JE03065	D324-05	P	.000	05/04/0721:17	1
JE03066	D324-06	P	.000	05/04/0721:37	1
JE03067	D324-07	P	.000	05/04/0721:57	1
JE03068	CCV49-30	P	106%	05/04/0722:17	1
JE03069	E031-01	P	.000	05/04/0722:38	1
JE03070	E031-02	P	50.4	05/04/0722:58	5
JE03071	E051-04	P	.000	05/04/0723:18	1
JE03072	D138-02R	*	50.6E	05/04/0723:39	1
JE03073	D138-02	P	50.1	05/04/0723:59	5
JE03074	D223-06G	P	20.1	05/05/0700:19	1

JE03075	D223-06R	P		10.1	05/05/0700:39	1	
JE03076	D223-06Z	P		10.5	05/05/0701:00	1	
JE03077	E016-02	P		.000	05/05/0701:20	5	
JE03078	E016-03	P		.000	05/05/0701:40	5	
JE03079	CCV50-15	P		104%	05/05/0702:00	1	
JE03080	E017-09	P	81.3	15.7 x2	05/05/0702:21	2	
JE03081	E017-10	P		585	05/05/0702:41	20	
JE03082	E017-11	*		1300E	05/05/0703:01	20	
JE03083	E017-12	P	4020 =	20.1 x200	05/05/0703:21	200	[illegible] 5/16/07
JE03084	E017-06	P	55 =	11 x5	05/05/0703:42	5	
JE03085	CCV51-30	P		105%	05/05/0704:02	1	
JE03086	IPCS	P		83.1%	05/05/0704:22	1	
JE03087	PCD025SB	P		.000	05/05/0704:42	1	
JE03088	MRL	P		89.6%	05/05/0705:03	1	
JE03089	PCD025SL	P		25.5	05/05/0705:23	1	
JE03090	PCD025SC	P		25.5	05/05/0705:43	1	
JE03091	E017-13	P		20.5	05/05/0706:03	1	
JE03092	E017-14	P		9.63	05/05/0706:24	1	
JE03093	E017-15	P		1.74	05/05/0706:44	1	
JE03094	E017-16	P		.000	05/05/0707:04	1	
JE03095	E017-17	P		.000	05/05/0707:24	1	
JE03096	E017-18	P		.000	05/05/0707:45	1	
JE03097	CCV52-15	P		105%	05/05/0708:05	1	

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE07001	IPCS	P	86.8%	05/07/0715:38	1
JE07002	PCD026WB	P	.000	05/07/0715:58	1
JE07003	MRL	P	104%	05/07/0716:18	1
JE07004	PCD026WL	P	26.2	05/07/0716:38	1
JE07005	PCD026WC	P	26.4	05/07/0716:59	1
JE07006	E018-02	P	.000	05/07/0717:19	1
JE07007	E018-03	P	8.44	05/07/0717:39	1
JE07008	E018-04	P	.000	05/07/0717:59	1
JE07009	E018-05	P	28.6	05/07/0718:20	1
JE07010	E018-05D	P	28.8	05/07/0718:40	1
JE07011	E018-05M	*	42.2E	05/07/0719:00	1
JE07012	CCV54-15	P	109%	05/07/0719:20	1
JE07013	E018-02	P	424	05/07/0719:41	100
JE07014	E018-04	P	483	05/07/0720:01	100
JE07015	E031-02I	P	54.3	05/07/0720:21	5
JE07016	E051-04R	P	.000	05/07/0720:41	1
JE07017	E017-11	P	1370	05/07/0721:02	100
JE07018	E083-01	P	11.9	05/07/0721:22	1
JE07019	E083-02	P	53.2	05/07/0721:42	5
JE07020	CCV55-30	P	110%*	05/07/0722:02	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 -18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: I057d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

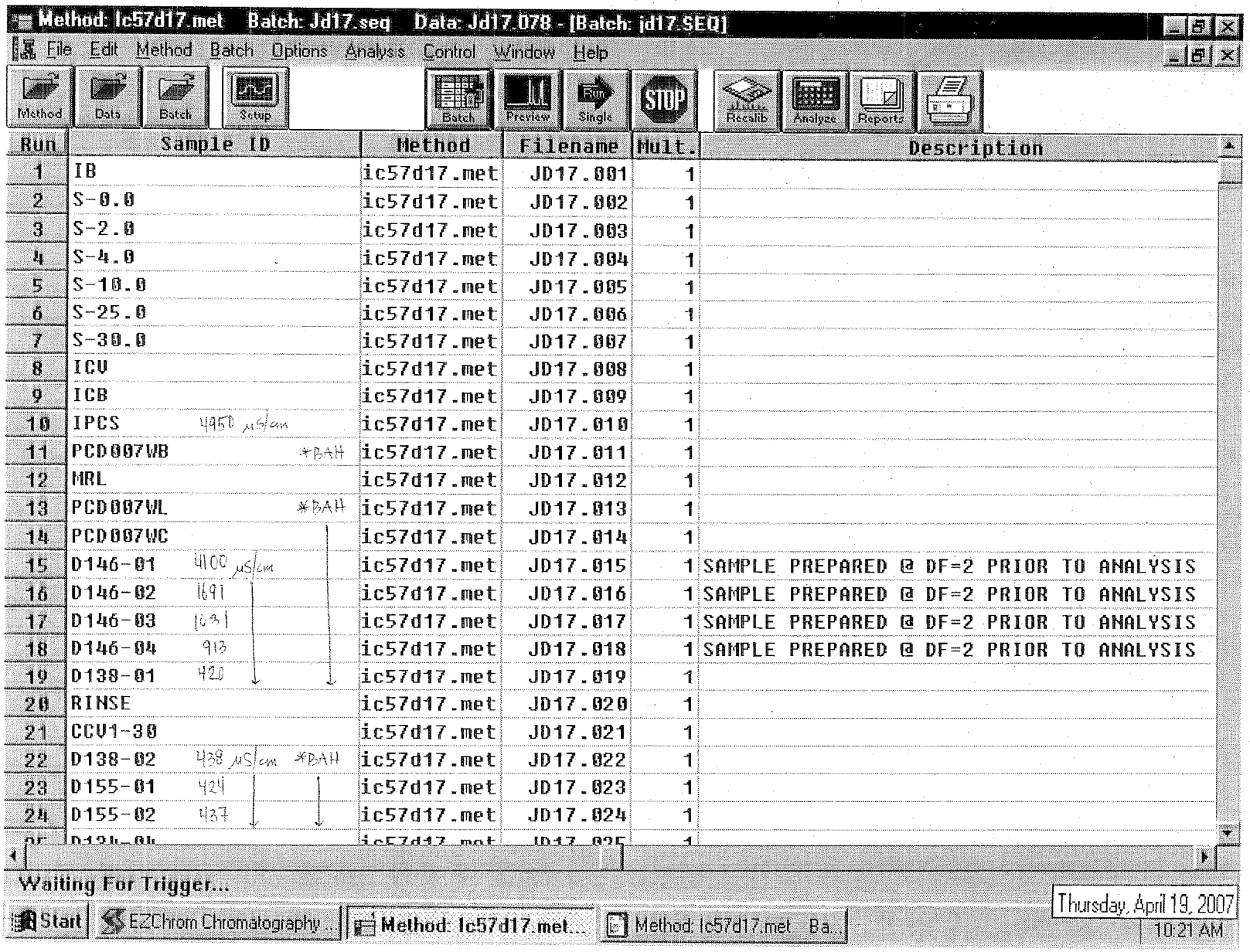
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cd

Date: 04/17/07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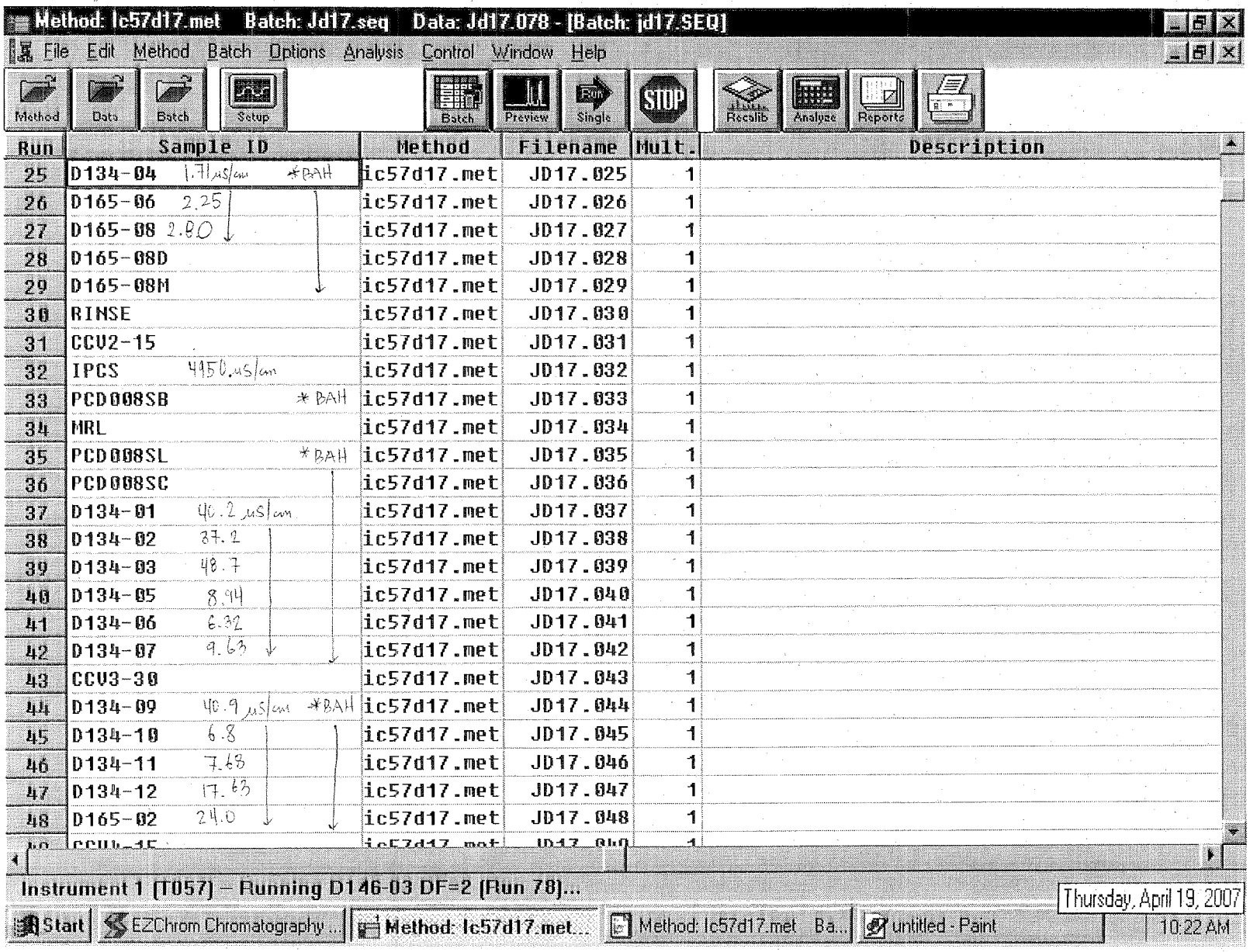
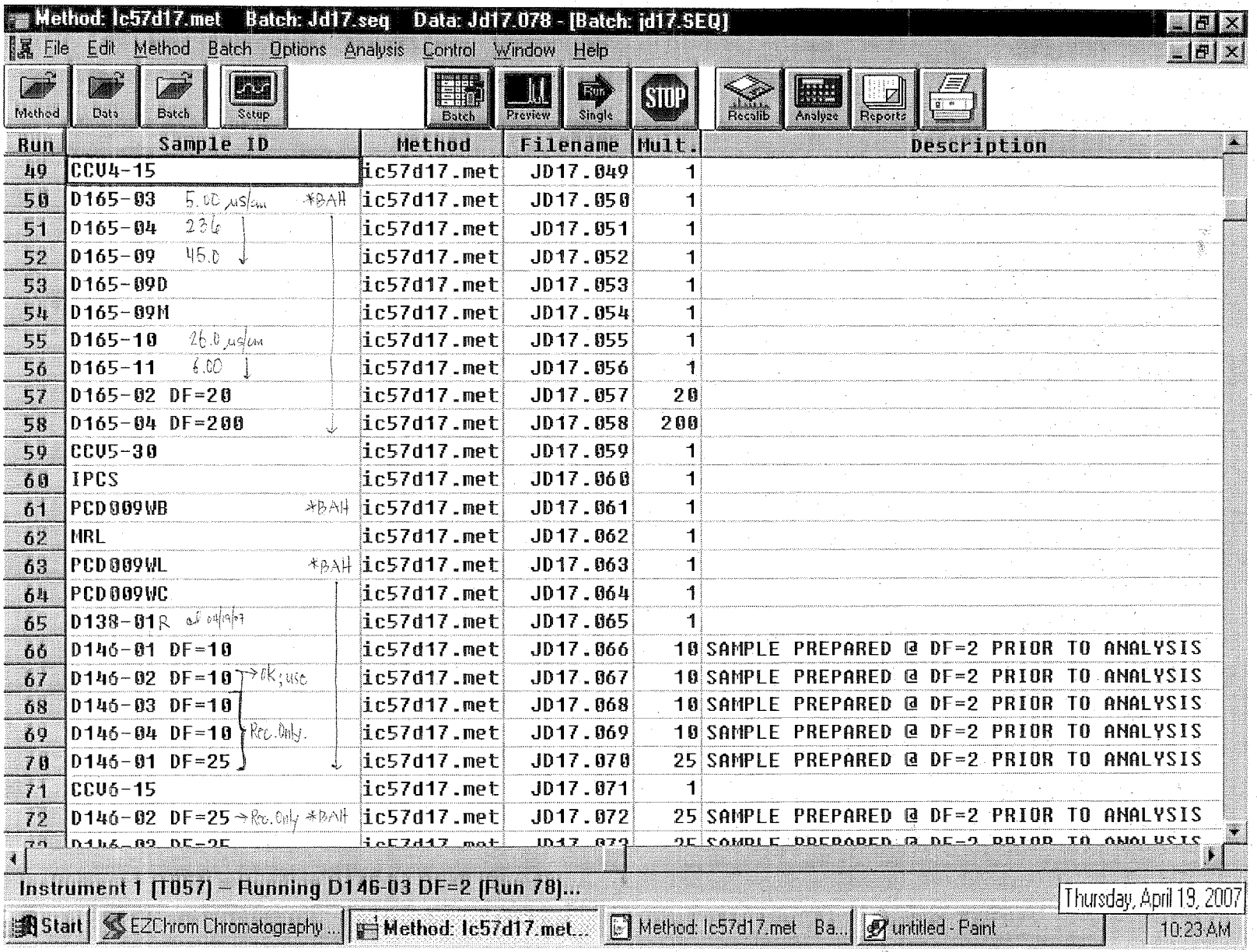
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
1 IB ic57d17.met JD17.001 1
2 S-0.0 ic57d17.met JD17.002 1
3 S-2.0 ic57d17.met JD17.003 1
4 S-4.0 ic57d17.met JD17.004 1
5 S-10.0 ic57d17.met JD17.005 1
6 S-25.0 ic57d17.met JD17.006 1
7 S-30.0 ic57d17.met JD17.007 1
8 ICV ic57d17.met JD17.008 1
9 ICB ic57d17.met JD17.009 1
10 IPCS 4950 µS/cm ic57d17.met JD17.010 1
11 PCD007WB *BAH ic57d17.met JD17.011 1
12 MRL ic57d17.met JD17.012 1
13 PCD007WL *BAH ic57d17.met JD17.013 1
14 PCD007WC ic57d17.met JD17.014 1
15 D146-01 4100 µS/cm ic57d17.met JD17.015 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 D146-02 1691 ic57d17.met JD17.016 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 D146-03 1031 ic57d17.met JD17.017 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 D146-04 913 ic57d17.met JD17.018 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 D138-01 420 ic57d17.met JD17.019 1
20 RINSE ic57d17.met JD17.020 1
21 CCV1-30 ic57d17.met JD17.021 1
22 D138-02 438 µS/cm *BAH ic57d17.met JD17.022 1
23 D155-01 424 ic57d17.met JD17.023 1
24 D155-02 437 ic57d17.met JD17.024 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

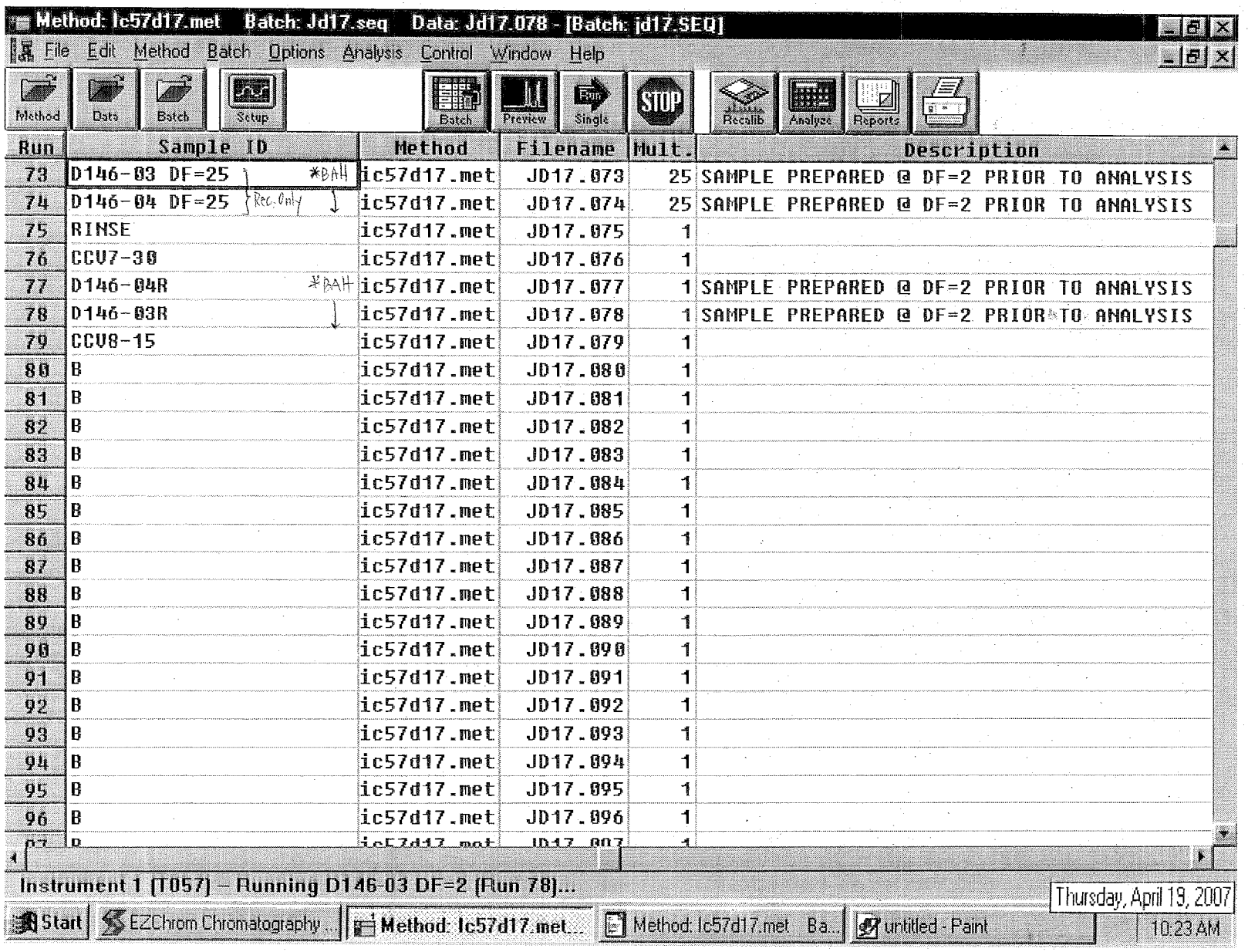
8021


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | D134-04 1.71 µs/cm *BAH | lc57d17.met | JD17.025 | 1
26 | D165-06 2.25 | lc57d17.met | JD17.026 | 1
27 | D165-08 2.80 | lc57d17.met | JD17.027 | 1
28 | D165-08D | lc57d17.met | JD17.028 | 1
29 | D165-08M | lc57d17.met | JD17.029 | 1
30 | RINSE | lc57d17.met | JD17.030 | 1
31 | CCV2-15 | lc57d17.met | JD17.031 | 1
32 | IPCS 4150.µs/cm | lc57d17.met | JD17.032 | 1
33 | PCD008SB *BAH | lc57d17.met | JD17.033 | 1
34 | MRL | lc57d17.met | JD17.034 | 1
35 | PCD008SL *BAH | lc57d17.met | JD17.035 | 1
36 | PCD008SC | lc57d17.met | JD17.036 | 1
37 | D134-01 40.2 µs/cm | lc57d17.met | JD17.037 | 1
38 | D134-02 37.2 | lc57d17.met | JD17.038 | 1
39 | D134-03 48.7 | lc57d17.met | JD17.039 | 1
40 | D134-05 8.94 | lc57d17.met | JD17.040 | 1
41 | D134-06 6.32 | lc57d17.met | JD17.041 | 1
42 | D134-07 9.63 | lc57d17.met | JD17.042 | 1
43 | CCV3-30 | lc57d17.met | JD17.043 | 1
44 | D134-09 40.9 µs/cm *BAH | lc57d17.met | JD17.044 | 1
45 | D134-10 6.8 | lc57d17.met | JD17.045 | 1
46 | D134-11 7.63 | lc57d17.met | JD17.046 | 1
47 | D134-12 17.63 | lc57d17.met | JD17.047 | 1
48 | D165-02 24.0 | lc57d17.met | JD17.048 | 1
Instrument 1 (T057) – Running D146-03 DF=2 (Run 78)...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:22 AM

8522


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1 |
50 | D165-03 5.00 µs/cm *BAH | lc57d17.met | JD17.050 | 1 |
51 | D165-04 23.6 | lc57d17.met | JD17.051 | 1 |
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1 |
53 | D165-09D | lc57d17.met | JD17.053 | 1 |
54 | D165-09M | lc57d17.met | JD17.054 | 1 |
55 | D165-10 26.0 µs/cm | lc57d17.met | JD17.055 | 1 |
56 | D165-11 6.00 | lc57d17.met | JD17.056 | 1 |
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20 |
58 | D165-04 DF=200 | lc57d17.met | JD17.058 | 200 |
59 | CCV5-30 | lc57d17.met | JD17.059 | 1 |
60 | IPCS | lc57d17.met | JD17.060 | 1 |
61 | PCD009WB *BAH | lc57d17.met | JD17.061 | 1 |
62 | MRL | lc57d17.met | JD17.062 | 1 |
63 | PCD009WL *BAH | lc57d17.met | JD17.063 | 1 |
64 | PCD009WC | lc57d17.met | JD17.064 | 1 |
65 | D138-01R | lc57d17.met | JD17.065 | 1 |
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → OK; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Rec. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1 |
72 | D146-02 DF=25 → Rec. Only *BAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography ... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

6023


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D146-03 DF=25 | *BAH | ic57d17.met | JD17.073 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 | D146-04 DF=25 | Rec. Only | ic57d17.met | JD17.074 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 | RINSE | ic57d17.met | JD17.075 | 1 |
76 | CCV7-30 | ic57d17.met | JD17.076 | 1 |
77 | D146-04R | *BAH | ic57d17.met | JD17.077 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 | D146-03R | ic57d17.met | JD17.078 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 | CCV8-15 | ic57d17.met | JD17.079 | 1 |
80 | B | ic57d17.met | JD17.080 | 1 |
81 | B | ic57d17.met | JD17.081 | 1 |
82 | B | ic57d17.met | JD17.082 | 1 |
83 | B | ic57d17.met | JD17.083 | 1 |
84 | B | ic57d17.met | JD17.084 | 1 |
85 | B | ic57d17.met | JD17.085 | 1 |
86 | B | ic57d17.met | JD17.086 | 1 |
87 | B | ic57d17.met | JD17.087 | 1 |
88 | B | ic57d17.met | JD17.088 | 1 |
89 | B | ic57d17.met | JD17.089 | 1 |
90 | B | ic57d17.met | JD17.090 | 1 |
91 | B | ic57d17.met | JD17.091 | 1 |
92 | B | ic57d17.met | JD17.092 | 1 |
93 | B | ic57d17.met | JD17.093 | 1 |
94 | B | ic57d17.met | JD17.094 | 1 |
95 | B | ic57d17.met | JD17.095 | 1 |
96 | B | ic57d17.met | JD17.096 | 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

0521

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

NaOH : SW8A - 02-18

* JE03.101 → .104 : Injection error. Not used; re-run. ad 05/05/07
* JE03.098 → 100 : Record only; not used — no ending CCV.
* JE03.009 & JE03.010 : Not used.
* JE03.070 : Not used; re-run.
* JE03.072 : For confirmation.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JE03

Method File: IC57d17.met

Analytical Batch: PLD0225+PCD023W+PLD024W+PLD0255

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

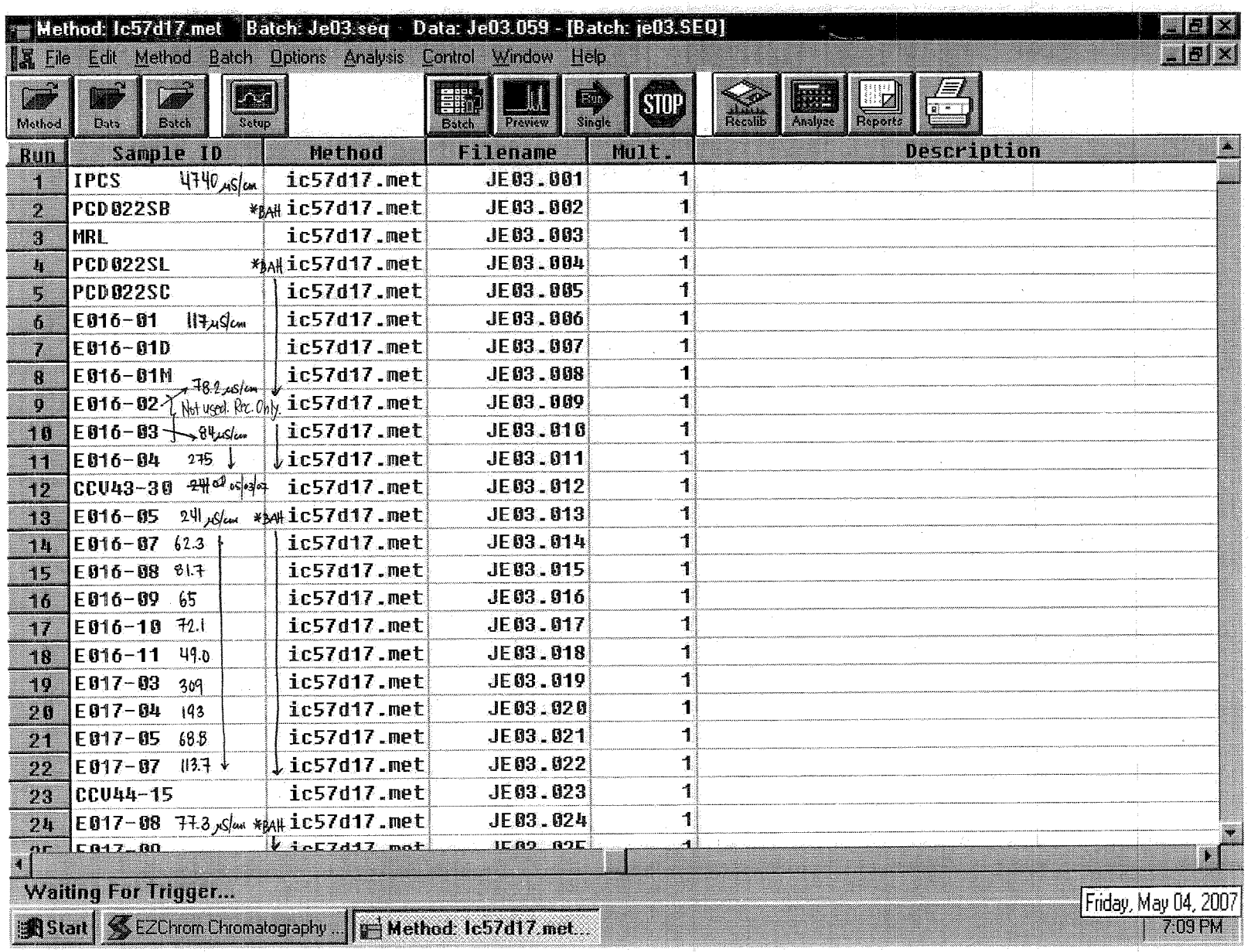
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	SW8B-02-936
MS	↓ 931
IPC	SW8B-02-934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1410	(±) 30	

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

Date: 05/03/07 & 05/04/07



Method: Ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

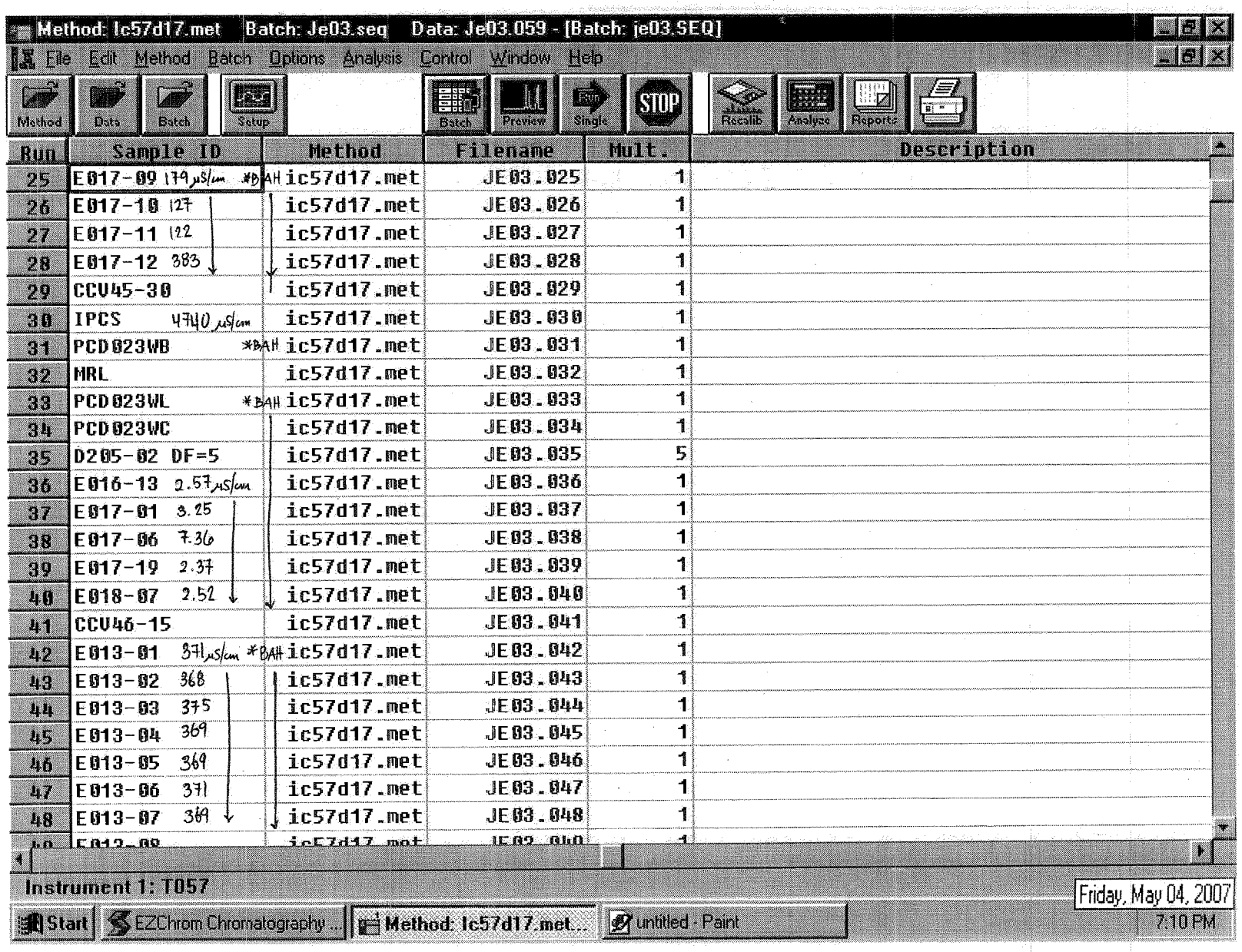
Run	Sample ID	Method	Filename	Mult.	Description
1	IPCS 4740 µS/cm	ic57d17.met	JE03.001	1	
2	PCD022SB *BAH	ic57d17.met	JE03.002	1	
3	MRL	ic57d17.met	JE03.003	1	
4	PCD022SL *BAH	ic57d17.met	JE03.004	1	
5	PCD022SC	ic57d17.met	JE03.005	1	
6	E016-01 117 µS/cm	ic57d17.met	JE03.006	1	
7	E016-01D	ic57d17.met	JE03.007	1	
8	E016-01M	ic57d17.met	JE03.008	1	
9	E016-02 78.2 µS/cm Not used. Rec. Only.	ic57d17.met	JE03.009	1	
10	E016-03 84 µS/cm	ic57d17.met	JE03.010	1	
11	E016-04 275	ic57d17.met	JE03.011	1	
12	CCV43-30 ~~241~~ 05/03/07	ic57d17.met	JE03.012	1	
13	E016-05 241 µS/cm *BAH	ic57d17.met	JE03.013	1	
14	E016-07 62.3	ic57d17.met	JE03.014	1	
15	E016-08 81.7	ic57d17.met	JE03.015	1	
16	E016-09 65	ic57d17.met	JE03.016	1	
17	E016-10 72.1	ic57d17.met	JE03.017	1	
18	E016-11 49.0	ic57d17.met	JE03.018	1	
19	E017-03 309	ic57d17.met	JE03.019	1	
20	E017-04 193	ic57d17.met	JE03.020	1	
21	E017-05 68.8	ic57d17.met	JE03.021	1	
22	E017-07 113.7	ic57d17.met	JE03.022	1	
23	CCV44-15	ic57d17.met	JE03.023	1	
24	E017-08 77.3 µS/cm *BAH	ic57d17.met	JE03.024	1	
25	E017-09	ic57d17.met	JE03.025	1	

Waiting For Trigger...

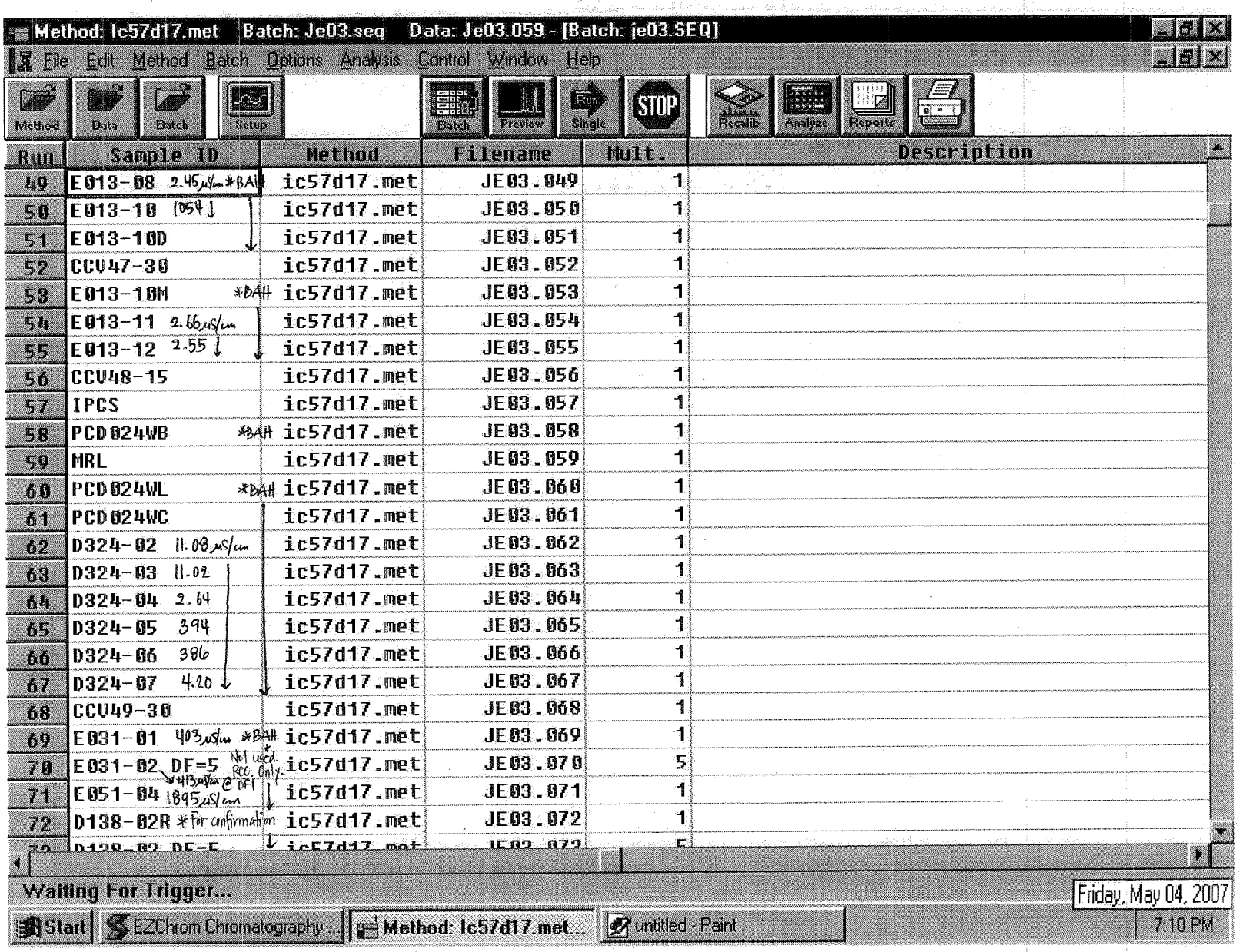
Start EZChrom Chromatography ... Method: Ic57d17.met...

Friday, May 04, 2007 7:09 PM

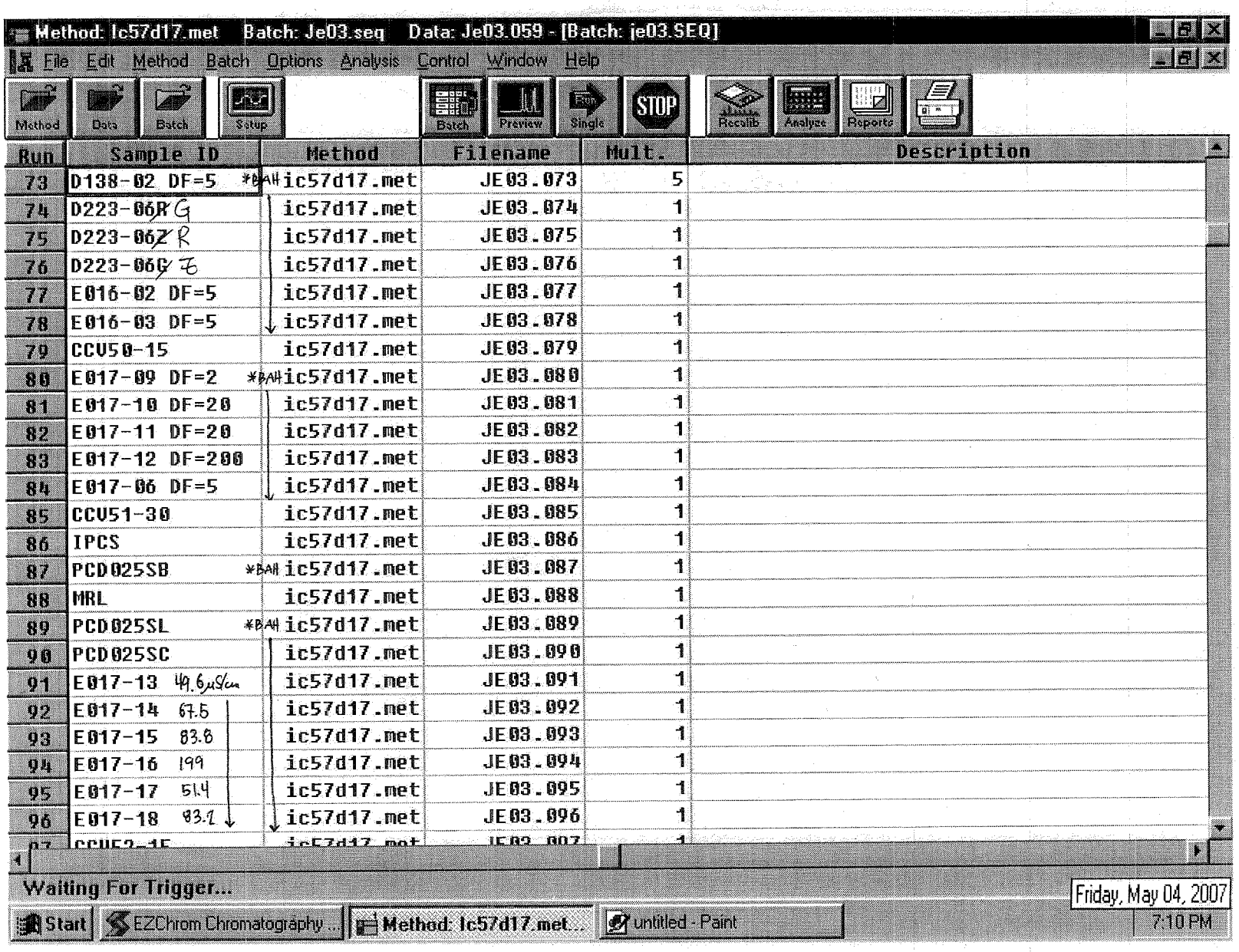
8026


Method: lc57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | E017-09 179 µS/cm *BAH | lc57d17.met | JE03.025 | 1
26 | E017-10 127 | lc57d17.met | JE03.026 | 1
27 | E017-11 122 | lc57d17.met | JE03.027 | 1
28 | E017-12 383 | lc57d17.met | JE03.028 | 1
29 | CCV45-30 | lc57d17.met | JE03.029 | 1
30 | IPCS 4740 µS/cm | lc57d17.met | JE03.030 | 1
31 | PCD023WB *BAH | lc57d17.met | JE03.031 | 1
32 | MRL | lc57d17.met | JE03.032 | 1
33 | PCD023WL *BAH | lc57d17.met | JE03.033 | 1
34 | PCD023WC | lc57d17.met | JE03.034 | 1
35 | D205-02 DF=5 | lc57d17.met | JE03.035 | 5
36 | E016-13 2.57 µS/cm | lc57d17.met | JE03.036 | 1
37 | E017-01 3.25 | lc57d17.met | JE03.037 | 1
38 | E017-06 7.36 | lc57d17.met | JE03.038 | 1
39 | E017-19 2.37 | lc57d17.met | JE03.039 | 1
40 | E018-07 2.52 | lc57d17.met | JE03.040 | 1
41 | CCV46-15 | lc57d17.met | JE03.041 | 1
42 | E013-01 371 µS/cm *BAH | lc57d17.met | JE03.042 | 1
43 | E013-02 368 | lc57d17.met | JE03.043 | 1
44 | E013-03 375 | lc57d17.met | JE03.044 | 1
45 | E013-04 369 | lc57d17.met | JE03.045 | 1
46 | E013-05 369 | lc57d17.met | JE03.046 | 1
47 | E013-06 371 | lc57d17.met | JE03.047 | 1
48 | E013-07 369 | lc57d17.met | JE03.048 | 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: lc57d17.met... untitled - Paint
Friday, May 04, 2007
7:10 PM

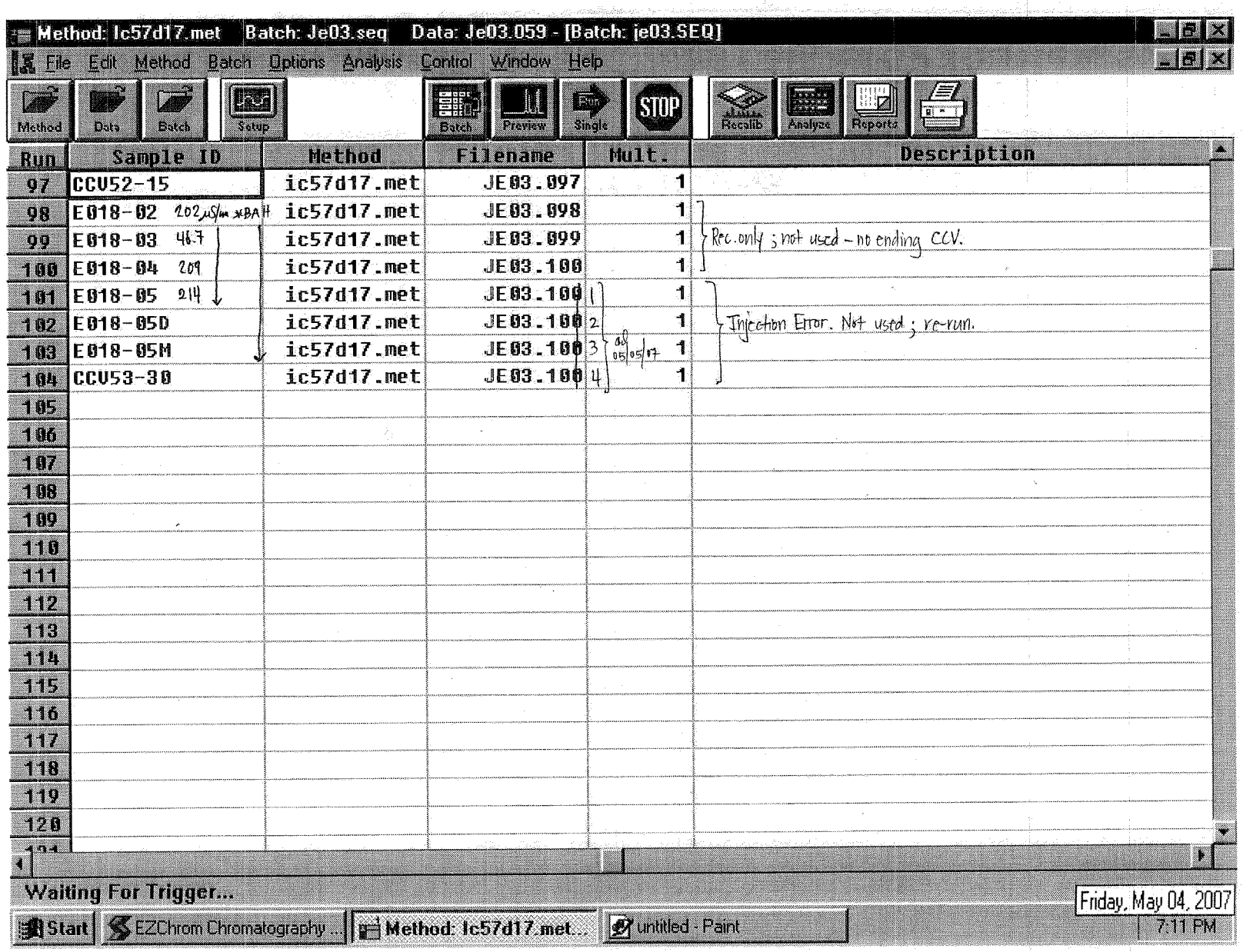
8927


Method: lc57d17.met
Batch: Je03.seq
Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyse
Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | E013-08 2.45µS/cm *BAH | ic57d17.met | JE03.049 | 1
50 | E013-10 1054 | ic57d17.met | JE03.050 | 1
51 | E013-10D | ic57d17.met | JE03.051 | 1
52 | CCV47-30 | ic57d17.met | JE03.052 | 1
53 | E013-10M *BAH | ic57d17.met | JE03.053 | 1
54 | E013-11 2.66µS/cm | ic57d17.met | JE03.054 | 1
55 | E013-12 2.55 | ic57d17.met | JE03.055 | 1
56 | CCV48-15 | ic57d17.met | JE03.056 | 1
57 | IPCS | ic57d17.met | JE03.057 | 1
58 | PCD024WB *BAH | ic57d17.met | JE03.058 | 1
59 | MRL | ic57d17.met | JE03.059 | 1
60 | PCD024WL *BAH | ic57d17.met | JE03.060 | 1
61 | PCD024WC | ic57d17.met | JE03.061 | 1
62 | D324-02 11.08 mS/cm | ic57d17.met | JE03.062 | 1
63 | D324-03 11.02 | ic57d17.met | JE03.063 | 1
64 | D324-04 2.64 | ic57d17.met | JE03.064 | 1
65 | D324-05 394 | ic57d17.met | JE03.065 | 1
66 | D324-06 386 | ic57d17.met | JE03.066 | 1
67 | D324-07 4.20 | ic57d17.met | JE03.067 | 1
68 | CCV49-30 | ic57d17.met | JE03.068 | 1
69 | E031-01 403µS/cm *BAH | ic57d17.met | JE03.069 | 1
70 | E031-02 DF=5 Not used. Rec. Only. | ic57d17.met | JE03.070 | 5
71 | E051-04 1895µS/cm | ic57d17.met | JE03.071 | 1
72 | D138-02R * For confirmation | ic57d17.met | JE03.072 | 1
Waiting For Trigger...
Friday, May 04, 2007
Start
EZChrom Chromatography ...
Method: lc57d17.met...
untitled - Paint
7:10 PM

8028


Method: lc57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D138-02 DF=5 | *BAH | lc57d17.met | JE03.073 | 5
74 | D223-06R G | | lc57d17.met | JE03.074 | 1
75 | D223-06Z R | | lc57d17.met | JE03.075 | 1
76 | D223-06G Z | | lc57d17.met | JE03.076 | 1
77 | E016-02 DF=5 | | lc57d17.met | JE03.077 | 1
78 | E016-03 DF=5 | | lc57d17.met | JE03.078 | 1
79 | CCV50-15 | | lc57d17.met | JE03.079 | 1
80 | E017-09 DF=2 | *BAH | lc57d17.met | JE03.080 | 1
81 | E017-10 DF=20 | | lc57d17.met | JE03.081 | 1
82 | E017-11 DF=20 | | lc57d17.met | JE03.082 | 1
83 | E017-12 DF=200 | | lc57d17.met | JE03.083 | 1
84 | E017-06 DF=5 | | lc57d17.met | JE03.084 | 1
85 | CCV51-30 | | lc57d17.met | JE03.085 | 1
86 | IPCS | | lc57d17.met | JE03.086 | 1
87 | PCD025SB | *BAH | lc57d17.met | JE03.087 | 1
88 | MRL | | lc57d17.met | JE03.088 | 1
89 | PCD025SL | *BAH | lc57d17.met | JE03.089 | 1
90 | PCD025SC | | lc57d17.met | JE03.090 | 1
91 | E017-13 49.6µS/cm | | lc57d17.met | JE03.091 | 1
92 | E017-14 67.5 | | lc57d17.met | JE03.092 | 1
93 | E017-15 83.8 | | lc57d17.met | JE03.093 | 1
94 | E017-16 199 | | lc57d17.met | JE03.094 | 1
95 | E017-17 51.4 | | lc57d17.met | JE03.095 | 1
96 | E017-18 83.1 | | lc57d17.met | JE03.096 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... untitled - Paint
Friday, May 04, 2007
7:10 PM

8929


Method: Ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
97 | CCV52-15 | ic57d17.met | JE03.097 | 1
98 | E018-02 202 µS/m xBA# | ic57d17.met | JE03.098 | 1
99 | E018-03 46.7 | ic57d17.met | JE03.099 | 1 | Rec. only ; not used - no ending CCV.
100 | E018-04 209 | ic57d17.met | JE03.100 | 1
101 | E018-05 214 | ic57d17.met | JE03.100 1 | 1
102 | E018-05D | ic57d17.met | JE03.100 2 | 1 | Injection Error. Not used ; re-run.
103 | E018-05M | ic57d17.met | JE03.100 3 | 1
104 | CCV53-30 | ic57d17.met | JE03.100 4 | 1
05/05/07
Waiting For Trigger...
Start EZChrom Chromatography ... Method: Ic57d17.met... untitled - Paint
Friday, May 04, 2007
7:11 PM

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SWBA - 02 - 18
* JE07.009 → JE07.011: Not used; re-run at DF=2.
* JE07.016 → For confirmation.

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JE07
Method File: IC57d17
Analytical Batch: PCD026W

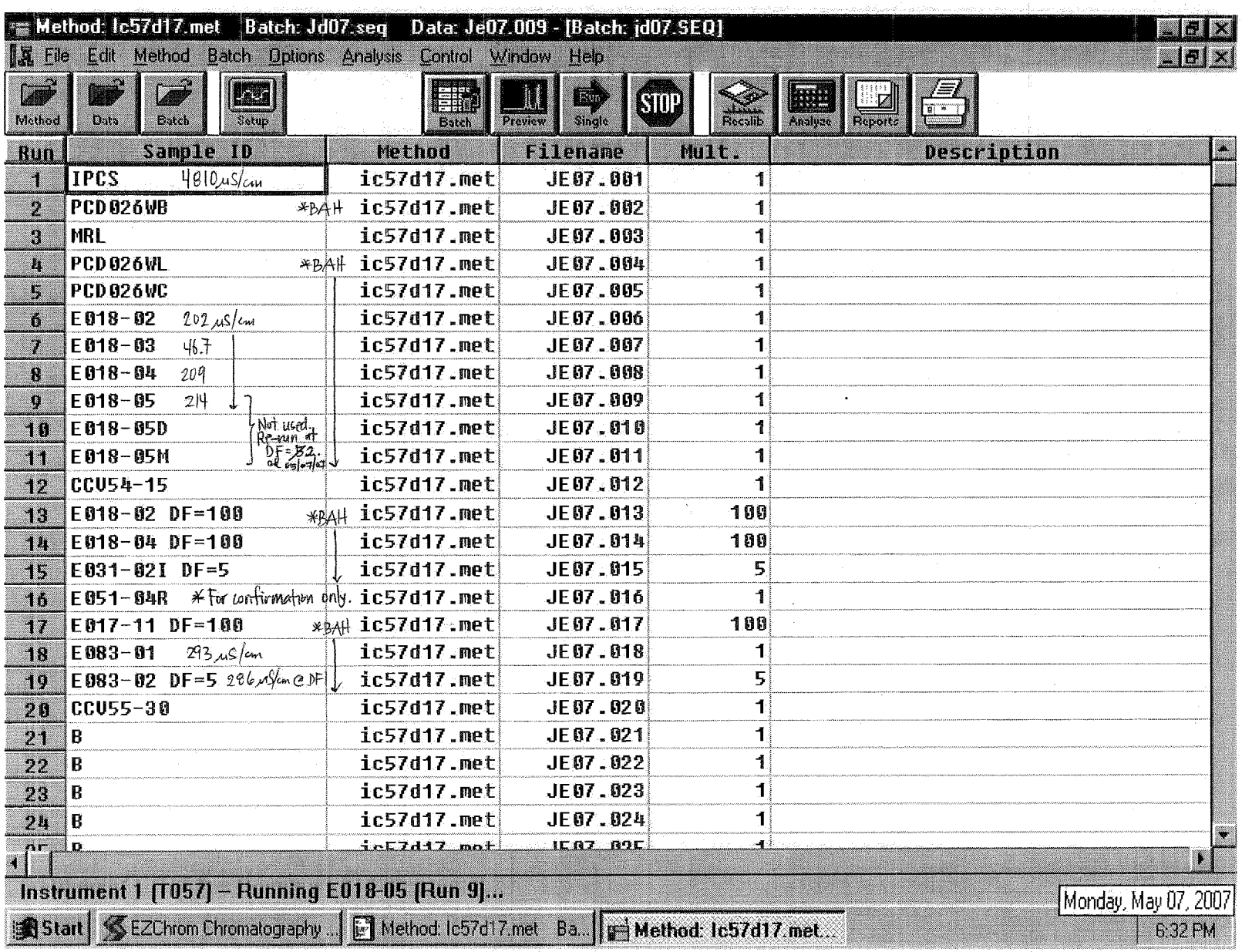
SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

STANDARDS ID	
ICAL	SWBB-02-935
ICV	936
CCV	N/A
CCV-15	SWBB-02-939
CCV-30	940
LCS	941
MS	931
IPC	943
CMC	SWBB-02-951 (2nd 05/07/07)
MRL	SWBB-02-942

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: al
Date: 05/07/07



Method: Ic57d17.met Batch: Jd07.seq Data: Je07.009 - [Batch: jd07.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Mult.	Description
1	IPCS 4810 µS/cm	ic57d17.met	JE07.001	1	
2	PCD026WB *BAH	ic57d17.met	JE07.002	1	
3	MRL	ic57d17.met	JE07.003	1	
4	PCD026WL *BAH	ic57d17.met	JE07.004	1	
5	PCD026WC	ic57d17.met	JE07.005	1	
6	E018-02 202 µS/cm	ic57d17.met	JE07.006	1	
7	E018-03 46.7	ic57d17.met	JE07.007	1	
8	E018-04 209	ic57d17.met	JE07.008	1	
9	E018-05 214	ic57d17.met	JE07.009	1	
10	E018-05D Not used. Re-run at DF=~~3~~2. at 05/07/07	ic57d17.met	JE07.010	1	
11	E018-05M	ic57d17.met	JE07.011	1	
12	CCV54-15	ic57d17.met	JE07.012	1	
13	E018-02 DF=100 *BAH	ic57d17.met	JE07.013	100	
14	E018-04 DF=100	ic57d17.met	JE07.014	100	
15	E031-02I DF=5	ic57d17.met	JE07.015	5	
16	E051-04R *For confirmation only.	ic57d17.met	JE07.016	1	
17	E017-11 DF=100 *BAH	ic57d17.met	JE07.017	100	
18	E083-01 293 µS/cm	ic57d17.met	JE07.018	1	
19	E083-02 DF=5 286 µS/cm @ DF	ic57d17.met	JE07.019	5	
20	CCV55-30	ic57d17.met	JE07.020	1	
21	B	ic57d17.met	JE07.021	1	
22	B	ic57d17.met	JE07.022	1	
23	B	ic57d17.met	JE07.023	1	
24	B	ic57d17.met	JE07.024	1	
25	B	ic57d17.met	JE07.025	1	

Instrument 1 (T057) – Running E018-05 (Run 9)...

Monday, May 07, 2007

Start EZChrom Chromatography ... Method: Ic57d17.met Ba... Method: Ic57d17.met... 6:32 PM

8032

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 05/02/07 Time 16:50 End Date 05/02/07 Time 17:55

PREPARATION BATCH * PCD022S

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCD022SB	10.000g	100ml	100ml	
*02	SL				
*03	SC				
*04	E016-01				
*05	01D				
*06	01M				
*07	02				
*08	03				
*09	04				
*10	05				
*11	07				
*12	08				
*13	09				
*14	10				
*15	11				
*16	E017-03				
*17	04				
*18	05				
*19	07				
*20	08				
*21	09				
*22	10				
*23	11				
*24	12				
*25					

ad 05/02/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
~~Lactate~~ ad 05/02/07 LCS/MS	SW8B-02-931	2.5ml / 1.0ml
Perchlorate		
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: ad

Standard Added By: ad

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8034

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix SOIL Start Date 05/03/07 Time 10:15 End Date 05/03/07 Time 11:00

PREPARATION BATCH # PC0255

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PC0255B	10.000g	100ml	100ml	
*02	SL				
*03	SC				
*04	E017-13				
*05	14				
*06	15				
*07	16				
*08	17				
*09	18				
*10	E018-02				
*11	03				
*12	04				
*13	05				
*14	05D				
*15	05M				
~~*16~~					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW8B-02-931	2.5ml/1.0ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: cd

Standard Added By: cd

Checked By:

cd 05/03/07

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07E018**

SECTION		PAGE
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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	METHOD 3520C/3550B/8082	5000 – 5048
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8037
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 05-23-2007
EMAX Batch No.: 07E018

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 05/01/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
H49-HSAS6-50-51.5	E018-01	04/30/07	SOIL	HOLD
H49-HSAS6-40-41.5	E018-02	04/30/07	SOIL	PERCHLORATE BY IC
H49-HSAS6-10-11.5	E018-03	04/30/07	SOIL	PERCHLORATE BY IC
H49-HSAS601-40-41.5	E018-04	04/30/07	SOIL	PERCHLORATE BY IC
H49-HSAS6-20-21.5	E018-05	04/30/07	SOIL	PERCHLORATE BY IC
LEB-043007	E018-06	04/30/07	WATER	POLYCHLORINATED BIPHENYLS (PCBS)
LEB-043007	E018-07	04/30/07	WATER	PERCHLORATE BY IC
H49-HSAS12-15-16.5	E018-08	04/30/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS12-20-21.5	E018-09	04/30/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS12-10-11.5	E018-10	04/30/07	SOIL	POLYCHLORINATED BIPHENYLS (PCBS)
H49-HSAS12-40-41.5	E018-11	04/30/07	SOIL	HOLD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

for Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

07E018

DATE 4-30-07 PAGE 1 OF 2

CLIENT: Lmc

PROJECT NAME: Supplemental Soil Investigation

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures): Holly A. Hanke

PARAMETERS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	8082 PCB's	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	H49-HSAS6-50-51.5	4-30-07	1117	X		U	S	G	1	NR	Hold until further notice
2.	H49-HSAS6-40-41.5	4-30-07	1050	X		U	S	G	1	NR	
3.	H49-HSAS6-10-11.5	4-30-07	1025	X		↓	↓	↓	↓	↓	
4.	H49-HSAS601-40-41.5	4-30-07	1050	X							
5.	H49-HSAS6-20-21.5	4-30-07	1031	X							
6.	LEB-043007	4-30-07	940		X	U	W	G	1	NR	(1 Liter Amber)
7.	LEB-043007	4-30-07	945	X		U	W	P	1	NR	(250 mL plastic)
8.	H49-HSAS12-15-16.5	4-30-07	1427		X	U	S	G	1	NR	
9.	H49-HSAS12-20-21.5	4-30-07	1431		X	↓	↓	↓	↓	↓	
10.	H49-HSAS12-10-11.5	4-30-07	1424		X						

FILTERING:
☐ FILTERED ☒ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME
Holly Hanke	Holly A Hanke	TETRA TECH, INC.	4-30-07	1743
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 15:05
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 18:18
RECEIVED BY: A. FLOTEMMO	SIGNATURE	COMPANY: EMAX	DATE: 5-1-07	TIME: 1815

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10 of 11

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements:

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

① T-34°C ② T35°C ③ T30°C

T001

X:\GIS\ATT-MISC\COCR.CDR

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

CHAIN OF CUSTODY RECORD

07E018 DATE 4-30-07 PAGE 2 OF 2

CLIENT: Lmc
PROJECT NAME: Supplemental Soil Investigation Site 1
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A

TURN-AROUND TIME: Standard

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	8082 PCB	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	H49-HSAS12-40-41.5	4-30-07	1450	X	U	S	G	1	NR	HOLD until further notice
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

AH

AH

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil, M - Sediment, W - Water

CONTAINER TYPE: G - Glass Bottle/Jar, SS - Stainless Steel Sleeve, SB - Brass Sleeve, P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL, NR (None required), NaOH, H_2SO_4

RELINQUISHED BY	SIGNATURE	TETRA TECH, INC.	DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 1 of 11
Holly Hanke	Holly A. H		4-30-07	1743	
RECEIVED BY A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 5/1/07	TIME 15:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 5/1/07	TIME 18:18	Special Shipping/Handling/Storage Requirements:
RECEIVED BY A. FLORENDO	SIGNATURE	COMPANY EMAX	DATE 5-1-07	TIME 1818	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1002

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN 07E018
☑ EMAX Courier	See COC	Recepient A. FLORENDO
☐ Client Delivery		Date 050107
☐ Third Party		Time 1818

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel #/ Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☐ TAT

Safety Issues
☐ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ Plastic Bag
Temperatures	☑ Cooler 1 3.4 °C	☐ Cooler 2 3.5 °C	☑ Cooler 3 2.0 °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling [signature] Date 050107/5/07/17

SRF [signature] Date 5/2/07

PM [signature] Date 5/2/07

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC	E1	Preservative needed; sample has no preservative	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label	E2	Preservative not needed but sample is preserved	R2	Proceed as indicated in COC
A3	Analysis is inconsistent in COC vis-à-vis label	F1	Not enough quantity of samples	R3	Refer to attached instruction
B1	Sample ID is not indicated in COC	F2	Bubble is> 6mm	R4	Cancel the analysis
B2	Sample ID is not indicated in label	G1	Temperature is out of range (4 +_ 2°C)	R5	
B3	Sample ID is inconsistent in COC vis-à-vis label	G2	Out of Holding Time	R6	
C1	Wrong container	G3	>20 % solid particle		
C2	Broken container	H1			
C3	Leaking container	H2			
D1	Date and/or time is not indicated in COC				
D2	Date and/or time is not indicated in label				
D3	Date and/or time is inconsistent in COC vis-à-vis label				

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 3520C/3550B/8082
PCBs

SDG#: 07E018

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E018

METHOD 3520C/3550B/8082
PCBs

One (1) water and three (3) soil samples were received on 05/01/07 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
SDG NO. : 07E018
Instrument ID : GCT071

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	60E008WB	1	NA	05/04/0713:35	05/03/0717:00	KE04008A	KE04002A	60E008W	Method Blank
LCS1W	60E008WL	1	NA	05/04/0713:57	05/03/0717:00	KE04009A	KE04002A	60E008W	Lab Control Sample (LCS)
LCD1W	60E008WC	1	NA	05/04/0714:18	05/03/0717:00	KE04010A	KE04002A	60E008W	LCS Duplicate
LEB-043007	E018-06	0.94	NA	05/04/0716:49	05/03/0717:00	KE04017A	KE04013A	60E008W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60E005SB	1	NA	05/05/0701:26	05/03/0714:30	KE04041A	KE04039A	60E005S	Method Blank
LCS1S	60E005SL	1	NA	05/05/0701:47	05/03/0714:30	KE04042A	KE04039A	60E005S	Lab Control Sample (LCS)
LCD1S	60E005SC	1	NA	05/05/0702:09	05/03/0714:30	KE04043A	KE04039A	60E005S	LCS Duplicate
H49-HSAS12-15-16.5	E018-08	1	18.1	05/05/0713:18	05/03/0714:30	KE04074A	KE04065A	60E005S	Field Sample
H49-HSAS12-20-21.5	E018-09	1	23.8	05/05/0713:39	05/03/0714:30	KE04075A	KE04065A	60E005S	Field Sample
H49-HSAS12-10-11.5	E018-10	1	6.2	05/05/0714:01	05/03/0714:30	KE04076A	KE04065A	60E005S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/30/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E018	Date Extracted: 05/03/07 17:00
Sample ID: LEB-043007	Date Analyzed: 05/04/07 16:49
Lab Samp ID: E018-06	Dilution Factor: 0.94
Lab File ID: KE04017A	Matrix : WATER
Ext Btch ID: 60E008W	% Moisture : NA
Calib. Ref.: KE04013A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	0.94	0.47|0.47
PCB-1221	(ND)|ND	0.94	0.47|0.47
PCB-1232	(ND)|ND	0.94	0.47|0.47
PCB-1242	(ND)|ND	0.94	0.47|0.47
PCB-1248	(ND)|ND	0.94	0.47|0.47
PCB-1254	(ND)|ND	0.94	0.47|0.47
PCB-1260	(ND)|ND	0.94	0.47|0.47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(30)|27*	30-140
DECACHLOROBIPHENYL	(69)|70	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/30/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E018	Date Extracted: 05/03/07 14:30
Sample ID: H49-HSAS12-15-16.5	Date Analyzed: 05/05/07 13:18
Lab Samp ID: E018-08	Dilution Factor: 1
Lab File ID: KE04074A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : 18.1
Calib. Ref.: KE04065A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	61	24 | 24
PCB-1221	(ND) | ND	61	24 | 24
PCB-1232	(ND) | ND	61	24 | 24
PCB-1242	(ND) | ND	61	24 | 24
PCB-1248	(ND) | ND	61	24 | 24
PCB-1254	(ND) | ND	61	24 | 24
PCB-1260	(ND) | ND	61	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 77	10-160
DECACHLOROBIPHENYL	(119) | 120	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: 04/30/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/01/07
Batch No. : 07E018	Date Extracted: 05/03/07 14:30
Sample ID: H49-HSAS12-20-21.5	Date Analyzed: 05/05/07 13:39
Lab Samp ID: E018-09	Dilution Factor: 1
Lab File ID: KE04075A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : 23.8
Calib. Ref.: KE04065A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	66	26 | 26
PCB-1221	(ND) | ND	66	26 | 26
PCB-1232	(ND) | ND	66	26 | 26
PCB-1242	(ND) | ND	66	26 | 26
PCB-1248	(ND) | ND	66	26 | 26
PCB-1254	(ND) | ND	66	26 | 26
PCB-1260	(ND) | ND	66	26 | 26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 77	10-160
DECACHLOROBIPHENYL	(124) | 121	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

METHOD 3550B/8082
PCBs

Client	: TETRA TECH, INC.	Date Collected:	04/30/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/01/07
Batch No.	: 07E018	Date Extracted:	05/03/07 14:30
Sample ID:	H49-HSAS12-10-11.5	Date Analyzed:	05/05/07 14:01
Lab Samp ID:	E018-10	Dilution Factor:	1
Lab File ID:	KE04076A	Matrix :	SOIL
Ext Btch ID:	60E005S	% Moisture :	6.2
Calib. Ref.:	KE04065A	Instrument ID :	GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	53	21 | 21
PCB-1221	(ND) | ND	53	21 | 21
PCB-1232	(ND) | ND	53	21 | 21
PCB-1242	(ND) | ND	53	21 | 21
PCB-1248	(ND) | ND	53	21 | 21
PCB-1254	(ND) | ND	53	21 | 21
PCB-1260	(ND) | ND	53	21 | 21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 78	10-160
DECACHLOROBIPHENYL	(117) | 115	30-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

METHOD 3550B/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/03/07
Batch No. : 07E018	Date Extracted: 05/03/07 14:30
Sample ID: MBLK1S	Date Analyzed: 05/05/07 01:26
Lab Samp ID: 60E005SB	Dilution Factor: 1
Lab File ID: KE04041A	Matrix : SOIL
Ext Btch ID: 60E005S	% Moisture : NA
Calib. Ref.: KE04039A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	50	20|20
PCB-1221	(ND)|ND	50	20|20
PCB-1232	(ND)|ND	50	20|20
PCB-1242	(ND)|ND	50	20|20
PCB-1248	(ND)|ND	50	20|20
PCB-1254	(ND)|ND	50	20|20
PCB-1260	(ND)|ND	50	20|20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(86)|82	40-130
DECACHLOROBIPHENYL	(115)|115	40-160

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018
METHOD: METHOD 3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	60E005SB	60E005SL	60E005SC		
LAB FILE ID:	KE04041A	KE04042A	KE04043A		
DATE EXTRACTED:	05/03/0714:30	05/03/0714:30	05/03/0714:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/05/0701:26	05/05/0701:47	05/05/0702:09	DATE RECEIVED:	05/03/07
PREP. BATCH:	60E005S	60E005S	60E005S		
CALIB. REF:	KE04039A	KE04039A	KE04039A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(167) | 145	(100) | 87	167	(165) | 156	(99) | 94	(1) | 7	50-130	50
PCB-1260	(ND) | ND	167	(182) | 160	(109) | 96	167	(180) | 166	(108) | 100	(1) | 4	70-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(11.5) | 11.1	(86) | 83	13.3	(11.3) | 11.0	(85) | 82	40-130
Decachlorobiphenyl	13.3	(16.0) | 16.0	(120) | 120	13.3	(15.2) | 15.3	(114) | 114	40-160

SSS

METHOD 3520C/8082
PCBs

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/03/07
Batch No. : 07E018	Date Extracted: 05/03/07 17:00
Sample ID: MBLK1W	Date Analyzed: 05/04/07 13:35
Lab Samp ID: 60E008WB	Dilution Factor: 1
Lab File ID: KE04008A	Matrix : WATER
Ext Btch ID: 60E008W	% Moisture : NA
Calib. Ref.: KE04002A	Instrument ID : GCT071

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	1.0	0.50|0.50
PCB-1221	(ND)|ND	1.0	0.50|0.50
PCB-1232	(ND)|ND	1.0	0.50|0.50
PCB-1242	(ND)|ND	1.0	0.50|0.50
PCB-1248	(ND)|ND	1.0	0.50|0.50
PCB-1254	(ND)|ND	1.0	0.50|0.50
PCB-1260	(ND)|ND	1.0	0.50|0.50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(77)|78	30-130
DECACHLOROBIPHENYL	(105)|96	40-150

Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018
METHOD: METHOD 3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	60E008WB	60E008WL	60E008WC		
LAB FILE ID:	KE04008A	KE04009A	KE04010A		
DATE EXTRACTED:	05/03/0717:00	05/03/0717:00	05/03/0717:00	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/0713:35	05/04/0713:57	05/04/0714:18	DATE RECEIVED:	05/03/07
PREP. BATCH:	60E008W	60E008W	60E008W		
CALIB. REF:	KE04002A	KE04002A	KE04002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5.00	(4.18) | 3.49	(84) | 70	5.00	(3.19) | 3.09	(64) | 62	(27) | 12	50-130	30
PCB-1260	(ND) | ND	5.00	(3.51) | 3.37	(70.2) | 67*	5.00	(4.22) | 4.29	(84) | 86	(18) | 24	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	0.400	(0.206) | 0.172	(51) | 43	0.400	(0.167) | 0.176	(42) | 44	30-130
Decachlorobiphenyl	0.400	(0.310) | 0.296	(78) | 74	0.400	(0.330) | 0.363	(83) | 91	40-150

SS12

INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
LFID & Datetime: KD17002A 04/17/07 11:05
LFID & Datetime: KD17003A 04/17/07 11:27
LFID & Datetime: KD17004A 04/17/07 11:48
LFID & Datetime: KD17005A 04/17/07 12:10
LFID & Datetime: KD17006A 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1222.85	1270.50	1181.34	1023.15	923.31	1124.23	13.0
PCB1016-2	20.00	1405.05	1541.56	1431.64	1298.23	1179.83	1371.26	10.0
PCB1016-3	20.00	5276.95	4988.12	4510.80	3878.04	3478.53	4426.49	16.9
PCB1016-4	20.00	1289.20	1511.80	1422.99	1326.13	1201.69	1350.36	8.9
PCB1016-5	20.00	1166.50	1430.44	1181.47	1212.29	1068.37	1211.81	11.0
PCB1260-1	20.00	3494.15	3529.02	3133.71	2851.14	2409.67	3083.54	15.2
PCB1260-2	20.00	5729.00	5652.56	5436.91	4869.33	4439.66	5225.49	10.6
PCB1260-3	20.00	3469.70	3441.72	3396.39	3041.85	2752.14	3220.36	9.7
PCB1260-4	20.00	7270.55	8008.74	7756.66	7290.90	6554.21	7376.21	7.5
PCB1260-5	20.00	4389.70	4642.28	4442.28	4319.34	4017.51	4362.22	5.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10592	10679	10499	9850	9496	10223	5.1
DCB	5.00	14372	14235	13795	12178	11471	13210	9.9

H-19-07

INITIAL CALIBRATION
METHOD EPA 8082

Lab Name : EMAX Inc
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
LFID & Datetime: KD17002B 04/17/07 11:05
LFID & Datetime: KD17003B 04/17/07 11:27
LFID & Datetime: KD17004B 04/17/07 11:48
LFID & Datetime: KD17005B 04/17/07 12:10
LFID & Datetime: KD17006B 04/17/07 12:32
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA or HEIGHT)/UNIT 1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
PCB1016-1	20.00	1454.55	1424.40	1292.03	1118.69	998.03	1257.54	15.6
PCB1016-2	20.00	2781.45	2675.90	2441.52	2076.26	1841.45	2363.32	16.8
PCB1016-3	20.00	5437.50	4996.70	4563.71	3882.20	3497.18	4475.46	17.7
PCB1016-4	20.00	1510.30	1427.08	1400.76	1267.94	1181.01	1357.42	9.7
PCB1016-5	20.00	1152.80	1291.20	1216.05	1177.94	1124.06	1192.41	5.4
PCB1260-1	20.00	4650.55	4444.38	4379.77	3723.10	3400.99	4119.76	12.9
PCB1260-2	20.00	3411.65	3196.48	3273.92	2870.77	2590.60	3068.68	10.9
PCB1260-3	20.00	3093.25	2986.02	3162.32	2717.71	2477.88	2887.43	9.9
PCB1260-4	20.00	7807.60	7652.78	7640.60	6670.01	6202.79	7194.76	9.9
PCB1260-5	20.00	5368.85	5467.36	5552.58	5030.22	4645.39	5212.88	7.2
SURROGATE	X	1.00X	2.50X	5.00X	10.00X	20.00X	MEAN	%RSD
TCX	5.00	10583	10930	11041	10247	10105	10581	3.9
DCB	5.00	14855	14247	13516	12432	11744	13359	9.6

pa 4-19-07

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007A 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			954.565	5		15
PCB1260				1000.0			1003.852	0		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.333	4.282	4.384	50.0	10223.2	501063	49.01	-2		15
DCB	12.783	12.708	12.858	50.0	13210.2	726987	55.03	10		15

4-19-07

5017

INITIAL CALIBRATION VERIFICATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KD17007B 04/17/2007 12:53
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			956.404	4		15
PCB1260				1000.0			978.074	2		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.992	2.963	3.021	50.0	10581.1	503048	47.54	-5		15
DCB	9.700	9.657	9.743	50.0	13358.7	701265	52.49	5		15

dw 4-19-07

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04002A 05/04/2007 10:57
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1050.900	5		15
PCB1260				1000.0			1083.800	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.275	4.224	4.326	50.0	10223.2	574781	56.22	12		15
DCB	12.633	12.558	12.708	50.0	13210.2	640969	48.52	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04002B 05/04/2007 10:57
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1027.510	3		15
PCB1260				1000.0			1111.918	11		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	574319	54.28	9		15
DCB	9.592	9.549	9.635	50.0	13358.7	646485	48.39	-3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04013A 05/04/2007 15:23
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1045.370	5		15
PCB1260				1000.0			1067.003	7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.275	4.224	4.326	50.0	10223.2	565510	55.32	11		15
DCB	12.617	12.542	12.692	50.0	13210.2	654212	49.52	-1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04013B 05/04/2007 15:23
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1014.216	1		15
PCB1260				1000.0			1037.671	4		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	561268	53.04	6		15
DCB	9.592	9.549	9.635	50.0	13358.7	659256	49.35	-1		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04019A 05/04/2007 17:32
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1070.971	7		15
PCB1260				1000.0			1092.979	9		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.275	4.224	4.326	50.0	10223.2	581551	56.89	14		15
DCB	12.617	12.542	12.692	50.0	13210.2	677135	51.26	3		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04019B 05/04/2007 17:32
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1022.745	2		15
PCB1260				1000.0			949.866	5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	2.933	2.904	2.962	50.0	10581.1	569510	53.82	8		15
DCB	9.592	9.549	9.635	50.0	13358.7	668534	50.04	0		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04039A 05/05/2007 00:43
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1062.599	6		15
PCB1260				1000.0			1134.596	13		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	587237	57.44	15		15
DCB	12.608	12.533	12.683	50.0	13210.2	699156	52.93	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04039B 05/05/2007 00:43
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1042.991	4		15
PCB1260				1000.0			1096.431	10		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	585860	55.37	11		15
DCB	9.583	9.540	9.626	50.0	13358.7	708317	53.02	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04052A 05/05/2007 05:22
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1011.865	1		15
PCB1260				1000.0			1082.690	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	576437	56.38	13		15
DCB	12.608	12.533	12.683	50.0	13210.2	810009	61.32	23	*	15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04052B 05/05/2007 05:22
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1018.668	2		15
PCB1260				1000.0			1117.488	12		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.925	2.896	2.954	50.0	10581.1	568688	53.75	7		15
DCB	9.583	9.540	9.626	50.0	13358.7	706376	52.88	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCT071 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04065A 05/05/2007 10:03
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1064.060	6		15
PCB1260				1000.0			1075.921	8		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	582746	57.00	14		15
DCB	12.600	12.525	12.675	50.0	13210.2	702082	53.15	6		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Columm : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04065B 05/05/2007 10:03
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1035.265	4		15
PCB1260				1000.0			1144.496	14		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.925	2.896	2.954	50.0	10581.1	571913	54.05	8		15
DCB	9.575	9.532	9.618	50.0	13358.7	703473	52.66	5		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-1
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005A 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04088A 05/05/2007 18:19
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1027.558	3		15
PCB1260				1000.0			1088.644	9		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.267	4.216	4.318	50.0	10223.2	565176	55.28	11		15
DCB	12.608	12.533	12.683	50.0	13210.2	659733	49.94	-0		15

CONTINUE CALIBRATION
METHOD EPA 8082

Lab Name : EMAX
Instrument ID : GCTO71 HP-5890
GC Column : ZB-MULTIRESIDUE-2
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: KD17005B 04/17/2007 12:10
Conc Cont LFID & Datetime: KE04088B 05/05/2007 18:19
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
PCB1016				1000.0			1006.473	1		15
PCB1260				1000.0			1066.425	7		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	2.933	2.904	2.962	50.0	10581.1	552459	52.21	4		15
DCB	9.583	9.540	9.626	50.0	13358.7	668146	50.02	0		15

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KD17

Method File: 6071D17, 5471D17, 4871D17

Analytical Batch: KD17026A

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4/17/07
54 ↓	↓	↓
48 ↓	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	45059	N/A
1660 ICAL	5518-05-62-2	100-2000ppb
↓ ICV	↓ 3	
1248 ICAL	5518-05-63-3	
↓ ICV	↓ 64-1	
1254 ICAL	5518-05-63-1	
↓ ICV	↓ -2	
1221 ICAL	5518-05-54-1	100-2000ppb
1232	2	
1242	↓ 3	
1262	↓ 5518-05-64-2	
1268 ICV	↓ 3	

Column	A. RTX CLPEST I	B. RTX CLPEST II

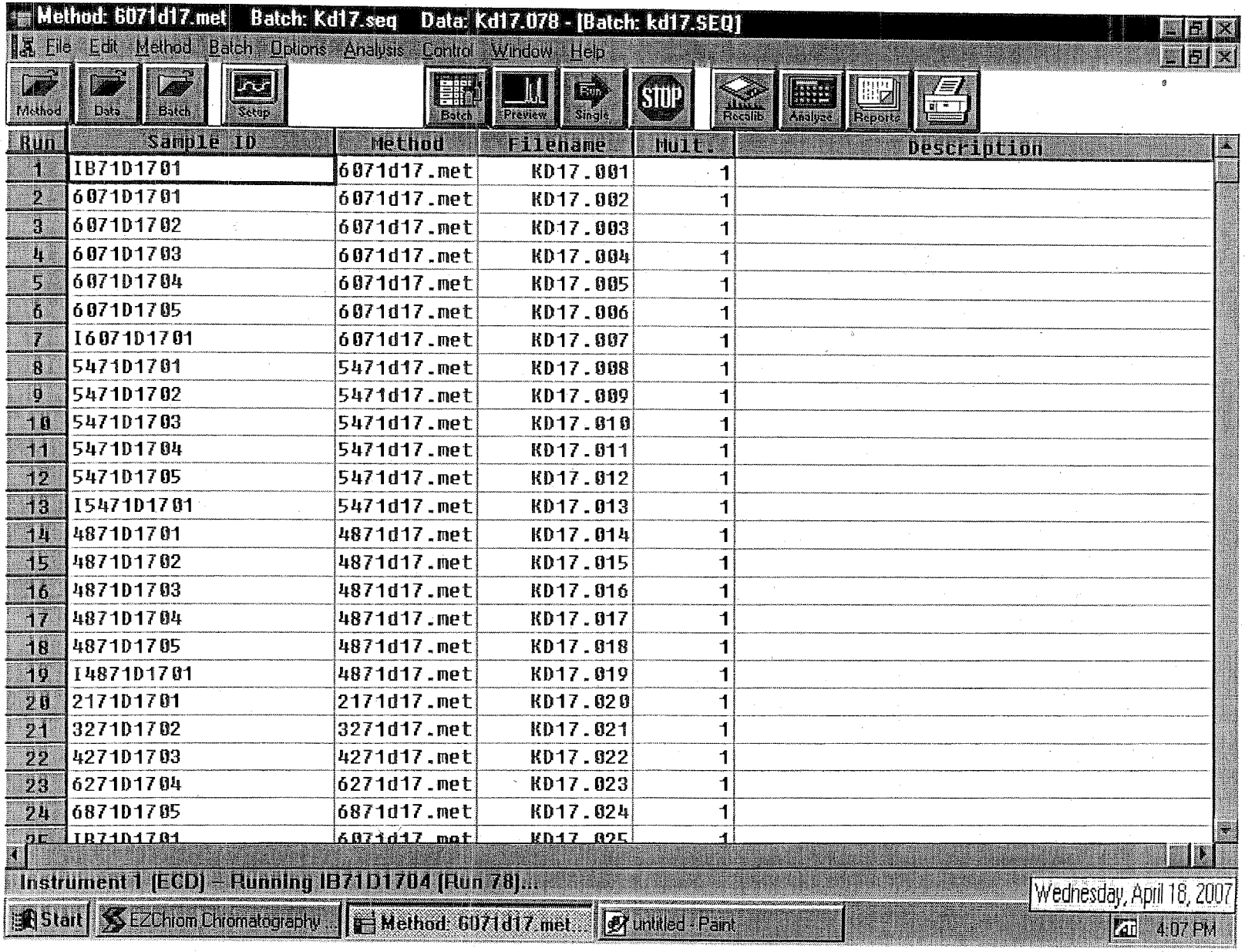
ELECTRONIC DATA ARCHIVAL

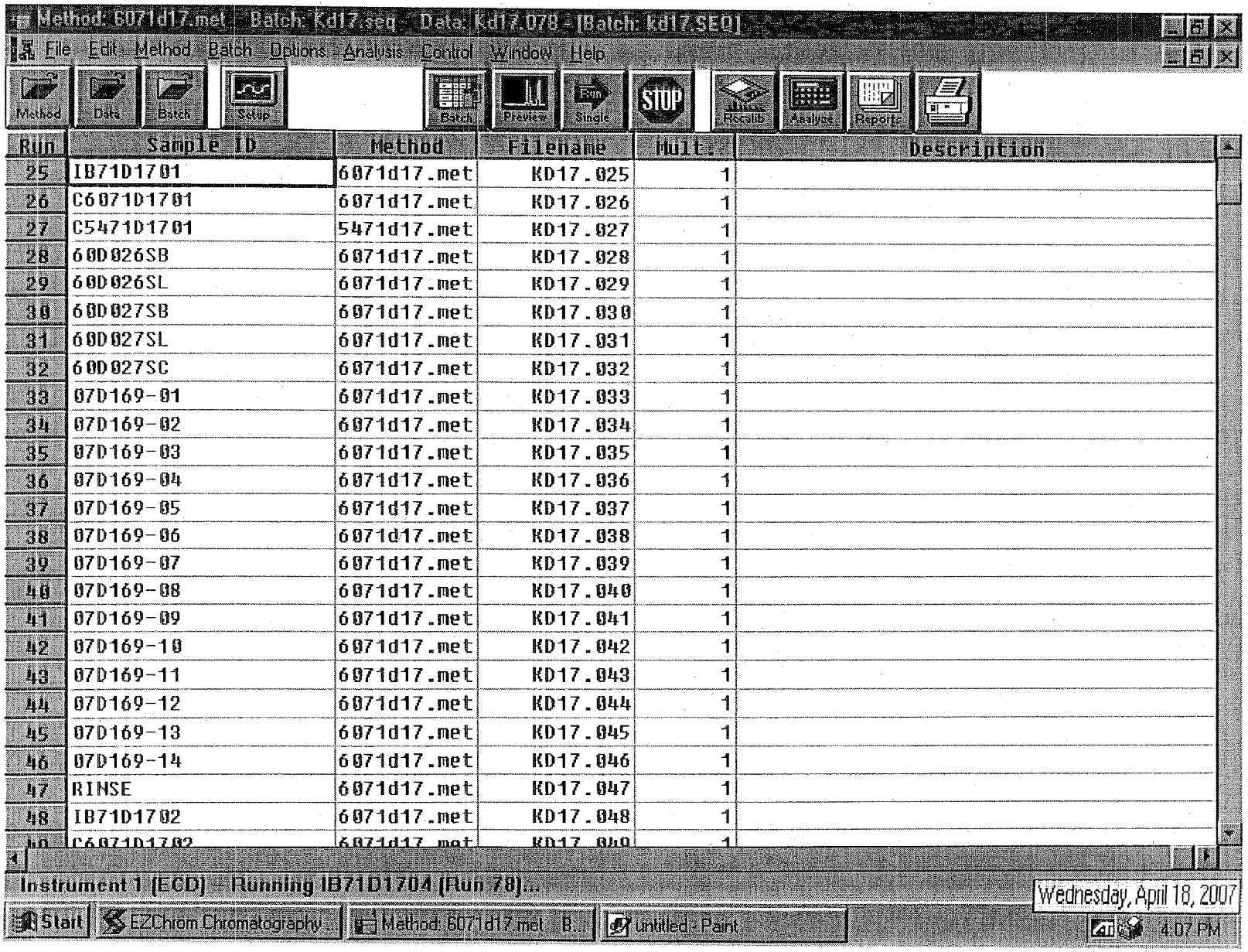
Location	Date
☑ EZC_4_Pesticides	
☐	

Analyzed By: JK Date: 4/17/07

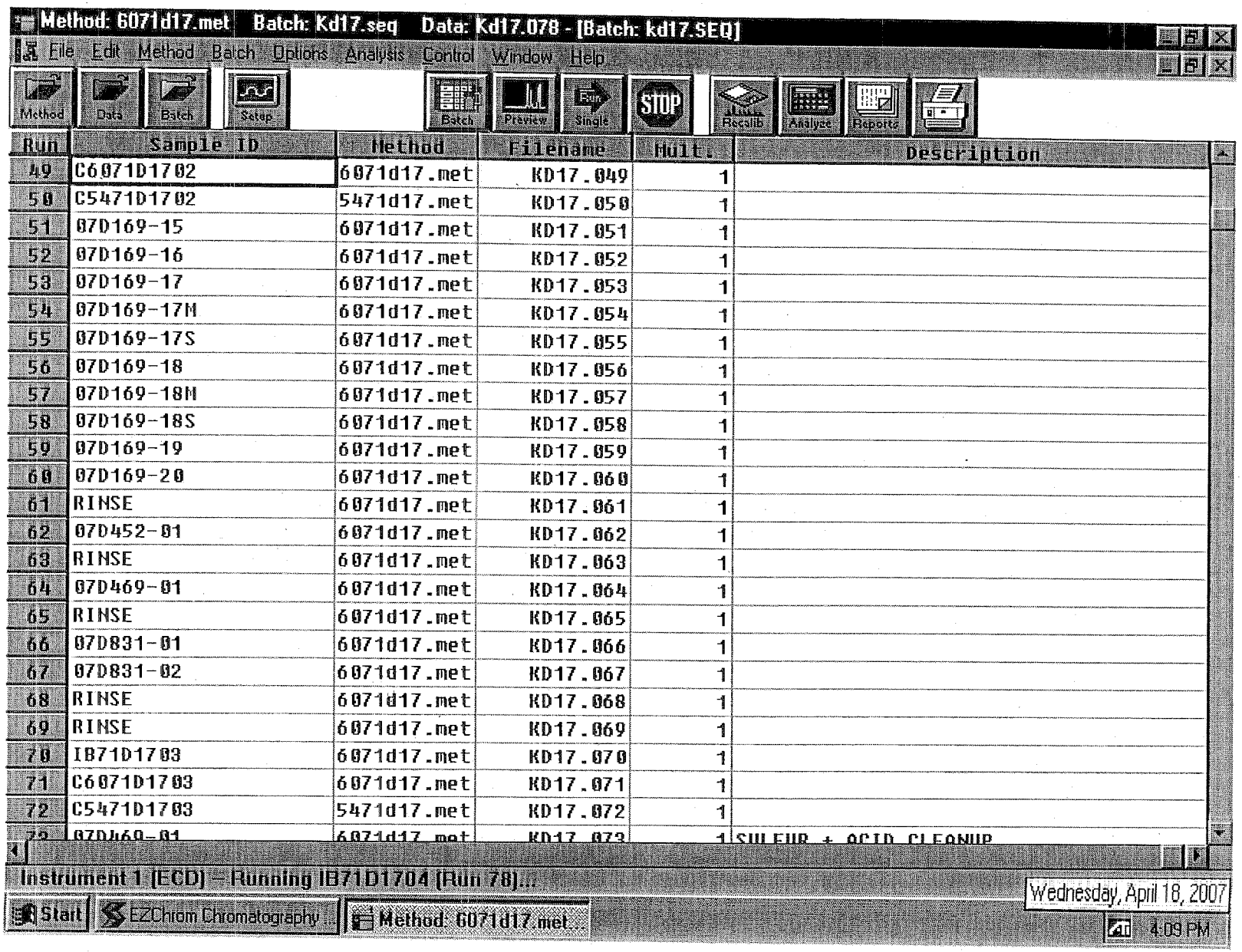
Date Disposed: Disposed By:

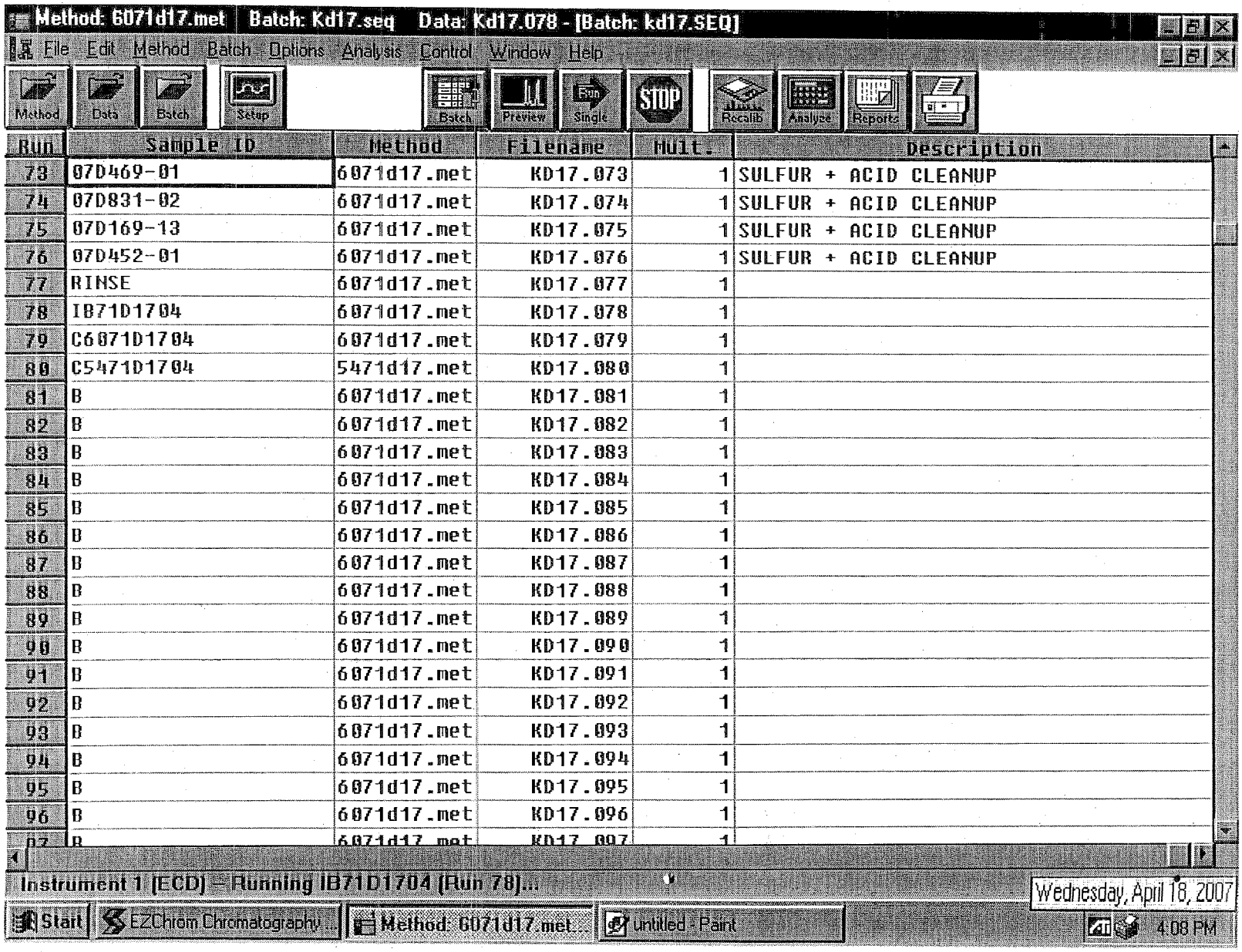
This page is checked during data review.


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1701 | 6071d17.met | KD17.001 | 1
2 | 6071D1701 | 6071d17.met | KD17.002 | 1
3 | 6071D1702 | 6071d17.met | KD17.003 | 1
4 | 6071D1703 | 6071d17.met | KD17.004 | 1
5 | 6071D1704 | 6071d17.met | KD17.005 | 1
6 | 6071D1705 | 6071d17.met | KD17.006 | 1
7 | I6071D1701 | 6071d17.met | KD17.007 | 1
8 | 5471D1701 | 5471d17.met | KD17.008 | 1
9 | 5471D1702 | 5471d17.met | KD17.009 | 1
10 | 5471D1703 | 5471d17.met | KD17.010 | 1
11 | 5471D1704 | 5471d17.met | KD17.011 | 1
12 | 5471D1705 | 5471d17.met | KD17.012 | 1
13 | I5471D1701 | 5471d17.met | KD17.013 | 1
14 | 4871D1701 | 4871d17.met | KD17.014 | 1
15 | 4871D1702 | 4871d17.met | KD17.015 | 1
16 | 4871D1703 | 4871d17.met | KD17.016 | 1
17 | 4871D1704 | 4871d17.met | KD17.017 | 1
18 | 4871D1705 | 4871d17.met | KD17.018 | 1
19 | I4871D1701 | 4871d17.met | KD17.019 | 1
20 | 2171D1701 | 2171d17.met | KD17.020 | 1
21 | 3271D1702 | 3271d17.met | KD17.021 | 1
22 | 4271D1703 | 4271d17.met | KD17.022 | 1
23 | 6271D1704 | 6271d17.met | KD17.023 | 1
24 | 6871D1705 | 6871d17.met | KD17.024 | 1
Instrument 1 (ECD) - Running IB71D1704 (Run 78)...
Start EZChrom Chromatography... Method: 6071d17.met... untitled - Paint
Wednesday, April 18, 2007
4:07 PM



Run	Sample ID	Method	Filename	Mult.	Description
25	IB71D1701	6071d17.met	KD17.025	1	
26	C6071D1701	6071d17.met	KD17.026	1	
27	C5471D1701	5471d17.met	KD17.027	1	
28	60D026SB	6071d17.met	KD17.028	1	
29	60D026SL	6071d17.met	KD17.029	1	
30	60D027SB	6071d17.met	KD17.030	1	
31	60D027SL	6071d17.met	KD17.031	1	
32	60D027SC	6071d17.met	KD17.032	1	
33	07D169-01	6071d17.met	KD17.033	1	
34	07D169-02	6071d17.met	KD17.034	1	
35	07D169-03	6071d17.met	KD17.035	1	
36	07D169-04	6071d17.met	KD17.036	1	
37	07D169-05	6071d17.met	KD17.037	1	
38	07D169-06	6071d17.met	KD17.038	1	
39	07D169-07	6071d17.met	KD17.039	1	
40	07D169-08	6071d17.met	KD17.040	1	
41	07D169-09	6071d17.met	KD17.041	1	
42	07D169-10	6071d17.met	KD17.042	1	
43	07D169-11	6071d17.met	KD17.043	1	
44	07D169-12	6071d17.met	KD17.044	1	
45	07D169-13	6071d17.met	KD17.045	1	
46	07D169-14	6071d17.met	KD17.046	1	
47	RINSE	6071d17.met	KD17.047	1	
48	IB71D1702	6071d17.met	KD17.048	1	
49	C6071D1702	6071d17.met	KD17.049	1	


Method: 6071d17.met Batch: Kd17.seq Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | C6071D1702 | 6071d17.met | KD17.049 | 1
50 | C5471D1702 | 5471d17.met | KD17.050 | 1
51 | 07D169-15 | 6071d17.met | KD17.051 | 1
52 | 07D169-16 | 6071d17.met | KD17.052 | 1
53 | 07D169-17 | 6071d17.met | KD17.053 | 1
54 | 07D169-17M | 6071d17.met | KD17.054 | 1
55 | 07D169-17S | 6071d17.met | KD17.055 | 1
56 | 07D169-18 | 6071d17.met | KD17.056 | 1
57 | 07D169-18M | 6071d17.met | KD17.057 | 1
58 | 07D169-18S | 6071d17.met | KD17.058 | 1
59 | 07D169-19 | 6071d17.met | KD17.059 | 1
60 | 07D169-20 | 6071d17.met | KD17.060 | 1
61 | RINSE | 6071d17.met | KD17.061 | 1
62 | 07D452-01 | 6071d17.met | KD17.062 | 1
63 | RINSE | 6071d17.met | KD17.063 | 1
64 | 07D469-01 | 6071d17.met | KD17.064 | 1
65 | RINSE | 6071d17.met | KD17.065 | 1
66 | 07D831-01 | 6071d17.met | KD17.066 | 1
67 | 07D831-02 | 6071d17.met | KD17.067 | 1
68 | RINSE | 6071d17.met | KD17.068 | 1
69 | RINSE | 6071d17.met | KD17.069 | 1
70 | IB71D1703 | 6071d17.met | KD17.070 | 1
71 | C6071D1703 | 6071d17.met | KD17.071 | 1
72 | C5471D1703 | 5471d17.met | KD17.072 | 1
Instrument 1 [ECD] - Running IB71D1704 [Run 78]...
Start EZChrom Chromatography... Method: 6071d17.met
Wednesday, April 18, 2007
4:09 PM


Method: 6071d17.met | Batch: Kd17.seq | Data: Kd17.078 - [Batch: kd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | 07D469-01 | 6071d17.met | KD17.073 | 1 | SULFUR + ACID CLEANUP
74 | 07D831-02 | 6071d17.met | KD17.074 | 1 | SULFUR + ACID CLEANUP
75 | 07D169-13 | 6071d17.met | KD17.075 | 1 | SULFUR + ACID CLEANUP
76 | 07D452-01 | 6071d17.met | KD17.076 | 1 | SULFUR + ACID CLEANUP
77 | RINSE | 6071d17.met | KD17.077 | 1 |
78 | IB71D1704 | 6071d17.met | KD17.078 | 1 |
79 | C6071D1704 | 6071d17.met | KD17.079 | 1 |
80 | C5471D1704 | 5471d17.met | KD17.080 | 1 |
81 | B | 6071d17.met | KD17.081 | 1 |
82 | B | 6071d17.met | KD17.082 | 1 |
83 | B | 6071d17.met | KD17.083 | 1 |
84 | B | 6071d17.met | KD17.084 | 1 |
85 | B | 6071d17.met | KD17.085 | 1 |
86 | B | 6071d17.met | KD17.086 | 1 |
87 | B | 6071d17.met | KD17.087 | 1 |
88 | B | 6071d17.met | KD17.088 | 1 |
89 | B | 6071d17.met | KD17.089 | 1 |
90 | B | 6071d17.met | KD17.090 | 1 |
91 | B | 6071d17.met | KD17.091 | 1 |
92 | B | 6071d17.met | KD17.092 | 1 |
93 | B | 6071d17.met | KD17.093 | 1 |
94 | B | 6071d17.met | KD17.094 | 1 |
95 | B | 6071d17.met | KD17.095 | 1 |
96 | B | 6071d17.met | KD17.096 | 1 |
Instrument 1 (ECD) - Running IB71D1704 (Run 78)...
Wednesday, April 18, 2007
Start EZChrom Chromatography... Method: 6071d17.met... untitled - Paint
4:08 PM

6699

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Book #: A71-021

Instrument No.: 71

Analytical Sequence: KE04

Method File: 6071D17, 5471D17

Analytical Batch: KE04003

SOP #	Rev. #
☐ EMAX-8081	4
☑ EMAX-8082	1
☐ EMAX-608	0
☐ EMAX-CLP-PEST	
☐ EMAX-	

ICAL REFERENCE

ICAL ID	BATCH	DATE
6071D17	KD17	4-17-07
5471D17	↓	↓

STANDARDS ID		Conc (µg/L)
Hexane	46300	N.A.
1660 ICAL	SSIB-05-62-2	100-2000
1294 ICAL	SSIB-05-63-1	↓

Column	A. RTX CLPEST I	B. RTX CLPEST II

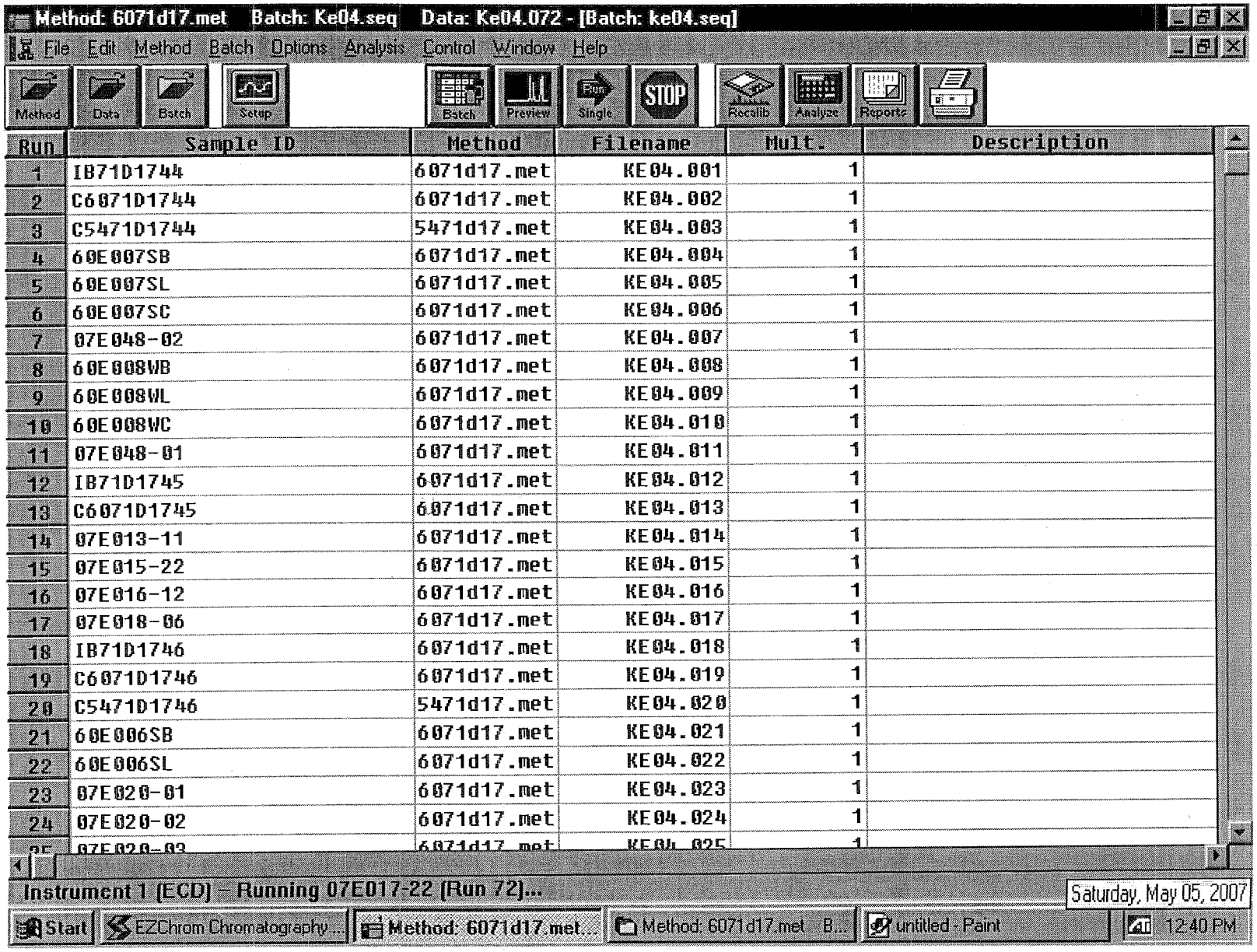
ELECTRONIC DATA ARCHIVAL

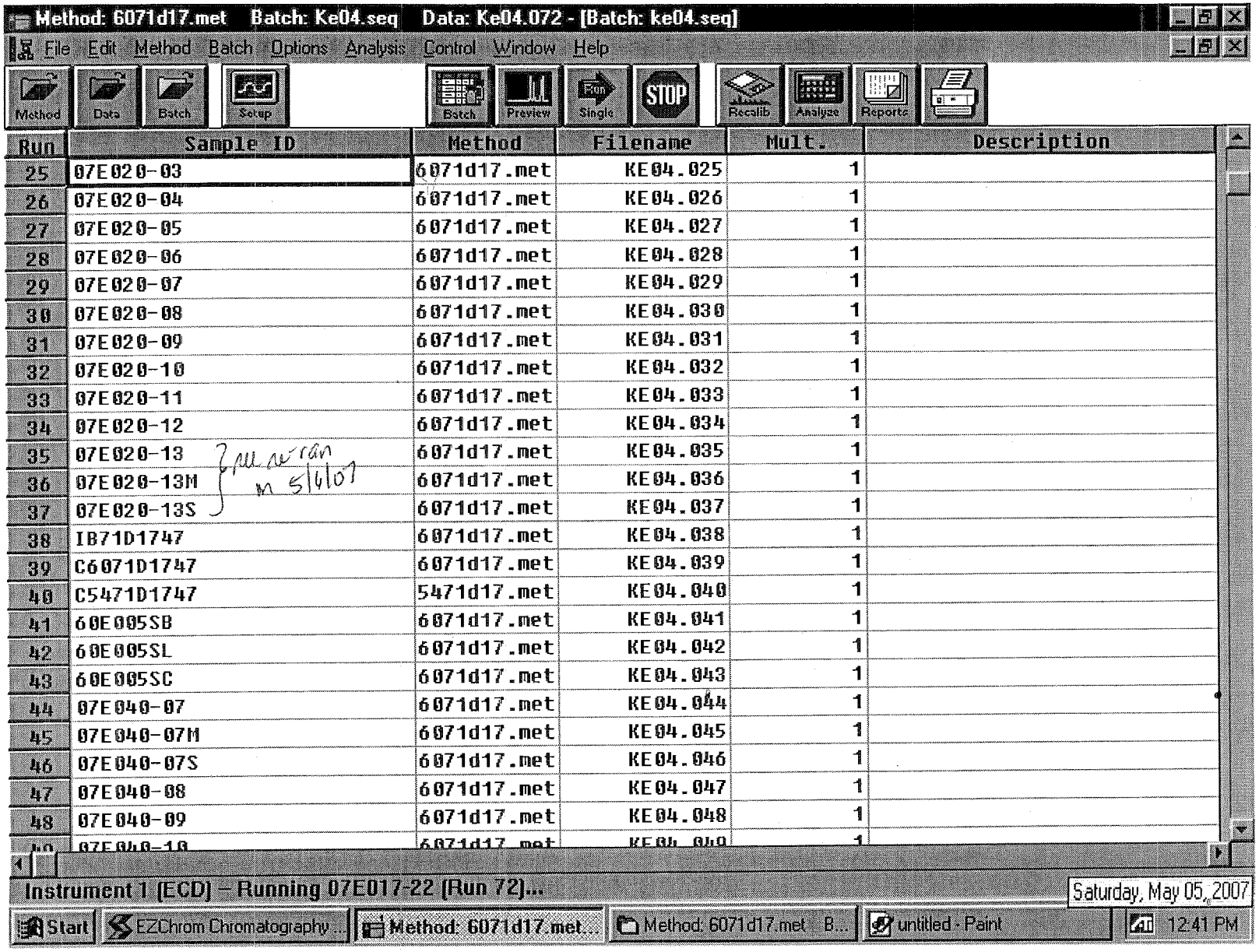
Location	Date
☐ EZC_4_Pesticides	
☐	

Analyzed By: [illegible] Date: 5/4/07

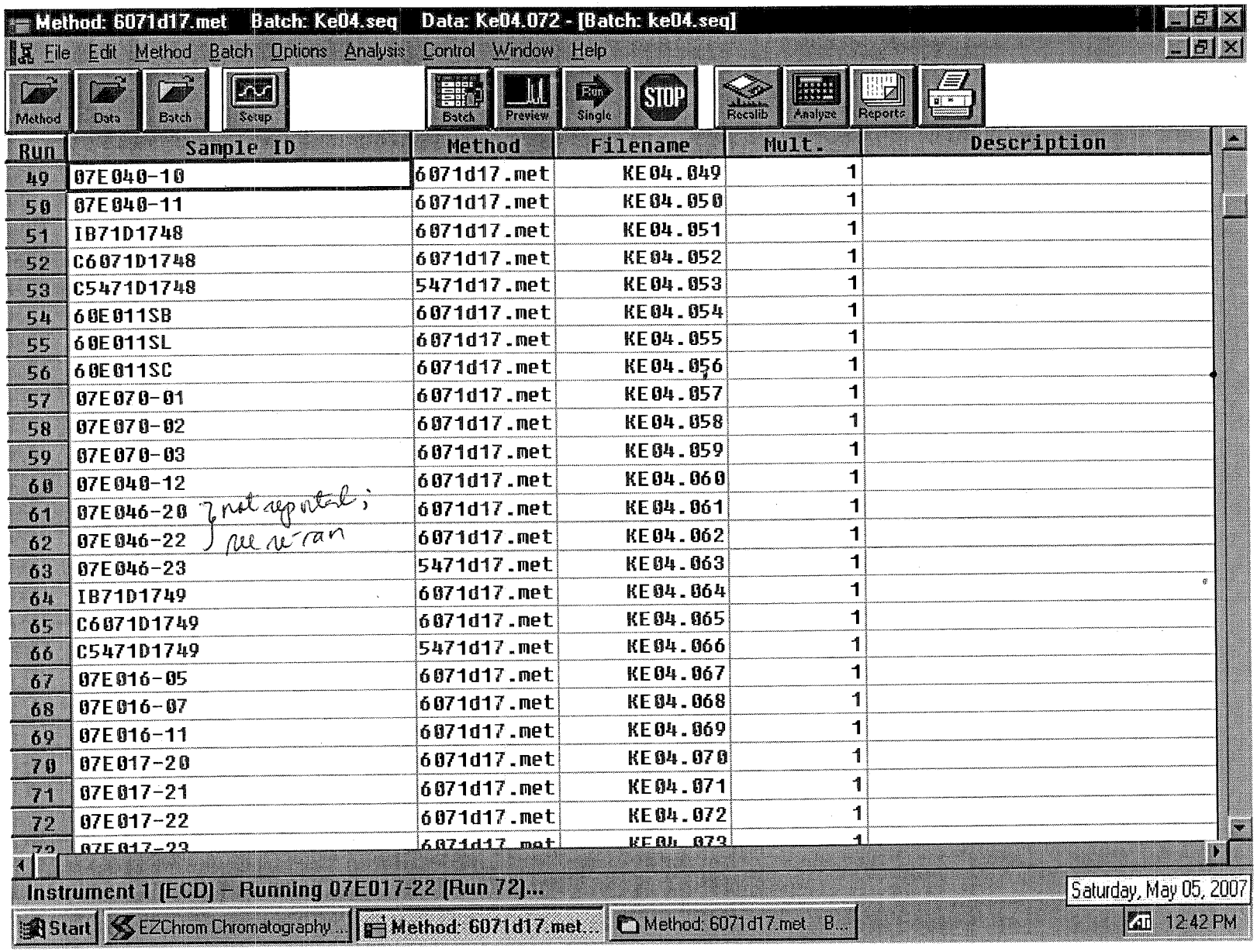
Date Disposed: Disposed By:

This page is checked during data review.


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB71D1744 | 6071d17.met | KE04.001 | 1
2 | C6071D1744 | 6071d17.met | KE04.002 | 1
3 | C5471D1744 | 5471d17.met | KE04.003 | 1
4 | 60E007SB | 6071d17.met | KE04.004 | 1
5 | 60E007SL | 6071d17.met | KE04.005 | 1
6 | 60E007SC | 6071d17.met | KE04.006 | 1
7 | 07E048-02 | 6071d17.met | KE04.007 | 1
8 | 60E008WB | 6071d17.met | KE04.008 | 1
9 | 60E008WL | 6071d17.met | KE04.009 | 1
10 | 60E008WC | 6071d17.met | KE04.010 | 1
11 | 07E048-01 | 6071d17.met | KE04.011 | 1
12 | IB71D1745 | 6071d17.met | KE04.012 | 1
13 | C6071D1745 | 6071d17.met | KE04.013 | 1
14 | 07E013-11 | 6071d17.met | KE04.014 | 1
15 | 07E015-22 | 6071d17.met | KE04.015 | 1
16 | 07E016-12 | 6071d17.met | KE04.016 | 1
17 | 07E018-06 | 6071d17.met | KE04.017 | 1
18 | IB71D1746 | 6071d17.met | KE04.018 | 1
19 | C6071D1746 | 6071d17.met | KE04.019 | 1
20 | C5471D1746 | 5471d17.met | KE04.020 | 1
21 | 60E006SB | 6071d17.met | KE04.021 | 1
22 | 60E006SL | 6071d17.met | KE04.022 | 1
23 | 07E020-01 | 6071d17.met | KE04.023 | 1
24 | 07E020-02 | 6071d17.met | KE04.024 | 1
Instrument 1 (ECD) - Running 07E017-22 (Run 72)...
Saturday, May 05, 2007
Start
EZChrom Chromatography...
Method: 6071d17.met...
Method: 6071d17.met B...
untitled - Paint
12:40 PM


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | 07E020-03 | 6071d17.met | KE04.025 | 1
26 | 07E020-04 | 6071d17.met | KE04.026 | 1
27 | 07E020-05 | 6071d17.met | KE04.027 | 1
28 | 07E020-06 | 6071d17.met | KE04.028 | 1
29 | 07E020-07 | 6071d17.met | KE04.029 | 1
30 | 07E020-08 | 6071d17.met | KE04.030 | 1
31 | 07E020-09 | 6071d17.met | KE04.031 | 1
32 | 07E020-10 | 6071d17.met | KE04.032 | 1
33 | 07E020-11 | 6071d17.met | KE04.033 | 1
34 | 07E020-12 | 6071d17.met | KE04.034 | 1
35 | 07E020-13 | 6071d17.met | KE04.035 | 1
36 | 07E020-13M | 6071d17.met | KE04.036 | 1
37 | 07E020-13S | 6071d17.met | KE04.037 | 1
38 | IB71D1747 | 6071d17.met | KE04.038 | 1
39 | C6071D1747 | 6071d17.met | KE04.039 | 1
40 | C5471D1747 | 5471d17.met | KE04.040 | 1
41 | 60E005SB | 6071d17.met | KE04.041 | 1
42 | 60E005SL | 6071d17.met | KE04.042 | 1
43 | 60E005SC | 6071d17.met | KE04.043 | 1
44 | 07E040-07 | 6071d17.met | KE04.044 | 1
45 | 07E040-07M | 6071d17.met | KE04.045 | 1
46 | 07E040-07S | 6071d17.met | KE04.046 | 1
47 | 07E040-08 | 6071d17.met | KE04.047 | 1
48 | 07E040-09 | 6071d17.met | KE04.048 | 1
all ran m 5/6/07
Instrument 1 (ECD) - Running 07E017-22 (Run 72)...
Saturday, May 05, 2007
Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B... untitled - Paint 12:41 PM

21-95



Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

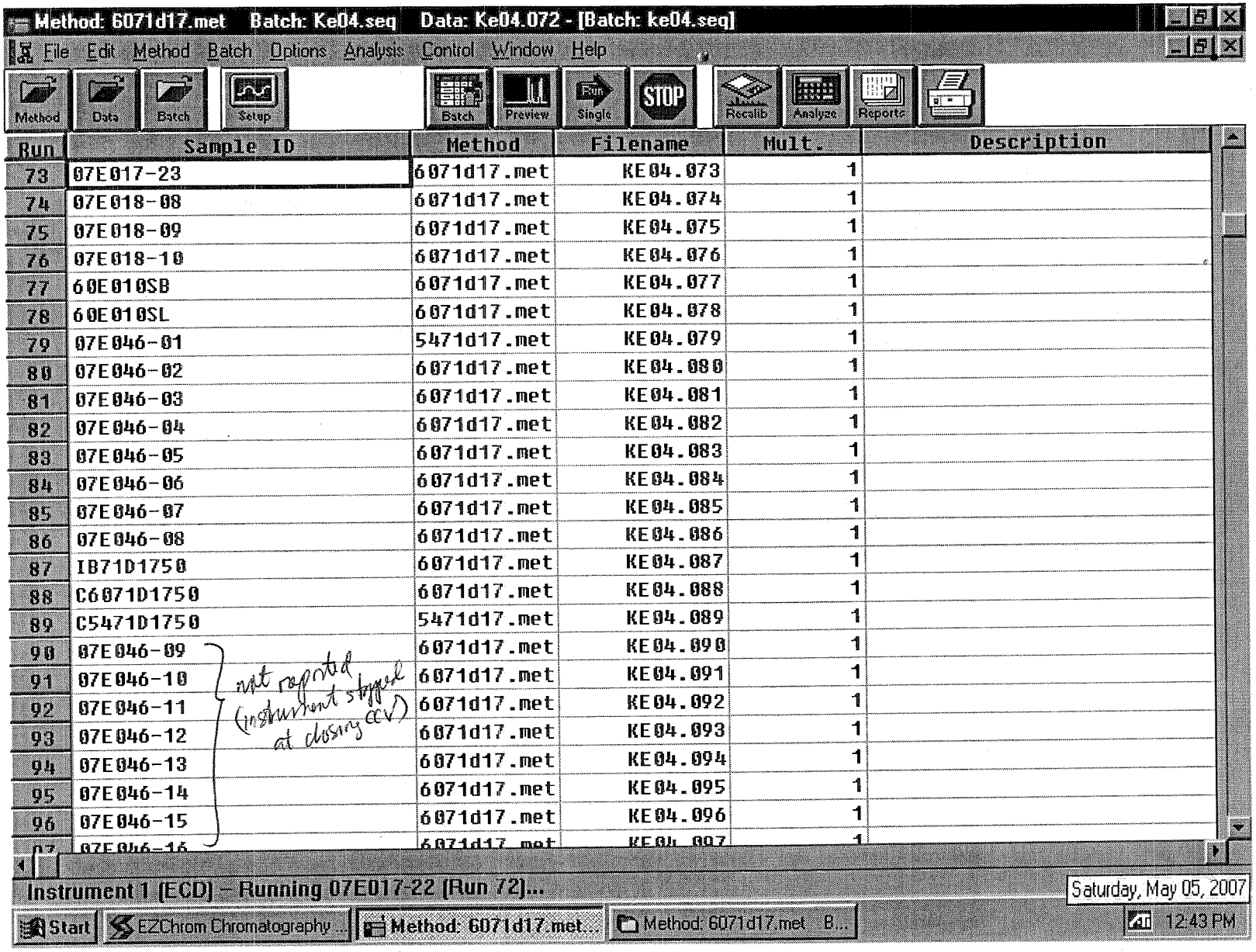
Run	Sample ID	Method	Filename	Mult.	Description
49	07E040-10	6071d17.met	KE04.049	1	
50	07E040-11	6071d17.met	KE04.050	1	
51	IB71D1748	6071d17.met	KE04.051	1	
52	C6071D1748	6071d17.met	KE04.052	1	
53	C5471D1748	5471d17.met	KE04.053	1	
54	60E011SB	6071d17.met	KE04.054	1	
55	60E011SL	6071d17.met	KE04.055	1	
56	60E011SC	6071d17.met	KE04.056	1	
57	07E070-01	6071d17.met	KE04.057	1	
58	07E070-02	6071d17.met	KE04.058	1	
59	07E070-03	6071d17.met	KE04.059	1	
60	07E040-12	6071d17.met	KE04.060	1	
61	07E046-20 } not reported;	6071d17.met	KE04.061	1	
62	07E046-22 } see re-ran	6071d17.met	KE04.062	1	
63	07E046-23	5471d17.met	KE04.063	1	
64	IB71D1749	6071d17.met	KE04.064	1	
65	C6071D1749	6071d17.met	KE04.065	1	
66	C5471D1749	5471d17.met	KE04.066	1	
67	07E016-05	6071d17.met	KE04.067	1	
68	07E016-07	6071d17.met	KE04.068	1	
69	07E016-11	6071d17.met	KE04.069	1	
70	07E017-20	6071d17.met	KE04.070	1	
71	07E017-21	6071d17.met	KE04.071	1	
72	07E017-22	6071d17.met	KE04.072	1	
73	07E017-23	6071d17.met	KE04.073	1	

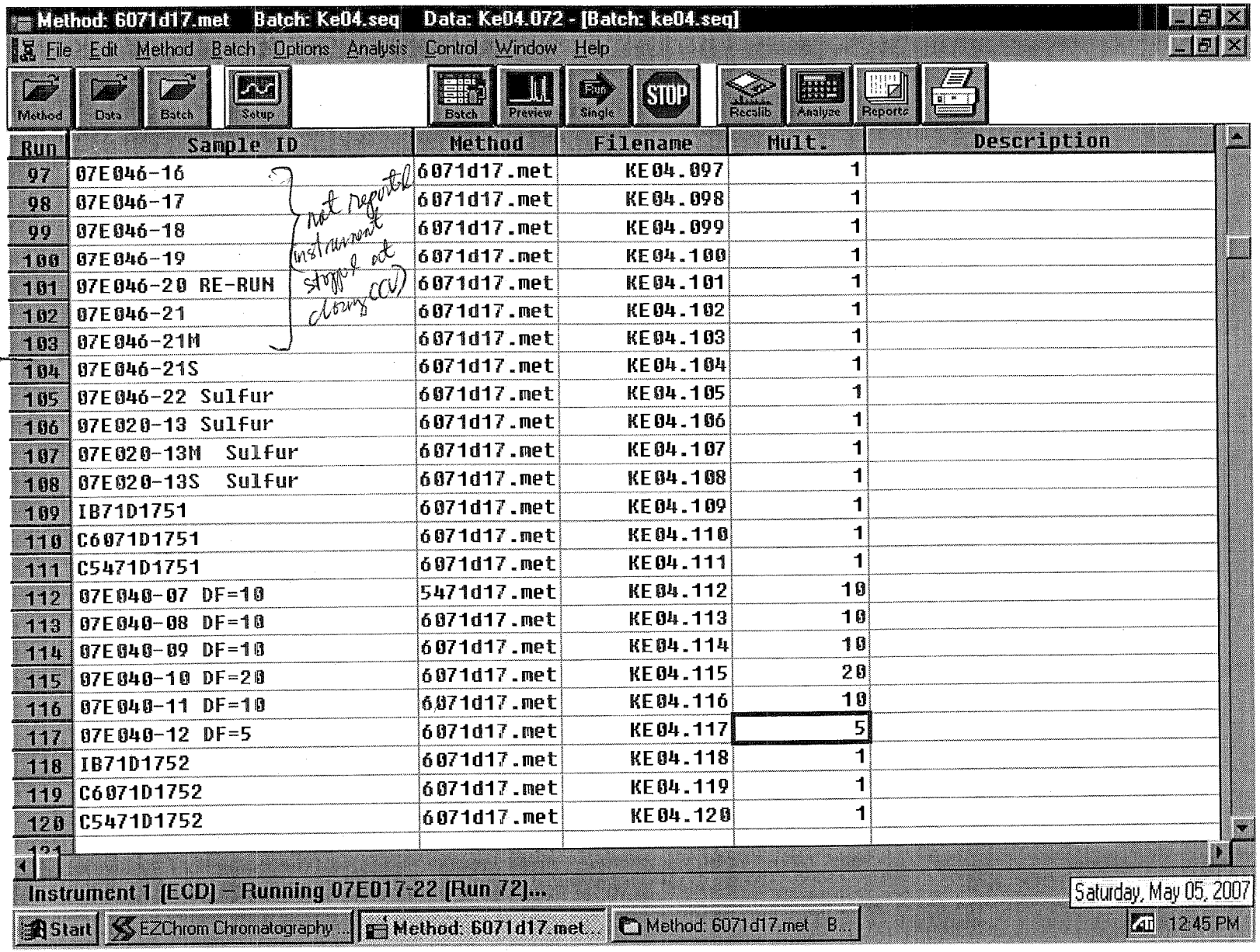
Instrument 1 (ECD) – Running 07E017-22 (Run 72)...

Saturday, May 05, 2007

Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B... 12:42 PM

5043


Method: 6071d17.met Batch: Ke04.seq Data: Ke04.072 - [Batch: ke04.seq]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
73 07E017-23 6071d17.met KE04.073 1
74 07E018-08 6071d17.met KE04.074 1
75 07E018-09 6071d17.met KE04.075 1
76 07E018-10 6071d17.met KE04.076 1
77 60E010SB 6071d17.met KE04.077 1
78 60E010SL 6071d17.met KE04.078 1
79 07E046-01 5471d17.met KE04.079 1
80 07E046-02 6071d17.met KE04.080 1
81 07E046-03 6071d17.met KE04.081 1
82 07E046-04 6071d17.met KE04.082 1
83 07E046-05 6071d17.met KE04.083 1
84 07E046-06 6071d17.met KE04.084 1
85 07E046-07 6071d17.met KE04.085 1
86 07E046-08 6071d17.met KE04.086 1
87 IB71D1750 6071d17.met KE04.087 1
88 C6071D1750 6071d17.met KE04.088 1
89 C5471D1750 5471d17.met KE04.089 1
90 07E046-09 6071d17.met KE04.090 1
91 07E046-10 6071d17.met KE04.091 1
92 07E046-11 6071d17.met KE04.092 1
93 07E046-12 6071d17.met KE04.093 1
94 07E046-13 6071d17.met KE04.094 1
95 07E046-14 6071d17.met KE04.095 1
96 07E046-15 6071d17.met KE04.096 1
not reported (instrument stopped at closing ccv)
Instrument 1 (ECD) - Running 07E017-22 (Run 72)...
Saturday, May 05, 2007
Start EZChrom Chromatography... Method: 6071d17.met... Method: 6071d17.met B...
12:43 PM



Run	Sample ID	Method	Filename	Mult.	Description
97	07E046-16	6071d17.met	KE04.097	1	
98	07E046-17	6071d17.met	KE04.098	1	
99	07E046-18	6071d17.met	KE04.099	1	
100	07E046-19	6071d17.met	KE04.100	1	
101	07E046-20 RE-RUN	6071d17.met	KE04.101	1	
102	07E046-21	6071d17.met	KE04.102	1	
103	07E046-21M	6071d17.met	KE04.103	1	
104	07E046-21S	6071d17.met	KE04.104	1	
105	07E046-22 Sulfur	6071d17.met	KE04.105	1	
106	07E020-13 Sulfur	6071d17.met	KE04.106	1	
107	07E020-13M Sulfur	6071d17.met	KE04.107	1	
108	07E020-13S Sulfur	6071d17.met	KE04.108	1	
109	IB71D1751	6071d17.met	KE04.109	1	
110	C6071D1751	6071d17.met	KE04.110	1	
111	C5471D1751	6071d17.met	KE04.111	1	
112	07E040-07 DF=10	5471d17.met	KE04.112	10	
113	07E040-08 DF=10	6071d17.met	KE04.113	10	
114	07E040-09 DF=10	6071d17.met	KE04.114	10	
115	07E040-10 DF=20	6071d17.met	KE04.115	20	
116	07E040-11 DF=10	6071d17.met	KE04.116	10	
117	07E040-12 DF=5	6071d17.met	KE04.117	5	
118	IB71D1752	6071d17.met	KE04.118	1	
119	C6071D1752	6071d17.met	KE04.119	1	
120	C5471D1752	6071d17.met	KE04.120	1	
121					

5915

EXTRACTION LOG

EMAX LABORATORIES, INC.

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☑ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: Water Starting Date: 5/3/07 Time: 17:00 Ending Date: 5/4/07 Time: 11:00 Book # ECP-031

PREPARATION BATCH * 60E008W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60E008-WB	NA	1000	–	10		
*02	↓ -WL	↓	1000	–	10		
*03	↓ -WC	↓	1000	–	10		
*04	07E013-11	↓	1060	5	10		
*05	07E015-22	↓	1040	5	10		
*06	07E016-12	↓	1060	5	10		
*07	07E018-06	↓	1060	5	10		
*08	07E048-01	↓	100	7	10	ACID	Reduced vol. used due to viscosity
*09							
*10							
*11							
*12							
*13							
*14							
*15					5/4/07 JM		
*16							
*17							
*18							
*19							
*20							
*21							
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SSIB-05-67-1	1.0
LCS/MS	SSIB-05-67-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46080619
H_2SO_4	46023
NaOH	–
Silica Sand	

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3		
4		
5	60	60

Comments: Test thermometer = T_1

Prepared By: JM/SD Checked By: ML

Witnessed By: SD Received By: [illegible] 5/4/07

Standard Adde JM Disposed By:

Extract Locatic SE02-13 Disposal Date:

This page is checked during data review.

5047

EXTRACTION LOG FOR PESTICIDES/PCBs

SOP ☐ EMAX-3520 Rev. No.: 2 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 1 ☑ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST

Matrix: Soil Starting Date: 5/3/07 Time: 14:30 Ending Date: 5/3/07 Time: 17:15 Book # ECP-030

PREPARATION BATCH # 60EC055

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	60E005 -SB	1	30.01		10	AC10	
*02	-SL	3	30.03		10		
*03	-SC	3	30.02		10		
*04	07E016 -05	1	30.03		10		
*05	-07	3	30.01		10		
*06	-11	3	30.03		10		
*07	07E017 -20	3	30.00		10		
*08	-21	3	30.01		10		
*09	-22	1	30.03		10		
*10	-23	3	30.02		10		
*11	07E018 -08	3	30.01		10		
*12	-09	1	30.03		10		
*13	-10	3	30.01		10		
*14	07E020 -07	3	30.02		10		
*15	-07M	3	30.00		10		
*16	-07S	3	30.01		10		
*17	-08	1	30.03		10		
*18	-09	1	30.02		10		
*19	-10	3	30.01		10		
*20	-11	3	30.03		10		
*21	-12	1	30.02		10		
*22			JR 5/3/07				
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

Standards	ID	Amount Added (ml)
Surrogate	SS1B-05-07-1	1.0
LCS/MS (PCB)	SS1B-05-07-3	0.5

Reagent	Lot# / ID
CH_2Cl_2	47010
Hexane	46300
Na_2SO_4	46086619
H_2SO_4	46023
NaOH	-
Silica Sand	44273

TUNING

Sonicator #	Reading
1	N/A
3	95%

Concentrator Water Bath Temp.(oC)

1	35	35
2	35	35
3	35	35
4	35	35
5	60	60

Comments: Test thermometer = T_1

Prepared By: JR Checked By: ML

Witnessed By: JM Received By: BX 5/4/07

Standard Added By: JR Disposed By:

Extract Location: SEC2 # 13 Disposal Date:

This page is checked during data review.

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Sulfur

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07E018

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E018

METHOD 314.0
PERCHLORATE

One (1) water and four (4) soil samples were received on 05/01/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control sample results were within QC limits.

4. Duplicate

Sample E018-05 was analyzed for duplicate. %RPD was within QC limit.

5. Matrix Spike

Sample E018-05 was spiked. Recovery was within QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E018

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCD025SB	ND	1	NA	20.0	10.0	05/05/0704:42	05/03/0710:15	JE03087	JE03086	PCD025S	NA	05/03/07
LCS1S	PCD025SL	255	1	NA	20.0	10.0	05/05/0705:23	05/03/0710:15	JE03089	JE03086	PCD025S	NA	05/03/07
LCD1S	PCD025SC	255	1	NA	20.0	10.0	05/05/0705:43	05/03/0710:15	JE03090	JE03086	PCD025S	NA	05/03/07
H49-HSAS6-40-41.5	E018-02	4910	100	13.7	2320	1160	05/07/0719:41	05/03/0710:15	JE07013	JE07001	PCD025S	04/30/0710:50	05/01/07
H49-HSAS6-10-11.5	E018-03	103	1	18.4	24.5	12.3	05/07/0717:39	05/03/0710:15	JE07007	JE07001	PCD025S	04/30/0710:25	05/01/07
H49-HSAS601-40-41.5	E018-04	6470	100	25.4	2680	1340	05/07/0720:01	05/03/0710:15	JE07014	JE07001	PCD025S	04/30/0710:50	05/01/07
H49-HSAS6-20-21.5	E018-05	361	2	20.7	50.4	25.2	05/09/0711:35	05/03/0710:15	JE08006	JE08001	PCD025S	04/30/0710:31	05/01/07
H49-HSAS6-20-21.5DUP	E018-05D	362	2	20.7	50.4	25.2	05/09/0711:55	05/03/0710:15	JE08007	JE08001	PCD025S	04/30/0710:31	05/01/07
H49-HSAS6-20-21.5MS	E018-05M	609	2	20.7	50.4	25.2	05/09/0712:15	05/03/0710:15	JE08008	JE08001	PCD025S	04/30/0710:31	05/01/07

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E018

Matrix : WATER
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCD023WB	ND	1	NA	2.00	0.500	05/04/0707:48	NA	JE03031	JE03030	PCD023W	NA	NA
LCS1W	PCD023WL	25.4	1	NA	2.00	0.500	05/04/0708:28	NA	JE03033	JE03030	PCD023W	NA	NA
LCD1W	PCD023WC	25.0	1	NA	2.00	0.500	05/04/0708:48	NA	JE03034	JE03030	PCD023W	NA	NA
LEB-043007	E018-07	ND	1	NA	2.00	0.500	05/04/0710:52	NA	JE03040	JE03030	PCD023W	04/30/0709:45	05/01/07

8004

QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018
METHOD: METHOD 314.0

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCD025SB	PCD025SL	PCD025SC		
LAB FILE ID:	JE03087	JE03089	JE03090		
DATE EXTRACTED:	05/03/0710:15	05/03/0710:15	05/03/0710:15	DATE COLLECTED:	NA
DATE ANALYZED:	05/05/0704:42	05/05/0705:23	05/05/0705:43	DATE RECEIVED:	05/03/07
PREP. BATCH:	PCD025S	PCD025S	PCD025S		
CALIB. REF:	JE03086	JE03086	JE03086		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	255	102	250	255	102	0	85-115	20

8005

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: 20.7
DILUTION FACTOR: 2 2
SAMPLE ID: H49-HSAS6-20-21.5
LAB SAMP ID: E018-05 E018-05M
LAB FILE ID: JE08006 JE08008
DATE EXTRACTED: 05/03/0710:15 05/03/0710:15 DATE COLLECTED: 04/30/07 10:31
DATE ANALYZED: 05/09/0711:35 05/09/0712:15 DATE RECEIVED: 05/01/07
PREP. BATCH: PCD025S PCD025S
CALIB. REF: JE08001 JE08001

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	QC LIMIT (%)
Perchlorate	361	252	609	98	80-120

7008

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018
METHOD: METHOD 314.0

MATRIX:	SOIL		% MOISTURE:	20.7
DILUTION FACTOR:	2	2		
SAMPLE ID:	H49-HSAS6-20-21.5			
EMAX SAMP ID:	E018-05	E018-05D		
LAB FILE ID:	JE08006	JE08007		
DATE EXTRACTED:	05/03/0710:15	05/03/0710:15	DATE COLLECTED:	04/30/07 10:31
DATE ANALYZED:	05/09/0711:35	05/09/0711:55	DATE RECEIVED:	05/01/07
PREP. BATCH:	PCD025S	PCD025S		
CALIB. REF:	JE08001	JE08001		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	DUPL RSLT (ug/kg)	RPD RSLT %	QC LIMIT (%)
Perchlorate	361	362	0	20

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCD023WB	PCD023WL	PCD023WC		
LAB FILE ID:	JE03031	JE03033	JE03034		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	05/04/0707:48	05/04/0708:28	05/04/0708:48	DATE RECEIVED:	NA
PREP. BATCH:	PCD023W	PCD023W	PCD023W		
CALIB. REF:	JE03030	JE03030	JE03030		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.4	102	25.0	25.0	100	2	85-115	20

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

pw 4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

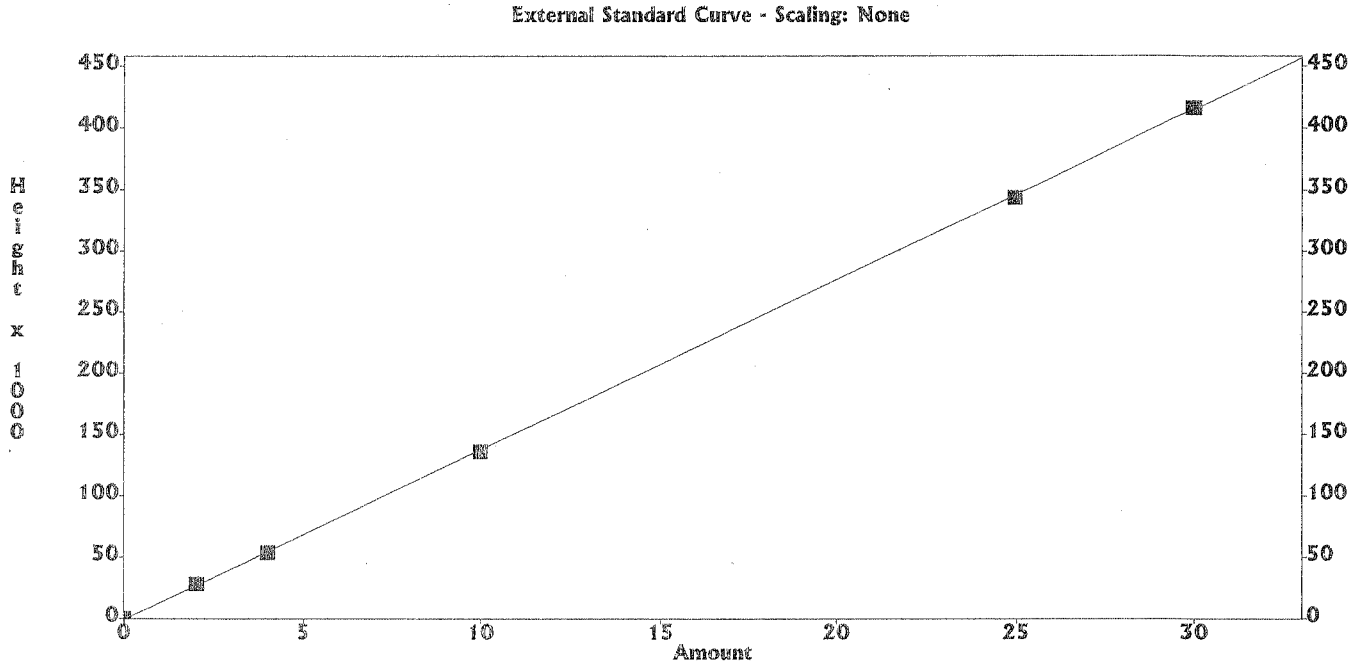
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

3012

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-01

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHL0314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE03001	IPCS	P	85%	05/03/0721:40	1
JE03002	PCD022SB	P	.000	05/03/0722:00	1
JE03003	MRL	P	112%	05/03/0722:21	1
JE03004	PCD022SL	P	25.1	05/03/0722:41	1
JE03005	PCD022SC	P	25.6	05/03/0723:01	1
JE03006	E016-01	P	4.47	05/03/0723:21	1
JE03007	E016-01D	P	4.93	05/03/0723:42	1
JE03008	E016-01M	P	14.3	05/04/0700:02	1
JE03009	E016-02	P	.000	05/04/0700:22	1
JE03010	E016-03	P	.000	05/04/0700:42	1
JE03011	E016-04	P	3.5	05/04/0701:03	1
JE03012	CCV43-30	P	106%	05/04/0701:23	1
JE03013	E016-05	P	.000	05/04/0701:43	1
JE03014	E016-07	P	.000	05/04/0702:03	1
JE03015	E016-08	P	.000	05/04/0702:24	1
JE03016	E016-09	P	.000	05/04/0702:44	1
JE03017	E016-10	P	.000	05/04/0703:04	1
JE03018	E016-11	P	1.26	05/04/0703:24	1
JE03019	E017-03	P	10.5	05/04/0703:45	1
JE03020	E017-04	P	5	05/04/0704:05	1
JE03021	E017-05	P	.865	05/04/0704:25	1
JE03022	E017-07	P	2.07	05/04/0704:45	1
JE03023	CCV44-15	P	104%	05/04/0705:06	1
JE03024	E017-08	P	.836	05/04/0705:26	1
JE03025	E017-09	*	31.2E	05/04/0705:46	1
JE03026	E017-10	P	.000	05/04/0706:06	1
JE03027	E017-11	P	.000	05/04/0706:27	1
JE03028	E017-12	P	.000	05/04/0706:47	1
JE03029	CCV45-30	P	110%*	05/04/0707:07	1
JE03030	IPCS	P	86.3%	05/04/0707:27	1
JE03031	PCD023WB	P	.000	05/04/0707:48	1
JE03032	MRL	P	104%	05/04/0708:08	1
JE03033	PCD023WL	P	25.4	05/04/0708:28	1
JE03034	PCD023WC	P	25	05/04/0708:48	1
JE03035	D205-02	P	50.5	05/04/0709:09	5
JE03036	E016-13	P	.000	05/04/0709:31	1
JE03037	E017-01	P	.000	05/04/0709:52	1
JE03038	E017-06	*	50E	05/04/0710:12	1
JE03039	E017-19	P	.000	05/04/0710:32	1
JE03040	E018-07	P	.000	05/04/0710:52	1
JE03041	CCV46-15	P	101%	05/04/0711:13	1
JE03042	E013-01	P	.000	05/04/0711:33	1
JE03043	E013-02	P	.000	05/04/0711:53	1
JE03044	E013-03	P	.000	05/04/0712:13	1
JE03045	E013-04	P	.000	05/04/0712:34	1
JE03046	E013-05	P	.000	05/04/0712:54	1
JE03047	E013-06	P	.000	05/04/0713:14	1
JE03048	E013-07	P	.000	05/04/0713:35	1
JE03049	E013-08	P	.000	05/04/0713:55	1
JE03050	E013-10	P	.000	05/04/0714:15	1
JE03051	E013-10D	P	.702	05/04/0714:35	1
JE03052	CCV47-30	P	110%	05/04/0714:56	1
JE03053	E013-10M	P	11.9	05/04/0715:16	1
JE03054	E013-11	P	.000	05/04/0715:36	1
JE03055	E013-12	P	.000	05/04/0715:56	1
JE03056	CCV48-15	P	104%	05/04/0716:17	1
JE03057	IPCS	P	82.3%	05/04/0716:37	1
JE03058	PCD024WB	P	.000	05/04/0716:57	1
JE03059	MRL	P	112%	05/04/0719:15	1
JE03060	PCD024WL	P	24.9	05/04/0719:35	1
JE03061	PCD024WC	P	24.8	05/04/0719:56	1
JE03062	D324-02	P	8.59	05/04/0720:16	1
JE03063	D324-03	P	8.49	05/04/0720:36	1
JE03064	D324-04	P	.000	05/04/0720:56	1
JE03065	D324-05	P	.000	05/04/0721:17	1
JE03066	D324-06	P	.000	05/04/0721:37	1
JE03067	D324-07	P	.000	05/04/0721:57	1
JE03068	CCV49-30	P	106%	05/04/0722:17	1
JE03069	E031-01	P	.000	05/04/0722:38	1
JE03070	E031-02	P	50.4	05/04/0722:58	5
JE03071	E051-04	P	.000	05/04/0723:18	1
JE03072	D138-02R	*	50.6E	05/04/0723:39	1
JE03073	D138-02	P	50.1	05/04/0723:59	5
JE03074	D223-06M	P	20.1	05/05/0700:19	1

JE03075	D223-06R	P	10.1	05/05/0700:39	1
JE03076	D223-06Z	P	10.5	05/05/0701:00	1
JE03077	E016-02	P	.000	05/05/0701:20	5
JE03078	E016-03	P	.000	05/05/0701:40	5
JE03079	CCV50-15	P	104%	05/05/0702:00	1
JE03080	E017-09	P	31.4	05/05/0702:21	2
JE03081	E017-10	P	585	05/05/0702:41	20
JE03082	E017-11	*	1300E	05/05/0703:01	20
JE03083	E017-12	P	4010	05/05/0703:21	200
JE03084	E017-06	P	54.9	05/05/0703:42	5
JE03085	CCV51-30	P	105%	05/05/0704:02	1
JE03086	IPCS	P	83.1%	05/05/0704:22	1
JE03087	PCD025SB	P	.000	05/05/0704:42	1
JE03088	MRL	P	89.6%	05/05/0705:03	1
JE03089	PCD025SL	P	25.5	05/05/0705:23	1
JE03090	PCD025SC	P	25.5	05/05/0705:43	1
JE03091	E017-13	P	20.5	05/05/0706:03	1
JE03092	E017-14	P	9.63	05/05/0706:24	1
JE03093	E017-15	P	1.74	05/05/0706:44	1
JE03094	E017-16	P	.000	05/05/0707:04	1
JE03095	E017-17	P	.000	05/05/0707:24	1
JE03096	E017-18	P	.000	05/05/0707:45	1
JE03097	CCV52-15	P	105%	05/05/0708:05	1

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE07001	IPCS	P	86.8%	05/07/0715:38	1
JE07002	PCD026WB	P	.000	05/07/0715:58	1
JE07003	MRL	P	104%	05/07/0716:18	1
JE07004	PCD026WL	P	26.2	05/07/0716:38	1
JE07005	PCD026WC	P	26.4	05/07/0716:59	1
JE07006	E018-02	P	.000	05/07/0717:19	1
JE07007	E018-03	P	8.44	05/07/0717:39	1
JE07008	E018-04	P	.000	05/07/0717:59	1
JE07009	E018-05	P	28.6	05/07/0718:20	1
JE07010	E018-05D	P	28.8	05/07/0718:40	1
JE07011	E018-05M	*	42.2E	05/07/0719:00	1
JE07012	CCV54-15	P	109%	05/07/0719:20	1
JE07013	E018-02	P	424	05/07/0719:41	100
JE07014	E018-04	P	483	05/07/0720:01	100
JE07015	E031-02I	P	54.3	05/07/0720:21	5
JE07016	E051-04R	P	.000	05/07/0720:41	1
JE07017	E017-11	P	1370	05/07/0721:02	100
JE07018	E083-01	P	11.9	05/07/0721:22	1
JE07019	E083-02	P	53.2	05/07/0721:42	5
JE07020	CCV55-30	P	110%*	05/07/0722:02	1

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JE08001	IPCS	P	86%	05/09/0709:54	1
JE08002	PCE001WB	P	.000	05/09/0710:14	1
JE08003	MRL	P	114%	05/09/0710:34	1
JE08004	PCE001WL	P	25.8	05/09/0710:54	1
JE08005	PCE001WC	P	26	05/09/0711:15	1
JE08006	E018-05	P	28.6	05/09/0711:35	2
JE08007	E018-05D	P	28.7	05/09/0711:55	2
JE08008	E018-05M	P	48.3	05/09/0712:15	2
JE08009	CCV56-15	P	106%	05/09/0712:36	1

ANALYTICAL LOG

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: * IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

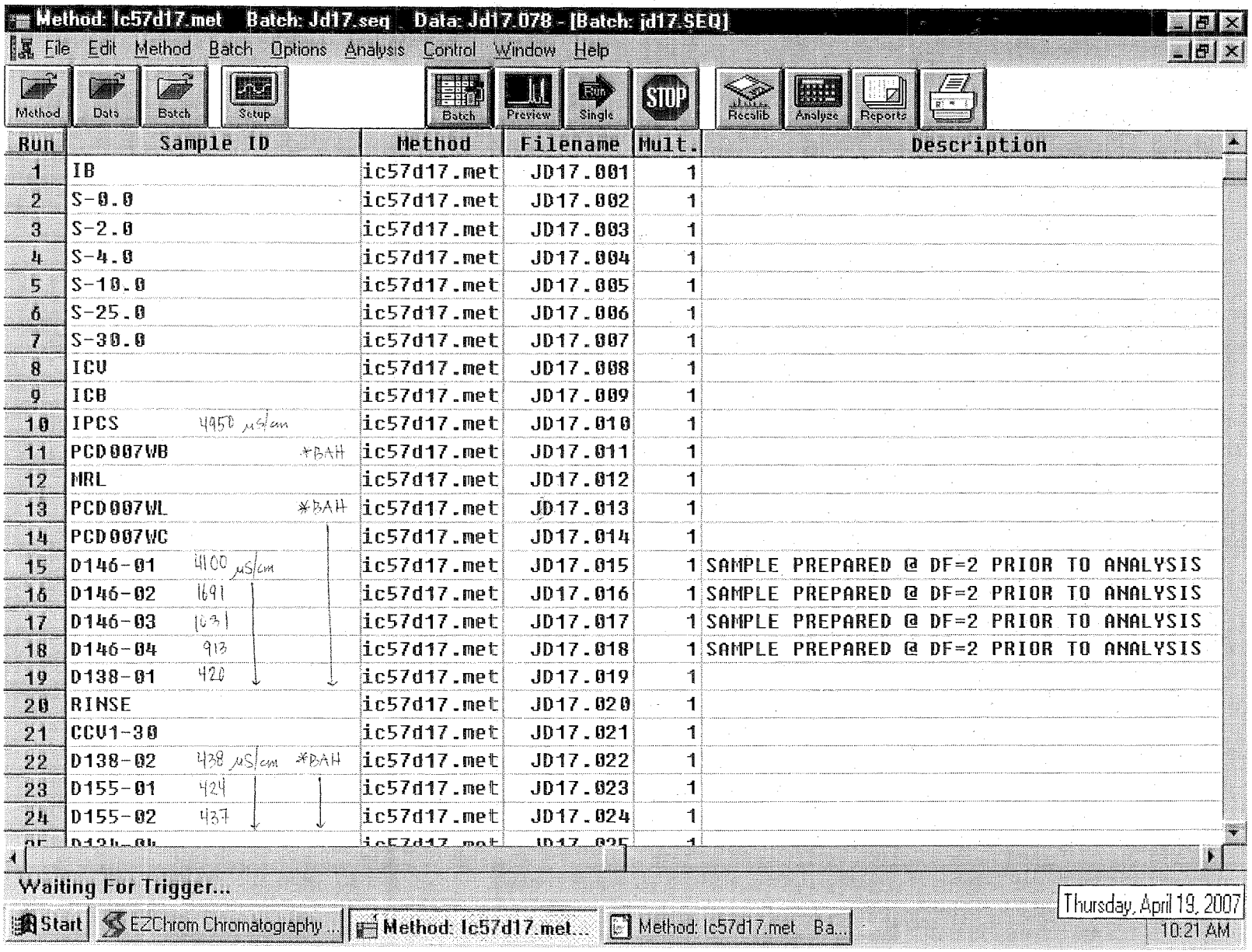
STANDARDS ID	
ICAL	SW8B-02-935
ICV	936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	938
LCS	936
MS	931
IPC	934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

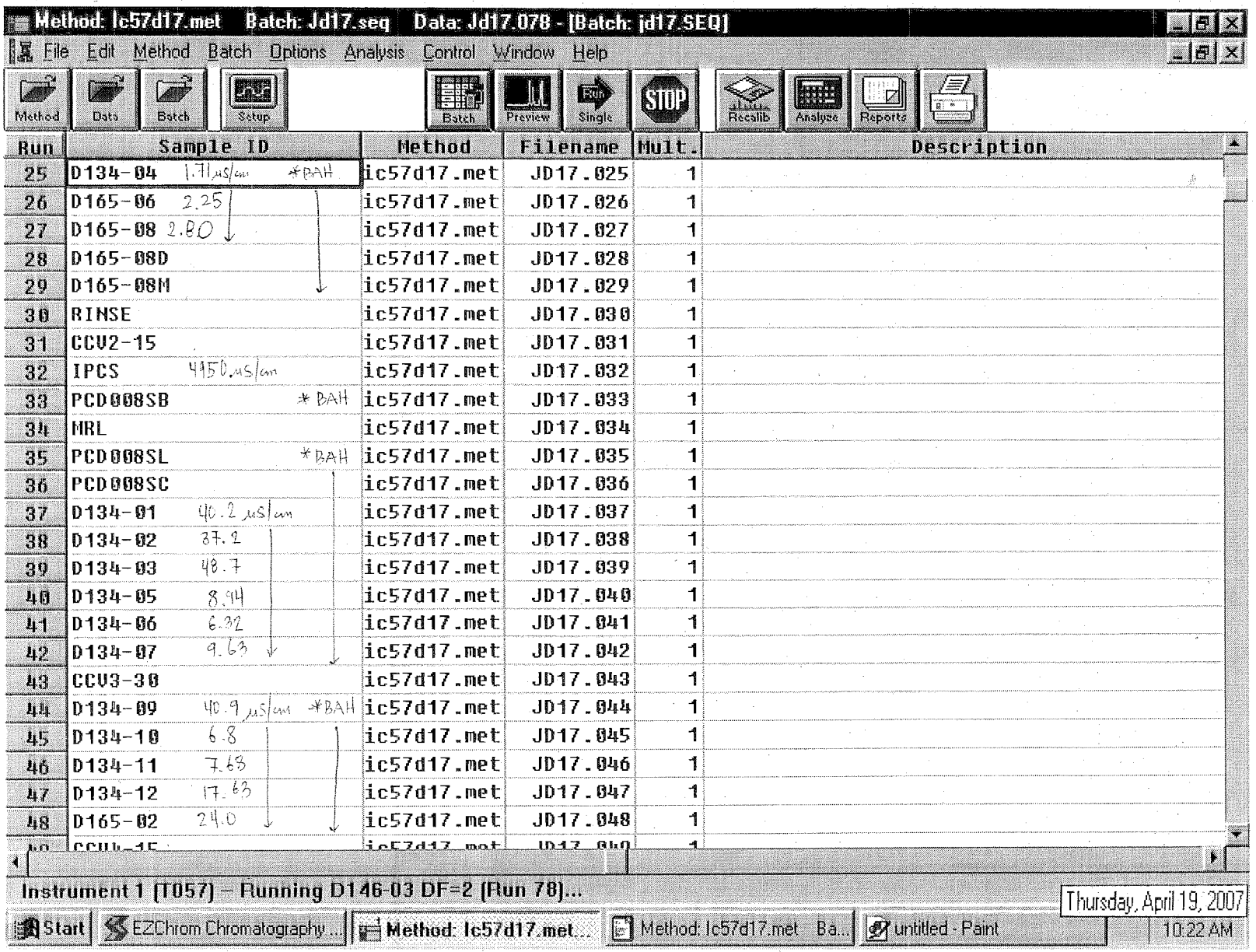
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cl

Date: 04/17/07

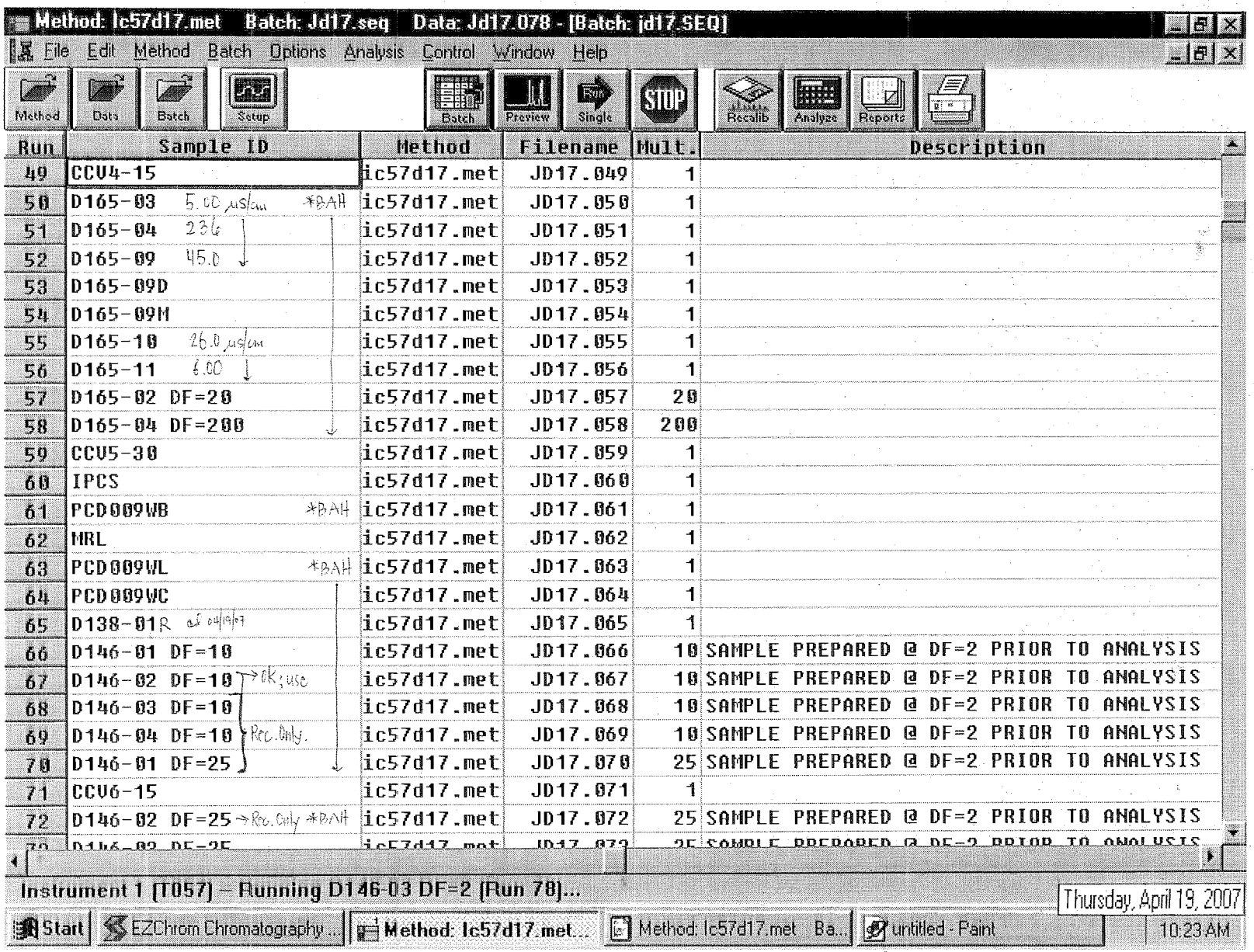

Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IB | lc57d17.met | JD17.001 | 1
2 | S-0.0 | lc57d17.met | JD17.002 | 1
3 | S-2.0 | lc57d17.met | JD17.003 | 1
4 | S-4.0 | lc57d17.met | JD17.004 | 1
5 | S-10.0 | lc57d17.met | JD17.005 | 1
6 | S-25.0 | lc57d17.met | JD17.006 | 1
7 | S-30.0 | lc57d17.met | JD17.007 | 1
8 | ICV | lc57d17.met | JD17.008 | 1
9 | ICB | lc57d17.met | JD17.009 | 1
10 | IPCS 4950 µS/cm | lc57d17.met | JD17.010 | 1
11 | PCD007WB *BAH | lc57d17.met | JD17.011 | 1
12 | MRL | lc57d17.met | JD17.012 | 1
13 | PCD007WL *BAH | lc57d17.met | JD17.013 | 1
14 | PCD007WC | lc57d17.met | JD17.014 | 1
15 | D146-01 4100 µS/cm | lc57d17.met | JD17.015 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 | D146-02 1691 | lc57d17.met | JD17.016 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 | D146-03 1631 | lc57d17.met | JD17.017 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 | D146-04 913 | lc57d17.met | JD17.018 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 | D138-01 420 | lc57d17.met | JD17.019 | 1
20 | RINSE | lc57d17.met | JD17.020 | 1
21 | CCV1-30 | lc57d17.met | JD17.021 | 1
22 | D138-02 438 µS/cm *BAH | lc57d17.met | JD17.022 | 1
23 | D155-01 424 | lc57d17.met | JD17.023 | 1
24 | D155-02 437 | lc57d17.met | JD17.024 | 1
Waiting For Trigger...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba...
Thursday, April 19, 2007
10:21 AM

8022



Run	Sample ID	Method	Filename	Mult.	Description
25	D134-04 1.71 µs/cm *BAH	ic57d17.met	JD17.025	1	
26	D165-06 2.25	ic57d17.met	JD17.026	1	
27	D165-08 2.80	ic57d17.met	JD17.027	1	
28	D165-08D	ic57d17.met	JD17.028	1	
29	D165-08M	ic57d17.met	JD17.029	1	
30	RINSE	ic57d17.met	JD17.030	1	
31	CCV2-15	ic57d17.met	JD17.031	1	
32	IPCS 4950 µs/cm	ic57d17.met	JD17.032	1	
33	PCD008SB *BAH	ic57d17.met	JD17.033	1	
34	MRL	ic57d17.met	JD17.034	1	
35	PCD008SL *BAH	ic57d17.met	JD17.035	1	
36	PCD008SC	ic57d17.met	JD17.036	1	
37	D134-01 40.2 µs/cm	ic57d17.met	JD17.037	1	
38	D134-02 37.2	ic57d17.met	JD17.038	1	
39	D134-03 48.7	ic57d17.met	JD17.039	1	
40	D134-05 8.94	ic57d17.met	JD17.040	1	
41	D134-06 6.32	ic57d17.met	JD17.041	1	
42	D134-07 9.63	ic57d17.met	JD17.042	1	
43	CCV3-30	ic57d17.met	JD17.043	1	
44	D134-09 40.9 µs/cm *BAH	ic57d17.met	JD17.044	1	
45	D134-10 6.8	ic57d17.met	JD17.045	1	
46	D134-11 7.63	ic57d17.met	JD17.046	1	
47	D134-12 17.63	ic57d17.met	JD17.047	1	
48	D165-02 24.0	ic57d17.met	JD17.048	1	

8023



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method | Data | Batch | Setup | Batch | Preview | Single | STOP | Recalib | Analyze | Reports

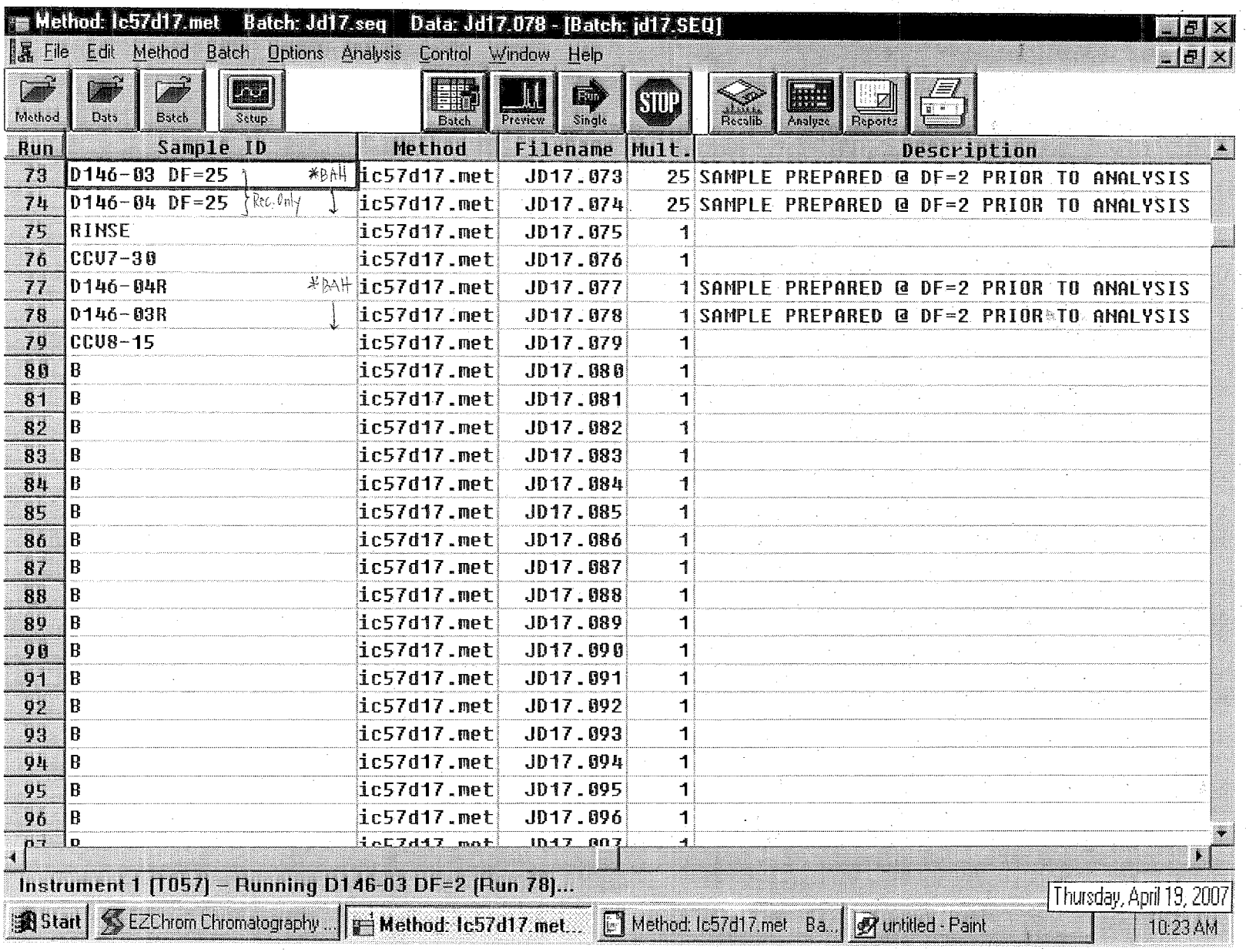
Run	Sample ID	Method	Filename	Mult.	Description
49	CCV4-15	ic57d17.met	JD17.049	1	
50	D165-03 5.00 µs/cm *BAH	ic57d17.met	JD17.050	1	
51	D165-04 236	ic57d17.met	JD17.051	1	
52	D165-09 45.0	ic57d17.met	JD17.052	1	
53	D165-09D	ic57d17.met	JD17.053	1	
54	D165-09M	ic57d17.met	JD17.054	1	
55	D165-10 26.0 µs/cm	ic57d17.met	JD17.055	1	
56	D165-11 6.00	ic57d17.met	JD17.056	1	
57	D165-02 DF=20	ic57d17.met	JD17.057	20	
58	D165-04 DF=200	ic57d17.met	JD17.058	200	
59	CCV5-30	ic57d17.met	JD17.059	1	
60	IPCS	ic57d17.met	JD17.060	1	
61	PCD009WB *BAH	ic57d17.met	JD17.061	1	
62	MRL	ic57d17.met	JD17.062	1	
63	PCD009WL *BAH	ic57d17.met	JD17.063	1	
64	PCD009WC	ic57d17.met	JD17.064	1	
65	D138-01R at 04/19/07	ic57d17.met	JD17.065	1	
66	D146-01 DF=10	ic57d17.met	JD17.066	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67	D146-02 DF=10 → ok; use	ic57d17.met	JD17.067	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68	D146-03 DF=10	ic57d17.met	JD17.068	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69	D146-04 DF=10 Rec. Only.	ic57d17.met	JD17.069	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70	D146-01 DF=25	ic57d17.met	JD17.070	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71	CCV6-15	ic57d17.met	JD17.071	1	
72	D146-02 DF=25 → Rec. Only *BAH	ic57d17.met	JD17.072	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
73	D146-02 DF=25	ic57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS

Instrument 1 (T057) – Running D146-03 DF=2 (Run 78)...

Thursday, April 19, 2007

Start | EZChrom Chromatography ... | Method: Ic57d17.met... | Method: Ic57d17.met Ba... | untitled - Paint | 10:23 AM

8024


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
73 D146-03 DF=25 *BAH lc57d17.met JD17.073 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 D146-04 DF=25 Rec. Only lc57d17.met JD17.074 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 RINSE lc57d17.met JD17.075 1
76 CCV7-30 lc57d17.met JD17.076 1
77 D146-04R *BAH lc57d17.met JD17.077 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 D146-03R lc57d17.met JD17.078 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 CCV8-15 lc57d17.met JD17.079 1
80 B lc57d17.met JD17.080 1
81 B lc57d17.met JD17.081 1
82 B lc57d17.met JD17.082 1
83 B lc57d17.met JD17.083 1
84 B lc57d17.met JD17.084 1
85 B lc57d17.met JD17.085 1
86 B lc57d17.met JD17.086 1
87 B lc57d17.met JD17.087 1
88 B lc57d17.met JD17.088 1
89 B lc57d17.met JD17.089 1
90 B lc57d17.met JD17.090 1
91 B lc57d17.met JD17.091 1
92 B lc57d17.met JD17.092 1
93 B lc57d17.met JD17.093 1
94 B lc57d17.met JD17.094 1
95 B lc57d17.met JD17.095 1
96 B lc57d17.met JD17.096 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint 10:23 AM

8525

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

NaOH : SW8A-02-18

* ~~JE03.101~~ → 104 : Injection error. Not used; re-run.
* JE03.098 → 100 : Record only; not used — no ending CCV.
* JE03.009 & JE03.010 : Not used.
* JE03.070 : Not used; re-run.
* JE03.072 : For confirmation.

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JE03

Method File: IC57d17.met

Analytical Batch: PCD0225+PCD023W+PCD024W+PCD0255

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

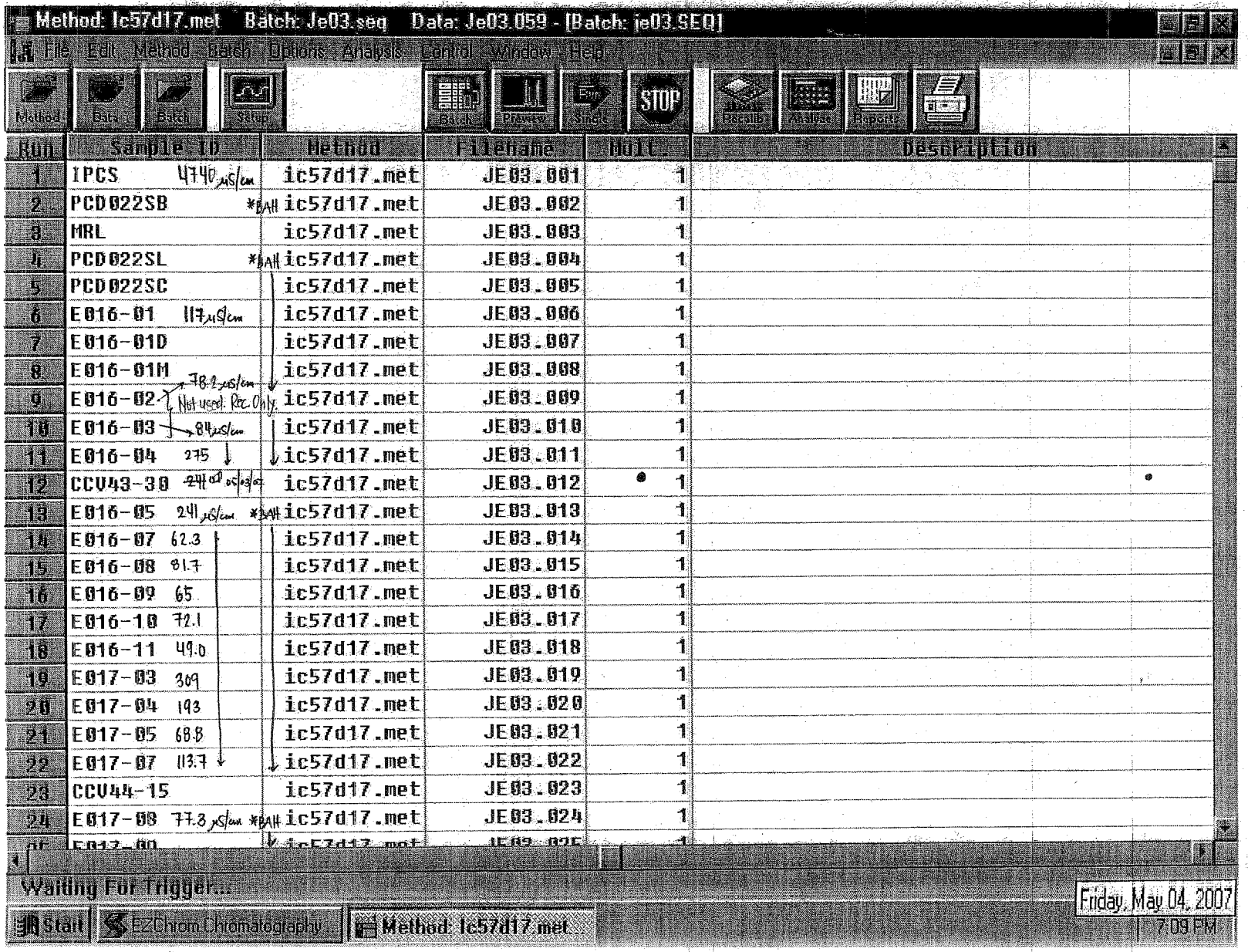
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	SW8B-02-936
MS	↓ 931
IPC	SW8B-02-934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1410	(±) 30	

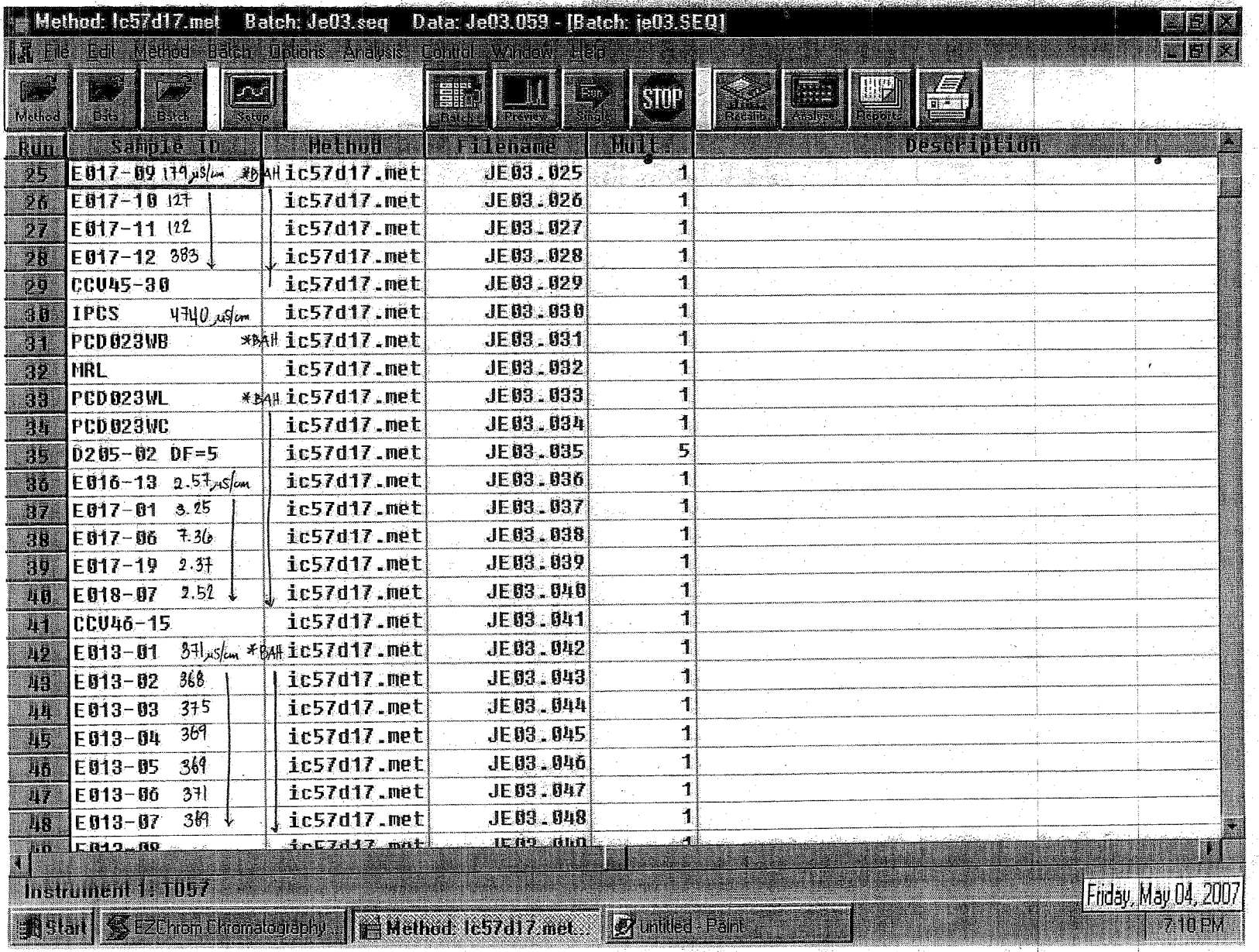
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ad

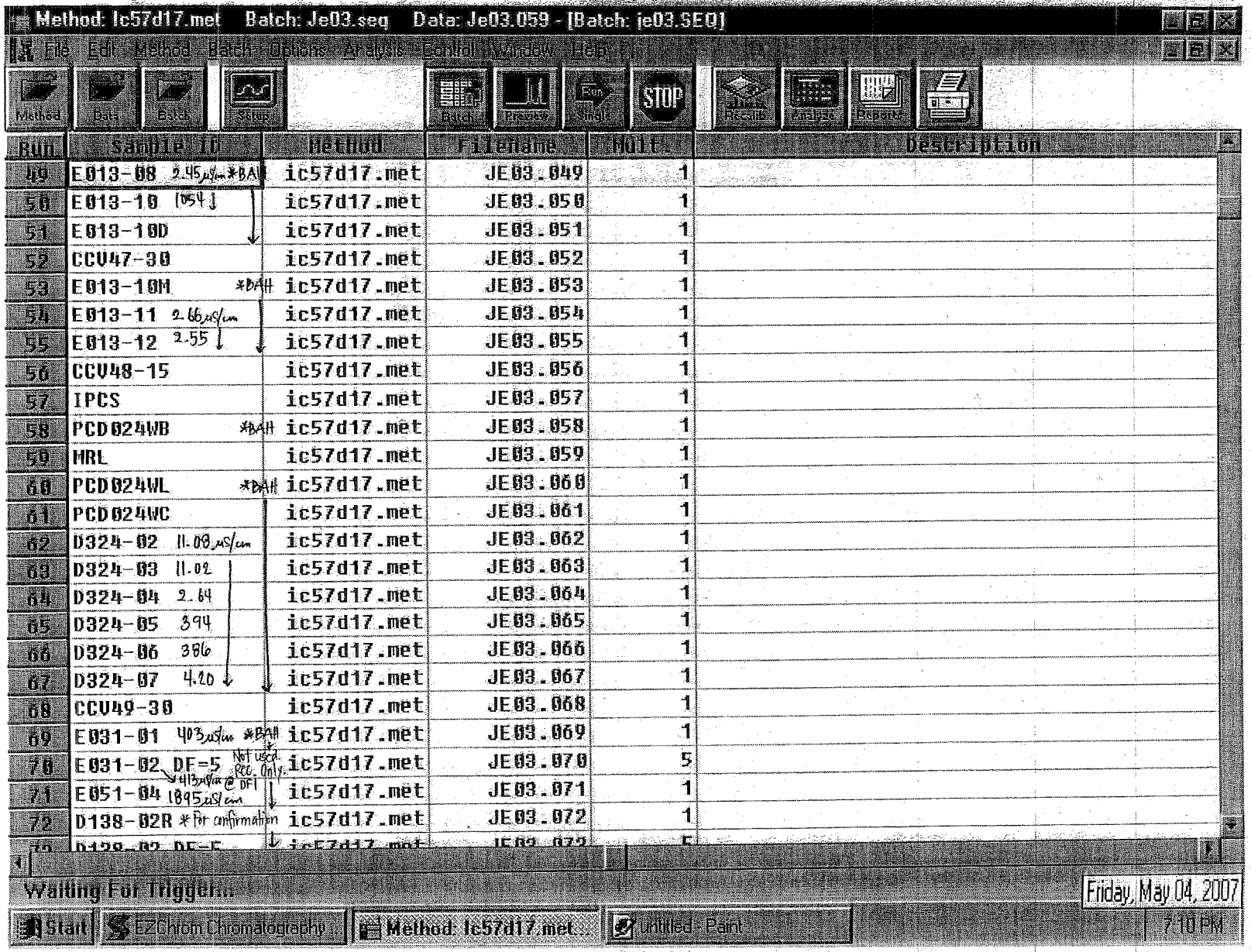
Date: 05/03/07 & 05/04/07


Method: Ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Batch
Preview
Single
STOP
Recalib
Analyze
Reports
Run
Sample ID
Method
Filename
Mult
Description
1 IPCS 4740 µS/cm ic57d17.met JE03.001 1
2 PCD022SB *BAH ic57d17.met JE03.002 1
3 MRL ic57d17.met JE03.003 1
4 PCD022SL *BAH ic57d17.met JE03.004 1
5 PCD022SC ic57d17.met JE03.005 1
6 E016-01 117 µS/cm ic57d17.met JE03.006 1
7 E016-01D ic57d17.met JE03.007 1
8 E016-01M ic57d17.met JE03.008 1
9 E016-02 78.2 µS/cm Not used. Rec Only. ic57d17.met JE03.009 1
10 E016-03 84 µS/cm ic57d17.met JE03.010 1
11 E016-04 275 ic57d17.met JE03.011 1
12 CCV43-30 ic57d17.met JE03.012 1
13 E016-05 241 µS/cm *BAH ic57d17.met JE03.013 1
14 E016-07 62.3 ic57d17.met JE03.014 1
15 E016-08 81.7 ic57d17.met JE03.015 1
16 E016-09 65 ic57d17.met JE03.016 1
17 E016-10 72.1 ic57d17.met JE03.017 1
18 E016-11 49.0 ic57d17.met JE03.018 1
19 E017-03 309 ic57d17.met JE03.019 1
20 E017-04 193 ic57d17.met JE03.020 1
21 E017-05 68.8 ic57d17.met JE03.021 1
22 E017-07 113.7 ic57d17.met JE03.022 1
23 CCV44-15 ic57d17.met JE03.023 1
24 E017-08 77.8 µS/cm *BAH ic57d17.met JE03.024 1
Waiting For Trigger...
Start
EZChrom Chromatography...
Method: Ic57d17.met...
Friday, May 04, 2007
7:09 PM

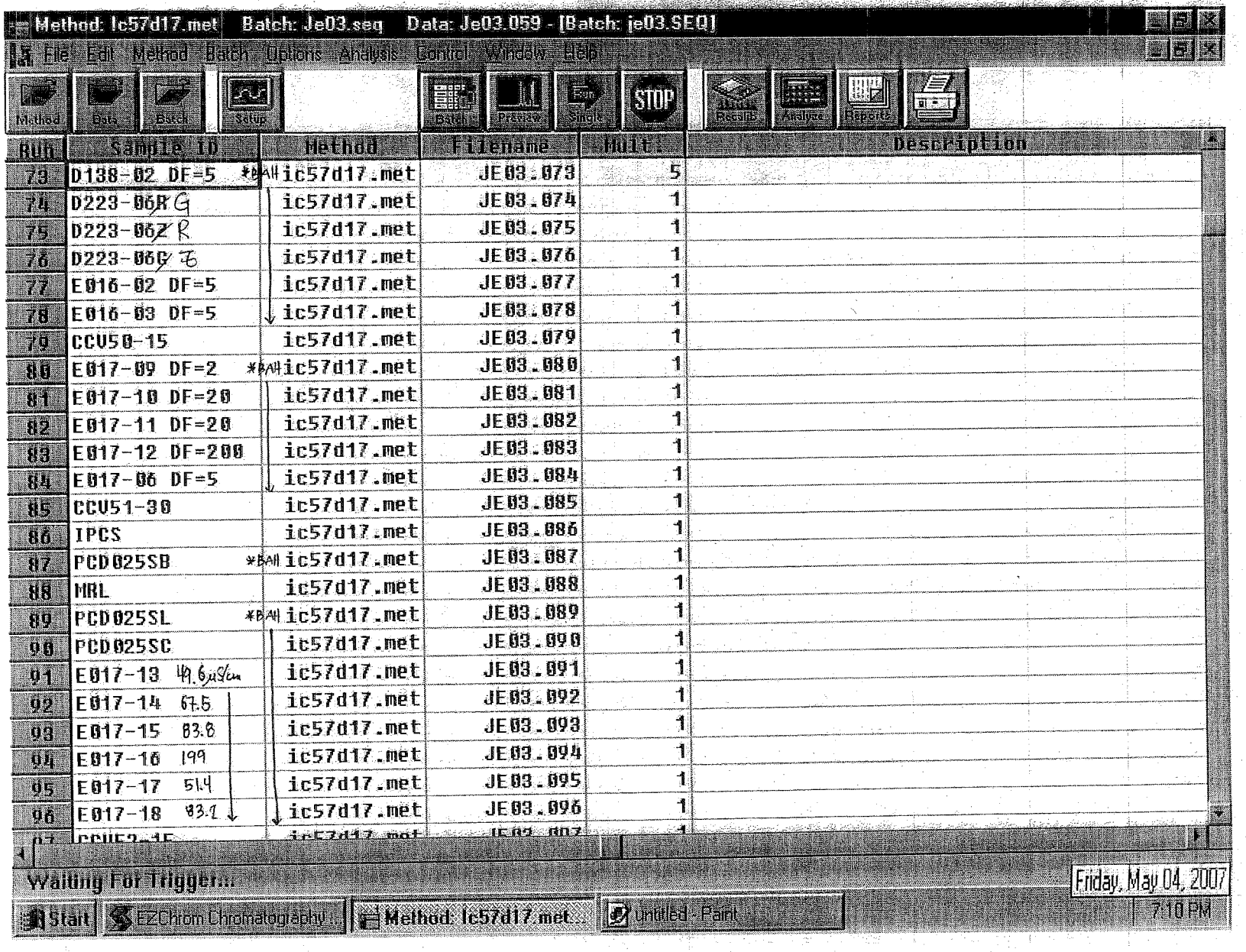
8927


Method: Ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Data
Batch
Setup
Start
Preview
Single
STOP
Recalib
Analyze
Report
Run
Sample ID
Method
Filename
Mult.
Description
25 E017-09 179 µS/cm *BAH Ic57d17.met JE03.025 1
26 E017-10 127 Ic57d17.met JE03.026 1
27 E017-11 122 Ic57d17.met JE03.027 1
28 E017-12 383 Ic57d17.met JE03.028 1
29 CCV45-30 Ic57d17.met JE03.029 1
30 IPCS 4740 µS/cm Ic57d17.met JE03.030 1
31 PCD023WB *BAH Ic57d17.met JE03.031 1
32 MRL Ic57d17.met JE03.032 1
33 PCD023WL *BAH Ic57d17.met JE03.033 1
34 PCD023WC Ic57d17.met JE03.034 1
35 D205-02 DF=5 Ic57d17.met JE03.035 5
36 E016-13 2.57 µS/cm Ic57d17.met JE03.036 1
37 E017-01 3.25 Ic57d17.met JE03.037 1
38 E017-06 7.36 Ic57d17.met JE03.038 1
39 E017-19 2.37 Ic57d17.met JE03.039 1
40 E018-07 2.52 Ic57d17.met JE03.040 1
41 CCV46-15 Ic57d17.met JE03.041 1
42 E013-01 371 µS/cm *BAH Ic57d17.met JE03.042 1
43 E013-02 368 Ic57d17.met JE03.043 1
44 E013-03 375 Ic57d17.met JE03.044 1
45 E013-04 369 Ic57d17.met JE03.045 1
46 E013-05 369 Ic57d17.met JE03.046 1
47 E013-06 371 Ic57d17.met JE03.047 1
48 E013-07 369 Ic57d17.met JE03.048 1
Instrument 1: TOC
Friday, May 04, 2007
Start
EZChrom Chromatography...
Method: Ic57d17.met...
Untitled - Paint
7:10 PM

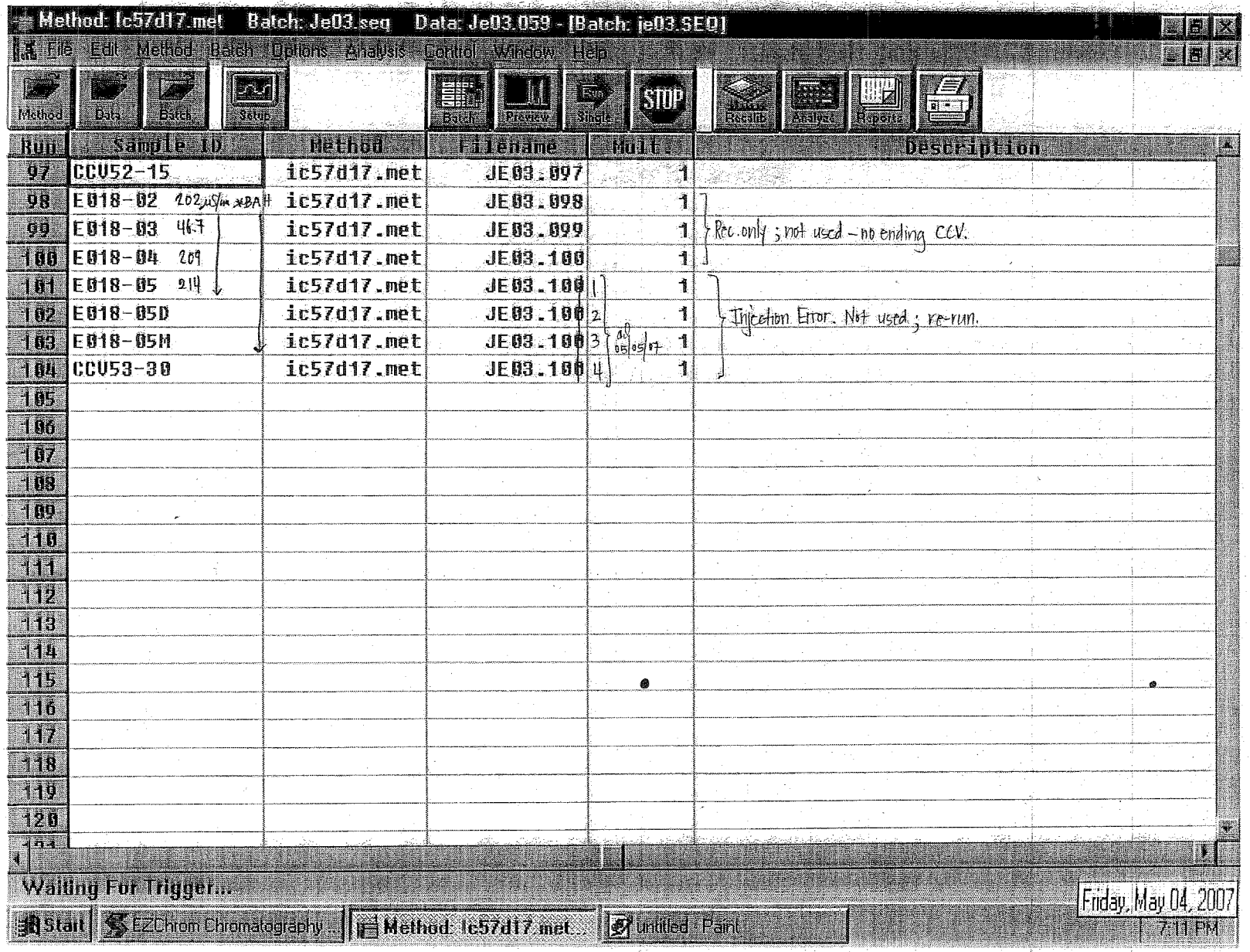
0926


Method: lc57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Results Database Reports
Run Sample ID Method Filename Mult. Description
49 E013-08 2.45 µS/cm *BAH lc57d17.met JE03.049 1
50 E013-10 1054 lc57d17.met JE03.050 1
51 E013-10D lc57d17.met JE03.051 1
52 CCV47-30 lc57d17.met JE03.052 1
53 E013-10M *BAH lc57d17.met JE03.053 1
54 E013-11 2.66 µS/cm lc57d17.met JE03.054 1
55 E013-12 2.55 lc57d17.met JE03.055 1
56 CCV48-15 lc57d17.met JE03.056 1
57 IPCS lc57d17.met JE03.057 1
58 PCD024WB *BAH lc57d17.met JE03.058 1
59 MRL lc57d17.met JE03.059 1
60 PCD024WL *BAH lc57d17.met JE03.060 1
61 PCD024WC lc57d17.met JE03.061 1
62 D324-02 11.08 µS/cm lc57d17.met JE03.062 1
63 D324-03 11.02 lc57d17.met JE03.063 1
64 D324-04 2.64 lc57d17.met JE03.064 1
65 D324-05 394 lc57d17.met JE03.065 1
66 D324-06 386 lc57d17.met JE03.066 1
67 D324-07 4.20 lc57d17.met JE03.067 1
68 CCV49-30 lc57d17.met JE03.068 1
69 E031-01 403 µS/cm *BAH lc57d17.met JE03.069 1
70 E031-02 DF=5 Not used. Rec. Only. lc57d17.met JE03.070 5
71 E051-04 1895 µS/cm lc57d17.met JE03.071 1
72 D138-02R * For confirmation lc57d17.met JE03.072 1
Waiting For Trigger...
Friday, May 04, 2007
Start EZChrom Chromatography Method: lc57d17.met untitled - Paint 7:10 PM

8029


Method: ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method
Batch
Setup
Preview
Single
STOP
Analyze
Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D138-02 DF=5 | ic57d17.met | JE03.073 | 5
74 | D223-06R G | ic57d17.met | JE03.074 | 1
75 | D223-06Z R | ic57d17.met | JE03.075 | 1
76 | D223-06C Z | ic57d17.met | JE03.076 | 1
77 | E016-02 DF=5 | ic57d17.met | JE03.077 | 1
78 | E016-03 DF=5 | ic57d17.met | JE03.078 | 1
79 | CCV50-15 | ic57d17.met | JE03.079 | 1
80 | E017-09 DF=2 | ic57d17.met | JE03.080 | 1
81 | E017-10 DF=20 | ic57d17.met | JE03.081 | 1
82 | E017-11 DF=20 | ic57d17.met | JE03.082 | 1
83 | E017-12 DF=200 | ic57d17.met | JE03.083 | 1
84 | E017-06 DF=5 | ic57d17.met | JE03.084 | 1
85 | CCV51-30 | ic57d17.met | JE03.085 | 1
86 | IPCS | ic57d17.met | JE03.086 | 1
87 | PCD025SB | ic57d17.met | JE03.087 | 1
88 | MRL | ic57d17.met | JE03.088 | 1
89 | PCD025SL | ic57d17.met | JE03.089 | 1
90 | PCD025SC | ic57d17.met | JE03.090 | 1
91 | E017-13 49.6 µS/cm | ic57d17.met | JE03.091 | 1
92 | E017-14 67.5 | ic57d17.met | JE03.092 | 1
93 | E017-15 83.8 | ic57d17.met | JE03.093 | 1
94 | E017-16 199 | ic57d17.met | JE03.094 | 1
95 | E017-17 51.4 | ic57d17.met | JE03.095 | 1
96 | E017-18 83.1 | ic57d17.met | JE03.096 | 1
Waiting For Trigger...
Friday, May 04, 2007
7:10 PM
Start
EZChrom Chromatography...
Method: ic57d17.met...
Untitled - Paint

0530


Method: ic57d17.met Batch: Je03.seq Data: Je03.059 - [Batch: je03.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
97 | CCV52-15 | ic57d17.met | JE03.097 | 1
98 | E018-02 202 µS/m xBA# | ic57d17.met | JE03.098 | 1
99 | E018-03 467 | ic57d17.met | JE03.099 | 1 | Rec. only; not used – no ending CCV.
100 | E018-04 209 | ic57d17.met | JE03.100 | 1
101 | E018-05 214 | ic57d17.met | JE03.100 | 1 | 1 | 1
102 | E018-05D | ic57d17.met | JE03.100 | 2 | 1 | Injection Error. Not used; re-run.
103 | E018-05M | ic57d17.met | JE03.100 | 3 | 1
104 | CCV53-30 | ic57d17.met | JE03.100 | 4 | 1
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
Waiting For Trigger...
Start EZChrom Chromatography... Method: ic57d17.met... untitled - Paint
Friday, May 04, 2007
7:11 PM

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SWBA - 02 - 18
* JE07.009 → JE07.011: Not used; re-run at DF=2.
* JE07.016 → For confirmation.

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JE07
Method File: IC57d17
Analytical Batch: PCD026W

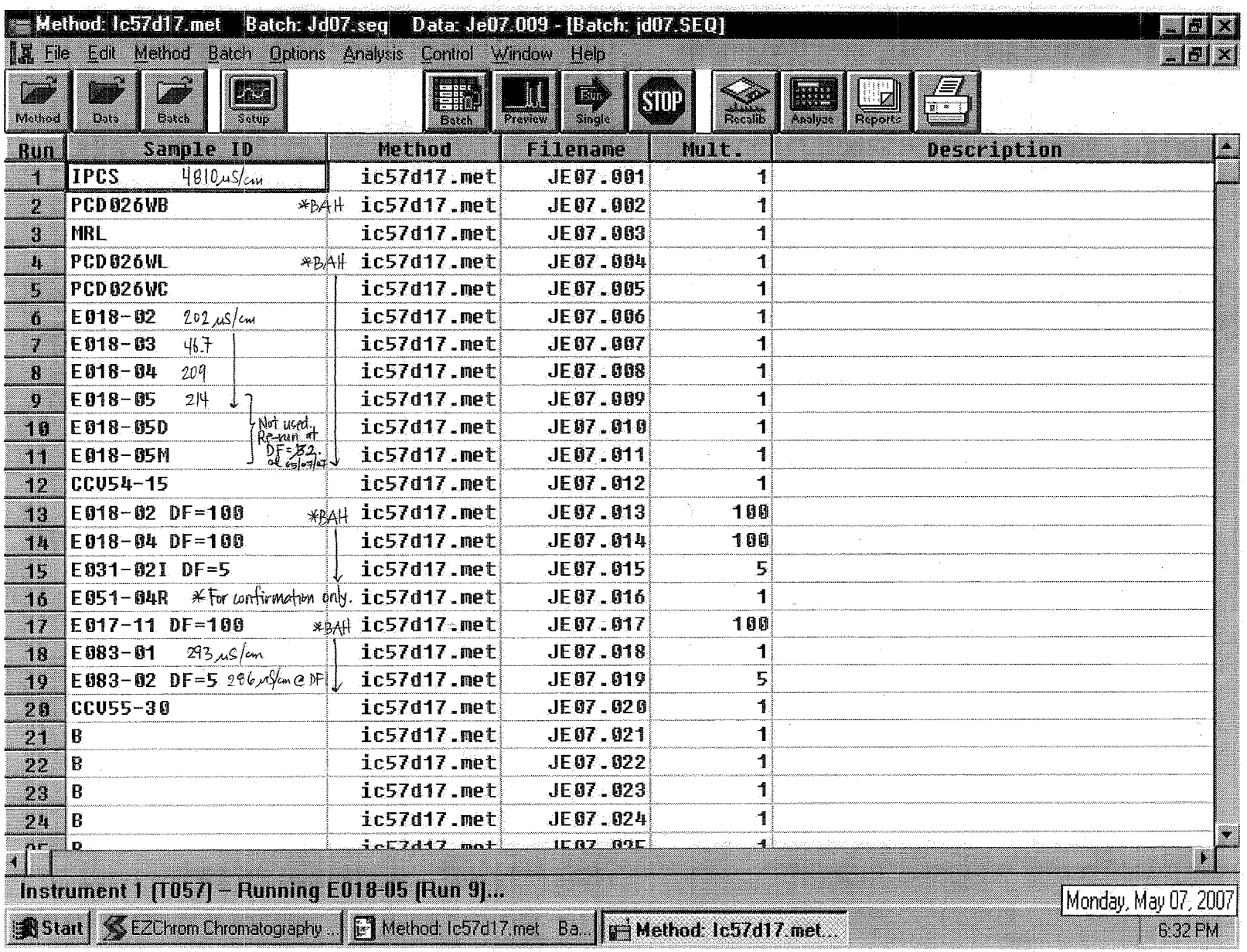
SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

STANDARDS ID	
ICAL	SWBB-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SWBB-02-939
CCV-30	940
LCS	941
MS	931
IPC	943
CMC	SWBB-02-951
MRL	SWBB-02-942

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: al
Date: 05/07/07



Method: Ic57d17.met Batch: Jd07.seq Data: Je07.009 - [Batch: jd07.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

Run	Sample ID	Method	Filename	Mult.	Description
1	IPCS 4810 µS/cm	ic57d17.met	JE07.001	1	
2	PCD026WB *BAH	ic57d17.met	JE07.002	1	
3	MRL	ic57d17.met	JE07.003	1	
4	PCD026WL *BAH	ic57d17.met	JE07.004	1	
5	PCD026WC	ic57d17.met	JE07.005	1	
6	E018-02 202 µS/cm	ic57d17.met	JE07.006	1	
7	E018-03 46.7	ic57d17.met	JE07.007	1	
8	E018-04 209	ic57d17.met	JE07.008	1	
9	E018-05 214	ic57d17.met	JE07.009	1	
10	E018-05D Not used. Re-run at DF=32. at 05/07/07	ic57d17.met	JE07.010	1	
11	E018-05M	ic57d17.met	JE07.011	1	
12	CCV54-15	ic57d17.met	JE07.012	1	
13	E018-02 DF=100 *BAH	ic57d17.met	JE07.013	100	
14	E018-04 DF=100	ic57d17.met	JE07.014	100	
15	E031-02I DF=5	ic57d17.met	JE07.015	5	
16	E051-04R *For confirmation only.	ic57d17.met	JE07.016	1	
17	E017-11 DF=100 *BAH	ic57d17.met	JE07.017	100	
18	E083-01 293 µS/cm	ic57d17.met	JE07.018	1	
19	E083-02 DF=5 286 µS/cm @ DF	ic57d17.met	JE07.019	5	
20	CCV55-30	ic57d17.met	JE07.020	1	
21	B	ic57d17.met	JE07.021	1	
22	B	ic57d17.met	JE07.022	1	
23	B	ic57d17.met	JE07.023	1	
24	B	ic57d17.met	JE07.024	1	
25	B	ic57d17.met	JE07.025	1	

Instrument 1 (T057) – Running E018-05 (Run 9)...

Monday, May 07, 2007

Start EZChrom Chromatography ... Method: Ic57d17.met Ba... Method: Ic57d17.met... 6:32 PM

8033

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A-02-18

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JE08
Method File: IC57d17
Analytical Batch: PCE001W

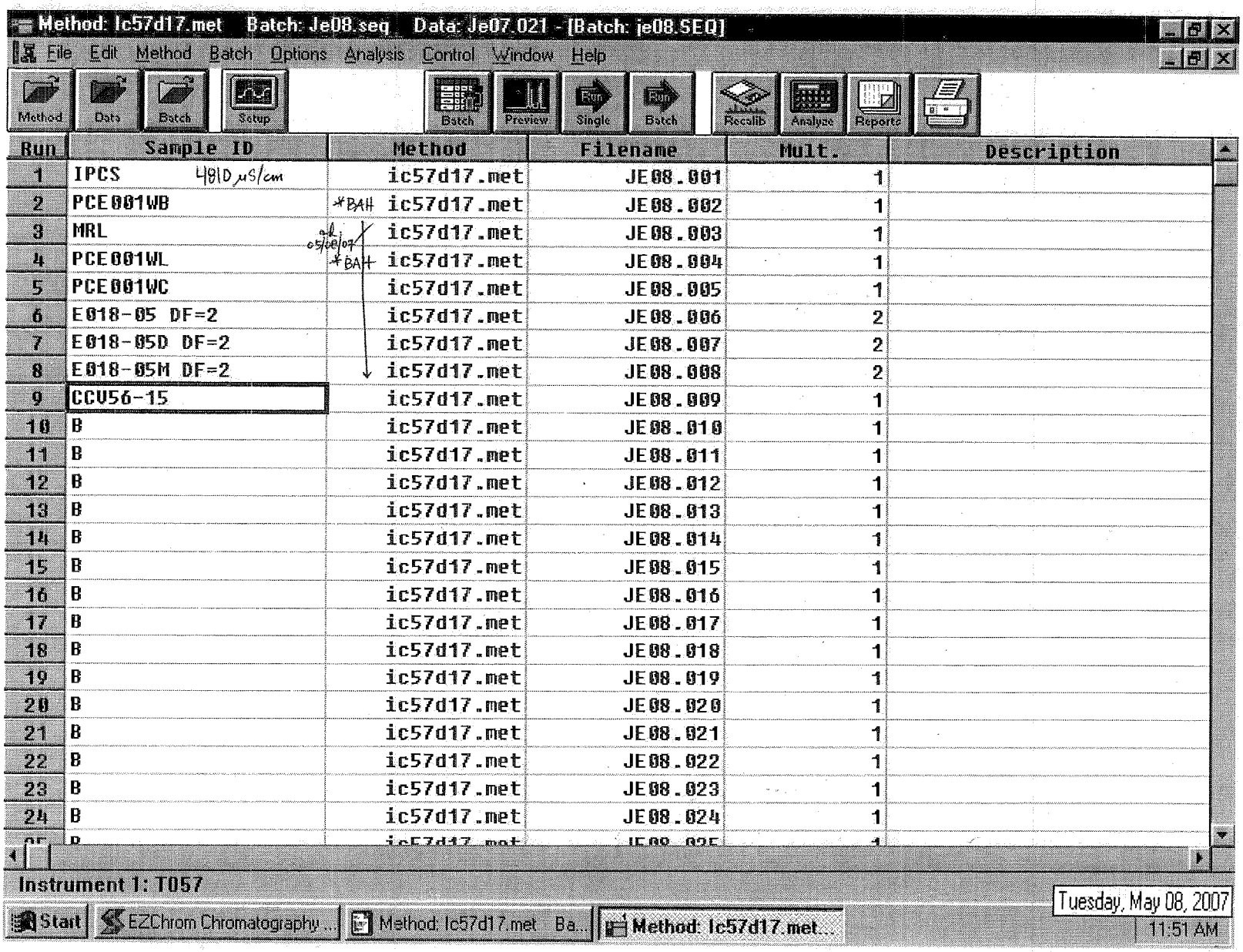
SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-939
CCV-30	940
LCS	941
MS	931
IPC	↓ 943
CMC	SW3B-02-951
MRL	SW8B-02-942

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1409	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: el
Date: 05/08/07


Method: lc57d17.met Batch: Je08.seq Data: Je07.021 - [Batch: je08.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyse Reports
Run Sample ID Method Filename Mult. Description
1 IPCS 4810 µS/cm ic57d17.met JE08.001 1
2 PCE001WB *BAH ic57d17.met JE08.002 1
3 MRL ok osle/07 ic57d17.met JE08.003 1
4 PCE001WL *BAH ic57d17.met JE08.004 1
5 PCE001WC ic57d17.met JE08.005 1
6 E018-05 DF=2 ic57d17.met JE08.006 2
7 E018-05D DF=2 ic57d17.met JE08.007 2
8 E018-05M DF=2 ic57d17.met JE08.008 2
9 CCV56-15 ic57d17.met JE08.009 1
10 B ic57d17.met JE08.010 1
11 B ic57d17.met JE08.011 1
12 B ic57d17.met JE08.012 1
13 B ic57d17.met JE08.013 1
14 B ic57d17.met JE08.014 1
15 B ic57d17.met JE08.015 1
16 B ic57d17.met JE08.016 1
17 B ic57d17.met JE08.017 1
18 B ic57d17.met JE08.018 1
19 B ic57d17.met JE08.019 1
20 B ic57d17.met JE08.020 1
21 B ic57d17.met JE08.021 1
22 B ic57d17.met JE08.022 1
23 B ic57d17.met JE08.023 1
24 B ic57d17.met JE08.024 1
Instrument 1: T057
Start EZChrom Chromatography ... Method: lc57d17.met Ba... Method: lc57d17.met...
Tuesday, May 08, 2007
11:51 AM

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 05/03/07 Time 10:15 End Date 05/03/07 Time 11:00

PREPARATION BATCH # PC02256

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PC02256B	10.000g	100ml	100ml	
*02	SL				
*03	SC				
*04	E017-13				
*05	14				
*06	15				
*07	16				
*08	17				
*09	18				
*10	E018-02				
*11	03				
*12	04				
*13	05				
*14	05D				
*15	05M				
~~*16~~					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

ad 05/03/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SWSB-02-931	2.5ml/1.0ml
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: ad

Standard Added By: ad

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07E018A**

SECTION		PAGE
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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	METHOD 314.0	8000 – 8023
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 07-24-2007
EMAX Batch No.: 07E018A

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 05/01/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
H49-HSAS6-50-51.5	E018-01	04/30/07	SOIL	PERCHLORATE BY IC

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

CHANGE ORDER FORM

SDG 07E018A TAT 5 DAYS Project Code TT_0618

Requested by Linh Date Requested 07/12/07 Due Date 07/19/07

Analytical Requirements				
AX O	EMAX Control Number	Sample Prep. Methods	Analytical Methods	Special Instructions
A	07E018-01		E314.0	Perchlorate H49-HSAS6-50-51.5 (Soil)

A-additional
X-cancelled
O-others (specify)

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

07E018

DATE 4-30-07 PAGE 1 OF 2

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: Brenda Meyer
TC #: 19967-02
SAMPLERS (Signatures): Holly A. Hanke

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	8082 PCB's	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	H49-HSA56-50-51.5	4-30-07	1117	X		U	S	G	1	NR	Hold until further notice
2.	H49-HSA56-40-41.5	4-30-07	1050	X		U	S	G	1	NR	
3.	A49-HSA56-10-11.5	4-30-07	1025	X		↓	↓	↓	↓	↓	
4.	H49-HSA56D1-40-41.5	4-30-07	1050	X							
5.	H49-HSA56-20-21.5	4-30-07	1031	X		↓	↓	↓	↓	↓	
6.	LEB-043007	4-30-07	940		X	U	W	G	1	NR	(1 Liter Amber)
7.	LEB-043007	4-30-07	945	X		U	W	P	1	NR	(250 ml plastic)
8.	H49-HSA12-15-16.5	4-30-07	1427		X	U	S	G	1	NR	
9.	H49-HSA12-20-21.5	4-30-07	1431		X	↓	↓	↓	↓	↓	
10.	H49-HSA12-10-11.5	4-30-07	1424		X	↓	↓	↓	↓	↓	

PARAMETERS

TURN-AROUND TIME: Standard

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME
Holly Hanke	Holly A Hanke	TETRA TECH, INC.	4-30-07	1743
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 15:05
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 18:18
RECEIVED BY: A. FLORENCIA	SIGNATURE	COMPANY: EMAX	DATE: 5-1-07	TIME: 1818

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 10 of 11

METHOD OF SHIPMENT/SHIPMENT NO.

Special Shipping/Handling/Storage Requirements:

DISTRIBUTION: White and Pink = Tetra Tech/Inc. Canary = Laboratory

① T-34°C ② T35°C ③ T30°C

X:\GISMATT-MISC\COCR.CDR

1502

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

CHAIN OF CUSTODY RECORD

07E018 DATE 4-30-07 PAGE 2 OF 2

CLIENT: LMC

PROJECT NAME: Supplemental Soil Investigation Site 1

PROJECT MANAGER: Brenda Meyer

TC #: 19967-02

SAMPLERS (Signatures): Holly Hanke

LINE ITEM	SAMPLE NO.	DATE	TIME	8082 PCB	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	H49-HSA512-40-42.5	4-30-07	1450	X	U	S	G	1	NR	HOLD Until Further notice
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

TURN-AROUND TIME: Standard

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 1 of 11
Holly Hanke	Holly Hanke	TETRA TECH, INC.	4-30-07	1743	
RECEIVED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 15:05	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY: A. GALICIA	SIGNATURE	COMPANY: EMAX	DATE: 5/1/07	TIME: 18:18	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: A. FLORES	SIGNATURE	COMPANY: EMAX	DATE: 5-1-07	TIME: 1818	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1093

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	8&E COC	ECN 07E018
☐ Client Delivery		Recepient A. FLORENDO
☐ Third Party		Date 050107
		Time 1818

COC Inspection

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time/Location	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel #? Fax #	☑ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☐ TAT

Safety Issues

☐ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐ Plastic Liner
Temperatures	☑ Cooler 1 3.4 °C	☐ Cooler 2 3.5 °C	☑ Cooler 3 2.0 °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ SRF _____ PM _____

Date 5/2/07 5/2/07 Date 5/2/07 Date 5/2/07

LEGEND:

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Project Management
A1	Analysis is not indicated in COC	B1	Preservative needed; sample has no preservative	R1	Hold sample(s); wait for further instructions
A2	Analysis is not indicated in label	B2	Preservative not needed but sample is preserved	R2	Proceed as indicated in COC
A3	Analysis is inconsistent in COC vis-à-vis label	F1	Not enough quantity of samples	R3	Refer to attached instruction
B1	Sample ID is not indicated in COC	F2	Bubble is> 6mm	R4	Cancel the analysis
B2	Sample ID is not indicated in label	G1	Temperature is out of range (4 +_ 2°C)	R5	_____
B3	Sample ID is inconsistent in COC vis-à-vis label	G2	Out of Holding Time	R6	_____
C1	Wrong container	G3	>20 % solid particle		
C2	Broken container	H1	_____		
C3	Leaking container	H2	_____		
D1	Date and/or time is not indicated in COC				
D2	Date and/or time is not indicated in label				
D3	Date and/or time is inconsistent in COC vis-à-vis label				

Ye Myint

From: Wilson, Michael [MICHAEL.WILSON@tetratech.com]
Sent: Thursday, July 12, 2007 4:49 PM
To: Ye Myint
Subject: FW: Sample on Hold Needs Analysis

Ye,

There was a typo error in the name.

The typo corrected name is H49-HSAS6-50-51.5.

mike

From: Wilson, Michael
Sent: Thursday, July 12, 2007 3:55 PM
To: Ye Myint
Subject: FW: Sample on Hold Needs Analysis

Ye,

The rush turn around time needed for the perchlorate sample is five working days.

The correct name of the sample is H49-HSAS6-50-50.1.

Thanks

Mike

From: Wilson, Michael
Sent: Thursday, July 12, 2007 1:43 PM
To: Ye Myint
Subject: Sample on Hold Needs Analysis

Ye,

Beaumont soil sample H49-HSAS6-60-61.5 (sampled on 4-30-07) was noted to be on hold.

If EMAX still has the sample please proceed with an E314.0 analysis for perchlorate on a rush basis.

The sample is far past holding times but the results will be useful.

Please advise if you do not have the sample.

Thanks

Mike

Michael Wilson | Senior QA/QC Chemist
Direct: 909.307.1674 x252 | Main: 909.381.1674 | Fax: 909.889.1391
michael.wilson@tetratech.com

Tetra Tech, Inc. Division
[illegible] Suite 300 | San Bernardino, CA 92410 | www.tetratech.com

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use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07E018A

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E018A

METHOD 314.0
PERCHLORATE

One (1) soil sample was received on 05/01/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. Holding Time

The sample was past holding time already at the time of client's request for the analysis.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control sample results were within QC limits.

4. Duplicate

No Duplicate sample was designated in this SDG.

5. Matrix Spike

No MS sample was designated in this SDG.

6. Sample Analysis

Sample was analyzed according to the prescribed QC procedures. All criteria were met.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07E018A

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCG009SQ	ND	1	NA	20.0	10.0	07/18/0714:23	07/17/0717:15	JG18002	JG18001	PCG009S	NA	07/17/07
LCS1S	PCG009SX	256	1	NA	20.0	10.0	07/18/0715:05	07/17/0717:15	JG18004	JG18001	PCG009S	NA	07/17/07
LCD1S	PCG009SY	254	1	NA	20.0	10.0	07/18/0715:26	07/17/0717:15	JG18005	JG18001	PCG009S	NA	07/17/07
H49-HSAS6-50-51.5	E018-01	386	2	6.2	42.6	21.3	07/18/0715:47	07/17/0717:15	JG18006	JG18001	PCG009S	04/30/0711:17	05/01/07

6903

QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E018A
METHOD: METHOD 314.0

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	PCG009SQ	PCG009SX	PCG009SY		
LAB FILE ID:	JG18002	JG18004	JG18005		
DATE EXTRACTED:	07/17/0717:15	07/17/0717:15	07/17/0717:15	DATE COLLECTED:	NA
DATE ANALYZED:	07/18/0714:23	07/18/0715:05	07/18/0715:26	DATE RECEIVED:	07/17/07
PREP. BATCH:	PCG009S	PCG009S	PCG009S		
CALIB. REF:	JG18001	JG18001	JG18001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	250	256	102	250	254	102	1	85-115	20

8965

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

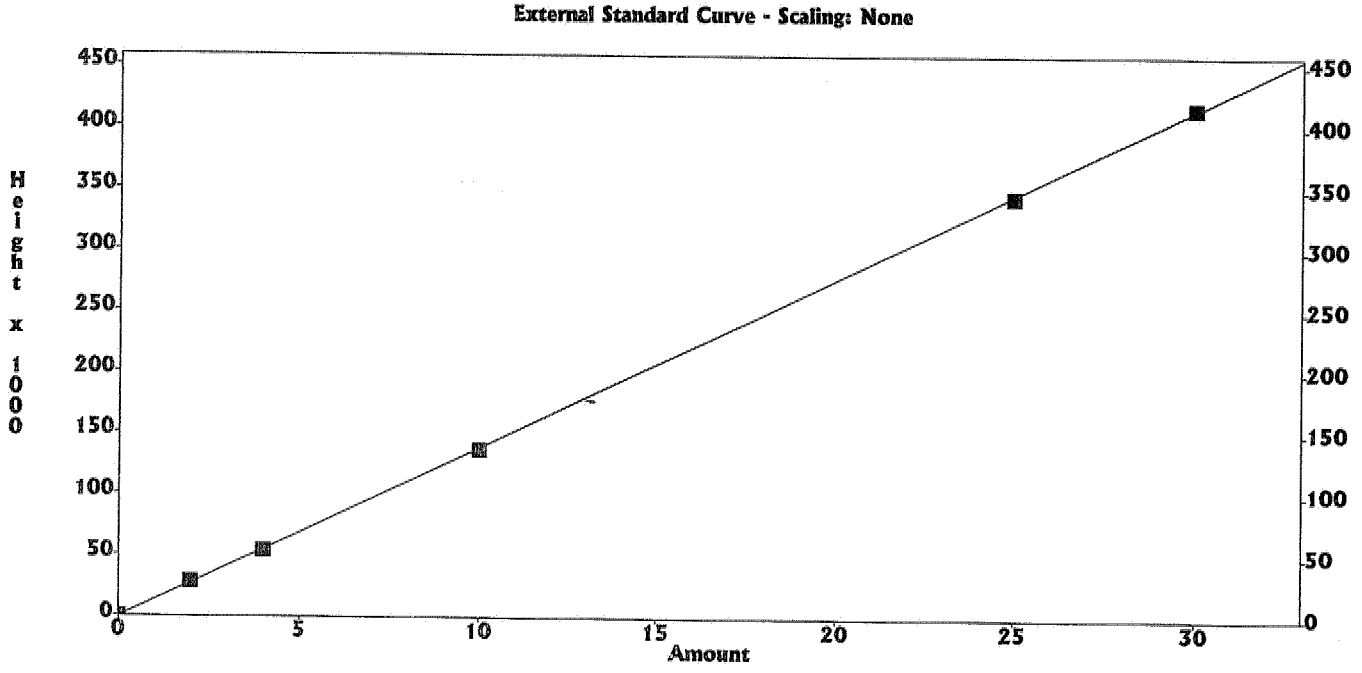
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8008

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

4-24-01

8010

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JG18001	IPCS	P	87.2%	07/18/0714:02	1
JG18002	PCG009SQ	P	.000	07/18/0714:23	1
JG18003	MRL	P	110%	07/18/0714:44	1
JG18004	PCG009SX	P	25.6	07/18/0715:05	1
JG18005	PCG009SY	P	25.4	07/18/0715:26	1
JG18006	E018-01	P	36.2	07/18/0715:47	2
JG18007	E160-01	P	.000	07/18/0716:08	1
JG18008	E160-01D	P	2.02	07/18/0716:29	1
JG18009	E160-01M	P	10.4	07/18/0716:50	1
JG18010	CCV157-30	P	107%	07/18/0717:11	1
JG18011	IPCS	P	89.4%	07/18/0719:01	1
JG18012	PCG011WB	P	.000	07/18/0719:22	1
JG18013	MRL	P	135%*	07/18/0719:43	1
JG18014	PCG011WL	P	25.9	07/18/0720:04	1
JG18015	PCG011WC	P	25.8	07/18/0720:25	1
JG18016	G125-01	P	55.6	07/18/0720:46	5
JG18017	G125-02	P	.000	07/18/0721:07	1
JG18018	RINSE	P	1.78	07/18/0721:28	1
JG18019	G125-02R	P	.000	07/18/0721:49	1
JG18020	RINSE	P	.000	07/18/0722:10	1
JG18021	G851-01	P	.000	07/18/0722:31	1
JG18022	CCV158-15	P	108%	07/18/0722:52	1
JG18023	G851-02	P	.000	07/18/0723:13	1
JG18024	G853-01	P	.000	07/18/0723:34	1
JG18025	G853-02	P	.000	07/18/0723:55	1
JG18026	G853-02D	P	.000	07/19/0700:17	1
JG18027	G853-02M	P	9.75	07/19/0700:38	1
JG18028	RINSE	P	1.57	07/19/0700:59	1
JG18029	CCV159-30	P	107%	07/19/0701:20	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH: SW8A - 02 -18

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JD17
Method File: * IC57d17.met
Analytical Batch: PCD007W + PCD008S + PCD009W

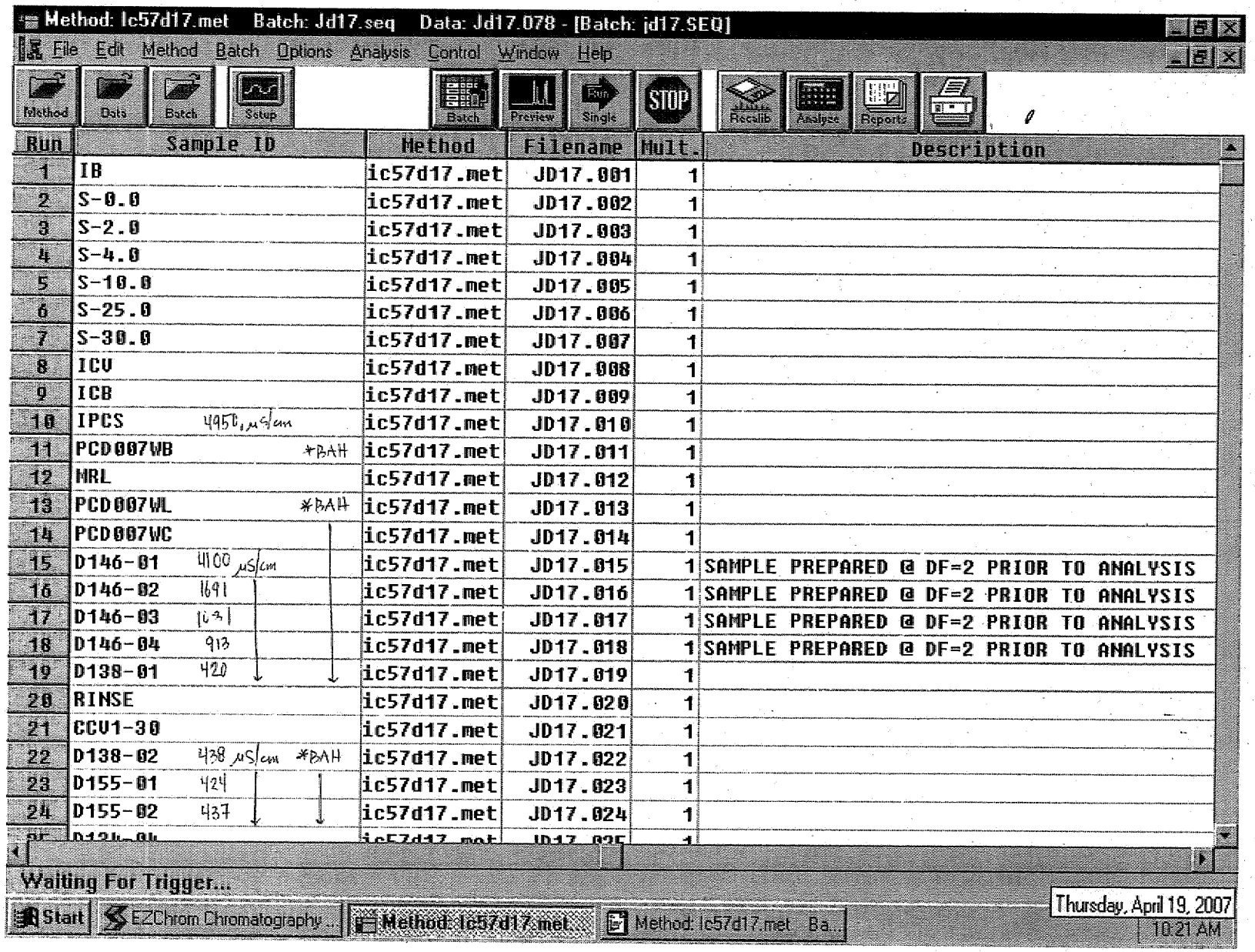
SOP #	Rev.#
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: cl
Date: 04/17/07



Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyse Reports

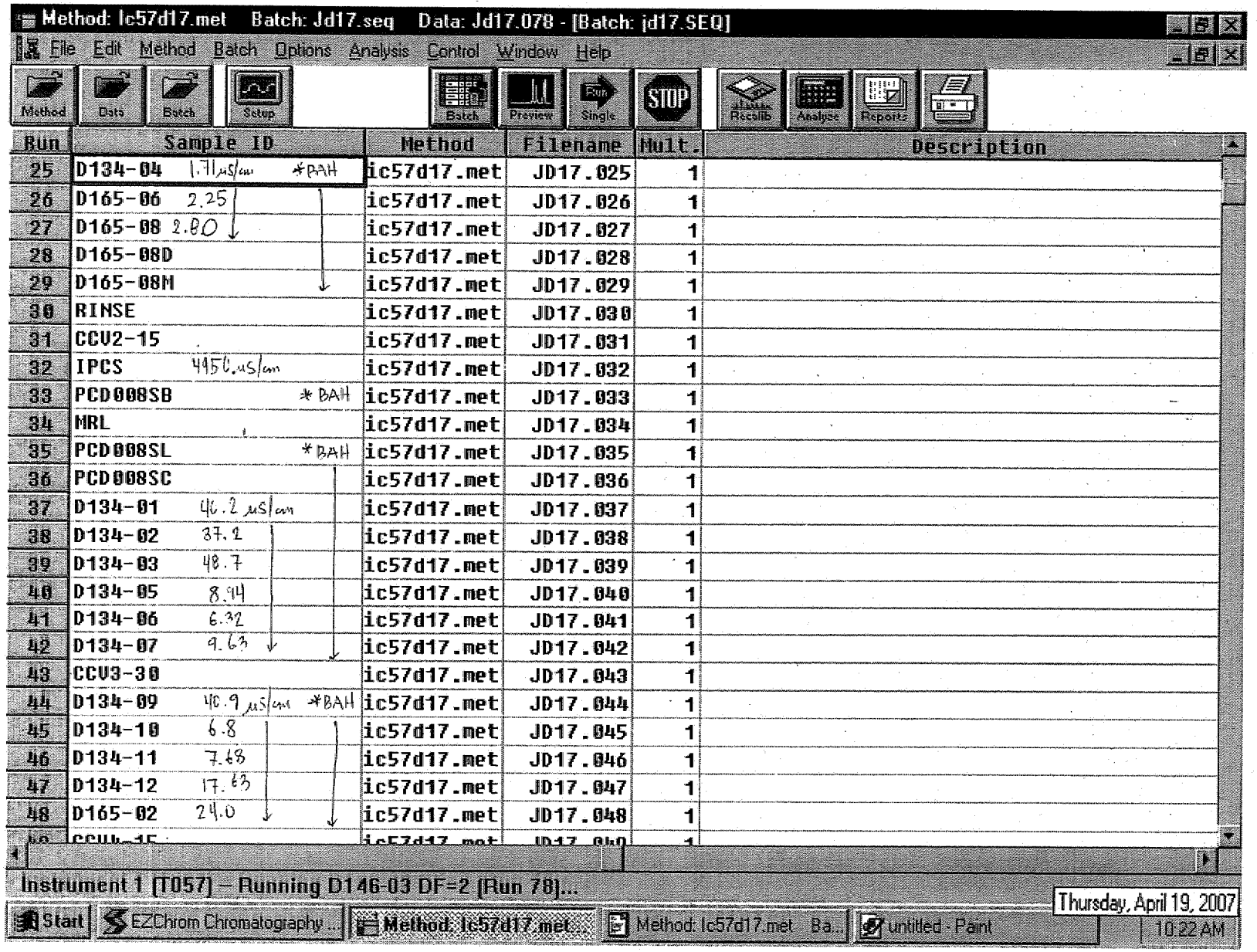
Run	Sample ID	Method	Filename	Mult.	Description
1	IB	ic57d17.met	JD17.001	1	
2	S-0.0	ic57d17.met	JD17.002	1	
3	S-2.0	ic57d17.met	JD17.003	1	
4	S-4.0	ic57d17.met	JD17.004	1	
5	S-10.0	ic57d17.met	JD17.005	1	
6	S-25.0	ic57d17.met	JD17.006	1	
7	S-30.0	ic57d17.met	JD17.007	1	
8	ICV	ic57d17.met	JD17.008	1	
9	ICB	ic57d17.met	JD17.009	1	
10	IPCS 4950 µS/cm	ic57d17.met	JD17.010	1	
11	PCD007WB *BAH	ic57d17.met	JD17.011	1	
12	MRL	ic57d17.met	JD17.012	1	
13	PCD007WL *BAH	ic57d17.met	JD17.013	1	
14	PCD007WC	ic57d17.met	JD17.014	1	
15	D146-01 4100 µS/cm	ic57d17.met	JD17.015	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16	D146-02 1691	ic57d17.met	JD17.016	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17	D146-03 1631	ic57d17.met	JD17.017	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18	D146-04 913	ic57d17.met	JD17.018	1	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19	D138-01 420	ic57d17.met	JD17.019	1	
20	RINSE	ic57d17.met	JD17.020	1	
21	CCV1-30	ic57d17.met	JD17.021	1	
22	D138-02 438 µS/cm *BAH	ic57d17.met	JD17.022	1	
23	D155-01 424	ic57d17.met	JD17.023	1	
24	D155-02 437	ic57d17.met	JD17.024	1	

Waiting For Trigger...

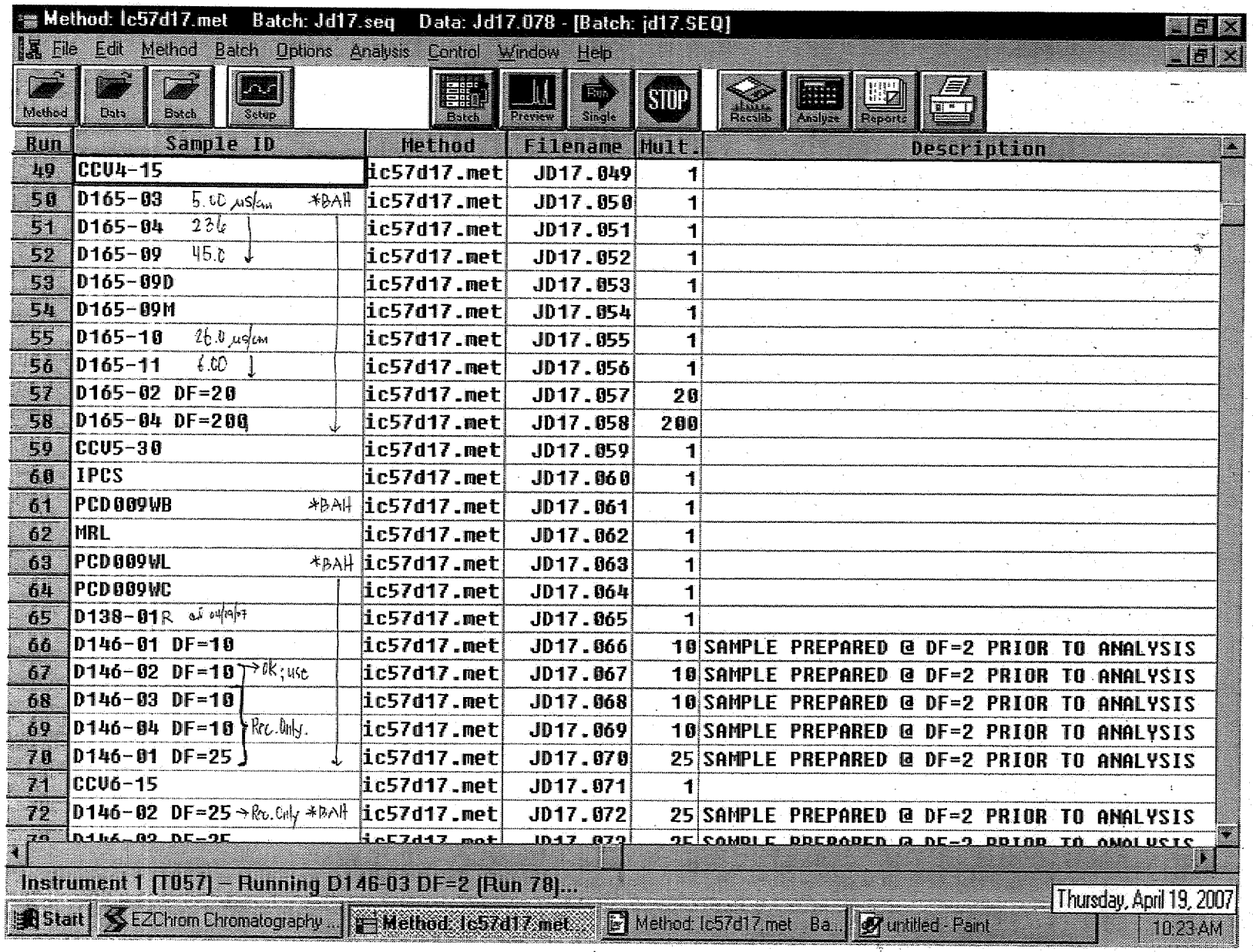
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba...

Thursday, April 19, 2007 10:21 AM

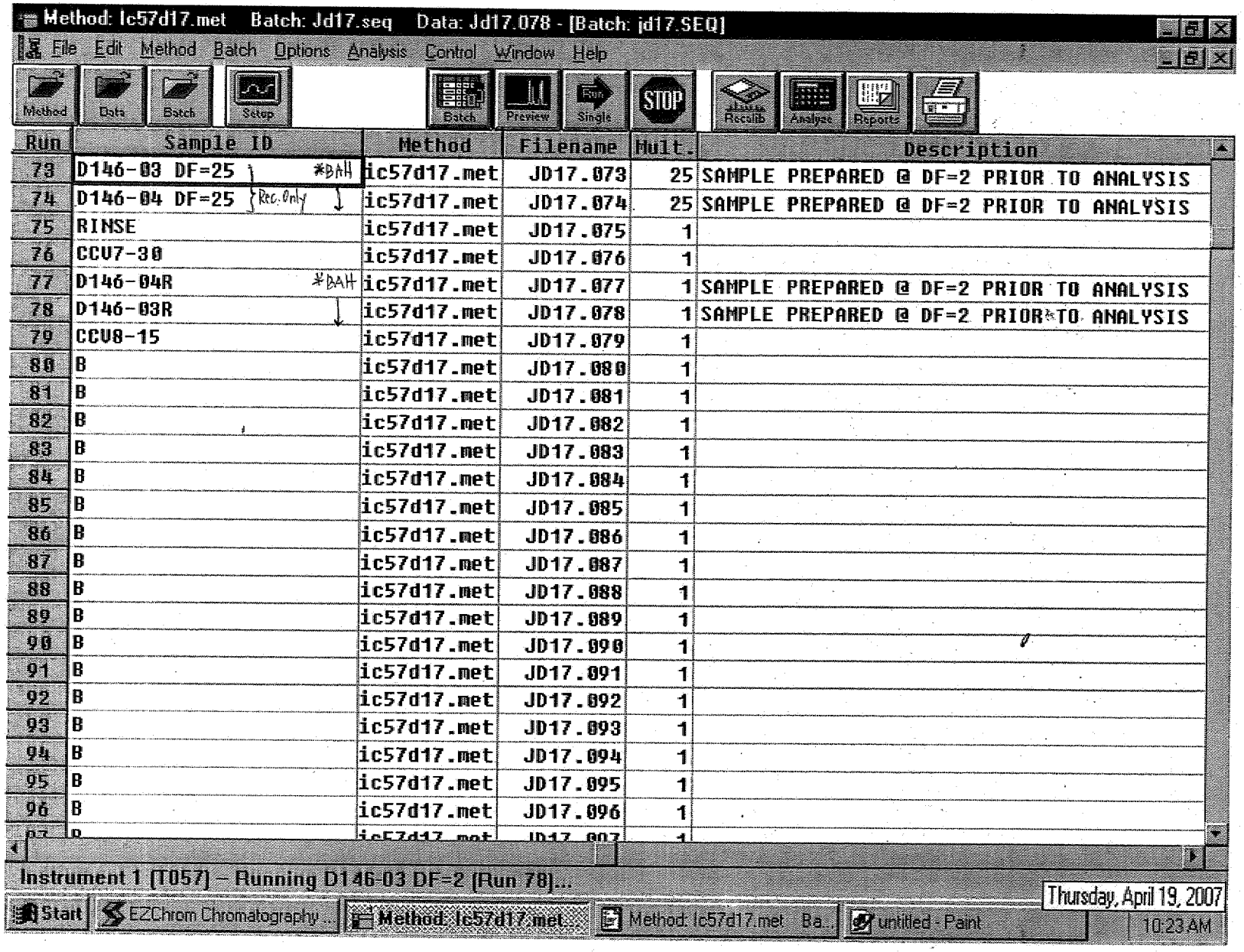
89415


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
25 D134-04 1.71 µS/cm *BAH ic57d17.met JD17.025 1
26 D165-06 2.25 ic57d17.met JD17.026 1
27 D165-08 2.80 ic57d17.met JD17.027 1
28 D165-08D ic57d17.met JD17.028 1
29 D165-08M ic57d17.met JD17.029 1
30 RINSE ic57d17.met JD17.030 1
31 CCV2-15 ic57d17.met JD17.031 1
32 IPCS 4950.uS/cm ic57d17.met JD17.032 1
33 PCD008SB *BAH ic57d17.met JD17.033 1
34 MRL ic57d17.met JD17.034 1
35 PCD008SL *BAH ic57d17.met JD17.035 1
36 PCD008SC ic57d17.met JD17.036 1
37 D134-01 46.2 µS/cm ic57d17.met JD17.037 1
38 D134-02 37.2 ic57d17.met JD17.038 1
39 D134-03 48.7 ic57d17.met JD17.039 1
40 D134-05 8.14 ic57d17.met JD17.040 1
41 D134-06 6.32 ic57d17.met JD17.041 1
42 D134-07 9.63 ic57d17.met JD17.042 1
43 CCV3-30 ic57d17.met JD17.043 1
44 D134-09 40.9 µS/cm *BAH ic57d17.met JD17.044 1
45 D134-10 6.8 ic57d17.met JD17.045 1
46 D134-11 7.68 ic57d17.met JD17.046 1
47 D134-12 17.63 ic57d17.met JD17.047 1
48 D165-02 24.0 ic57d17.met JD17.048 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography... Method: lc57d17.met Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:22 AM

8515


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
49 | CCV4-15 | lc57d17.met | JD17.049 | 1 |
50 | D165-03 5.00 µg/cm *BAH | lc57d17.met | JD17.050 | 1 |
51 | D165-04 23.6 | lc57d17.met | JD17.051 | 1 |
52 | D165-09 45.0 | lc57d17.met | JD17.052 | 1 |
53 | D165-09D | lc57d17.met | JD17.053 | 1 |
54 | D165-09M | lc57d17.met | JD17.054 | 1 |
55 | D165-10 26.0 µg/cm | lc57d17.met | JD17.055 | 1 |
56 | D165-11 6.00 | lc57d17.met | JD17.056 | 1 |
57 | D165-02 DF=20 | lc57d17.met | JD17.057 | 20 |
58 | D165-04 DF=200 | lc57d17.met | JD17.058 | 200 |
59 | CCV5-30 | lc57d17.met | JD17.059 | 1 |
60 | IPCS | lc57d17.met | JD17.060 | 1 |
61 | PCD009WB *BAH | lc57d17.met | JD17.061 | 1 |
62 | MRL | lc57d17.met | JD17.062 | 1 |
63 | PCD009WL *BAH | lc57d17.met | JD17.063 | 1 |
64 | PCD009WC | lc57d17.met | JD17.064 | 1 |
65 | D138-01R as output | lc57d17.met | JD17.065 | 1 |
66 | D146-01 DF=10 | lc57d17.met | JD17.066 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67 | D146-02 DF=10 → OK; use | lc57d17.met | JD17.067 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68 | D146-03 DF=10 | lc57d17.met | JD17.068 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69 | D146-04 DF=10 Rec. Only. | lc57d17.met | JD17.069 | 10 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70 | D146-01 DF=25 | lc57d17.met | JD17.070 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71 | CCV6-15 | lc57d17.met | JD17.071 | 1 |
72 | D146-02 DF=25 → Rec. Only *BAH | lc57d17.met | JD17.072 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography... Method: lc57d17.met... Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM

0915


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports
Run Sample ID Method Filename Mult. Description
73 D146-03 DF=25 *BAH lc57d17.met JD17.073 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 D146-04 DF=25 Rec. Only lc57d17.met JD17.074 25 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 RINSE lc57d17.met JD17.075 1
76 CCV7-30 lc57d17.met JD17.076 1
77 D146-04R *BAH lc57d17.met JD17.077 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 D146-03R lc57d17.met JD17.078 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 CCV8-15 lc57d17.met JD17.079 1
80 B lc57d17.met JD17.080 1
81 B lc57d17.met JD17.081 1
82 B lc57d17.met JD17.082 1
83 B lc57d17.met JD17.083 1
84 B lc57d17.met JD17.084 1
85 B lc57d17.met JD17.085 1
86 B lc57d17.met JD17.086 1
87 B lc57d17.met JD17.087 1
88 B lc57d17.met JD17.088 1
89 B lc57d17.met JD17.089 1
90 B lc57d17.met JD17.090 1
91 B lc57d17.met JD17.091 1
92 B lc57d17.met JD17.092 1
93 B lc57d17.met JD17.093 1
94 B lc57d17.met JD17.094 1
95 B lc57d17.met JD17.095 1
96 B lc57d17.met JD17.096 1
Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...
Start EZChrom Chromatography... Method: lc57d17.met Method: lc57d17.met Ba... untitled - Paint
Thursday, April 19, 2007
10:23 AM

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: * NaOH: SW8A - 02-18
- JG18.019: Re-analysis ; for confirmation only.
- JG18.011 → JG18.029 : Re-run all water samples due to MRL failed. MRL failed due to noisy baseline.

Book #: A57-015
Instrument No.: 57
Analytical Sequence: JG18
Method File: Ic57d17
Analytical Batch: PCG0095 & PCG011W

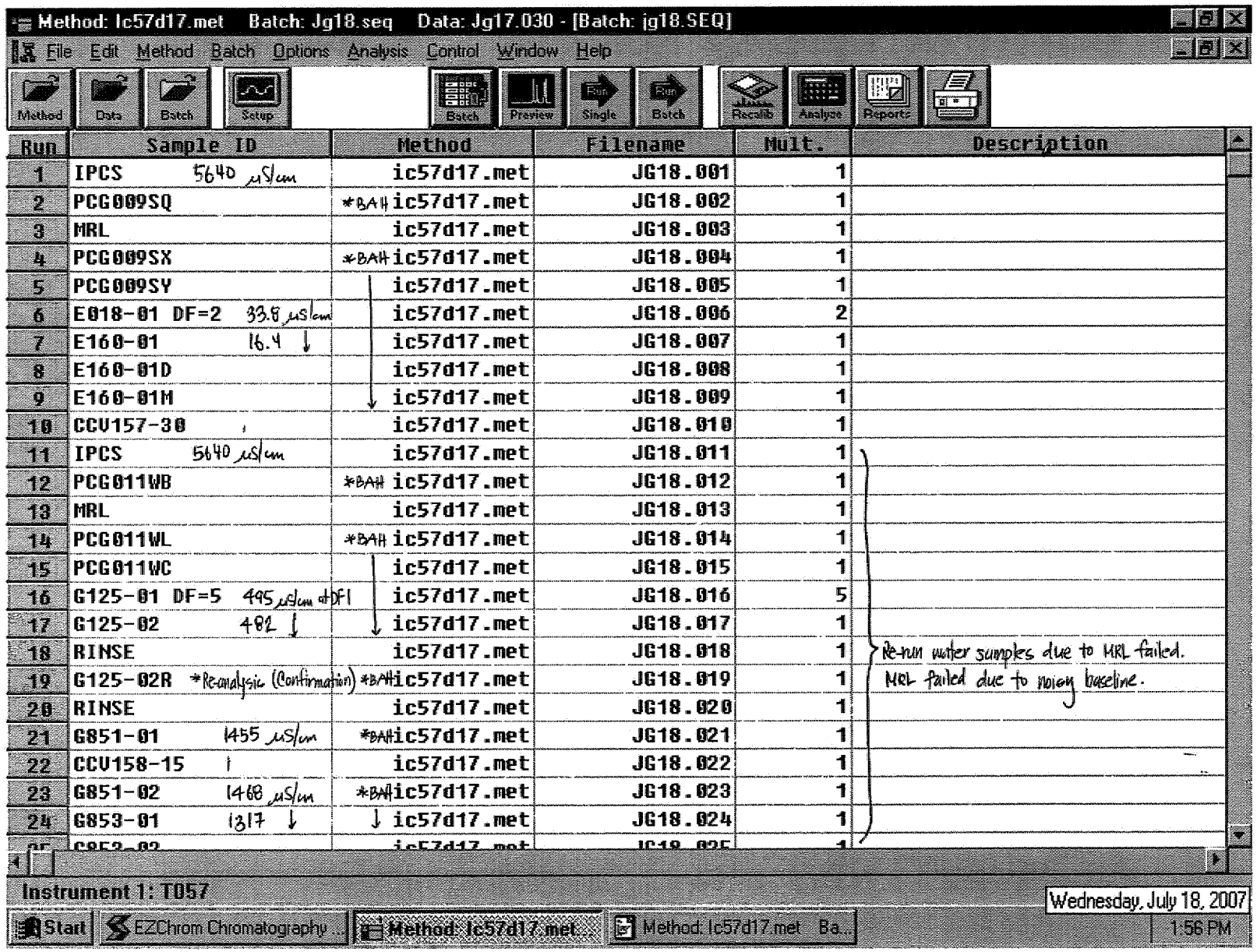
SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 966
CCV-30	964
LCS	968
MS	931
IPC	967
CMC	SW3B - 02 - 951
MRL	SW8B - 02 - 965

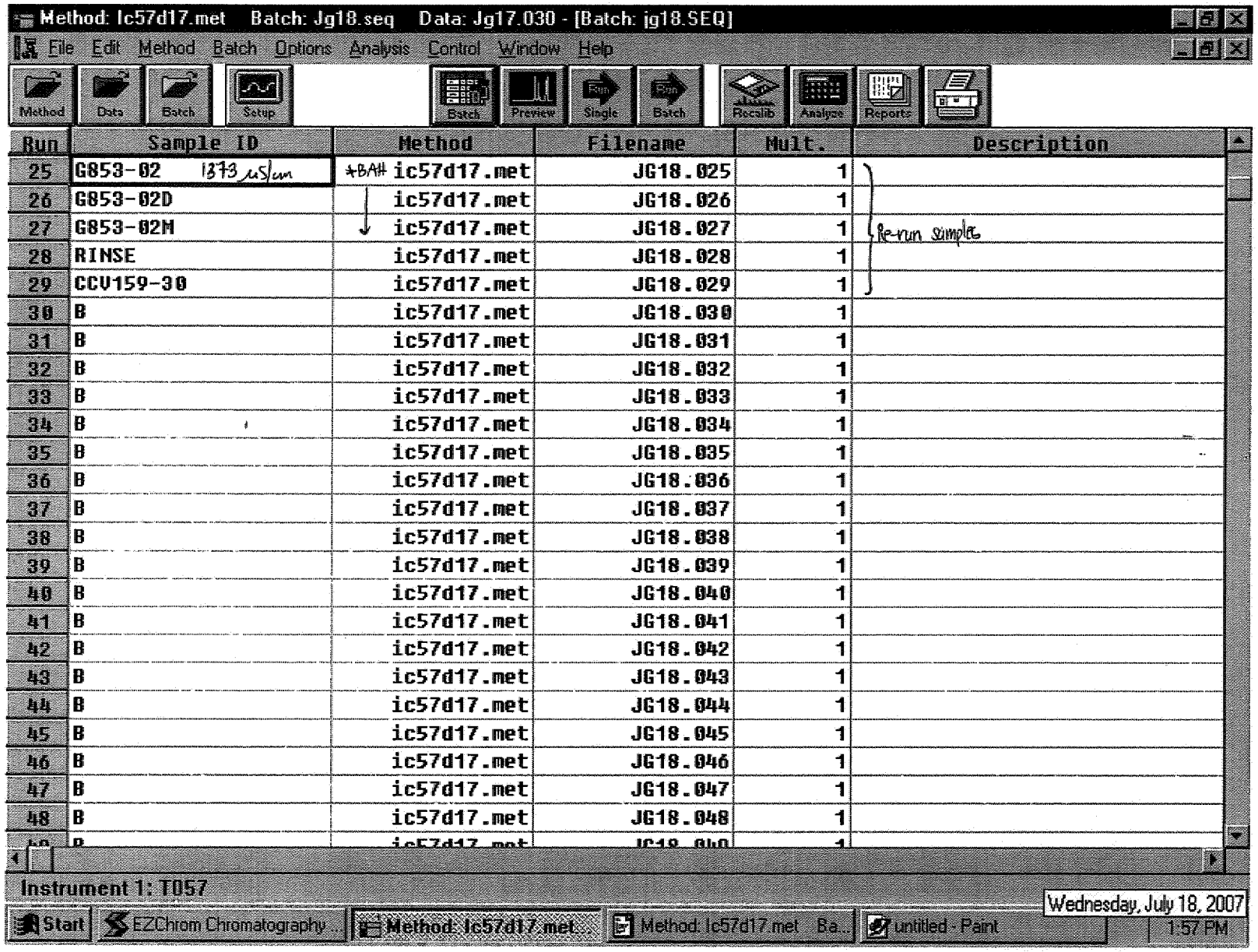
CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1412	(±) 30	25°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: al
Date: 07/18/07


Method: Ic57d17.met Batch: Jg18.seq Data: Jg17.030 - [Batch: jg18.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Run Single Run Batch Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
1 | IPCS 5640 µS/cm | ic57d17.met | JG18.001 | 1
2 | PCG009SQ | *BAH ic57d17.met | JG18.002 | 1
3 | MRL | ic57d17.met | JG18.003 | 1
4 | PCG009SX | *BAH ic57d17.met | JG18.004 | 1
5 | PCG009SY | ic57d17.met | JG18.005 | 1
6 | E018-01 DF=2 33.8 µS/cm | ic57d17.met | JG18.006 | 2
7 | E160-01 16.4 ↓ | ic57d17.met | JG18.007 | 1
8 | E160-01D | ic57d17.met | JG18.008 | 1
9 | E160-01M | ic57d17.met | JG18.009 | 1
10 | CCV157-30 | ic57d17.met | JG18.010 | 1
11 | IPCS 5640 µS/cm | ic57d17.met | JG18.011 | 1
12 | PCG011WB | *BAH ic57d17.met | JG18.012 | 1
13 | MRL | ic57d17.met | JG18.013 | 1
14 | PCG011WL | *BAH ic57d17.met | JG18.014 | 1
15 | PCG011WC | ic57d17.met | JG18.015 | 1
16 | G125-01 DF=5 495 µS/cm at DF1 | ic57d17.met | JG18.016 | 5
17 | G125-02 482 ↓ | ic57d17.met | JG18.017 | 1
18 | RINSE | ic57d17.met | JG18.018 | 1 | Re-run water samples due to MRL failed.
19 | G125-02R *Reanalysis (Confirmation) | *BAH ic57d17.met | JG18.019 | 1 | MRL failed due to noisy baseline.
20 | RINSE | ic57d17.met | JG18.020 | 1
21 | G851-01 1455 µS/cm | *BAH ic57d17.met | JG18.021 | 1
22 | CCV158-15 | ic57d17.met | JG18.022 | 1
23 | G851-02 1468 µS/cm | *BAH ic57d17.met | JG18.023 | 1
24 | G853-01 1317 ↓ | ↓ ic57d17.met | JG18.024 | 1
Instrument 1: T057
Wednesday, July 18, 2007
Start EZChrom Chromatography ... Method: Ic57d17.met ... Method: Ic57d17.met Ba...
1:56 PM

8020


Method: Ic57d17.met Batch: Jg18.seq Data: Jg17.030 - [Batch: jg18.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single Batch Recalib Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
25 | G853-02 1373 us/cm | *BATCH | ic57d17.met | JG18.025 | 1
26 | G853-02D | ic57d17.met | JG18.026 | 1
27 | G853-02M | ic57d17.met | JG18.027 | 1 | re-run samples
28 | RINSE | ic57d17.met | JG18.028 | 1
29 | CCV159-30 | ic57d17.met | JG18.029 | 1
30 | B | ic57d17.met | JG18.030 | 1
31 | B | ic57d17.met | JG18.031 | 1
32 | B | ic57d17.met | JG18.032 | 1
33 | B | ic57d17.met | JG18.033 | 1
34 | B | ic57d17.met | JG18.034 | 1
35 | B | ic57d17.met | JG18.035 | 1
36 | B | ic57d17.met | JG18.036 | 1
37 | B | ic57d17.met | JG18.037 | 1
38 | B | ic57d17.met | JG18.038 | 1
39 | B | ic57d17.met | JG18.039 | 1
40 | B | ic57d17.met | JG18.040 | 1
41 | B | ic57d17.met | JG18.041 | 1
42 | B | ic57d17.met | JG18.042 | 1
43 | B | ic57d17.met | JG18.043 | 1
44 | B | ic57d17.met | JG18.044 | 1
45 | B | ic57d17.met | JG18.045 | 1
46 | B | ic57d17.met | JG18.046 | 1
47 | B | ic57d17.met | JG18.047 | 1
48 | B | ic57d17.met | JG18.048 | 1
Instrument 1: T057
Wednesday, July 18, 2007
Start EZChrom Chromatography... Method: Ic57d17.met Method: Ic57d17.met Ba... untitled - Paint 1:57 PM

8921

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 07/17/07 Time 17:15 End Date 07/17/07 Time 18:19

PREPARATION BATCH # PG0095

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PG0095B	10.000g	100 ml	100 ml	
*02	↓ SL	↓	↓	↓	
*03	↓ SC				
*04	E018-01				
*05	G160-01				
*06	↓ DID				
*07	↓ DIM				
*08					
*09					
*10					
*11					
*12					
*13					
*14					
*15					
*16					
*17					
*18					
*19					
*20					
*21					
*22					
*23					
*24					
*25					

07/17/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	SW88-02-931	2.5/1.0
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg = Vegetation
Yw = Yellow			

Comments:

Prepared By: al

Standard Added By: al

Checked By:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07E184**

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GC/MS-VOA	METHOD 5030B/8260B	2000 – 2056
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	**	7000 –
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 06-01-2007
EMAX Batch No.: 07E184

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 05/14/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LTB-051107	E184-01	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS2@10	E184-02	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS2@20	E184-03	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS2@120	E184-04	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS4@20	E184-05	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS3@20	E184-06	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS2@10MS	E184-02M	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS
F39-HSAS2@10MSD	E184-02S	05/11/07	WATER	VOLATILE ORGANICS BY GC/MS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

DATE 5/11/07 PAGE 1 OF 1

9T-0618-

07E184

CLIENT: LMC
PROJECT NAME: LMC Bank Site 1
PROJECT MANAGER: Brenda Mayes
TC #: 19967-02
SAMPLERS (Signatures)

PARAMETERS

TURN-AROUND TIME: Standard

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	LTB-051107	5/11/07	700	X	U	W	G	2	HCL	
2.	F39-HSAS2@10		1055	X				9		MS/MSD
3.	F39-HSAS2@20		1110	X				3		
4.	F39-HSAS2@120		1115	X				3		
5.	F39-HSAS4@20		1148	X				3		
6.	F39-HSAS3@20		1210	X				3		
7.										
8.										
9.										
10.										

FILTERING: ☐ FILTERED ☐ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SB - Brass Sleeve; SS - Stainless Steel Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 23
Holly Hanke		TETRA TECH, INC.	5-14-07	10:50	
RECEIVED BY A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 5/14/07	TIME 10:55	METHOD OF SHIPMENT/SHIPMENT NO.
RELINQUISHED BY A. GALICIA	SIGNATURE	COMPANY EMAX	DATE 5/14/07	TIME 13:10	Special Shipping/Handling/Storage Requirements:
RECEIVED BY FLOTEMDO	SIGNATURE	COMPANY FMAX	DATE 5/14/07	TIME 1310	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

T-2.7°C

X:\GIS\ATT-MISC\COCR.CDR

1991

EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☒ EMAX Courier	SDE COC	ECN 07E184
☐ Client Delivery		Recepient A-FLORENDO
☐ Third Party		Date 051407
		Time 1310

COC Inspection

☒ Client Name ☒ Client PM/FC ☒ Sampler Name ☒ Sampling Date/Time/Location ☒ Sample ID ☒ Matrix
☒ Address ☒ Tel.#/ Fax # ☒ Courier Signature ☒ Analysis Required ☐ Preservative (if any) ☐ TAT

Safety Issues

☐ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☒ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☒ Intact	☐ Damaged		
Packaging	☒ Bubble Pack	☐ Styrofoam	☐ Popcorn	☒ Sufficient	☐ Not Sufficient
Temperatures	☒ Cooler 1 2.7 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C

Comments: ☐ **PM was informed on non-compliant coolers imediately.**

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling _____ Date 051407

SRF _____ Date 5/15/07

PM _____ Date 5/15/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-a-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsisrent in COC vis-à-vis label
C1	Wrong container .
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	_____
H2	_____

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	_____
R6	_____

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 07E184

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07E184

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Six (6) water samples were received on 05/14/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit Chlorebenzene in LCD2W and LCD3W was above QC, but within limit in duplicate analyses.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample E184-02 was spiked. All recoveries were within QC limit TCE due to high concentration in the sample.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07E184
Instrument ID : T-0D3

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V0D3E39Q	1	NA	05/18/0718:12	05/18/0718:12	REE477	RDE189	V0DE39	Method Blank
LCS1W	V0D3E39L	1	NA	05/18/0716:23	05/18/0716:23	REE474	RDE189	V0DE39	Lab Control Sample (LCS)
LCD1W	V0D3E39C	1	NA	05/18/0716:59	05/18/0716:59	REE475	RDE189	V0DE39	LCS Duplicate
LTB-051107	E184-01	1	NA	05/18/0719:24	05/18/0719:24	REE479	RDE189	V0DE39	Field Sample
F39-HSAS2@10	E184-02	1	NA	05/18/0720:01	05/18/0720:01	REE480	RDE189	V0DE39	Field Sample
F39-HSAS2@10MS	E184-02M	1	NA	05/19/0700:15	05/19/0700:15	REE487	RDE189	V0DE39	Matrix Spike Sample (MS)
F39-HSAS2@10MSD	E184-02S	1	NA	05/19/0700:51	05/19/0700:51	REE488	RDE189	V0DE39	MS Duplicate (MSD)
MBLK2W	V0D3E43Q	1	NA	05/19/0717:47	05/19/0717:47	REE516	RDE189	V0DE43	Method Blank
LCS2W	V0D3E43L	1	NA	05/19/0716:34	05/19/0716:34	REE514	RDE189	V0DE43	Lab Control Sample (LCS)
LCD2W	V0D3E43C	1	NA	05/20/0701:37	05/20/0701:37	REE529	RDE189	V0DE43	LCS Duplicate
F39-HSAS2@20	E184-03	1	NA	05/19/0723:12	05/19/0723:12	REE525	RDE189	V0DE43	Field Sample
F39-HSAS2@120	E184-04	1	NA	05/19/0723:49	05/19/0723:49	REE526	RDE189	V0DE43	Field Sample
F39-HSAS4@20	E184-05	1	NA	05/20/0700:25	05/20/0700:25	REE527	RDE189	V0DE43	Field Sample
F39-HSAS3@20	E184-06	1	NA	05/20/0701:01	05/20/0701:01	REE528	RDE189	V0DE43	Field Sample
MBLK3W	V0D3E53Q	1	NA	05/24/0716:55	05/24/0716:55	REE650	RDE189	V0DE53	Method Blank
LCS3W	V0D3E53X	1	NA	05/24/0715:43	05/24/0715:43	REE648	RDE189	V0DE53	Lab Control Sample (LCS)
LCD3W	V0D3E53C	1	NA	05/24/0715:06	05/24/0715:06	REE647	RDE189	V0DE53	LCS Duplicate
F39-HSAS2@10DL	E184-02T	5	NA	05/24/0719:56	05/24/0719:56	REE655	RDE189	V0DE53	Diluted Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	05/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/14/07
Batch No.	: 07E184	Date Extracted:	05/18/07 19:24
Sample ID	: LTB-051107	Date Analyzed:	05/18/07 19:24
Lab Samp ID	: E184-01	Dilution Factor:	1
Lab File ID	: REE479	Matrix	: WATER
Ext Btch ID	: VODE39	% Moisture	: NA
Calib. Ref.	: RDE189	Instrument ID	: T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	97	70-140
4-BROMOFLUOROBENZENE	100	70-130
TOLUENE-D8	91	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 05/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/14/07
Batch No. : 07E184	Date Extracted: 05/18/07 20:01
Sample ID: F39-HSAS2@10	Date Analyzed: 05/18/07 20:01
Lab Samp ID: E184-02	Dilution Factor: 1
Lab File ID: REE480	Matrix : WATER
Ext Btch ID: VODE39	% Moisture : NA
Calib. Ref.: RDE189	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	60E	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	95	70-140
4-BROMOFLUOROBENZENE	101	70-130
TOLUENE-D8	94	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 05/11/07
Project : LMC BEAUMONT SITE 1	Date Received: 05/14/07
Batch No. : 07E184	Date Extracted: 05/24/07 19:56
Sample ID: F39-HSAS2@10DL	Date Analyzed: 05/24/07 19:56
Lab Samp ID: E184-02T	Dilution Factor: 5
Lab File ID: REE655	Matrix : WATER
Ext Btch ID: VODE53	% Moisture : NA
Calib. Ref.: RDE189	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	5.0	1.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	1.0
1,1,2-TRICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHANE	ND	5.0	1.0
1,1-DICHLOROETHENE	ND	5.0	1.0
1,2-DICHLOROETHANE	ND	5.0	1.0
1,2-DICHLOROPROPANE	ND	5.0	1.0
2-BUTANONE	ND	50	25
2-HEXANONE	ND	50	25
4-METHYL-2-PENTANONE	ND	50	25
ACETONE	ND	50	25
BENZENE	ND	5.0	1.0
BROMODICHLOROMETHANE	ND	5.0	1.0
BROMOFORM	ND	5.0	1.5
BROMOMETHANE	ND	5.0	1.0
CARBON DISULFIDE	ND	5.0	1.0
CARBON TETRACHLORIDE	ND	5.0	1.0
CHLOROBENZENE	ND	5.0	1.0
CHLOROETHANE	ND	5.0	1.0
CHLOROFORM	ND	5.0	1.0
CHLOROMETHANE	ND	5.0	1.0
CIS-1,2-DICHLOROETHENE	ND	5.0	1.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	1.0
DIBROMOCHLOROMETHANE	ND	5.0	1.0
ETHYLBENZENE	ND	5.0	1.0
M/P-XYLENES	ND	10	2.5
MTBE	ND	5.0	1.0
METHYLENE CHLORIDE	ND	5.0	2.5
O-XYLENE	ND	5.0	1.0
STYRENE	ND	5.0	1.0
TETRACHLOROETHENE	ND	5.0	1.0
TOLUENE	ND	5.0	1.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	1.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	1.0
TRICHLOROETHENE	64	5.0	1.0
VINYL CHLORIDE	ND	5.0	1.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	98	70-140
4-BROMOFLUOROBENZENE	97	70-130
TOLUENE-D8	94	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	05/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/14/07
Batch No.	: 07E184	Date Extracted:	05/19/07 23:12
Sample ID:	F39-HSAS2@20	Date Analyzed:	05/19/07 23:12
Lab Samp ID:	E184-03	Dilution Factor:	1
Lab File ID:	REE525	Matrix :	WATER
Ext Btch ID:	VODE43	% Moisture :	NA
Calib. Ref.:	RDE189	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	4.6	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	103	70-140
4-BROMOFLUOROBENZENE	99	70-130
TOLUENE-D8	94	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	05/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/14/07
Batch No.	: 07E184	Date Extracted:	05/19/07 23:49
Sample ID:	F39-HSAS2@120	Date Analyzed:	05/19/07 23:49
Lab Samp ID:	E184-04	Dilution Factor:	1
Lab File ID:	REE526	Matrix :	WATER
Ext Btch ID:	VODE43	% Moisture :	NA
Calib. Ref.:	RDE189	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	4.4	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	101	70-140
4-BROMOFLUOROBENZENE	100	70-130
TOLUENE-D8	93	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	05/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/14/07
Batch No.	: 07E184	Date Extracted:	05/20/07 00:25
Sample ID	: F39-HSAS4@20	Date Analyzed:	05/20/07 00:25
Lab Samp ID	: E184-05	Dilution Factor:	1
Lab File ID	: REE527	Matrix :	WATER
Ext Btch ID	: VODE43	% Moisture :	NA
Calib. Ref.	: RDE189	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	34	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	100	70-140
4-BROMOFLUOROBENZENE	100	70-130
TOLUENE-D8	95	70-140

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	05/11/07
Project	: LMC BEAUMONT SITE 1	Date Received:	05/14/07
Batch No.	: 07E184	Date Extracted:	05/20/07 01:01
Sample ID:	F39-HSA53@20	Date Analyzed:	05/20/07 01:01
Lab Samp ID:	E184-06	Dilution Factor:	1
Lab File ID:	REE528	Matrix :	WATER
Ext Btch ID:	VODE43	% Moisture :	NA
Calib. Ref.:	RDE189	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	1.4	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	70-140
4-BROMOFLUOROBENZENE	97	70-130
TOLUENE-D8	91	70-140

QC SUMMARIES

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METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 05/18/07
Batch No. : 07E184	Date Extracted: 05/18/07 18:12
Sample ID: MBLK1W	Date Analyzed: 05/18/07 18:12
Lab Samp ID: VOD3E39Q	Dilution Factor: 1
Lab File ID: REE477	Matrix : WATER
Ext Btch ID: VODE39	% Moisture : NA
Calib. Ref.: RDE189	Instrument ID : T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	70-140
4-BROMOFLUOROBENZENE	102	70-130
TOLUENE-D8	94	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E184
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V0D3E39Q V0D3E39L V0D3E39C
LAB FILE ID: REE477 REE474 REE475
DATE EXTRACTED: 05/18/0718:12 05/18/0716:23 05/18/0716:59 DATE COLLECTED: NA
DATE ANALYZED: 05/18/0718:12 05/18/0716:23 05/18/0716:59 DATE RECEIVED: 05/18/07
PREP. BATCH: V0DE39 V0DE39 V0DE39
CALIB. REF: RDE189 RDE189 RDE189

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	8.34	83	10.0	9.08	91	8	60-130	30
Benzene	ND	10.0	9.62	96	10.0	9.50	95	1	70-130	30
Chlorobenzene	ND	10.0	11.0	110	10.0	11.1	111	1	70-120	30
Toluene	ND	10.0	9.93	99	10.0	9.85	99	1	70-130	30
Trichloroethene	ND	10.0	9.42	94	10.0	9.66	97	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.4	104	10.0	10.1	101	70-140
4-Bromofluorobenzene	10.0	9.73	97	10.0	9.90	99	70-130
Toluene-d8	10.0	9.47	95	10.0	9.36	94	70-130

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	05/19/07
Batch No.	: 07E184	Date Extracted:	05/19/07 17:47
Sample ID:	MBLK2W	Date Analyzed:	05/19/07 17:47
Lab Samp ID:	VOD3E43Q	Dilution Factor:	1
Lab File ID:	REE516	Matrix :	WATER
Ext Btch ID:	VODE43	% Moisture :	NA
Calib. Ref.:	RDE189	Instrument ID :	T-OD3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	70-140
4-BROMOFLUOROBENZENE	96	70-130
TOLUENE-D8	90	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E184
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V0D3E43Q	V0D3E43L	V0D3E43C		
LAB FILE ID:	REE516	REE514	REE529		
DATE EXTRACTED:	05/19/0717:47	05/19/0716:34	05/20/0701:37	DATE COLLECTED:	NA
DATE ANALYZED:	05/19/0717:47	05/19/0716:34	05/20/0701:37	DATE RECEIVED:	05/20/07
PREP. BATCH:	V0DE43	V0DE43	V0DE43		
CALIB. REF:	RDE189	RDE189	RDE189		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	7.85	79	10.0	9.44	94	18	60-130	30
Benzene	ND	10.0	9.85	99	10.0	10.3	103	4	70-130	30
Chlorobenzene	ND	10.0	10.9	109	10.0	12.1	121*	11	70-120	30
Toluene	ND	10.0	10.1	101	10.0	11.0	110	9	70-130	30
Trichloroethene	ND	10.0	10.0	100	10.0	11.1	111	10	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.5	105	10.0	10.6	106	70-140
4-Bromofluorobenzene	10.0	9.57	96	10.0	9.66	97	70-130
Toluene-d8	10.0	9.57	96	10.0	9.11	91	70-130

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	05/24/07
Batch No.	: 07E184	Date Extracted:	05/24/07 16:55
Sample ID:	MBLK3W	Date Analyzed:	05/24/07 16:55
Lab Samp ID:	V0D3E53Q	Dilution Factor:	1
Lab File ID:	REE650	Matrix :	WATER
Ext Btch ID:	V0DE53	% Moisture :	NA
Calib. Ref.:	RDE189	Instrument ID :	T-0D3

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	70-140
4-BROMOFLUOROBENZENE	97	70-130
TOLUENE-D8	98	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E184
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK3W
LAB SAMP ID: VOD3E53Q VOD3E53X VOD3E53C
LAB FILE ID: REE650 REE648 REE647
DATE EXTRACTED: 05/24/0716:55 05/24/0715:43 05/24/0715:06 DATE COLLECTED: NA
DATE ANALYZED: 05/24/0716:55 05/24/0715:43 05/24/0715:06 DATE RECEIVED: 05/24/07
PREP. BATCH: VODE53 VODE53 VODE53
CALIB. REF: RDE189 RDE189 RDE189

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	8.67	87	10.0	10.2	102	16	60-130	30
Benzene	ND	10.0	9.49	95	10.0	10.9	109	14	70-130	30
Chlorobenzene	ND	10.0	11.4	114	10.0	12.6	126*	10	70-120	30
Toluene	ND	10.0	10.1	101	10.0	11.1	111	9	70-130	30
Trichloroethene	ND	10.0	9.41	94	10.0	11.2	112	18	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	11.1	111	10.0	10.2	102	70-140
4-Bromofluorobenzene	10.0	9.24	92	10.0	9.53	95	70-130
Toluene-d8	10.0	9.48	95	10.0	9.62	96	70-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07E184
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	F39-HSAS2@10				
LAB SAMP ID:	E184-02	E184-02M	E184-02S		
LAB FILE ID:	REE480	REE487	REE488		
DATE EXTRACTED:	05/18/0720:01	05/19/0700:15	05/19/0700:51	DATE COLLECTED:	05/11/07
DATE ANALYZED:	05/18/0720:01	05/19/0700:15	05/19/0700:51	DATE RECEIVED:	05/14/07
PREP. BATCH:	VODE39	VODE39	VODE39		
CALIB. REF:	RDE189	RDE189	RDE189		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	9.58	96	10.0	9.60	96	0	60-140	30
Benzene	ND	10.0	10.2	102	10.0	10.5	105	3	60-140	30
Chlorobenzene	ND	10.0	12.6	126	10.0	12.6	126	0	63-132	30
Toluene	ND	10.0	11.0	110	10.0	11.4	114	4	70-140	30
Trichloroethene	59.9	10.0	83.2	233*	10.0	77.0	171*	8	60-140	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.1	101	10.0	10.5	105	70-140
4-Bromofluorobenzene	10.0	9.63	96	10.0	9.93	99	70-130
Toluene-d8	10.0	9.09	91	10.0	9.33	93	70-140

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc — Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT — Case No.: — SAS No.: — SDG No.: 07E184
Lab File ID: RDE182 — BFB Injection Date : 04/11/07
Instrument ID: T-OD3 — BFB Injection Time : 09:15
GC Column:RTX502.2ID:0.32mm (mm) — Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.58
75	30.0 - 60.0% of mass 95	44.37
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.85
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.60
175	5.0 - 9.0% of mass 174	5.02(7.0)1
176	95.0 - 101.0% of mass 174	69.28(96.8)1
177	5.0 - 9.0% of mass 176	4.46(6.4)2

1-Value is % mass 174 — 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	VOD3D111	RDE183	04/11/07	09:51
2	VSTD01	VOD3D113	RDE185	04/11/07	11:03
3	VSTD0.5	VOD3D114	RDE186	04/11/07	11:39
4	VSTD02	VOD3D115	RDE187	04/11/07	12:15
5	VSTD05	VOD3D116	RDE188	04/11/07	12:51
6	VSTD010	VOD3D117	RDE189	04/11/07	13:27
7	VSTD020	VOD3D118	RDE190	04/11/07	14:03
8	VSTD030	VOD3D119	RDE191	04/11/07	14:39
9	VSTD040	VOD3D1110	RDE192	04/11/07	15:15
10	VSTD050	VOD3D1111	RDE193	04/11/07	15:51
11	VSTD010	IVOD3D1102	RDE197	04/11/07	18:24

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :D3
Beginning DateTime :04/11/07 11:03
Spike Units :PPB
IC File :RDE189

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :04/11/07 15:51
HPChem Method :VOD3D11

M	IDX	Parameters	.3 09:51 RDE183	.5 11:39 RDE186	1 11:03 RDE185	2 12:15 RDE187	5 12:51 RDE188	10 13:27 RDE189	20 14:03 RDE190	30 14:39 RDE191	40 15:15 RDE192	50 15:51 RDE193	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	9.8023
	2	Dichlorodifluoromethane	0.327	0.447	0.308	0.270	0.296	0.247	0.266	0.248	0.283	0.292	0.299	19.47	3.2807
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	1.147	0.918	0.749	0.573	0.601	0.514	0.530	0.488	0.560	0.544	0.663	32.38	3.7392
	5	Vinyl chloride	------	0.759	0.634	0.511	0.548	0.433	0.411	------	------	------	0.549	23.77	3.8793
	6	Bromomethane	0.313	0.365	0.338	0.309	0.362	0.326	0.358	0.340	0.385	0.414	0.351	9.29	4.5773
	7	Chloroethane	0.310	0.311	0.307	0.277	0.313	0.275	0.295	0.275	0.309	0.325	0.300	6.01	4.6740
	8	Dichlorofluoromethane	0.769	0.862	0.883	0.784	0.864	0.774	0.824	0.801	0.848	0.957	0.837	7.02	4.7113
	9	Trichlorofluoromethane	0.373	0.496	0.395	0.351	0.401	0.344	0.372	0.342	0.391	0.409	0.387	11.64	5.0417
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	11	Acrolein	------	------	0.021	0.018	0.019	0.019	0.020	0.020	0.023	0.027	0.021	13.72	5.5764
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.202	0.226	0.224	0.214	0.238	0.220	0.231	0.231	0.238	0.283	0.231	9.31	5.6148
2	13	Acetone	------	------	0.065	0.052	0.049	0.044	0.045	0.043	0.049	0.058	0.051	14.91	5.6434
	14	1,1-Dichloroethene	0.431	0.506	0.495	0.465	0.513	0.474	0.491	0.489	0.504	0.594	0.496	8.48	5.8753
5	15	tert-Butyl alcohol	------	------	0.014	0.014	0.016	0.014	0.014	0.014	0.016	0.020	0.015	13.56	5.9002
	16	Methyl acetate	------	0.124	0.115	0.113	0.142	0.112	0.136	0.146	0.165	------	0.132	14.27	6.2407
	17	Iodomethane	------	0.408	0.476	0.503	0.602	0.546	0.586	0.578	0.607	0.683	0.554	14.72	6.3289
	18	Methylene chloride	0.707	0.743	0.598	0.520	0.553	0.472	0.481	0.483	0.522	------	0.564	17.63	6.4926
	19	Carbon disulfide	1.346	1.542	1.544	1.412	1.540	1.406	1.476	1.478	1.562	1.800	1.510	8.23	6.6107
3	20	Acrylonitrile	0.049	0.054	0.056	0.055	0.057	0.052	0.054	0.056	0.064	0.076	0.057	13.31	6.6033
	21	tert-Butyl methyl ether (MTBE)	0.507	0.542	0.529	0.545	0.591	0.501	0.511	0.524	0.573	0.704	0.553	10.94	6.6465
	22	trans-1,2-Dichloroethene	0.515	0.564	0.569	0.516	0.586	0.510	0.559	0.549	0.581	0.677	0.563	8.68	6.8831
	23	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	24	Isopropyl ether (DIPE)	1.401	1.479	1.341	1.288	1.413	1.209	1.271	1.268	1.312	1.606	1.359	8.72	7.1972
	25	Vinyl acetate	0.400	0.427	0.345	0.335	0.381	0.315	0.328	0.346	0.392	0.481	0.375	13.75	7.3327
	26	1,1-Dichloroethane	0.657	0.704	0.717	0.655	0.740	0.669	0.700	0.712	0.741	0.853	0.715	8.05	7.4176
	27	tert-Butyl ethyl ether (ETBE)	0.843	0.891	0.843	0.884	0.963	0.805	0.840	0.856	0.886	1.081	0.889	8.95	7.7198
2	28	2-Butanone	------	0.080	0.072	0.070	0.071	0.064	0.070	0.070	0.079	0.100	0.075	14.01	7.8853
	29	2,2-Dichloropropane	0.377	0.437	0.413	0.388	0.433	0.392	0.413	0.429	0.422	0.520	0.422	9.43	8.1425
	30	cis-1,2-Dichloroethene	0.596	0.638	0.598	0.579	0.644	0.574	0.605	0.617	0.640	0.764	0.626	8.71	8.1976
	31	tert-Butyl formate (TBF)	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	32	Chloroform	0.601	0.651	0.627	0.586	0.645	0.569	0.610	0.612	0.641	0.761	0.630	8.38	8.4015
	33	Bromochloromethane	0.254	0.286	0.296	0.291	0.326	0.282	0.293	0.291	0.320	0.367	0.301	10.16	8.6367
	34	Tetrahydrofuran	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	35	1,1,1-Trichloroethane	0.433	0.436	0.454	0.420	0.470	0.421	0.450	0.441	0.444	0.531	0.450	7.14	8.9493
	36	Cyclohexane	0.595	0.749	0.612	0.643	0.771	0.559	0.687	0.687	0.710	0.870	0.688	13.46	9.0104
	37	tert-Amyl methyl ether (TAME)	0.751	0.798	0.750	0.750	0.843	0.703	0.746	0.742	0.791	0.981	0.785	10.03	9.2262
	38	1,2-Dichloroethane-d4	0.237	0.246	0.237	0.204	0.257	0.200	0.216	0.228	0.219	0.294	0.234	11.87	9.3290
	39	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	15.1658
	40	1,1-Dichloropropene	0.195	0.211	0.201	0.183	0.214	0.194	0.204	0.200	0.202	0.243	0.205	7.81	9.1458
	41	Carbon tetrachloride	0.370	0.400	0.372	0.363	0.424	0.392	0.411	0.414	0.422	0.496	0.406	9.44	9.3141
	42	1,2-Dichloroethane	0.309	0.330	0.305	0.314	0.356	0.311	0.319	0.330	0.355	0.413	0.334	9.90	9.4555
	43	Benzene	1.635	1.661	1.604	1.502	1.732	1.582	1.649	1.676	1.691	1.985	1.672	7.60	9.5225
	44	Methylcyclohexane	0.417	0.691	0.469	0.609	0.783	0.542	0.724	0.706	0.731	------	0.630	20.36	10.4606
	45	Trichloroethene	0.409	0.444	0.427	0.406	0.473	0.434	0.457	0.445	0.451	0.542	0.449	8.61	10.3367
	46	1,2-Dichloropropane	0.457	0.467	0.430	0.420	0.492	0.430	0.448	0.449	0.465	0.567	0.463	9.13	10.5719
	47	Bromodichloromethane	0.489	0.474	0.447	0.441	0.523	0.452	0.470	0.483	0.503	0.597	0.488	9.39	10.9381
	48	Dibromomethane	0.149	0.175	0.159	0.172	0.201	0.170	0.174	0.178	0.193	0.226	0.180	12.24	11.0498
	49	2-Chloroethyl vinyl ether	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	50	4-Methyl-2-pentanone	0.308	0.264	0.236	0.215	0.229	0.206	0.212	0.212	0.231	0.291	0.240	14.77	11.3222
	51	cis-1,3-Dichloropropene	0.523	0.571	0.533	0.523	0.623	0.539	0.569	0.578	0.586	0.706	0.575	9.72	11.7554
	52	Toluene-d8	1.387	1.462	1.331	1.059	1.439	1.111	1.206	1.301	1.171	1.580	1.305	12.82	12.2407
	53	Toluene	0.941	1.005	0.951	0.877	1.024	0.940	0.974	0.978	0.988	1.176	0.985	7.94	12.3821
	54	Ethyl methacrylate	0.348	0.357	0.311	0.317	0.361	0.296	0.308	0.316	0.342	0.413	0.337	10.31	12.4818
	55	trans-1,3-Dichloropropene	0.387	0.395	0.363	0.380	0.451	0.390	0.403	0.406	0.430	0.523	0.413	11.12	12.6054
2	56	2-Hexanone	------	0.160	0.141	0.132	0.143	0.128	0.137	0.138	0.150	0.190	0.147	12.75	12.8341
	57	1,1,2-Trichloroethane	0.209	0.236	0.214	0.222	0.252	0.215	0.222	0.226	0.238	0.291	0.233	10.47	12.9329
	58	1,3-Dichloropropane	0.413	0.454	0.422	0.418	0.484	0.424	0.430	0.438	0.468	0.559	0.451	9.81	13.3944

4/13/07

59	Tetrachloroethene	0.275	0.322	0.309	0.282	0.330	0.300	0.318	0.315	0.321	0.382	0.315	9.36	13.6206
60	Dibromochloromethane	0.255	0.263	0.251	0.253	0.304	0.266	0.278	0.286	0.300	0.365	0.282	12.30	14.0002
61	1,2-Dibromoethane	0.187	0.203	0.208	0.207	0.241	0.209	0.217	0.220	0.237	0.282	0.221	12.01	14.4141
62	2-Ethyl-1-butanol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
63	1-Chlorohexane	0.692	0.735	0.729	0.658	0.772	0.712	0.760	0.753	0.741	0.887	0.744	8.17	14.5808
64	Chlorobenzene	0.921	0.959	0.917	0.873	1.007	0.912	0.950	0.955	0.971	1.148	0.961	7.84	15.2477
65	1,1,1,2-Tetrachloroethane	0.291	0.310	0.300	0.298	0.342	0.313	0.330	0.333	0.338	0.405	0.326	10.12	15.2938
66	Ethylbenzene	1.844	1.932	1.890	1.743	1.968	1.820	1.911	1.893	1.921	2.227	1.915	6.63	15.3028
2 67	m-Xylene & p-Xylene	1.446	1.492	1.442	1.287	1.503	1.392	1.448	1.443	1.427	1.611	1.449	5.68	15.4591
68	o-Xylene	1.416	1.459	1.473	1.340	1.546	1.392	1.447	1.424	1.465	1.704	1.467	6.80	16.4118
69	Styrene	0.881	1.028	0.972	0.924	1.089	0.982	1.021	1.018	1.037	1.242	1.019	9.63	16.4728
70	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	21.4344
71	Bromoform	0.253	0.328	0.319	0.323	0.378	0.328	0.352	0.361	0.387	------	0.337	11.90	17.2884
72	Isopropylbenzene	4.226	4.610	4.530	4.221	4.748	4.366	4.500	4.539	4.426	5.406	4.557	7.46	17.1680
73	1,1,2,2-Tetrachloroethane	0.779	0.804	0.736	0.727	0.843	0.707	0.747	0.735	0.783	0.994	0.785	10.69	17.5208
74	4-Bromofluorobenzene	------	------	------	1.043	1.344	0.985	1.075	1.167	------	------	1.123	12.46	17.7638
75	1,2,3-Trichloropropane	------	0.141	0.123	0.148	0.166	0.138	0.151	0.152	0.163	------	0.148	9.33	17.8669
76	trans-1,4-Dichloro-2-butene	------	------	0.134	0.153	0.162	0.139	0.148	0.152	0.160	0.205	0.157	13.84	17.9692
77	n-Propylbenzene	6.210	6.706	6.633	5.960	6.792	6.063	6.519	6.340	6.148	7.528	6.490	7.11	18.0776
78	Bromobenzene	0.838	0.965	0.899	0.863	0.993	0.887	0.922	0.916	0.934	1.136	0.935	8.96	18.2577
79	1,3,5-Trimethylbenzene	3.612	3.656	3.698	3.323	3.768	3.368	3.573	3.502	3.500	4.220	3.622	6.96	18.4259
80	2-Chlorotoluene	3.074	3.324	3.274	2.908	3.241	2.976	3.345	3.127	3.016	3.742	3.203	7.56	18.5375
81	4-Chlorotoluene	3.405	3.282	3.433	2.811	3.334	2.969	3.213	3.243	3.056	3.911	3.266	9.19	18.6298
82	tert-Butylbenzene	3.258	3.220	3.349	2.986	3.414	3.135	3.257	3.174	3.146	3.851	3.279	7.12	19.2580
83	1,2,4-Trimethylbenzene	3.526	3.645	3.721	3.350	3.774	3.397	3.576	3.448	3.495	4.148	3.608	6.47	19.3593
84	sec-Butylbenzene	5.185	5.330	5.561	4.873	5.490	5.017	5.271	5.274	5.066	6.239	5.331	7.15	19.7597
85	p-Isopropyltoluene	3.988	4.159	4.298	3.840	4.394	3.905	4.162	4.100	4.057	4.818	4.172	6.76	20.0649
86	1,3-Dichlorobenzene	1.879	1.988	2.023	1.809	2.049	1.839	1.935	1.897	1.905	2.332	1.965	7.63	20.3626
87	1,4-Dichlorobenzene	1.884	2.025	1.991	1.718	1.921	1.705	1.805	1.784	1.809	2.218	1.886	8.39	20.6052
88	n-Butylbenzene	4.630	4.698	4.707	4.188	4.622	4.281	4.509	4.512	4.372	5.165	4.568	5.98	21.0414
89	1,2-Dichlorobenzene	1.580	1.689	1.667	1.589	1.758	1.527	1.599	1.588	1.614	1.955	1.657	7.46	21.5029
90	1,2-Dibromo-3-chloropropane	------	------	0.073	0.090	0.105	0.088	0.096	0.097	0.109	------	0.094	12.58	23.3571
91	1,2,4-Trichlorobenzene	1.026	1.071	1.081	0.965	1.095	0.967	1.031	1.024	1.084	1.280	1.062	8.39	25.5073
92	Hexachlorobutadiene	0.687	0.664	0.763	0.669	0.782	0.713	0.760	0.744	0.743	0.893	0.742	9.03	25.8333
93	Naphthalene	1.614	1.726	1.415	1.361	1.568	1.356	1.453	1.482	1.681	1.981	1.564	12.46	26.1638
94	1,2,3-Trichlorobenzene	0.864	0.906	0.859	0.819	0.918	0.803	0.854	0.848	0.913	1.060	0.884	8.20	26.7577

Spike Amount = Nominal Amount * M
Ave_%RSD : 10.5 Max_%RSD : 32.4

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
2	Dichlorodifluoromethane	0.00341	0.27377	0.9972
4	Chloromethane	0.01853	0.52801	0.9984
5	Vinyl chloride	0.02045	0.41814	0.9953
18	Methylene chloride	0.00853	0.49559	0.9987
44	Methylcyclohexane	-0.00997	0.71063	0.9963

2023

4/13/23

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D11\RDE197.D Vial: 16
Acq On : 11 Apr 2007 6:24 pm Operator: DN
Sample : IVOD3D1102 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Apr 11 18:11:09 2007 * Not evaluated
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	10.000	8.949	10.5	99	0.02
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.56#
4	P,T	Chloromethane	10.000	8.515	14.8	90	0.02
5	C,T	Vinyl chloride	10.000	10.493	-4.9	105	0.02
6	T	Bromomethane	10.000	9.154	8.5	98	0.02
7	T	Chloroethane	10.000	9.411	5.9	102	0.02
8	T	Dichlorofluoromethane	10.000	9.969	0.3	107	0.02
9	T	Trichlorofluoromethane	10.000	9.135	8.7	102	0.02
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	108	0.11
11	T	Acrolein	20.000	21.716	-8.6	119	0.02
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	10.245	-2.4	107	0.00
13	T	Acetone	20.000	20.305	-1.5	116	0.00
14	C,TM	1,1-Dichloroethene	10.000	10.073	-0.7	105	0.00
15	T	tert-Butyl alcohol	50.000	51.956	-3.9	112	0.00
16	T	Methyl acetate *	10.000	1.480	85.2#	17	0.02
17	T	Iodomethane	10.000	10.485	-4.8	105	0.00
18	T	Methylene chloride	10.000	10.245	-2.4	108	0.00
19	T	Carbon disulfide	10.000	9.865	1.3	105	0.00
20	T	Acrylonitrile	30.000	33.276	-10.9	121	0.02
21	T	tert-Butyl methyl ether (MT	10.000	11.059	-10.6	121	0.00
22	T	trans-1,2-Dichloroethene	10.000	10.140	-1.4	111	0.00
23	T	Acetonitrile	-1.000	0.000	0.0	121	0.00
24	T	Isopropyl ether (DIPE)	10.000	10.266	-2.7	114	0.00
25	T	Vinyl acetate	10.000	11.268	-12.7	133	0.00
26	P,T	1,1-Dichloroethane	10.000	10.217	-2.2	108	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	10.789	-7.9	118	0.00
28	T	2-Butanone	20.000	21.951	-9.8	127	0.00
29	T	2,2-Dichloropropane	10.000	9.801	2.0	105	0.02
30	T	cis-1,2-Dichloroethene	10.000	10.164	-1.6	110	0.02
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	116	0.00
32	C,T	Chloroform	10.000	10.266	-2.7	113	0.00
33	T	Bromochloromethane	10.000	10.616	-6.2	112	0.00
34	T	Tetrahydrofuran	-1.000	0.000	0.0	127	0.02
35	T	1,1,1-Trichloroethane	10.000	9.981	0.2	106	0.00
36	T	Cyclohexane *	10.000	0.125	98.8#	2	-0.02
37	T	tert-Amyl methyl ether (TAM	10.000	10.923	-9.2	121	0.02
38	S	1,2-Dichloroethane-d4	10.000	10.071	-0.7	117	0.00
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	98	0.00
40	T	1,1-Dichloropropene	10.000	10.420	-4.2	108	0.00

(#) = Out of Range

4/13/07

2024

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D11\RDE197.D Vial: 16
Acq On : 11 Apr 2007 6:24 pm Operator: DN
Sample : IVOD3D1102 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Apr 11 18:11:09 2007
Response via : Multiple Level Calibration * Not evaluated

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	10.000	10.630	-6.3	108	0.02
42	T	1,2-Dichloroethane	10.000	11.140	-11.4	118	0.00
43	M,T	Benzene	10.000	10.439	-4.4	109	0.00
44	T	Methylcyclohexane *	10.000	0.218	97.8#	1	0.02
45	M,T	Trichloroethene	10.000	10.373	-3.7	106	0.00
46	C,T	1,2-Dichloropropane	10.000	10.629	-6.3	112	0.00
47	T	Bromodichloromethane	10.000	10.768	-7.7	114	0.00
48	T	Dibromomethane	10.000	11.521	-15.2	120	0.00
49	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.00
50	T	4-Methyl-2-pentanone	20.000	22.429	-12.1	129	0.00
51	T	cis-1,3-Dichloropropene	10.000	10.910	-9.1	115	0.00
52	S	Toluene-d8	10.000	9.553	4.5	110	0.00
53	C,TM	Toluene	10.000	10.612	-6.1	109	0.02
54	T	Ethyl methacrylate	10.000	11.215	-12.1	125	0.00
55	T	trans-1,3-Dichloropropene	10.000	11.123	-11.2	116	0.00
56	T	2-Hexanone	20.000	23.043	-15.2	129	0.02
57	T	1,1,2-Trichloroethane	10.000	11.251	-12.5	120	0.00
58	T	1,3-Dichloropropane	10.000	11.227	-12.3	118	0.00
59	T	Tetrachloroethene	10.000	10.396	-4.0	108	0.02
60	T	Dibromochloromethane	10.000	11.310	-13.1	118	0.00
61	T	1,2-Dibromoethane	10.000	11.346	-13.5	118	0.00
62	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	107	0.00
63	T	1-Chlorohexane	10.000	10.416	-4.2	107	0.00
64	P,M	Chlorobenzene	10.000	10.509	-5.1	109	0.00
65	T	1,1,1,2-Tetrachloroethane	10.000	10.882	-8.8	112	0.00
66	C,T	Ethylbenzene	10.000	10.261	-2.6	106	0.02
67	T	m-Xylene & p-Xylene	20.000	20.359	-1.8	104	0.00
68	T	o-Xylene	10.000	10.215	-2.1	106	0.00
69	T	Styrene	10.000	10.649	-6.5	109	0.00
70	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	102	0.02
71	P,T	Bromoform	10.000	11.633	-16.3	122	0.00
72	T	Isopropylbenzene	10.000	9.880	1.2	105	0.00
73	P,T	1,1,2,2-Tetrachloroethane	10.000	10.935	-9.4	124	0.00
74	S	4-Bromofluorobenzene	10.000	9.695	3.0	113	0.00
75	T	1,2,3-Trichloropropane	10.000	11.551	-15.5	126	0.00
76	T	trans-1,4-Dichloro-2-butene	10.000	10.850	-8.5	125	0.02
77	T	n-Propylbenzene	10.000	9.669	3.3	105	0.00
78	T	Bromobenzene	10.000	10.175	-1.8	109	0.00
79	T	1,3,5-Trimethylbenzene	10.000	9.581	4.2	105	0.00
80	T	2-Chlorotoluene	10.000	10.636	-6.4	117	0.00

(#) = Out of Range

4/13/07

2025

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07D11\RDE197.D Vial: 16
Acq On : 11 Apr 2007 6:24 pm Operator: DN
Sample : IVOD3D1102 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Wed Apr 11 18:11:09 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	10.000	9.882	1.2	111	0.00
82	T	tert-Butylbenzene	10.000	9.639	3.6	103	0.00
83	T	1,2,4-Trimethylbenzene	10.000	9.447	5.5	102	0.00
84	T	sec-Butylbenzene	10.000	9.589	4.1	104	0.00
85	T	p-Isopropyltoluene	10.000	9.544	4.6	104	0.02
86	T	1,3-Dichlorobenzene	10.000	9.835	1.6	107	0.02
87	T	1,4-Dichlorobenzene	10.000	9.600	4.0	108	0.00
88	T	n-Butylbenzene	10.000	9.213	7.9	100	0.00
89	T	1,2-Dichlorobenzene	10.000	9.981	0.2	110	0.00
90	T	1,2-Dibromo-3-chloropropane	10.000	11.463	-14.6	126	0.00
91	T	1,2,4-Trichlorobenzene	10.000	9.884	1.2	111	0.00
92	T	Hexachlorobutadiene	10.000	9.826	1.7	104	0.00
93	T	Naphthalene	10.000	10.295	-2.9	121	0.00
94	T	1,2,3-Trichlorobenzene	10.000	10.127	-1.3	114	0.00

4/13/07
2026

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07E184
Lab File ID: REE470
BFB Injection Date : 05/18/07
Instrument ID: T-OD3
BFB Injection Time : 13:22
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.30
75	30.0 - 60.0% of mass 95	42.85
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.98
173	Less than 2.0% of mass 174	0.25(0.3)1
174	Greater than 50% of mass 95	72.13
175	5.0 - 9.0% of mass 174	5.10(7.1)1
176	95.0 - 101.0% of mass 174	69.67(96.6)1
177	5.0 - 9.0% of mass 176	4.62(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CVOD3D11107	REE473	05/18/07	15:47
2	MBLK1W	VOD3E39Q	REE477	05/18/07	18:12
3	LCS1W	VOD3E39L	REE474	05/18/07	16:23
4	LCD1W	VOD3E39C	REE475	05/18/07	16:59
5	LTB-051107	E184-01	REE479	05/18/07	19:24
6	F39-HSAS2@10	E184-02	REE480	05/18/07	20:01
7	F39-HSAS2@10MS	E184-02M	REE487	05/19/07	00:15
8	F39-HSAS2@10MSD	E184-02S	REE488	05/19/07	00:51

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDE189
Instrument ID: T-OD3
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07E184
Date Analyzed: 04/11/07
Time Analyzed: 13:27
Heated Purge: (Y/N)

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2144946	9.80	1822817	15.16	697424	21.43
	UPPER LIMIT	4289892	10.30	3645634	15.66	1394848	21.93
	LOWER LIMIT	1072473	9.30	911409	14.66	348712	20.93
	SAMPLE ID						
1	VSTD010	1948313	9.84	1776003	15.24	732917	21.53
2	MBLK1W	2673466	9.85	2416533	15.26	874602	21.54
3	LCS1W	2170700	9.88	1994184	15.26	816907	21.54
4	LCD1W	2373208	9.85	2124641	15.25	840675	21.54
5	LTB-051107	2351200	9.87	2155615	15.27	793745	21.53
6	F39-HSAS2@10	2437664	9.86	2154455	15.26	794191	21.53
7	F39-HSAS2@10MS	1576674	9.87	1510637	15.25	641491	21.53
8	F39-HSAS2@10MSD	1955092	9.87	1815090	15.25	731643	21.53

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE473.D Vial: 4
Acq On : 18 May 2007 3:47 pm Operator: DN
Sample : CVOD3D11107 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	91	0.04
2	T	Dichlorodifluoromethane	10.000	11.148	-11.5	113	-0.06
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.56#
4	P,T	Chloromethane	10.000	11.856	-18.6	114	-0.04
5	C,T	Vinyl chloride	10.000	11.466	-14.7 ✓	105	-0.06
6	T	Bromomethane	10.000	11.738	-17.4	115	-0.05
7	T	Chloroethane	10.000	9.182	8.2	91	-0.02
8	T	Dichlorofluoromethane	10.000	10.707	-7.1	105	-0.02
9	T	Trichlorofluoromethane	10.000	10.675	-6.8	109	-0.02
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	36	0.03
11	T	Acrolein	20.000	16.485	17.6	83	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	8.507	14.9	81	-0.02
13	T	Acetone	20.000	19.640	1.8	103	0.01
14	C,TM	1,1-Dichloroethene	10.000	9.402	6.0 ✓	89	-0.02
15	T	tert-Butyl alcohol	50.000	39.300	21.4#	78	0.03
16	T	Methyl acetate	10.000	10.424	-4.2	111	0.00
17	T	Iodomethane	10.000	6.508	NT 34.9#	60	0.00
18	T	Methylene chloride	10.000	9.020	9.8	88	0.00
19	T	Carbon disulfide	10.000	6.923	30.8#	68	-0.02
20	T	Acrylonitrile	30.000	26.699	11.0	89	0.01
21	T	tert-Butyl methyl ether (MT	10.000	7.086	29.1#	71	0.03
22	T	trans-1,2-Dichloroethene	10.000	7.623	23.8#	76	0.00
23	T	Acetonitrile	-1.000	0.000	0.0	98	0.03
24	T	Isopropyl ether (DIPE)	10.000	6.650	33.5#	68	0.03
25	T	Vinyl acetate	10.000	8.632	13.7	93	0.03
26	P,T	1,1-Dichloroethane	10.000	9.760	2.4	95	0.00
27	T	tert-Butyl ethyl ether (ETB	10.000	8.030	19.7	81	0.04
28	T	2-Butanone	20.000	19.340	3.3	103	0.04
29	T	2,2-Dichloropropane	10.000	9.576	4.2	94	0.03
30	T	cis-1,2-Dichloroethene	10.000	9.954	0.5	98	0.03
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0 ✓	97	0.01
32	C,T	Chloroform	10.000	9.500	5.0 ✓	96	0.03
33	T	Bromochloromethane	10.000	10.644	-6.4	103	0.03
34	T	Tetrahydrofuran	-1.000	0.000	0.0	87	0.06
35	T	1,1,1-Trichloroethane	10.000	8.956	10.4	87	0.03
36	T	Cyclohexane	10.000	11.701	-17.0	131	0.01
37	T	tert-Amyl methyl ether (TAM	10.000	6.888	31.1#	70	0.06
38	S	1,2-Dichloroethane-d4	10.000	9.915	0.9	105	0.04
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	97	0.08
40	T	1,1-Dichloropropene	10.000	8.673	13.3	89	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE473.D Vial: 4
Acq On : 18 May 2007 3:47 pm Operator: DN
Sample : CVOD3D11107 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	10.000	8.984	10.2	91	0.03
42	T	1,2-Dichloroethane	10.000	10.468	-4.7	110	0.04
43	M,T	Benzene	10.000	9.625	3.8	99	0.04
44	T	Methylcyclohexane	10.000	9.200	8.0	116	0.05
45	M,T	Trichloroethene	10.000	9.438	5.6	95	0.04
46	C,T	1,2-Dichloropropane	10.000	10.842	-8.4	114	0.05
47	T	Bromodichloromethane	10.000	9.589	4.1	101	0.07
48	T	Dibromomethane	10.000	10.931	-9.3	113	0.05
49	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.07
50	T	4-Methyl-2-pentanone	20.000	20.118	-0.6	114	0.08
51	T	cis-1,3-Dichloropropene	10.000	9.574	4.3	100	0.07
52	S	Toluene-d8	10.000	9.197	8.0	105	0.07
53	C,TM	Toluene	10.000	10.206	-2.1	104	0.07
54	T	Ethyl methacrylate	10.000	9.297	7.0	103	0.08
55	T	trans-1,3-Dichloropropene	10.000	9.246	7.5	95	0.08
56	T	2-Hexanone	20.000	20.657	-3.3	115	0.10
57	T	1,1,2-Trichloroethane	10.000	11.297	-13.0	119	0.08
58	T	1,3-Dichloropropane	10.000	10.468	-4.7	108	0.08
59	T	Tetrachloroethene	10.000	9.589	4.1	98	0.08
60	T	Dibromochloromethane	10.000	10.131	-1.3	105	0.08
61	T	1,2-Dibromoethane	10.000	11.352	-13.5	117	0.08
62	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	85	0.08
63	T	1-Chlorohexane	10.000	8.226	17.7	84	0.08
64	P,M	Chlorobenzene	10.000	11.276	-12.8	116	0.08
65	T	1,1,1,2-Tetrachloroethane	10.000	10.237	-2.4	104	0.08
66	C,T	Ethylbenzene	10.000	10.187	-1.9	104	0.09
67	T	m-Xylene & p-Xylene	20.000	19.764	1.2	100	0.00
68	T	o-Xylene	10.000	10.102	-1.0	104	0.08
69	T	Styrene	10.000	10.946	-9.5	111	0.09
70	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	105	0.10
71	P,T	Bromoform	10.000	10.856	-8.6	117	0.09
72	T	Isopropylbenzene	10.000	9.679	3.2	106	0.08
73	P,T	1,1,2,2-Tetrachloroethane	10.000	10.329	-3.3	121	0.08
74	S	4-Bromofluorobenzene	10.000	9.653	3.5	116	0.08
75	T	1,2,3-Trichloropropane	10.000	11.316	-13.2	128	0.09
76	T	trans-1,4-Dichloro-2-butene	10.000	8.118	18.8	96	0.11
77	T	n-Propylbenzene	10.000	9.271	7.3	104	0.09
78	T	Bromobenzene	10.000	10.023	-0.2	111	0.09
79	T	1,3,5-Trimethylbenzene	10.000	9.446	5.5	107	0.09
80	T	2-Chlorotoluene	10.000	9.511	4.9	108	0.09

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE473.D Vial: 4
Acq On : 18 May 2007 3:47 pm Operator: DN
Sample : CVOD3D11107 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	10.000	9.235	7.7	107	0.09
82	T	tert-Butylbenzene	10.000	9.184	8.2	101	0.09
83	T	1,2,4-Trimethylbenzene	10.000	9.747	2.5	109	0.09
84	T	sec-Butylbenzene	10.000	9.511	4.9	106	0.09
85	T	p-Isopropyltoluene	10.000	8.929	10.7	100	0.11
86	T	1,3-Dichlorobenzene	10.000	9.609	3.9	108	0.11
87	T	1,4-Dichlorobenzene	10.000	9.435	5.6	110	0.09
88	T	n-Butylbenzene	10.000	8.837	11.6	99	0.09
89	T	1,2-Dichlorobenzene	10.000	10.035	-0.4	114	0.09
90	T	1,2-Dibromo-3-chloropropane	10.000	9.619	3.8	109	0.09
91	T	1,2,4-Trichlorobenzene	10.000	10.546	-5.5	122	0.10
92	T	Hexachlorobutadiene	10.000	7.793	22.1#	85	0.09
93	T	Naphthalene	10.000	9.989	0.1	121	0.10
94	T	1,2,3-Trichlorobenzene	10.000	11.274	-12.7	131	0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE473.D Vial: 4
Acq On : 18 May 2007 3:47 pm Operator: DN
Sample : CVOD3D11107 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	91	0.04
2	T	Dichlorodifluoromethane	0.299	0.309	-3.3	113	-0.06
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	-3.56#
4	P,T	Chloromethane	0.663	0.645	2.7	114	-0.04
5	C,T	Vinyl chloride	0.549	0.500	8.9	105	-0.06
6	T	Bromomethane	0.351	0.412	-17.4	115	-0.05
7	T	Chloroethane	0.300	0.275	8.3	91	-0.02
8	T	Dichlorofluoromethane	0.837	0.896	-7.0	105	-0.02
9	T	Trichlorofluoromethane	0.387	0.414	-7.0	109	-0.02
10	T	sec-Propyl alcohol	0.000	0.000	0.0	36#	0.03
11	T	Acrolein	0.021	0.017	19.0	83	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	0.231	0.196	15.2	81	-0.02
13	T	Acetone	0.051	0.050	2.0	103	0.01
14	C,TM	1,1-Dichloroethene	0.496	0.467	5.8	89	-0.02
15	T	tert-Butyl alcohol	0.015	0.012	20.0	78	0.03
16	T	Methyl acetate	0.132	0.137	-3.8	111	0.00
17	T	Iodomethane	0.554	0.361	34.8#	60	0.00
18	T	Methylene chloride	0.564	0.456	19.1	88	0.00
19	T	Carbon disulfide	1.510	1.046	30.7#	68	-0.02
20	T	Acrylonitrile	0.057	0.051	10.5	89	0.01
21	T	tert-Butyl methyl ether (MT	0.553	0.392	29.1#	71	0.03
22	T	trans-1,2-Dichloroethene	0.563	0.429	23.8#	76	0.00
23	T	Acetonitrile	0.000	0.000	0.0	98	0.03
24	T	Isopropyl ether (DIPE)	1.359	0.904	33.5#	68	0.03
25	T	Vinyl acetate	0.375	0.324	13.6	93	0.03
26	P,T	1,1-Dichloroethane	0.715	0.698	2.4	95	0.00
27	T	tert-Butyl ethyl ether (ETB	0.889	0.714	19.7	81	0.04
28	T	2-Butanone	0.075	0.073	2.7	103	0.04
29	T	2,2-Dichloropropane	0.422	0.404	4.3	94	0.03
30	T	cis-1,2-Dichloroethene	0.626	0.623	0.5	98	0.03
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	97	0.01
32	C,T	Chloroform	0.630	0.599	4.9	96	0.03
33	T	Bromochloromethane	0.301	0.320	-6.3	103	0.03
34	T	Tetrahydrofuran	0.000	0.000	0.0	87	0.06
35	T	1,1,1-Trichloroethane	0.450	0.403	10.4	87	0.03
36	T	Cyclohexane	0.688	0.805	-17.0	131	0.01
37	T	tert-Amyl methyl ether (TAM	0.785	0.541	31.1#	70	0.06
38	S	1,2-Dichloroethane-d4	0.234	0.232	0.9	105	0.04
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	97	0.08
40	T	1,1-Dichloropropene	0.205	0.178	13.2	89	0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE473.D Vial: 4
Acq On : 18 May 2007 3:47 pm Operator: DN
Sample : CVOD3D11107 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.406	0.365	10.1	91	0.03
42	T	1,2-Dichloroethane	0.334	0.350	-4.8	110	0.04
43	M,T	Benzene	1.672	1.609	3.8	99	0.04
44	T	Methylcyclohexane	0.630	0.644	-2.2	116	0.05
45	M,T	Trichloroethene	0.449	0.424	5.6	95	0.04
46	C,T	1,2-Dichloropropane	0.463	0.501	-8.2	114	0.05
47	T	Bromodichloromethane	0.488	0.468	4.1	101	0.07
48	T	Dibromomethane	0.180	0.196	-8.9	113	0.05
49	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.07
50	T	4-Methyl-2-pentanone	0.240	0.242	-0.8	114	0.08
51	T	cis-1,3-Dichloropropene	0.575	0.551	4.2	100	0.07
52	S	Toluene-d8	1.305	1.200	8.0	105	0.07
53	C,TM	Toluene	0.985	1.006	-2.1	104	0.07
54	T	Ethyl methacrylate	0.337	0.313	7.1	103	0.08
55	T	trans-1,3-Dichloropropene	0.413	0.382	7.5	95	0.08
56	T	2-Hexanone	0.147	0.151	-2.7	115	0.10
57	T	1,1,2-Trichloroethane	0.233	0.263	-12.9	119	0.08
58	T	1,3-Dichloropropane	0.451	0.472	-4.7	108	0.08
59	T	Tetrachloroethene	0.315	0.302	4.1	98	0.08
60	T	Dibromochloromethane	0.282	0.286	-1.4	105	0.08
61	T	1,2-Dibromoethane	0.221	0.251	-13.6	117	0.08
62	T	2-Ethyl-1-butanol	0.000	0.000	0.0	85	0.08
63	T	1-Chlorohexane	0.744	0.612	17.7	84	0.08
64	P,M	Chlorobenzene	0.961	1.084	-12.8	116	0.08
65	T	1,1,1,2-Tetrachloroethane	0.326	0.334	-2.5	104	0.08
66	C,T	Ethylbenzene	1.915	1.951	-1.9	104	0.09
67	T	m-Xylene & p-Xylene	1.449	1.432	1.2	100	0.00
68	T	o-Xylene	1.467	1.481	-1.0	104	0.08
69	T	Styrene	1.019	1.116	-9.5	111	0.09
70	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	105	0.10
71	P,T	Bromoform	0.337	0.365	-8.3	117	0.09
72	T	Isopropylbenzene	4.557	4.411	3.2	106	0.08
73	P,T	1,1,2,2-Tetrachloroethane	0.785	0.811	-3.3	121	0.08
74	S	4-Bromofluorobenzene	1.123	1.084	3.5	116	0.08
75	T	1,2,3-Trichloropropane	0.148	0.167	-12.8	128	0.09
76	T	trans-1,4-Dichloro-2-butene	0.157	0.127	19.1	96	0.11
77	T	n-Propylbenzene	6.490	6.017	7.3	104	0.09
78	T	Bromobenzene	0.935	0.938	-0.3	111	0.09
79	T	1,3,5-Trimethylbenzene	3.622	3.421	5.5	107	0.09
80	T	2-Chlorotoluene	3.203	3.046	4.9	108	0.09

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE473.D Vial: 4
Acq On : 18 May 2007 3:47 pm Operator: DN
Sample : CVOD3D11107 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	3.266	3.016	7.7	107	0.09
82	T	tert-Butylbenzene	3.279	3.012	8.1	101	0.09
83	T	1,2,4-Trimethylbenzene	3.608	3.516	2.5	109	0.09
84	T	sec-Butylbenzene	5.331	5.070	4.9	106	0.09
85	T	p-Isopropyltoluene	4.172	3.725	10.7	100	0.11
86	T	1,3-Dichlorobenzene	1.965	1.889	3.9	108	0.11
87	T	1,4-Dichlorobenzene	1.886	1.780	5.6	110	0.09
88	T	n-Butylbenzene	4.568	4.037	11.6	99	0.09
89	T	1,2-Dichlorobenzene	1.657	1.663	-0.4	114	0.09
90	T	1,2-Dibromo-3-chloropropane	0.094	0.090	4.3	109	0.09
91	T	1,2,4-Trichlorobenzene	1.062	1.121	-5.6	122	0.10
92	T	Hexachlorobutadiene	0.742	0.578	22.1#	85	0.09
93	T	Naphthalene	1.564	1.562	0.1	121	0.10
94	T	1,2,3-Trichlorobenzene	0.884	0.997	-12.8	131	0.10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Contract: LMC BEAUMONT SITE 1
Lab Code: EMXT Case No.:
SAS No.: SDG No.: 07E184
Lab File ID: REE510
BFB Injection Date : 05/19/07
Instrument ID: T-OD3
BFB Injection Time : 14:09
GC Column:RTX502.2ID:0.32mm (mm)
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.19
75	30.0 - 60.0% of mass 95	41.57
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.73
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	77.24
175	5.0 - 9.0% of mass 174	5.50(7.1)1
176	95.0 - 101.0% of mass 174	73.38(95.0)1
177	5.0 - 9.0% of mass 176	4.40(6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CVOD3D11112	REE513	05/19/07	15:58
2	MBLK2W	VOD3E43Q	REE516	05/19/07	17:47
3	LCS2W	VOD3E43L	REE514	05/19/07	16:34
4	LCD2W	VOD3E43C	REE529	05/20/07	01:37
5	F39-HSAS2@20	E184-03	REE525	05/19/07	23:12
6	F39-HSAS2@120	E184-04	REE526	05/19/07	23:49
7	F39-HSAS4@20	E184-05	REE527	05/20/07	00:25
8	F39-HSAS3@20	E184-06	REE528	05/20/07	01:01

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDE189
Instrument ID: T-QD3
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07E184
Date Analyzed: 04/11/07
Time Analyzed: 13:27
Heated Purge: (Y/N)

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2144946	9.80	1822817	15.16	697424	21.43
	UPPER LIMIT	4289892	10.30	3645634	15.66	1394848	21.93
	LOWER LIMIT	1072473	9.30	911409	14.66	348712	20.93
	SAMPLE ID						
1	VSTD010	2152154	9.86	1839763	15.26	722018	21.54
2	MBLK2W	2392053	9.86	2161575	15.26	833577	21.53
3	LCS2W	1993645	9.88	1732996	15.26	728802	21.54
4	LCD2W	2055466	9.87	1867115	15.26	763508	21.54
5	F39-HSAS2@20	2462130	9.88	2171349	15.26	820989	21.54
6	F39-HSAS2@120	2635942	9.86	2306289	15.26	862801	21.53
7	F39-HSAS4@20	2565334	9.86	2235301	15.26	825938	21.54
8	F39-HSAS3@20	2574638	9.86	2262931	15.26	842245	21.54

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE513.D Vial: 5
Acq On : 19 May 2007 3:58 pm Operator: DN
Sample : CVOD3D11112 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	100	0.06
2	T	Dichlorodifluoromethane	10.000	9.938	0.6	112	-0.06
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-3.56#
4	P,T	Chloromethane	10.000	9.101	9.0	97	-0.04
5	C,T	Vinyl chloride	10.000	9.915	0.9 ✓	101	-0.04
6	T	Bromomethane	10.000	9.170	8.3	99	-0.04
7	T	Chloroethane	10.000	7.997	20.0#	87	-0.01
8	T	Dichlorofluoromethane	10.000	9.619	3.8	104	-0.01
9	T	Trichlorofluoromethane	10.000	9.720	2.8	110	-0.01
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	43	0.02
11	T	Acrolein	20.000	10.760	MT 46.2#	60	0.02
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.372	6.3	99	0.00
13	T	Acetone	20.000	19.108	4.5	111	0.02
14	C,TM	1,1-Dichloroethene	10.000	9.508	4.9 ✓	100	-0.01
15	T	tert-Butyl alcohol	50.000	48.476	3.0	106	0.03
16	T	Methyl acetate	10.000	11.351	-13.5	134	0.02
17	T	Iodomethane	10.000	5.245	MT 47.5#	53	0.00
18	T	Methylene chloride	10.000	9.868	1.3	106	0.00
19	T	Carbon disulfide	10.000	7.680	23.2#	83	0.00
20	T	Acrylonitrile	30.000	33.602	-12.0	123	0.03
21	T	tert-Butyl methyl ether (MT	10.000	9.180	8.2	102	0.03
22	T	trans-1,2-Dichloroethene	10.000	9.666	3.3	107	0.01
23	T	Acetonitrile	-1.000	0.000	0.0	142	0.03
24	T	Isopropyl ether (DIPE)	10.000	9.582	4.2	108	0.04
25	T	Vinyl acetate	10.000	7.615	23.8#	91	0.04
26	P,T	1,1-Dichloroethane	10.000	10.342	-3.4	111	0.01
27	T	tert-Butyl ethyl ether (ETB	10.000	8.867	11.3	98	0.04
28	T	2-Butanone	20.000	21.024	-5.1	123	0.06
29	T	2,2-Dichloropropane	10.000	7.145	28.6#	77	0.04
30	T	cis-1,2-Dichloroethene	10.000	10.109	-1.1	110	0.04
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	120	0.03
32	C,T	Chloroform	10.000	10.367	-3.7 ✓	115	0.04
33	T	Bromochloromethane	10.000	11.166	-11.7	119	0.03
34	T	Tetrahydrofuran	-1.000	0.000	0.0	119	0.06
35	T	1,1,1-Trichloroethane	10.000	9.645	3.6	104	0.04
36	T	Cyclohexane	10.000	11.431	-14.3	141	0.03
37	T	tert-Amyl methyl ether (TAM	10.000	7.527	24.7#	84	0.06
38	S	1,2-Dichloroethane-d4	10.000	10.301	-3.0	121	0.06
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	101	0.10
40	T	1,1-Dichloropropene	10.000	9.540	4.6	101	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE513.D Vial: 5
Acq On : 19 May 2007 3:58 pm Operator: DN
Sample : CVOD3D11112 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	10.000	10.087	-0.9	105	0.04
42	T	1,2-Dichloroethane	10.000	11.387	-13.9	124	0.04
43	M,T	Benzene	10.000	10.355	-3.6	110	0.06
44	T	Methylcyclohexane	10.000	10.300	-3.0	134	0.06
45	M,T	Trichloroethene	10.000	10.900	-9.0	114	0.06
46	C,T	1,2-Dichloropropane	10.000	11.908	-19.1	129	0.06
47	T	Bromodichloromethane	10.000	10.448	-4.5	114	0.07
48	T	Dibromomethane	10.000	11.981	-19.8	128	0.07
49	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.07
50	T	4-Methyl-2-pentanone	20.000	21.651	-8.3	128	0.09
51	T	cis-1,3-Dichloropropene	10.000	9.832	1.7	106	0.08
52	S	Toluene-d8	10.000	9.588	4.1	114	0.07
53	C,TM	Toluene	10.000	10.600	-6.0	112	0.08
54	T	Ethyl methacrylate	10.000	10.420	-4.2	120	0.08
55	T	trans-1,3-Dichloropropene	10.000	9.399	6.0	100	0.08
56	T	2-Hexanone	20.000	22.035	-10.2	127	0.10
57	T	1,1,2-Trichloroethane	10.000	12.698	-27.0#	139	0.08
58	T	1,3-Dichloropropane	10.000	11.795	-17.9	127	0.08
59	T	Tetrachloroethene	10.000	10.167	-1.7	108	0.08
60	T	Dibromochloromethane	10.000	11.405	-14.0	122	0.08
61	T	1,2-Dibromoethane	10.000	12.708	-27.1#	136	0.08
62	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	93	0.08
63	T	1-Chlorohexane	10.000	8.626	13.7	91	0.08
64	P,M	Chlorobenzene	10.000	11.565	-15.6	123	0.08
65	T	1,1,1,2-Tetrachloroethane	10.000	11.159	-11.6	117	0.10
66	C,T	Ethylbenzene	10.000	10.483	-4.8	111	0.10
67	T	m-Xylene & p-Xylene	20.000	19.707	1.5	104	0.00
68	T	o-Xylene	10.000	10.102	-1.0	107	0.10
69	T	Styrene	10.000	10.957	-9.6	115	0.10
70	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	104	0.11
71	P,T	Bromoform	10.000	12.904	-29.0#	137	0.10
72	T	Isopropylbenzene	10.000	10.299	-3.0	111	0.10
73	P,T	1,1,2,2-Tetrachloroethane	10.000	12.028	-20.3#	138	0.09
74	S	4-Bromofluorobenzene	10.000	9.841	1.6	116	0.10
75	T	1,2,3-Trichloropropane	10.000	13.762	-37.6#	153	0.09
76	T	trans-1,4-Dichloro-2-butene	10.000	8.270	17.3	97	0.11
77	T	n-Propylbenzene	10.000	9.653	3.5	107	0.09
78	T	Bromobenzene	10.000	10.724	-7.2	117	0.09
79	T	1,3,5-Trimethylbenzene	10.000	9.688	3.1	108	0.09
80	T	2-Chlorotoluene	10.000	9.865	1.3	110	0.09

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE513.D Vial: 5
Acq On : 19 May 2007 3:58 pm Operator: DN
Sample : CVOD3D11112 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	10.000	9.599	4.0	109	0.09
82	T	tert-Butylbenzene	10.000	10.013	-0.1	108	0.09
83	T	1,2,4-Trimethylbenzene	10.000	9.868	1.3	109	0.09
84	T	sec-Butylbenzene	10.000	10.152	-1.5	112	0.09
85	T	p-Isopropyltoluene	10.000	9.290	7.1	103	0.11
86	T	1,3-Dichlorobenzene	10.000	9.842	1.6	109	0.11
87	T	1,4-Dichlorobenzene	10.000	9.752	2.5	112	0.09
88	T	n-Butylbenzene	10.000	8.791	12.1	97	0.09
89	T	1,2-Dichlorobenzene	10.000	10.286	-2.9	116	0.09
90	T	1,2-Dibromo-3-chloropropane	10.000	11.441	-14.4	127	0.09
91	T	1,2,4-Trichlorobenzene	10.000	10.430	-4.3	119	0.10
92	T	Hexachlorobutadiene	10.000	8.389	16.1	90	0.09
93	T	Naphthalene	10.000	12.156	-21.6#	145	0.10
94	T	1,2,3-Trichlorobenzene	10.000	11.464	-14.6	131	0.10

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE513.D Vial: 5
Acq On : 19 May 2007 3:58 pm Operator: DN
Sample : CVOD3D11112 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000		0.0	100	0.06
2	T	Dichlorodifluoromethane	0.299	0.275		8.0	112	-0.06
3	T	Dichlorotetrafluoroethane	0.000	0.000		0.0	0#	-3.56#
4	P,T	Chloromethane	0.663	0.499	/	24.7#	97	-0.04
5	C,T	Vinyl chloride	0.549	0.435		20.8#	101	-0.04
6	T	Bromomethane	0.351	0.322		8.3	99	-0.04
7	T	Chloroethane	0.300	0.240		20.0	87	-0.01
8	T	Dichlorofluoromethane	0.837	0.805		3.8	104	-0.01
9	T	Trichlorofluoromethane	0.387	0.377		2.6	110	-0.01
10	T	sec-Propyl alcohol	0.000	0.000		0.0	43#	0.02
11	T	Acrolein	0.021	0.011		47.6#	60	0.02
12	T	1,1,2-Trichloro-1,2,2-trifl	0.231	0.216		6.5	99	0.00
13	T	Acetone	0.051	0.048		5.9	111	0.02
14	C,TM	1,1-Dichloroethene	0.496	0.472		4.8	100	-0.01
15	T	tert-Butyl alcohol	0.015	0.015		0.0	106	0.03
16	T	Methyl acetate	0.132	0.150		-13.6	134	0.02
17	T	Iodomethane	0.554	0.291		47.5#	53	0.00
18	T	Methylene chloride	0.564	0.498		11.7	106	0.00
19	T	Carbon disulfide	1.510	1.160		23.2#	83	0.00
20	T	Acrylonitrile	0.057	0.064		-12.3	123	0.03
21	T	tert-Butyl methyl ether (MT	0.553	0.507		8.3	102	0.03
22	T	trans-1,2-Dichloroethene	0.563	0.544		3.4	107	0.01
23	T	Acetonitrile	0.000	0.000		0.0	142	0.03
24	T	Isopropyl ether (DIPE)	1.359	1.302		4.2	108	0.04
25	T	Vinyl acetate	0.375	0.286		23.7#	91	0.04
26	P,T	1,1-Dichloroethane	0.715	0.739	/	-3.4	111	0.01
27	T	tert-Butyl ethyl ether (ETB	0.889	0.788		11.4	98	0.04
28	T	2-Butanone	0.075	0.079		-5.3	123	0.06
29	T	2,2-Dichloropropane	0.422	0.302		28.4#	77	0.04
30	T	cis-1,2-Dichloroethene	0.626	0.632		-1.0	110	0.04
31	T	tert-Butyl formate (TBF)	0.000	0.000		0.0	120	0.03
32	C,T	Chloroform	0.630	0.653		-3.7	115	0.04
33	T	Bromochloromethane	0.301	0.336		-11.6	119	0.03
34	T	Tetrahydrofuran	0.000	0.000		0.0	119	0.06
35	T	1,1,1-Trichloroethane	0.450	0.434		3.6	104	0.04
36	T	Cyclohexane	0.688	0.787		-14.4	141	0.03
37	T	tert-Amyl methyl ether (TAM	0.785	0.591		24.7#	84	0.06
38	S	1,2-Dichloroethane-d4	0.234	0.241		-3.0	121	0.06
39	I	CHLOROBENZENE-D5	1.000	1.000		0.0	101	0.10
40	T	1,1-Dichloropropene	0.205	0.195		4.9	101	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE513.D Vial: 5
Acq On : 19 May 2007 3:58 pm Operator: DN
Sample : CVOD3D11112 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.406	0.410	-1.0	105	0.04
42	T	1,2-Dichloroethane	0.334	0.381	-14.1	124	0.04
43	M,T	Benzene	1.672	1.731	-3.5	110	0.06
44	T	Methylcyclohexane	0.630	0.722	-14.6	134	0.06
45	M,T	Trichloroethene	0.449	0.489	-8.9	114	0.06
46	C,T	1,2-Dichloropropane	0.463	0.551	-19.0	129	0.06
47	T	Bromodichloromethane	0.488	0.510	-4.5	114	0.07
48	T	Dibromomethane	0.180	0.215	-19.4	128	0.07
49	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.07
50	T	4-Methyl-2-pentanone	0.240	0.260	-8.3	128	0.09
51	T	cis-1,3-Dichloropropene	0.575	0.565	1.7	106	0.08
52	S	Toluene-d8	1.305	1.251	4.1	114	0.07
53	C,TM	Toluene	0.985	1.045	-6.1	112	0.08
54	T	Ethyl methacrylate	0.337	0.351	-4.2	120	0.08
55	T	trans-1,3-Dichloropropene	0.413	0.388	6.1	100	0.08
56	T	2-Hexanone	0.147	0.161	-9.5	127	0.10
57	T	1,1,2-Trichloroethane	0.233	0.295	-26.6#	139	0.08
58	T	1,3-Dichloropropane	0.451	0.532	-18.0	127	0.08
59	T	Tetrachloroethene	0.315	0.321	-1.9	108	0.08
60	T	Dibromochloromethane	0.282	0.322	-14.2	122	0.08
61	T	1,2-Dibromoethane	0.221	0.281	-27.1#	136	0.08
62	T	2-Ethyl-1-butanol	0.000	0.000	0.0	93	0.08
63	T	1-Chlorohexane	0.744	0.642	13.7	91	0.08
64	P,M	Chlorobenzene	0.961	1.112	-15.7	123	0.08
65	T	1,1,1,2-Tetrachloroethane	0.326	0.364	-11.7	117	0.10
66	C,T	Ethylbenzene	1.915	2.007	-4.8	111	0.10
67	T	m-Xylene & p-Xylene	1.449	1.428	1.4	104	0.00
68	T	o-Xylene	1.467	1.482	-1.0	107	0.10
69	T	Styrene	1.019	1.117	-9.6	115	0.10
70	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	104	0.11
71	P,T	Bromoform	0.337	0.434	-28.8#	137	0.10
72	T	Isopropylbenzene	4.557	4.694	-3.0	111	0.10
73	P,T	1,1,2,2-Tetrachloroethane	0.785	0.945	-20.4#	138	0.09
74	S	4-Bromofluorobenzene	1.123	1.105	1.6	116	0.10
75	T	1,2,3-Trichloropropane	0.148	0.203	-37.2#	153	0.09
76	T	trans-1,4-Dichloro-2-butene	0.157	0.130	17.2	97	0.11
77	T	n-Propylbenzene	6.490	6.265	3.5	107	0.09
78	T	Bromobenzene	0.935	1.003	-7.3	117	0.09
79	T	1,3,5-Trimethylbenzene	3.622	3.509	3.1	108	0.09
80	T	2-Chlorotoluene	3.203	3.160	1.3	110	0.09

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E18\REE513.D Vial: 5
Acq On : 19 May 2007 3:58 pm Operator: DN
Sample : CVOD3D11112 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	3.266	3.135	4.0	109	0.09
82	T	tert-Butylbenzene	3.279	3.283	-0.1	108	0.09
83	T	1,2,4-Trimethylbenzene	3.608	3.560	1.3	109	0.09
84	T	sec-Butylbenzene	5.331	5.412	-1.5	112	0.09
85	T	p-Isopropyltoluene	4.172	3.876	7.1	103	0.11
86	T	1,3-Dichlorobenzene	1.965	1.934	1.6	109	0.11
87	T	1,4-Dichlorobenzene	1.886	1.839	2.5	112	0.09
88	T	n-Butylbenzene	4.568	4.016	12.1	97	0.09
89	T	1,2-Dichlorobenzene	1.657	1.704	-2.8	116	0.09
90	T	1,2-Dibromo-3-chloropropane	0.094	0.108	-14.9	127	0.09
91	T	1,2,4-Trichlorobenzene	1.062	1.108	-4.3	119	0.10
92	T	Hexachlorobutadiene	0.742	0.622	16.2	90	0.09
93	T	Naphthalene	1.564	1.901	-21.5#	145	0.10
94	T	1,2,3-Trichlorobenzene	0.884	1.014	-14.7	131	0.10

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07E184

Lab File ID: REE643 BFB Injection Date : 05/24/07

Instrument ID: T-0D3 BFB Injection Time : 12:04

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.57
75	30.0 - 60.0% of mass 95	45.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.22
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	74.27
175	5.0 - 9.0% of mass 174	5.08(6.8)1
176	95.0 - 101.0% of mass 174	71.86(96.8)1
177	5.0 - 9.0% of mass 176	4.58(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CVOD3D11126	REE645	05/24/07	13:17
2	MBLK3W	VOD3E53Q	REE650	05/24/07	16:55
3	LCD3W	VOD3E53C	REE647	05/24/07	15:06
4	LCS3W	VOD3E53X	REE648	05/24/07	15:43
5	F39-HSAS2@10	E184-02T	REE655	05/24/07	19:56

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RDE189
Instrument ID: T-OD3
GC Column: RTX502.2 ID: 0.32mm (mm)

Project:LMC BEAUMONT SITE 1
SDG No.: 07E184
Date Analyzed: 04/11/07
Time Analyzed: 13:27
Heated Purge: (Y/N)

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2144946	9.80	1822817	15.16	697424	21.43
	UPPER LIMIT	4289892	10.30	3645634	15.66	1394848	21.93
	LOWER LIMIT	1072473	9.30	911409	14.66	348712	20.93
	SAMPLE ID						
1	VSTD010	1941980	9.86	1658332	15.26	688783	21.55
2	MBLK3W	2408799	9.86	2155970	15.26	802980	21.55
3	LCS3W	1755348	9.88	1685772	15.26	706766	21.54
4	LCD3W	1554449	9.86	1411782	15.26	591176	21.54
5	F39-HSAS2010	1845778	9.85	1642855	15.24	619630	21.54

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E24\REE645.D Vial: 3
Acq On : 24 May 2007 1:17 pm Operator: DN
Sample : CVOD3D11126 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	91	0.05
2	T	Dichlorodifluoromethane	10.000	8.604	14.0	87	-0.06
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	-0.03
4	P,T	Chloromethane	10.000	9.328	6.7	90	-0.04
5	C,T	Vinyl chloride	10.000	9.825	1.8	90	-0.04
6	T	Bromomethane	10.000	9.872	1.3	96	-0.03
7	T	Chloroethane	10.000	7.527	24.7#	74	-0.02
8	T	Dichlorofluoromethane	10.000	9.955	0.4	97	-0.02
9	T	Trichlorofluoromethane	10.000	8.925	10.7	91	-0.02
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	16	0.01
11	T	Acrolein	20.000	16.113	19.4	81	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	8.167	18.3	78	0.00
13	T	Acetone	20.000	17.367	13.2	91	0.03
14	C,TM	1,1-Dichloroethene	10.000	8.665	13.4	82	0.00
15	T	tert-Butyl alcohol	50.000	40.018	20.0	79	0.03
16	T	Methyl acetate	10.000	0.471	95.3#	5	0.03
17	T	Iodomethane	10.000	7.595	24.1#	70	0.00
18	T	Methylene chloride	10.000	10.164	-1.6	98	0.01
19	T	Carbon disulfide	10.000	8.144	18.6	79	0.00
20	T	Acrylonitrile	30.000	30.120	-0.4	100	0.03
21	T	tert-Butyl methyl ether (MT	10.000	8.025	19.7	80	0.04
22	T	trans-1,2-Dichloroethene	10.000	9.042	9.6	90	0.01
23	T	Acetonitrile	-1.000	0.000	0.0	107	0.04
24	T	Isopropyl ether (DIPE)	10.000	8.148	18.5	83	0.04
25	T	Vinyl acetate	10.000	9.339	6.6	101	0.04
26	P,T	1,1-Dichloroethane	10.000	9.638	3.6	93	0.03
27	T	tert-Butyl ethyl ether (ETB	10.000	7.619	23.8#	76	0.06
28	T	2-Butanone	20.000	17.845	10.8	95	0.06
29	T	2,2-Dichloropropane	10.000	9.552	4.5	93	0.04
30	T	cis-1,2-Dichloroethene	10.000	9.650	3.5	95	0.04
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	1	-0.06
32	C,T	Chloroform	10.000	9.458	5.4	95	0.04
33	T	Bromochloromethane	10.000	10.182	-1.8	98	0.04
34	T	Tetrahydrofuran	-1.000	0.000	0.0	95	0.06
35	T	1,1,1-Trichloroethane	10.000	8.672	13.3	84	0.04
36	T	Cyclohexane	10.000	0.963	90.4#	11	0.01
37	T	tert-Amyl methyl ether (TAM	10.000	6.642	33.6#	67	0.07
38	S	1,2-Dichloroethane-d4	10.000	9.822	1.8	104	0.05
39	I	CHLOROBENZENE-D5	10.000	10.000	0.0	91	0.09
40	T	1,1-Dichloropropene	10.000	9.319	6.8	89	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E24\REE645.D Vial: 3
Acq On : 24 May 2007 1:17 pm Operator: DN
Sample : CVOD3D11126 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	10.000	9.430	5.7	89	0.05
42	T	1,2-Dichloroethane	10.000	10.231	-2.3	100	0.04
43	M,T	Benzene	10.000	9.838	1.6	95	0.05
44	T	Methylcyclohexane	10.000	0.163	98.4#	0	0.05
45	M,T	Trichloroethene	10.000	10.038	-0.4	95	0.05
46	C,T	1,2-Dichloropropane	10.000	10.465	-4.6 ✓	102	0.05
47	T	Bromodichloromethane	10.000	9.574	4.3	94	0.07
48	T	Dibromomethane	10.000	10.576	-5.8	102	0.07
49	T	2-Chloroethyl vinyl ether	-1.000	0.000	0.0	0	0.07
50	T	4-Methyl-2-pentanone	20.000	18.892	5.5	100	0.08
51	T	cis-1,3-Dichloropropene	10.000	9.355	6.4	91	0.08
52	S	Toluene-d8	10.000	10.090	-0.9	108	0.07
53	C,TM	Toluene	10.000	9.883	1.2 ✓	94	0.08
54	T	Ethyl methacrylate	10.000	8.993	10.1	93	0.08
55	T	trans-1,3-Dichloropropene	10.000	9.314	6.9	90	0.08
56	T	2-Hexanone	20.000	19.463	2.7	101	0.10
57	T	1,1,2-Trichloroethane	10.000	10.849	-8.5	107	0.08
58	T	1,3-Dichloropropane	10.000	10.157	-1.6	98	0.10
59	T	Tetrachloroethene	10.000	9.340	6.6	89	0.10
60	T	Dibromochloromethane	10.000	10.014	-0.1	97	0.10
61	T	1,2-Dibromoethane	10.000	10.722	-7.2	103	0.10
62	T	2-Ethyl-1-butanol	-1.000	0.000	0.0	74	0.08
63	T	1-Chlorohexane	10.000	7.866	21.3#	75	0.09
64	P,M	Chlorobenzene	10.000	10.688	-6.9	103	0.09
65	T	1,1,1,2-Tetrachloroethane	10.000	10.193	-1.9	97	0.09
66	C,T	Ethylbenzene	10.000	9.769	2.3 ✓	94	0.09
67	T	m-Xylene & p-Xylene	20.000	19.336	3.3	92	0.00
68	T	o-Xylene	10.000	9.931	0.7	95	0.09
69	T	Styrene	10.000	10.435	-4.4	99	0.09
70	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	99	0.12
71	P,T	Bromoform	10.000	10.760	-7.6	109	0.09
72	T	Isopropylbenzene	10.000	9.486	5.1	98	0.09
73	P,T	1,1,2,2-Tetrachloroethane	10.000	9.876	1.2	108	0.09
74	S	4-Bromofluorobenzene	10.000	9.420	5.8	106	0.09
75	T	1,2,3-Trichloropropane	10.000	10.965	-9.6	116	0.09
76	T	trans-1,4-Dichloro-2-butene	10.000	8.160	18.4	91	0.11
77	T	n-Propylbenzene	10.000	9.089	9.1	96	0.09
78	T	Bromobenzene	10.000	9.837	1.6	102	0.11
79	T	1,3,5-Trimethylbenzene	10.000	9.316	6.8	99	0.11
80	T	2-Chlorotoluene	10.000	9.274	7.3	99	0.09

(#) = Out of Range

2047

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E24\REE645.D Vial: 3
Acq On : 24 May 2007 1:17 pm Operator: DN
Sample : CVOD3D11126 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	10.000	8.809	11.9	96	0.11
82	T	tert-Butylbenzene	10.000	9.165	8.4	95	0.11
83	T	1,2,4-Trimethylbenzene	10.000	9.431	5.7	99	0.11
84	T	sec-Butylbenzene	10.000	9.334	6.7	98	0.11
85	T	p-Isopropyltoluene	10.000	9.059	9.4	96	0.11
86	T	1,3-Dichlorobenzene	10.000	9.586	4.1	101	0.10
87	T	1,4-Dichlorobenzene	10.000	9.529	4.7	104	0.10
88	T	n-Butylbenzene	10.000	8.785	12.1	93	0.10
89	T	1,2-Dichlorobenzene	10.000	10.006	-0.1	107	0.10
90	T	1,2-Dibromo-3-chloropropane	10.000	9.498	5.0	101	0.10
91	T	1,2,4-Trichlorobenzene	10.000	10.571	-5.7	115	0.10
92	T	Hexachlorobutadiene	10.000	8.503	15.0	87	0.10
93	T	Naphthalene	10.000	10.728	-7.3	122	0.10
94	T	1,2,3-Trichlorobenzene	10.000	11.025	-10.3	120	0.10

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E24\REE645.D Vial: 3
Acq On : 24 May 2007 1:17 pm Operator: DN
Sample : CVOD3D11126 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	91	0.05
2	T	Dichlorodifluoromethane	0.299	0.239	20.1#	87	-0.06
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	-0.03
4	P,T	Chloromethane	0.663	0.511	22.9#	90	-0.04
5	C,T	Vinyl chloride	0.549	0.431	21.5#	90	-0.04
6	T	Bromomethane	0.351	0.347	1.1	96	-0.03
7	T	Chloroethane	0.300	0.226	24.7#	74	-0.02
8	T	Dichlorofluoromethane	0.837	0.833	0.5	97	-0.02
9	T	Trichlorofluoromethane	0.387	0.346	10.6	91	-0.02
10	T	sec-Propyl alcohol	0.000	0.000	0.0	16#	0.01
11	T	Acrolein	0.021	0.017	19.0	81	0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	0.231	0.188	18.6	78	0.00
13	T	Acetone	0.051	0.044	13.7	91	0.03
14	C,TM	1,1-Dichloroethene	0.496	0.430	13.3	82	0.00
15	T	tert-Butyl alcohol	0.015	0.012	20.0	79	0.03
16	T	Methyl acetate	0.132	0.006	95.5#	5#	0.03
17	T	Iodomethane	0.554	0.421	24.0#	70	0.00
18	T	Methylene chloride	0.564	0.512	9.2	98	0.01
19	T	Carbon disulfide	1.510	1.230	18.5	79	0.00
20	T	Acrylonitrile	0.057	0.058	-1.8	100	0.03
21	T	tert-Butyl methyl ether (MT	0.553	0.444	19.7	80	0.04
22	T	trans-1,2-Dichloroethene	0.563	0.509	9.6	90	0.01
23	T	Acetonitrile	0.000	0.000	0.0	107	0.04
24	T	Isopropyl ether (DIPE)	1.359	1.107	18.5	83	0.04
25	T	Vinyl acetate	0.375	0.350	6.7	101	0.04
26	P,T	1,1-Dichloroethane	0.715	0.689	3.6	93	0.03
27	T	tert-Butyl ethyl ether (ETB	0.889	0.677	23.8#	76	0.06
28	T	2-Butanone	0.075	0.067	10.7	95	0.06
29	T	2,2-Dichloropropane	0.422	0.403	4.5	93	0.04
30	T	cis-1,2-Dichloroethene	0.626	0.604	3.5	95	0.04
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	1#	-0.06
32	C,T	Chloroform	0.630	0.596	5.4	95	0.04
33	T	Bromochloromethane	0.301	0.306	-1.7	98	0.04
34	T	Tetrahydrofuran	0.000	0.000	0.0	95	0.06
35	T	1,1,1-Trichloroethane	0.450	0.390	13.3	84	0.04
36	T	Cyclohexane	0.688	0.066	90.4#	11#	0.01
37	T	tert-Amyl methyl ether (TAM	0.785	0.522	33.5#	67	0.07
38	S	1,2-Dichloroethane-d4	0.234	0.230	1.7	104	0.05
39	I	CHLOROBENZENE-D5	1.000	1.000	0.0	91	0.09
40	T	1,1-Dichloropropene	0.205	0.191	6.8	89	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E24\REE645.D Vial: 3
Acq On : 24 May 2007 1:17 pm Operator: DN
Sample : CVOD3D11126 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.406	0.383	5.7	89	0.05
42	T	1,2-Dichloroethane	0.334	0.342	-2.4	100	0.04
43	M,T	Benzene	1.672	1.645	1.6	95	0.05
44	T	Methylcyclohexane	0.630	0.002	99.7#	0#	0.05
45	M,T	Trichloroethene	0.449	0.451	-0.4	95	0.05
46	C,T	1,2-Dichloropropane	0.463	0.484	-4.5	102	0.05
47	T	Bromodichloromethane	0.488	0.467	4.3	94	0.07
48	T	Dibromomethane	0.180	0.190	-5.6	102	0.07
49	T	2-Chloroethyl vinyl ether	0.000	0.000	0.0	0#	0.07
50	T	4-Methyl-2-pentanone	0.240	0.227	5.4	100	0.08
51	T	cis-1,3-Dichloropropene	0.575	0.538	6.4	91	0.08
52	S	Toluene-d8	1.305	1.316	-0.8	108	0.07
53	C,TM	Toluene	0.985	0.974	1.1	94	0.08
54	T	Ethyl methacrylate	0.337	0.303	10.1	93	0.08
55	T	trans-1,3-Dichloropropene	0.413	0.385	6.8	90	0.08
56	T	2-Hexanone	0.147	0.143	2.7	101	0.10
57	T	1,1,2-Trichloroethane	0.233	0.252	-8.2	107	0.08
58	T	1,3-Dichloropropane	0.451	0.458	-1.6	98	0.10
59	T	Tetrachloroethene	0.315	0.295	6.3	89	0.10
60	T	Dibromochloromethane	0.282	0.282	0.0	97	0.10
61	T	1,2-Dibromoethane	0.221	0.237	-7.2	103	0.10
62	T	2-Ethyl-1-butanol	0.000	0.000	0.0	74	0.08
63	T	1-Chlorohexane	0.744	0.585	21.4#	75	0.09
64	P,M	Chlorobenzene	0.961	1.027	-6.9	103	0.09
65	T	1,1,1,2-Tetrachloroethane	0.326	0.332	-1.8	97	0.09
66	C,T	Ethylbenzene	1.915	1.871	2.3	94	0.09
67	T	m-Xylene & p-Xylene	1.449	1.401	3.3	92	0.00
68	T	o-Xylene	1.467	1.456	0.7	95	0.09
69	T	Styrene	1.019	1.064	-4.4	99	0.09
70	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	99	0.12
71	P,T	Bromoform	0.337	0.362	-7.4	109	0.09
72	T	Isopropylbenzene	4.557	4.323	5.1	98	0.09
73	P,T	1,1,2,2-Tetrachloroethane	0.785	0.776	1.1	108	0.09
74	S	4-Bromofluorobenzene	1.123	1.058	5.8	106	0.09
75	T	1,2,3-Trichloropropane	0.148	0.162	-9.5	116	0.09
76	T	trans-1,4-Dichloro-2-butene	0.157	0.128	18.5	91	0.11
77	T	n-Propylbenzene	6.490	5.899	9.1	96	0.09
78	T	Bromobenzene	0.935	0.920	1.6	102	0.11
79	T	1,3,5-Trimethylbenzene	3.622	3.374	6.8	99	0.11
80	T	2-Chlorotoluene	3.203	2.970	7.3	99	0.09

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07E24\REE645.D Vial: 3
Acq On : 24 May 2007 1:17 pm Operator: DN
Sample : CVOD3D11126 Inst : D3
Misc : 10.0ppb8260/20.0ppbKET-A/50.0ppb TBA/30p Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VOD3D11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Fri Apr 20 09:27:00 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	4-Chlorotoluene	3.266	2.877	11.9	96	0.11
82	T	tert-Butylbenzene	3.279	3.005	8.4	95	0.11
83	T	1,2,4-Trimethylbenzene	3.608	3.403	5.7	99	0.11
84	T	sec-Butylbenzene	5.331	4.976	6.7	98	0.11
85	T	p-Isopropyltoluene	4.172	3.780	9.4	96	0.11
86	T	1,3-Dichlorobenzene	1.965	1.884	4.1	101	0.10
87	T	1,4-Dichlorobenzene	1.886	1.797	4.7	104	0.10
88	T	n-Butylbenzene	4.568	4.013	12.1	93	0.10
89	T	1,2-Dichlorobenzene	1.657	1.658	-0.1	107	0.10
90	T	1,2-Dibromo-3-chloropropane	0.094	0.089	5.3	101	0.10
91	T	1,2,4-Trichlorobenzene	1.062	1.123	-5.7	115	0.10
92	T	Hexachlorobutadiene	0.742	0.631	15.0	87	0.10
93	T	Naphthalene	1.564	1.677	-7.2	122	0.10
94	T	1,2,3-Trichlorobenzene	0.884	0.975	-10.3	120	0.10

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1

Start Date: 4.11.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # AD3 007**

BATCH VOD3D11 7

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RDE182	BFBD3D15 ✓	2µl	NA	NA		9:15am
02	183	VOD3D11 1 ✓	.03/.06 .15µl				8260, Gas/Ket-A/TBA/ACN .3/.6/1.5/.9ppb
03	184	2	.05/.1 .25µl				Bad spiked → RR
04	185	3 ✓	.1/.2/.5µl				1/2/5/3
05	186	4 ✓	.05/.1 .25µl				.5/1/2.5/1.5
06	187	5 ✓	.2/.4/1µl				2/4/10/6
07	188	6 ✓	.5/1/2.5µl				5/10/25/15
08	189	7 ✓	1/2/5µl				10/20/50/30
09	190	8 ✓	2/4/10µl				20/40/100/60
10	191	9 ✓	3/5/15µl				30/60/150/90
11	192	10 ✓	4/8/20µl				40/80/200/120
12	193	11 ✓	5/10/25µl				50/100/250/150
13	194	IS/SS	25ml				
14	195	VOD3D15B	↓				
15	196	IVOD3D11 01	1/2/5µl				
16	197	02 ✓	↓	↓	↓		10/20/50/30 ppb (6:24 pm)
17							
18							
19							
20							
21						DN	4.11.07
22							
23							
24							
25							

Instrument No.	D3
INITIAL CALIBRATION REFERENCE	
DATE	4.11.07
ICAL ID	VOD3D11

STANDARDS

NAME	ID	CONC. (mg/L)
DCC 8260	SVIC.11. 56.1	50/250
DCC Ket-AA Gas	.58.3 .69.1	250 250
DCC 3 add	.71.1	250
BFB	.58.1	50
IS/SURR. IS SS	.70.1 .70.2	250 250
LCS 8260	.63.2	50/250
LCS Ket-AA	.59.2	250
LCS Gas	.69.3	250

SOLVENT	ID
METHANOL	
DATA FILE	07D11

Electronic Data Archival

Location	Date
HPCHEM_VOA/TOD3	

Comments:

Analyzed By: DN

Date Disposed: 4.12.07

Disposed By: DN

2053

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1

Start Date: 5.18.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # AD3 007**

BATCH CVOD3D11 107

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	REF470	BFB D3 E39 ✓	2ml				1:22pm
02	471	CVO D3D11 106	1/2/5ml				
03	472	IVOD3D11 03 ✓	5ml				10 ppb For 3add empds
04	473	CVO D3D11 107 ✓	1/2/5ml				
05	474	VOD3E39 L ✓					changed RT of 1,2-Dichloropropane From 10.557 → 10.65
06	475	C ✓					
07	476	B	25ml				
08	477	Q ✓					
09	478	07E148_097 ✓	25ml	10	<2		
10	479	07E184-01 ✓	25ml	1			
11	480	-02 ✓					5X
12	481	07E181_07 ✓					
13	482	-08 ✓					
14	483	-09 ✓					
15	484	-10 ✓					
16	485	-11 ✓					
17	486	-12 ✓					
18	487	07E184 -02M ✓					
19	488	-02S ✓					12:51 am
20							
21							
22							DN 5.21.07
23							
24							
25							

Instrument No.	D3
INITIAL CALIBRATION REFERENCE	
DATE	4.11.07
ICAL ID	VOD3D11

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SMC.11.81.1	
DCC	.80.3 .79.3	
DCC	.71.1	50/250
BFB	.58.1	
IS/SURR.	.70.3	
LCS	.81.3	
LCS	.80.3 .80.1	
LCS CLP	.83.3	

SOLVENT	ID
METHANOL	
DATA FILE	07E18

Electronic Data Archival

Location	Date
HPCHEM_VOA/TOD3	

Comments:

Analyzed By: DH

Date Disposed: 5/21/07

Disposed By: DN

2054

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1

Start Date: 5.19.07 ☐ 5-ml Purge ☑ 25-ml Purge **Book # AD3 007**

BATCH CWOD3D11 112

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RFE509	BFB D3 E42	2µL				
02		510	↓ 43 ✓	↓				2:09 pm
03		511	CWOD3D11 110	1/2/5mL				
04		512	↓ 111	↓				
05		513	↓ 112 ✓					
06		514	VOD3E43L ✓	↓				
07		515	↓ B	25mL				
08		516	↓ 9 ✓	↓				
09		517	07E45-01 ✓	25mL	1	<2		
10		518	-02 ✓					
11		519	-03 ✓					
12		520	-04 ✓					
13		521	-05 ✓					25D4
14		522	-06					1x
15		523	-07					1x
16		524	-08					1x
17		525	07E184-03 ✓					
18		526	-04 ✓					
19		527	-05 ✓					
20		528	-07 ✓	↓	↓	↓		
21		529	VOD3E43C ✓	1/2/5mL				1:37 pm
22		530	RINSE	25mL				
23		↓ 531	↓	↓				
24								
25								DN 5.21.07

Instrument No.	D3
INITIAL CALIBRATION REFERENCE	
DATE	4.11.07
ICAL ID	VOD3D11

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	CalC.11.81.1	
DCC	80.2 79.3	
DCC	71.1	
BFB	58.1	50/50
IS/SURR.	70.3	
LCS	81.3	
LCS	80.3	
LCS	80.1	

SOLVENT	ID
METHANOL	
DATA FILE	07E18

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TOD3	

Comments:

Analyzed By: DM

Date Disposed: 5/21/07

Disposed By: DN

EMAX LABORATORIES, INC.

ANALYSIS LOG *for* VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1

Book # AD3 007

Start Date: 5.24.07 ☐ 5-ml Purge ☑ 25-ml Purge

BATCH CVOD3D11126

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	REE643	BFBD3E53 ✓	2ml				12:04 pm
02	644	CVOD3D11 125	1/2/5ml				
03	645	126 ✓					
04	646	VOD3E531					
05	647	C ✓					
06	648	X ✓					
07	649	B	25ml				
08	650	Q ✓					
09	651	07E270_04R ✓	25ml	1	<2		
10	652	-04M ✓					
11	653	-04S ✓					
12	654	BLANK					
13	655	07E184_02S ✓	5ml	5	<2		
14	656	07E259_01R	25ml	1			
15	657	-07R					
16	658	-20R ✓					
17	659	07E270_08 ✓					
18	660	-09 ✓					10x
19	661	-10					1x 11:24 pm
20							
21							
22							
23							DN 5.25.07
24							
25							

Instrument No.	D3
INITIAL CALIBRATION REFERENCE	
DATE	4.11.07
ICAL ID	VOD3D11

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SVIC.11 81.1	
DCC	.80.2	
DCC	.79.3	
BFB	.58.1	50/250
IS/SURR.	.70.3	
LCS	.81.3	
LCS	.80.3	
LCS	.80.1	

SOLVENT	ID
METHANOL	
DATA FILE	07E24

Electronic Data Archival

Location	Date
HPCHEM_VOA/TOD3	

Comments:

Analyzed By: DH

Date Disposed: 5/25/07

Disposed By: DN

2056

TABLE OF CONTENTS

CLIENT: **TETRA TECH, INC.**

PROJECT: **LMC BEAUMONT SITE 1**

SDG: **07G343**

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GC-SVOA	**	5000 –
HPLC	METHOD 8330	6000 – 6032
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WET	METHOD 314.0	8000 – 8027
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax:(310) 618-0818

Date: 08-16-2007
EMAX Batch No.: 07G343

Attn: Michael Wilson

Tetra Tech, Inc.
348 W Hospitality Lane, Ste 100
San Bernardino CA 92408

Subject: Laboratory Report
Project: LMC Beaumont Site 1

Enclosed is the Laboratory report for samples received on 07/26/07.
The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
LEB-072607	G343-01	07/26/07	WATER	VOLATILE ORGANICS BY GC/MS PERCHLORATE BY IC NITROAROMATICS & NITRAMINES
LTB-072607	G343-02	07/26/07	WATER	VOLATILE ORGANICS BY GC/MS
D26-HAS16-0.5	G343-03	07/26/07	SOIL	PERCHLORATE BY IC VOLATILE ORGANICS BY GC/MS NITROAROMATICS & NITRAMINES
D26-HAS16-5	G343-04	07/26/07	SOIL	PERCHLORATE BY IC VOLATILE ORGANICS BY GC/MS NITROAROMATICS & NITRAMINES
D26-HAS15-0.5	G343-05	07/26/07	SOIL	PERCHLORATE BY IC VOLATILE ORGANICS BY GC/MS NITROAROMATICS & NITRAMINES
D26-HAS15-5	G343-06	07/26/07	SOIL	PERCHLORATE BY IC VOLATILE ORGANICS BY GC/MS NITROAROMATICS & NITRAMINES
D26-HAS14-0.5	G343-07	07/26/07	SOIL	PERCHLORATE BY IC VOLATILE ORGANICS BY GC/MS NITROAROMATICS & NITRAMINES

Sample ID	Control #	Col Date	Matrix	Analysis
D26-HAS14-5	G343-08	07/26/07	SOIL	PERCHLORATE BY IC VOLATILE ORGANICS BY GC/MS NITROAROMATICS & NITRAMINES

CM 9

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

TT - CCIC -

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

CHAIN OF CUSTODY RECORD

07G342

DATE 7-26-07 PAGE 1 OF ____

CLIENT: LMC
PROJECT NAME: Supplemental Soil
PROJECT MANAGER: Paul Michalski
TC #: 19607-02
SAMPLERS (Signatures)

LINE ITEM	SAMPLE NO.	DATE	TIME	314.0 Perchlorate	8330 explosives	8260 VOC's	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LEB-072607	7-26-07	0830	X	X	X	U	W	G/P	5/1	HCl
2.	LTB-072607		0830			X	U	W	G	2	HCl
3.	D26-HSAS16-0.5		0848	X	X	X	U	S	G/P	1/3	none
4.	D26-HSAS16-5		0925	X	X	X	U	S	G/P	4	none
5.	D26-HSAS15-0.5		0950	X	X	X				4	
6.	D26-HSAS15-5		1010	X	X	X				4	
7.	D26-HSAS14-0.5		1025	X	X	X				4	
8.	D26-HSAS14-5		1035	X	X	X	↓	↓	↓	4	↓
9.											
10.											

LM
LM

PARAMETERS

TURN-AROUND TIME

OBSERVATIONS/COMMENTS: RUSH

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY: Christopher Hall	SIGNATURE	TETRA TECH, INC.	DATE 7/26/07	TIME 16:25	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 32
RECEIVED BY: ALFRED GALICIA	SIGNATURE	COMPANY EMAX	DATE 7/26/07	TIME 16:25	METHOD OF SHIPMENT/SHIPMENT NO. Courier
RELINQUISHED BY: ALFRED GALICIA	SIGNATURE	COMPANY EMAX	DATE 7/26/07	TIME 19:00	Special Shipping/Handling/Storage Requirements:
RECEIVED BY: CAROL DI PUGLIA	SIGNATURE Carol Di Puglia	COMPANY EMAX	DATE 07/26/07	TIME 1910	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

TEMP 3.5°C

2007

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EMAX LABORATORIES, INC.

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	
☑ EMAX Courier	SEE COC	ECN 076343
☐ Client Delivery		Receipt BDP
☐ Third Party		Date 07/26/07
		Time 1910

COC Inspection

☑ Client Name ☑ Client PM/FC ☑ Sampler Name ☑ Sampling Date/Time/Location ☑ Sample ID ☑ Matrix
☑ Address ☑ Tel # / Fax # ☑ Courier Signature ☑ Analysis Required ☐ Preservative (if any) ☑ TAT

Safety Issues:
☑ None ☐ High concentrations expected ☐ Superfund Site samples ☐ Rad screening required

Comments:

Packaging Inspection

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☑ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☑ Sufficient	☐
Temperatures	☑ Cooler 1 3.5 °C	☐ Cooler 2 ____ °C	☐ Cooler 3 ____ °C	☐ Cooler 4 ____ °C	☐ Cooler 5 ____ °C
	☐ Cooler 6 ____ °C	☐ Cooler 7 ____ °C	☐ Cooler 8 ____ °C	☐ Cooler 9 ____ °C	☐ Cooler 10 ____ °C

Comments: ☐ PM was informed on non-compliant coolers imediately.

DISCREPANCIES

LSID	LSCID	Sample Label ID/COC ID	Discrepancy Code	Corrective Action Code

REVIEWS

Sample Labeling BDP Date 07/27/07

SRF Date 7/27/07

PM Date 7/27/07

LEGEND:

Code	Description- Sample Management
A1	Analysis is not indicated in COC
A2	Analysis is not indicated in label
A3	Analysis is inconsistent in COC vis-à-vis label
B1	Sample ID is not indicated in COC
B2	Sample ID is not indicated in label
B3	Sample ID is inconsistent in COC vis-à-vis label
C1	Wrong container.
C2	Broken container
C3	Leaking container
D1	Date and/or time is not indicated in COC
D2	Date and/or time is not indicated in label
D3	Date and/or time is inconsistent in COC vis-à-vis label

Code	Description-Sample Management
E1	Preservative needed; sample has no preservative
E2	Preservative not needed but sample is preserved
F1	Not enough quantity of samples
F2	Bubble is> 6mm
G1	Temperature is out of range (4 +_ 2°C)
G2	Out of Holding Time
G3	>20 % solid particle
H1	
H2	

Code	Description-Project Management
R1	Hold sample(s); wait for further instructions
R2	Proceed as indicated in COC
R3	Refer to attached instruction
R4	Cancel the analysis
R5	
R6	

Linh Pham

From: Hanke, Holly [Holly.Hanke@tetratech.com]
Sent: Friday, July 27, 2007 12:30 PM
To: Linh Pham
Cc: Michalski, Paul
Subject: Sample name corrections

The sample names on the COC and the samples are incorrect. Please correct them accordingly. As requested a copy of the original COC is attached with the corrections.

On COC:	Corrected:
D26-HSAS16-0.5	D26-HAS16-0.5
D26-HSAS16-5	D26-HAS16-5
D26-HSAS15-0.5	D26-HAS15-0.5
D26-HSAS15-5	D26-HAS15-5
D26-HSAS14-0.5	D26-HAS14-0.5
D26-HSAS14-5	D26-HAS14-5

Thank you for your help in this matter.

Holly A. Hanke, Tetra Tech

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: EMAX

CHAIN OF CUSTODY RECORD

DATE 7 26 07 PAGE 1 OF ____

CLIENT: CMC

PROJECT NAME: [illegible] Soil

PROJECT MANAGER: Paul Minault

TC #: [illegible]

SAMPLERS (Signatures)

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 Prioritize	8260 - oxygenates	Diox. U.C.'s	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
1.	LEB-077607	7.26.07	0830	X	X	X	U	W	G/P	3/1	HCl
2.	LTB 077607		0830			X	U	W	G	2	HCl
3.	DUP9 HAS16 0.5		0948	X	X	X	U	S	G/P	1/3	none
4.	DUP9 HAS16 5		0955	X	X	X	U	S	P	4	none
5.	DUP9 HAS15 0.5		0957	X	X	X				4	
6.	DUP9 HAS- 5		1110	X	X	X				4	
7.	DUP9 HAS 14 0.5		1115	X	X	X				4	
8.	DUP9 HAS 14 5		1137	X	X	X	V	V	V	4	V
9.											
10.											

PARAMETERS

TURN-AROUND TIME

OBSERVATIONS/COMMENTS: RUSH

clear range label signatures. Thx CM 7-27-07 CM

FILTERING: ☐ FILTERED ☑ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 32
Christopher LL		TETRA TECH, INC.	7/26/07	0:25	
RECEIVED BY Jeffrey Jarrett	SIGNATURE	COMPANY EMAX	DATE 7/26/07	TIME 16:25	METHOD OF SHIPMENT/SHIPMENT NO. Courier
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	Special Shipping/Handling/Storage Requirements:
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

1959

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 07G343

2000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07G343

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 07/26/07 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07G343
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001G61Q	1	NA	07/29/0723:08	07/29/0723:08	RGV680	RGV008	V001G61	Method Blank
LCS1W	V001G61L	1	NA	07/29/0720:34	07/29/0720:34	RGV676	RGV008	V001G61	Lab Control Sample (LCS)
LCD1W	V001G61C	1	NA	07/29/0721:14	07/29/0721:14	RGV677	RGV008	V001G61	LCS Duplicate
LTB-072607	G343-02	1	NA	07/29/0723:46	07/29/0723:46	RGV681	RGV008	V001G61	Field Sample
LEB-072607	G343-01	1	NA	07/30/0701:45	07/30/0701:45	RGV684	RGV008	V001G61	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/30/07 01:45
Sample ID: LEB-072607	Date Analyzed: 07/30/07 01:45
Lab Samp ID: G343-01	Dilution Factor: 1
Lab File ID: RGV684	Matrix : WATER
Ext Btch ID: V001G61	% Moisture : NA
Calib. Ref.: RGV008	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	107	70-140
4-BROMOFLUOROBENZENE	88	70-130
TOLUENE-D8	91	70-140

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\07G29\RGV684.D Vial: 13
Acq On : 30 Jul 2007 1:45 am Operator: AS
Sample : 07G343-01 25mls Inst : TO01
Misc : DF=1.0,EB Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Jul 31 12:15 2007 Quant Results File: VO01G09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Initial Calibration
DataAcq Meth : VO01G09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	11.58	114	3216406	10.00	ug/l	0.03
38) CHLOROBENZENE-D5	16.88	117	2981160	10.00	ug/l	0.03
68) 1,2-DICHLOROBENZENE-D4	22.55	152	1268481	10.00	ug/l	0.03
System Monitoring Compounds						
37) 1,2-Dichloroethane-d4	10.97	65	620138	10.72	ug/l	0.02
Spiked Amount 10.000			Recovery =	107.20%		
51) Toluene-d8	14.15	98	3905475	9.12	ug/l	0.03
Spiked Amount 10.000			Recovery =	91.20%		
72) 4-Bromofluorobenzene	19.22	95	1310470	8.77	ug/l	0.03
Spiked Amount 10.000			Recovery =	87.70%		

Target Compounds Qvalue

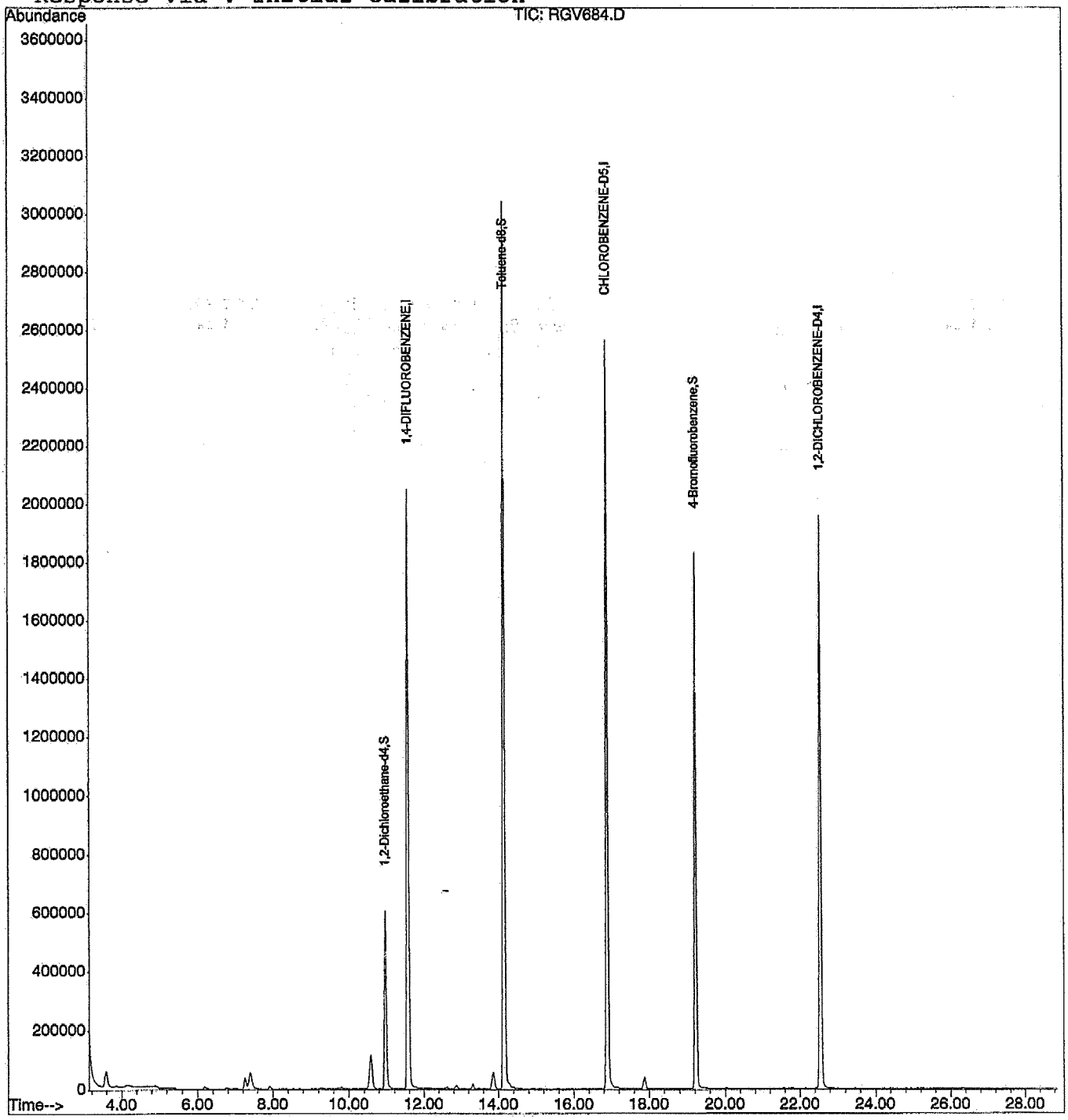
(#) = qualifier out of range (m) = manual integration

2005

Quantitation Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV684.D Vial: 13
Acq On : 30 Jul 2007 1:45 am Operator: AS
Sample : 07G343-01 25mls Inst : TO01
Misc : DF=1.0,EB Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Jul 31 12:15 2007 Quant Results File: VO01G09.RES

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Initial Calibration



2005

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/29/07 23:46
Sample ID: LTB-072607	Date Analyzed: 07/29/07 23:46
Lab Samp ID: G343-02	Dilution Factor: 1
Lab File ID: RGV681	Matrix : WATER
Ext Btch ID: VO01G61	% Moisture : NA
Calib. Ref.: RGV008	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	70-140
4-BROMOFLUOROBENZENE	89	70-130
TOLUENE-D8	90	70-140

2007

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\07G29\RGV681.D Vial: 10
Acq On : 29 Jul 2007 11:46 pm Operator: AS
Sample : 07G343-02 25mls Inst : TO01
Misc : DF=1.0,TB Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Jul 31 12:04 2007 Quant Results File: VO01G09.RES

Quant Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Initial Calibration
DataAcq Meth : VO01G09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-DIFLUOROBENZENE	11.55	114	3408110	10.00	ug/l	0.00
38) CHLOROBENZENE-D5	16.87	117	3098132	10.00	ug/l	0.02
68) 1,2-DICHLOROBENZENE-D4	22.54	152	1298754	10.00	ug/l	0.02
System Monitoring Compounds						
37) 1,2-Dichloroethane-d4	10.94	65	645098	10.52	ug/l	-0.01
Spiked Amount 10.000			Recovery =	105.20%		
51) Toluene-d8	14.13	98	4019411	9.04	ug/l	0.02
Spiked Amount 10.000			Recovery =	90.40%		
72) 4-Bromofluorobenzene	19.20	95	1353827	8.85	ug/l	0.02
Spiked Amount 10.000			Recovery =	88.50%		

Target Compounds Qvalue

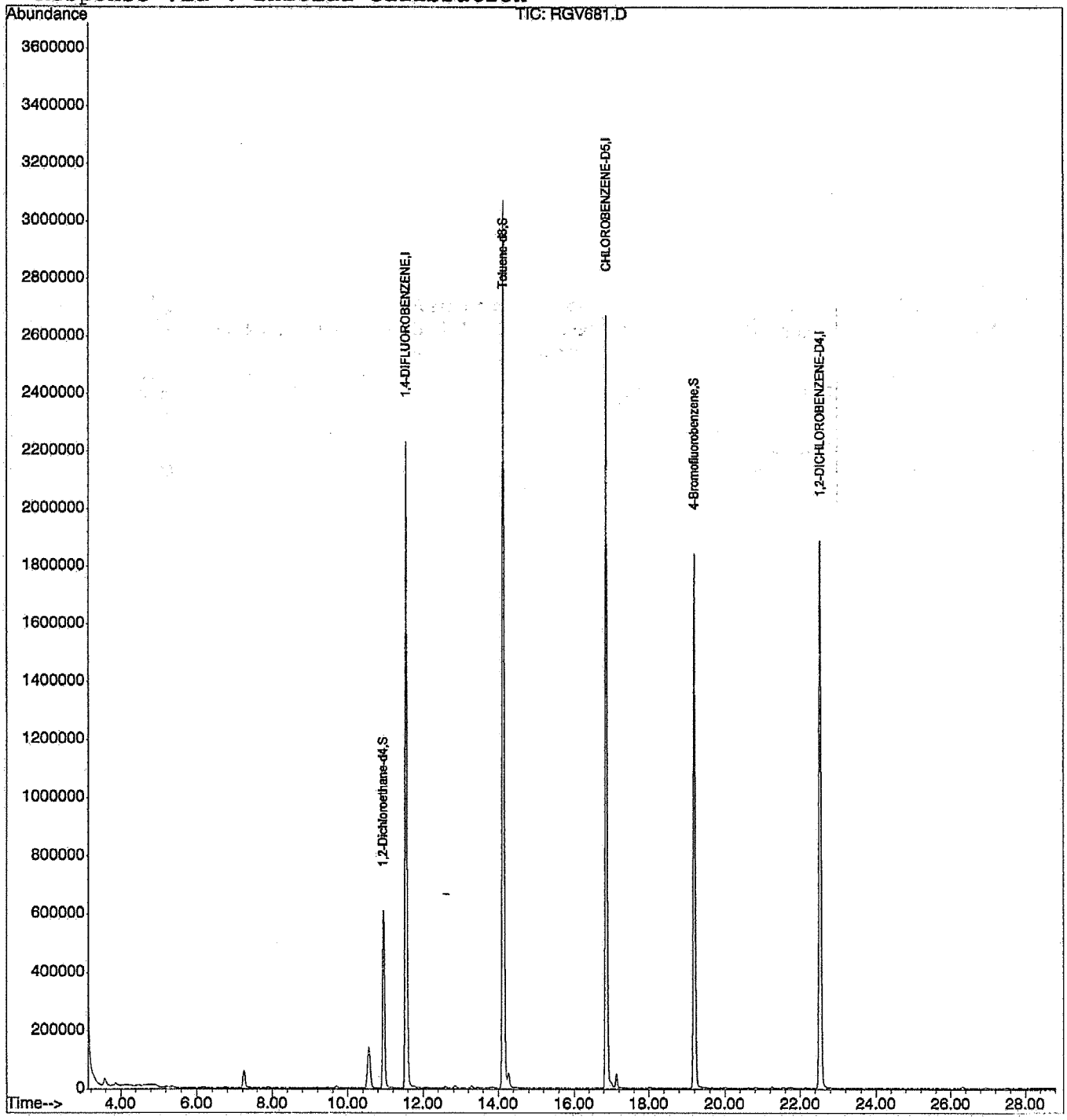
(#) = qualifier out of range (m) = manual integration

2008

Quantitation Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV681.D Vial: 10
Acq On : 29 Jul 2007 11:46 pm Operator: AS
Sample : 07G343-02 25mls Inst : TO01
Misc : DF=1.0,TB Multiplr: 1.00
MS Integration Params: 524TAIL.P
Quant Time: Jul 31 12:04 2007 Quant Results File: VO01G09.RES

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Initial Calibration



2009

QC SUMMARIES

2018

METHOD 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: NA
Project : LMC BEAUMONT SITE 1	Date Received: 07/29/07
Batch No. : 07G343	Date Extracted: 07/29/07 23:08
Sample ID: MBLK1W	Date Analyzed: 07/29/07 23:08
Lab Samp ID: V001G61Q	Dilution Factor: 1
Lab File ID: RGV680	Matrix : WATER
Ext Btch ID: V001G61	% Moisture : NA
Calib. Ref.: RGV008	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1.0	0.20
1,1,2,2-TETRACHLOROETHANE	ND	1.0	0.20
1,1,2-TRICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHANE	ND	1.0	0.20
1,1-DICHLOROETHENE	ND	1.0	0.20
1,2-DICHLOROETHANE	ND	1.0	0.20
1,2-DICHLOROPROPANE	ND	1.0	0.20
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	1.0	0.20
BROMODICHLOROMETHANE	ND	1.0	0.20
BROMOFORM	ND	1.0	0.30
BROMOMETHANE	ND	1.0	0.20
CARBON DISULFIDE	ND	1.0	0.20
CARBON TETRACHLORIDE	ND	1.0	0.20
CHLOROBENZENE	ND	1.0	0.20
CHLOROETHANE	ND	1.0	0.20
CHLOROFORM	ND	1.0	0.20
CHLOROMETHANE	ND	1.0	0.20
CIS-1,2-DICHLOROETHENE	ND	1.0	0.20
CIS-1,3-DICHLOROPROPENE	ND	1.0	0.20
DIBROMOCHLOROMETHANE	ND	1.0	0.20
ETHYLBENZENE	ND	1.0	0.20
M/P-XYLENES	ND	2.0	0.50
MTBE	ND	1.0	0.20
METHYLENE CHLORIDE	ND	1.0	0.50
O-XYLENE	ND	1.0	0.20
STYRENE	ND	1.0	0.20
TETRACHLOROETHENE	ND	1.0	0.20
TOLUENE	ND	1.0	0.20
TRANS-1,2-DICHLOROETHENE	ND	1.0	0.20
TRANS-1,3-DICHLOROPROPENE	ND	1.0	0.20
TRICHLOROETHENE	ND	1.0	0.20
VINYL CHLORIDE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	103	70-140
4-BROMOFLUOROBENZENE	87	70-130
TOLUENE-D8	92	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001G61Q	V001G61L	V001G61C		
LAB FILE ID:	RGV680	RGV676	RGV677		
DATE EXTRACTED:	07/29/0723:08	07/29/0720:34	07/29/0721:14	DATE COLLECTED:	NA
DATE ANALYZED:	07/29/0723:08	07/29/0720:34	07/29/0721:14	DATE RECEIVED:	07/29/07
PREP. BATCH:	V001G61	V001G61	V001G61		
CALIB. REF:	RGV008	RGV008	RGV008		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10.0	8.49	85	10.0	8.16	82	4	60-130	30
Benzene	ND	10.0	8.78	88	10.0	8.58	86	2	70-130	30
Chlorobenzene	ND	10.0	9.18	92	10.0	9.02	90	2	70-120	30
Toluene	ND	10.0	8.89	89	10.0	8.57	86	4	70-130	30
Trichloroethene	ND	10.0	9.06	91	10.0	8.69	87	4	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10.0	10.6	106	10.0	10.8	108	70-140
4-Bromofluorobenzene	10.0	9.21	92	10.0	9.06	91	70-130
Toluene-d8	10.0	9.73	97	10.0	9.36	94	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RGV002
Instrument ID: T-001
GC Column:RTX502.2ID:0.32mm (mm)

Contract: LMC BEAUMONT SITE 1
SAS No.: SDG No.: 07G343
BFB Injection Date : 07/09/07
BFB Injection Time : 13:26
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.44
75	30.0 - 60.0% of mass 95	34.23
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.51
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	91.49
175	5.0 - 9.0% of mass 174	6.60(7.2)1
176	95.0 - 101.0% of mass 174	87.56(95.7)1
177	5.0 - 9.0% of mass 176	5.86(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V001G0901	RGV003	07/09/07	14:03
2	VSTD0.5	V001G0902	RGV004	07/09/07	14:40
3	VSTD01	V001G0903	RGV005	07/09/07	15:17
4	VSTD02	V001G0904	RGV006	07/09/07	15:53
5	VSTD05	V001G0905	RGV007	07/09/07	16:30
6	VSTD010	V001G0906	RGV008	07/09/07	17:06
7	VSTD020	V001G0907	RGV009	07/09/07	17:42
8	VSTD030	V001G0908	RGV010	07/09/07	18:20
9	VSTD040	V001G0909	RGV011	07/09/07	18:59
10	VSTD050	V001G0910	RGV012	07/09/07	19:39
11	VSTD010	IV001G0901	RGV015	07/09/07	21:35

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO01
Beginning DateTime :07/09/07 14:03
Spike Units :PPB
IC File :RGV008

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :07/09/07 19:39
HPChem Method :V001G09

M	IDX	Parameters	.3 14:03 RGV003	.5 14:40 RGV004	1 15:17 RGV005	2 15:53 RGV006	5 16:30 RGV007	10 17:06 RGV008	20 17:42 RGV009	30 18:20 RGV010	40 18:59 RGV011	50 19:39 RGV012	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	1	0	11.5457
	2	Dichlorodifluoromethane	0.200	0.198	0.174	0.198	0.187	0.197	0.197	0.185	0.191	0.186	0.191	4.32	3.3226
	3	Dichlorotetrafluoroethane	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	4	Chloromethane	------	0.503	0.338	0.358	0.326	0.326	0.317	0.338	0.377	0.370	0.361	15.76	3.7984
	5	Vinyl chloride	------	0.252	0.219	0.253	0.234	0.221	0.191	------	------	------	0.228	10.34	3.9592
	6	Bromomethane	------	0.349	0.289	0.290	0.269	0.294	0.321	0.313	0.364	0.370	0.318	11.39	4.7418
	7	Chloroethane	------	------	0.162	0.153	0.169	0.175	0.164	0.151	0.161	0.154	0.161	5.22	4.8543
	8	Dichlorofluoromethane	0.550	0.560	0.585	0.687	0.635	0.640	0.641	0.586	0.631	0.616	0.613	6.89	4.9152
	9	Trichlorofluoromethane	0.333	0.313	0.297	0.325	0.316	0.339	0.332	0.316	0.335	0.325	0.323	3.92	5.3137
	10	sec-Propyl alcohol	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
2	11	Acrolein	------	0.013	0.015	0.017	0.019	0.018	0.018	0.017	0.018	0.018	0.017	11.87	6.0289
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.186	0.201	0.209	0.247	0.232	0.231	0.225	0.208	0.216	0.213	0.217	8.18	6.0959
2	13	Acetone	------	------	0.055	0.052	0.046	0.042	0.038	0.034	0.033	0.032	0.042	21.31	6.1480
	14	1,1-Dichloroethene	------	0.374	0.355	0.406	0.370	0.372	0.368	0.342	0.362	0.344	0.366	5.21	6.4139
5	15	tert-Butyl alcohol	------	------	0.005	0.007	0.007	0.007	0.008	0.007	0.007	0.007	0.007	10.21	6.5420
	16	Acetonitrile	------	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
	17	Methyl acetate	------	------	0.081	0.107	0.111	0.112	0.100	0.102	0.106	0.104	0.103	9.40	6.9658
	18	Iodomethane	------	0.256	0.323	0.474	0.547	0.575	0.521	0.479	0.461	------	0.455	24.30	6.9842
	19	Methylene chloride	------	1.087	0.740	0.612	0.467	0.427	0.413	0.379	0.416	0.401	0.549	42.64	7.2433
	20	Carbon disulfide	0.516	0.531	0.572	0.670	0.658	0.658	0.648	0.624	0.659	0.649	0.618	9.27	7.3345
3	21	Acrylonitrile	0.028	0.031	0.032	0.037	0.038	0.036	0.038	0.035	0.038	0.038	0.035	10.20	7.4252
	22	tert-Butyl methyl ether (MTBE)	0.290	0.282	0.288	0.359	0.344	0.355	0.361	0.321	0.341	0.335	0.327	9.39	7.5234
	23	trans-1,2-Dichloroethene	0.356	0.355	0.347	0.411	0.387	0.390	0.379	0.362	0.383	0.374	0.374	5.27	7.7806
	24	Isopropyl ether (DIPE)	0.864	0.895	0.911	1.078	0.994	0.991	0.982	0.893	0.948	0.915	0.947	6.79	8.2788
	25	Vinyl acetate	------	------	0.038	0.068	0.079	0.109	0.154	0.148	0.185	0.203	0.123	47.77	8.4491
	26	1,1-Dichloroethane	0.448	0.449	0.487	0.569	0.526	0.538	0.532	0.491	0.527	0.510	0.508	7.71	8.4973
	27	tert-Butyl ethyl ether (ETBE)	0.479	0.487	0.512	0.629	0.591	0.594	0.613	0.542	0.586	0.581	0.561	9.41	8.9747
2	28	2-Butanone	0.051	0.050	0.048	0.050	0.053	0.048	0.052	0.048	0.051	0.051	0.050	3.30	9.1784
	29	2,2-Dichloropropane	------	------	0.035	0.081	0.142	0.206	0.251	0.250	0.265	0.278	0.189	48.81	9.4490
	30	cis-1,2-Dichloroethene	0.355	0.359	0.374	0.453	0.432	0.445	0.443	0.421	0.448	0.440	0.417	9.32	9.5234
	31	Chloroform	0.511	0.505	0.506	0.592	0.554	0.556	0.556	0.522	0.553	0.538	0.539	5.24	9.7881
	32	Bromochloromethane	0.274	0.246	0.232	0.266	0.237	0.232	0.230	0.207	0.218	0.215	0.236	9.06	10.0587
	33	Tetrahydrofuran	------	0.025	0.028	0.038	0.033	0.034	0.035	0.031	0.032	0.032	0.032	12.28	10.1545
	34	1,1,1-Trichloroethane	0.333	0.335	0.354	0.428	0.409	0.411	0.410	0.381	0.400	0.396	0.386	8.78	10.4617
	35	Cyclohexane	------	0.792	0.572	0.668	0.475	0.483	0.456	0.435	0.453	0.428	0.529	23.68	10.5295
	36	tert-Amyl methyl ether (TAME)	0.437	0.441	0.462	0.557	0.511	0.524	0.533	0.463	0.497	0.496	0.492	8.20	10.8765
	37	1,2-Dichloroethane-d4	0.175	0.187	0.183	0.192	0.194	0.198	0.186	0.161	0.164	0.159	0.180	7.90	10.9494
	38	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	1	0	16.8572
	39	1,1-Dichloropropene	0.141	0.135	0.140	0.168	0.157	0.158	0.151	0.142	0.146	0.144	0.148	6.79	10.7130
	40	Carbon tetrachloride	0.223	0.231	0.272	0.346	0.330	0.336	0.304	0.253	0.240	0.248	0.278	16.81	10.9063
	41	1,2-Dichloroethane	0.219	0.223	0.223	0.271	0.248	0.250	0.237	0.208	0.209	0.206	0.229	9.30	11.0996
	42	Benzene	1.373	1.402	1.392	1.659	1.527	1.513	1.491	1.373	1.436	1.441	1.461	6.12	11.1591
	43	Trichloroethene	0.387	0.380	0.375	0.457	0.428	0.433	0.414	0.392	0.406	0.404	0.408	6.36	12.1405
	44	Methylcyclohexane	0.591	0.635	0.531	0.595	0.644	0.586	0.589	0.579	0.612	0.592	0.595	5.27	12.2743
	45	1,2-Dichloropropane	0.318	0.322	0.328	0.397	0.368	0.376	0.359	0.327	0.344	0.332	0.347	7.70	12.4081
	46	Bromodichloromethane	0.340	0.352	0.369	0.470	0.443	0.453	0.425	0.376	0.372	0.370	0.397	11.64	12.7947
	47	Dibromomethane	0.188	0.189	0.188	0.231	0.211	0.196	0.174	------	------	------	0.196	9.64	12.9007
	48	4-Methyl-2-pentanone	0.234	0.216	0.206	0.228	0.218	0.212	0.208	0.192	0.200	0.197	0.211	6.30	13.2751
	49	2-Chloroethyl vinyl ether	------	0.056	0.070	0.091	0.090	0.094	0.093	0.085	0.090	0.090	0.084	14.98	13.2110
	50	cis-1,3-Dichloropropene	0.348	0.352	0.385	0.491	0.471	0.492	0.472	0.422	0.408	0.404	0.425	12.85	13.6721
	51	Toluene-d8	1.363	1.463	1.396	1.507	1.489	1.546	1.422	1.347	1.414	1.413	1.436	4.44	14.1196
	52	Toluene	1.583	1.528	1.553	1.868	1.740	1.750	1.685	1.585	1.659	1.599	1.655	6.45	14.2669
	53	Ethyl methacrylate	0.201	0.199	0.213	0.273	0.262	0.263	0.263	0.244	0.254	0.251	0.242	11.42	14.4156
	54	trans-1,3-Dichloropropene	0.202	0.196	0.222	0.309	0.303	0.325	0.329	0.303	0.303	0.307	0.280	18.44	14.5048
	55	1,1,2-Trichloroethane	0.219	0.234	0.237	0.283	0.271	0.273	0.271	0.248	0.261	0.256	0.255	8.02	14.8022
2	56	2-Hexanone	0.104	0.107	0.102	0.115	0.119	0.116	0.119	0.108	0.114	0.113	0.112	5.40	14.7457
	57	1,3-Dichloropropane	0.337	0.340	0.345	0.424	0.401	0.396	0.386	0.354	0.364	0.364	0.371	7.92	15.2349
	58	Tetrachloroethene	0.397	0.373	0.375	0.451	0.425	0.425	0.404	0.381	0.400	0.399	0.403	6.15	15.4416

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7/11/07

59	Dibromochloromethane	------	0.245	0.256	0.338	0.334	0.351	0.341	0.314	0.325	0.323	0.314	12.01	15.7835
60	1,2-Dibromoethane	0.222	0.231	0.233	0.294	0.280	0.284	0.280	0.254	0.251	0.245	0.258	9.82	16.1672
61	1-Chlorohexane	0.704	0.691	0.678	0.823	0.780	0.784	0.747	0.711	0.742	0.721	0.738	6.24	16.3486
62	Chlorobenzene	0.955	0.900	0.899	1.119	1.026	1.047	1.006	0.981	1.033	1.029	1.000	6.81	16.9300
63	1,1,1,2-Tetrachloroethane	0.251	0.276	0.285	0.351	0.334	0.348	0.331	0.313	0.325	0.322	0.314	10.42	16.9866
64	Ethylbenzene	1.806	1.762	1.787	2.153	1.976	2.006	1.886	1.816	1.860	1.735	1.879	6.94	16.9881
2 65	m-Xylene & p-Xylene	1.330	1.269	1.293	1.548	1.453	1.430	1.389	1.271	1.186	1.045	1.321	10.86	17.1293
66	o-Xylene	1.321	1.281	1.298	1.589	1.470	1.480	1.414	1.334	1.392	1.389	1.397	6.85	17.9843
67	Styrene	0.888	0.891	0.928	1.143	1.092	1.127	1.109	1.054	1.095	1.098	1.042	9.59	18.0408
68	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	1	0	22.5196
69	Isopropylbenzene	4.593	4.285	4.212	4.980	4.350	4.334	4.083	4.056	4.197	4.096	4.319	6.53	18.6535
70	Bromoform	------	0.365	0.392	0.520	0.506	0.522	0.522	0.496	0.521	0.529	0.486	12.80	18.7724
71	1,1,2,2-Tetrachloroethane	0.726	0.694	0.699	0.839	0.747	0.724	0.722	0.676	0.702	0.699	0.723	6.31	18.9791
72	4-Bromofluorobenzene	------	1.340	1.196	1.239	1.162	1.201	1.088	1.084	1.138	1.148	1.177	6.73	19.1887
73	1,2,3-Trichloropropane	------	0.322	0.305	0.344	0.302	0.289	0.280	0.262	0.278	0.279	0.296	8.65	19.2779
74	trans-1,4-Dichloro-2-butene	------	------	0.072	0.100	0.103	0.106	0.109	0.103	0.105	0.106	0.101	11.64	19.3636
75	n-Propylbenzene	6.191	5.747	5.773	6.783	6.025	6.001	5.657	5.529	5.324	4.863	5.789	8.94	19.4654
76	Bromobenzene	1.130	0.993	0.998	1.180	1.076	1.083	1.053	1.014	1.060	1.065	1.065	5.46	19.6409
77	1,3,5-Trimethylbenzene	3.365	3.165	3.138	3.624	3.238	3.238	3.065	3.010	3.130	3.196	3.217	5.40	19.7761
78	2-Chlorotoluene	3.410	3.076	2.937	3.515	3.030	2.986	2.816	2.733	2.831	2.877	3.021	8.47	19.8877
79	4-Chlorotoluene	2.815	2.640	2.613	2.898	2.651	2.733	2.657	2.611	2.662	2.717	2.700	3.46	19.9695
80	tert-Butylbenzene	3.014	2.871	2.718	3.162	2.799	2.744	2.625	2.587	2.680	2.722	2.792	6.40	20.5241
81	1,2,4-Trimethylbenzene	3.199	3.012	3.004	3.488	3.107	3.156	2.997	2.943	3.079	3.079	3.106	4.99	20.6163
82	sec-Butylbenzene	5.216	4.897	4.860	5.566	5.040	4.932	4.693	4.659	4.784	4.534	4.918	6.10	20.9732
83	p-Isopropyltoluene	3.528	3.298	3.238	3.690	3.435	3.354	3.231	3.157	3.274	3.357	3.356	4.73	21.2408
84	1,3-Dichlorobenzene	2.003	1.791	1.799	2.025	1.877	1.884	1.845	1.764	1.855	1.886	1.873	4.56	21.5368
85	1,4-Dichlorobenzene	1.887	1.654	1.678	1.911	1.724	1.752	1.733	1.680	1.735	1.780	1.753	4.88	21.7464
86	n-Butylbenzene	3.856	3.531	3.625	3.945	3.746	3.820	3.748	3.691	3.759	3.779	3.750	3.11	22.1211
87	1,2-Dichlorobenzene	1.705	1.538	1.485	1.700	1.567	1.580	1.526	1.454	1.532	1.538	1.562	5.27	22.5791
88	1,2-Dibromo-3-chloropropane	------	------	0.072	0.089	0.090	0.096	0.099	0.089	0.092	0.092	0.090	8.83	24.2743
89	1,2,4-Trichlorobenzene	0.824	0.606	0.667	0.591	0.633	0.703	0.801	0.751	0.797	0.838	0.721	12.94	26.3115
90	Hexachlorobutadiene	0.729	0.616	0.601	0.666	0.615	0.606	0.583	0.563	0.571	0.584	0.613	8.13	26.6074
91	Naphthalene	------	------	0.505	0.386	0.442	0.520	0.698	0.633	0.674	0.723	0.573	22.03	26.9360
92	1,2,3-Trichlorobenzene	0.560	0.430	0.497	0.411	0.462	0.511	0.609	0.544	0.565	0.587	0.517	12.98	27.5011

Spike Amount = Nominal Amount * M
Ave_%RSD : 10.3 Max_%RSD : 48.8

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
4	Chloromethane	0.00172	0.35393	0.9973
13	Acetone	0.00701	0.03310	0.9959
18	Iodomethane	-0.00845	0.49589	0.9961
19	Methylene chloride	0.03588	0.39249	0.9993
25	Vinyl acetate	-0.02426	0.18162	0.9870*
29	2,2-Dichloropropane	-0.03396	0.27036	0.9971
35	Cyclohexane	0.02105	0.43727	0.9988
40	Carbon tetrachloride	0.00223	0.26199	0.9922*
54	trans-1,3-Dichloropropene	-0.00424	0.31059	0.9994
91	Naphthalene	-0.04743	0.68702	0.9956

Use Quadratic Regression of inv conc w.f. for comps of linear reg of inv conc w.f. with CCF < .995
Resp_Ratio = xo + x1 * Amt_Ratio + x2 * Amt_Ratio * Amt_Ratio

IDX	Parameter	x0	x1	x2	CCF2
25	Vinyl acetate	-0.00728	0.09883	0.02120	0.9987
40	Carbon tetrachloride	-0.00358	0.33653	-0.02035	0.9978

7/11/14

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G09\RGV015.D Vial: 15
Acq On : 9 Jul 2007 9:35 pm Operator: AS
Sample : IVO01G0901 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 10:47:16 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	106	0.00	
2	T	Dichlorodifluoromethane	10.000	9.912	0.9	102	0.00	
3	T	Dichlorotetrafluoroethane	10.000	0.000	100.0#	0	0.00	NIS
4	P,T	Chloromethane	10.000	8.639	13.6	100	-0.01	
5	C,T	Vinyl chloride	10.000	9.260	7.4	101	-0.01	
6	T	Bromomethane	10.000	11.462	-14.6	132	-0.01	
7	T	Chloroethane	10.000	9.851	1.5	96	0.00	
8	T	Dichlorofluoromethane	10.000	9.672	3.3	98	0.00	
9	T	Trichlorofluoromethane	10.000	10.186	-1.9	103	0.00	
10	T	sec-Propyl alcohol	10.000	0.000	100.0#	0	0.00	NIS
11	T	Acrolein	20.000	19.917	0.4	102	0.00	
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.590	4.1	95	-0.01	
13	T	Acetone	20.000	19.886	0.6	91	0.00	
14	C,T	1,1-Dichloroethene	10.000	9.409	5.9	98	-0.01	
15	T	tert-Butyl alcohol	50.000	49.581	0.8	100	-0.01	
16	T	Acetonitrile	10.000	0.000	100.0#	0	0.00	NIS
17	T	Methyl acetate	10.000	9.281	7.2	90	0.00	
18	T	Iodomethane	10.000	9.064	9.4	81	0.00	
19	T	Methylene chloride	10.000	9.388	6.1	101	-0.01	
20	T	Carbon disulfide	10.000	9.798	2.0	98	-0.01	
21	T	Acrylonitrile	30.000	30.630	-2.1	104	-0.01	
22	T	tert-Butyl methyl ether (MT	10.000	10.160	-1.6	99	0.00	
23	T	trans-1,2-Dichloroethene	10.000	9.725	2.8	99	-0.01	
24	T	Isopropyl ether (DIPE)	10.000	9.789	2.1	99	-0.01	
25	T	Vinyl acetate	10.000	9.197	8.0	99	-0.01	
26	P,T	1,1-Dichloroethane	10.000	9.867	1.3	99	-0.01	
27	T	tert-Butyl ethyl ether (ETB	10.000	10.287	-2.9	103	-0.01	
28	T	2-Butanone	20.000	18.638	6.8	103	-0.01	
29	T	2,2-Dichloropropane	10.000	8.005	19.9	94	0.00	
30	T	cis-1,2-Dichloroethene	10.000	9.966	0.3	99	-0.01	
31	C,T	Chloroform	10.000	9.743	2.6	100	-0.01	
32	T	Bromochloromethane	10.000	9.204	8.0	99	0.00	
33	T	Tetrahydrofuran	10.000	9.879	1.2	98	0.00	
34	T	1,1,1-Trichloroethane	10.000	10.136	-1.4	101	0.00	
35	T	Cyclohexane	10.000	10.264	-2.6	103	0.00	
36	T	tert-Amyl methyl ether (TAM	10.000	10.037	-0.4	100	-0.01	
37	S	1,2-Dichloroethane-d4	10.000	10.510	-5.1	101	-0.01	
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	109	0.00	
39	T	1,1-Dichloropropene	10.000	9.534	4.7	98	0.00	
40	T	Carbon tetrachloride	10.000	9.364	6.4	96	-0.01	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G09\RGV015.D Vial: 15
Acq On : 9 Jul 2007 9:35 pm Operator: AS
Sample : IVO01G0901 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 10:47:16 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	9.745	2.6	98	-0.01
42	T	Benzene	10.000	9.576	4.2	101	-0.01
43	T	Trichloroethene	10.000	9.651	3.5	99	-0.01
44	T	Methylcyclohexane	10.000	9.473	5.3	105	-0.01
45	C,T	1,2-Dichloropropane	10.000	9.646	3.5	97	-0.01
46	T	Bromodichloromethane	10.000	10.505	-5.1	100	0.00
47	T	Dibromomethane	10.000	8.642	13.6	95	0.00
48	T	4-Methyl-2-pentanone	20.000	18.591	7.0	101	0.00
49	T	2-Chloroethyl vinyl ether	10.000	10.295	-2.9	101	0.00
50	T	cis-1,3-Dichloropropene	10.000	9.450	5.5	89	-0.01
51	S	Toluene-d8	10.000	10.107	-1.1	103	0.00
52	C,T	Toluene	10.000	9.689	3.1	100	-0.01
53	T	Ethyl methacrylate	10.000	9.914	0.9	100	0.00
54	T	trans-1,3-Dichloropropene	10.000	8.789	12.1	90	-0.01
55	T	1,1,2-Trichloroethane	10.000	9.787	2.1	100	0.00
56	T	2-Hexanone	20.000	18.853	5.7	99	0.00
57	T	1,3-Dichloropropane	10.000	9.723	2.8	99	0.00
58	T	Tetrachloroethene	10.000	9.578	4.2	99	0.00
59	T	Dibromochloromethane	10.000	10.116	-1.2	99	0.00
60	T	1,2-Dibromoethane	10.000	9.621	3.8	95	-0.01
61	T	1-Chlorohexane	10.000	9.383	6.2	96	-0.01
62	P	Chlorobenzene	10.000	9.783	2.2	102	0.00
63	T	1,1,1,2-Tetrachloroethane	10.000	9.875	1.3	97	-0.01
64	C,T	Ethylbenzene	10.000	9.657	3.4	99	-0.01
65	T	m-Xylene & p-Xylene	20.000	19.823	0.9	100	-0.01
66	T	o-Xylene	10.000	9.666	3.3	100	-0.01
67	T	Styrene	10.000	9.955	0.4	101	-0.01
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	107	-0.01
69	T	Isopropylbenzene	10.000	9.289	7.1	99	0.00
70	P,T	Bromoform	10.000	9.891	1.1	98	0.00
71	P,T	1,1,2,2-Tetrachloroethane	10.000	9.493	5.1	101	-0.01
72	S	4-Bromofluorobenzene	10.000	10.010	-0.1	105	0.00
73	T	1,2,3-Trichloropropane	10.000	8.996	10.0	98	0.00
74	T	trans-1,4-Dichloro-2-butene	10.000	8.843	11.6	89	-0.01
75	T	n-Propylbenzene	10.000	9.575	4.3	99	-0.01
76	T	Bromobenzene	10.000	9.533	4.7	100	-0.01
77	T	1,3,5-Trimethylbenzene	10.000	9.312	6.9	99	-0.01
78	T	2-Chlorotoluene	10.000	8.897	11.0	96	0.00
79	T	4-Chlorotoluene	10.000	9.901	1.0	104	-0.01
80	T	tert-Butylbenzene	10.000	9.268	7.3	101	-0.01

(#) = Out of Range

7/11/07

2019

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G09\RGV015.D Vial: 15
Acq On : 9 Jul 2007 9:35 pm Operator: AS
Sample : IVO01G0901 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 10:47:16 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	9.450	5.5	99	-0.01
82	T	sec-Butylbenzene	10.000	9.273	7.3	99	-0.01
83	T	p-Isopropyltoluene	10.000	9.290	7.1	99	0.00
84	T	1,3-Dichlorobenzene	10.000	9.308	6.9	99	-0.01
85	T	1,4-Dichlorobenzene	10.000	9.420	5.8	101	0.00
86	T	n-Butylbenzene	10.000	9.353	6.5	98	0.00
87	T	1,2-Dichlorobenzene	10.000	9.406	5.9	99	0.00
88	T	1,2-Dibromo-3-chloropropane	10.000	9.972	0.3	100	0.00
89	T	1,2,4-Trichlorobenzene	10.000	9.911	0.9	108	-0.01
90	T	Hexachlorobutadiene	10.000	9.166	8.3	99	-0.01
91	T	Naphthalene	10.000	9.257	7.4	121	-0.01
92	T	1,2,3-Trichlorobenzene	10.000	10.243	-2.4	111	0.00

7/11/20 2020

DAILY CALIBRATIONS

2021

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RGV673
Instrument ID: T-001
GC Column:RTX502.2ID:0.32mm (mm)

Contract: LMC BEAUMONT SITE 1
SAS No.: SDG No.: 07G343
BFB Injection Date : 07/29/07
BFB Injection Time : 18:39
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.28
75	30.0 - 60.0% of mass 95	35.95
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.60
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	87.19
175	5.0 - 9.0% of mass 174	6.25(7.2)1
176	95.0 - 101.0% of mass 174	86.29(99.0)1
177	5.0 - 9.0% of mass 176	5.51(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV001G0961	RGV674	07/29/07	19:17
2	MBLK1W	V001G61Q	RGV680	07/29/07	23:08
3	LCS1W	V001G61L	RGV676	07/29/07	20:34
4	LCD1W	V001G61C	RGV677	07/29/07	21:14
5	LTB-072607	G343-02	RGV681	07/29/07	23:46
6	LEB-072607	G343-01	RGV684	07/30/07	01:45

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RGV008
Instrument ID: T-001
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07G343
Date Analyzed: 07/09/07
Time Analyzed: 17:06
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2976993	11.54	2607332	16.85	1105130	22.52
	UPPER LIMIT	5953986	12.04	5214664	17.35	2210260	23.02
	LOWER LIMIT	1488497	11.04	1303666	16.35	552565	22.02
	SAMPLE ID						
1	VSTD010	3385474	11.57	3060710	16.87	1392254	22.54
2	MBLK1W	3546589	11.56	3177060	16.87	1368388	22.54
3	LCS1W	3171498	11.56	2877460	16.87	1300227	22.54
4	LCD1W	3290930	11.56	3041137	16.87	1368171	22.53
5	LTB-072607	3408110	11.55	3098132	16.87	1298754	22.54
6	LEB-072607	3216406	11.58	2981160	16.88	1268481	22.55

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV674.D Vial: 3
Acq On : 29 Jul 2007 7:17 pm Operator: AS
Sample : CVO01G0961 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	1,4-DIFLUOROBENZENE	10.000	10.000	0.0	114	0.02	
2	T	Dichlorodifluoromethane	10.000	10.747	-7.5	119	0.00	
3	T	Dichlorotetrafluoroethane	10.000	0.000	100.0#	0	0.00	NTC
4	P,T	Chloromethane	10.000	7.993	20.1#	99	0.00	
5	C,T	Vinyl chloride	10.000	9.250	7.5	109	0.00	
6	T	Bromomethane	10.000	8.842	11.6	109	0.00	
7	T	Chloroethane	10.000	9.758	2.4	102	0.02	
8	T	Dichlorofluoromethane	10.000	8.952	10.5	98	0.02	
9	T	Trichlorofluoromethane	10.000	11.024	-10.2	120	0.02	
10	T	sec-Propyl alcohol	10.000	0.000	100.0#	0	0.00	NTC
11	T	Acrolein	20.000	15.859	20.7#	87	0.02	NTC
12	T	1,1,2-Trichloro-1,2,2-trifl	10.000	9.273	7.3	99	0.00	
13	T	Acetone	20.000	20.768	-3.8	101	0.02	
14	C,T	1,1-Dichloroethene	10.000	8.259	17.4	92	0.02	
15	T	tert-Butyl alcohol	50.000	44.809	10.4	97	0.02	
16	T	Acetonitrile	10.000	0.000	100.0#	0	0.00	NTC
17	T	Methyl acetate	10.000	1.008	89.9#	10	0.02	
18	T	Iodomethane	10.000	7.325	26.7#	70	0.02	NTC
19	T	Methylene chloride	10.000	8.118	18.8	94	0.00	
20	T	Carbon disulfide	10.000	7.418	25.8#	79	0.02	NTC G354
21	T	Acrylonitrile	30.000	28.140	6.2	103	0.02	
22	T	tert-Butyl methyl ether (MT	10.000	8.880	11.2	93	0.02	
23	T	trans-1,2-Dichloroethene	10.000	8.393	16.1	92	0.02	
24	T	Isopropyl ether (DIPE)	10.000	9.233	7.7	100	0.02	
25	T	Vinyl acetate	10.000	19.136	-91.4#	270	0.02	NTC G354
26	P,T	1,1-Dichloroethane	10.000	9.257	7.4	99	0.02	
27	T	tert-Butyl ethyl ether (ETB	10.000	9.327	6.7	100	0.02	
28	T	2-Butanone	20.000	18.476	7.6	109	0.02	
29	T	2,2-Dichloropropane	10.000	9.890	1.1	129	0.02	
30	T	cis-1,2-Dichloroethene	10.000	9.255	7.4	99	0.02	
31	C,T	Chloroform	10.000	9.599	4.0	106	0.00	
32	T	Bromochloromethane	10.000	8.551	14.5	99	0.02	
33	T	Tetrahydrofuran	10.000	9.418	5.8	101	0.02	
34	T	1,1,1-Trichloroethane	10.000	9.471	5.3	101	0.02	
35	T	Cyclohexane	10.000	-0.370	103.7#	1	0.05	NTC
36	T	tert-Amyl methyl ether (TAM	10.000	9.208	7.9	98	0.02	
37	S	1,2-Dichloroethane-d4	10.000	9.919	0.8	103	0.00	
38	I	CHLOROBENZENE-D5	10.000	10.000	0.0	117	0.02	
39	T	1,1-Dichloropropene	10.000	8.544	14.6	94	0.02	
40	T	Carbon tetrachloride	10.000	9.970	0.3	109	0.02	

(#) = Out of Range

2024

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV674.D Vial: 3
Acq On : 29 Jul 2007 7:17 pm Operator: AS
Sample : CVO01G0961 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	10.000	8.997	10.0	97	0.02
42	T	Benzene	10.000	8.479	15.2	96	0.02
43	T	Trichloroethene	10.000	8.323	16.8	92	0.02
44	T	Methylcyclohexane	10.000	0.069	99.3#	1	-0.11
45	C,T	1,2-Dichloropropane	10.000	9.159	8.4	99	0.02
46	T	Bromodichloromethane	10.000	10.516	-5.2	108	0.02
47	T	Dibromomethane	10.000	8.528	14.7	101	0.02
48	T	4-Methyl-2-pentanone	20.000	16.283	18.6	95	0.02
49	T	2-Chloroethyl vinyl ether	10.000	5.168	48.3#	55	0.02
50	T	cis-1,3-Dichloropropene	10.000	9.947	0.5	101	0.00
51	S	Toluene-d8	10.000	8.661	13.4	94	0.02
52	C,T	Toluene	10.000	8.382	16.2	93	0.02
53	T	Ethyl methacrylate	10.000	9.643	3.6	104	0.02
54	T	trans-1,3-Dichloropropene	10.000	9.459	5.4	105	0.02
55	T	1,1,2-Trichloroethane	10.000	8.960	10.4	98	0.02
56	T	2-Hexanone	20.000	18.549	7.3	105	0.02
57	T	1,3-Dichloropropane	10.000	9.164	8.4	101	0.02
58	T	Tetrachloroethene	10.000	8.004	20.0	89	0.02
59	T	Dibromochloromethane	10.000	9.469	5.3	99	0.02
60	T	1,2-Dibromoethane	10.000	8.446	15.5	90	0.00
61	T	1-Chlorohexane	10.000	8.880	11.2	98	0.02
62	P	Chlorobenzene	10.000	8.254	17.5	93	0.02
63	T	1,1,1,2-Tetrachloroethane	10.000	9.368	6.3	99	0.00
64	C,T	Ethylbenzene	10.000	8.730	12.7	96	0.02
65	T	m-Xylene & p-Xylene	20.000	17.860	10.7	97	0.00
66	T	o-Xylene	10.000	8.587	14.1	95	0.02
67	T	Styrene	10.000	8.406	15.9	91	0.00
68	I	1,2-DICHLOROBENZENE-D4	10.000	10.000	0.0	126	0.02
69	T	Isopropylbenzene	10.000	7.500	25.0#	94	0.02
70	P,T	Bromoform	10.000	8.293	17.1	97	0.02
71	P,T	1,1,2,2-Tetrachloroethane	10.000	8.825	11.8	111	0.02
72	S	4-Bromofluorobenzene	10.000	8.451	15.5	104	0.02
73	T	1,2,3-Trichloropropane	10.000	8.164	18.4	105	0.02
74	T	trans-1,4-Dichloro-2-butene	10.000	9.500	5.0	113	0.00
75	T	n-Propylbenzene	10.000	8.228	17.7	100	0.00
76	T	Bromobenzene	10.000	7.862	21.4#	97	0.00
77	T	1,3,5-Trimethylbenzene	10.000	7.354	26.5#	92	0.00
78	T	2-Chlorotoluene	10.000	8.131	18.7	104	0.02
79	T	4-Chlorotoluene	10.000	7.711	22.9#	96	0.00
80	T	tert-Butylbenzene	10.000	7.911	20.9#	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV674.D Vial: 3
Acq On : 29 Jul 2007 7:17 pm Operator: AS
Sample : CVO01G0961 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	10.000	7.624	23.8#	95	0.02
82	T	sec-Butylbenzene	10.000	7.657	23.4#	96	0.02
83	T	p-Isopropyltoluene	10.000	7.775	22.2#	98	0.02
84	T	1,3-Dichlorobenzene	10.000	8.094	19.1	101	0.02
85	T	1,4-Dichlorobenzene	10.000	8.236	17.6	104	0.02
86	T	n-Butylbenzene	10.000	8.700	13.0	108	0.02
87	T	1,2-Dichlorobenzene	10.000	8.217	17.8	102	0.02
88	T	1,2-Dibromo-3-chloropropane	10.000	9.313	6.9	110	0.02
89	T	1,2,4-Trichlorobenzene	10.000	10.085	-0.9	130	0.02
90	T	Hexachlorobutadiene	10.000	8.126	18.7	104	0.02
91	T	Naphthalene	10.000	11.845	-18.5	186	0.02
92	T	1,2,3-Trichlorobenzene	10.000	11.382	-13.8	145	0.02

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV674.D Vial: 3
Acq On : 29 Jul 2007 7:17 pm Operator: AS
Sample : CVO01G0961 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	114	0.02
2	T	Dichlorodifluoromethane	0.191	0.206	-7.9	119	0.00
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T	Chloromethane	0.361	0.285	21.1#	99	0.00
5	C,T	Vinyl chloride	0.228	0.211	7.5	109	0.00
6	T	Bromomethane	0.318	0.281	11.6	109	0.00
7	T	Chloroethane	0.161	0.157	2.5	102	0.02
8	T	Dichlorofluoromethane	0.613	0.549	10.4	98	0.02
9	T	Trichlorofluoromethane	0.323	0.356	-10.2	120	0.02
10	T	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T	Acrolein	0.017	0.013	23.5#	87	0.02
12	T	1,1,2-Trichloro-1,2,2-trifl	0.217	0.201	7.4	99	0.00
13	T	Acetone	0.042	0.038	9.5	101	0.02
14	C,T	1,1-Dichloroethene	0.366	0.302	17.5	92	0.02
15	T	tert-Butyl alcohol	0.007	0.006	14.3	97	0.02
16	T	Acetonitrile	0.000	0.000	0.0	0#	0.00
17	T	Methyl acetate	0.103	0.010	90.3#	10#	0.02
18	T	Iodomethane	0.455	0.355	22.0#	70	0.02
19	T	Methylene chloride	0.549	0.354	35.5#	94	0.00
20	T	Carbon disulfide	0.618	0.459	25.7#	79	0.02
21	T	Acrylonitrile	0.035	0.033	5.7	103	0.02
22	T	tert-Butyl methyl ether (MT	0.327	0.291	11.0	93	0.02
23	T	trans-1,2-Dichloroethene	0.374	0.314	16.0	92	0.02
24	T	Isopropyl ether (DIPE)	0.947	0.874	7.7	100	0.02
25	T	Vinyl acetate	0.123	0.259	-110.6#	270#	0.02
26	P,T	1,1-Dichloroethane	0.508	0.470	7.5	99	0.02
27	T	tert-Butyl ethyl ether (ETB	0.561	0.524	6.6	100	0.02
28	T	2-Butanone	0.050	0.046	8.0	109	0.02
29	T	2,2-Dichloropropane	0.189	0.233	-23.3#	129	0.02
30	T	cis-1,2-Dichloroethene	0.417	0.386	7.4	99	0.02
31	C,T	Chloroform	0.539	0.518	3.9	106	0.00
32	T	Bromochloromethane	0.236	0.202	14.4	99	0.02
33	T	Tetrahydrofuran	0.032	0.030	6.3	101	0.02
34	T	1,1,1-Trichloroethane	0.386	0.365	5.4	101	0.02
35	T	Cyclohexane	0.529	0.005	99.1#	1#	0.05
36	T	tert-Amyl methyl ether (TAM	0.492	0.453	7.9	98	0.02
37	S	1,2-Dichloroethane-d4	0.180	0.178	1.1	103	0.00
38	I	CHLOROBENZENE-D5	1.000	1.000	0.0	117	0.02
39	T	1,1-Dichloropropene	0.148	0.127	14.2	94	0.02
40	T	Carbon tetrachloride	0.278	0.312	-12.2	109	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV674.D Vial: 3
Acq On : 29 Jul 2007 7:17 pm Operator: AS
Sample : CV001G0961 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	1,2-Dichloroethane	0.229	0.206	10.0	97	0.02
42	T	Benzene	1.461	1.239	15.2	96	0.02
43	T	Trichloroethene	0.408	0.339	16.9	92	0.02
44	T	Methylcyclohexane	0.595	0.004	99.3#	1#	-0.11
45	C,T	1,2-Dichloropropane	0.347	0.318	8.4	99	0.02
46	T	Bromodichloromethane	0.397	0.418	-5.3	108	0.02
47	T	Dibromomethane	0.196	0.168	14.3	101	0.02
48	T	4-Methyl-2-pentanone	0.211	0.172	18.5	95	0.02
49	T	2-Chloroethyl vinyl ether	0.084	0.044	47.6#	55	0.02
50	T	cis-1,3-Dichloropropene	0.425	0.422	0.7	101	0.00
51	S	Toluene-d8	1.436	1.244	13.4	94	0.02
52	C,T	Toluene	1.655	1.387	16.2	93	0.02
53	T	Ethyl methacrylate	0.242	0.234	3.3	104	0.02
54	T	trans-1,3-Dichloropropene	0.280	0.290	-3.6	105	0.02
55	T	1,1,2-Trichloroethane	0.255	0.229	10.2	98	0.02
56	T	2-Hexanone	0.112	0.104	7.1	105	0.02
57	T	1,3-Dichloropropane	0.371	0.340	8.4	101	0.02
58	T	Tetrachloroethene	0.403	0.323	19.9	89	0.02
59	T	Dibromochloromethane	0.314	0.297	5.4	99	0.02
60	T	1,2-Dibromoethane	0.258	0.217	15.9	90	0.00
61	T	1-Chlorohexane	0.738	0.656	11.1	98	0.02
62	P	Chlorobenzene	1.000	0.825	17.5	93	0.02
63	T	1,1,1,2-Tetrachloroethane	0.314	0.294	6.4	99	0.00
64	C,T	Ethylbenzene	1.879	1.640	12.7	96	0.02
65	T	m-Xylene & p-Xylene	1.321	1.180	10.7	97	0.00
66	T	o-Xylene	1.397	1.199	14.2	95	0.02
67	T	Styrene	1.042	0.876	15.9	91	0.00
68	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	126	0.02
69	T	Isopropylbenzene	4.319	3.239	25.0#	94	0.02
70	P,T	Bromoform	0.486	0.403	17.1	97	0.02
71	P,T	1,1,2,2-Tetrachloroethane	0.723	0.638	11.8	111	0.02
72	S	4-Bromofluorobenzene	1.177	0.995	15.5	104	0.02
73	T	1,2,3-Trichloropropane	0.296	0.241	18.6	105	0.02
74	T	trans-1,4-Dichloro-2-butene	0.101	0.096	5.0	113	0.00
75	T	n-Propylbenzene	5.789	4.763	17.7	100	0.00
76	T	Bromobenzene	1.065	0.838	21.3#	97	0.00
77	T	1,3,5-Trimethylbenzene	3.217	2.366	26.5#	92	0.00
78	T	2-Chlorotoluene	3.021	2.456	18.7	104	0.02
79	T	4-Chlorotoluene	2.700	2.082	22.9#	96	0.00
80	T	tert-Butylbenzene	2.792	2.209	20.9#	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G29\RGV674.D Vial: 3
Acq On : 29 Jul 2007 7:17 pm Operator: AS
Sample : CVO01G0961 10ppb Inst : TO01
Misc : 10ppb8260/20ppbKET_AA/50ppbTBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : D:\HPCHEM\1\METHODS\VO01G09.M (RTE Integrator)
Title : METHOD 8260 25mls
Last Update : Tue Jul 10 14:23:28 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	1,2,4-Trimethylbenzene	3.106	2.369	23.7#	95	0.02
82	T	sec-Butylbenzene	4.918	3.766	23.4#	96	0.02
83	T	p-Isopropyltoluene	3.356	2.610	22.2#	98	0.02
84	T	1,3-Dichlorobenzene	1.873	1.516	19.1	101	0.02
85	T	1,4-Dichlorobenzene	1.753	1.444	17.6	104	0.02
86	T	n-Butylbenzene	3.750	3.262	13.0	108	0.02
87	T	1,2-Dichlorobenzene	1.562	1.284	17.8	102	0.02
88	T	1,2-Dibromo-3-chloropropane	0.090	0.084	6.7	110	0.02
89	T	1,2,4-Trichlorobenzene	0.721	0.727	-0.8	130	0.02
90	T	Hexachlorobutadiene	0.613	0.498	18.8	104	0.02
91	T	Naphthalene	0.573	0.766	-33.7#	186	0.02
92	T	1,2,3-Trichlorobenzene	0.517	0.589	-13.9	145	0.02

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☒ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 7-9-07 ☐ 5-ml Purge ☒ 25-ml Purge **Book # A01 -024**

BATCH V001G0906

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RGV001	BFB01G01	2 µL				T/CHECK
02	02	02					13:26
03	03	V001G0901	.05/.15/.4 µL				.3 ppb 8260/.6 ppb Ket AA/1.5 TEA
04	04	02	.05/.25/.1 µL				.5 / 1 / 2.5
05	05	03	.1/.5/.2 µL				1 / 2 / 5
06	06	04	.2/1/.4 µL				2 / 4 / 10
07	07	05	.5/2.5/1 µL				5 / 10 / 25
08	08	06	1/5/2 µL				10 / 20 / 50
09	09	07	2/10/4 µL				20 / 40 / 100
10	10	08	3/15/6 µL				30 / 60 / 150
11	11	09	4/20/8 µL				40 / 80 / 200
12	12	10	5/25/10 µL				50 / 100 / 250
13	13	Rinse	25 mls	1.0			no SS
14	14	V001G02B					
15	15	IV001G0901	1/5/2/1 µL				21:35
16	16	02					
17	17	Rinse	25 mls	1.0			
18	18						
19							
20							
21							
22							
23							
24							
25							AS 7-10-07

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	7-9-07
ICAL ID	V001G09

STANDARDS

NAME	ID	CONC. (mg/L)
DCC gases	SVIC-11-86-2	250
DCC 8260	-89-2	50/250
DCC Ket-AA 3 add'l	-98-1 -94-2	250 250
BFB	-87-3	50
IS/SURR. IS SS	-97-1 -79-2	250
LCS gases	-86-3	250
LCS 8260	-81-3	50/250
LCS Ket-AA 3 add'l	-96-3 -94-1	250 250

SOLVENT	ID
METHANOL	
DATA FILE	07G09

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: AS

Date Disposed: 7-10-07

Disposed By: AS

2031

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☒ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: ☐ 5-ml Purge ☒ 25-ml Purge **Book # A01 -024**

BATCH CV001G0961

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RGV672	BFB01G60	2ml				T/CHECK
02	673	61					18:39
03	674	CV001G0961	1/5/2ml				
04	675	62					
05	676	V001G61L					
06	677	C					
07	678	X					not needed
08	679	B	25mls	1.0			
09	680	Q					
10	681	07G343-02			<2		TB
11	682	07G357-26					TB R/R for Naptholene low DL/RL
12	683	07G315-01					TB
13	684	07G343-01					EB
14	685	07G315-12					ER
15	686	-11					
16	687	07G357-01					R/R on another system (Naptholene) RL SL
17	688	-02					
18	689	-03					
19	690	-04					
20	691	-05					08:21
21	692	Rinse					
22	693						
23							
24							
25							AS 7-30-07

Instrument No.	01
INITIAL CALIBRATION REFERENCE	
DATE	7-9-07
ICAL ID	V001G09

STANDARDS

NAME	ID	CONC. (mg/L)
DCC gases	SVIC-11-86-2	
DCC 8260	-89-2	
DCC Ket-AA	-98-1	50/250
BFB	-87-3	
IS/SURR.	-97-2	
LCS gases	-86-3	
LCS 8260	-81-3	
LCS Ket-AA	-96-3	

SOLVENT	ID
METHANOL	
DATA FILE	07G29

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO01	

Comments:

Analyzed By: AS

Date Disposed: 7-30-07

Disposed By: AS

2032

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 07G343

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07G343

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Six (6) soil samples were received on 07/26/07 for Volatile Organic analysis by Method 5035/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07G343
Instrument ID : T-003

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V003G77B	1	NA	07/31/0715:23	07/31/0715:23	RGB792	RGB374	V003G77	Method Blank
LCS1S	V003G77L	1	NA	07/31/0714:08	07/31/0714:08	RGB790	RGB374	V003G77	Lab Control Sample (LCS)
LCD1S	V003G77C	1	NA	07/31/0714:46	07/31/0714:46	RGB791	RGB374	V003G77	LCS Duplicate
D26-HAS16-0.5	G343-03	1.1	1.5	07/31/0719:09	07/31/0719:09	RGB798	RGB374	V003G77	Field Sample
D26-HAS16-5	G343-04	.96	6.7	07/31/0719:47	07/31/0719:47	RGB799	RGB374	V003G77	Field Sample
D26-HAS15-0.5	G343-05	1.2	1.0	07/31/0720:24	07/31/0720:24	RGB800	RGB374	V003G77	Field Sample
D26-HAS15-5	G343-06	.96	2.2	07/31/0721:02	07/31/0721:02	RGB801	RGB374	V003G77	Field Sample
D26-HAS14-0.5	G343-07	1.1	1.1	07/31/0721:41	07/31/0721:41	RGB802	RGB374	V003G77	Field Sample
D26-HAS14-5	G343-08	.98	3.2	07/31/0722:19	07/31/0722:19	RGB803	RGB374	V003G77	Field Sample

FN - Filename
% Moist - Percent Moisture

2035

SAMPLE RESULTS

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	07/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	07/26/07
Batch No.	: 07G343	Date Extracted:	07/31/07 19:09
Sample ID	: D26-HAS16-0.5	Date Analyzed:	07/31/07 19:09
Lab Samp ID	: G343-03	Dilution Factor:	1.1
Lab File ID	: RGB798	Matrix	: SOIL
Ext Btch ID	: V003G77	% Moisture	: 1.5
Calib. Ref.	: RGB374	Instrument ID	: T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	6.6J	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	60-160
4-BROMOFLUOROBENZENE	108	70-150
TOLUENE-D8	95	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/31/07 19:47
Sample ID: D26HAS16-5	Date Analyzed: 07/31/07 19:47
Lab Samp ID: G343-04	Dilution Factor: .96
Lab File ID: RGB799	Matrix : SOIL
Ext Btch ID: V003G77	% Moisture : 6.7
Calib. Ref.: RGB374	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.1	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.1	2.1
1,1,2-TRICHLOROETHANE	ND	5.1	2.1
1,1-DICHLOROETHANE	ND	5.1	2.1
1,1-DICHLOROETHENE	ND	5.1	2.1
1,2-DICHLOROETHANE	ND	5.1	2.1
1,2-DICHLOROPROPANE	ND	5.1	2.1
2-BUTANONE	ND	10	5.1
2-HEXANONE	ND	10	5.1
4-METHYL-2-PENTANONE	ND	10	5.1
ACETONE	ND	10	5.1
BENZENE	ND	5.1	2.1
BROMODICHLOROMETHANE	ND	5.1	2.1
BROMOFORM	ND	5.1	2.1
BROMOMETHANE	ND	10	2.1
CARBON DISULFIDE	ND	5.1	2.1
CARBON TETRACHLORIDE	ND	5.1	2.1
CHLOROBENZENE	ND	5.1	2.1
CHLOROETHANE	ND	5.1	2.1
CHLOROFORM	ND	5.1	2.1
CHLOROMETHANE	ND	10	2.1
CIS-1,2-DICHLOROETHENE	ND	5.1	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.1	2.1
DIBROMOCHLOROMETHANE	ND	5.1	2.1
ETHYLBENZENE	ND	5.1	2.1
M/P-XYLENES	ND	10	2.1
MTBE	ND	5.1	2.1
METHYLENE CHLORIDE	ND	10	2.1
O-XYLENE	ND	5.1	2.1
STYRENE	ND	5.1	2.1
TETRACHLOROETHENE	ND	5.1	2.1
TOLUENE	ND	5.1	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.1	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.1	2.1
TRICHLOROETHENE	ND	5.1	2.1
VINYL CHLORIDE	ND	5.1	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	97	60-160
4-BROMOFLUOROBENZENE	106	70-150
TOLUENE-D8	94	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343 LM	Date Extracted: 07/31/07 20:24
Sample ID: D26-HAS15-0.5	Date Analyzed: 07/31/07 20:24
Lab Samp ID: G343-05	Dilution Factor: 1.2
Lab File ID: RGB800	Matrix : SOIL
Ext Btch ID: VO03G77	% Moisture : 1.0
Calib. Ref.: RGB374	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.1	2.4
1,1,2,2-TETRACHLOROETHANE	ND	6.1	2.4
1,1,2-TRICHLOROETHANE	ND	6.1	2.4
1,1-DICHLOROETHANE	ND	6.1	2.4
1,1-DICHLOROETHENE	ND	6.1	2.4
1,2-DICHLOROETHANE	ND	6.1	2.4
1,2-DICHLOROPROPANE	ND	6.1	2.4
2-BUTANONE	ND	12	6.1
2-HEXANONE	ND	12	6.1
4-METHYL-2-PENTANONE	ND	12	6.1
ACETONE	12J	12	6.1
BENZENE	ND	6.1	2.4
BROMODICHLOROMETHANE	ND	6.1	2.4
BROMOFORM	ND	6.1	2.4
BROMOMETHANE	ND	12	2.4
CARBON DISULFIDE	ND	6.1	2.4
CARBON TETRACHLORIDE	ND	6.1	2.4
CHLOROBENZENE	ND	6.1	2.4
CHLOROETHANE	ND	6.1	2.4
CHLOROFORM	ND	6.1	2.4
CHLOROMETHANE	ND	12	2.4
CIS-1,2-DICHLOROETHENE	ND	6.1	2.4
CIS-1,3-DICHLOROPROPENE	ND	6.1	2.4
DIBROMOCHLOROMETHANE	ND	6.1	2.4
ETHYLBENZENE	ND	6.1	2.4
M/P-XYLENES	ND	12	2.4
MTBE	ND	6.1	2.4
METHYLENE CHLORIDE	ND	12	2.4
O-XYLENE	ND	6.1	2.4
STYRENE	ND	6.1	2.4
TETRACHLOROETHENE	ND	6.1	2.4
TOLUENE	ND	6.1	2.4
TRANS-1,2-DICHLOROETHENE	ND	6.1	2.4
TRANS-1,3-DICHLOROPROPENE	ND	6.1	2.4
TRICHLOROETHENE	ND	6.1	2.4
VINYL CHLORIDE	ND	6.1	2.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	60-160
4-BROMOFLUOROBENZENE	109	70-150
TOLUENE-D8	95	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	07/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	07/26/07
Batch No.	: 07G343 LM	Date Extracted:	07/31/07 21:02
Sample ID:	D26-HAS15-5	Date Analyzed:	07/31/07 21:02
Lab Samp ID:	G343-06	Dilution Factor:	.96
Lab File ID:	RGB801	Matrix :	SOIL
Ext Btch ID:	V003G77	% Moisture :	2.2
Calib. Ref.:	RGB374	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	4.9	2.0
1,1,2,2-TETRACHLOROETHANE	ND	4.9	2.0
1,1,2-TRICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHANE	ND	4.9	2.0
1,1-DICHLOROETHENE	ND	4.9	2.0
1,2-DICHLOROETHANE	ND	4.9	2.0
1,2-DICHLOROPROPANE	ND	4.9	2.0
2-BUTANONE	ND	9.8	4.9
2-HEXANONE	ND	9.8	4.9
4-METHYL-2-PENTANONE	ND	9.8	4.9
ACETONE	ND	9.8	4.9
BENZENE	ND	4.9	2.0
BROMODICHLOROMETHANE	ND	4.9	2.0
BROMOFORM	ND	4.9	2.0
BROMOMETHANE	ND	9.8	2.0
CARBON DISULFIDE	ND	4.9	2.0
CARBON TETRACHLORIDE	ND	4.9	2.0
CHLOROBENZENE	ND	4.9	2.0
CHLOROETHANE	ND	4.9	2.0
CHLOROFORM	ND	4.9	2.0
CHLOROMETHANE	ND	9.8	2.0
CIS-1,2-DICHLOROETHENE	ND	4.9	2.0
CIS-1,3-DICHLOROPROPENE	ND	4.9	2.0
DIBROMOCHLOROMETHANE	ND	4.9	2.0
ETHYLBENZENE	ND	4.9	2.0
M/P-XYLENES	ND	9.8	2.0
MTBE	ND	4.9	2.0
METHYLENE CHLORIDE	ND	9.8	2.0
O-XYLENE	ND	4.9	2.0
STYRENE	ND	4.9	2.0
TETRACHLOROETHENE	ND	4.9	2.0
TOLUENE	ND	4.9	2.0
TRANS-1,2-DICHLOROETHENE	ND	4.9	2.0
TRANS-1,3-DICHLOROPROPENE	ND	4.9	2.0
TRICHLOROETHENE	ND	4.9	2.0
VINYL CHLORIDE	ND	4.9	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	110	60-160
4-BROMOFLUOROBENZENE	109	70-150
TOLUENE-D8	95	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343 LMC	Date Extracted: 07/31/07 21:41
Sample ID: D2[3]HAS14-0.5	Date Analyzed: 07/31/07 21:41
Lab Samp ID: G343-07	Dilution Factor: 1.1
Lab File ID: RGB802	Matrix : SOIL
Ext Btch ID: V003G77	% Moisture : 1.1
Calib. Ref.: RGB374	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	7.2J	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	2.4J	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	101	60-160
4-BROMOFLUOROBENZENE	110	70-150
TOLUENE-D8	98	70-140

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/31/07 22:19
Sample ID: D2SHAS14-5	Date Analyzed: 07/31/07 22:19
Lab Samp ID: G343-08	Dilution Factor: .98
Lab File ID: RGB803	Matrix : SOIL
Ext Btch ID: V003G77	% Moisture : 3.2
Calib. Ref.: RGB374	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.1	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.1	2.0
1,1,2-TRICHLOROETHANE	ND	5.1	2.0
1,1-DICHLOROETHANE	ND	5.1	2.0
1,1-DICHLOROETHENE	ND	5.1	2.0
1,2-DICHLOROETHANE	ND	5.1	2.0
1,2-DICHLOROPROPANE	ND	5.1	2.0
2-BUTANONE	ND	10	5.1
2-HEXANONE	ND	10	5.1
4-METHYL-2-PENTANONE	ND	10	5.1
ACETONE	ND	10	5.1
BENZENE	ND	5.1	2.0
BROMODICHLOROMETHANE	ND	5.1	2.0
BROMOFORM	ND	5.1	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.1	2.0
CARBON TETRACHLORIDE	ND	5.1	2.0
CHLOROBENZENE	ND	5.1	2.0
CHLOROETHANE	ND	5.1	2.0
CHLOROFORM	ND	5.1	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.1	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.1	2.0
DIBROMOCHLOROMETHANE	ND	5.1	2.0
ETHYLBENZENE	ND	5.1	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.1	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.1	2.0
STYRENE	ND	5.1	2.0
TETRACHLOROETHENE	ND	5.1	2.0
TOLUENE	ND	5.1	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.1	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.1	2.0
TRICHLOROETHENE	ND	5.1	2.0
VINYL CHLORIDE	ND	5.1	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	104	60-160
4-BROMOFLUOROBENZENE	115	70-150
TOLUENE-D8	96	70-140

QC SUMMARIES

METHOD 5035/8260B
VOLATILE ORGANICS BY GC/MS

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	07/31/07
Batch No.	: 07G343	Date Extracted:	07/31/07 15:23
Sample ID:	MBLK1S	Date Analyzed:	07/31/07 15:23
Lab Samp ID:	V003G77B	Dilution Factor:	1
Lab File ID:	RGB792	Matrix :	SOIL
Ext Btch ID:	V003G77	% Moisture :	NA
Calib. Ref.:	RGB374	Instrument ID :	T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.0	2.0
1,1,2,2-TETRACHLOROETHANE	ND	5.0	2.0
1,1,2-TRICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHANE	ND	5.0	2.0
1,1-DICHLOROETHENE	ND	5.0	2.0
1,2-DICHLOROETHANE	ND	5.0	2.0
1,2-DICHLOROPROPANE	ND	5.0	2.0
2-BUTANONE	ND	10	5.0
2-HEXANONE	ND	10	5.0
4-METHYL-2-PENTANONE	ND	10	5.0
ACETONE	ND	10	5.0
BENZENE	ND	5.0	2.0
BROMODICHLOROMETHANE	ND	5.0	2.0
BROMOFORM	ND	5.0	2.0
BROMOMETHANE	ND	10	2.0
CARBON DISULFIDE	ND	5.0	2.0
CARBON TETRACHLORIDE	ND	5.0	2.0
CHLOROBENZENE	ND	5.0	2.0
CHLOROETHANE	ND	5.0	2.0
CHLOROFORM	ND	5.0	2.0
CHLOROMETHANE	ND	10	2.0
CIS-1,2-DICHLOROETHENE	ND	5.0	2.0
CIS-1,3-DICHLOROPROPENE	ND	5.0	2.0
DIBROMOCHLOROMETHANE	ND	5.0	2.0
ETHYLBENZENE	ND	5.0	2.0
M/P-XYLENES	ND	10	2.0
MTBE	ND	5.0	2.0
METHYLENE CHLORIDE	ND	10	2.0
O-XYLENE	ND	5.0	2.0
STYRENE	ND	5.0	2.0
TETRACHLOROETHENE	ND	5.0	2.0
TOLUENE	ND	5.0	2.0
TRANS-1,2-DICHLOROETHENE	ND	5.0	2.0
TRANS-1,3-DICHLOROPROPENE	ND	5.0	2.0
TRICHLOROETHENE	ND	5.0	2.0
VINYL CHLORIDE	ND	5.0	2.0

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	84	70-140
4-BROMOFLUOROBENZENE	104	70-130
TOLUENE-D8	94	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: SW 5035/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V003G77B	V003G77L	V003G77C		
LAB FILE ID:	RGB792	RGB790	RGB791		
DATE EXTRACTED:	07/31/0715:23	07/31/0714:08	07/31/0714:46	DATE COLLECTED:	NA
DATE ANALYZED:	07/31/0715:23	07/31/0714:08	07/31/0714:46	DATE RECEIVED:	07/31/07
PREP. BATCH:	V003G77	V003G77	V003G77		
CALIB. REF:	RGB374	RGB374	RGB374		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20.0	20.4	102	20.0	18.9	95	7	60-130	50
Benzene	ND	20.0	23.4	117	20.0	22.0	110	7	70-130	50
Chlorobenzene	ND	20.0	23.0	115	20.0	21.6	108	6	70-130	50
Toluene	ND	20.0	23.2	116	20.0	21.5	108	8	70-130	50
Trichloroethene	ND	20.0	21.6	108	20.0	20.8	104	4	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50.0	45.8	92	50.0	46.4	93	70-140
4-Bromofluorobenzene	50.0	54.3	109	50.0	52.9	106	70-130
Toluene-d8	50.0	53.2	106	50.0	53.4	107	70-130

INITIAL CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07G343

Lab File ID: RGB369 BFB Injection Date : 07/17/07

Instrument ID: T-003 BFB Injection Time : 18:45

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.23
75	30.0 - 60.0% of mass 95	50.53
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.75
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	65.01
175	5.0 - 9.0% of mass 174	5.28(8.1)1
176	95.0 - 101.0% of mass 174	63.10(97.1)1
177	5.0 - 9.0% of mass 176	4.28(6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD02	V003G171	RGB370	07/17/07	19:24
2	VSTD05	V003G172	RGB371	07/17/07	20:02
3	VSTD010	V003G173	RGB372	07/17/07	20:40
4	VSTD020	V003G174	RGB373	07/17/07	21:19
5	VSTD050	V003G175	RGB374	07/17/07	21:58
6	VSTD080	V003G176	RGB375	07/17/07	22:36
7	VSTD100	V003G177	RGB376	07/17/07	23:14
8	VSTD200	V003G178	RGB377	07/17/07	23:51
9	VSTD300	V003G179	RGB378	07/18/07	00:30

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
Lab File ID: RGB385
Instrument ID: T-003
GC Column:RTX502.2ID:0.32mm (mm)

Contract: LMC BEAUMONT SITE 1
SAS No.: SDG No.: 07G343
BFB Injection Date : 07/18/07
BFB Injection Time : 11:10
Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.05
75	30.0 - 60.0% of mass 95	46.89
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.95
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	67.28
175	5.0 - 9.0% of mass 174	5.33(7.9)1
176	95.0 - 101.0% of mass 174	66.43(98.7)1
177	5.0 - 9.0% of mass 176	4.44(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	IV003G173	RGB386	07/18/07	11:49

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO03
Beginning DateTime :07/17/07 19:24
Spike Units :PPB
IC File :RGB374

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :07/18/07 00:30
HPChem Method :V003G17

M	IDX	Parameters	2 19:24 RGB370	5 20:02 RGB371	10 20:40 RGB372	20 21:19 RGB373	50 21:58 RGB374	80 22:36 RGB375	100 23:14 RGB376	200 23:51 RGB377	300 00:30 RGB378	Av_RRF	%_RSD	Av_Rt_M
	1	1,4-DIFLUOROBENZENE	1	1	1	1	1	1	1	1	1	1	0	10.7464
	2	Dichlorodifluoromethane	0.475	0.518	0.509	0.509	0.513	0.463	0.447	0.414	0.415	0.474	8.78	3.1074
	3	Dichlorotetrafluoroethane										0.000	0.00	0.0000
	4	Chloromethane	0.691	0.501	0.501	0.493	0.500	0.486	0.476	0.486	0.497	0.514	13.00	3.5109
	5	Vinyl chloride	0.427	0.444	0.479	0.468	0.473	0.418	0.391	0.339	0.345	0.420	12.57	3.6978
	6	Bromomethane	0.238	0.266	0.287	0.258	0.337	0.328	0.323	0.316	0.321	0.297	12.02	4.4338
	7	Chloroethane	0.198	0.202	0.190	0.206	0.224	0.222	0.214	0.206	0.204	0.207	5.42	4.5545
	8	Dichlorofluoromethane	1.033	0.902	0.935	0.860	0.805	0.779	0.771	0.744	0.771	0.844	11.38	4.6223
	9	Trichlorofluoromethane	0.648	0.718	0.734	0.718	0.720	0.663	0.630	0.605	0.596	0.670	8.00	4.9812
	10	sec-Propyl alcohol										0.000	0.00	0.0000
4	11	Acrolein	0.036	0.034	0.034	0.035	0.035	0.035	0.036	0.033	0.037	0.035	3.77	5.6377
	12	1,1,2-Trichloro-1,2,2-trifluoroethane	0.220	0.212	0.234	0.228	0.212	0.206	0.216	0.214	0.218	0.218	3.95	5.6642
4	13	Acetone	0.113	0.129	0.109	0.101	0.095	0.091	0.095	0.085	0.100	0.102	13.04	5.7452
	14	1,1-Dichloroethene	0.681	0.612	0.663	0.602	0.542	0.511	0.530	0.506	0.517	0.574	11.75	5.9387
5	15	tert-Butyl alcohol	0.021	0.020	0.022	0.019	0.022	0.021	0.024	0.022	0.029	0.022	13.53	6.0892
	16	Acetonitrile										0.000	0.00	0.0000
	17	Iodomethane	0.186	0.220	0.293	0.311	0.367	0.347	0.369	0.316	0.327	0.304	20.82	6.4315
	18	Methyl acetate										0.000	0.00	0.0000
	19	Methylene chloride	1.185	0.747	0.653	0.557	0.460	0.441	0.449	0.434	0.447	0.597	41.33	6.6763
	20	Carbon disulfide	0.668	0.685	0.716	0.697	0.649	0.645	0.700	0.695	0.735	0.688	4.32	6.7507
5	21	Acrylonitrile	0.079	0.078	0.080	0.078	0.078	0.076	0.084	0.079	0.093	0.081	6.18	6.8467
	22	tert-Butyl methyl ether (MTBE)	0.434	0.439	0.483	0.477	0.487	0.495	0.510	0.513	0.615	0.495	10.71	6.9327
	23	trans-1,2-Dichloroethene	0.507	0.497	0.552	0.525	0.491	0.466	0.482	0.481	0.502	0.500	5.19	7.1443
	24	Isopropyl ether (DIPE)	1.067	1.026	1.092	1.028	1.049	1.027	1.072	1.098	1.161	1.069	4.12	7.6124
	25	Vinyl acetate	0.528	0.398	0.463	0.460	0.485	0.494	0.518	0.511	0.567	0.491	9.84	7.7612
	26	1,1-Dichloroethane	0.496	0.513	0.590	0.612	0.578	0.565	0.579	0.537	0.555	0.558	6.71	7.7976
	27	tert-Butyl ethyl ether (ETBE)	0.544	0.548	0.602	0.610	0.634	0.653	0.666	0.675	0.795	0.636	11.91	8.2458
4	28	2-Butanone	0.159	0.147	0.134	0.135	0.139	0.135	0.145	0.135	0.161	0.143	7.30	8.4310
	29	2,2-Dichloropropane	0.332	0.320	0.351	0.321	0.347	0.350	0.348	0.349	0.389	0.345	5.93	8.6791
	30	cis-1,2-Dichloroethene	0.576	0.555	0.611	0.582	0.538	0.525	0.527	0.525	0.546	0.554	5.46	8.7486
	31	tert-Butyl formate (TBF)										0.000	0.00	0.0000
	32	Chloroform	0.700	0.636	0.744	0.714	0.669	0.625	0.623	0.619	0.648	0.664	6.85	9.0016
	33	Bromochloromethane	0.300	0.289	0.313	0.300	0.279	0.265	0.261	0.261	0.273	0.282	6.80	9.2695
	34	Tetrahydrofuran		0.094	0.092	0.080	0.077	0.074	0.079	0.073	0.086	0.082	9.83	9.3497
	35	1,1,1-Trichloroethane	0.442	0.477	0.531	0.576	0.558	0.535	0.536	0.525	0.553	0.526	7.92	9.6565
	36	1,1-Dichloropropene	0.166	0.150	0.169	0.161	0.150	0.143	0.147	0.143	0.147	0.153	6.38	9.9062
	37	Cyclohexane										0.000	0.00	0.0000
	38	tert-Amyl methyl ether (TAME)	0.509	0.476	0.511	0.476	0.526	0.535	0.548	0.564	0.650	0.533	9.95	10.0700
	39	1,2-Dichloroethane-d4		0.429	0.461	0.437	0.445	0.405	0.388			0.427	6.30	10.1338
	40	CHLOROBENZENE-D5	1	1	1	1	1	1	1	1	1	1	0	16.5479
	41	Carbon tetrachloride	0.297	0.373	0.445	0.463	0.481	0.475	0.483	0.490	0.502	0.445	15.13	10.0881
	42	1,2-Dichloroethane	0.548	0.542	0.580	0.535	0.512	0.491	0.484	0.483	0.504	0.520	6.40	10.2866
	43	Benzene	1.221	1.215	1.307	1.205	1.202	1.210	1.273	1.298	1.300	1.248	3.63	10.3511
	44	Trichloroethene	0.332	0.335	0.373	0.343	0.338	0.345	0.352	0.349	0.370	0.349	4.20	11.3533
	45	Methylcyclohexane										0.000	0.00	0.0000
	46	1,2-Dichloropropane	0.288	0.318	0.342	0.323	0.321	0.321	0.330	0.334	0.340	0.324	4.95	11.6361
	47	Bromodichloromethane	0.380	0.446	0.510	0.518	0.522	0.516	0.512	0.524	0.547	0.497	10.41	12.0396
	48	Dibromomethane	0.242	0.251	0.274	0.266	0.255	0.242	0.242	0.241	0.243	0.251	4.78	12.1438

1-21-07

	49	2-Chloroethyl vinyl ether	0.117	0.121	0.130	0.115	0.131	0.144	0.150	0.146	0.166	0.135	12.81	12.4845
4	50	4-Methyl-2-pentanone	0.503	0.391	0.389	0.343	0.368	0.366	0.394	0.370	0.387	0.390	11.59	12.5457
	51	cis-1,3-Dichloropropene	0.321	0.369	0.438	0.449	0.476	0.483	0.478	0.488	0.521	0.447	14.17	12.9476
	52	Toluene-d8	------	1.101	1.197	1.108	1.194	1.175	1.174	------	------	1.158	3.69	13.4381
	53	Toluene	1.413	1.373	1.492	1.352	1.339	1.324	1.361	1.397	1.318	1.374	3.94	13.5859
	54	Ethyl methacrylate	0.377	0.380	0.406	0.380	0.384	0.381	0.388	0.382	0.405	0.387	2.85	13.7811
	55	trans-1,3-Dichloropropene	0.266	0.307	0.354	0.377	0.410	0.421	0.421	0.433	0.470	0.385	16.96	13.8555
4	56	2-Hexanone	0.238	0.252	0.255	0.237	0.252	0.255	0.262	0.247	0.280	0.253	5.12	14.1400
	57	1,1,2-Trichloroethane	0.258	0.271	0.290	0.270	0.274	0.273	0.269	0.269	0.282	0.273	3.30	14.1830
	58	1,3-Dichloropropane	0.467	0.469	0.514	0.484	0.489	0.475	0.478	0.468	0.503	0.483	3.41	14.6741
	59	Tetrachloroethene	0.275	0.283	0.307	0.279	0.282	0.280	0.285	0.288	0.288	0.285	3.22	14.8825
	60	Dibromochloromethane	0.211	0.261	0.328	0.346	0.368	0.368	0.372	0.376	0.399	0.337	18.35	15.2828
	61	1,2-Dibromoethane	0.301	0.292	0.336	0.322	0.324	0.312	0.308	0.295	0.316	0.312	4.65	15.7161
	62	1-Chlorohexane	0.591	0.589	0.650	0.603	0.593	0.597	0.606	0.602	0.616	0.605	3.08	15.9773
	63	Chlorobenzene	0.894	0.898	0.973	0.896	0.900	0.874	0.881	0.890	0.908	0.901	3.17	16.6372
	64	1,1,1,2-Tetrachloroethane	0.224	0.258	0.308	0.305	0.315	0.318	0.315	0.324	0.337	0.301	11.94	16.7133
	65	Ethylbenzene	1.741	1.702	1.834	1.725	1.662	1.635	1.644	1.660	1.488	1.677	5.60	16.7265
2	66	m-Xylene & p-Xylene	1.366	1.354	1.431	1.375	1.317	1.267	1.276	1.137	0.922	1.271	12.25	16.8969
	67	o-Xylene	1.368	1.365	1.486	1.415	1.362	1.294	1.294	1.311	1.302	1.355	4.75	17.9553
	68	Styrene	0.983	0.997	1.105	1.070	1.018	0.988	0.998	0.996	1.019	1.020	4.03	18.0281
	69	1,2-DICHLOROBENZENE-D4	1	1	1	1	1	1	1	1	1	1	0	23.8627
	70	Isopropylbenzene	3.527	3.469	3.735	3.350	3.366	3.288	3.512	3.502	3.294	3.449	4.12	18.8401
	71	Bromoform	0.235	0.297	0.364	0.381	0.444	0.449	0.482	0.484	0.526	0.407	23.47	18.9162
	72	1,1,2,2-Tetrachloroethane	0.782	0.795	0.862	0.773	0.809	0.792	0.856	0.809	0.875	0.817	4.62	19.2585
	73	4-Bromofluorobenzene	1.146	1.072	1.083	1.017	1.085	1.048	1.066	------	------	1.074	3.67	19.5105
	74	1,2,3-Trichloropropane	0.167	0.162	0.179	0.165	0.163	0.159	0.173	0.161	0.175	0.167	4.17	19.6587
	75	trans-1,4-Dichloro-2-butene	------	0.220	0.228	0.233	0.257	0.249	0.271	0.248	0.309	0.252	11.20	19.8078
	76	n-Propylbenzene	4.567	4.672	4.898	4.502	4.512	4.376	4.608	4.451	3.826	4.490	6.47	19.9118
	77	Bromobenzene	0.807	0.774	0.831	0.776	0.777	0.757	0.793	0.778	0.787	0.787	2.77	20.0772
	78	1,3,5-Trimethylbenzene	2.973	2.841	3.033	2.796	2.753	2.688	2.849	2.830	2.838	2.845	3.68	20.3484
	79	2-Chlorotoluene	2.052	2.056	2.279	1.971	2.045	1.991	2.109	2.000	2.099	2.067	4.47	20.4327
	80	4-Chlorotoluene	2.759	2.711	2.849	2.590	2.485	2.420	2.538	2.555	2.527	2.604	5.37	20.5551
	81	tert-Butylbenzene	2.535	2.470	2.614	2.473	2.358	2.317	2.437	2.422	2.445	2.452	3.60	21.3605
	82	1,2,4-Trimethylbenzene	2.884	2.915	3.033	2.804	2.738	2.673	2.795	2.817	2.833	2.832	3.68	21.4796
	83	sec-Butylbenzene	3.981	4.025	4.297	3.957	3.940	3.789	4.074	4.047	3.705	3.980	4.26	21.9972
	84	p-Isopropyltoluene	3.196	3.201	3.354	3.159	3.060	3.008	3.177	3.196	3.099	3.161	3.14	22.4024
	85	1,3-Dichlorobenzene	1.544	1.496	1.581	1.522	1.486	1.464	1.503	1.479	1.511	1.510	2.39	22.7133
	86	1,4-Dichlorobenzene	1.561	1.473	1.585	1.489	1.465	1.448	1.479	1.482	1.510	1.499	3.03	23.0077
	87	n-Butylbenzene	3.448	3.380	3.621	3.289	3.293	3.146	3.275	3.319	2.896	3.296	6.06	23.5320
	88	1,2-Dichlorobenzene	1.408	1.419	1.521	1.399	1.381	1.368	1.412	1.377	1.443	1.414	3.27	23.9289
	89	1,2-Dibromo-3-chloropropane	------	0.126	0.151	0.144	0.167	0.160	0.179	0.166	0.191	0.161	12.72	25.5234
	90	1,2,4-Trichlorobenzene	0.958	0.951	1.038	0.947	0.975	0.979	0.982	0.991	1.023	0.983	3.16	27.2795
	91	Hexachlorobutadiene	0.452	0.507	0.572	0.521	0.521	0.511	0.527	0.525	0.545	0.520	6.17	27.5607
	92	Naphthalene	1.627	1.672	1.856	1.509	1.913	1.918	1.992	2.017	2.190	1.855	11.60	27.8038
	93	1,2,3-Trichlorobenzene	0.840	0.829	0.920	0.821	0.871	0.847	0.871	0.844	0.884	0.859	3.61	28.3082

Spike Amount = Nominal Amount * M

Ave_%RSD : 7.8 Max_%RSD : 41.3

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15

Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
17	Iodomethane	-0.00646	0.33641	0.9979
19	Methylene chloride	0.03248	0.43430	0.9995
41	Carbon tetrachloride	-0.00988	0.49479	0.9998
55	trans-1,3-Dichloropropene	-0.01245	0.44684	0.9986
60	Dibromochloromethane	-0.00998	0.38648	0.9994
71	Bromoform	-0.01830	0.49853	0.9980

AC 1-21-07

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G18\RGB386.D Vial: 2
Acq On : 18 Jul 2007 11:49 am Operator: CGM
Sample : IVO03G173 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	50.000	53.322	-6.6	96	0.00
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T	Chloromethane	50.000	48.450	3.1	97	0.00
5	C,T	Vinyl chloride	50.000	56.212	-12.4	97	0.00
6	T	Bromomethane	50.000	57.116	-14.2	98	0.00
7	T	Chloroethane	50.000	55.633	-11.3	100	0.00
8	T	Dichlorofluoromethane	50.000	48.573	2.9	99	0.00
9	T	Trichlorofluoromethane	50.000	56.354	-12.7	102	0.00
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T	Acrolein	200.000	237.851	-18.9	117	-0.02
12	T	1,1,2-Trichloro-1,2,2-trifl	50.000	50.942	-1.9	102	-0.02
13	T	Acetone	200.000	209.892	-4.9	109	-0.02
14	C,T	1,1-Dichloroethene	50.000	48.056	3.9	99	0.00
15	T	tert-Butyl alcohol	250.000	299.997	-20.0	118	0.00
16	T	Acetonitrile	-1.000	0.000	0.0	0	0.00
17	T	Iodomethane	50.000	58.689	-17.4	103	0.00
18	T	Methyl acetate	-1.000	0.000	0.0	0	0.00
19	T	Methylene chloride	50.000	50.346	-0.7	99	-0.02
20	T	Carbon disulfide	50.000	48.760	2.5	100	-0.02
21	T	Acrylonitrile	250.000	278.265	-11.3	112	0.00
22	T	tert-Butyl methyl ether (MT	50.000	54.220	-8.4	107	-0.02
23	T	trans-1,2-Dichloroethene	50.000	50.970	-1.9	101	0.00
24	T	Isopropyl ether (DIPE)	50.000	51.476	-3.0	102	0.00
25	T	Vinyl acetate	50.000	56.276	-12.6	111	-0.02
26	P,T	1,1-Dichloroethane	50.000	53.712	-7.4	101	0.00
27	T	tert-Butyl ethyl ether (ETB	50.000	54.007	-8.0	105	0.00
28	T	2-Butanone	200.000	229.228	-14.6	115	0.00
29	T	2,2-Dichloropropane	50.000	55.452	-10.9	107	0.00
30	T	cis-1,2-Dichloroethene	50.000	51.328	-2.7	102	-0.02
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00
32	C,T	Chloroform	50.000	50.474	-0.9	97	-0.02
33	T	Bromochloromethane	50.000	51.327	-2.7	101	-0.02
34	T	Tetrahydrofuran	50.000	56.547	-13.1	116	0.00
35	T	1,1,1-Trichloroethane	50.000	54.734	-9.5	100	-0.02
36	T	1,1-Dichloropropene	50.000	51.536	-3.1	102	-0.02
37	T	Cyclohexane	-1.000	0.000	0.0	0	0.00
38	T	tert-Amyl methyl ether (TAM	50.000	52.794	-5.6	104	-0.02
39	S	1,2-Dichloroethane-d4	50.000	52.139	-4.3	97	0.00
40	I	CHLOROBENZENE-D5	50.000	50.000	0.0	96	-0.02

(#) = Out of Range

1-21-07

2052

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G18\RGB386.D Vial: 2
Acq On : 18 Jul 2007 11:49 am Operator: CGM
Sample : IVO03G173 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	50.000	48.987	2.0	94	0.00
42	T	1,2-Dichloroethane	50.000	49.629	0.7	96	0.00
43	T	Benzene	50.000	50.233	-0.5	100	-0.02
44	T	Trichloroethene	50.000	51.515	-3.0	102	-0.02
45	T	Methylcyclohexane	-1.000	0.000	0.0	0	0.00
46	C,T	1,2-Dichloropropane	50.000	51.910	-3.8	100	-0.02
47	T	Bromodichloromethane	50.000	54.381	-8.8	99	0.00
48	T	Dibromomethane	50.000	52.732	-5.5	99	0.00
49	T	2-Chloroethyl vinyl ether	50.000	55.289	-10.6	110	-0.02
50	T	4-Methyl-2-pentanone	200.000	216.466	-8.2	110	-0.02
51	T	cis-1,3-Dichloropropene	50.000	54.917	-9.8	99	0.00
52	S	Toluene-d8	50.000	50.831	-1.7	94	-0.02
53	C,T	Toluene	50.000	50.786	-1.6	100	-0.02
54	T	Ethyl methacrylate	50.000	53.771	-7.5	104	-0.02
55	T	trans-1,3-Dichloropropene	50.000	49.560	0.9	100	-0.02
56	T	2-Hexanone	200.000	236.714	-18.4	114	-0.02
57	T	1,1,2-Trichloroethane	50.000	53.788	-7.6	102	-0.02
58	T	1,3-Dichloropropane	50.000	53.047	-6.1	100	-0.02
59	T	Tetrachloroethene	50.000	51.077	-2.2	99	-0.02
60	T	Dibromochloromethane	50.000	51.274	-2.5	100	-0.02
61	T	1,2-Dibromoethane	50.000	52.815	-5.6	97	-0.02
62	T	1-Chlorohexane	50.000	51.271	-2.5	100	0.00
63	P	Chlorobenzene	50.000	50.400	-0.8	96	-0.02
64	T	1,1,1,2-Tetrachloroethane	50.000	53.486	-7.0	97	-0.02
65	C,T	Ethylbenzene	50.000	51.519	-3.0	99	-0.02
66	T	m-Xylene & p-Xylene	100.000	106.733	-6.7	98	0.00
67	T	o-Xylene	50.000	50.131	-0.3	95	0.00
68	T	Styrene	50.000	51.450	-2.9	98	0.00
69	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	98	0.00
70	T	Isopropylbenzene	50.000	48.691	2.6	98	-0.02
71	P,T	Bromoform	50.000	47.486	5.0	101	0.00
72	P,T	1,1,2,2-Tetrachloroethane	50.000	52.288	-4.6	104	-0.02
73	S	4-Bromofluorobenzene	50.000	50.802	-1.6	99	-0.02
74	T	1,2,3-Trichloropropane	50.000	53.244	-6.5	107	-0.02
75	T	trans-1,4-Dichloro-2-butene	50.000	53.384	-6.8	103	-0.02
76	T	n-Propylbenzene	50.000	49.033	1.9	96	-0.02
77	T	Bromobenzene	50.000	48.339	3.3	96	-0.02
78	T	1,3,5-Trimethylbenzene	50.000	48.341	3.3	98	-0.02
79	T	2-Chlorotoluene	50.000	46.972	6.1	93	-0.02
80	T	4-Chlorotoluene	50.000	48.457	3.1	100	-0.02

(#) = Out of Range

7-21-07

2053

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G18\RGB386.D Vial: 2
Acq On : 18 Jul 2007 11:49 am Operator: CGM
Sample : IVO03G173 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	50.000	48.518	3.0	99	0.00
82	T	1,2,4-Trimethylbenzene	50.000	48.451	3.1	98	0.00
83	T	sec-Butylbenzene	50.000	48.762	2.5	97	-0.02
84	T	p-Isopropyltoluene	50.000	48.837	2.3	99	-0.02
85	T	1,3-Dichlorobenzene	50.000	49.800	0.4	99	-0.02
86	T	1,4-Dichlorobenzene	50.000	49.334	1.3	99	-0.02
87	T	n-Butylbenzene	50.000	50.637	-1.3	99	-0.02
88	T	1,2-Dichlorobenzene	50.000	49.486	1.0	99	0.00
89	T	1,2-Dibromo-3-chloropropane	50.000	56.454	-12.9	107	-0.02
90	T	1,2,4-Trichlorobenzene	50.000	51.089	-2.2	101	-0.02
91	T	Hexachlorobutadiene	50.000	49.706	0.6	97	0.00
92	T	Naphthalene	50.000	51.847	-3.7	99	0.00
93	T	1,2,3-Trichlorobenzene	50.000	51.364	-2.7	99	0.00

1-21-07

DAILY CALIBRATIONS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc Contract: LMC BEAUMONT SITE 1

Lab Code: EMXT Case No.: SAS No.: SDG No.: 07G343

Lab File ID: RGB787 BFB Injection Date : 07/31/07

Instrument ID: T-003 BFB Injection Time : 12:17

GC Column:RTX502.2ID:0.32mm (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.58
75	30.0 - 60.0% of mass 95	43.34
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.66
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	71.33
175	5.0 - 9.0% of mass 174	5.44(7.6)1
176	95.0 - 101.0% of mass 174	67.97(95.3)1
177	5.0 - 9.0% of mass 176	4.66(6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD050	CV003G1735	RGB788	07/31/07	12:54
2	MBLK1S	V003G77B	RGB792	07/31/07	15:23
3	LCS1S	V003G77L	RGB790	07/31/07	14:08
4	LCD1S	V003G77C	RGB791	07/31/07	14:46
5	D26-HAS16-0.5	G343-03	RGB798	07/31/07	19:09
6	D26-HAS16-5	G343-04	RGB799	07/31/07	19:47
7	D26-HAS15-0.5	G343-05	RGB800	07/31/07	20:24
8	D26-HAS15-5	G343-06	RGB801	07/31/07	21:02
9	D26-HAS14-0.5	G343-07	RGB802	07/31/07	21:41
10	D26-HAS14-5	G343-08	RGB803	07/31/07	22:19

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RGB374
Instrument ID: T-003
GC Column: RTX502.2 ID: 0.32mm (mm)

Project: LMC BEAUMONT SITE 1
SDG No.: 07G343
Date Analyzed: 07/17/07
Time Analyzed: 21:58
Heated Purge: (Y/N) Y

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2387190	10.74	2272240	16.55	1122148	23.86
	UPPER LIMIT	4774380	11.24	4544480	17.05	2244296	24.36
	LOWER LIMIT	1193595	10.24	1136120	16.05	561074	23.36
	SAMPLE ID						
1	VSTD050	3076730	10.75	2720275	16.54	1222851	23.86
2	MBLK1S	2945193	10.75	2797991	16.55	1286179	23.86
3	LCS1S	2967569	10.74	2769260	16.55	1221977	23.87
4	LCD1S	2688861	10.74	2452848	16.55	1134936	23.87
5	D26-HAS16-0.5	2398334	10.76	2418429	16.55	1061970	23.87
6	D26-HAS16-5	2615393	10.76	2505453	16.55	1134128	23.87
7	D26-HAS15-0.5	2436996	10.76	2302726	16.55	979206	23.87
8	D26-HAS15-5	2173892	10.74	2077127	16.55	863662	23.87
9	D26-HAS14-0.5	2233321	10.74	2036254	16.55	834242	23.86
10	D26-HAS14-5	2192954	10.74	1988837	16.55	758657	23.86

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G31\RGB788.D Vial: 2
Acq On : 31 Jul 2007 12:54 pm Operator: CGM
Sample : CVO03G1735 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	50.000	50.000	0.0	129	0.00
2	T	Dichlorodifluoromethane	50.000	42.572	14.9	101	0.00
3	T	Dichlorotetrafluoroethane	-1.000	0.000	0.0	0	0.00
4	P,T	Chloromethane	50.000	44.893	10.2	119	0.00
5	C,T	Vinyl chloride	50.000	43.975	12.0	101	0.00
6	T	Bromomethane	50.000	54.066	-8.1	123	0.00
7	T	Chloroethane	50.000	60.609	-21.2#	144	0.00
8	T	Dichlorofluoromethane	50.000	44.172	11.7	119	0.00
9	T	Trichlorofluoromethane	50.000	46.228	7.5	111	0.00
10	T	sec-Propyl alcohol	-1.000	0.000	0.0	0	0.00
11	T	Acrolein	200.000	230.148	-15.1	150	-0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	50.000	48.951	2.1	130	-0.01
13	T	Acetone	200.000	171.721	14.1	119	-0.01
14	C,T	1,1-Dichloroethene	50.000	45.609	8.8	124	0.00
15	T	tert-Butyl alcohol	250.000	213.599	14.6	112	0.00
16	T	Acetonitrile	-1.000	0.000	0.0	0	0.00
17	T	Iodomethane	50.000	55.759	-11.5	129	0.00
18	T	Methyl acetate	-1.000	0.000	0.0	0	0.00
19	T	Methylene chloride	50.000	52.694	-5.4	137	-0.01
20	T	Carbon disulfide	50.000	64.509	-29.0#	176	-0.01
21	T	Acrylonitrile	250.000	271.388	-8.6	145	0.00
22	T	tert-Butyl methyl ether (MT	50.000	44.163	11.7	116	-0.01
23	T	trans-1,2-Dichloroethene	50.000	49.555	0.9	130	0.00
24	T	Isopropyl ether (DIPE)	50.000	56.782	-13.6	149	0.00
25	T	Vinyl acetate	50.000	63.243	-26.5#	165	-0.01
26	P,T	1,1-Dichloroethane	50.000	56.656	-13.3	141	-0.01
27	T	tert-Butyl ethyl ether (ETB	50.000	44.348	11.3	115	-0.01
28	T	2-Butanone	200.000	187.070	6.5	125	0.00
29	T	2,2-Dichloropropane	50.000	50.319	-0.6	129	0.00
30	T	cis-1,2-Dichloroethene	50.000	51.253	-2.5	136	-0.01
31	T	tert-Butyl formate (TBF)	-1.000	0.000	0.0	0	0.00
32	C,T	Chloroform	50.000	48.352	3.3	124	-0.01
33	T	Bromochloromethane	50.000	55.201	-10.4	144	-0.01
34	T	Tetrahydrofuran	50.000	53.805	-7.6	147	0.00
35	T	1,1,1-Trichloroethane	50.000	48.628	2.7	118	-0.01
36	T	1,1-Dichloropropene	50.000	48.468	3.1	127	-0.01
37	T	Cyclohexane	-1.000	0.000	0.0	0	0.00
38	T	tert-Amyl methyl ether (TAM	50.000	42.428	15.1	111	-0.01
39	S	1,2-Dichloroethane-d4	50.000	44.255	11.5	109	0.00
40	I	CHLOROBENZENE-D5	50.000	50.000	0.0	120	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G31\RGB788.D Vial: 2
Acq On : 31 Jul 2007 12:54 pm Operator: CGM
Sample : CVO03G1735 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	50.000	42.537	14.9	102	-0.01
42	T	1,2-Dichloroethane	50.000	46.802	6.4	114	0.00
43	T	Benzene	50.000	55.480	-11.0	138	-0.01
44	T	Trichloroethene	50.000	52.239	-4.5	129	-0.01
45	T	Methylcyclohexane	-1.000	0.000	0.0	0	0.00
46	C,T	1,2-Dichloropropane	50.000	59.030	-18.1	143	-0.01
47	T	Bromodichloromethane	50.000	52.056	-4.1	119	-0.01
48	T	Dibromomethane	50.000	52.653	-5.3	124	-0.01
49	T	2-Chloroethyl vinyl ether	50.000	14.011	72.0#	35	-0.01
50	T	4-Methyl-2-pentanone	200.000	182.125	8.9	116	-0.01
51	T	cis-1,3-Dichloropropene	50.000	61.392	-22.8#	138	0.00
52	S	Toluene-d8	50.000	53.787	-7.6	125	-0.01
53	C,T	Toluene	50.000	52.536	-5.1	129	-0.01
54	T	Ethyl methacrylate	50.000	55.002	-10.0	133	-0.01
55	T	trans-1,3-Dichloropropene	50.000	51.280	-2.6	130	-0.01
56	T	2-Hexanone	200.000	200.901	-0.5	121	-0.01
57	T	1,1,2-Trichloroethane	50.000	54.881	-9.8	131	0.00
58	T	1,3-Dichloropropane	50.000	55.292	-10.6	131	-0.01
59	T	Tetrachloroethene	50.000	49.331	1.3	119	0.00
60	T	Dibromochloromethane	50.000	47.230	5.5	116	-0.01
61	T	1,2-Dibromoethane	50.000	52.354	-4.7	121	-0.01
62	T	1-Chlorohexane	50.000	51.651	-3.3	126	0.00
63	P	Chlorobenzene	50.000	52.256	-4.5	125	-0.01
64	T	1,1,1,2-Tetrachloroethane	50.000	51.259	-2.5	117	-0.01
65	C,T	Ethylbenzene	50.000	52.347	-4.7	126	-0.01
66	T	m-Xylene & p-Xylene	100.000	106.237	-6.2	123	0.00
67	T	o-Xylene	50.000	50.548	-1.1	120	0.00
68	T	Styrene	50.000	52.419	-4.8	126	0.00
69	I	1,2-DICHLOROBENZENE-D4	50.000	50.000	0.0	109	0.00
70	T	Isopropylbenzene	50.000	54.368	-8.7	121	-0.01
71	P,T	Bromoform	50.000	46.764	6.5	110	0.00
72	P,T	1,1,2,2-Tetrachloroethane	50.000	57.646	-15.3	127	0.00
73	S	4-Bromofluorobenzene	50.000	55.010	-10.0	119	0.00
74	T	1,2,3-Trichloropropane	50.000	56.261	-12.5	125	-0.01
75	T	trans-1,4-Dichloro-2-butene	50.000	51.941	-3.9	111	-0.01
76	T	n-Propylbenzene	50.000	56.158	-12.3	122	-0.01
77	T	Bromobenzene	50.000	52.548	-5.1	116	-0.01
78	T	1,3,5-Trimethylbenzene	50.000	52.285	-4.6	118	0.00
79	T	2-Chlorotoluene	50.000	52.118	-4.2	115	-0.01
80	T	4-Chlorotoluene	50.000	52.460	-4.9	120	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G31\RGB788.D Vial: 2
Acq On : 31 Jul 2007 12:54 pm Operator: CGM
Sample : CVO03G1735 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	50.000	51.640	-3.3	117	0.00
82	T	1,2,4-Trimethylbenzene	50.000	51.745	-3.5	117	0.00
83	T	sec-Butylbenzene	50.000	54.043	-8.1	119	-0.01
84	T	p-Isopropyltoluene	50.000	52.266	-4.5	118	0.00
85	T	1,3-Dichlorobenzene	50.000	52.693	-5.4	117	0.00
86	T	1,4-Dichlorobenzene	50.000	52.155	-4.3	116	0.00
87	T	n-Butylbenzene	50.000	53.246	-6.5	116	0.00
88	T	1,2-Dichlorobenzene	50.000	51.804	-3.6	116	0.00
89	T	1,2-Dibromo-3-chloropropane	50.000	48.218	3.6	101	-0.01
90	T	1,2,4-Trichlorobenzene	50.000	47.906	4.2	105	0.00
91	T	Hexachlorobutadiene	50.000	44.561	10.9	97	0.00
92	T	Naphthalene	50.000	44.318	11.4	94	0.00
93	T	1,2,3-Trichlorobenzene	50.000	46.416	7.2	100	0.00

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G31\RGB788.D Vial: 2
Acq On : 31 Jul 2007 12:54 pm Operator: CGM
Sample : CVO03G1735 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	129	0.00
2	T	Dichlorodifluoromethane	0.474	0.403	15.0	101	0.00
3	T	Dichlorotetrafluoroethane	0.000	0.000	0.0	0#	0.00
4	P,T	Chloromethane	0.514	0.462	10.1	119	0.00
5	C,T	Vinyl chloride	0.420	0.370	11.9	101	0.00
6	T	Bromomethane	0.297	0.321	-8.1	123	0.00
7	T	Chloroethane	0.207	0.251	-21.3#	144	0.00
8	T	Dichlorofluoromethane	0.844	0.746	11.6	119	0.00
9	T	Trichlorofluoromethane	0.670	0.620	7.5	111	0.00
10	T	sec-Propyl alcohol	0.000	0.000	0.0	0#	0.00
11	T	Acrolein	0.035	0.040	-14.3	150	-0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	0.218	0.213	2.3	130	-0.01
13	T	Acetone	0.102	0.088	13.7	119	-0.01
14	C,T	1,1-Dichloroethene	0.574	0.524	8.7	124	0.00
15	T	tert-Butyl alcohol	0.022	0.019	13.6	112	0.00
16	T	Acetonitrile	0.000	0.000	0.0	0#	0.00
17	T	Iodomethane	0.304	0.369	-21.4#	129	0.00
18	T	Methyl acetate	0.000	0.000	0.0	0#	0.00
19	T	Methylene chloride	0.597	0.490	17.9	137	-0.01
20	T	Carbon disulfide	0.688	0.888	-29.1#	176	-0.01
21	T	Acrylonitrile	0.081	0.088	-8.6	145	0.00
22	T	tert-Butyl methyl ether (MT	0.495	0.437	11.7	116	-0.01
23	T	trans-1,2-Dichloroethene	0.500	0.496	0.8	130	0.00
24	T	Isopropyl ether (DIPE)	1.069	1.214	-13.6	149	0.00
25	T	Vinyl acetate	0.491	0.622	-26.7#	165	-0.01
26	P,T	1,1-Dichloroethane	0.558	0.633	-13.4	141	-0.01
27	T	tert-Butyl ethyl ether (ETB	0.636	0.564	11.3	115	-0.01
28	T	2-Butanone	0.143	0.134	6.3	125	0.00
29	T	2,2-Dichloropropane	0.345	0.347	-0.6	129	0.00
30	T	cis-1,2-Dichloroethene	0.554	0.568	-2.5	136	-0.01
31	T	tert-Butyl formate (TBF)	0.000	0.000	0.0	0#	0.00
32	C,T	Chloroform	0.664	0.642	3.3	124	-0.01
33	T	Bromochloromethane	0.282	0.312	-10.6	144	-0.01
34	T	Tetrahydrofuran	0.082	0.088	-7.3	147	0.00
35	T	1,1,1-Trichloroethane	0.526	0.512	2.7	118	-0.01
36	T	1,1-Dichloropropene	0.153	0.148	3.3	127	-0.01
37	T	Cyclohexane	0.000	0.000	0.0	0#	0.00
38	T	tert-Amyl methyl ether (TAM	0.533	0.452	15.2	111	-0.01
39	S	1,2-Dichloroethane-d4	0.427	0.378	11.5	109	0.00
40	I	CHLOROBENZENE-D5	1.000	1.000	0.0	120	-0.01

(#) = Out of Range

2061

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\07G31\RGB788.D Vial: 2
Acq On : 31 Jul 2007 12:54 pm Operator: CGM
Sample : CVO03G1735 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	T	Carbon tetrachloride	0.445	0.411	7.6	102	-0.01
42	T	1,2-Dichloroethane	0.520	0.487	6.3	114	0.00
43	T	Benzene	1.248	1.385	-11.0	138	-0.01
44	T	Trichloroethene	0.349	0.364	-4.3	129	-0.01
45	T	Methylcyclohexane	0.000	0.000	0.0	0#	0.00
46	C,T	1,2-Dichloropropane	0.324	0.383	-18.2	143	-0.01
47	T	Bromodichloromethane	0.497	0.518	-4.2	119	-0.01
48	T	Dibromomethane	0.251	0.264	-5.2	124	-0.01
49	T	2-Chloroethyl vinyl ether	0.135	0.038	71.9#	35#	-0.01
50	T	4-Methyl-2-pentanone	0.390	0.355	9.0	116	-0.01
51	T	cis-1,3-Dichloropropene	0.447	0.549	-22.8#	138	0.00
52	S	Toluene-d8	1.158	1.246	-7.6	125	-0.01
53	C,T	Toluene	1.374	1.444	-5.1	129	-0.01
54	T	Ethyl methacrylate	0.387	0.426	-10.1	133	-0.01
55	T	trans-1,3-Dichloropropene	0.385	0.446	-15.8	130	-0.01
56	T	2-Hexanone	0.253	0.254	-0.4	121	-0.01
57	T	1,1,2-Trichloroethane	0.273	0.300	-9.9	131	0.00
58	T	1,3-Dichloropropane	0.483	0.534	-10.6	131	-0.01
59	T	Tetrachloroethene	0.285	0.281	1.4	119	0.00
60	T	Dibromochloromethane	0.337	0.355	-5.3	116	-0.01
61	T	1,2-Dibromoethane	0.312	0.326	-4.5	121	-0.01
62	T	1-Chlorohexane	0.605	0.625	-3.3	126	0.00
63	P	Chlorobenzene	0.901	0.942	-4.6	125	-0.01
64	T	1,1,1,2-Tetrachloroethane	0.301	0.308	-2.3	117	-0.01
65	C,T	Ethylbenzene	1.677	1.756	-4.7	126	-0.01
66	T	m-Xylene & p-Xylene	1.271	1.351	-6.3	123	0.00
67	T	o-Xylene	1.355	1.370	-1.1	120	0.00
68	T	Styrene	1.020	1.069	-4.8	126	0.00
69	I	1,2-DICHLOROBENZENE-D4	1.000	1.000	0.0	109	0.00
70	T	Isopropylbenzene	3.449	3.751	-8.8	121	-0.01
71	P,T	Bromoform	0.407	0.448	-10.1	110	0.00
72	P,T	1,1,2,2-Tetrachloroethane	0.817	0.942	-15.3	127	0.00
73	S	4-Bromofluorobenzene	1.074	1.181	-10.0	119	0.00
74	T	1,2,3-Trichloropropane	0.167	0.188	-12.6	125	-0.01
75	T	trans-1,4-Dichloro-2-butene	0.252	0.262	-4.0	111	-0.01
76	T	n-Propylbenzene	4.490	5.043	-12.3	122	-0.01
77	T	Bromobenzene	0.787	0.827	-5.1	116	-0.01
78	T	1,3,5-Trimethylbenzene	2.845	2.975	-4.6	118	0.00
79	T	2-Chlorotoluene	2.067	2.154	-4.2	115	-0.01
80	T	4-Chlorotoluene	2.604	2.732	-4.9	120	0.00

(#) = Out of Range

Data File : D:\HPCHEM\1\DATA\07G31\RGB788.D Vial: 2
Acq On : 31 Jul 2007 12:54 pm Operator: CGM
Sample : CVO03G1735 50ppb Inst : TO03
Misc : 200ppbKet-AA/50ppb8260/250ppbTBA Multiplr: 1.00
MS Integration Params: 524INT.P

Method : D:\HPCHEM\1\METHODS\VO03G17.M (RTE Integrator)
Title : METHOD 8260 5mL
Last Update : Wed Jul 18 09:32:03 2007
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	T	tert-Butylbenzene	2.452	2.533	-3.3	117	0.00
82	T	1,2,4-Trimethylbenzene	2.832	2.931	-3.5	117	0.00
83	T	sec-Butylbenzene	3.980	4.301	-8.1	119	-0.01
84	T	p-Isopropyltoluene	3.161	3.304	-4.5	118	0.00
85	T	1,3-Dichlorobenzene	1.510	1.591	-5.4	117	0.00
86	T	1,4-Dichlorobenzene	1.499	1.564	-4.3	116	0.00
87	T	n-Butylbenzene	3.296	3.510	-6.5	116	0.00
88	T	1,2-Dichlorobenzene	1.414	1.465	-3.6	116	0.00
89	T	1,2-Dibromo-3-chloropropane	0.161	0.155	3.7	101	-0.01
90	T	1,2,4-Trichlorobenzene	0.983	0.942	4.2	105	0.00
91	T	Hexachlorobutadiene	0.520	0.464	10.8	97	0.00
92	T	Naphthalene	1.855	1.644	11.4	94	0.00
93	T	1,2,3-Trichlorobenzene	0.859	0.797	7.2	100	0.00

ANALYTICAL LOGS

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 7/31/07 ☑ 5-mL Purge ☐ 25-mL Purge **Book # A03 -032**

BATCH V003G1735 2955

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RGB787		BFB03677	2µL				12:17
02	788		V003G1735	4/5/1µL				
03	789		36					
04	790		V003G77L	1.6/2.4µL	1.0			
05	791		C					
06	792		B	5.0g				
07	793		Q					
08	794		VPG0175B					076267 PB
09	795		076267-02	4.8g	1.0		✓	
10	796		-03	4.9g	1.0		✓	
11	797		-04	4.8g	1.0		✓	
12	798		076313-03	4.4g	1.1		✓	
13	799		-04	5.2g	0.96		✓	
14	800		-05	4.3g	1.2		✓	
15	801		-06	5.2g	0.96		✓	
16	802		-07	4.4g	1.1		✓	
17	803		-08 CGM 7/31	5.1g 5.0g	0.98		✓	
18	804		076250-01T	1.0g	5.0		✓	} IS still low
19	805		-01R	5.0g	1.0		✓	
20	806		Rinse					00:13
21								
22								
23								
24								
25								CGM 7/31/07

Instrument No.	03
INITIAL CALIBRATION REFERENCE	
DATE	7/17/07
ICAL ID	V003G17

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SVIC-11-98-1	250
DCC	-90-1	50/250
DCC	-95-1	250
BFB	-87-3	50
IS/SURR.	-97-2	250
LCS	-96-3	250
LCS	-82-1	40-160
LCS	-95-2	250

SOLVENT	ID
METHANOL	
DATA FILE	07631

Electronic Data Archival	
Location	Date
HPCHEM_VOA/TO03	

Comments:

Analyzed By: CGM

Date Disposed: 8/1/07

Disposed By: CGM

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES (DOE)

SOP ☒ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 7/17/07 ☑ 5-ml Purge ☐ 25-ml Purge

Book # A03 -031

BATCH V003G175

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01	RGB368	BFB05G37	2 µl	NA	NA	NA	
02	369	↓ G38 ✓	↓				Ket/AA 8260 TBA
03	370	V003G171 ✓	.16/.2/.04 µl				8 2 10 ppb
04	371	172 ✓	4/.5/.1 µl				20 5 25
05	372	173 ✓	.8/1/.2 µl				40 10 50
06	373	174 ✓	1.6/2/.4 µl				80 20 100
07	374	175 ✓	4/5/1 µl				200 50 250
08	375	176 ✓	6.4/8/1.6 µl				~~320~~ 320 80 400
09	376	177 ✓	8/10/2 µl				MJM 7/17/07 400 100 500
10	377	178 ✓	16/20/4 µl				800 200 1000
11	378	↓ 179 ✓	24/30/6 µl				1200 300 1500
12	379	IS/SS					
13	380	V003G38B					
14	381	IV003G171	4/5/1 µl				
15	382	IV003G172	4/5/1 µl				
16	383	RINSE					
17	↓ 384	RINSE		↓	↓	↓	
18							
19							
20							
21							
22							
23							
24							MJM 7/17/07
25							

Instrument No.	03
INITIAL CALIBRATION REFERENCE	
DATE	7/17/07
ICAL ID	V003G17

STANDARDS

NAME	ID	CONC. (mg/L)
DCC Ket/AA	SVIC-11-98-1	250
DCC 8260	SVIC-11-90-1	50/250
DCC Gases	SVIC-11-95-1	250
BFB	SVIC-11-87-3	50
IS/SURR.	SVIC-11-97-2	250
LCS Ket/AA	SVIC-11-96-3	250
LCS 8260	SVIC-11-82-1	50-1000
LCS Gases	SVIC-11-95-2	250
SOLVENT IS	SVIC-11-97-1 ID	250
METHANOL SS	SVIC-11-97-5	250
DATA FILE	07G17	

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO03	

Comments:

Analyzed By: CGM /MJM

Date Disposed: 7/18/07

Disposed By: CGM

2066

EMAX LABORATORIES, INC.

ANALYSIS LOG
for
VOLATILES (DOE)

SOP ☑ EMAX-8260 Rev.No. 3 ☐ EMAX-524.2 Rev.No. 3 ☐ EMAX-CLP-VOA ☐ EMAX 624 Rev.No. 1 ☐

Start Date: 7/18/07 ☑ 5-ml Purge ☐ 25-ml Purge **Book # A03 -031**

BATCH CV003G1801

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	DF	Matrix pH-W	Matrix S	Notes
01		RGB385	BFB03G39	2µL				11:10
02		382	IV003G1803 CGM 7/18/07	4/5/µL				
03		387	CV003G1801					
04		388	02					
05		389	V003G39L	1.6/2.4µL	1.0			
06		390	C					
07		391	B	5.0g				
08		392	VP6002SB					
09		393	076157-01	5.3g	0.94		✓	
10		394	076158-02 CGM 7/18/07	4.9g	1.0		✓	
11		395	-13	5.2g	1.2		✓	SS high, rr 1X
12		396	-14	3.8g	1.3		✓	IS low/SS high, rr 1X
13		397	076160-01	5.0g	1.0		✓	
14		398	076131-02	2.4g	2.1		✓	
15		399	-03	5.0g	1.0		✓	
16		400	-04	3.9g	1.3		✓	
17		401	-05	4.0g	1.3		✓	
18		402	-06	3.4g	1.5		✓	IS low/SS high, rr 1X
19		403	-07	4.3g	1.2		✓	22:32
20		404	Rinse					
21								
22								
23								
24								
25								CGM 7/19/07

Instrument No.	03
INITIAL CALIBRATION REFERENCE	
DATE	7/17/07
ICAL ID	V003G17

STANDARDS

NAME	ID	CONC. (mg/L)
DCC	SMC-11-98-1	250
DCC	-90-1	50/250
DCC	-95-1	250
BFB	-87-3	50
IS/SURR.	-97-2	250
LCS	-96-3	250
LCS	-82-1	50-100
LCS	-95-2	250

SOLVENT	ID
METHANOL	
DATA FILE	07618

Electronic Data Archival

Location	Date
HPCHEM_VOA/TO03	

Comments:

Analyzed By: CGM

Date Disposed: 7/19/07

Disposed By: CGM

EXTRACTION LOGS

PRESERVATION LOG FOR VOLATILES

METHOD [X] 5035 **Book #** E02-017

Matrix: SOIL STARTING DATE 7/31/07 15:00 Ending Date 7/31/07 15:35

Lab Sample ID	W1 (g)	Wf (g)	Ws(g)	D.F.
BLANK	30.4	35.4	5.0	1.00
07G299-02	31.8	36.9	5.1	0.98
07G299-02M	31.6	36.9	5.3	0.94
07G299-02S	31.8	36.9	5.1	0.98
07G299-03	31.8	37.5	5.7	0.88
07G299-04	31.6	36.6	5.0	1.00
07G299-05	31.6	37.2	5.6	0.89
07G299-06	31.7	36.8	5.1	0.98
07G299-07	31.8	36.3	4.5	1.11
07G299-08	31.8	36.7	4.9	1.02
07G299-09	31.8	37.5	5.7	0.88
07G343-03	31.7	36.1	4.4	1.14
07G343-04	31.7	36.9	5.2	0.96
07G343-05	31.8	36.1	4.3	1.16
07G343-06	31.7	36.9	5.2	0.96
07G343-07	31.7	36.1	4.4	1.14
07G343-08	31.6	36.7	5.1	0.98

Standards / Reagents	ID / Lot#	Amount Added (ml)
SURROGATE		
LCS/MS		
REAGENT (WATER)		5.0 ML
NaHS04 H20		
SAND	SW1A-03-331	5.0G

DISPENSER CHECK WITH 5.0 ML

VULUMETRIC FLASK.

FROZEN ENCORES.

Prepared By: RT

Standard Added By:

Witnessed By:

Checked By: CGM

Extract Received By: CGM

Extract Location	N/A

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 8330
EXPLOSIVES

SDG#: 07G343

6000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07G343

METHOD 8330
EXPLOSIVES

One (1) water sample and six (6) soil samples were received on 07/26/07 for Explosives analysis by EPA Method 8330 in accordance with USEPA-SW846 3rd edition, and EMAX-8330.

1. **Holding Time**

   Analytical holding time was met. Water sample extraction was started and completed on07/30/07. Soil sample extraction was started on 07/29/07 and completed on 07/30/07.

2. **Calibration**

   Initial calibration was 5 points. %RSDs were within 20%. All continuing calibrations of the primary column were carried out within 10-sample intervals and the recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate recovery**

   All surrogate recoveries were within QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No sample was spiked.

7. **Sample Analysis**

   Sample analyses were within QC requirements. Quantitation is from the primary column. All positive results above RL were confirmed by Phenyl-Hexyl column and the confirmation is presumptive because it was based on retention time window.

   Soil samples were air-dried prior to extraction; hence, no moisture correction was applied to RL, MDL and results.

LAB CHRONICLE
EXPLOSIVES

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1

SDG NO. : 07G343
Instrument ID : T081

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	EXG015WB	1	NA	07/30/0721:02	07/30/0714:00	XG30021A	XG30015A	EXG015W	Method Blank
LCS1W	EXG015WL	1	NA	07/30/0721:29	07/30/0714:00	XG30022A	XG30015A	EXG015W	Lab Control Sample (LCS)
LCD1W	EXG015WC	1	NA	07/30/0721:57	07/30/0714:00	XG30023A	XG30015A	EXG015W	LCS Duplicate
LEB-072607	G343-01	1	NA	07/30/0722:25	07/30/0714:00	XG30024A	XG30015A	EXG015W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	EXG013SB	1	NA	07/30/0713:07	07/29/0716:45	XG30004A	XG30002A	EXG013S	Method Blank
LCS1S	EXG013SL	1	NA	07/30/0713:35	07/29/0716:45	XG30005A	XG30002A	EXG013S	Lab Control Sample (LCS)
LCD1S	EXG013SC	1	NA	07/30/0714:03	07/29/0716:45	XG30006A	XG30002A	EXG013S	LCS Duplicate
D26-HAS16-0.5	G343-03	1	NA	07/30/0717:18	07/29/0716:45	XG30013A	XG30002A	EXG013S	Field Sample
D26-HAS16-5	G343-04	1	NA	07/30/0718:42	07/29/0716:45	XG30016A	XG30015A	EXG013S	Field Sample
D26-HAS15-0.5	G343-05	1	NA	07/30/0719:10	07/29/0716:45	XG30017A	XG30015A	EXG013S	Field Sample
D26-HAS15-5	G343-06	1	NA	07/30/0719:38	07/29/0716:45	XG30018A	XG30015A	EXG013S	Field Sample
D26-HAS14-0.5	G343-07	1	NA	07/30/0720:06	07/29/0716:45	XG30019A	XG30015A	EXG013S	Field Sample
D26-HAS14-5	G343-08	1	NA	07/30/0720:34	07/29/0716:45	XG30020A	XG30015A	EXG013S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/30/07 14:00
Sample ID: LEB-072607	Date Analyzed: 07/30/07 22:25
Lab Samp ID: G343-01	Dilution Factor: 1
Lab File ID: XG30024A	Matrix : WATER
Ext Btch ID: EXG015W	% Moisture : NA
Calib. Ref.: XG30015A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TNB	ND	1.0	0.20
1,3-DNB	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TNT	ND	1.0	0.20
4-AM-2,6-DNT	ND	1.0	0.20
2-AM-4,6-DNT	ND	1.0	0.20
2,6-DNT	ND	1.0	0.20
2,4-DNT	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	112	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343 LM	Date Extracted: 07/29/07 16:45
Sample ID: D26-HAS16-0.5	Date Analyzed: 07/30/07 17:18
Lab Samp ID: G343-03	Dilution Factor: 1
Lab File ID: XG30013A	Matrix : SOIL
Ext Btch ID: EXG013S	% Moisture : NA
Calib. Ref.: XG30002A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	07/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	07/26/07
Batch No.	: 07G343	Date Extracted:	07/29/07 16:45
Sample ID:	D26HAS16-5	Date Analyzed:	07/30/07 18:42
Lab Samp ID:	G343-04	Dilution Factor:	1
Lab File ID:	XG30016A	Matrix :	SOIL
Ext Btch ID:	EXG013S	% Moisture :	NA
Calib. Ref.:	XG30015A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	117	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/29/07 16:45
Sample ID: D25HAS15-0.5	Date Analyzed: 07/30/07 19:10
Lab Samp ID: G343-05	Dilution Factor: 1
Lab File ID: XG30017A	Matrix : SOIL
Ext Btch ID: EXG013S	% Moisture : NA
Calib. Ref.: XG30015A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	116	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	07/26/07
Project	: LMC BEAUMONT SITE 1	Date Received:	07/26/07
Batch No.	: 07G343 LM	Date Extracted:	07/29/07 16:45
Sample ID:	D26HAS15-5	Date Analyzed:	07/30/07 19:38
Lab Samp ID:	G343-06	Dilution Factor:	1
Lab File ID:	XG30018A	Matrix :	SOIL
Ext Btch ID:	EXG013S	% Moisture :	NA
Calib. Ref.:	XG30015A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	113	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/29/07 16:45
Sample ID: D2&3HAS14-0.5	Date Analyzed: 07/30/07 20:06
Lab Samp ID: G343-07	Dilution Factor: 1
Lab File ID: XG30019A	Matrix : SOIL
Ext Btch ID: EXG013S	% Moisture : NA
Calib. Ref.: XG30015A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	118	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

METHOD 8330
EXPLOSIVES

Client : TETRA TECH, INC.	Date Collected: 07/26/07
Project : LMC BEAUMONT SITE 1	Date Received: 07/26/07
Batch No. : 07G343	Date Extracted: 07/29/07 16:45
Sample ID: D2&3HAS14-5	Date Analyzed: 07/30/07 20:34
Lab Samp ID: G343-08	Dilution Factor: 1
Lab File ID: XG30020A	Matrix : SOIL
Ext Btch ID: EXG013S	% Moisture : NA
Calib. Ref.: XG30015A	Instrument ID : T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

QC SUMMARIES

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	07/29/07
Batch No.	: 07G343	Date Extracted:	07/29/07 16:45
Sample ID:	MBLK1S	Date Analyzed:	07/30/07 13:07
Lab Samp ID:	EXG013SB	Dilution Factor:	1
Lab File ID:	XG30004A	Matrix :	SOIL
Ext Btch ID:	EXG013S	% Moisture :	NA
Calib. Ref.:	XG30002A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
HMX	ND	400	200
RDX	ND	400	200
1,3,5-TNB	ND	400	200
1,3-DNB	ND	400	200
TETRYL	ND	400	200
NITROBENZENE	ND	400	200
2,4,6-TNT	ND	400	200
4-AM-2,6-DNT	ND	400	200
2-AM-4,6-DNT	ND	400	200
2,6-DNT	ND	400	200
2,4-DNT	ND	400	200
2-NITROTOLUENE	ND	400	200
3-NITROTOLUENE	ND	400	200
4-NITROTOLUENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	115	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: METHOD 8330

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	EXG013SB	EXG013SL	EXG013SC		
LAB FILE ID:	XG30004A	XG30005A	XG30006A		
DATE EXTRACTED:	07/29/0716:45	07/29/0716:45	07/29/0716:45	DATE COLLECTED:	NA
DATE ANALYZED:	07/30/0713:07	07/30/0713:35	07/30/0714:03	DATE RECEIVED:	07/29/07
PREP. BATCH:	EXG013S	EXG013S	EXG013S		
CALIB. REF:	XG30002A	XG30002A	XG30002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	2000	2120	106	2000	2240	112	5	70-130	50
RDX	ND	2000	2320	116	2000	2210	110	5	70-130	50
1,3,5-TNB	ND	2000	2250	112	2000	2340	117	4	70-130	50
1,3-DNB	ND	2000	2210	111	2000	2240	112	1	70-130	50
Tetryl	ND	2000	1540	77	2000	2170	109	34	70-130	50
Nitrobenzene	ND	2000	2240	112	2000	2210	110	2	70-140	50
2,4,6-TNT	ND	2000	2130	107	2000	2090	104	2	70-130	50
4-AM-2,6-DNT	ND	2000	2440	122	2000	2340	117	4	70-130	50
2-AM-4,6-DNT	ND	2000	2130	106	2000	2110	106	1	70-130	50
2,6-DNT	ND	2000	2360	118	2000	2280	114	3	70-130	50
2,4-DNT	ND	2000	2310	116	2000	2250	113	3	70-130	50
2-Nitrotoluene	ND	2000	2170	108	2000	2150	108	1	70-130	50
3-Nitrotoluene	ND	2000	2310	116	2000	2230	112	3	70-130	50
4-Nitrotoluene	ND	2000	2430	121	2000	2350	117	3	70-140	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
3,4-Dinitrotoluene	2000	2240	112	2000	2210	110	70-130

METHOD 8330
EXPLOSIVES

Client	: TETRA TECH, INC.	Date Collected:	NA
Project	: LMC BEAUMONT SITE 1	Date Received:	07/30/07
Batch No.	: 07G343	Date Extracted:	07/30/07 14:00
Sample ID:	MBLK1W	Date Analyzed:	07/30/07 21:02
Lab Samp ID:	EXG015WB	Dilution Factor:	1
Lab File ID:	XG30021A	Matrix :	WATER
Ext Btch ID:	EXG015W	% Moisture :	NA
Calib. Ref.:	XG30015A	Instrument ID :	T-081

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
HMX	ND	1.0	0.20
RDX	ND	1.0	0.20
1,3,5-TNB	ND	1.0	0.20
1,3-DNB	ND	1.0	0.20
TETRYL	ND	1.0	0.20
NITROBENZENE	ND	1.0	0.20
2,4,6-TNT	ND	1.0	0.20
4-AM-2,6-DNT	ND	1.0	0.20
2-AM-4,6-DNT	ND	1.0	0.20
2,6-DNT	ND	1.0	0.20
2,4-DNT	ND	1.0	0.20
2-NITROTOLUENE	ND	1.0	0.20
3-NITROTOLUENE	ND	1.0	0.20
4-NITROTOLUENE	ND	1.0	0.20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
3,4-DINITROTOLUENE	102	70-130

Note: All positive results are confirmed by Phenyl-Hexyl column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: METHOD 8330

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: EXG015WB EXG015WL EXG015WC
LAB FILE ID: XG30021A XG30022A XG30023A
DATE EXTRACTED: 07/30/0714:00 07/30/0714:00 07/30/0714:00 DATE COLLECTED: NA
DATE ANALYZED: 07/30/0721:02 07/30/0721:29 07/30/0721:57 DATE RECEIVED: 07/30/07
PREP. BATCH: EXG015W EXG015W EXG015W
CALIB. REF: XG30015A XG30015A XG30015A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
HMX	ND	4.00	3.88	97	4.00	3.68	92	5	70-130	30
RDX	ND	4.00	3.51	88	4.00	3.32	83	6	60-130	30
1,3,5-TNB	ND	4.00	3.99	100	4.00	3.78	94	5	70-130	30
1,3-DNB	ND	4.00	3.64	91	4.00	3.58	89	2	70-130	30
Tetryl	ND	4.00	3.25	81	4.00	3.70	92	13	70-130	30
Nitrobenzene	ND	4.00	3.53	88	4.00	3.59	90	2	70-130	30
2,4,6-TNT	ND	4.00	4.03	101	4.00	3.80	95	6	70-130	30
4-AM-2,6-DNT	ND	4.00	4.04	101	4.00	3.75	94	7	70-130	30
2-AM-4,6-DNT	ND	4.00	3.64	91	4.00	3.44	86	6	70-130	30
2,6-DNT	ND	4.00	4.23	106	4.00	4.01	100	5	70-130	30
2,4-DNT	ND	4.00	4.15	104	4.00	3.95	99	5	70-130	30
2-Nitrotoluene	ND	4.00	3.55	89	4.00	3.25	81	9	70-130	30
3-Nitrotoluene	ND	4.00	4.11	103	4.00	3.88	97	6	70-130	30
4-Nitrotoluene	ND	4.00	3.78	94	4.00	3.52	88	7	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
3,4-Dinitrotoluene	4.00	3.97	99	4.00	4.05	101	70-130

INITIAL CALIBRATION

INITIAL CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
LFID & Datetime: XG25010A 07/25/07 15:35
LFID & Datetime: XG25011A 07/25/07 16:03
LFID & Datetime: XG25012A 07/25/07 16:31
LFID & Datetime: XG25013A 07/25/07 16:59
LFID & Datetime: XG25014A 07/25/07 17:27
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA)/UNIT 1.00X	5.00X	10.00X	20.00X	40.00X	MEAN	%RSD
HMX	20.00	79.90	93.23	86.15	85.97	85.86	86.22	5.5
RDX	20.00	77.40	91.32	96.36	97.60	101.65	92.87	10.1
1,3,5-TNB	20.00	232.50	221.63	225.00	225.52	229.34	226.80	1.9
1,3-DNB	20.00	291.80	276.73	272.95	275.63	280.27	279.48	2.6
Tetryl	20.00	183.95	182.28	181.65	182.29	183.89	182.81	0.6
Nitrobenzene	20.00	168.80	184.19	173.79	178.40	181.99	177.43	3.5
2,4,6-TNT	20.00	208.45	204.94	198.20	203.68	206.73	204.40	1.9
4-AM-2,6-DNT	20.00	154.40	174.71	169.43	170.56	171.24	168.07	4.7
2-AM-4,6-DNT	20.00	209.15	208.47	206.40	212.34	215.00	210.27	1.6
2,6-DNT	20.00	118.40	131.91	135.66	137.93	142.45	133.27	6.9
2,4-DNT	20.00	230.40	243.26	253.43	259.53	271.42	251.61	6.2
2-Nitrotoluene	20.00	127.65	101.21	108.28	113.20	116.42	113.35	8.7
4-Nitrotoluene	20.00	90.40	79.89	84.00	92.29	94.13	88.14	6.8
3-Nitrotoluene	20.00	111.05	112.41	113.38	121.80	122.48	116.22	4.7
SURROGATE	**X**	**1.00X**	**5.00X**	**10.00X**	**20.00X**	**40.00X**	**MEAN**	**%RSD**
3,4-Dinitrotoluene	20.00	96.30	119.61	114.51	116.56	97.78	108.95	10.1

EX81G25.MET

AS
7/24/07

6017

SECOND SOURCE VERIFICATION

INITIAL CALIBRATION VERIFICATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XG25013A 07/25/2007 16:59
Conc Cont LFID & Datetime: XG25016A 07/25/2007 18:23
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.292	4.242	4.342	400.0	86.200	34276	397.52	-1		15
RDX	6.358	6.220	6.496	400.0	92.900	39120	421.26	5		15
1,3,5-TNB	8.667	8.514	8.820	400.0	226.800	89210	393.35	-2		15
1,3-DNB	10.642	10.413	10.871	400.0	279.500	110407	395.05	-1		15
Tetryl	11.033	10.745	11.321	400.0	182.800	73268	400.79	0		15
Nitrobenzene	12.400	11.999	12.801	400.0	177.400	71318	401.95	0		15
2,4,6-TNT	13.467	13.066	13.868	400.0	204.400	81788	400.14	0		15
4-AM-2,6-DNT	13.800	13.295	14.305	400.0	168.100	68234	405.99	1		15
2-AM-4,6-DNT	14.442	13.894	14.990	400.0	210.300	85076	404.60	1		15
2,6-DNT	15.642	15.179	16.105	400.0	133.300	55156	413.86	3		15
2,4-DNT	16.467	15.990	16.944	400.0	251.600	103411	411.00	3		15
2-Nitrotoluene	19.525	18.934	20.116	400.0	113.400	45083	397.72	-1		15
4-Nitrotoluene	21.258	20.601	21.915	400.0	88.100	36445	413.49	3		15
3-Nitrotoluene	22.792	22.040	23.544	400.0	116.200	48821	420.07	5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.092	12.717	13.467	400.0	109.000	46502	426.80	7		15

EX81G25.MET

AS
7/26/07

6019

DAILY CALIBRATION

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XG25013A 07/25/2007 16:59
Conc Cont LFID & Datetime: XG30002A 07/30/2007 11:27
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.308	4.258	4.358	400.0	86.200	34459	399.64	-0		15
RDX	6.417	6.279	6.555	400.0	92.900	40161	432.46	8		15
1,3,5-TNB	8.733	8.580	8.886	400.0	226.800	91574	403.77	1		15
1,3-DNB	10.767	10.538	10.996	400.0	279.500	112418	402.25	1		15
Tetryl	11.183	10.895	11.471	400.0	182.800	70075	383.32	-4		15
Nitrobenzene	12.542	12.141	12.943	400.0	177.400	72268	407.30	2		15
2,4,6-TNT	13.633	13.232	14.034	400.0	204.400	83155	406.83	2		15
4-AM-2,6-DNT	14.100	13.595	14.605	400.0	168.100	69208	411.79	3		15
2-AM-4,6-DNT	14.775	14.227	15.323	400.0	210.300	84667	402.66	1		15
2,6-DNT	15.900	15.437	16.363	400.0	133.300	55027	412.90	3		15
2,4-DNT	16.758	16.281	17.235	400.0	251.600	104121	413.82	3		15
2-Nitrotoluene	19.842	19.251	20.433	400.0	113.400	45263	399.31	-0		15
4-Nitrotoluene	21.642	20.985	22.299	400.0	88.100	35825	406.45	2		15
3-Nitrotoluene	23.183	22.431	23.935	400.0	116.200	49695	427.59	7		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.283	12.908	13.658	400.0	109.000	45521	417.80	4		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XG25013A 07/25/2007 16:59
Conc Cont LFID & Datetime: XG30015A 07/30/2007 18:14
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.292	4.242	4.342	400.0	86.200	34391	398.86	-0		15
RDX	6.350	6.212	6.488	400.0	92.900	40160	432.45	8		15
1,3,5-TNB	8.642	8.489	8.795	400.0	226.800	90218	397.79	-1		15
1,3-DNB	10.600	10.371	10.829	400.0	279.500	112299	401.82	0		15
Tetryl	10.992	10.704	11.280	400.0	182.800	72675	397.54	-1		15
Nitrobenzene	12.342	11.941	12.743	400.0	177.400	71422	402.53	1		15
2,4,6-TNT	13.417	13.016	13.818	400.0	204.400	77436	378.85	-5		15
4-AM-2,6-DNT	13.733	13.228	14.238	400.0	168.100	70154	417.42	4		15
2-AM-4,6-DNT	14.375	13.827	14.923	400.0	210.300	84758	403.09	1		15
2,6-DNT	15.558	15.095	16.021	400.0	133.300	55402	415.71	4		15
2,4-DNT	16.367	15.890	16.844	400.0	251.600	104993	417.29	4		15
2-Nitrotoluene	19.383	18.792	19.974	400.0	113.400	44857	395.73	-1		15
4-Nitrotoluene	21.092	20.435	21.749	400.0	88.100	37431	424.67	6		15
3-Nitrotoluene	22.600	21.848	23.352	400.0	116.200	47716	410.56	3		15
SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
3,4-Dinitrotoluene	13.008	12.633	13.383	400.0	109.000	46380	425.68	6		15

CONTINUE CALIBRATION
METHOD 8330

Lab Name : EMAX Inc
Instrument ID : HPLC1 81
GC Column : VARIAN C18
Column size ID : 25CMX4.6MM
Mid Conc Init LFID & Datetime: XG25013A 07/25/2007 16:59
Conc Cont LFID & Datetime: XG30026A 07/30/2007 23:21
CONC UNIT : ppb

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	AVERAGE CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
HMX	4.308	4.258	4.358	400.0	86.200	34412	399.10	-0		15
RDX	6.383	6.245	6.521	400.0	92.900	40866	440.06	10		15
1,3,5-TNB	8.700	8.547	8.853	400.0	226.800	92008	405.68	1		15
1,3-DNB	10.700	10.471	10.929	400.0	279.500	114135	408.39	2		15
Tetryl	11.125	10.837	11.413	400.0	182.800	69890	382.31	-4		15
Nitrobenzene	12.475	12.074	12.876	400.0	177.400	72998	411.42	3		15
2,4,6-TNT	13.575	13.174	13.976	400.0	204.400	81623	399.33	-0		15
4-AM-2,6-DNT	14.000	13.495	14.505	400.0	168.100	70414	418.96	5		15
2-AM-4,6-DNT	14.667	14.119	15.215	400.0	210.300	86693	412.29	3		15
2,6-DNT	15.808	15.345	16.271	400.0	133.300	57072	428.24	7		15
2,4-DNT	16.650	16.173	17.127	400.0	251.600	107439	427.01	7		15
2-Nitrotoluene	19.700	19.109	20.291	400.0	113.400	46029	406.07	2		15
4-Nitrotoluene	21.467	20.810	22.124	400.0	88.100	37167	421.68	5		15
3-Nitrotoluene	23.000	22.248	23.752	400.0	116.200	48700	419.02	5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
3,4-Dinitrotoluene	13.200	12.825	13.575	400.0	109.000	47574	436.64	9		15

ANALYTICAL LOGS

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Prep Batch: EXG009W
Samples: 076240
076-241

Book #:	A81 -8
Instrument No.:	81
Analytical Sequence:	XG25
Method File:	EX81G24
Analytical Batch:	XG25017

SOP #	Rev. #
☐ EMAX-8310	4
☑ EMAX-8330	3
☐ EMAX-8332	0
☐ EMAX-	

STANDARDS ID	CONC. (µg/L)
ICAL SHIC-04-34-2	20-800 ppb
ICV SHIC-04-34-3	400 ppb
DCC SHIC-04-31-1	400 ppb

SOLVENT	ID
Acetonitrile	
Methanol	46111
Water	47115

Data File	

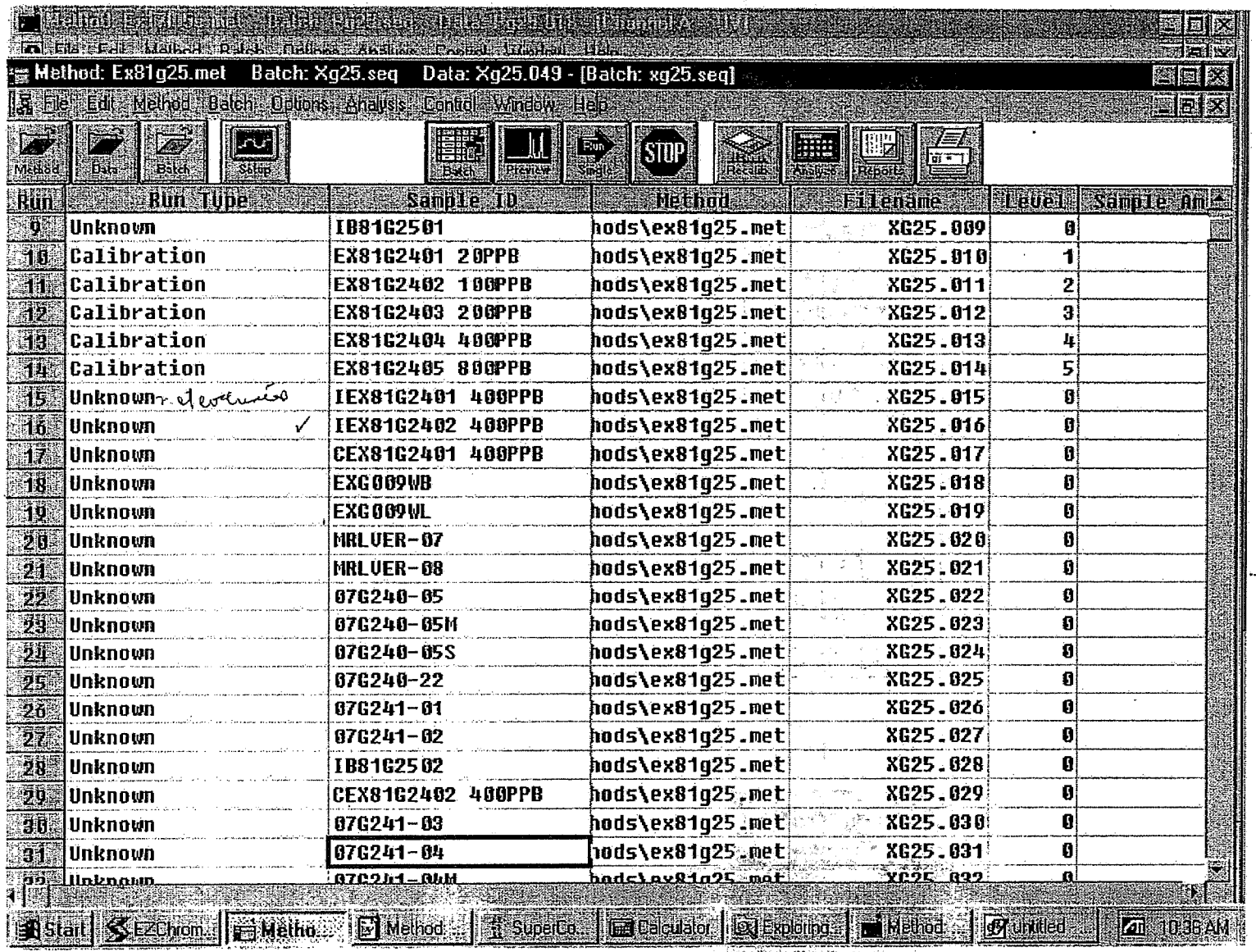
ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_5_HPLC	
☐	

Analyzed By: ICS

Date: 7/25/07

Method: Ex81g25.met Batch: Xg25.seq Data: Xg25.049 - [Batch: xg25.seq]

File Edit Method Batch Options Analysis Control Window Help



Run	Run Type	Sample ID	Method	Filename	Level	Sample Am
9	Unknown	IB81G2501	hods\ex81g25.met	XG25.009	0	
10	Calibration	EX81G2401 20PPB	hods\ex81g25.met	XG25.010	1	
11	Calibration	EX81G2402 100PPB	hods\ex81g25.met	XG25.011	2	
12	Calibration	EX81G2403 200PPB	hods\ex81g25.met	XG25.012	3	
13	Calibration	EX81G2404 400PPB	hods\ex81g25.met	XG25.013	4	
14	Calibration	EX81G2405 800PPB	hods\ex81g25.met	XG25.014	5	
15	Unknown r. et evaluées	IEX81G2401 400PPB	hods\ex81g25.met	XG25.015	0	
16	Unknown ✓	IEX81G2402 400PPB	hods\ex81g25.met	XG25.016	0	
17	Unknown	CEX81G2401 400PPB	hods\ex81g25.met	XG25.017	0	
18	Unknown	EXG009WB	hods\ex81g25.met	XG25.018	0	
19	Unknown	EXG009WL	hods\ex81g25.met	XG25.019	0	
20	Unknown	MRLVER-07	hods\ex81g25.met	XG25.020	0	
21	Unknown	MRLVER-08	hods\ex81g25.met	XG25.021	0	
22	Unknown	07G240-05	hods\ex81g25.met	XG25.022	0	
23	Unknown	07G240-05M	hods\ex81g25.met	XG25.023	0	
24	Unknown	07G240-05S	hods\ex81g25.met	XG25.024	0	
25	Unknown	07G240-22	hods\ex81g25.met	XG25.025	0	
26	Unknown	07G241-01	hods\ex81g25.met	XG25.026	0	
27	Unknown	07G241-02	hods\ex81g25.met	XG25.027	0	
28	Unknown	IB81G2502	hods\ex81g25.met	XG25.028	0	
29	Unknown	CEX81G2402 400PPB	hods\ex81g25.met	XG25.029	0	
30	Unknown	07G241-03	hods\ex81g25.met	XG25.030	0	
31	Unknown	07G241-04	hods\ex81g25.met	XG25.031	0	
32	Unknown	07G241-04M	hods\ex81g25.met	XG25.032	0	

Start EZChrom... Metho... Method... SuperCo... Calculator Exploring... Method... untitled... 10:36 AM

KS
7/26/07

6026

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

Prep Batch: EXG0135
EXG015W
EXG012S

Samples: 076268
076343
076352
076295

Book #: A81 -8
Instrument No.: 81
Analytical Sequence: XG30
Method File: EXB1625
Analytical Batch: XG30002

SOP #	Rev. #
☐ EMAX-8310	4
☑ EMAX-8330	3
☐ EMAX-8332	0
☐ EMAX-	

STANDARDS ID	CONC. (µg/L)
ICAL	
ICV	
DCC STHC-04-31-1	400ppb

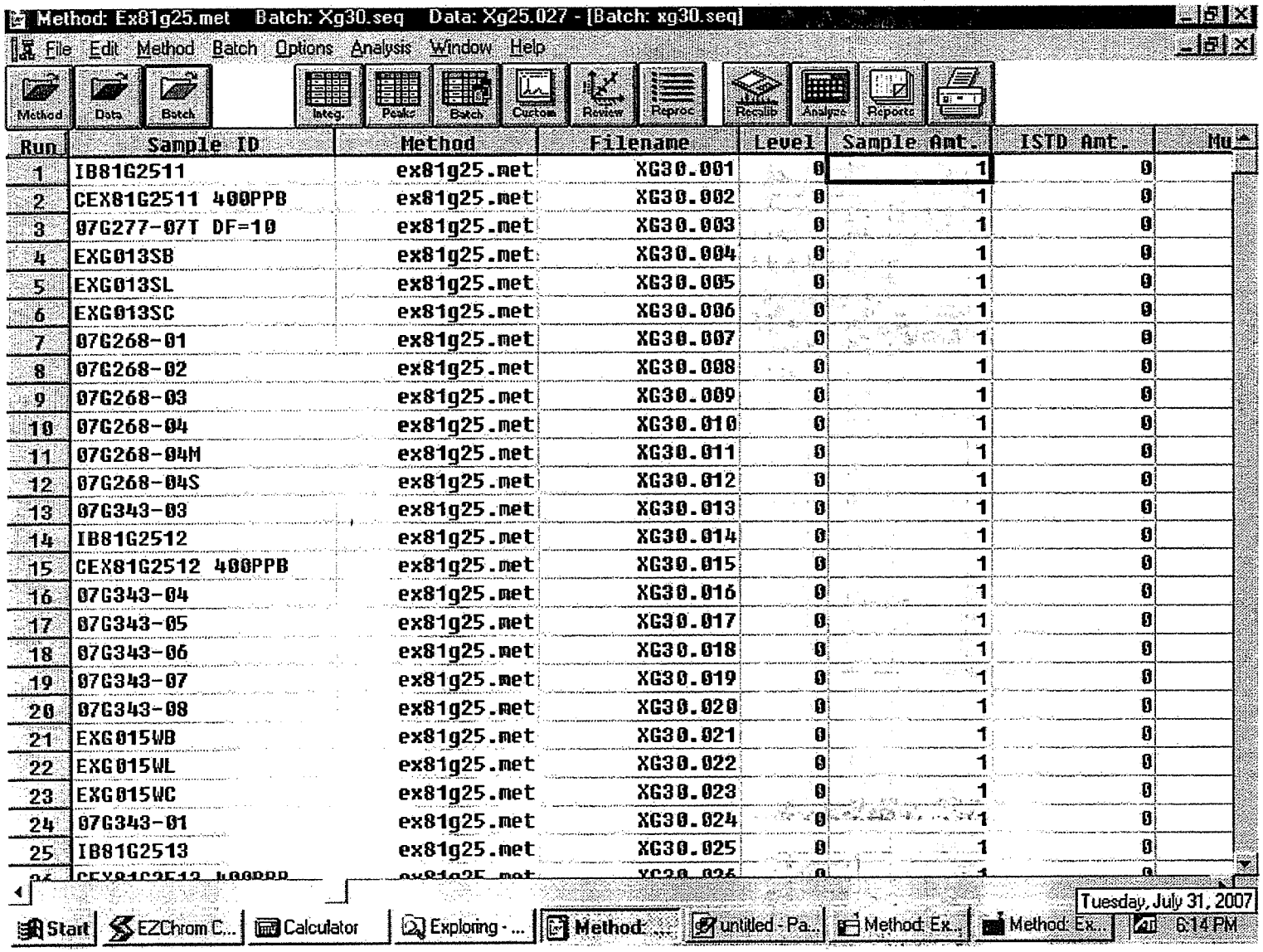
SOLVENT	ID
Acetonitrile	
Methanol	46111
Water	47115

Data File	

ELECTRONIC DATA ARCHIVAL	
Location	Date
☐ EZC_5_HPLC	
☐	

Analyzed By: KS

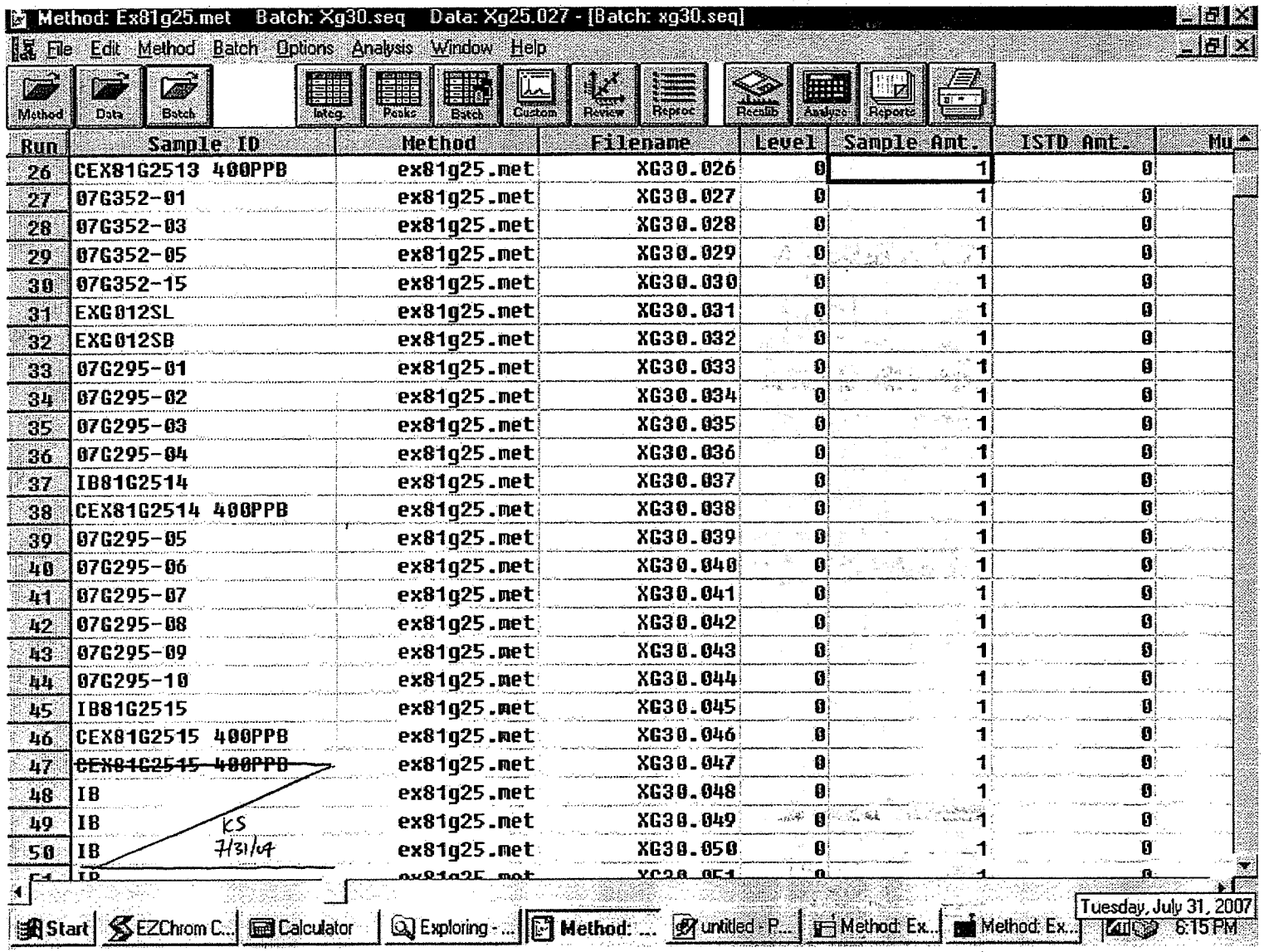
Date: 7/30/07



Run	Sample ID	Method	Filename	Level	Sample Amt.	ISTD Amt.	Mu
1	IB81G2511	ex81g25.met	XG30.001	0	1	0	
2	CEX81G2511 400PPB	ex81g25.met	XG30.002	0	1	0	
3	07G277-07T DF=10	ex81g25.met	XG30.003	0	1	0	
4	EXG013SB	ex81g25.met	XG30.004	0	1	0	
5	EXG013SL	ex81g25.met	XG30.005	0	1	0	
6	EXG013SC	ex81g25.met	XG30.006	0	1	0	
7	07G268-01	ex81g25.met	XG30.007	0	1	0	
8	07G268-02	ex81g25.met	XG30.008	0	1	0	
9	07G268-03	ex81g25.met	XG30.009	0	1	0	
10	07G268-04	ex81g25.met	XG30.010	0	1	0	
11	07G268-04M	ex81g25.met	XG30.011	0	1	0	
12	07G268-04S	ex81g25.met	XG30.012	0	1	0	
13	07G343-03	ex81g25.met	XG30.013	0	1	0	
14	IB81G2512	ex81g25.met	XG30.014	0	1	0	
15	CEX81G2512 400PPB	ex81g25.met	XG30.015	0	1	0	
16	07G343-04	ex81g25.met	XG30.016	0	1	0	
17	07G343-05	ex81g25.met	XG30.017	0	1	0	
18	07G343-06	ex81g25.met	XG30.018	0	1	0	
19	07G343-07	ex81g25.met	XG30.019	0	1	0	
20	07G343-08	ex81g25.met	XG30.020	0	1	0	
21	EXG015WB	ex81g25.met	XG30.021	0	1	0	
22	EXG015WL	ex81g25.met	XG30.022	0	1	0	
23	EXG015WC	ex81g25.met	XG30.023	0	1	0	
24	07G343-01	ex81g25.met	XG30.024	0	1	0	
25	IB81G2513	ex81g25.met	XG30.025	0	1	0	

KS
7/31/07

0828



KS
7/31/07

6020

EXTRACTION LOGS

EXTRACTION LOG FOR EXPLOSIVES

SOP: ☑ EMAX-8330 Rev.No.: 3 ☐ JV 7/28/07

Matrix: Soil Start Date: 7/29/07 Time: 16:45 End Date: 7/30/07 Time: 16:00 Book # EEX-013

PREPARATION BATCH: EXG0735

Sample Prep ID	Lab Sample ID	Sample Amount (g) ml)	Extract Volume (ml)	Notes
*01	EXG0713 -SB	2.00	20	
*02	-SL*	2.01	20	
*03	JV 7/29/07 -SC*	2.03	20	
*04	~~8332~~EXG0714 SL^	2.01	20	
*05	-SC^	2.01	20	
*06	07 G268 -01	2.00	20	
*07	-02	2.03	20	
*08	-03	2.02	20	
*09	-04	2.01	20	
*10	-04M*	2.03	20	
*11	-04S*	2.01	20	
*12	-04M^	2.00	20	
*13	-04S^	2.03	20	
*14	07 G343 -03	2.00	20	
*15	-04	2.03	20	
*16	-05	2.03	20	
*17	-06	2.01	20	
*18	-07	2.02	20	
*19	-08	2.01	20	
*20				
*21		JV 7/28/07		
*22				
*23				
*24				
*25				
*26				

Standards	ID	Amount Added (ml)
Surrogate	SHC-04-25-2	0.4
LCS/MS 8330*	SHC-04-23-3	0.4
LCS/MS 8332^	SHC-04-28-1	0.4

Reagent	Lot# / ID
Acetonitrile	45026
NaCl	-
$CaCl_2$	SPIB-01-002
Silica Sand	45335608

SDG #	Extract Location
G268	SE04 #1
G343	

Comments:

Prepared By: JV

Standard Added By: JV Witnessed By: YK

Checked By: ML Extract Received By: JS 7/30/07

Disposed By: Disposal Date:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

5931

EXTRACTION LOG FOR EXPLOSIVES

SOP: ☑ EMAX-8330 Rev.No.: 3 ☐

Matrix: SOIL Start Date: 7/30/07 Time: 14:00 End Date: 7/30/07 Time: 15:30 Book # EEX-013

PREPARATION BATCH: EXG0158

Sample Prep ID	Lab Sample ID	Sample Amount (g / ml)	Extract Volume (ml)	Notes
*01	EXG0158 -WB	200	4	
*02	-WL	200	4	
*03	-WC	200	4	
*04	07G343 -01	200	4	
*05	07G352 -01	200	4	
*06	-03	200	4	
*07	-05	200	4	
*08	-15	200	4	
*09				
*10		JV 7/30/07		
*11				
*12				
*13				
*14				
*15				
*16				
*17				
*18				
*19				
*20				
*21				
*22				
*23				
*24				
*25				
*26				

Standards	ID	Amount Added (ml)
Surrogate	SHIC-04-25-2	0.08
LCS/MS	SHIC-04-23-3	0.08

Reagent	Lot# / ID
Acetonitrile	4502B
NaCl	-
$CaCl_2$	SPIB-01-004
Silica Sand	45335608

SDG #	Extract Location
G343	
G352	SE04 #4

Comments:

Prepared By: JV

Standard Added By: JV Witnessed By: JM

Checked By: ML Extract Received By: KS 7/30/07

Disposed By: Disposal Date:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

TETRA TECH, INC.

LMC BEAUMONT SITE 1

METHOD 314.0
PERCHLORATE

SDG#: 07G343

8000

CASE NARRATIVE

CLIENT: TETRA TECH, INC.

PROJECT: LMC BEAUMONT SITE 1

SDG: 07G343

METHOD 314.0
PERCHLORATE

One (1) water and six (6) soil samples were received on 07/26/07 for Perchlorate analysis by Method 314.0 in accordance with "Method for Determination of Perchlorate by Ion Chromatography", EPA 600/98-118.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control sample results were within QC limits.

4. Duplicate

Sample G343-01 was analyzed for duplicate. %RPD was within the limit.

5. Matrix Spike

Sample G343-01 was spiked. Recovery was within QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Sample G343-07 was reported from DF 5 due to matrix interference in non-dilution run.

SAMPLE

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07G343

Matrix : WATER
Instrument ID : 157

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	PCG013WB	ND	1	NA	2.00	0.500	07/30/0720:04	NA	JG30002	JG30001	PCG013W	NA	NA
LCS1W	PCG013WL	25.9	1	NA	2.00	0.500	07/30/0720:46	NA	JG30004	JG30001	PCG013W	NA	NA
LCD1W	PCG013WC	25.7	1	NA	2.00	0.500	07/30/0721:07	NA	JG30005	JG30001	PCG013W	NA	NA
LEB-072607	G343-01	ND	1	NA	2.00	0.500	07/31/0705:11	NA	JG30028	JG30023	PCG013W	07/26/0708:30	07/26/07
LEB-072607DUP	G343-01D	ND	1	NA	2.00	0.500	07/31/0705:32	NA	JG30029	JG30023	PCG013W	07/26/0708:30	07/26/07
LEB-072607MS	G343-01M	10.3	1	NA	2.00	0.500	07/31/0705:53	NA	JG30030	JG30023	PCG013W	07/26/0708:30	07/26/07

0003

METHOD 314.0
PERCHLORATE

Client : TETRA TECH, INC.
Project : LMC BEAUMONT SITE 1
Batch No. : 07G343

Matrix : SOIL
Instrument ID : I57

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/kg)	DLF	MOIST	RL (ug/kg)	MDL (ug/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	PCG014SB	ND	1	NA	20.0	10.0	07/31/0707:17	07/30/0716:15	JG30034	JG30033	PCG014S	NA	07/30/07
LCS1S	PCG014SL	260	1	NA	20.0	10.0	07/31/0707:59	07/30/0716:15	JG30036	JG30033	PCG014S	NA	07/30/07
LCD1S	PCG014SC	260	1	NA	20.0	10.0	07/31/0708:20	07/30/0716:15	JG30037	JG30033	PCG014S	NA	07/30/07
D26-HAS16-0.5	G343-03	ND	1	1.5	20.3	10.2	07/31/0713:36	07/30/0716:15	JG30052	JG30044	PCG014S	07/26/0708:48	07/26/07
D26-HAS16-5	G343-04	ND	1	6.7	21.4	10.7	07/31/0713:57	07/30/0716:15	JG30053	JG30044	PCG014S	07/26/0708:48	07/26/07
D26-HAS15-0.5	G343-05	ND	1	1.0	20.2	10.1	07/31/0715:00	07/30/0716:15	JG30056	JG30055	PCG014S	07/26/0708:48	07/26/07
D26-HAS15-5	G343-06	ND	1	2.2	20.4	10.2	07/31/0715:21	07/30/0716:15	JG30057	JG30055	PCG014S	07/26/0708:48	07/26/07
D26-HAS14-5	G343-08	ND	1	3.2	20.7	10.3	07/31/0716:03	07/30/0716:15	JG30059	JG30055	PCG014S	07/26/0708:48	07/26/07
D26-HAS14-0.5	G343-07	ND	5	1.1	101	50.6	07/31/0717:29	07/30/0716:15	JG30062	JG30061	PCG014S	07/26/0708:48	07/26/07

QC SUMMARY

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: METHOD 314.0

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	PCG013WB	PCG013WL	PCG013WC		
LAB FILE ID:	JG30002	JG30004	JG30005		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	07/30/0720:04	07/30/0720:46	07/30/0721:07	DATE RECEIVED:	NA
PREP. BATCH:	PCG013W	PCG013W	PCG013W		
CALIB. REF:	JG30001	JG30001	JG30001		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Perchlorate	ND	25.0	25.9	104	25.0	25.7	103	1	85-115	20

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: METHOD 314.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	LEB-072607			
LAB SAMP ID:	G343-01	G343-01M		
LAB FILE ID:	JG30028	JG30030		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	07/26/07 08:30
DATE ANALYZED:	07/31/0705:11	07/31/0705:53	DATE RECEIVED:	07/26/07
PREP. BATCH:	PCG013W	PCG013W		
CALIB. REF:	JG30023	JG30023		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	QC LIMIT (%)
Perchlorate	ND	10.0	10.3	103	80-120

SSL

EMAX QUALITY CONTROL DATA
DUPLICATE SAMPLE ANALYSIS

CLIENT: TETRA TECH, INC.
PROJECT: LMC BEAUMONT SITE 1
BATCH NO.: 07G343
METHOD: METHOD 314.0

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	LEB-072607			
EMAX SAMP ID:	G343-01	G343-01D		
LAB FILE ID:	JG30028	JG30029		
DATE EXTRACTED:	NA	NA	DATE COLLECTED:	07/26/07 08:30
DATE ANALYZED:	07/31/0705:11	07/31/0705:32	DATE RECEIVED:	07/26/07
PREP. BATCH:	PCG013W	PCG013W		
CALIB. REF:	JG30023	JG30023		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	DUPL RSLT (ug/L)	RPD RSLT %	QC LIMIT (%)
Perchlorate	ND	ND	0	20

8008

INITIAL CALIBRATION

IC SEQ FORM (ESD)

LFID	LSID	SELCOMP	METHOD	DateTime	DF
JD17001	IB	P	IC57D17	04/17/0716:54	1
JD17002	S-0.0	P	IC57D17	04/17/0717:15	1
JD17003	S-2.0	P	IC57D17	04/17/0717:35	1
JD17004	S-4.0	P	IC57D17	04/17/0717:55	1
JD17005	S-10.0	P	IC57D17	04/17/0718:16	1
JD17006	S-25.0	P	IC57D17	04/17/0718:36	1
JD17007	S-30.0	P	IC57D17	04/17/0718:56	1
JD17008	ICV	P	IC57D17	04/17/0719:16	1
JD17009	ICB	P	IC57D17	04/17/0719:43	1
JD17010	IPCS	P	IC57D17	04/17/0720:15	1
JD17011	PCD007WB	P	IC57D17	04/17/0720:36	1
JD17012	MRL	P	IC57D17	04/17/0720:56	1
JD17013	PCD007WL	P	IC57D17	04/17/0721:16	1
JD17014	PCD007WC	P	IC57D17	04/17/0721:36	1
JD17015	D146-01	P	IC57D17	04/17/0721:57	1
JD17016	D146-02	P	IC57D17	04/17/0722:17	1
JD17017	D146-03	P	IC57D17	04/17/0722:37	1
JD17018	D146-04	P	IC57D17	04/17/0722:57	1
JD17019	D138-01	P	IC57D17	04/17/0723:18	1
JD17020	RINSE	P	IC57D17	04/17/0723:38	1
JD17021	CCV1-30	P	IC57D17	04/17/0723:58	1
JD17022	D138-02	P	IC57D17	04/18/0700:18	1
JD17023	D155-01	P	IC57D17	04/18/0700:39	1
JD17024	D155-02	P	IC57D17	04/18/0700:59	1
JD17025	D134-04	P	IC57D17	04/18/0701:19	1
JD17026	D165-06	P	IC57D17	04/18/0701:39	1
JD17027	D165-08	P	IC57D17	04/18/0702:00	1
JD17028	D165-08D	P	IC57D17	04/18/0702:20	1
JD17029	D165-08M	P	IC57D17	04/18/0702:40	1
JD17030	RINSE	P	IC57D17	04/18/0703:00	1
JD17031	CCV2-15	P	IC57D17	04/18/0703:21	1
JD17032	IPCS	P	IC57D17	04/18/0703:41	1
JD17033	PCD008SB	P	IC57D17	04/18/0704:01	1
JD17034	MRL	P	IC57D17	04/18/0704:21	1
JD17035	PCD008SL	P	IC57D17	04/18/0704:42	1
JD17036	PCD008SC	P	IC57D17	04/18/0705:02	1
JD17037	D134-01	P	IC57D17	04/18/0705:22	1
JD17038	D134-02	P	IC57D17	04/18/0705:42	1
JD17039	D134-03	P	IC57D17	04/18/0706:03	1
JD17040	D134-05	P	IC57D17	04/18/0706:23	1
JD17041	D134-06	P	IC57D17	04/18/0706:43	1
JD17042	D134-07	P	IC57D17	04/18/0707:03	1
JD17043	CCV3-30	P	IC57D17	04/18/0707:24	1
JD17044	D134-09	P	IC57D17	04/18/0707:44	1
JD17045	D134-10	P	IC57D17	04/18/0708:04	1
JD17046	D134-11	P	IC57D17	04/18/0708:24	1
JD17047	D134-12	P	IC57D17	04/18/0708:45	1
JD17048	D165-02	*	IC57D17	04/18/0709:05	1
JD17049	CCV4-15	P	IC57D17	04/18/0717:56	1
JD17050	D165-03	P	IC57D17	04/18/0718:16	1
JD17051	D165-04	P	IC57D17	04/18/0718:36	1
JD17052	D165-09	P	IC57D17	04/18/0718:56	1
JD17053	D165-09D	P	IC57D17	04/18/0719:17	1
JD17054	D165-09M	P	IC57D17	04/18/0719:37	1
JD17055	D165-10	P	IC57D17	04/18/0719:57	1
JD17056	D165-11	P	IC57D17	04/18/0720:17	1
JD17057	D165-02	P	IC57D17	04/18/0720:38	20
JD17058	D165-04	P	IC57D17	04/18/0720:58	200
JD17059	CCV5-30	P	IC57D17	04/18/0721:18	1
JD17060	IPCS	P	IC57D17	04/18/0721:38	1
JD17061	PCD009WB	P	IC57D17	04/18/0721:59	1
JD17062	MRL	P	IC57D17	04/18/0722:19	1
JD17063	PCD009WL	P	IC57D17	04/18/0722:39	1
JD17064	PCD009WC	P	IC57D17	04/18/0723:00	1
JD17065	D138-01R	P	IC57D17	04/18/0723:20	1
JD17066	D146-01	P	IC57D17	04/18/0723:40	10
JD17067	D146-02	P	IC57D17	04/19/0700:00	10
JD17068	D146-03	P	IC57D17	04/19/0700:21	10
JD17069	D146-04	P	IC57D17	04/19/0700:41	10
JD17070	D146-01	P	IC57D17	04/19/0701:01	25
JD17071	CCV6-15	P	IC57D17	04/19/0701:21	1
JD17072	D146-02	P	IC57D17	04/19/0701:42	25
JD17073	D146-03	P	IC57D17	04/19/0702:02	25
JD17074	D146-04	P	IC57D17	04/19/0702:22	25

4-24-07

8010

Method : c:\ezchrom\methods\ic57d17.met
Printed : Apr 17, 2007 19:25:43
Channel : A
Peak : PERCHLORATE

* - Replicate Not Used

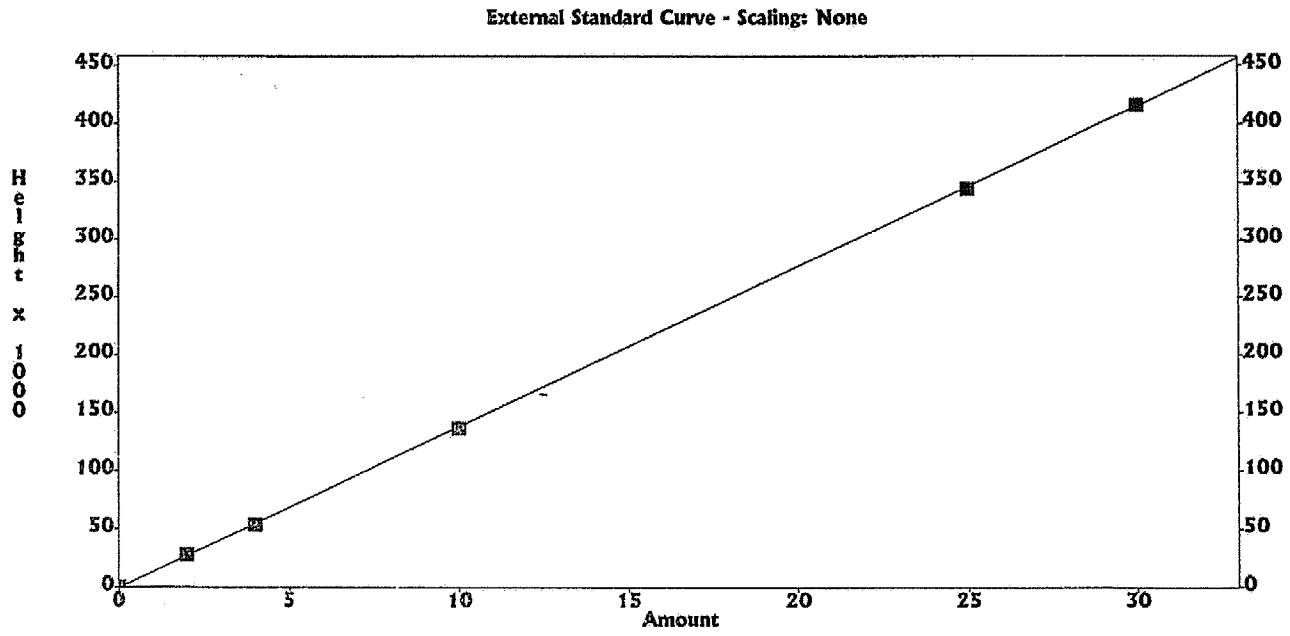
Level	Height	Amount	RF	Rep Hgt 1	Rep Hgt 2	Rep Hgt 3	Rep Hgt 4	Rep Hgt 5	Replic STD	Replic %RSD	Old Height
2	28539	2	14269.50	28539							0
3	53704	4	13426.00	53704							0
4	136299	10	13629.90	136299							0
5	344109	25	13764.36	344109							0
6	416712	30	13890.40	416712							0

Calib Flag: Replace

Average RF: 13796
RF StdDev: 315.675
RF %RSD: 2.288

RF Definition: Height / Amount
Weighting Method: None
Fit Through Zero: No

Linear Fit: Amount = 7.20948e-005 x Height + 0.0785996
R^2 = 0.99991



4-24-07

8011

SECOND SOURCE

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JD17001	IB	P	.000	04/17/0716:54	1
JD17002	S-0.0	P	.0000	04/17/0717:15	1
JD17003	S-2.0	P	2	04/17/0717:35	1
JD17004	S-4.0	P	4	04/17/0717:55	1
JD17005	S-10.0	P	10	04/17/0718:16	1
JD17006	S-25.0	P	25	04/17/0718:36	1
JD17007	S-30.0	P	30	04/17/0718:56	1
JD17008	ICV	P	97.9%	04/17/0719:16	1
JD17009	ICB	P	.000	04/17/0719:43	1
JD17010	IPCS	P	81.2%	04/17/0720:15	1
JD17011	PCD007WB	P	.000	04/17/0720:36	1
JD17012	MRL	P	94.6%	04/17/0720:56	1
JD17013	PCD007WL	P	24.5	04/17/0721:16	1
JD17014	PCD007WC	P	24.9	04/17/0721:36	1
JD17015	D146-01	P	.000	04/17/0721:57	1
JD17016	D146-02	P	.000	04/17/0722:17	1
JD17017	D146-03	P	.000	04/17/0722:37	1
JD17018	D146-04	P	.000	04/17/0722:57	1
JD17019	D138-01	P	.000	04/17/0723:18	1
JD17020	RINSE	P	.000	04/17/0723:38	1
JD17021	CCV1-30	P	103%	04/17/0723:58	1
JD17022	D138-02	P	10.3	04/18/0700:18	1
JD17023	D155-01	P	.000	04/18/0700:39	1
JD17024	D155-02	P	6.91	04/18/0700:59	1
JD17025	D134-04	P	.000	04/18/0701:19	1
JD17026	D165-06	P	.000	04/18/0701:39	1
JD17027	D165-08	P	.000	04/18/0702:00	1
JD17028	D165-08D	P	.000	04/18/0702:20	1
JD17029	D165-08M	P	9.89	04/18/0702:40	1
JD17030	RINSE	P	.000	04/18/0703:00	1
JD17031	CCV2-15	P	96.2%	04/18/0703:21	1
JD17032	IPCS	P	82.9%	04/18/0703:41	1
JD17033	PCD008SB	P	.000	04/18/0704:01	1
JD17034	MRL	P	97.5%	04/18/0704:21	1
JD17035	PCD008SL	P	25.4	04/18/0704:42	1
JD17036	PCD008SC	P	25	04/18/0705:02	1
JD17037	D134-01	P	.000	04/18/0705:22	1
JD17038	D134-02	P	.000	04/18/0705:42	1
JD17039	D134-03	P	.000	04/18/0706:03	1
JD17040	D134-05	P	.000	04/18/0706:23	1
JD17041	D134-06	P	.000	04/18/0706:43	1
JD17042	D134-07	P	.000	04/18/0707:03	1
JD17043	CCV3-30	P	104%	04/18/0707:24	1
JD17044	D134-09	P	.000	04/18/0707:44	1
JD17045	D134-10	P	.000	04/18/0708:04	1
JD17046	D134-11	P	.000	04/18/0708:24	1
JD17047	D134-12	P	.000	04/18/0708:45	1
JD17048	D165-02	*	59.3E	04/18/0709:05	1
JD17049	CCV4-15	P	93.4%	04/18/0717:56	1
JD17050	D165-03	P	.000	04/18/0718:16	1
JD17051	D165-04	P	.000	04/18/0718:36	1
JD17052	D165-09	P	3.09	04/18/0718:56	1
JD17053	D165-09D	P	3.01	04/18/0719:17	1
JD17054	D165-09M	P	12.4	04/18/0719:37	1
JD17055	D165-10	P	6	04/18/0719:57	1
JD17056	D165-11	P	.000	04/18/0720:17	1
JD17057	D165-02	P	477	04/18/0720:38	20
JD17058	D165-04	P	3740	04/18/0720:58	200
JD17059	CCV5-30	P	101%	04/18/0721:18	1
JD17060	IPCS	P	80.3%	04/18/0721:38	1
JD17061	PCD009WB	P	.000	04/18/0721:59	1
JD17062	MRL	P	93.1%	04/18/0722:19	1
JD17063	PCD009WL	P	24.5	04/18/0722:39	1
JD17064	PCD009WC	P	24.6	04/18/0723:00	1
JD17065	D138-01R	P	.000	04/18/0723:20	1
JD17066	D146-01	P	.000	04/18/0723:40	10
JD17067	D146-02	P	.000	04/19/0700:00	10
JD17068	D146-03	P	.000	04/19/0700:21	10
JD17069	D146-04	P	.000	04/19/0700:41	10
JD17070	D146-01	P	.000	04/19/0701:01	25
JD17071	CCV6-15	P	94.8%	04/19/0701:21	1
JD17072	D146-02	P	.000	04/19/0701:42	25
JD17073	D146-03	P	.000	04/19/0702:02	25
JD17074	D146-04	P	.000	04/19/0702:22	25

DAILY CALIBRATION

IC RESULT FORM CalVersion: PCHLO314.17D

LFID	LSID	SELCOMP	PERCHLORATE	DateTime	Df
JG30001	IPCS	P	84.5%	07/30/0719:43	1
JG30002	PCG013WB	P	.000	07/30/0720:04	1
JG30003	MRL	P	106%	07/30/0720:25	1
JG30004	PCG013WL	P	25.9	07/30/0720:46	1
JG30005	PCG013WC	P	25.7	07/30/0721:07	1
JG30006	G208-02	P	54.6	07/30/0721:28	5
JG30007	G208-01	P	2.12	07/30/0721:49	1
JG30008	RINSE	P	.000	07/30/0722:10	1
JG30009	G208-01R	P	1.94	07/30/0722:31	1
JG30010	RINSE	P	.000	07/30/0722:52	1
JG30011	G238-01	P	56.6	07/30/0723:13	5
JG30012	CCV162-30	P	105%	07/30/0723:34	1
JG30013	G238-02	P	.000	07/30/0723:55	1
JG30014	RINSE	P	.000	07/31/0700:16	1
JG30015	G238-02R	P	.000	07/31/0700:37	1
JG30016	RINSE	P	.000	07/31/0700:59	1
JG30017	G291-01	P	56	07/31/0701:20	5
JG30018	G291-02	P	.000	07/31/0701:41	1
JG30019	RINSE	P	.000	07/31/0702:02	1
JG30020	G291-02R	P	.000	07/31/0702:23	1
JG30021	RINSE	P	.000	07/31/0702:44	1
JG30022	G317-01	P	56.7	07/31/0703:05	5
JG30023	CCV163-15	P	110%	07/31/0703:26	1
JG30024	G317-02	P	.000	07/31/0703:47	1
JG30025	RINSE	P	.000	07/31/0704:08	1
JG30026	G317-02R	P	.776	07/31/0704:29	1
JG30027	RINSE	P	.000	07/31/0704:50	1
JG30028	G343-01	P	.000	07/31/0705:11	1
JG30029	G343-01D	P	.000	07/31/0705:32	1
JG30030	G343-01M	P	10.3	07/31/0705:53	1
JG30031	RINSE	P	.000	07/31/0706:14	1
JG30032	CCV164-30	P	106%	07/31/0706:35	1
JG30033	IPCS	P	91%	07/31/0706:56	1
JG30034	PCG014SB	P	.000	07/31/0707:17	1
JG30035	MRL	P	126%*	07/31/0707:38	1
JG30036	PCG014SL	P	26	07/31/0707:59	1
JG30037	PCG014SC	P	26	07/31/0708:20	1
JG30038	EMPTY	P	.000	07/31/0708:41	1
JG30039	G321-10	P	.000	07/31/0709:02	1
JG30040	G321-11	P	.000	07/31/0709:23	1
JG30041	G321-11D	P	.000	07/31/0709:44	1
JG30042	G321-11M	P	10.3	07/31/0710:05	1
JG30043	RINSE	P	1.09	07/31/0710:26	1
JG30044	CCV165-15	P	104%	07/31/0710:47	1
JG30045	G321-12	P	.000	07/31/0711:08	1
JG30046	G321-13	P	.000	07/31/0711:29	1
JG30047	G321-14	P	.000	07/31/0711:50	1
JG30048	G321-15	P	.000	07/31/0712:11	1
JG30049	G321-16	P	.000	07/31/0712:32	1
JG30050	G321-17	P	.000	07/31/0712:53	1
JG30051	G321-18	P	.000	07/31/0713:14	1
JG30052	G343-03	P	.000	07/31/0713:36	1
JG30053	G343-04	P	.000	07/31/0713:57	1
JG30054	G321-18R	P	.000	07/31/0714:18	1
JG30055	CCV166-30	P	107%	07/31/0714:39	1
JG30056	G343-05	P	.000	07/31/0715:00	1
JG30057	G343-06	P	.000	07/31/0715:21	1
JG30058	G343-07	P	.000	07/31/0715:42	1
JG30059	G343-08	P	.000	07/31/0716:03	1
JG30060	G321-09	P	7.5	07/31/0716:24	1
JG30061	CCV167-15	P	106%	07/31/0716:45	1
JG30062	G343-07	P	.000	07/31/0717:29	5
JG30063	CCV168-30	P	106%	07/31/0717:50	1

ANALYTICAL LOG

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments: + NaOH : SW8A - 02 - 18

- JG30 051 : Bad injection. Instrumentation error. Re-run.

- JG30 009, 015, 020 & 026 : Re-analysis (for confirmation only).

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JG30

Method File: IC57d17

Analytical Batch: PCG013W + PCG014S

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

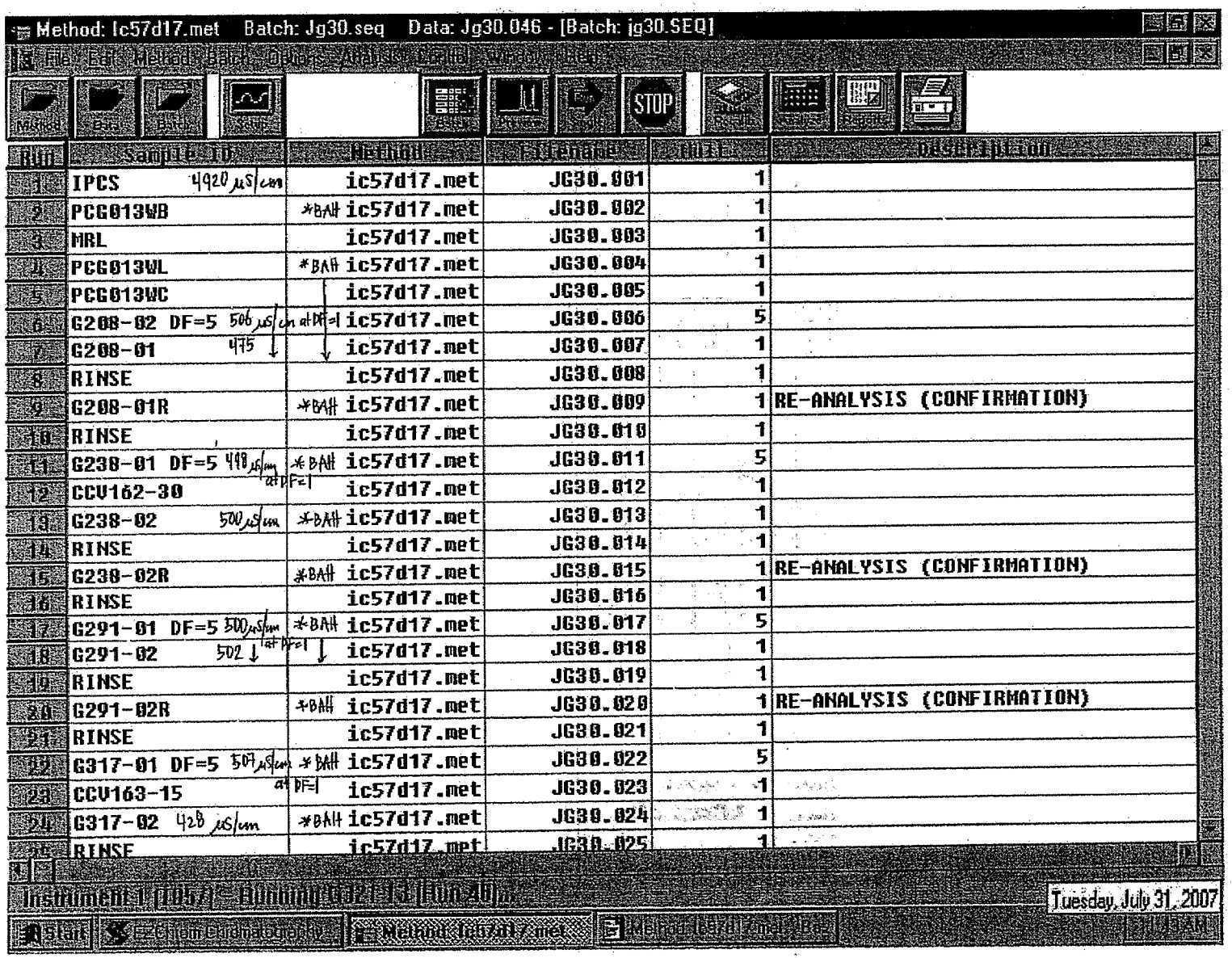
STANDARDS ID	
ICAL	SW8B - 02 - 935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B - 02 - 966
CCV-30	↓ 964
LCS	970
MS	931
IPC	969
CMC	SW3B - 02-951 ~~965~~ ak 07/30/07
MRL	SW8B - 02 - 965

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1407	(±) 30	20°C

ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

Analyzed By: ak/SD

Date: 07/30/07



Method: Ic57d17.met Batch: Jg30.seq Data: Jg30.046 - [Batch: jg30.SEQ]

File Edit Method Batch Options Analysis Control Window Help

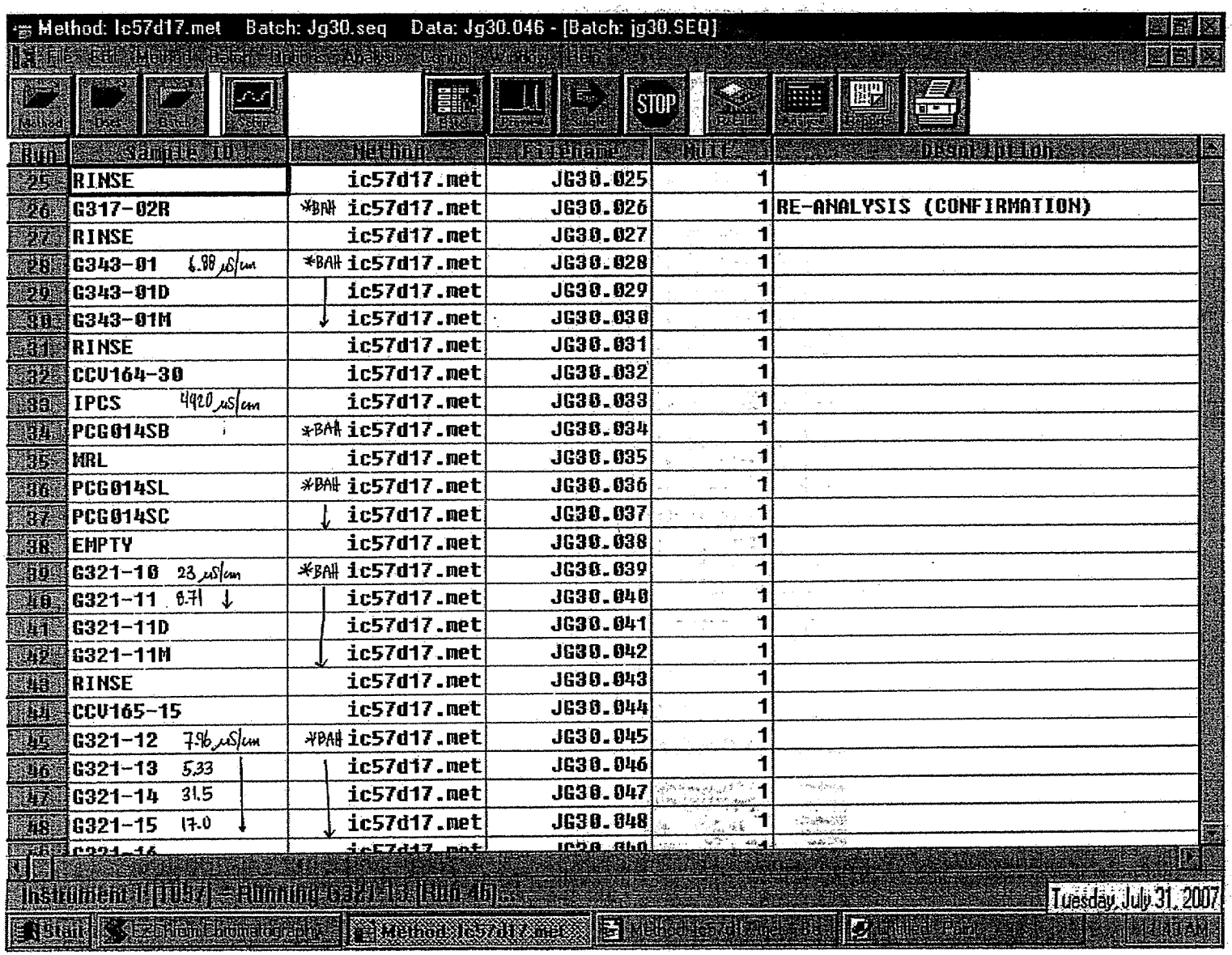
Run	Sample ID	Method	Filename	Mult.	Description
1	IPCS 4920 µS/cm	ic57d17.met	JG30.001	1	
2	PCG013WB	*BAH ic57d17.met	JG30.002	1	
3	MRL	ic57d17.met	JG30.003	1	
4	PCG013WL	*BAH ic57d17.met	JG30.004	1	
5	PCG013WC	ic57d17.met	JG30.005	1	
6	G208-02 DF=5 506 µS/cm at DF=1	ic57d17.met	JG30.006	5	
7	G208-01 475	ic57d17.met	JG30.007	1	
8	RINSE	ic57d17.met	JG30.008	1	
9	G208-01R	*BAH ic57d17.met	JG30.009	1	RE-ANALYSIS (CONFIRMATION)
10	RINSE	ic57d17.met	JG30.010	1	
11	G238-01 DF=5 498 µS/cm at DF=1	*BAH ic57d17.met	JG30.011	5	
12	CCV162-30	ic57d17.met	JG30.012	1	
13	G238-02 500 µS/cm	*BAH ic57d17.met	JG30.013	1	
14	RINSE	ic57d17.met	JG30.014	1	
15	G238-02R	*BAH ic57d17.met	JG30.015	1	RE-ANALYSIS (CONFIRMATION)
16	RINSE	ic57d17.met	JG30.016	1	
17	G291-01 DF=5 500 µS/cm at DF=1	*BAH ic57d17.met	JG30.017	5	
18	G291-02 502	ic57d17.met	JG30.018	1	
19	RINSE	ic57d17.met	JG30.019	1	
20	G291-02R	*BAH ic57d17.met	JG30.020	1	RE-ANALYSIS (CONFIRMATION)
21	RINSE	ic57d17.met	JG30.021	1	
22	G317-01 DF=5 507 µS/cm at DF=1	*BAH ic57d17.met	JG30.022	5	
23	CCV163-15	ic57d17.met	JG30.023	1	
24	G317-02 428 µS/cm	*BAH ic57d17.met	JG30.024	1	
25	RINSE	ic57d17.met	JG30.025	1	

Instrument 1 [1057] - Running G321-13 [Run 46]

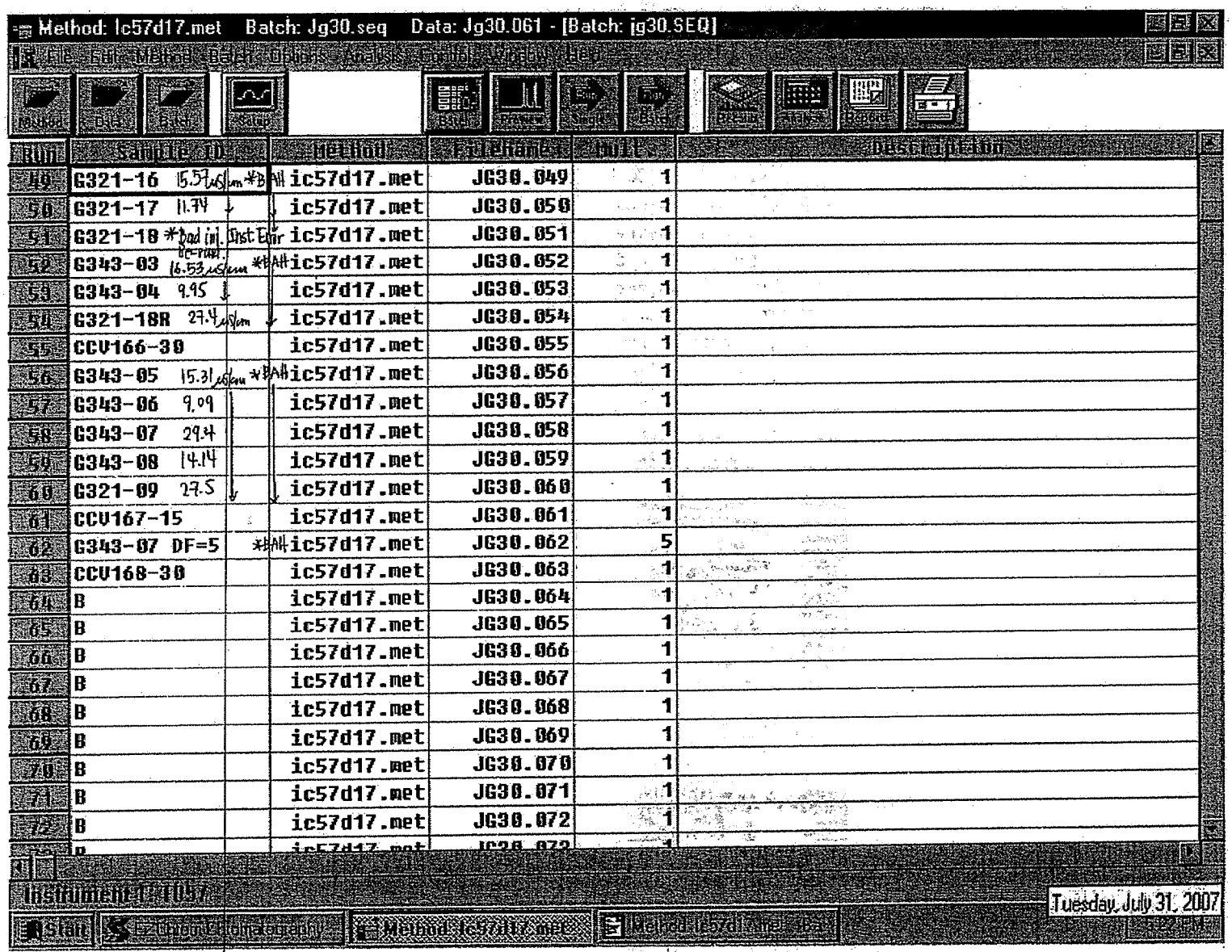
Tuesday, July 31, 2007

Start | EZ Chrom Chromatography | Method: Ic57d17.met | Method: Ic57d17.met - Bag | 11:13 AM

8018


Method: Ic57d17.met Batch: Jg30.seq Data: Jg30.046 - [Batch: jg30.SEQ]
STOP
Run | Sample ID | Method | FileName | Mult | Description
25 RINSE ic57d17.met JG30.025 1
26 G317-02R *BAH ic57d17.met JG30.026 1 RE-ANALYSIS (CONFIRMATION)
27 RINSE ic57d17.met JG30.027 1
28 G343-01 6.98 µS/cm *BAH ic57d17.met JG30.028 1
29 G343-01D ic57d17.met JG30.029 1
30 G343-01M ic57d17.met JG30.030 1
31 RINSE ic57d17.met JG30.031 1
32 CCV164-30 ic57d17.met JG30.032 1
33 IPCS 4920 µS/cm ic57d17.met JG30.033 1
34 PCG014SB *BAH ic57d17.met JG30.034 1
35 MRL ic57d17.met JG30.035 1
36 PCG014SL *BAH ic57d17.met JG30.036 1
37 PCG014SC ic57d17.met JG30.037 1
38 EMPTY ic57d17.met JG30.038 1
39 G321-10 23 µS/cm *BAH ic57d17.met JG30.039 1
40 G321-11 6.71 ic57d17.met JG30.040 1
41 G321-11D ic57d17.met JG30.041 1
42 G321-11M ic57d17.met JG30.042 1
43 RINSE ic57d17.met JG30.043 1
44 CCV165-15 ic57d17.met JG30.044 1
45 G321-12 7.96 µS/cm *BAH ic57d17.met JG30.045 1
46 G321-13 5.33 ic57d17.met JG30.046 1
47 G321-14 31.5 ic57d17.met JG30.047 1
48 G321-15 17.0 ic57d17.met JG30.048 1
Instrument 1 [1057] - Running G321-15 [Run 48]...
Tuesday, July 31, 2007
Start
Method: Ic57d17.met

8019


Method: ic57d17.met Batch: Jg30.seq Data: Jg30.061 - [Batch: jg30.SEQ]
Run
Sample ID
Method
FileName
Unit's
Description
49 G321-16 15.57 µS/cm *BAll ic57d17.met JG30.049 1
50 G321-17 11.74 ic57d17.met JG30.050 1
51 G321-18 *bad inj. Inst Err ic57d17.met JG30.051 1
re-run.
52 G343-03 16.53 µS/cm *BAll ic57d17.met JG30.052 1
53 G343-04 9.95 ic57d17.met JG30.053 1
54 G321-18R 27.4 µS/cm ic57d17.met JG30.054 1
55 CCV166-30 ic57d17.met JG30.055 1
56 G343-05 15.31 µS/cm *BAll ic57d17.met JG30.056 1
57 G343-06 9.09 ic57d17.met JG30.057 1
58 G343-07 29.4 ic57d17.met JG30.058 1
59 G343-08 14.14 ic57d17.met JG30.059 1
60 G321-09 27.5 ic57d17.met JG30.060 1
61 CCV167-15 ic57d17.met JG30.061 1
62 G343-07 DF=5 *BAll ic57d17.met JG30.062 5
63 CCV168-30 ic57d17.met JG30.063 1
64 B ic57d17.met JG30.064 1
65 B ic57d17.met JG30.065 1
66 B ic57d17.met JG30.066 1
67 B ic57d17.met JG30.067 1
68 B ic57d17.met JG30.068 1
69 B ic57d17.met JG30.069 1
70 B ic57d17.met JG30.070 1
71 B ic57d17.met JG30.071 1
72 B ic57d17.met JG30.072 1
Instrument 1: 1057
Tuesday, July 31, 2007
Start
Method: ic57d17.met

6929

EMAX LABORATORIES, INC.

ANALYTICAL RUN LOG
for
ION CHROMATOGRAPHY

Note: For samples, relevant QCs/Standards analyzed, refer to attached analytical sequence.

Comments:

* NaOH : SW8A - 02 - 18

Book #: A57-015

Instrument No.: 57

Analytical Sequence: JD17

Method File: * IC57d17.met

Analytical Batch: PCD007W + PCD008S + PCD009W

SOP #	Rev. #
☐ EMAX-300.0	3
☐ EMAX-300.0(M)	0
☑ EMAX-314.0	1
☐ EMAX-9056	3
☐ EMAX-	

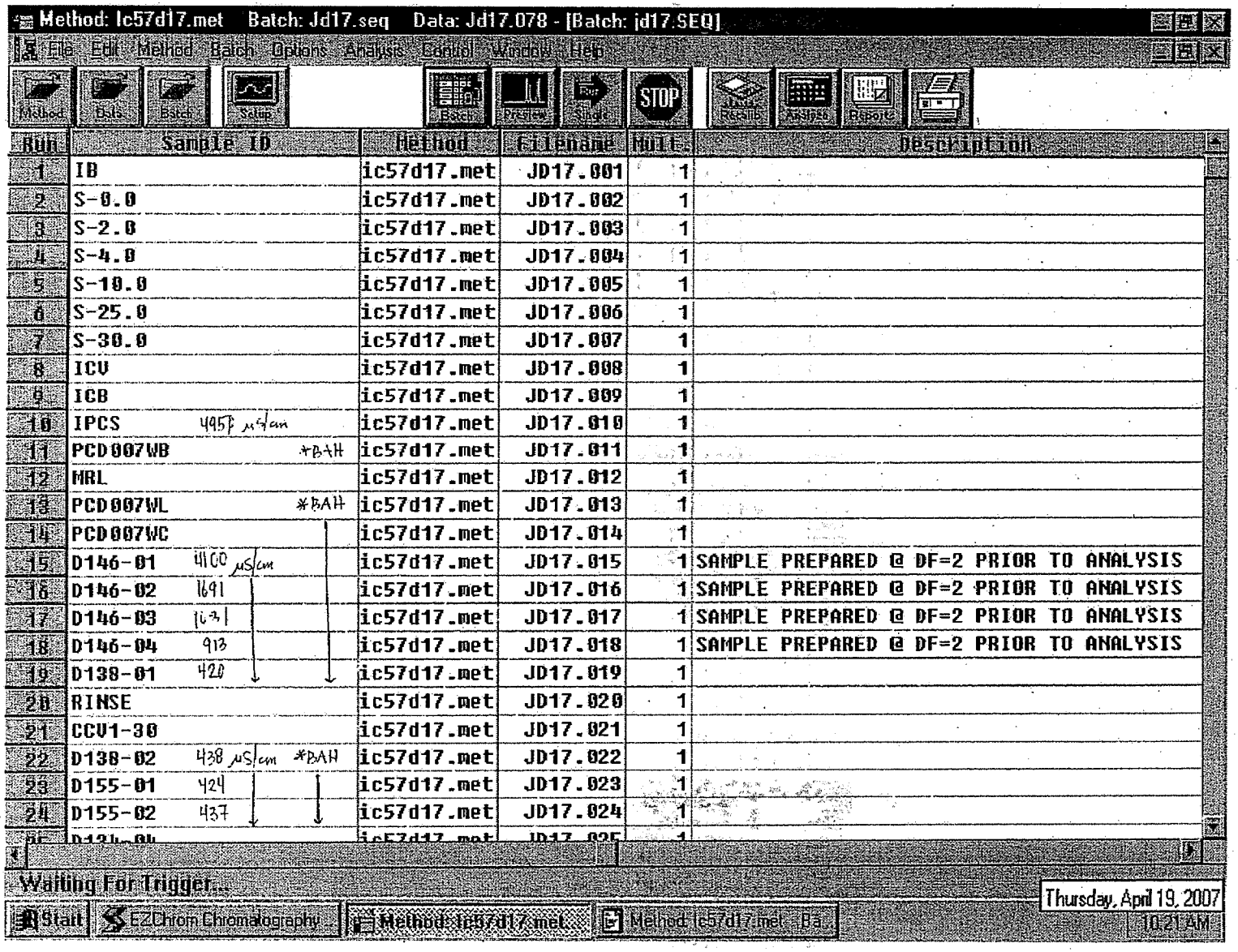
STANDARDS ID	
ICAL	SW8B-02-935
ICV	↓ 936
CCV	N/A
CCV-15	SW8B-02-937
CCV-30	↓ 938
LCS	↓ 936
MS	↓ 931
IPC	↓ 934
CMC	SW3B-02-951
MRL	SW8B-02-933

CMC Reading (µS/cm)	QC Criteria (µS/cm)	Temp. (°C)
1411	(±) 30	25°C

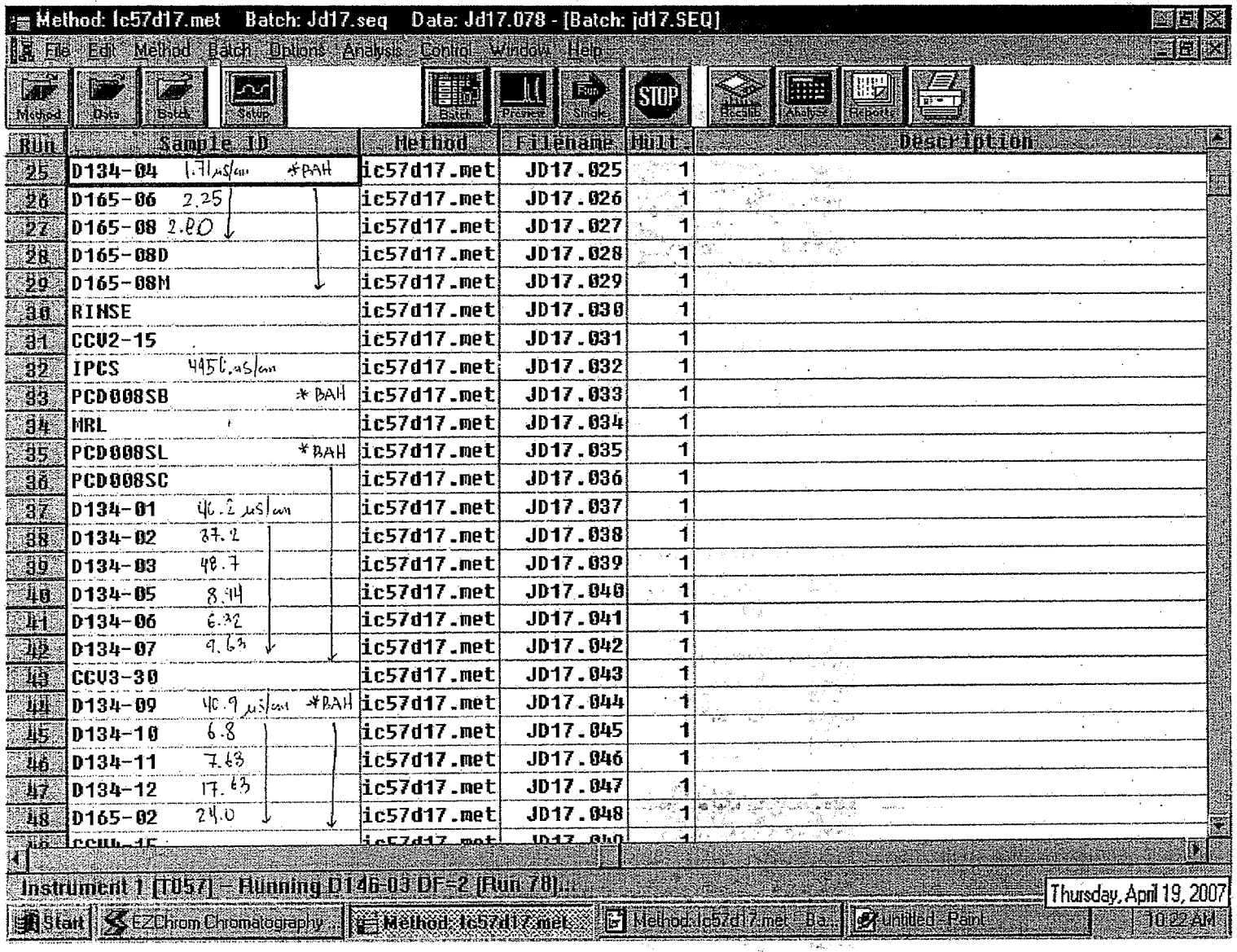
ELECTRONIC DATA ARCHIVAL	
Location	Date
☑ EZ-CHROM	
☐	

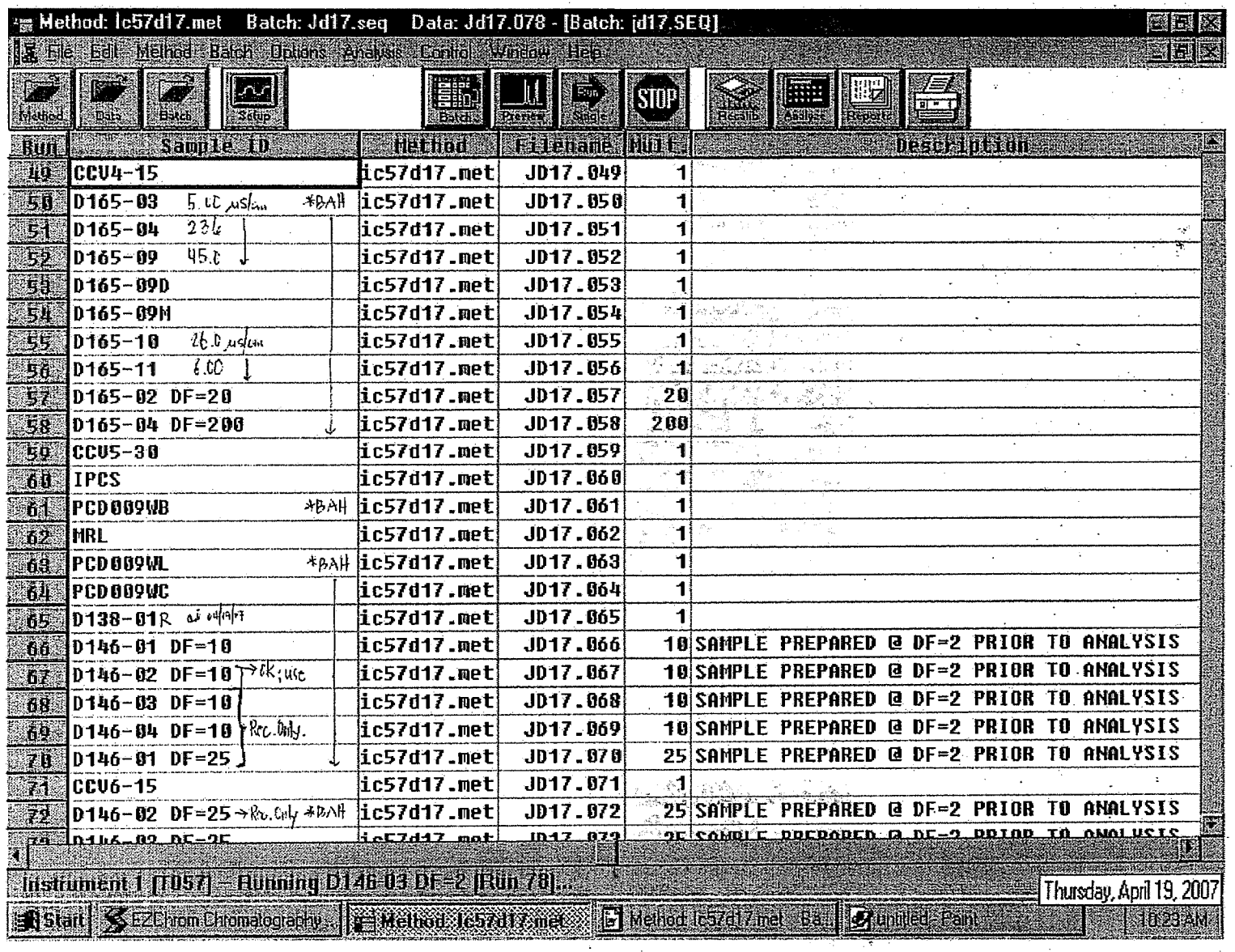
Analyzed By: al

Date: 04/17/07


Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Results Analysis Reports
Run Sample ID Method Filename Mult. Description
1 IB ic57d17.met JD17.001 1
2 S-0.0 ic57d17.met JD17.002 1
3 S-2.0 ic57d17.met JD17.003 1
4 S-4.0 ic57d17.met JD17.004 1
5 S-10.0 ic57d17.met JD17.005 1
6 S-25.0 ic57d17.met JD17.006 1
7 S-30.0 ic57d17.met JD17.007 1
8 ICV ic57d17.met JD17.008 1
9 ICB ic57d17.met JD17.009 1
10 IPCS 4957 µS/cm ic57d17.met JD17.010 1
11 PCD007WB *BAH ic57d17.met JD17.011 1
12 MRL ic57d17.met JD17.012 1
13 PCD007WL *BAH ic57d17.met JD17.013 1
14 PCD007WC ic57d17.met JD17.014 1
15 D146-01 4160 µS/cm ic57d17.met JD17.015 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
16 D146-02 1691 ic57d17.met JD17.016 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
17 D146-03 1631 ic57d17.met JD17.017 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
18 D146-04 913 ic57d17.met JD17.018 1 SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
19 D138-01 420 ic57d17.met JD17.019 1
20 RINSE ic57d17.met JD17.020 1
21 CCV1-30 ic57d17.met JD17.021 1
22 D138-02 438 µS/cm *BAH ic57d17.met JD17.022 1
23 D155-01 424 ic57d17.met JD17.023 1
24 D155-02 437 ic57d17.met JD17.024 1
Waiting For Trigger...
Thursday, April 19, 2007
Start EZChrom Chromatography Method: Ic57d17.met Method: Ic57d17.met - Ba... 10:21 AM

8022


Method: ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Results Analysis Reports
Run Sample ID Method Filename Mult Description
25 D134-04 1.71 µs/cm *PAH ic57d17.met JD17.025 1
26 D165-06 2.25 ic57d17.met JD17.026 1
27 D165-08 2.80 ic57d17.met JD17.027 1
28 D165-08D ic57d17.met JD17.028 1
29 D165-08M ic57d17.met JD17.029 1
30 RINSE ic57d17.met JD17.030 1
31 CCV2-15 ic57d17.met JD17.031 1
32 IPCS 4950 µs/cm ic57d17.met JD17.032 1
33 PCD008SB *PAH ic57d17.met JD17.033 1
34 MRL ic57d17.met JD17.034 1
35 PCD008SL *PAH ic57d17.met JD17.035 1
36 PCD008SC ic57d17.met JD17.036 1
37 D134-01 46.2 µs/cm ic57d17.met JD17.037 1
38 D134-02 37.2 ic57d17.met JD17.038 1
39 D134-03 48.7 ic57d17.met JD17.039 1
40 D134-05 8.94 ic57d17.met JD17.040 1
41 D134-06 6.32 ic57d17.met JD17.041 1
42 D134-07 9.63 ic57d17.met JD17.042 1
43 CCV3-30 ic57d17.met JD17.043 1
44 D134-09 40.9 µs/cm *PAH ic57d17.met JD17.044 1
45 D134-10 6.8 ic57d17.met JD17.045 1
46 D134-11 7.63 ic57d17.met JD17.046 1
47 D134-12 17.63 ic57d17.met JD17.047 1
48 D165-02 24.0 ic57d17.met JD17.048 1
Instrument 1 [T057] - Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography... Method: ic57d17.met Method: ic57d17.met - Ba... Untitled - Paint 10:22 AM



Method: Ic57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]

File Edit Method Batch Options Analysis Control Window Help

Method Data Batch Setup Batch Preview Single STOP Recalib Analyze Reports

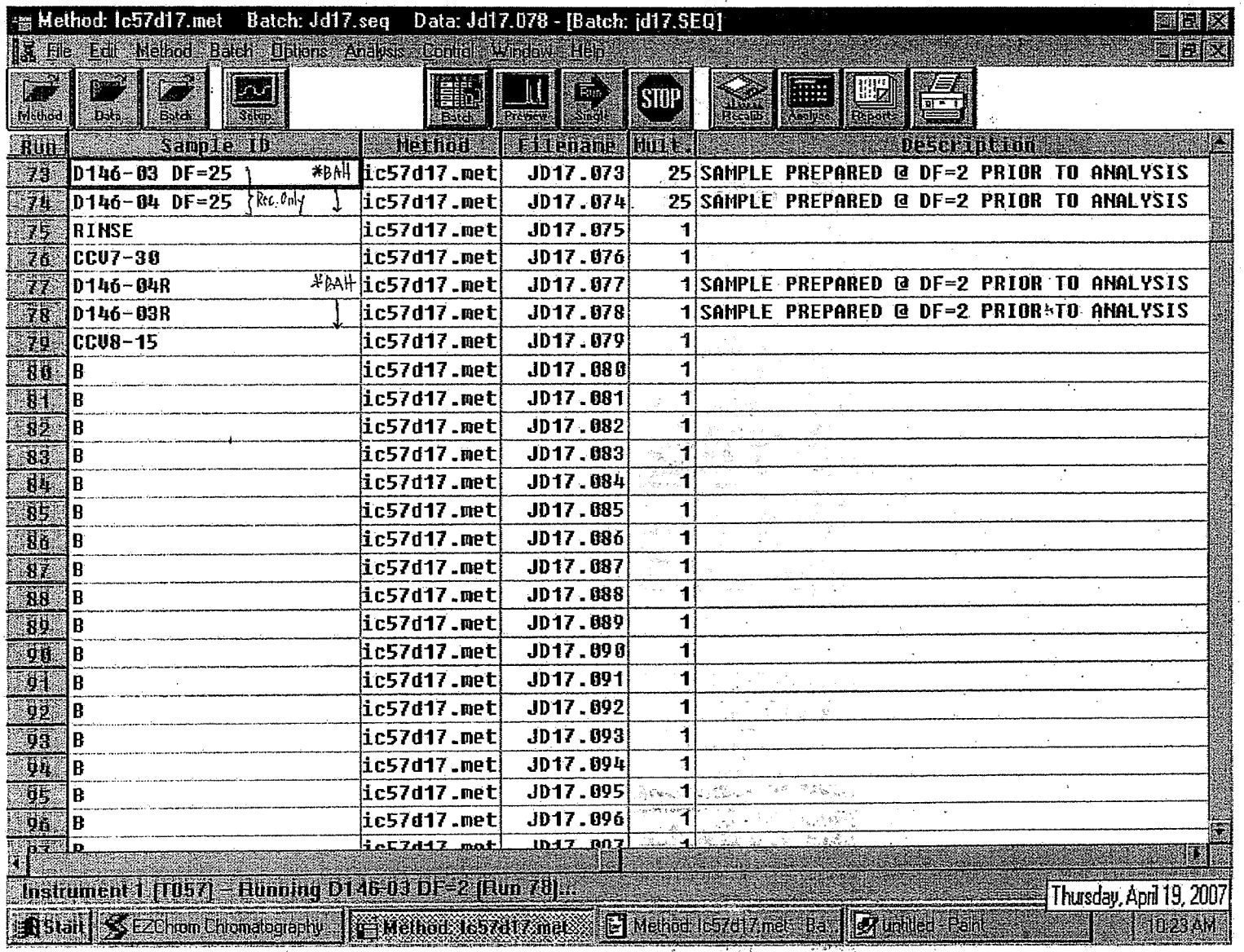
Run	Sample ID	Method	Filename	Mult.	Description
49	CCV4-15	ic57d17.met	JD17.049	1	
50	D165-03 5.00 µs/cm *BAH	ic57d17.met	JD17.050	1	
51	D165-04 23.6	ic57d17.met	JD17.051	1	
52	D165-09 45.0	ic57d17.met	JD17.052	1	
53	D165-09D	ic57d17.met	JD17.053	1	
54	D165-09M	ic57d17.met	JD17.054	1	
55	D165-10 26.0 µs/cm	ic57d17.met	JD17.055	1	
56	D165-11 6.00	ic57d17.met	JD17.056	1	
57	D165-02 DF=20	ic57d17.met	JD17.057	20	
58	D165-04 DF=200	ic57d17.met	JD17.058	200	
59	CCV5-30	ic57d17.met	JD17.059	1	
60	IPCS	ic57d17.met	JD17.060	1	
61	PCD009WB *BAH	ic57d17.met	JD17.061	1	
62	MRL	ic57d17.met	JD17.062	1	
63	PCD009WL *BAH	ic57d17.met	JD17.063	1	
64	PCD009WC	ic57d17.met	JD17.064	1	
65	D138-01R [illegible]	ic57d17.met	JD17.065	1	
66	D146-01 DF=10	ic57d17.met	JD17.066	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
67	D146-02 DF=10 → ok; use	ic57d17.met	JD17.067	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
68	D146-03 DF=10	ic57d17.met	JD17.068	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
69	D146-04 DF=10 Rec. Only.	ic57d17.met	JD17.069	10	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
70	D146-01 DF=25	ic57d17.met	JD17.070	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
71	CCV6-15	ic57d17.met	JD17.071	1	
72	D146-02 DF=25 → Rec. Only *BAH	ic57d17.met	JD17.072	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
73	D146-02 DF=25	ic57d17.met	JD17.073	25	SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS

Instrument 1 [T057] – Running D146-03 DF=2 [Run 78]...

Thursday, April 19, 2007

Start | EZChrom Chromatography... | Method: Ic57d17.met | Method: Ic57d17.met Ba... | untitled - Paint | 10:23 AM

8024


Method: lc57d17.met Batch: Jd17.seq Data: Jd17.078 - [Batch: jd17.SEQ]
File Edit Method Batch Options Analysis Control Window Help
Method Data Batch Setup Batch Preview Single STOP Review Results Analyze Reports
Run | Sample ID | Method | Filename | Mult. | Description
73 | D146-03 DF=25 *BAH | lc57d17.met | JD17.073 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
74 | D146-04 DF=25 Rec. Only | lc57d17.met | JD17.074 | 25 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
75 | RINSE | lc57d17.met | JD17.075 | 1 |
76 | CCV7-30 | lc57d17.met | JD17.076 | 1 |
77 | D146-04R *BAH | lc57d17.met | JD17.077 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
78 | D146-03R | lc57d17.met | JD17.078 | 1 | SAMPLE PREPARED @ DF=2 PRIOR TO ANALYSIS
79 | CCV8-15 | lc57d17.met | JD17.079 | 1 |
80 | B | lc57d17.met | JD17.080 | 1 |
81 | B | lc57d17.met | JD17.081 | 1 |
82 | B | lc57d17.met | JD17.082 | 1 |
83 | B | lc57d17.met | JD17.083 | 1 |
84 | B | lc57d17.met | JD17.084 | 1 |
85 | B | lc57d17.met | JD17.085 | 1 |
86 | B | lc57d17.met | JD17.086 | 1 |
87 | B | lc57d17.met | JD17.087 | 1 |
88 | B | lc57d17.met | JD17.088 | 1 |
89 | B | lc57d17.met | JD17.089 | 1 |
90 | B | lc57d17.met | JD17.090 | 1 |
91 | B | lc57d17.met | JD17.091 | 1 |
92 | B | lc57d17.met | JD17.092 | 1 |
93 | B | lc57d17.met | JD17.093 | 1 |
94 | B | lc57d17.met | JD17.094 | 1 |
95 | B | lc57d17.met | JD17.095 | 1 |
96 | B | lc57d17.met | JD17.096 | 1 |
Instrument 1 [T057] - Running D146-03 DF=2 [Run 78]...
Thursday, April 19, 2007
Start EZChrom Chromatography Method: lc57d17.met Method lc57d17.met - Ba... Untitled - Paint 10:23 AM

8925

EXTRACTION LOG

SAMPLE PREPARATION LOG FOR ORGANIC ACID/PERCHLORATE

SOP ☑ EMAX-314.0 ☐ EMAX-300.0M Book # EOP-001

Matrix Soil Start Date 7/30/07 Time 16:15 End Date 7/30/07 Time 17:15

PREPARATION BATCH # PCG0145

Sample Prep ID	Lab Sample ID	Sample Amount (g)	Dilution Volume (ml)	Extract Volume (ml)	Notes
*01	PCG0145B	10.000g	100mL	100mL	
*02	↓ SL	↓	↓	↓	
*03	↓ SC				
*04	G321 -10				
*05	G321 -11				
*06	-11D				
*07	-11M				
*08	-12				
*09	-13				
*10	-14				
*11	-15				
*12	-16				
*13	-17				
*14	↓ -18				
*15	G343 -03				
*16	-04				
*17	-05				
*18	-06				
*19	-07				
*20	-08				
*21	↓ -09	↓	↓	↓	
*22					
*23					
*24					

SD 7/31/07

Standards	ID	Amount Added (ml)
Acetate		
Butyrate		
Lactate		
Perchlorate LCS/MS	3W8B-02-931	2.5/1.0
Propionate		
Pyruvate		

Reagent	Lot # / ID
H_2SO_4	
Nanopure	DI H_2O

Legend:

Color	Texture	Clarity	Artifacts
Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Sl = Shale
Og = Orange Rd = Red	Fn = Fine	Td = turbid	Vg= Vegetation
Yw = Yellow			

Comments:

Prepared By: SD /ad

Standard Added By: ad

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8922

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RECEIVED
MAY 23 2007
F2651

Ordered By TETRA TECH, INC.-SBO

Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages	8
Date Received	05/02/2007
Date Reported	05/18/2007

Job Number	Order Date	Client
41945	05/02/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 6 soil gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 48376

AETL JOB No. 41945

COMPANY: TETRA TECH	PROJECT MANAGER: Brenda Meyer
COMPANY ADDRESS: 348 W. Hospitality Lane #100 San Bernardino, CA 92408	PHONE / Fax: (909) 381-1674
PROJECT NAME: LOCKHEED MARTIN	PROJECT #: 19967
SITE NAME AND ADDRESS: Beaumont Site 1, BEAUMONT CA. 92223	PO #:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
1	B11-HSAS10-SVP.20'		5/02/07	0924	AIR	1.6LTSUMMA	✓
2	B11-HSAS10-SVP.10'		"	1012	"	"	
3	B11HSAS9-SVP-20'		"	1110	"	"	✓
4	B11-HSAS9-SVP-10'		"	1155	"	"	✓
5	B11'HSAS8-SVP-25'		"	1402	"	"	✓
6	B11-HSAS8-SVP-10'		"	1446	"	"	✓
7							
8							
9							
10							
11							
12							
13							
14							
15							

ANALYSIS REQUESTED

	10-15	Initial PSI	Final PSI	* Leak check	TEST INSTRUCTIONS & COMMENTS
1	X	-26	0.0	✓	*ISOBUTANE 41945.01
2	X	-26	0.0	✓	41945.02
3	X	-25	0.0	✓	41945.03
4	X	-25	0.0	✓	41945.04
5	X	-25	0.0	✓	41945.05
6	X	-25	0.0	✓	41945.06

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	6	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N (NA)		SAMPLES INTACT (Y) N / NA	
RECEIVED IN GOOD COND. (Y) N		SAMPLES ACCEPTED (Y) N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ Next day ☐ ~~48 HRS.~~ 2days ☐ ~~72 HRS.~~ 3days

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature:	Signature:
Printed Name: CARLOS GONZALEZ	Printed Name: Jack Zimmerman	Printed Name: CARLOS GONZALEZ
Date: 5/02/07 Time: 1451	Date: 5/02/07 Time: 1451	Date: 5/02/07 Time: 1655
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: 3.**
Signature:	Signature:	Signature:
Printed Name: Jack Zimmerman	Printed Name: CARLOS GONZALEZ	Printed Name: Julian Hermosillo
Date: 5/02/07 Time: 1451	Date: 5/02/07 Time: 1451	Date: 5/02/07 Time: 1655

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	B11-HSAS10-SVP-10'	B11-HSAS10-SVP-20'	B11-HSAS8-SVP-10'	B11-HSAS8-SVP-25'	B11-HSAS9-SVP-10'	B11-HSAS9-SVP-20'
Sample Date		5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007
Laboratory Job Number		41945	41945	41945	41945	41945	41945
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**14.4**	**25.2**	**36.2**	**41.3**	**20.7**	**50.9**
Benzene	ug/m3	ND<2.0	**11.6**	**8.29**	**15.2**	**5.37**	**14.8**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	**45.3**	**23.8**	**250**	**223**	**154**	**147**
Carbon disulfide	ug/m3	**7.03**	**51.5**	**37.7**	**49.1**	**26.7**	**42.1**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	**6.05**	**30.7**	**6.60**	**86.3**	ND<3.0	**32.9**
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	**28.3**	ND<3.0	**76.0**	ND<3.0	**40.8**
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	**45.4**	**1,490**	**902**	**5,270**	**19.4**	**503**
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	ND<3.0	**5.21**	ND<3.0	**10.3**	ND<3.0	**6.86**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	B11-HSAS10-SVP-10'	B11-HSAS10-SVP-20'	B11-HSAS8-SVP-10'	B11-HSAS8-SVP-25'	B11-HSAS9-SVP-10'	B11-HSAS9-SVP-20'
Sample Date		5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007
Laboratory Job Number		41945	41945	41945	41945	41945	41945
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	**15.4**	**39.0**	ND<10	ND<10	**11.3**	**38.2**
Styrene	ug/m3	ND<3.0	**5.20**	ND<3.0	**8.46**	ND<3.0	**7.75**
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	ND<3.0	**10.8**	**11.2**	**60.4**	ND<3.0	**54.8**
Toluene (Methyl benzene)	ug/m3	**372**	**84.1**	**571**	**95.8**	**428**	**97.6**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	**14.0**	**22.9**	**24.4**	**105**	**9.05**	**26.1**
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	**466**	**985**	**1,230**	**4,150**	**223**	**1,060**
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	**11.2**	ND<5	ND<5	ND<5	ND<5
1,2,4-Trimethylbenzene	ug/m3	ND<3.0	**6.98**	ND<3.0	**13.8**	ND<3.0	**8.75**
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	ND<2.0	**6.16**	ND<2.0	**11.9**	ND<2.0	**7.81**
m,p-Xylenes	ug/m3	ND<4.0	**17.0**	ND<4.0	**34.9**	**7.12**	**22.3**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	**5,010**	ND<2000	ND<2000	ND<2000	**2,810**

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050307

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/03/2007				
Preparation Method			TO-15				
Date Analyzed			05/03/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050307

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/03/2007				
Preparation Method			TO-15				
Date Analyzed			05/03/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		87				
1,2-Dichloroethane-d4	70-130		106				
Toluene-d8	70-130		79				

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ANALYTICAL RESULTS

Ordered By

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Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050307

Our Lab I.D.			41945.01	41945.02	41945.03	41945.04	41945.05
Client Sample I.D.			B11-HSAS10-SVP-20'	B11-HSAS10-SVP-10'	B11-HSAS9-SVP-20'	B11-HSAS9-SVP-10'	B11-HSAS8-SVP-25'
Date Sampled			05/02/2007	05/02/2007	05/02/2007	05/02/2007	05/02/2007
Date Prepared			05/03/2007	05/03/2007	05/03/2007	05/03/2007	05/03/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/03/2007	05/03/2007	05/03/2007	05/03/2007	05/03/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	25.2	14.4	50.9	20.7	41.3
Benzene	2.0	2.0	11.6	ND	14.8	5.37	15.2
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	23.8	45.3	147	154	223
Carbon disulfide	3.0	3.0	51.5	7.03	42.1	26.7	49.1
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	30.7	6.05	32.9	ND	86.3
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	28.3	ND	40.8	ND	76.0
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	1,490	45.4	503	19.4	5,270
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Page: 5
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050307

Our Lab I.D.			41945.01	41945.02	41945.03	41945.04	41945.05
Client Sample I.D.			B11-HSAS10-SVP-20'	B11-HSAS10-SVP-10'	B11-HSAS9-SVP-20'	B11-HSAS9-SVP-10'	B11-HSAS8-SVP-25'
Date Sampled			05/02/2007	05/02/2007	05/02/2007	05/02/2007	05/02/2007
Date Prepared			05/03/2007	05/03/2007	05/03/2007	05/03/2007	05/03/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/03/2007	05/03/2007	05/03/2007	05/03/2007	05/03/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	5.21	ND	6.86	ND	10.3
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	39.0	15.4	38.2	11.3	ND
Styrene	3.0	3.0	5.20	ND	7.75	ND	8.46
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	10.8	ND	54.8	ND	60.4
Toluene (Methyl benzene)	2.0	2.0	84.1	372	97.6	428	95.8
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	22.9	14.0	26.1	9.05	105
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	985	466	1,060	223	4,150
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	11.2	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.0	3.0	6.98	ND	8.75	ND	13.8
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	6.16	ND	7.81	ND	11.9
m,p-Xylenes	4.0	4.0	17.0	ND	22.3	7.12	34.9
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	5,010	ND	2,810	ND	ND

Our Lab I.D.			41945.01	41945.02	41945.03	41945.04	41945.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		81	84	83	79	100
1,2-Dichloroethane-d4	70-130		94	89	81	84	80
Toluene-d8	70-130		87	77	81	84	81

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050307

Our Lab I.D.			**41945.06**				
Client Sample I.D.			B11-HSAS8-SVP-10'				
Date Sampled			05/02/2007				
Date Prepared			05/03/2007				
Preparation Method			TO-15				
Date Analyzed			05/03/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND				
4-Ethyltoluene	10	10	ND				
Acetone	10	10	36.2				
Benzene	2.0	2.0	8.29				
Bromodichloromethane	3.0	3.0	ND				
Bromoform	3.0	3.0	ND				
Bromomethane (Methyl bromide)	3.0	3.0	ND				
2-Butanone (MEK)	10	10	250				
Carbon disulfide	3.0	3.0	37.7				
Carbon tetrachloride	4.0	4.0	ND				
Chlorobenzene	2.0	2.0	ND				
Chloroethane	3.0	3.0	ND				
Chloroform (Trichloromethane)	3.0	3.0	6.60				
Chloromethane (Methyl chloride)	2.0	2.0	ND				
Dibromochloromethane	3.0	3.0	ND				
1,2-Dibromoethane (EDB)	4.0	4.0	ND				
1,2-Dichlorobenzene	4.0	4.0	ND				
1,3-Dichlorobenzene	4.0	4.0	ND				
1,4-Dichlorobenzene	4.0	4.0	ND				
Dichlorodifluoromethane	4.0	4.0	ND				
1,1-Dichloroethane	3.0	3.0	ND				
1,2-Dichloroethane (EDC)	3.0	3.0	ND				
1,1-Dichloroethene	3.0	3.0	902				
cis-1,2-Dichloroethene	3.0	3.0	ND				
trans-1,2-Dichloroethene	3.0	3.0	ND				
1,2-Dichloropropane	3.0	3.0	ND				
cis-1,3-Dichloropropene	3.0	3.0	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050307

Our Lab I.D.			41945.06				
Client Sample I.D.			B11-HSAS8-SVP-10'				
Date Sampled			05/02/2007				
Date Prepared			05/03/2007				
Preparation Method			TO-15				
Date Analyzed			05/03/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
trans-1,3-Dichloropropene	3.0	3.0	ND				
Ethylbenzene	3.0	3.0	ND				
Hexachlorobutadiene	12	12	ND				
2-Hexanone	10	10	ND				
4-Methyl-2-pentanone (MIBK)	10	10	ND				
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND				
Methylene chloride (DCM)	10	10	ND				
Styrene	3.0	3.0	ND				
1,1,2,2-Tetrachloroethane	4.0	4.0	ND				
Tetrachloroethene	3.0	3.0	11.2				
Toluene (Methyl benzene)	2.0	2.0	571				
1,2,4-Trichlorobenzene	2.0	2.0	ND				
1,1,1-Trichloroethane	3.0	3.0	24.4				
1,1,2-Trichloroethane	3.0	3.0	ND				
Trichloroethene	3.0	3.0	1,230				
Trichlorofluoromethane	4.0	4.0	ND				
Trichlorotrifluoroethane (Freon-113)	5	5	ND				
1,2,4-Trimethylbenzene	3.0	3.0	ND				
1,3,5-Trimethylbenzene	3.0	3.0	ND				
Vinyl acetate	10	10	ND				
Vinyl chloride (Chloroethene)	2.0	2.0	ND				
o-Xylene	2.0	2.0	ND				
m,p-Xylenes	4.0	4.0	ND				
Naphthalene	10	10	ND				
2-Methylpropane (Isobutane)	2000	2000	ND				

Our Lab I.D.			41945.06				
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		78				
1,2-Dichloroethane-d4	70-130		85				
Toluene-d8	70-130		90				

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Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site I
Beaumont, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
41945	05/02/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 050307 ; Sample Spiked: 050307 LCS: Blank; QC Prepared: 05/03/2007; QC Analyzed: 05/03/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	48.00	96	50.00	50.50	101	5.1	70-130	<30	
Methylene chloride (DCM)	50.00	52.00	104	50.00	50.50	101	2.9	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	60.50	121	50.00	62.00	124	2.4	70-130	<30	
Toluene (Methyl benzene)	50.00	42.50	85	50.00	45.00	90	5.7	70-130	<30	
Trichloroethene	50.00	52.00	104	50.00	50.00	100	3.9	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

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Telephone: (909) 381-1674
Attention: Brenda Meyer

Number of Pages	6
Date Received	05/04/2007
Date Reported	05/18/2007

Job Number	Order Date	Client
42014	05/04/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 3 soil gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

№ 48485

AETL JOB No. 42014

Page 1 of 1

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE #100 SAN BERNARDINO CA. 92408
PHONE / FAX	909.381.1674
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE #1 BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15				INITIAL PSI	FINAL PSI	* LEAK CHECK			TEST INSTRUCTIONS & COMMENTS
1	F39-HSAS4-SVP-10'	42014.01	5/04/07	1021	AIR	6 LTR SUMMA	—	X				-26	0.0	✓			* ISOBUTANE
2	F39-HSAS4-SVP-10'DUP	"	"	1042	AIR	"	—	X				-26	0.0	✓			CANCELL LM
3	F34-HSAS2-SVP-15'	42014.02	"	1413	"	"	—	X				-27	0.0	✓			
4	F34-HSAS5-SVP-15'	42014.03	"	1525	"	"	—	X				-27	-4	✓			
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	4	PROPERLY COOLED Y / N (NA)	
CUSTODY SEALS Y / N (NA)		SAMPLES INTACT (Y) N / NA	
RECEIVED IN GOOD COND. (Y) N		SAMPLES ACCEPTED (Y) N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ Next day ☐ ~~48 HRS:~~ 2days ☐ ~~72 HRS:~~ 3days

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:		Linda Marquis	
Printed Name:	CARLOS GONZALEZ	Linda Marquis	CARLOS GONZALEZ
Date:	5/04/07	5/04/07	5/04/07
Time:	1530	1530	1805

	RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY LABORATORY: 3.
Signature:	Linda Marquis		
Printed Name:		CARLOS GONZALEZ	
Date:	5/04/07	5/04/07	5/04/07
Time:	1530	1530	1805

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	F34-HSAS24-SVP-15'	F34-HSAS5-SVP-15'	F39-HSAS4-SVP-10'
Sample Date		5/4/2007	5/4/2007	5/4/2007
Laboratory Job Number		42014	42014	42014
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10
Acetone	ug/m3	ND<10	ND<10	**13.7**
Benzene	ug/m3	**8.37**	ND<2.0	**8.13**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	**10.1**
Carbon disulfide	ug/m3	**122**	**16.2**	**71.6**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	ND<3.0	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	ND<3.0	**14.1**	ND<3.0
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	**20.8**	**7.04**	**5.93**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	F34-HSAS24-SVP-15'	F34-HSAS5-SVP-15'	F39-HSAS4-SVP-10'
Sample Date		5/4/2007	5/4/2007	5/4/2007
Laboratory Job Number		42014	42014	42014
2-Hexanone	ug/m3	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	ND<10	ND<10	ND<10
Styrene	ug/m3	**7.26**	ND<3.0	ND<3.0
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	**14.2**	**10.0**	**24.7**
Toluene (Methyl benzene)	ug/m3	**359**	**465**	**239**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	ND<3.0	**18.1**	ND<3.0
Trichlorofluoromethane	ug/m3	**9.46**	ND<4.0	**75.0**
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	ND<5	ND<5
1,2,4-Trimethylbenzene	ug/m3	**9.61**	ND<3.0	ND<3.0
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	**27.7**	**8.49**	ND<2.0
m,p-Xylenes	ug/m3	**96.7**	**62.7**	**9.43**
Naphthalene	ug/m3	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42014	05/04/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/09/2007				
Preparation Method			TO-15				
Date Analyzed			05/09/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42014	05/04/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/09/2007				
Preparation Method			TO-15				
Date Analyzed			05/09/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		95				
1,2-Dichloroethane-d4	70-130		85				
Toluene-d8	70-130		82				

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42014	05/04/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			42014.01	42014.02	42014.03		
Client Sample I.D.			F39-HSAS4-SVP-10'	F34-HSAS24-SVP-15'	F34-HSAS5-SVP-15'		
Date Sampled			05/04/2007	05/04/2007	05/04/2007		
Date Prepared			05/09/2007	05/09/2007	05/09/2007		
Preparation Method			TO-15	TO-15	TO-15		
Date Analyzed			05/09/2007	05/09/2007	05/09/2007		
Matrix			Gaseous	Gaseous	Gaseous		
Units			ug/m3	ug/m3	ug/m3		
Dilution Factor			2	2	2		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND		
4-Ethyltoluene	10	10	ND	ND	ND		
Acetone	10	10	13.7	ND	ND		
Benzene	2.0	2.0	8.13	8.37	ND		
Bromodichloromethane	3.0	3.0	ND	ND	ND		
Bromoform	3.0	3.0	ND	ND	ND		
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND		
2-Butanone (MEK)	10	10	10.1	ND	ND		
Carbon disulfide	3.0	3.0	71.6	122	16.2		
Carbon tetrachloride	4.0	4.0	ND	ND	ND		
Chlorobenzene	2.0	2.0	ND	ND	ND		
Chloroethane	3.0	3.0	ND	ND	ND		
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	ND		
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND		
Dibromochloromethane	3.0	3.0	ND	ND	ND		
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND		
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND		
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND		
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND		
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND		
1,1-Dichloroethane	3.0	3.0	ND	ND	ND		
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND		
1,1-Dichloroethene	3.0	3.0	ND	ND	14.1		
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND		
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND		
1,2-Dichloropropane	3.0	3.0	ND	ND	ND		
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND		

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ANALYTICAL RESULTS

Page: 5
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42014	05/04/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			**42014.01**	**42014.02**	**42014.03**		
Client Sample I.D.			F39-HSAS4-SVP-10'	F34-HSAS24-SVP-15'	F34-HSAS5-SVP-15'		
Date Sampled			05/04/2007	05/04/2007	05/04/2007		
Date Prepared			05/09/2007	05/09/2007	05/09/2007		
Preparation Method			TO-15	TO-15	TO-15		
Date Analyzed			05/09/2007	05/09/2007	05/09/2007		
Matrix			Gaseous	Gaseous	Gaseous		
Units			ug/m3	ug/m3	ug/m3		
Dilution Factor			2	2	2		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND		
Ethylbenzene	3.0	3.0	5.93	20.8	7.04		
Hexachlorobutadiene	12	12	ND	ND	ND		
2-Hexanone	10	10	ND	ND	ND		
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND		
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND		
Methylene chloride (DCM)	10	10	ND	ND	ND		
Styrene	3.0	3.0	ND	7.26	ND		
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND		
Tetrachloroethene	3.0	3.0	24.7	14.2	10.0		
Toluene (Methyl benzene)	2.0	2.0	239	359	465		
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND		
1,1,1-Trichloroethane	3.0	3.0	ND	ND	ND		
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND		
Trichloroethene	3.0	3.0	ND	ND	18.1		
Trichlorofluoromethane	4.0	4.0	75.0	9.46	ND		
Trichlorotrifluoroethane (Freon-113)	5	5	ND	ND	ND		
1,2,4-Trimethylbenzene	3.0	3.0	ND	9.61	ND		
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND		
Vinyl acetate	10	10	ND	ND	ND		
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND		
o-Xylene	2.0	2.0	ND	27.7	8.49		
m,p-Xylenes	4.0	4.0	9.43	96.7	62.7		
Naphthalene	10	10	ND	ND	ND		
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND		

Our Lab I.D.			**42014.01**	**42014.02**	**42014.03**		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
4-Bromofluorobenzene	70-130		102	97	95		
1,2-Dichloroethane-d4	70-130		78	85	79		
Toluene-d8	70-130		84	84	78		

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42014	05/04/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 050907 ; Sample Spiked: 050907 LCS: Blank; QC Prepared: 05/09/2007; QC Analyzed: 05/09/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	54.50	109	50.00	54.00	108	<1	70-130	<30	
Methylene chloride (DCM)	50.00	48.50	97	50.00	51.50	103	6.0	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	50.50	101	50.00	53.00	106	4.8	70-130	<30	
Toluene (Methyl benzene)	50.00	47.00	94	50.00	47.50	95	1.1	70-130	<30	
Trichloroethene	50.00	57.00	114	50.00	54.50	109	4.5	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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TETRA TECH, INC.-SBO

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages 8
Date Received 05/07/2007
Date Reported 05/18/2007

Job Number	Order Date	Client
42031	05/07/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumount Site 1
Beaumount, CA 92223

Enclosed please find results of analyses of 8 soil gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 48500

AETL JOB No. 42031

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE, #100 SAN BERNARDINO CA. 92408
PHONE / FAX	909-381-1674
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE 1 — BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-14				INITIAL PST	FINAL PST	LEAK CHECK *				TEST INSTRUCTIONS & COMMENTS
1	G46-HSAS2-SVP-20'		5/07/07	0847	AIR	1-3LT SUMMA	✓	X				-26	0.0	✓				42031.01
2	G46-HSAS2-SVP-20'DUP		"	0930	"	1-6LT SUMMA	✓	X				-26	0.0	✓				42031.02
3	G46-HSAS2-SVP-40'		"	1017	"	"	✓	X				-27	0.0	✓				42031.03
4	G46-HSAS1-SVP-20'		"	1056	"	1-3LT SUMMA	✓	X				-26	0.0	✓				42031.04
5	G46-HSAS1-SVP-40'		"	1123	"	"	✓	X				-26	0.0	✓				42031.05
6	C22-HSAS25-SVP-40'		"	1400	"	1-6LT SUMMA	✓	X				-26	0.0	✓				42031.06
7	C22-HSAS25-SVP-30'		"	1449	"	"	✓	X				-23	0.0	✓				42031.07
8	C22-HSAS25-SVP-20'		"	1537	"	"	✓	X				-26	0.0	✓				42031.08
9																		
10																		
11																		
12																		
13																		
14																		
15																		

ANALYSIS REQUESTED

* ISOBUTANE

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	8	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ Next day ☐ ~~48 HRS.~~ 2 days ☐ ~~72 HRS.~~ 3 days

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature: Linda Marquelis	Signature:
Printed Name: CARLOS GONZALEZ	Printed Name: Linda Marquelis	Printed Name: Carlos Gonzalez
Date: 5/07/07 Time: 1545	Date: 5/07/07 Time: 1547	Date: 5/07/07 Time: 1800
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: 3.**
Signature: Linda Marquelis	Signature:	Signature:
Printed Name: Linda Marquelis	Printed Name: CARLOS GONZALEZ	Printed Name: Julius Hermento
Date: 5/07/07 Time: 1545	Date: 5/07/07 Time: 1547	Date: 5/07/07 Time: 1802

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumount Site 1 Beaumount, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS25-SVP-20'	C22-HSAS25-SVP-30'	C22-HSAS25-SVP-40'	G46-HSAS1-SVP-10'	G46-HSAS1-SVP-20'	G46-HSAS2-SVP-10'	G46-HSAS2-SVP-20'	G46-HSAS2-SVP-20' D
Sample Date		5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007
Laboratory Job Number		42031	42031	42031	42031	42031	42031	42031	42031
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**10.0**	**25.9**	**19.7**	**29.4**	**35.3**	**17.6**	**46.1**	**29.8**
Benzene	ug/m3	**4.90**	**8.00**	**10.3**	**9.20**	**6.57**	**4.79**	**4.91**	**5.34**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	**16.8**	ND<10	ND<10	**11.1**	ND<10	ND<10	ND<10	**36.4**
Carbon disulfide	ug/m3	**14.9**	**12.7**	**21.5**	**75.7**	**68.9**	**72.4**	**39.6**	**48.6**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	**73.5**	**138**	**157**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	**6.30**	**8.60**	**11.0**	**9.90**	**5.96**	**5.82**	**5.87**	**6.48**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumount Site 1 Beaumount, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS25-SVP-20'	C22-HSAS25-SVP-30'	C22-HSAS25-SVP-40'	G46-HSAS1-SVP-10'	G46-HSAS1-SVP-20'	G46-HSAS2-SVP-10'	G46-HSAS2-SVP-20'	G46-HSAS2-SVP-20' D
Sample Date		5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007	5/7/2007
Laboratory Job Number		42031	42031	42031	42031	42031	42031	42031	42031
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	**81.6**	**603**	**278**	**237**	**264**	**190**	**669**	**241**
Styrene	ug/m3	**15.7**	**27.5**	**38.1**	**34.5**	**22.9**	**23.7**	**19.6**	**27.4**
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	**113**	**208**	**331**	**226**	**201**	**179**	**195**	**197**
Toluene (Methyl benzene)	ug/m3	**169**	**112**	**209**	**75.0**	**109**	**222**	**58.7**	**44.8**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	**60.5**	**107**	**121**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	**31.0**	**44.5**	**42.5**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	**21.5**	ND<5
1,2,4-Trimethylbenzene	ug/m3	**6.20**	**12.3**	**11.0**	**10.2**	**6.24**	**6.98**	ND<3.0	**7.63**
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	**9.70**	**10.6**	**11.8**	**9.80**	**6.05**	**5.82**	**5.70**	**7.77**
m,p-Xylenes	ug/m3	**34.2**	**24.9**	**32.0**	**21.9**	**13.6**	**11.6**	**14.2**	**17.4**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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ANALYTICAL RESULTS

Ordered By

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348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumount Site 1
Beaumount, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050807

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/08/2007				
Preparation Method			TO-15				
Date Analyzed			05/08/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050807

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/08/2007				
Preparation Method			TO-15				
Date Analyzed			05/08/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		86				
1,2-Dichloroethane-d4	70-130		79				
Toluene-d8	70-130		82				

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Beaumount Site 1
Beaumount, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050807

Our Lab I.D.			42031.01	42031.02	42031.03	42031.04	42031.05
Client Sample I.D.			G46-HSAS2-SVP-20'	G46-HSAS2-SVP-20' Dup	G46-HSAS2-SVP-10'	G46-HSAS1-SVP-20'	G46-HSAS1-SVP-10'
Date Sampled			05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
Date Prepared			05/08/2007	05/08/2007	05/08/2007	05/08/2007	05/08/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/08/2007	05/08/2007	05/08/2007	05/08/2007	05/08/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	46.1	29.8	17.6	35.3	29.4
Benzene	2.0	2.0	4.91	5.34	4.79	6.57	9.20
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	36.4	ND	ND	11.1
Carbon disulfide	3.0	3.0	39.6	48.6	72.4	68.9	75.7
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050807

Our Lab I.D.			42031.01	42031.02	42031.03	42031.04	42031.05
Client Sample I.D.			G46-HSAS2-SVP-20'	G46-HSAS2-SVP-20' Dup	G46-HSAS2-SVP-10'	G46-HSAS1-SVP-20'	G46-HSAS1-SVP-10'
Date Sampled			05/07/2007	05/07/2007	05/07/2007	05/07/2007	05/07/2007
Date Prepared			05/08/2007	05/08/2007	05/08/2007	05/08/2007	05/08/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/08/2007	05/08/2007	05/08/2007	05/08/2007	05/08/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	5.87	6.48	5.82	5.96	9.90
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	669	241	190	264	237
Styrene	3.0	3.0	19.6	27.4	23.7	22.9	34.5
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	195	197	179	201	226
Toluene (Methyl benzene)	2.0	2.0	58.7	44.8	222	109	75.0
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	21.5	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.0	3.0	ND	7.63	6.98	6.24	10.2
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	5.70	7.77	5.82	6.05	9.80
m,p-Xylenes	4.0	4.0	14.2	17.4	11.6	13.6	21.9
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			42031.01	42031.02	42031.03	42031.04	42031.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		97	101	102	104	100
1,2-Dichloroethane-d4	70-130		81	81	81	85	95
Toluene-d8	70-130		86	88	85	85	84

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ANALYTICAL RESULTS

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Site

Beaumount Site 1
Beaumount, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050807

Our Lab I.D.			42031.06	42031.07	42031.08		
Client Sample I.D.			C22-HSAS25 -SVP-40'	C22-HSAS25 -SVP-30'	C22-HSAS25 -SVP-20'		
Date Sampled			05/07/2007	05/07/2007	05/07/2007		
Date Prepared			05/08/2007	05/08/2007	05/08/2007		
Preparation Method			TO-15	TO-15	TO-15		
Date Analyzed			05/08/2007	05/08/2007	05/08/2007		
Matrix			Gaseous	Gaseous	Gaseous		
Units			ug/m3	ug/m3	ug/m3		
Dilution Factor			2	2	2		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND		
4-Ethyltoluene	10	10	ND	ND	ND		
Acetone	10	10	19.7	25.9	10.0		
Benzene	2.0	2.0	10.3	8.00	4.90		
Bromodichloromethane	3.0	3.0	ND	ND	ND		
Bromoform	3.0	3.0	ND	ND	ND		
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND		
2-Butanone (MEK)	10	10	ND	ND	16.8		
Carbon disulfide	3.0	3.0	21.5	12.7	14.9		
Carbon tetrachloride	4.0	4.0	ND	ND	ND		
Chlorobenzene	2.0	2.0	ND	ND	ND		
Chloroethane	3.0	3.0	ND	ND	ND		
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	ND		
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND		
Dibromochloromethane	3.0	3.0	ND	ND	ND		
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND		
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND		
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND		
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND		
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND		
1,1-Dichloroethane	3.0	3.0	ND	ND	ND		
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND		
1,1-Dichloroethene	3.0	3.0	157	138	73.5		
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND		
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND		
1,2-Dichloropropane	3.0	3.0	ND	ND	ND		
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND		

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050807

Our Lab I.D.			42031.06	42031.07	42031.08		
Client Sample I.D.			C22-HSAS25 -SVP-40'	C22-HSAS25 -SVP-30'	C22-HSAS25 -SVP-20'		
Date Sampled			05/07/2007	05/07/2007	05/07/2007		
Date Prepared			05/08/2007	05/08/2007	05/08/2007		
Preparation Method			TO-15	TO-15	TO-15		
Date Analyzed			05/08/2007	05/08/2007	05/08/2007		
Matrix			Gaseous	Gaseous	Gaseous		
Units			ug/m3	ug/m3	ug/m3		
Dilution Factor			2	2	2		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND		
Ethylbenzene	3.0	3.0	11.0	8.60	6.30		
Hexachlorobutadiene	12	12	ND	ND	ND		
2-Hexanone	10	10	ND	ND	ND		
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND		
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND		
Methylene chloride (DCM)	10	10	278	603	81.6		
Styrene	3.0	3.0	38.1	27.5	15.7		
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND		
Tetrachloroethene	3.0	3.0	331	208	113		
Toluene (Methyl benzene)	2.0	2.0	209	112	169		
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND		
1,1,1-Trichloroethane	3.0	3.0	121	107	60.5		
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND		
Trichloroethene	3.0	3.0	42.5	44.5	31.0		
Trichlorofluoromethane	4.0	4.0	ND	ND	ND		
Trichlorotrifluoroethane (Freon-113)	5	5	ND	ND	ND		
1,2,4-Trimethylbenzene	3.0	3.0	11.0	12.3	6.20		
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND		
Vinyl acetate	10	10	ND	ND	ND		
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND		
o-Xylene	2.0	2.0	11.8	10.6	9.70		
m,p-Xylenes	4.0	4.0	32.0	24.9	34.2		
Naphthalene	10	10	ND	ND	ND		
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND		

Our Lab I.D.			42031.06	42031.07	42031.08		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
4-Bromofluorobenzene	70-130		105	103	105		
1,2-Dichloroethane-d4	70-130		79	79	80		
Toluene-d8	70-130		82	82	81		

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumount Site 1
Beaumount, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42031	05/07/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 050807 ; Sample Spiked: 050807 LCS: Blank; QC Prepared: 05/08/2007; QC Analyzed: 05/08/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	45.00	90	50.00	42.50	85	5.7	70-130	<30	
Methylene chloride (DCM)	50.00	44.00	88	50.00	46.00	92	4.4	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	53.50	107	50.00	56.00	112	4.6	70-130	<30	
Toluene (Methyl benzene)	50.00	43.00	86	50.00	47.50	95	9.9	70-130	<30	
Trichloroethene	50.00	51.00	102	50.00	55.50	111	8.5	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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TETRA TECH, INC.-SBO

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages	8
Date Received	05/08/2007
Date Reported	05/18/2007

Job Number	Order Date	Client
42073	05/08/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 6 soil gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 48475

AETL JOB No. 42073 Page 1 of 1

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE #100 SAN BERNARDINO CA. 92408
PHONE	909-381-1674
FAX	
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE-1, BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15	Initial PSI	Final PSI	* Leak Check	TEST INSTRUCTIONS & COMMENTS
1	C22-HSAS25-SVP-10'		05/08/07	0839	AIR	1-6LTSUMMA	—	X	-26	0.0	✓	42073.01
2	C22-HSAS22-SVP-50'		"	1001	"	"	—	X	-26	0.0	✓	42073.02
3	C22-HSAS22-SVP-40'		"	1056	"	"	—	X	-27	0.0	✓	42073.03
4	C22-HSAS21-SVP-30'		"	1322	"	"	—	X	-27	0.0	✓	42073.04
5	C22-HSAS2201-SVP-30'		"	1411	"	"	—	X	-27	0.0	✓	42073.05
6	C22-HSAS22-SVP-20'		"	1506	"	"	—	X	-27	0.0	✓	42073.06
7												
8												
9												
10												
11												
12												
13												
14												
15												

* IsoButane

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	6	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ Next day ☐ ~~48 HRS.~~ 2 days ☐ ~~72 HRS.~~ 3 days

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:			
Printed Name:	Carlos Gonzalez	Holly A. Hanks	Carlos Gonzalez
Date: / Time:	05/08/07 1510	05/08/07 1510	5/8/07 1715

	RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY LABORATORY: 3.
Signature:			
Printed Name:	Holly A Hanks	Carlos Gonzalez	
Date: / Time:	05/08/07 1510	05/08/07 1510	5/8/07 1715

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS22-SVP-20'	C22-HSAS22-SVP-30'	C22-HSAS22-SVP-40'	C22-HSAS22-SVP-50'	C22-HSAS2201-SVP-3(	C22-HSAS25-SVP-10'
Sample Date		5/8/2007	5/8/2007	5/8/2007	5/8/2007	5/8/2007	5/8/2007
Laboratory Job Number		42073	42073	42073	42073	42073	42073
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**43.7**	**91.7**	**35.9**	**17.6**	**74.5**	**15.6**
Benzene	ug/m3	**5.44**	**13.3**	**8.37**	**4.28**	**11.7**	**8.24**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	ND<10	**12.9**	ND<10	ND<10
Carbon disulfide	ug/m3	**6.11**	**19.3**	**15.3**	**8.28**	**20.2**	**23.0**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	**9.59**	**11.3**	ND<3.0	**11.4**	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	**818**	**3,220**	**9,750**	**5,310**	**2,740**	**54.1**
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	**6.35**	**11.0**	**11.2**	ND<3.0	**9.19**	**5.04**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS22-SVP-20'	C22-HSAS22-SVP-30'	C22-HSAS22-SVP-40'	C22-HSAS22-SVP-50'	C22-HSAS2201-SVP-3(	C22-HSAS25-SVP-10'
Sample Date		5/8/2007	5/8/2007	5/8/2007	5/8/2007	5/8/2007	5/8/2007
Laboratory Job Number		42073	42073	42073	42073	42073	42073
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	**39.5**	**127**	**90.0**	**64.6**	**83.5**	**364**
Styrene	ug/m3	**11.8**	**45.4**	**28.1**	**12.0**	**36.8**	**25.7**
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	**69.0**	**259**	**187**	**92.3**	**166**	**219**
Toluene (Methyl benzene)	ug/m3	**206**	**92.2**	**183**	**54.3**	**61.1**	**275**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	**43.7**	**121**	**230**	**112**	**141**	**85.5**
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	**269**	**933**	**1,140**	**1,080**	**1,150**	**37.6**
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	**64.2**	**194**	**460**	**275**	**210**	ND<5
1,2,4-Trimethylbenzene	ug/m3	**6.01**	**16.4**	**11.9**	ND<3.0	**16.0**	**6.88**
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	**8.91**	**13.3**	**12.5**	ND<2.0	**11.8**	**5.38**
m,p-Xylenes	ug/m3	**33.0**	**33.1**	**32.7**	**10.9**	**27.4**	**12.8**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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ANALYTICAL RESULTS

Ordered By

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Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/09/2007				
Preparation Method			TO-15				
Date Analyzed			05/09/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/09/2007				
Preparation Method			TO-15				
Date Analyzed			05/09/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		95				
1,2-Dichloroethane-d4	70-130		85				
Toluene-d8	70-130		82				

American Environmental Testing Laboratory Inc.

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			42073.01	42073.02	42073.03	42073.04	42073.05
Client Sample I.D.			C22-HSAS25 -SVP-10'	C22-HSAS22 -SVP-50'	C22-HSAS22 -SVP-40'	C22-HSAS22 -SVP-30'	C22-HSAS22 01-SVP-30'
Date Sampled			05/08/2007	05/08/2007	05/08/2007	05/08/2007	05/08/2007
Date Prepared			05/09/2007	05/09/2007	05/09/2007	05/09/2007	05/09/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/09/2007	05/09/2007	05/09/2007	05/09/2007	05/09/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	15.6	17.6	35.9	91.7	74.5
Benzene	2.0	2.0	8.24	4.28	8.37	13.3	11.7
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	12.9	ND	ND	ND
Carbon disulfide	3.0	3.0	23.0	8.28	15.3	19.3	20.2
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	11.3	9.59	11.4
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	54.1	5,310	9,750	3,220	2,740
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Page: 5
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			42073.01	42073.02	42073.03	42073.04	42073.05
Client Sample I.D.			C22-HSAS25 -SVP-10'	C22-HSAS22 -SVP-50'	C22-HSAS22 -SVP-40'	C22-HSAS22 -SVP-30'	C22-HSAS22 01-SVP-30'
Date Sampled			05/08/2007	05/08/2007	05/08/2007	05/08/2007	05/08/2007
Date Prepared			05/09/2007	05/09/2007	05/09/2007	05/09/2007	05/09/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/09/2007	05/09/2007	05/09/2007	05/09/2007	05/09/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	5.04	ND	11.2	11.0	9.19
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	364	64.6	90.0	127	83.5
Styrene	3.0	3.0	25.7	12.0	28.1	45.4	36.8
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	219	92.3	187	259	166
Toluene (Methyl benzene)	2.0	2.0	275	54.3	183	92.2	61.1
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	85.5	112	230	121	141
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	37.6	1,080	1,140	933	1,150
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	ND	275	460	194	210
1,2,4-Trimethylbenzene	3.0	3.0	6.88	ND	11.9	16.4	16.0
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	5.38	ND	12.5	13.3	11.8
m,p-Xylenes	4.0	4.0	12.8	10.9	32.7	33.1	27.4
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			42073.01	42073.02	42073.03	42073.04	42073.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		99	95	102	102	102
1,2-Dichloroethane-d4	70-130		83	78	80	78	81
Toluene-d8	70-130		96	83	82	81	81

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			**42073.06**				
Client Sample I.D.			C22-HSAS22 -SVP-20'				
Date Sampled			05/08/2007				
Date Prepared			05/09/2007				
Preparation Method			TO-15				
Date Analyzed			05/09/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND				
4-Ethyltoluene	10	10	ND				
Acetone	10	10	43.7				
Benzene	2.0	2.0	5.44				
Bromodichloromethane	3.0	3.0	ND				
Bromoform	3.0	3.0	ND				
Bromomethane (Methyl bromide)	3.0	3.0	ND				
2-Butanone (MEK)	10	10	ND				
Carbon disulfide	3.0	3.0	6.11				
Carbon tetrachloride	4.0	4.0	ND				
Chlorobenzene	2.0	2.0	ND				
Chloroethane	3.0	3.0	ND				
Chloroform (Trichloromethane)	3.0	3.0	ND				
Chloromethane (Methyl chloride)	2.0	2.0	ND				
Dibromochloromethane	3.0	3.0	ND				
1,2-Dibromoethane (EDB)	4.0	4.0	ND				
1,2-Dichlorobenzene	4.0	4.0	ND				
1,3-Dichlorobenzene	4.0	4.0	ND				
1,4-Dichlorobenzene	4.0	4.0	ND				
Dichlorodifluoromethane	4.0	4.0	ND				
1,1-Dichloroethane	3.0	3.0	ND				
1,2-Dichloroethane (EDC)	3.0	3.0	ND				
1,1-Dichloroethene	3.0	3.0	818				
cis-1,2-Dichloroethene	3.0	3.0	ND				
trans-1,2-Dichloroethene	3.0	3.0	ND				
1,2-Dichloropropane	3.0	3.0	ND				
cis-1,3-Dichloropropene	3.0	3.0	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 050907

Our Lab I.D.			**42073.06**
Client Sample I.D.			C22-HSAS22 -SVP-20'
Date Sampled			05/08/2007
Date Prepared			05/09/2007
Preparation Method			TO-15
Date Analyzed			05/09/2007
Matrix			Gaseous
Units			ug/m3
Dilution Factor			2
Analytes	**MDL**	**PQL**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND
Ethylbenzene	3.0	3.0	6.35
Hexachlorobutadiene	12	12	ND
2-Hexanone	10	10	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND
Methylene chloride (DCM)	10	10	39.5
Styrene	3.0	3.0	11.8
1,1,2,2-Tetrachloroethane	4.0	4.0	ND
Tetrachloroethene	3.0	3.0	69.0
Toluene (Methyl benzene)	2.0	2.0	206
1,2,4-Trichlorobenzene	2.0	2.0	ND
1,1,1-Trichloroethane	3.0	3.0	43.7
1,1,2-Trichloroethane	3.0	3.0	ND
Trichloroethene	3.0	3.0	269
Trichlorofluoromethane	4.0	4.0	ND
Trichlorotrifluoroethane (Freon-113)	5	5	64.2
1,2,4-Trimethylbenzene	3.0	3.0	6.01
1,3,5-Trimethylbenzene	3.0	3.0	ND
Vinyl acetate	10	10	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND
o-Xylene	2.0	2.0	8.91
m,p-Xylenes	4.0	4.0	33.0
Naphthalene	10	10	ND
2-Methylpropane (Isobutane)	2000	2000	ND

Our Lab I.D.			**42073.06**
Surrogates	**%Rec.Limit**		**% Rec.**
4-Bromofluorobenzene	70-130		102
1,2-Dichloroethane-d4	70-130		84
Toluene-d8	70-130		88

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42073	05/08/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 050907 ; Sample Spiked: 050907 LCS: Blank; QC Prepared: 05/09/2007; QC Analyzed: 05/09/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	54.50	109	50.00	54.00	108	<1	70-130	<30	
Methylene chloride (DCM)	50.00	48.50	97	50.00	51.50	103	6.0	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	50.50	101	50.00	53.00	106	4.8	70-130	<30	
Toluene (Methyl benzene)	50.00	47.00	94	50.00	47.50	95	1.1	70-130	<30	
Trichloroethene	50.00	57.00	114	50.00	54.50	109	4.5	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

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348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909) 381-1674
Attention: Brenda Meyer

Number of Pages	8
Date Received	05/09/2007
Date Reported	05/18/2007

Job Number	Order Date	Client
42100	05/09/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 7 soil gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 48474

AETL JOB No. 42100 Page 1 of 1

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE #100, SAN BERNARDINO, CA. 92408
PHONE	909-381-1674
FAX	
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE 1 BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	ANALYSIS REQUESTED: TO-15	INITIAL PSI	FINAL PSI	* LEAK CHECK	TEST INSTRUCTIONS & COMMENTS
1	C22-HSAS22-SVP-10'		05/09/07	0826	AIR	1-6LT SUMMA	—	X	-26	0.0	✓	42100.01
2	C22-HSAS23-SVP-50'		"	0927	"	"	—	X	-27	0.0	✓	42100.02
3	C22-HSAS23-SVP-40'		"	10:15	"	"	—	X	-27	-2	✓	42100.03
4	C22-HSAS23-SVP-30'		"	1105	"	"	—	X	-27	0.0	✓	42100.04
5	C22-HSAS23-SVP-20'		"	1153	"	"	—	X	-27	0.0	✓	42100.05
6	C22-HSAS23-SVP-10'		"	1400	"	"	—	X	-27	0.0	✓	42100.06
7	C22-HSAS21-SVP-50'		"	1459	"	"	—	X	-27	0.0	✓	42100.07
8												
9												
10												
11												
12												
13												
14												
15												

* IsoButane

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	7	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ Next day ☐ ~~48 HRS.~~ 2 days ☐ ~~72 HRS.~~ 3 days

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature: Linda Marquez	Signature:
Printed Name: CARLOS GONZALEZ	Printed Name: Linda Marquez	Printed Name:
Date: 05/09/07 Time: 1510	Date: 05/09/07 Time: 1510	Date: Time:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: 3.**
Signature: Linda Marquez	Signature:	Signature:
Printed Name: Linda Marquez	Printed Name: CARLOS GONZALEZ	Printed Name:
Date: 05/09/07 Time: 1510	Date: 05/09/07 Time: 1510	Date: 05/09/07 Time:

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS21-SVP-50'	C22-HSAS22-SVP-10'	C22-HSAS23-SVP-10'	C22-HSAS23-SVP-20'	C22-HSAS23-SVP-30'	C22-HSAS23-SVP-40'	C22-HSAS23-SVP-50'
Sample Date		5/9/2007	5/9/2007	5/9/2007	5/9/2007	5/9/2007	5/9/2007	5/9/2007
Laboratory Job Number		42100	42100	42100	42100	42100	42100	42100
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**19.0**	**18.4**	ND<10	ND<10	**21.4**	ND<10	ND<10
Benzene	ug/m3	**25.4**	**5.49**	**8.90**	**6.30**	**12.5**	**17.3**	**9.00**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	**32.8**	ND<10	ND<10	ND<10	ND<10	ND<10
Carbon disulfide	ug/m3	**66.0**	**10.9**	**16.1**	**18.4**	**67.7**	**18.6**	**25.5**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	**7.90**	**6.05**	ND<3.0	**8.10**	ND<3.0	ND<3.0	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	**8.20**	ND<4.0	**6.90**	**8.10**	**6.33**	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	**48.1**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	**9,200**	**705**	**141**	**552**	**274**	**110**	**125**
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	**14.8**	ND<3.0	ND<3.0	**13.2**	**10.9**	**25.0**	**5.99**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS21-SVP-50'	C22-HSAS22-SVP-10'	C22-HSAS23-SVP-10'	C22-HSAS23-SVP-20'	C22-HSAS23-SVP-30'	C22-HSAS23-SVP-40'	C22-HSAS23-SVP-50'
Sample Date		5/9/2007	5/9/2007	5/9/2007	5/9/2007	5/9/2007	5/9/2007	5/9/2007
Laboratory Job Number		42100	42100	42100	42100	42100	42100	42100
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	**111**	**94.7**	ND<10	ND<10	ND<10	ND<10	**18.1**
Styrene	ug/m3	ND<3.0	ND<3.0	ND<3.0	**7.40**	**9.11**	**8.35**	ND<3.0
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	**46.0**	**13.7**	**12.7**	**18.9**	**17.6**	**16.8**	ND<3.0
Toluene (Methyl benzene)	ug/m3	**30.8**	**260**	**525**	**440**	**81.3**	**185**	**11.7**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	**2,460**	**44.5**	**38.6**	**77.7**	**24.1**	**11.9**	**11.6**
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	**1,560**	**259**	**32.8**	**97.0**	ND<3.0	ND<3.0	ND<3.0
Trichlorofluoromethane	ug/m3	**9.40**	ND<4.0	**7.50**	**9.40**	**10.4**	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	**13.9**	**54.9**	**85.9**	**193**	**153**	**23.7**	**125**
1,2,4-Trimethylbenzene	ug/m3	**12.9**	ND<3.0	**8.20**	**13.7**	**13.6**	**13.7**	**5.50**
1,3,5-Trimethylbenzene	ug/m3	**7.00**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**6.98**	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	**3.60**	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	**12.8**	ND<2.0	**4.70**	**23.4**	**12.8**	**18.1**	**5.12**
m,p-Xylenes	ug/m3	**22.8**	ND<4.0	**9.30**	**92.4**	**31.1**	**53.6**	**9.55**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051407-1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/14/2007				
Preparation Method			TO-15				
Date Analyzed			05/14/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051407-1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/14/2007				
Preparation Method			TO-15				
Date Analyzed			05/14/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		98				
1,2-Dichloroethane-d4	70-130		81				
Toluene-d8	70-130		82				

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Site

Beaumont Site I
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051407-1

Our Lab I.D.			42100.01	42100.02	42100.03	42100.04	42100.05
Client Sample I.D.			C22-HSAS22 -SVP-10'	C22-HSAS23 -SVP-50'	C22-HSAS23 -SVP-40'	C22-HSAS23 -SVP-30'	C22-HSAS23- SVP-20'
Date Sampled			05/09/2007	05/09/2007	05/09/2007	05/09/2007	05/09/2007
Date Prepared			05/14/2007	05/14/2007	05/14/2007	05/14/2007	05/14/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/14/2007	05/14/2007	05/14/2007	05/14/2007	05/14/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	18.4	ND	ND	21.4	ND
Benzene	2.0	2.0	5.49	9.00	17.3	12.5	6.30
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	32.8	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	10.9	25.5	18.6	67.7	18.4
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	6.05	ND	ND	ND	8.10
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	6.33	8.10
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	705	125	110	274	552
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051407-1

Our Lab I.D.			42100.01	42100.02	42100.03	42100.04	42100.05
Client Sample I.D.			C22-HSAS22 -SVP-10'	C22-HSAS23 -SVP-50'	C22-HSAS23 -SVP-40'	C22-HSAS23 -SVP-30'	C22-HSAS23- SVP-20'
Date Sampled			05/09/2007	05/09/2007	05/09/2007	05/09/2007	05/09/2007
Date Prepared			05/14/2007	05/14/2007	05/14/2007	05/14/2007	05/14/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/14/2007	05/14/2007	05/14/2007	05/14/2007	05/14/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	ND	5.99	25.0	10.9	13.2
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	94.7	18.1	ND	ND	ND
Styrene	3.0	3.0	ND	ND	8.35	9.11	7.40
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	13.7	ND	16.8	17.6	18.9
Toluene (Methyl benzene)	2.0	2.0	260	11.7	185	81.3	440
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	44.5	11.6	11.9	24.1	77.7
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	259	ND	ND	ND	97.0
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	10.4	9.40
Trichlorotrifluoroethane (Freon-113)	5	5	54.9	125	23.7	153	193
1,2,4-Trimethylbenzene	3.0	3.0	ND	5.50	13.7	13.6	13.7
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	6.98	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	ND	5.12	18.1	12.8	23.4
m,p-Xylenes	4.0	4.0	ND	9.55	53.6	31.1	92.4
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			42100.01	42100.02	42100.03	42100.04	42100.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		100	97	97	99	106
1,2-Dichloroethane-d4	70-130		79	77	83	91	81
Toluene-d8	70-130		87	83	84	83	85

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Beaumont Site I
Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051407-1

Our Lab I.D.			42100.06	42100.07			
Client Sample I.D.			C22-HSAS23 -SVP-10'	C22-HSAS21 -SVP-50'			
Date Sampled			05/09/2007	05/09/2007			
Date Prepared			05/14/2007	05/14/2007			
Preparation Method			TO-15	TO-15			
Date Analyzed			05/14/2007	05/14/2007			
Matrix			Gaseous	Gaseous			
Units			ug/m3	ug/m3			
Dilution Factor			2	2			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND			
4-Ethyltoluene	10	10	ND	ND			
Acetone	10	10	ND	19.0			
Benzene	2.0	2.0	8.90	25.4			
Bromodichloromethane	3.0	3.0	ND	ND			
Bromoform	3.0	3.0	ND	ND			
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND			
2-Butanone (MEK)	10	10	ND	ND			
Carbon disulfide	3.0	3.0	16.1	66.0			
Carbon tetrachloride	4.0	4.0	ND	ND			
Chlorobenzene	2.0	2.0	ND	ND			
Chloroethane	3.0	3.0	ND	ND			
Chloroform (Trichloromethane)	3.0	3.0	ND	7.90			
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND			
Dibromochloromethane	3.0	3.0	ND	ND			
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND			
1,2-Dichlorobenzene	4.0	4.0	ND	ND			
1,3-Dichlorobenzene	4.0	4.0	ND	ND			
1,4-Dichlorobenzene	4.0	4.0	ND	ND			
Dichlorodifluoromethane	4.0	4.0	6.90	8.20			
1,1-Dichloroethane	3.0	3.0	ND	48.1			
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND			
1,1-Dichloroethene	3.0	3.0	141	9,200			
cis-1,2-Dichloroethene	3.0	3.0	ND	ND			
trans-1,2-Dichloroethene	3.0	3.0	ND	ND			
1,2-Dichloropropane	3.0	3.0	ND	ND			
cis-1,3-Dichloropropene	3.0	3.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051407-1

Our Lab I.D.			42100.06	42100.07			
Client Sample I.D.			C22-HSAS23 -SVP-10'	C22-HSAS21 -SVP-50'			
Date Sampled			05/09/2007	05/09/2007			
Date Prepared			05/14/2007	05/14/2007			
Preparation Method			TO-15	TO-15			
Date Analyzed			05/14/2007	05/14/2007			
Matrix			Gaseous	Gaseous			
Units			ug/m3	ug/m3			
Dilution Factor			2	2			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
trans-1,3-Dichloropropene	3.0	3.0	ND	ND			
Ethylbenzene	3.0	3.0	ND	14.8			
Hexachlorobutadiene	12	12	ND	ND			
2-Hexanone	10	10	ND	ND			
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND			
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND			
Methylene chloride (DCM)	10	10	ND	111			
Styrene	3.0	3.0	ND	ND			
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND			
Tetrachloroethene	3.0	3.0	12.7	46.0			
Toluene (Methyl benzene)	2.0	2.0	525	30.8			
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND			
1,1,1-Trichloroethane	3.0	3.0	38.6	2,460			
1,1,2-Trichloroethane	3.0	3.0	ND	ND			
Trichloroethene	3.0	3.0	32.8	1,560			
Trichlorofluoromethane	4.0	4.0	7.50	9.40			
Trichlorotrifluoroethane (Freon-113)	5	5	85.9	13.9			
1,2,4-Trimethylbenzene	3.0	3.0	8.20	12.9			
1,3,5-Trimethylbenzene	3.0	3.0	ND	7.00			
Vinyl acetate	10	10	ND	ND			
Vinyl chloride (Chloroethene)	2.0	2.0	ND	3.60			
o-Xylene	2.0	2.0	4.70	12.8			
m,p-Xylenes	4.0	4.0	9.30	22.8			
Naphthalene	10	10	ND	ND			
2-Methylpropane (Isobutane)	2000	2000	ND	ND			

Our Lab I.D.			42100.06	42100.07			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
4-Bromofluorobenzene	70-130		102	96			
1,2-Dichloroethane-d4	70-130		82	76			
Toluene-d8	70-130		88	82			

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42100	05/09/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 051407-1 ; Sample Spiked: 051407 LCS: Blank; QC Prepared: 05/14/2007; QC Analyzed: 05/14/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	57.50	115	50.00	50.50	101	13.0	70-130	<30	
Methylene chloride (DCM)	50.00	46.00	92	50.00	46.50	93	1.1	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	58.50	117	50.00	60.00	120	2.5	70-130	<30	
Toluene (Methyl benzene)	50.00	58.50	117	50.00	55.00	110	6.2	70-130	<30	
Trichloroethene	50.00	59.50	119	50.00	57.00	114	4.3	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages	8
Date Received	05/10/2007
Date Reported	05/21/2007

Job Number	Order Date	Client
42127	05/10/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 9 soil-gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 47353

AETL JOB No. 42127 Page 1 of 1

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE #100, SAN BERNARDINO CA, 92408
PHONE / FAX	909.381.1674
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE 1, BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15	INITIAL PSI	FINAL PSI	* LEAK CHECK	TEST INSTRUCTIONS & COMMENTS
1	C22-HSAS21-SVP-40'		5/10/07	0833	AIR	1-6LTSUMMA	—	X	-27	0.0	✓	42127.01
2	C22-HSAS21-SVP-30'		"	0922	"	"	—	X	-27	0.0	✓	42127.02
3	C22-HSAS2101-SVP-30		"	10:04	"	"	—	X	-27	0.0	✓	42127.03
4	C22-HSAS21-SVP-20'		"	1033	"	1-3LTSUMMA	—	X	-27	0.0	✓	42127.04
5	C22-HSAS21-SVP-10'		"	1059	"	"	—	X	-27	0.0	✓	42127.05
6	C22-HSAS26-SVP-40'		"	1325	"	1-6LTR SUMMA	—	X	-27	0.0	✓	42127.06
7	C22-HSAS26-SVP-30'		"	1412	"	"	—	X	-27	0.0	✓	42127.07
8	C22-HSAS26-SVP-20'		"	1439	"	1-3LT SUMMA	—	X	-27	0.0	✓	42127.08
9	C22-HSAS26-SVP-10'		"	1504	"	"	—	X	-27	0.0	✓	42127.09
10												
11												
12												
13												
14												
15												

* IsoBUTANE

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	9	PROPERLY COOLED Y / N (NA)	
CUSTODY SEALS Y / N (NA)		SAMPLES INTACT (Y) N / NA	
RECEIVED IN GOOD COND. (Y) N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ NEXT DAY ☐ 2 DAYS ☐ ~~48 HRS.~~ ☐ ~~72 HRS.~~ 3 DAYS

	1.	2.	3.
RELINQUISHED BY SAMPLER: / RELINQUISHED BY: / RELINQUISHED BY:			
Signature:		Holly A. Hanke	
Printed Name:	CARLOS GONZALEZ	Holly A. Hanke	CARLOS GONZALEZ
Date: / Time:	5/10/07 1510	5/10/07 1510	5/10/07 1725
RECEIVED BY: / RECEIVED BY: / RECEIVED BY LABORATORY:			
Signature:	Holly A. Hanke		
Printed Name:	Holly Hanke	CARLOS GONZALEZ	
Date: / Time:	5/10/07 1510	5/10/07 1510	5/10/07 1725

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE

Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)

Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS21-SVP-10'	C22-HSAS21-SVP-20'	C22-HSAS21-SVP-30'	C22-HSAS21-SVP-40'	C22-HSAS2101-SVP-3(	C22-HSAS26-SVP-10'	C22-HSAS26-SVP-20'	C22-HSAS26-SVP-30'	C22-HSAS26-SVP-40'
Sample Date		5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007
Laboratory Job Number		42127	42127	42127	42127	42127	42127	42127	42127	42127
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**52.5**	**51.5**	**43.7**	**20.7**	**35.4**	**128**	**73.6**	**89.4**	**50.9**
Benzene	ug/m3	**11.0**	**16.7**	**15.3**	**21.1**	**16.4**	**4.60**	ND<2.0	**3.80**	**10.7**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Carbon disulfide	ug/m3	**11.0**	**73.7**	**91.6**	**66.0**	**82.0**	**10.1**	**13.6**	**18.8**	**10.7**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	**9.70**	**8.32**	**10.2**	**9.37**	**10.3**	ND<3.0	ND<3.0	**5.80**	**9.40**
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	**6.10**	ND<4.0
1,1-Dichloroethane	ug/m3	**21.6**	**29.1**	**52.4**	**92.9**	**50.1**	**5.40**	**9.50**	ND<3.0	**21.0**
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	**4,720**	**6,100**	**10,400**	**26,100**	**12,400**	**2,100**	**3,570**	**5,100**	**5,290**
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	**6.70**	**17.7**	**10.2**	**10.2**	**10.4**	ND<3.0	**11.6**	**8.30**	**6.50**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS21-SVP-10'	C22-HSAS21-SVP-20'	C22-HSAS21-SVP-30'	C22-HSAS21-SVP-40'	C22-HSAS2101-SVP-3(	C22-HSAS26-SVP-10'	C22-HSAS26-SVP-20'	C22-HSAS26-SVP-30'	C22-HSAS26-SVP-40'
Sample Date		5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007
Laboratory Job Number		42127	42127	42127	42127	42127	42127	42127	42127	42127
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	**63.3**	**12.9**	**24.0**	ND<10	**27.0**	ND<10	**11.5**	**10.8**	**61.5**
Styrene	ug/m3	**8.00**	**7.53**	**6.98**	**7.24**	**7.15**	ND<3.0	**5.80**	**7.70**	**7.80**
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	**271**	**37.9**	**52.5**	**93.8**	**66.2**	**16.0**	**32.8**	**34.6**	**263**
Toluene (Methyl benzene)	ug/m3	**622**	**590**	**88.0**	**208**	**57.6**	**498**	**567**	**97.2**	**604**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	**4,730**	**3,900**	**4,110**	**10,800**	**6,240**	**125**	**187**	**272**	**2,670**
1,1,2-Trichloroethane	ug/m3	**55.2**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**53.6**
Trichloroethene	ug/m3	**2,790**	**1,100**	**2,190**	**4,760**	**2,460**	**1,090**	**1,670**	**2,820**	**2,710**
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	**7.64**	**8.76**	**6.63**	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	**12.6**	**16.1**	**24.7**	**21.6**	**22.5**	ND<5	ND<5	ND<5	**12.2**
1,2,4-Trimethylbenzene	ug/m3	ND<3.0	**10.9**	**12.7**	**11.7**	**12.1**	ND<3.0	ND<3.0	**15.6**	ND<3.0
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	**6.39**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	**6.40**	**28.7**	**11.4**	**11.4**	**12.2**	ND<2.0	**23.6**	**12.6**	**6.30**
m,p-Xylenes	ug/m3	**18.6**	**112**	**27.1**	**25.7**	**25.9**	**15.7**	**104**	**31.5**	**18.1**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

American Environmental Testing Laboratory Inc.

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ANALYTICAL RESULTS

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348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051707

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/17/2007				
Preparation Method			TO-15				
Date Analyzed			05/17/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051707

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/17/2007				
Preparation Method			TO-15				
Date Analyzed			05/17/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,I,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		91				
1,2-Dichloroethane-d4	70-130		83				
Toluene-d8	70-130		79				

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ANALYTICAL RESULTS

Ordered By

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348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051707

Our Lab I.D.			42127.01	42127.02	42127.03	42127.04	42127.05
Client Sample I.D.			C22-HSAS21-SVP-40'	C22-HSAS21-SVP-30'	C22-HSAS21-01-SVP-30'	C22-HSAS21-SVP-20'	C22-HSAS21-SVP-10'
Date Sampled			05/10/2007	05/10/2007	05/10/2007	05/10/2007	05/10/2007
Date Prepared			05/17/2007	05/17/2007	05/17/2007	05/17/2007	05/17/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/17/2007	05/17/2007	05/17/2007	05/17/2007	05/17/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	20.7	43.7	35.4	51.5	52.5
Benzene	2.0	2.0	21.1	15.3	16.4	16.7	11.0
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	66.0	91.6	82.0	73.7	11.0
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	9.37	10.2	10.3	8.32	9.70
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	92.9	52.4	50.1	29.1	21.6
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	26,100	10,400	12,400	6,100	4,720
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051707

Our Lab I.D.			42127.01	42127.02	42127.03	42127.04	42127.05
Client Sample I.D.			C22-HSAS21 -SVP-40'	C22-HSAS21 -SVP-30'	C22-HSAS21 01-SVP-30'	C22-HSAS21 -SVP-20'	C22-HSAS21- SVP-10'
Date Sampled			05/10/2007	05/10/2007	05/10/2007	05/10/2007	05/10/2007
Date Prepared			05/17/2007	05/17/2007	05/17/2007	05/17/2007	05/17/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/17/2007	05/17/2007	05/17/2007	05/17/2007	05/17/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	10.2	10.2	10.4	17.7	6.70
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	ND	24.0	27.0	12.9	63.3
Styrene	3.0	3.0	7.24	6.98	7.15	7.53	8.00
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	93.8	52.5	66.2	37.9	271
Toluene (Methyl benzene)	2.0	2.0	208	88.0	57.6	590	622
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	10,800	4,110	6,240	3,900	4,730
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	55.2
Trichloroethene	3.0	3.0	4,760	2,190	2,460	1,100	2,790
Trichlorofluoromethane	4.0	4.0	8.76	7.64	6.63	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	21.6	24.7	22.5	16.1	12.6
1,2,4-Trimethylbenzene	3.0	3.0	11.7	12.7	12.1	10.9	ND
1,3,5-Trimethylbenzene	3.0	3.0	6.39	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	11.4	11.4	12.2	28.7	6.40
m,p-Xylenes	4.0	4.0	25.7	27.1	25.9	112	18.6
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			42127.01	42127.02	42127.03	42127.04	42127.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		101	91	89	90	88
1,2-Dichloroethane-d4	70-130		83	97	90	82	84
Toluene-d8	70-130		81	83	81	87	88

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ANALYTICAL RESULTS

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Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051707

Our Lab I.D.			42127.06	42127.07	42127.08	42127.09	
Client Sample I.D.			C22-HSAS26 -SVP-40'	C22-HSAS26 -SVP-30'	C22-HSAS26 -SVP-20'	C22-HSAS26 -SVP-10'	
Date Sampled			05/10/2007	05/10/2007	05/10/2007	05/10/2007	
Date Prepared			05/17/2007	05/17/2007	05/17/2007	05/17/2007	
Preparation Method			TO-15	TO-15	TO-15	TO-15	
Date Analyzed			05/17/2007	05/17/2007	05/17/2007	05/17/2007	
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	
Units			ug/m3	ug/m3	ug/m3	ug/m3	
Dilution Factor			2	2	2	2	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	
4-Ethyltoluene	10	10	ND	ND	ND	ND	
Acetone	10	10	50.9	89.4	73.6	128	
Benzene	2.0	2.0	10.7	3.80	ND	4.60	
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	
Bromoform	3.0	3.0	ND	ND	ND	ND	
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	
2-Butanone (MEK)	10	10	ND	ND	ND	ND	
Carbon disulfide	3.0	3.0	10.7	18.8	13.6	10.1	
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	
Chloroethane	3.0	3.0	ND	ND	ND	ND	
Chloroform (Trichloromethane)	3.0	3.0	9.40	5.80	ND	ND	
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	
Dichlorodifluoromethane	4.0	4.0	ND	6.10	ND	ND	
1,1-Dichloroethane	3.0	3.0	21.0	ND	9.50	5.40	
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	
1,1-Dichloroethene	3.0	3.0	5,290	5,100	3,570	2,100	
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051707

Our Lab I.D.			42127.06	42127.07	42127.08	42127.09	
Client Sample I.D.			C22-HSAS26 -SVP-40'	C22-HSAS26 -SVP-30'	C22-HSAS26 -SVP-20'	C22-HSAS26 -SVP-10'	
Date Sampled			05/10/2007	05/10/2007	05/10/2007	05/10/2007	
Date Prepared			05/17/2007	05/17/2007	05/17/2007	05/17/2007	
Preparation Method			TO-15	TO-15	TO-15	TO-15	
Date Analyzed			05/17/2007	05/17/2007	05/17/2007	05/17/2007	
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	
Units			ug/m3	ug/m3	ug/m3	ug/m3	
Dilution Factor			2	2	2	2	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	
Ethylbenzene	3.0	3.0	6.50	8.30	11.6	ND	
Hexachlorobutadiene	12	12	ND	ND	ND	ND	
2-Hexanone	10	10	ND	ND	ND	ND	
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	
Methylene chloride (DCM)	10	10	61.5	10.8	11.5	ND	
Styrene	3.0	3.0	7.80	7.70	5.80	ND	
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	
Tetrachloroethene	3.0	3.0	263	34.6	32.8	16.0	
Toluene (Methyl benzene)	2.0	2.0	604	97.2	567	498	
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	
1,1,1-Trichloroethane	3.0	3.0	2,670	272	187	125	
1,1,2-Trichloroethane	3.0	3.0	53.6	ND	ND	ND	
Trichloroethene	3.0	3.0	2,710	2,820	1,670	1,090	
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	ND	
Trichlorotrifluoroethane (Freon-113)	5	5	12.2	ND	ND	ND	
1,2,4-Trimethylbenzene	3.0	3.0	ND	15.6	ND	ND	
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	
Vinyl acetate	10	10	ND	ND	ND	ND	
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	
o-Xylene	2.0	2.0	6.30	12.6	23.6	ND	
m,p-Xylenes	4.0	4.0	18.1	31.5	104	15.7	
Naphthalene	10	10	ND	ND	ND	ND	
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	

Our Lab I.D.			42127.06	42127.07	42127.08	42127.09	
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	
4-Bromofluorobenzene	70-130		88	94	94	102	
1,2-Dichloroethane-d4	70-130		84	80	82	81	
Toluene-d8	70-130		88	81	82	83	

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ANALYTICAL RESULTS

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Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42127	05/10/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 051707 ; Sample Spiked: 051707 LCS: Blank; QC Prepared: 05/17/2007; QC Analyzed: 05/17/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	42.50	85	50.00	42.50	85	<1	70-130	<30	
Methylene chloride (DCM)	50.00	41.50	83	50.00	46.00	92	10.3	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	52.50	105	50.00	54.00	108	2.8	70-130	<30	
Toluene (Methyl benzene)	50.00	42.00	84	50.00	44.00	88	4.7	70-130	<30	
Trichloroethene	50.00	43.50	87	50.00	47.00	94	7.7	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages	8
Date Received	05/11/2007
Date Reported	05/21/2007

Job Number	Order Date	Client
42166	05/11/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 6 soil-gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 48476

AETL JOB No. 42166

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE #100 SAN BERNARDINO CA. 92408
PHONE / FAX	909-381-1674
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	14967
SITE NAME AND ADDRESS	BEAUMONT SITE 1 BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15				INITIAL PSI	FINAL PSI	LEAK CHECK *			TEST INSTRUCTIONS & COMMENTS
1	C22-HSAS24-SVP-50'		5/11/07	0831	AIR	1-6LT SUMMA	—	X				-27	0.0	✓			42166.01
2	C22-HSAS24-SVP-40'		"	0920	"	"	—	X				-27	0.0	✓			42166.02
3	C22-HSAS24-SVP-30'		"	10:11	"	"	—	X				-27	0.0	✓			42166.03
4	C22-HSAS24-SVP-20'		"	1058	"	"	—	X				-27	0.0	✓			42166.04
5	C22-HSAS2401-SVP-20'		"	1140	"	"	—	X				-27	0.0	✓			42166.05
6	C22-HSAS24-SVP-10'		"	1351	"	"	—	X				-27	0.0	✓			42166.06
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

ANALYSIS REQUESTED

* ISOBUTANE

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	6	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~48 HRS.~~ 2days ☐ ~~24 HRS.~~ Next day ☐ ~~72 HRS.~~ 3days

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature: Linda Marquis	Signature:
Printed Name: CARLOS GONZALEZ	Printed Name: Linda Marquis	Printed Name: CARLOS GONZALEZ
Date: 05/11/07 Time: 1400	Date: 05/11/07 Time: 1400	Date: 05/11/07 Time: 1630
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: 3.**
Signature: Linda Marquis	Signature:	Signature:
Printed Name: Linda Marquis	Printed Name: CARLOS GONZALEZ	Printed Name: Guillermo Hernandez
Date: 05/11/07 Time: 1400	Date: 05/11/07 Time: 1400	Date: 05/11/07 Time: 1630

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS24-SVP-10'	C22-HSAS24-SVP-20'	C22-HSAS24-SVP-30'	C22-HSAS24-SVP-40'	C22-HSAS24-SVP-50'	C22-HSAS2401-SVP-2(
Sample Date		5/11/2007	5/11/2007	5/11/2007	5/11/2007	5/11/2007	5/11/2007
Laboratory Job Number		42166	42166	42166	42166	42166	42166
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	ND<10	ND<10	ND<10	**11.8**	**76.1**	ND<10
Benzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	ND<10	ND<10	**33.7**	ND<10
Carbon disulfide	ug/m3	**8.50**	**6.47**	**6.72**	**3.74**	ND<3.0	**6.80**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	**154**	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**523**	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	**7.02**	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	ND<3.0	ND<3.0	**11.7**	**14.9**	ND<3.0	ND<3.0
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	ND<3.0	**5.21**	ND<3.0	**4.60**	**99.7**	ND<3.0
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	C22-HSAS24-SVP-10'	C22-HSAS24-SVP-20'	C22-HSAS24-SVP-30'	C22-HSAS24-SVP-40'	C22-HSAS24-SVP-50'	C22-HSAS2401-SVP-2(
Sample Date		5/11/2007	5/11/2007	5/11/2007	5/11/2007	5/11/2007	5/11/2007
Laboratory Job Number		42166	42166	42166	42166	42166	42166
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Styrene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	ND<3.0	**9.09**	**13.2**	**12.7**	**5,930**	**10.2**
Toluene (Methyl benzene)	ug/m3	**396**	**377**	**75.6**	**2,840**	**30.7**	**214**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	**36.5**	**43.9**	**68.8**	**69.9**	ND<3.0	**47.0**
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	ND<3.0	ND<3.0	**7.73**	**7.41**	**914**	**6.40**
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	**18.8**	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	ND<5	ND<5	ND<5	**92.7**	ND<5
1,2,4-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	**5.60**	ND<3.0	**22.5**	ND<3.0
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**7.47**	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	ND<2.0	**11.1**	**5.47**	ND<2.0	**90.6**	**8.80**
m,p-Xylenes	ug/m3	**8.00**	**54.2**	**13.5**	**13.5**	**308**	**40.8**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site I
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051507

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/15/2007				
Preparation Method			TO-15				
Date Analyzed			05/15/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Page: 3
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051507

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/15/2007				
Preparation Method			TO-15				
Date Analyzed			05/15/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		101				
1,2-Dichloroethane-d4	70-130		81				
Toluene-d8	70-130		87				

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
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San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site I
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051507

Our Lab I.D.			42166.01	42166.02	42166.03	42166.04	42166.05
Client Sample I.D.			C22-HSAS24 -SVP-50'	C22-HSAS24 -SVP-40'	C22-HSAS24 -SVP-30'	C22-HSAS24 -SVP-20'	C22-HSAS24 01-SVP-20'
Date Sampled			05/11/2007	05/11/2007	05/11/2007	05/11/2007	05/11/2007
Date Prepared			05/15/2007	05/15/2007	05/15/2007	05/15/2007	05/15/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/15/2007	05/15/2007	05/15/2007	05/15/2007	05/15/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	76.1	11.8	ND	ND	ND
Benzene	2.0	2.0	ND	ND	ND	ND	ND
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	33.7	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	ND	3.74	6.72	6.47	6.80
Carbon tetrachloride	4.0	4.0	154	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	523	ND	ND	ND	ND
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	7.02	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	ND	14.9	11.7	ND	ND
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051507

Our Lab I.D.			42166.01	42166.02	42166.03	42166.04	42166.05
Client Sample I.D.			C22-HSAS24 -SVP-50'	C22-HSAS24 -SVP-40'	C22-HSAS24 -SVP-30'	C22-HSAS24 -SVP-20'	C22-HSAS24 01-SVP-20'
Date Sampled			05/11/2007	05/11/2007	05/11/2007	05/11/2007	05/11/2007
Date Prepared			05/15/2007	05/15/2007	05/15/2007	05/15/2007	05/15/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/15/2007	05/15/2007	05/15/2007	05/15/2007	05/15/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	99.7	4.60	ND	5.21	ND
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	ND	ND	ND	ND	ND
Styrene	3.0	3.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	5,930	12.7	13.2	9.09	10.2
Toluene (Methyl benzene)	2.0	2.0	30.7	2,840	75.6	377	214
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	ND	69.9	68.8	43.9	47.0
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	914	7.41	7.73	ND	6.40
Trichlorofluoromethane	4.0	4.0	18.8	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	92.7	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.0	3.0	22.5	ND	5.60	ND	ND
1,3,5-Trimethylbenzene	3.0	3.0	7.47	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	90.6	ND	5.47	11.1	8.80
m,p-Xylenes	4.0	4.0	308	13.5	13.5	54.2	40.8
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			42166.01	42166.02	42166.03	42166.04	42166.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		114	103	110	112	108
1,2-Dichloroethane-d4	70-130		78	80	84	83	84
Toluene-d8	70-130		93	87	87	88	85

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051507

Our Lab I.D.			**42166.06**				
Client Sample I.D.			C22-HSAS24 -SVP-10'				
Date Sampled			05/11/2007				
Date Prepared			05/15/2007				
Preparation Method			TO-15				
Date Analyzed			05/15/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND				
4-Ethyltoluene	10	10	ND				
Acetone	10	10	ND				
Benzene	2.0	2.0	ND				
Bromodichloromethane	3.0	3.0	ND				
Bromoform	3.0	3.0	ND				
Bromomethane (Methyl bromide)	3.0	3.0	ND				
2-Butanone (MEK)	10	10	ND				
Carbon disulfide	3.0	3.0	8.50				
Carbon tetrachloride	4.0	4.0	ND				
Chlorobenzene	2.0	2.0	ND				
Chloroethane	3.0	3.0	ND				
Chloroform (Trichloromethane)	3.0	3.0	ND				
Chloromethane (Methyl chloride)	2.0	2.0	ND				
Dibromochloromethane	3.0	3.0	ND				
1,2-Dibromoethane (EDB)	4.0	4.0	ND				
1,2-Dichlorobenzene	4.0	4.0	ND				
1,3-Dichlorobenzene	4.0	4.0	ND				
1,4-Dichlorobenzene	4.0	4.0	ND				
Dichlorodifluoromethane	4.0	4.0	ND				
1,1-Dichloroethane	3.0	3.0	ND				
1,2-Dichloroethane (EDC)	3.0	3.0	ND				
1,1-Dichloroethene	3.0	3.0	ND				
cis-1,2-Dichloroethene	3.0	3.0	ND				
trans-1,2-Dichloroethene	3.0	3.0	ND				
1,2-Dichloropropane	3.0	3.0	ND				
cis-1,3-Dichloropropene	3.0	3.0	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051507

Our Lab I.D.			**42166.06**				
Client Sample I.D.			C22-HSAS24 -SVP-10'				
Date Sampled			05/11/2007				
Date Prepared			05/15/2007				
Preparation Method			TO-15				
Date Analyzed			05/15/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
trans-1,3-Dichloropropene	3.0	3.0	ND				
Ethylbenzene	3.0	3.0	ND				
Hexachlorobutadiene	12	12	ND				
2-Hexanone	10	10	ND				
4-Methyl-2-pentanone (MIBK)	10	10	ND				
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND				
Methylene chloride (DCM)	10	10	ND				
Styrene	3.0	3.0	ND				
1,1,2,2-Tetrachloroethane	4.0	4.0	ND				
Tetrachloroethene	3.0	3.0	ND				
Toluene (Methyl benzene)	2.0	2.0	396				
1,2,4-Trichlorobenzene	2.0	2.0	ND				
1,1,1-Trichloroethane	3.0	3.0	36.5				
1,1,2-Trichloroethane	3.0	3.0	ND				
Trichloroethene	3.0	3.0	ND				
Trichlorofluoromethane	4.0	4.0	ND				
Trichlorotrifluoroethane (Freon-113)	5	5	ND				
1,2,4-Trimethylbenzene	3.0	3.0	ND				
1,3,5-Trimethylbenzene	3.0	3.0	ND				
Vinyl acetate	10	10	ND				
Vinyl chloride (Chloroethene)	2.0	2.0	ND				
o-Xylene	2.0	2.0	ND				
m,p-Xylenes	4.0	4.0	8.00				
Naphthalene	10	10	ND				
2-Methylpropane (Isobutane)	2000	2000	ND				

Our Lab I.D.			**42166.06**				
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		105				
1,2-Dichloroethane-d4	70-130		80				
Toluene-d8	70-130		87				

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348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42166	05/11/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 051507 ; Sample Spiked: 051507 LCS: Blank; QC Prepared: 05/15/2007; QC Analyzed: 05/15/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	40.50	81	50.00	42.00	84	3.6	70-130	<30	
Methylene chloride (DCM)	50.00	41.00	82	50.00	46.50	93	12.6	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	58.50	117	50.00	57.00	114	2.6	70-130	<30	
Toluene (Methyl benzene)	50.00	40.00	80	50.00	44.00	88	9.5	70-130	<30	
Trichloroethene	50.00	46.50	93	50.00	45.00	90	3.3	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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TETRA TECH, INC. SBO

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Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages	8
Date Received	05/14/2007
Date Reported	05/21/2007

Job Number	Order Date	Client
42196	05/14/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 7 soil-gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

Nº 49621

AETL JOB No. 42196 Page 1 of 1

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE #100, SAN BERNARDINO, CA. 92408
PHONE / FAX	909-381-1674
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE 1 — BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15	INITIAL PSI	FINAL PSI	* LEACK CHECK	TEST INSTRUCTIONS & COMMENTS
1	D29-HSAS1-SVP-30'		5/14/07	0827	AIR	1-3 LT SUMMA	—	X	-27	0.0	✓	42196.01
2	D29-HSAS1-SVP-20'		"	0858	"	"	—	X	-27	0.0	✓	42196.02
3	D29-HSAS1-SVP-10'		"	0924	"	"	—	X	-27	0.0	✓	42196.03
4	D29-HSAS2-SVP-30'		"	1021	"	"	—	X	-27	0.1	✓	42196.04
5	D29-HSAS2-SVP-20'		"	11:10	"	1-6 LT SUMMA	—	X	-27	0.0	✓	42196.05
6	D29-HSAS2-SVP-10'		"	1337	"	"	—	X	-23	0.0	✓	42196.06
7	D29-HSAS3-SVP-30'		"	1430	"	"	—	X	-27	0.0	✓	42196.07
8												
9												
10												
11												
12												
13												
14												
15												

* ISOBUTANE

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	7	PROPERLY COOLED Y / N / (NA)	
CUSTODY SEALS Y / N / (NA)		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER: / RELINQUISHED BY: / RELINQUISHED BY:			
Signature:		Linda Margulis	
Printed Name:	CARLOS GONZALEZ	Linda Margulis	CARLOS GONZALEZ
Date: / Time:	5/14/07 1440	5/14/07 1440	5/14/07 1700
RECEIVED BY: / RECEIVED BY: / RECEIVED BY LABORATORY:	1.	2.	3.
Signature:	Linda Margulis		
Printed Name:	Linda Margulis	CARLOS GONZALEZ	Guillermo Hermento
Date: / Time:	5/14/07 1440	5/14/07 1440	5/14/07 1702

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	D29-HSAS1-SVP-10'	D29-HSAS1-SVP-20'	D29-HSAS1-SVP-30'	D29-HSAS2-SVP-10'	D29-HSAS2-SVP-20'	D29-HSAS2-SVP-30'	D29-HSAS3-SVP-30'
Sample Date		5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007
Laboratory Job Number		42196	42196	42196	42196	42196	42196	42196
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	ND<10	ND<10	**22.4**	**114**	ND<10	**15.9**	**21.0**
Benzene	ug/m3	ND<2.0	ND<2.0	**4.52**	ND<2.0	**4.10**	ND<2.0	ND<2.0
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Carbon disulfide	ug/m3	**17.2**	**30.5**	**54.0**	**12.0**	**58.5**	ND<3.0	**51.5**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**6.30**
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	**14.7**	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**7.30**	ND<3.0	**6.30**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	D29-HSAS1-SVP-10'	D29-HSAS1-SVP-20'	D29-HSAS1-SVP-30'	D29-HSAS2-SVP-10'	D29-HSAS2-SVP-20'	D29-HSAS2-SVP-30'	D29-HSAS3-SVP-30'
Sample Date		5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007	5/14/2007
Laboratory Job Number		42196	42196	42196	42196	42196	42196	42196
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	**32.7**	**40.9**	**237**	**6,020**	**25.1**	**72.6**	**50.9**
Styrene	ug/m3	ND<3.0	ND<3.0	**6.02**	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	ND<3.0	ND<3.0	**42.6**	ND<3.0	ND<3.0	ND<3.0	**13.0**
Toluene (Methyl benzene)	ug/m3	**17.8**	**25.6**	**45.8**	**291**	**419**	**4.99**	**93.5**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	**18.8**	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	ND<5	ND<5	**61.0**	ND<5	ND<5	ND<5
1,2,4-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**8.40**
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	**14.5**	ND<2.0	**8.80**
m,p-Xylenes	ug/m3	ND<4.0	**8.49**	**7.95**	ND<4.0	**69.8**	ND<4.0	**21.8**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

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Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/16/2007				
Preparation Method			TO-15				
Date Analyzed			05/16/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/16/2007				
Preparation Method			TO-15				
Date Analyzed			05/16/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		101				
1,2-Dichloroethane-d4	70-130		80				
Toluene-d8	70-130		82				

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Tetra Tech, Inc.
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Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607

Our Lab I.D.			42196.01	42196.02	42196.03	42196.04	42196.05
Client Sample I.D.			D29-HSAS1-SVP-30'	D29-HSAS1-SVP-20'	D29-HSAS1-SVP-10'	D29-HSAS2-SVP-30'	D29-HSAS2-SVP-20'
Date Sampled			05/14/2007	05/14/2007	05/14/2007	05/14/2007	05/14/2007
Date Prepared			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	22.4	ND	ND	15.9	ND
Benzene	2.0	2.0	4.52	ND	ND	ND	4.10
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	54.0	30.5	17.2	ND	58.5
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	14.7	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607

Our Lab I.D.			**42196.01**	**42196.02**	**42196.03**	**42196.04**	**42196.05**
Client Sample I.D.			D29-HSAS1-SVP-30'	D29-HSAS1-SVP-20'	D29-HSAS1-SVP-10'	D29-HSAS2-SVP-30'	D29-HSAS2-SVP-20'
Date Sampled			05/14/2007	05/14/2007	05/14/2007	05/14/2007	05/14/2007
Date Prepared			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	ND	ND	ND	ND	7.30
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	237	40.9	32.7	72.6	25.1
Styrene	3.0	3.0	6.02	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	42.6	ND	ND	ND	ND
Toluene (Methyl benzene)	2.0	2.0	45.8	25.6	17.8	4.99	419
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	4.0	4.0	18.8	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	ND	ND	ND	ND	14.5
m,p-Xylenes	4.0	4.0	7.95	8.49	ND	ND	69.8
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			**42196.01**	**42196.02**	**42196.03**	**42196.04**	**42196.05**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		104	101	94	94	100
1,2-Dichloroethane-d4	70-130		82	76	83	80	79
Toluene-d8	70-130		91	88	86	85	89

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Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

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Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607

Our Lab I.D.			42196.06	42196.07			
Client Sample I.D.			D29-HSAS2-SVP-10'	D29-HSAS3-SVP-30'			
Date Sampled			05/14/2007	05/14/2007			
Date Prepared			05/16/2007	05/16/2007			
Preparation Method			TO-15	TO-15			
Date Analyzed			05/16/2007	05/16/2007			
Matrix			Gaseous	Gaseous			
Units			ug/m3	ug/m3			
Dilution Factor			2	2			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND			
4-Ethyltoluene	10	10	ND	ND			
Acetone	10	10	114	21.0			
Benzene	2.0	2.0	ND	ND			
Bromodichloromethane	3.0	3.0	ND	ND			
Bromoform	3.0	3.0	ND	ND			
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND			
2-Butanone (MEK)	10	10	ND	ND			
Carbon disulfide	3.0	3.0	12.0	51.5			
Carbon tetrachloride	4.0	4.0	ND	ND			
Chlorobenzene	2.0	2.0	ND	ND			
Chloroethane	3.0	3.0	ND	ND			
Chloroform (Trichloromethane)	3.0	3.0	ND	6.30			
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND			
Dibromochloromethane	3.0	3.0	ND	ND			
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND			
1,2-Dichlorobenzene	4.0	4.0	ND	ND			
1,3-Dichlorobenzene	4.0	4.0	ND	ND			
1,4-Dichlorobenzene	4.0	4.0	ND	ND			
Dichlorodifluoromethane	4.0	4.0	ND	ND			
1,1-Dichloroethane	3.0	3.0	ND	ND			
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND			
1,1-Dichloroethene	3.0	3.0	ND	ND			
cis-1,2-Dichloroethene	3.0	3.0	ND	ND			
trans-1,2-Dichloroethene	3.0	3.0	ND	ND			
1,2-Dichloropropane	3.0	3.0	ND	ND			
cis-1,3-Dichloropropene	3.0	3.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607

Our Lab I.D.			**42196.06**	**42196.07**			
Client Sample I.D.			D29-HSAS2-SVP-10'	D29-HSAS3-SVP-30'			
Date Sampled			05/14/2007	05/14/2007			
Date Prepared			05/16/2007	05/16/2007			
Preparation Method			TO-15	TO-15			
Date Analyzed			05/16/2007	05/16/2007			
Matrix			Gaseous	Gaseous			
Units			ug/m3	ug/m3			
Dilution Factor			2	2			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
trans-1,3-Dichloropropene	3.0	3.0	ND	ND			
Ethylbenzene	3.0	3.0	ND	6.30			
Hexachlorobutadiene	12	12	ND	ND			
2-Hexanone	10	10	ND	ND			
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND			
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND			
Methylene chloride (DCM)	10	10	6,020	50.9			
Styrene	3.0	3.0	ND	ND			
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND			
Tetrachloroethene	3.0	3.0	ND	13.0			
Toluene (Methyl benzene)	2.0	2.0	291	93.5			
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND			
1,1,1-Trichloroethane	3.0	3.0	ND	ND			
1,1,2-Trichloroethane	3.0	3.0	ND	ND			
Trichloroethene	3.0	3.0	ND	ND			
Trichlorofluoromethane	4.0	4.0	ND	ND			
Trichlorotrifluoroethane (Freon-113)	5	5	61.0	ND			
1,2,4-Trimethylbenzene	3.0	3.0	ND	8.40			
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND			
Vinyl acetate	10	10	ND	ND			
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND			
o-Xylene	2.0	2.0	ND	8.80			
m,p-Xylenes	4.0	4.0	ND	21.8			
Naphthalene	10	10	ND	ND			
2-Methylpropane (Isobutane)	2000	2000	ND	ND			

Our Lab I.D.			**42196.06**	**42196.07**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
4-Bromofluorobenzene	70-130		96	105			
1,2-Dichloroethane-d4	70-130		81	76			
Toluene-d8	70-130		86	90			

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Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42196	05/14/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 051607 ; Sample Spiked: 051607 LCS: Blank; QC Prepared: 05/16/2007; QC Analyzed: 05/16/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	44.00	88	50.00	48.50	97	9.7	70-130	<30	
Methylene chloride (DCM)	50.00	44.00	88	50.00	43.00	86	2.3	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	49.00	98	50.00	50.00	100	2.0	70-130	<30	
Toluene (Methyl benzene)	50.00	47.50	95	50.00	42.00	84	12.3	70-130	<30	
Trichloroethene	50.00	48.50	97	50.00	45.50	91	6.4	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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F2649
TETRA TECH, INC.-SBD

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Brenda Meyer

Number of Pages 8
Date Received 05/15/2007
Date Reported 05/21/2007

Job Number	Order Date	Client
42234	05/15/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumont Site 1
Beaumont, CA 92223

Enclosed please find results of analyses of 6 soil-gas samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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SUMMARY OF RESULTS

CLIENT NAME: Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408

AETL JOB NO.: 42196

PROJECT: Lockheed Martin
SITE: Beaumont Site 1, Beaumont, CA 92223
DATE SAMPLED: 05-14-07
DATE SUBMITTED: 05-14-07
DATE ANALYSIS COMPLETED: 05-16-07
SAMPLE DESCRIPTION: Grab gaseous sample (for details, please see COC)
SAMPLE MATRIX: Gaseous
NOTE: Samples were collected by AETL.

EPA Method TO-15 TICs(Tentatively Identified Compounds)

Lab ID		42196.05
Client ID		D29-HSAS2-SVP-20'
Date Sampled		05-14-07
Date Prepared		05-16-07
Date Analyzed		05-16-07
Matrix		Gaseous
Units		$\mu g/m^3$
Dilution Factor		2
Analyte	**DL**	**Results** *
2-Methylbutane	10	**1,400**
3,4-Dimethyl,1-hexene	10	**150**
4,5-Dimethyl,1-hexene	10	**500**
Methylcyclopentane	10	**250**
1,3-Dimethylcyclopentane	10	**350**
1,3-Dimethylcyclohexene	10	**150**
Methylcyclohexane	10	**700**
1,2,3-Trimethylcyclopentane	10	**150**
Propene	10	**15.0**
Tetrahydrofurna	10	**550**

* All results are semi-quantitative.
ND = **N**ot **D**etected at the detection limit
DL = **D**etection Limit

C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
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SUMMARY OF RESULTS

CLIENT NAME: Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408

AETL JOB NO.: 42166

PROJECT: Lockheed Martin
SITE: Beaumont Site 1, Beaumont, CA 92223
DATE SAMPLED: 05-11-07
DATE SUBMITTED: 05-11-07
DATE ANALYSIS COMPLETED: 05-15-07
SAMPLE DESCRIPTION: Grab gaseous sample (for details, please see COC)
SAMPLE MATRIX: Gaseous
NOTE: Samples were collected by AETL.

EPA Method TO-15 TICs(Tentatively Identified Compounds)

Lab ID		42166.06
Client ID		C22-HSAS24-SVP-10'
Date Sampled		05-11-07
Date Prepared		05-15-07
Date Analyzed		05-15-07
Matrix		Gaseous
Units		$\mu g/m^3$
Dilution Factor		2
Analyte	**DL**	**Results** *
1-Methoxy-1-methylethylbenzen	10	**400**
Alpha-Methylstyrene	10	**600**
Acetophenone	10	**1,000**
Butylated Hydroxytoluene	10	**750**
1,2-Dimethyl-ciscyclopentane	10	**11.0**
Methylcyclohexane	10	**16.0**
Tetrahydrofuran	10	**600**

* All results are semi-quantitative.
ND = **N**ot **D**etected at the detection limit
DL = **D**etection Limit

C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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SUMMARY OF RESULTS

CLIENT NAME: Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408

AETL JOB NO.: 42031

PROJECT: Lockheed Martin
SITE: Beaumont Site 1, Beaumont, CA 92223
DATE SAMPLED: 05-07-07
DATE SUBMITTED: 05-07-07
DATE ANALYSIS COMPLETED: 05-08-07
SAMPLE DESCRIPTION: Grab gaseous sample (for details, please see COC)
SAMPLE MATRIX: Gaseous
NOTE: Samples were collected by AETL.

EPA Method TO-15 TICs(Tentatively Identified Compounds)

Lab ID		42031.03
Client ID		G46-HSAS2-SVP-10'
Date Sampled		05-07-07
Date Prepared		05-08-07
Date Analyzed		05-08-07
Matrix		Gaseous
Units		$\mu g/m^3$
Dilution Factor		2
Analyte	**DL**	**Results** *
Methylcyclohexane	10	**950**
Methylcyclopentane	10	**700**
1,3-Dimethylcyclopentane	10	**950**
1,3-Dimethylcyclohexane	10	**350**
1,2,3-Trimethylcyclopentane	10	**400**
Tetrahydrofurna	10	**500**
Butane	10	**300**
2-Methylbutane	10	**2,000**
Pentane	10	**950**
2-Methylpentane	10	**1,100**

* All results are semi-quantitative.
ND = **N**ot **D**etected at the detection limit
DL = **D**etection Limit

C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

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348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 051607-1 ; Sample Spiked: 051607 LCS: Blank; QC Prepared: 05/16/2007; QC Analyzed: 05/16/2007;
Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	44.00	88	50.00	48.50	97	9.7	70-130	<30	
Methylene chloride (DCM)	50.00	44.00	88	50.00	43.00	86	2.3	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	49.00	98	50.00	50.00	100	2.0	70-130	<30	
Toluene (Methyl benzene)	50.00	47.50	95	50.00	42.00	84	12.3	70-130	<30	
Trichloroethene	50.00	48.50	97	50.00	45.50	91	6.4	70-130	<30	

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607-1

Our Lab I.D.			**42234.06**
Client Sample I.D.			F39-HSAS1-SVP-20'
Date Sampled			05/15/2007
Date Prepared			05/16/2007
Preparation Method			TO-15
Date Analyzed			05/16/2007
Matrix			Gaseous
Units			ug/m3
Dilution Factor			2
Analytes	**MDL**	**PQL**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND
Ethylbenzene	3.0	3.0	ND
Hexachlorobutadiene	12	12	ND
2-Hexanone	10	10	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND
Methylene chloride (DCM)	10	10	ND
Styrene	3.0	3.0	ND
1,1,2,2-Tetrachloroethane	4.0	4.0	ND
Tetrachloroethene	3.0	3.0	ND
Toluene (Methyl benzene)	2.0	2.0	ND
1,2,4-Trichlorobenzene	2.0	2.0	ND
1,1,1-Trichloroethane	3.0	3.0	ND
1,1,2-Trichloroethane	3.0	3.0	ND
Trichloroethene	3.0	3.0	ND
Trichlorofluoromethane	4.0	4.0	ND
Trichlorotrifluoroethane (Freon-113)	5	5	ND
1,2,4-Trimethylbenzene	3.0	3.0	ND
1,3,5-Trimethylbenzene	3.0	3.0	ND
Vinyl acetate	10	10	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND
o-Xylene	2.0	2.0	ND
m,p-Xylenes	4.0	4.0	ND
Naphthalene	10	10	ND
2-Methylpropane (Isobutane)	2000	2000	ND

Our Lab I.D.		**42234.06**
Surrogates	**%Rec.Limit**	**% Rec.**
4-Bromofluorobenzene	70-130	107
1,2-Dichloroethane-d4	70-130	79
Toluene-d8	70-130	79

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Ordered By

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348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607-1

Our Lab I.D.			**42234.06**				
Client Sample I.D.			F39-HSAS1-SVP-20'				
Date Sampled			05/15/2007				
Date Prepared			05/16/2007				
Preparation Method			TO-15				
Date Analyzed			05/16/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			2				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND				
4-Ethyltoluene	10	10	ND				
Acetone	10	10	16.5				
Benzene	2.0	2.0	16.0				
Bromodichloromethane	3.0	3.0	ND				
Bromoform	3.0	3.0	ND				
Bromomethane (Methyl bromide)	3.0	3.0	ND				
2-Butanone (MEK)	10	10	ND				
Carbon disulfide	3.0	3.0	ND				
Carbon tetrachloride	4.0	4.0	ND				
Chlorobenzene	2.0	2.0	ND				
Chloroethane	3.0	3.0	ND				
Chloroform (Trichloromethane)	3.0	3.0	ND				
Chloromethane (Methyl chloride)	2.0	2.0	ND				
Dibromochloromethane	3.0	3.0	ND				
1,2-Dibromoethane (EDB)	4.0	4.0	ND				
1,2-Dichlorobenzene	4.0	4.0	ND				
1,3-Dichlorobenzene	4.0	4.0	ND				
1,4-Dichlorobenzene	4.0	4.0	ND				
Dichlorodifluoromethane	4.0	4.0	ND				
1,1-Dichloroethane	3.0	3.0	ND				
1,2-Dichloroethane (EDC)	3.0	3.0	ND				
1,1-Dichloroethene	3.0	3.0	ND				
cis-1,2-Dichloroethene	3.0	3.0	ND				
trans-1,2-Dichloroethene	3.0	3.0	ND				
1,2-Dichloropropane	3.0	3.0	ND				
cis-1,3-Dichloropropene	3.0	3.0	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607-1

Our Lab I.D.			42234.01	42234.02	42234.03	42234.04	42234.05
Client Sample I.D.			D29-HSAS3-SVP-20'	D29-HSAS3-SVP-10'	D29-HSAS30 1-SVP-10'	F39-HSAS4-SVP-10'	F39-HSAS3-SVP-10'
Date Sampled			05/15/2007	05/15/2007	05/15/2007	05/15/2007	05/15/2007
Date Prepared			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	5.73	ND	ND	ND	ND
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	11.7	ND	ND	17.9	16.4
Styrene	3.0	3.0	ND	ND	ND	6.39	ND
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	ND	ND	ND	22.8	14.1
Toluene (Methyl benzene)	2.0	2.0	276	267	121	158	45.5
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	ND	ND	ND	317	130
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	ND	146
Trichlorotrifluoroethane (Freon-113)	5	5	ND	ND	ND	161	ND
1,2,4-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	9.98	ND	ND	ND	ND
m,p-Xylenes	4.0	4.0	45.2	ND	ND	7.03	ND
Naphthalene	10	10	ND	ND	ND	ND	ND
2-Methylpropane (Isobutane)	2000	2000	ND	ND	ND	ND	ND

Our Lab I.D.			42234.01	42234.02	42234.03	42234.04	42234.05
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		108	99	103	108	103
1,2-Dichloroethane-d4	70-130		83	97	91	82	81
Toluene-d8	70-130		94	84	80	84	78

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607-1

Our Lab I.D.			42234.01	42234.02	42234.03	42234.04	42234.05
Client Sample I.D.			D29-HSAS3-SVP-20'	D29-HSAS3-SVP-10'	D29-HSAS301-SVP-10'	F39-HSAS4-SVP-10'	F39-HSAS3-SVP-10'
Date Sampled			05/15/2007	05/15/2007	05/15/2007	05/15/2007	05/15/2007
Date Prepared			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			05/16/2007	05/16/2007	05/16/2007	05/16/2007	05/16/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	ND	14.9	14.2	29.5	34.1
Benzene	2.0	2.0	4.54	ND	ND	7.92	8.40
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	27.2	3.55	3.98	44.6	3.80
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	7.42	ND	ND	ND	ND
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607-1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/16/2007				
Preparation Method			TO-15				
Date Analyzed			05/16/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
I,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				
2-Methylpropane (Isobutane)	1000	1000	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		101				
1,2-Dichloroethane-d4	70-130		80				
Toluene-d8	70-130		82				

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	D29-HSAS3-SVP-10'	D29-HSAS3-SVP-20'	D29-HSAS301-SVP-10'	F39-HSAS1-SVP-20'	F39-HSAS3-SVP-10'	F39-HSAS4-SVP-10'
Sample Date		5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007
Laboratory Job Number		42234	42234	42234	42234	42234	42234
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	ND<10	**11.7**	ND<10	ND<10	**16.4**	**17.9**
Styrene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**6.39**
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**14.1**	**22.8**
Toluene (Methyl benzene)	ug/m3	**267**	**276**	**121**	ND<2.0	**45.5**	**158**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**130**	**317**
Trichlorofluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	**146**	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	**161**
1,2,4-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,3,5-Trimethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	ND<2.0	**9.98**	ND<2.0	ND<2.0	ND<2.0	ND<2.0
m,p-Xylenes	ug/m3	ND<4.0	**45.2**	ND<4.0	ND<4.0	ND<4.0	**7.03**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
2-Methylpropane (Isobutane)	ug/m3	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000	ND<2000

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	D29-HSAS3-SVP-10'	D29-HSAS3-SVP-20'	D29-HSAS301-SVP-10'	F39-HSAS1-SVP-20'	F39-HSAS3-SVP-10'	F39-HSAS4-SVP-10'
Sample Date		5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007	5/15/2007
Laboratory Job Number		42234	42234	42234	42234	42234	42234
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**14.9**	ND<10	**14.2**	**16.5**	**34.1**	**29.5**
Benzene	ug/m3	ND<2.0	**4.54**	ND<2.0	**16.0**	**8.40**	**7.92**
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Carbon disulfide	ug/m3	**3.55**	**27.2**	**3.98**	ND<3.0	**3.80**	**44.6**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	**7.42**	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	ND<3.0	**5.73**	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Brenda Meyer

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
42234	05/15/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 051607-1

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			05/16/2007				
Preparation Method			TO-15				
Date Analyzed			05/16/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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CHAIN OF CUSTODY RECORD

Nº 49483

AETL JOB No. 42234 Page 1 of 1

COMPANY	TETRA TECH
PROJECT MANAGER	BRENDA MEYER
COMPANY ADDRESS	348 W. HOSPITALITY LANE, #100 SAN BERNARDINO CA. 92408
PHONE / FAX	909-381-1674
PROJECT NAME	LOCKHEED MARTIN
PROJECT #	19967
SITE NAME AND ADDRESS	BEAUMONT SITE 1 BEAUMONT, CA. 92223
PO #	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15				INITIAL PSI	FINAL PSI	LEAK CHECK *				TEST INSTRUCTIONS & COMMENTS
1	D29-HSAS3-SVP-20'		5/15/07	0825	AIR	1-6LSUMMA	—	X				-27	0.0	✓				42234.01
2	D29-HSAS3-SVP-10'		"	0915	"	"	—	X				-27	0.0	✓				42234.02
3	D29-HSAS301-SVP-10'		"	0858	"	"	—	X				-27	0.0	✓				42234.03
4	F39-HSAS4-SVP-10'		"	1128	"	"	—	X				-27	0.0	✓				42234.04
5	F39-HSAS3-SVP-10'		"	1359	"	"	—	X				-27	0.0	✓				42234.05
6	F39-HSAS1.5VP-20'		"	1454	"	"	—	X				-27	0.1	✓				42234.06
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

ANALYSIS REQUESTED

* ISOBUTANE

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	6	PROPERLY COOLED Y / N (NA)	
CUSTODY SEALS Y / N / (NA)		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND (Y) N		SAMPLES ACCEPTED (Y) N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ ~~24 HRS.~~ ☐ ~~48 HRS.~~ ☐ ~~72 HRS.~~ NEXT DAY 2 DAYS 3 DAYS

	1.	2.	3.
RELINQUISHED BY SAMPLER: / RELINQUISHED BY:	Signature:	Signature: Holly Hanke	Signature:
	Printed Name: CARLOS GONZALEZ	Printed Name: Holly Hanke	Printed Name: CARLOS GONZALEZ
	Date: 5/15/07 Time: 1530	Date: 5/15/07 Time: 1530	Date: 5/15/07 Time: 1800
RECEIVED BY: / RECEIVED BY LABORATORY:	Signature: Holly Hanke	Signature: CARLOS GONZALEZ	Signature:
	Printed Name: Holly Hanke	Printed Name:	Printed Name:
	Date: 5/15/07 Time: 1530	Date: 5/15/07 Time: 1530	Date: 5/15/07 Time: 1800

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attention: Paul Michalski

Number of Pages 8
Date Received 08/21/2007
Date Reported 08/24/2007

Job Number	Order Date	Client
43663	08/21/2007	T/TSB2

Project ID: 19967
Project Name: Lockheed Martin
Site: Beaumount Site 1
Beaumount, CA 92223

Enclosed please find results of analyses of 10 gaseous samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

№ 50409

AETL JOB No. 43663 Page 1 of 1

COMPANY: TETRA TECH
PROJECT MANAGER: PAUL MICHALSKI
COMPANY ADDRESS: 348 W. HOSPITALITY LANE #100 SAN BERNARDINO, CA. 92408
PHONE: 909-381-1674
FAX:
PROJECT NAME: LOCKHEED MARTIN
PROJECT #: 1967
SITE NAME AND ADDRESS: BEAUMONT SITE #1, BEAUMONT, CA 92223
PO #:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TO-15	INITIAL PSI	FINAL PSI	LEAK CHECK*	TEST INSTRUCTIONS & COMMENTS
1	D2E-HSAS3-10	43663.01	8/21/07	0813	AIR	1-6LT SUMMA	—	X	-29	-1.0	✓	* ISOBUTANE ISOPROPYL ALCOHOL
2	D2E-HSAS3-20	43663.02	"	0844	"	"	—	X	-29	-1.0	✓	
3	D2E-HSAS3-30	43663.03	"	0912	"	"	—	X	-29	-1.0	✓	
4	D2E-HSAS2-10	43663.04	"	0953	"	"	—	X	-29	-1.0	✓	
5	D2E-HSAS2-20	43663.05	"	1021	"	"	—	X	-30	1.0	✓	
6	D2E-HSAS2-30	43663.06	"	1051	"	"	—	X	-30	1.0	✓	
7	D2E-HSAS1-10	43663.07	"	1128	"	"	—	X	-30	1.0	✓	
8	D2E-HSAS1-20	43663.08	"	1153	"	"	—	X	-30	1.0	✓	
9	D2E-HSAS1-30	43663.09	"	1200	"	"	—	X	-29	1.0	✓	
10	D2E-HSAS1-30 DUP	43663.10	"	1442	"	1-6LT SUMMA	—	X	-29	1.0	✓	
11												
12												
13												
14												
15												

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	10	PROPERLY COOLED (Y) / N / NA	
CUSTODY SEALS Y / N / (NA)		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☐ NORMAL ☒ RUSH (SAME DAY / NEXT DAY) (2 DAYS / 3 DAYS)

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature: Linda Margulis	Signature:
Printed Name: CARLOS GONZALEZ	Printed Name:	Printed Name: CARLOS GONZALEZ
Date: 8/21/07 Time: 1447	Date: 8/21/07 Time: 1447	Date: 8/21/07 Time: 1712
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: 3.**
Signature: Linda Margulis	Signature:	Signature:
Printed Name: Linda Margulis	Printed Name: CARLOS GONZALEZ	Printed Name:
Date: 8/21/07 Time: 1447	Date: 8/21/07 Time: 1447	Date: 8/21/07 Time: 1712

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumount Site 1 Beaumount, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	D26-HSAS1-10'	D26-HSAS1-20'	D26-HSAS1-30'	D26-HSAS1-30' DUP	D26-HSAS2-10'	D26-HSAS2-20'	D26-HSAS2-30'	D26-HSAS3-10'	D26-HSAS3-20'	D26-HSAS3-30'
Sample Date		8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007
Laboratory Job Number		43663	43663	43663	43663	43663	43663	43663	43663	43663	43663
1,2-Dichlorotetrafluoroethane (Freon114)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
4-Ethyltoluene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Acetone	ug/m3	**53.9**	**54.8**	**53.6**	**65.1**	ND<10	**34.5**	**44.8**	ND<10	ND<10	**16.6**
Benzene	ug/m3	**7.66**	**4.14**	ND<2.0	ND<2.0	**8.49**	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Bromodichloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromoform	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Bromomethane (Methyl bromide)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
2-Butanone (MEK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Carbon disulfide	ug/m3	**53.5**	**25.7**	**18.7**	**17.6**	**40.3**	**15.1**	**11.4**	**17.2**	**4.55**	**29.1**
Carbon tetrachloride	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Chlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloroform (Trichloromethane)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Chloromethane (Methyl chloride)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Dibromochloromethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dibromoethane (EDB)	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,2-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,3-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,4-Dichlorobenzene	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Dichlorodifluoromethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
1,1-Dichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloroethane (EDC)	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,2-Dichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,2-Dichloropropane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
cis-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
trans-1,3-Dichloropropene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Ethylbenzene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**5.09**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	**5.19**
Hexachlorobutadiene	ug/m3	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12	ND<12

TABLE
Summary of Gaseous Analytical Results for Volatile Organic Compounds (ug/m3)
Beaumont Site 1 Beaumont, CA 92223

Volatile Organic Compounds (ug/m3). Method: TO-15

Sample ID	Units	D26-HSAS1-10'	D26-HSAS1-20'	D26-HSAS1-30'	D26-HSAS1-30' DUP	D26-HSAS2-10'	D26-HSAS2-20'	D26-HSAS2-30'	D26-HSAS3-10'	D26-HSAS3-20'	D26-HSAS3-30'
Sample Date		8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007	8/21/2007
Laboratory Job Number		43663	43663	43663	43663	43663	43663	43663	43663	43663	43663
2-Hexanone	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Isopropyl alcohol	ug/m3	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100
4-Methyl-2-pentanone (MIBK)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Methyl-tert-butyl ether (MTBE)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Methylene chloride (DCM)	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Styrene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2,2-Tetrachloroethane	ug/m3	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Tetrachloroethene	ug/m3	**7.92**	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Toluene (Methyl benzene)	ug/m3	**24.3**	**29.3**	**12.4**	**7.61**	**29.2**	**30.9**	**12.9**	**13.0**	**21.6**	**9.78**
1,2,4-Trichlorobenzene	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1,1-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
1,1,2-Trichloroethane	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichloroethene	ug/m3	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Trichlorofluoromethane	ug/m3	ND<4.0	**11.8**	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Trichlorotrifluoroethane (Freon-113)	ug/m3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
1,2,4-Trimethylbenzene	ug/m3	**12.6**	**15.4**	**12.4**	**12.1**	**12.9**	**18.5**	**5.04**	**9.62**	**10.0**	**14.5**
1,3,5-Trimethylbenzene	ug/m3	**6.45**	**7.89**	**6.82**	**5.99**	**6.98**	**9.71**	ND<3.0	ND<3.0	ND<3.0	**8.09**
Vinyl acetate	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
Vinyl chloride (Chloroethene)	ug/m3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	ug/m3	ND<2.0	**5.09**	ND<2.0	ND<2.0	**4.83**	**6.14**	ND<2.0	ND<2.0	ND<2.0	ND<2.0
m,p-Xylenes	ug/m3	**5.52**	**7.60**	**7.01**	**5.04**	**9.03**	**8.31**	**6.14**	ND<4.0	**7.98**	**8.58**
Naphthalene	ug/m3	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10

1) "ND<X" INDICATES CONSTITUENT(S) NOT DETECTED AT OR ABOVE METHOD DETECTION LIMIT.
2) "J" INDICATES ANALYTE WAS DETECTED. HOWEVER, ANALYTE CONCENTRATION IS AN ESTIMATED VALUE WHICH IS BETWEEN THE METHOD DETECTION LIMIT (MDL) AND THE PRACTICAL QUANTITATION LIMIT(PQL).
3) "D" INDICATES THE SAMPLE WAS DILUTED TO BRING THE ANALYTE CONCENTRATION WITHIN CALIBRATION RANGE.

File: GU_TO15.xls

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Paul Michalski

Site

Beaumont Site 1
Beaumont, CA 92223

Page: 2
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 082207

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			08/22/2007				
Preparation Method			TO-15				
Date Analyzed			08/22/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
1,2-Dichlorotetrafluoroethane (Freon114)	2.5	2.5	ND				
4-Ethyltoluene	5.0	5.0	ND				
Acetone	5.0	5.0	ND				
Benzene	1.0	1.0	ND				
Bromodichloromethane	1.5	1.5	ND				
Bromoform	1.5	1.5	ND				
Bromomethane (Methyl bromide)	1.5	1.5	ND				
2-Butanone (MEK)	5.0	5.0	ND				
Carbon disulfide	1.5	1.5	ND				
Carbon tetrachloride	2.0	2.0	ND				
Chlorobenzene	1.0	1.0	ND				
Chloroethane	1.5	1.5	ND				
Chloroform (Trichloromethane)	1.5	1.5	ND				
Chloromethane (Methyl chloride)	1.0	1.0	ND				
Dibromochloromethane	1.5	1.5	ND				
1,2-Dibromoethane (EDB)	2.0	2.0	ND				
1,2-Dichlorobenzene	2.0	2.0	ND				
1,3-Dichlorobenzene	2.0	2.0	ND				
1,4-Dichlorobenzene	2.0	2.0	ND				
Dichlorodifluoromethane	2.0	2.0	ND				
1,1-Dichloroethane	1.5	1.5	ND				
1,2-Dichloroethane (EDC)	1.5	1.5	ND				
1,1-Dichloroethene	1.5	1.5	ND				
cis-1,2-Dichloroethene	1.5	1.5	ND				
trans-1,2-Dichloroethene	1.5	1.5	ND				
1,2-Dichloropropane	1.5	1.5	ND				
cis-1,3-Dichloropropene	1.5	1.5	ND				
trans-1,3-Dichloropropene	1.5	1.5	ND				

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 082207

Our Lab I.D.			Method Blank				
Client Sample I.D.							
Date Sampled							
Date Prepared			08/22/2007				
Preparation Method			TO-15				
Date Analyzed			08/22/2007				
Matrix			Gaseous				
Units			ug/m3				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Ethylbenzene	1.5	1.5	ND				
Hexachlorobutadiene	6.0	6.0	ND				
2-Hexanone	5.0	5.0	ND				
Isopropyl alcohol	50	50	ND				
4-Methyl-2-pentanone (MIBK)	5.0	5.0	ND				
Methyl-tert-butyl ether (MTBE)	1.0	1.0	ND				
Methylene chloride (DCM)	5.0	5.0	ND				
Styrene	1.5	1.5	ND				
1,1,2,2-Tetrachloroethane	2.0	2.0	ND				
Tetrachloroethene	1.5	1.5	ND				
Toluene (Methyl benzene)	1.0	1.0	ND				
1,2,4-Trichlorobenzene	1.0	1.0	ND				
1,1,1-Trichloroethane	1.5	1.5	ND				
1,1,2-Trichloroethane	1.5	1.5	ND				
Trichloroethene	1.5	1.5	ND				
Trichlorofluoromethane	2.0	2.0	ND				
Trichlorotrifluoroethane (Freon-113)	2.5	2.5	ND				
1,2,4-Trimethylbenzene	1.5	1.5	ND				
1,3,5-Trimethylbenzene	1.5	1.5	ND				
Vinyl acetate	5.0	5.0	ND				
Vinyl chloride (Chloroethene)	1.0	1.0	ND				
o-Xylene	1.0	1.0	ND				
m,p-Xylenes	2.0	2.0	ND				
Naphthalene	5.0	5.0	ND				

Our Lab I.D.							
Surrogates	**%Rec.Limit**		**% Rec.**				
4-Bromofluorobenzene	70-130		100				
1,2-Dichloroethane-d4	70-130		89.4				
Toluene-d8	70-130		107				

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Beaumount Site 1
Beaumount, CA 92223

Page: 4
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 082207

Our Lab I.D.			43663.01	43663.02	43663.03	43663.04	43663.05
Client Sample I.D.			~~D26~~-HSAS3-D28 10'	~~D26~~-HSAS3-D28 20'	~~D26~~-HSAS3-D28 30'	~~D26~~-HSAS2-D28 10'	~~D26~~-HSAS2-D28 20'
Date Sampled			08/21/2007	08/21/2007	08/21/2007	08/21/2007	08/21/2007
Date Prepared			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	ND	ND	16.6	ND	34.5
Benzene	2.0	2.0	ND	ND	ND	8.49	ND
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	17.2	4.55	29.1	40.3	15.1
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 082207

Our Lab I.D.			43663.01	43663.02	43663.03	43663.04	43663.05
Client Sample I.D.			~~D26~~-HSAS3-D28 10'	~~D26~~-HSAS3-D28 20'	~~D26~~-HSAS3-D28 30'	~~D26~~-HSAS2-D28 10'	~~D26~~-HSAS2-D28 20'
Date Sampled			08/21/2007	08/21/2007	08/21/2007	08/21/2007	08/21/2007
Date Prepared			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	MDL	PQL	Results	Results	Results	Results	Results
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	ND	ND	5.19	5.09	ND
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
Isopropyl alcohol	100	100	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	ND	ND	ND	ND	ND
Styrene	3.0	3.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	2.0	2.0	13.0	21.6	9.78	29.2	30.9
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	4.0	4.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.0	3.0	9.62	10.0	14.5	12.9	18.5
1,3,5-Trimethylbenzene	3.0	3.0	ND	ND	8.09	6.98	9.71
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	ND	ND	ND	4.83	6.14
m,p-Xylenes	4.0	4.0	ND	7.98	8.58	9.03	8.31
Naphthalene	10	10	ND	ND	ND	ND	ND

Our Lab I.D.			43663.01	43663.02	43663.03	43663.04	43663.05
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
4-Bromofluorobenzene	70-130		94.7	88.2	87.8	82.5	87.5
1,2-Dichloroethane-d4	70-130		96.4	99.4	92.3	95.3	88.9
Toluene-d8	70-130		107	98.5	101	105	99.4

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
348 West Hospitality Lane
Suite 100
San Bernardino, CA 92408-3242

Telephone: (909)381-1674
Attn: Paul Michalski

Site

Beaumount Site 1
Beaumount, CA 92223

Page: 6
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 082207

Our Lab I.D.			43663.06	43663.07	43663.08	43663.09	43663.10
Client Sample I.D.			~~D26~~-HSAS2-D28 30'	~~D26~~-HSAS1-D28 10'	~~D26~~-HSAS1-D28 20'	~~D26~~-HSAS1-D28 30'	~~D26~~-HSAS1-D28 30' DUP
Date Sampled			08/21/2007	08/21/2007	08/21/2007	08/21/2007	08/21/2007
Date Prepared			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2-Dichlorotetrafluoroethane (Freon114)	5	5	ND	ND	ND	ND	ND
4-Ethyltoluene	10	10	ND	ND	ND	ND	ND
Acetone	10	10	44.8	53.9	54.8	53.6	65.1
Benzene	2.0	2.0	ND	7.66	4.14	ND	ND
Bromodichloromethane	3.0	3.0	ND	ND	ND	ND	ND
Bromoform	3.0	3.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.0	3.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	10	10	ND	ND	ND	ND	ND
Carbon disulfide	3.0	3.0	11.4	53.5	25.7	18.7	17.6
Carbon tetrachloride	4.0	4.0	ND	ND	ND	ND	ND
Chlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
Chloroethane	3.0	3.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	3.0	3.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	2.0	2.0	ND	ND	ND	ND	ND
Dibromochloromethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	4.0	4.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	4.0	4.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	4.0	4.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	3.0	3.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	3.0	3.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	3.0	3.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Page: 7
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submittd	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QC Batch No: 082207

Our Lab I.D.			43663.06	43663.07	43663.08	43663.09	43663.10
Client Sample I.D.			~~D26~~-HSAS2-D18 30'	~~D26~~-HSAS1-D18 10'	~~D26~~-HSAS1-D18 20'	~~D26~~-HSAS1-D18 30'	~~D26~~-HSAS1-D18 30' DUP
Date Sampled			08/21/2007	08/21/2007	08/21/2007	08/21/2007	08/21/2007
Date Prepared			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Preparation Method			TO-15	TO-15	TO-15	TO-15	TO-15
Date Analyzed			08/22/2007	08/22/2007	08/22/2007	08/22/2007	08/22/2007
Matrix			Gaseous	Gaseous	Gaseous	Gaseous	Gaseous
Units			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Dilution Factor			2	2	2	2	2
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
trans-1,3-Dichloropropene	3.0	3.0	ND	ND	ND	ND	ND
Ethylbenzene	3.0	3.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	12	12	ND	ND	ND	ND	ND
2-Hexanone	10	10	ND	ND	ND	ND	ND
Isopropyl alcohol	100	100	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	10	10	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	2.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	10	10	ND	ND	ND	ND	ND
Styrene	3.0	3.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	4.0	4.0	ND	ND	ND	ND	ND
Tetrachloroethene	3.0	3.0	ND	7.92	ND	ND	ND
Toluene (Methyl benzene)	2.0	2.0	12.9	24.3	29.3	12.4	7.61
1,2,4-Trichlorobenzene	2.0	2.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	3.0	3.0	ND	ND	ND	ND	ND
Trichloroethene	3.0	3.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	4.0	4.0	ND	ND	11.8	ND	ND
Trichlorotrifluoroethane (Freon-113)	5	5	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.0	3.0	5.04	12.6	15.4	12.4	12.1
1,3,5-Trimethylbenzene	3.0	3.0	ND	6.45	7.89	6.82	5.99
Vinyl acetate	10	10	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.0	2.0	ND	ND	ND	ND	ND
o-Xylene	2.0	2.0	ND	ND	5.09	ND	ND
m,p-Xylenes	4.0	4.0	6.14	5.52	7.60	7.01	5.04
Naphthalene	10	10	ND	ND	ND	ND	ND

Our Lab I.D.			43663.06	43663.07	43663.08	43663.09	43663.10
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
4-Bromofluorobenzene	70-130		87.1	85.8	85.0	86.7	87.5
1,2-Dichloroethane-d4	70-130		98.6	104	102	97.7	95.7
Toluene-d8	70-130		100	105	98.3	98.8	102

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ANALYTICAL RESULTS

Ordered By

Tetra Tech, Inc.
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Telephone: (909)381-1674
Attn: Paul Michalski

Site

Beaumount Site 1
Beaumount, CA 92223

Page: 8
Project ID: 19967
Project Name: Lockheed Martin

AETL Job Number	Submitted	Client
43663	08/21/2007	T/TSB2

Method: TO-15, Volatile Organic Compounds (ug/m3)

QUALITY CONTROL REPORT

QC Batch No: 082207 ; LCS: Blank; LCS Prepared: 08/22/2007; LCS Analyzed: 08/22/2007; Units: ug/m3

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
1,1-Dichloroethene	50.00	48.00	96.0	50.00	51.00	102	6.1	70-130	<30	
Methylene chloride (DCM)	50.00	45.50	91.0	50.00	42.00	84.0	8.0	70-130	<30	
1,1,2,2-Tetrachloroethane	50.00	42.50	85.0	50.00	46.00	92.0	7.9	70-130	<30	
Toluene (Methyl benzene)	50.00	42.00	84.0	50.00	46.00	92.0	9.1	70-130	<30	
Trichloroethene	50.00	40.00	80.0	50.00	44.50	89.0	10.7	70-130	<30	

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Data Qualifiers and Descriptors

Data Qualifier:

*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

Centrum
Analytical
Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

Client:	Tetra Tech, Inc. 348 W. Hospitality Lane, Ste. 100 San Bernardino, CA 92408-3216	Date Sampled: Date Received: Job Number:	05/03/07 05/03/07 29618

Project: Supplemental Soil Investigation Site 1

CASE NARRATIVE

The following information applies to samples which were received on 05/03/07:

The samples were received at the laboratory chilled and sample containers were intact.

The Perchlorate analysis was subcontracted to ELAP Lab #1230. The original report is attached to, but is not part of, this report.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 05/18/07.

Report approved by:

Robert R. Clark, PhD
President

ELAP Lab# 2419, 2479, 2527, 2373, 2562

RL: Reporting Limit -- The lowest level at which the compound can be reliably detected under normal laboratory conditions.
ND: Not Detected -- The compound was analyzed for, but was not found to be present at or above the Reporting Limit.
NA: Not Analyzed -- This compound was not on the list of compounds requested for analysis.

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Centrum Analytical Laboratories, Inc.

Metals by EPA 6010B and EPA 7471A

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Site 1	Date Received:	05/03/07
Job No:	29618	Date Digested:	05/08/07
Matrix:	Soil	Date Analyzed:	05/08/07
Analyst:	TLB	Batch Number:	6010S3975
			7471S1597

		Sample ID:	Blank	Composite: IDW-050307-Bin2
Metals	**Method**	**RL**	mg/Kg	mg/Kg
Antimony	6010B	5.0	ND	ND
Arsenic	6010B	1.0	ND	ND
Barium	6010B	0.50	ND	**113**
Beryllium	6010B	0.50	ND	ND
Cadmium	6010B	0.50	ND	ND
Chromium	6010B	0.50	ND	**20.8**
Cobalt	6010B	0.50	ND	**4.92**
Copper	6010B	1.0	ND	**6.83**
Lead	6010B	1.0	ND	**2.98**
Molybdenum	6010B	5.0	ND	ND
Nickel	6010B	1.0	ND	**4.67**
Selenium	6010B	5.0	ND	ND
Silver	6010B	2.0	ND	ND
Thallium	6010B	10	ND	ND
Vanadium	6010B	5.0	ND	**19.3**
Zinc	6010B	10	ND	**47.1**
Mercury	7471A	0.02	ND	ND

Centrum Analytical Laboratories, Inc.

QC Sample Report - Metals by EPA 6010B and EPA 7471A

Matrix: Soil

Metals by EPA 6010B

Batch Number: 6010S3975
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: Composite: IDW-050307-Bin2

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Antimony	50	**105**	75 - 125	**Pass**	49.35	49.48	**0%**	20%	**Pass**
Arsenic	50	**87**	75 - 125	**Pass**	43.76	42.93	**2%**	20%	**Pass**
Barium	50	**90**	75 - 125	**Pass**	137.6	149.0	**8%**	20%	**Pass**
Beryllium	50	**90**	75 - 125	**Pass**	45.53	44.79	**2%**	20%	**Pass**
Cadmium	50	**91**	75 - 125	**Pass**	42.94	42.70	**1%**	20%	**Pass**
Chromium	50	**93**	75 - 125	**Pass**	68.04	65.70	**3%**	20%	**Pass**
Cobalt	50	**89**	75 - 125	**Pass**	44.94	44.60	**1%**	20%	**Pass**
Copper	50	**96**	75 - 125	**Pass**	51.53	52.35	**2%**	20%	**Pass**
Lead	50	**94**	75 - 125	**Pass**	44.52	43.93	**1%**	20%	**Pass**
Molybdenum	50	**93**	75 - 125	**Pass**	44.50	43.51	**2%**	20%	**Pass**
Nickel	50	**93**	75 - 125	**Pass**	46.16	46.19	**0%**	20%	**Pass**
Selenium	50	**89**	75 - 125	**Pass**	43.56	42.52	**2%**	20%	**Pass**
Silver	50	**89**	75 - 125	**Pass**	43.10	41.95	**3%**	20%	**Pass**
Thallium	50	**93**	75 - 125	**Pass**	40.31	39.28	**3%**	20%	**Pass**
Vanadium	50	**92**	75 - 125	**Pass**	62.75	64.61	**3%**	20%	**Pass**
Zinc	50	**95**	75 - 125	**Pass**	87.18	92.57	**6%**	20%	**Pass**

Mercury by EPA 7471A

Batch Number: 7471S1597
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: Composite: IDW-050307-Bin2

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.42	**95**	75 - 125	**Pass**	0.368	0.379	**3%**	20%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Metals by EPA 6010B and EPA 7470A

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Site 1	Date Received:	05/03/07
Job No:	29618	Date Digested:	05/04/07
Matrix:	Water	Date Analyzed:	05/07/07
Analyst:	TLB	Batch Number:	6010W3971
			7470W1594

		Sample ID:	Blank	LEB1-050307
Metals	**Method #**	**RL**	mg/L	mg/L
Antimony	6010B	0.10	ND	ND
Arsenic	6010B	0.020	ND	ND
Barium	6010B	0.010	ND	ND
Beryllium	6010B	0.010	ND	ND
Cadmium	6010B	0.010	ND	ND
Chromium	6010B	0.010	ND	ND
Cobalt	6010B	0.010	ND	ND
Copper	6010B	0.020	ND	ND
Lead	6010B	0.020	ND	ND
Molybdenum	6010B	0.10	ND	ND
Nickel	6010B	0.020	ND	ND
Selenium	6010B	0.10	ND	ND
Silver	6010B	0.040	ND	ND
Thallium	6010B	0.20	ND	ND
Vanadium	6010B	0.10	ND	ND
Zinc	6010B	0.20	ND	ND
Mercury	7470A	0.0004	ND	ND

Centrum Analytical Laboratories, Inc.

QC Sample Report - Metals by EPA 6010B and EPA 7470A

Matrix: Water

Metals by EPA 6010B

Batch Number: 6010W3971
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: LEB1-050307

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Antimony	1.0	**108**	75 - 125	**Pass**	1.099	1.096	**0%**	20%	**Pass**
Arsenic	1.0	**92**	75 - 125	**Pass**	0.913	0.919	**1%**	20%	**Pass**
Barium	1.0	**101**	75 - 125	**Pass**	0.818	0.815	**0%**	20%	**Pass**
Beryllium	1.0	**97**	75 - 125	**Pass**	0.977	0.983	**1%**	20%	**Pass**
Cadmium	1.0	**99**	75 - 125	**Pass**	1.066	1.037	**3%**	20%	**Pass**
Chromium	1.0	**95**	75 - 125	**Pass**	0.995	0.978	**2%**	20%	**Pass**
Cobalt	1.0	**94**	75 - 125	**Pass**	0.946	0.946	**0%**	20%	**Pass**
Copper	1.0	**98**	75 - 125	**Pass**	1.031	1.018	**1%**	20%	**Pass**
Lead	1.0	**105**	75 - 125	**Pass**	1.035	1.027	**1%**	20%	**Pass**
Molybdenum	1.0	**99**	75 - 125	**Pass**	1.001	1.000	**0%**	20%	**Pass**
Nickel	1.0	**98**	75 - 125	**Pass**	1.025	1.009	**2%**	20%	**Pass**
Selenium	1.0	**97**	75 - 125	**Pass**	0.979	0.980	**0%**	20%	**Pass**
Silver	1.0	**120**	75 - 125	**Pass**	1.347	1.323	**2%**	20%	**Pass**
Thallium	1.0	**102**	75 - 125	**Pass**	1.054	1.057	**0%**	20%	**Pass**
Vanadium	1.0	**95**	75 - 125	**Pass**	0.999	0.979	**2%**	20%	**Pass**
Zinc	1.0	**107**	75 - 125	**Pass**	1.128	1.119	**1%**	20%	**Pass**

Mercury by EPA 7470A

Batch Number: 7470W1594
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: LEB1-050307

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.010	**95**	75 - 125	**Pass**	0.009	0.009	**1%**	20%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Site 1	Date Received:	05/03/07
Job No.:	29618	Date Extracted:	05/04/07
Matrix:	Soil	Date Analyzed:	05/04-05/07
Analyst:	AW	Batch Number:	8015DS4078

	Reporting Limit	**Diesel**	**Surrogate (OTP)**
Sample ID	mg/Kg	mg/Kg	Limit: 50 - 150%
Method Blank	10	ND	111 %
Composite: IDW-050307-Bin2	10	ND	109 %

Centrum Analytical Laboratories, Inc.

QC Sample Report - Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Matrix: Soil
Batch Number: 8015DS4078

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Diesel	100	**88**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: 29621-11

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Diesel	88.9	91.7	**3%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Site 1	Date Received:	05/03/07
Job No.:	29618	Date Extracted:	05/14/07
Matrix:	Water	Date Analyzed:	05/14/07
Analyst:	AW	Batch Number:	8015DW4084

	Reporting Limit	**Diesel**	**Surrogate (OTP)**
Sample ID	mg/L	mg/L	Limit: 50 - 150%
Method Blank	0.40	ND	87 %
LEB2-050307	0.40	ND	78 %

Centrum Analytical Laboratories, Inc.

QC Sample Report - Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Matrix: Water
Batch number: 8015DW4084

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Diesel	3.2	**71**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Diesel	2.29	2.71	**17%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Sit	Date Received:	05/03/07
Job No.:	29618	Date Analyzed:	05/07/07
Matrix:	Water	Batch Number:	SH18260W483
Analyst:	RCG		

	Sample ID:	Blank	LTB-050307	LEB3-050307
Compounds	**RL**	µg/L	µg/L	µg/L
Acetone	50	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	1.0	ND	ND	ND
Benzene	0.5	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND
Bromodichloromethane	0.5	ND	ND	ND
Bromoform	0.5	ND	ND	ND
Bromomethane	2.0	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND
2-Butanone (MEK)	10	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND
sec-Butylbenzene	0.5	ND	ND	ND
tert-Butylbenzene	0.5	ND	ND	ND
Carbon disulfide	10	ND	ND	ND
Carbon tetrachloride	0.5	ND	ND	ND
Chlorobenzene	0.5	ND	ND	ND
Chloroethane	0.5	ND	ND	ND
Chloroform	0.5	ND	ND	ND
Chloromethane	2.0	ND	ND	ND
2-Chlorotoluene	0.5	ND	ND	ND
4-Chlorotoluene	0.5	ND	ND	ND
Dibromochloromethane	0.5	ND	ND	ND
1,2-Dibromoethane	0.5	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND
Dibromomethane	0.5	ND	ND	ND
1,2-Dichlorobenzene	0.5	ND	ND	ND
1,3-Dichlorobenzene	0.5	ND	ND	ND
1,4-Dichlorobenzene	0.5	ND	ND	ND
Dichlorodifluoromethane	0.5	ND	ND	ND
1,1-Dichloroethane	0.5	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND
1,1-Dichloroethene	0.5	ND	ND	ND
cis-1,2-Dichloroethene	0.5	ND	ND	ND
trans-1,2-Dichloroethene	0.5	ND	ND	ND
1,2-Dichloropropane	0.5	ND	ND	ND
1,3-Dichloropropane	0.5	ND	ND	ND
2,2-Dichloropropane	0.5	ND	ND	ND
1,1-Dichloropropene	0.5	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Sit	Date Received:	05/03/07
Job No.:	29618	Date Analyzed:	05/07/07
Matrix:	Water	Batch Number:	SH18260W483
Analyst:	RCG		

	Sample ID:	Blank	LTB-050307	LEB3-050307
Compounds	**RL**	µg/L	µg/L	µg/L
cis-1,3-Dichloropropene	0.5	ND	ND	ND
trans-1,3-Dichloropropene	0.5	ND	ND	ND
Diisopropyl Ether (DIPE)	1.0	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	1.0	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND
2-Hexanone	10	ND	ND	ND
Isopropylbenzene	0.5	ND	ND	ND
p-Isopropyltoluene	0.5	ND	ND	ND
Methylene chloride	50	ND	ND	ND
4-Methyl-2-pentanone	5.0	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	1.0	ND	ND	ND
Naphthalene	0.5	ND	ND	ND
n-Propylbenzene	0.5	ND	ND	ND
Styrene	0.5	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.5	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND
Tetrachloroethene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	**0.6**
1,2,3-Trichlorobenzene	0.5	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	ND	ND	ND
1,1,1-Trichloroethane	0.5	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	ND
Trichloroethene	0.5	ND	ND	ND
1,2,3-Trichloropropane	0.5	ND	ND	ND
Trichlorofluoromethane	0.5	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND
1,2,4-Trimethylbenzene	0.5	ND	ND	ND
1,3,5-Trimethylbenzene	0.5	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND
Xylenes, m-,p-	1.0	ND	ND	ND
Xylene, o-	0.5	ND	ND	ND

Surrogates in % Recovery (Acceptance Limits: 70 - 130%)

Sample ID:	Blank	LTB-050307	LEB3-050307
Dibromofluoromethane	101	100	101
Toluene-d8	102	101	101
Bromofluorobenzene	101	99	99

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Water
Batch Number: SH18260W483

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (µg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	50	**99**	70 - 130	**Pass**
Benzene	50	**101**	70 - 130	**Pass**
Trichloroethene	50	**106**	70 - 130	**Pass**
Toluene	50	**100**	70 - 130	**Pass**
Chlorobenzene	50	**103**	70 - 130	**Pass**

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	MS Sample Result (µg/L)	MSD Sample Result (µg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	49.49	48.72	**2%**	25%	**Pass**
Benzene	50.57	48.95	**3%**	25%	**Pass**
Trichloroethene	52.98	48.39	**9%**	25%	**Pass**
Toluene	50.21	48.73	**3%**	25%	**Pass**
Chlorobenzene	51.38	48.89	**5%**	25%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Sit	Date Received:	05/03/07
Job No.:	29618	Date Analyzed:	05/04/07
Matrix:	Soil	Batch Number:	MS28260S1126
Analyst:	TH		

	Sample ID:	Blank	IDW-050307-Bin2
Compounds	**RL**	mg/Kg	mg/Kg
Acetone	0.050	ND	ND
tert-Amyl Methyl Ether (TAME)	0.002	ND	ND
Benzene	0.001	ND	ND
Bromobenzene	0.005	ND	ND
Bromochloromethane	0.005	ND	ND
Bromodichloromethane	0.001	ND	ND
Bromoform	0.005	ND	ND
Bromomethane	0.005	ND	ND
tert-Butanol (TBA)	0.020	ND	ND
2-Butanone (MEK)	0.010	ND	ND
n-Butylbenzene	0.002	ND	ND
sec-Butylbenzene	0.002	ND	ND
tert-Butylbenzene	0.002	ND	ND
Carbon disulfide	0.010	ND	ND
Carbon tetrachloride	0.001	ND	ND
Chlorobenzene	0.001	ND	ND
Chloroethane	0.005	ND	ND
Chloroform	0.002	ND	ND
Chloromethane	0.001	ND	ND
2-Chlorotoluene	0.002	ND	ND
4-Chlorotoluene	0.002	ND	ND
Dibromochloromethane	0.002	ND	ND
1,2-Dibromoethane	0.002	ND	ND
1,2-Dibromo-3-chloropropane	0.010	ND	ND
Dibromomethane	0.001	ND	ND
1,2-Dichlorobenzene	0.001	ND	ND
1,3-Dichlorobenzene	0.002	ND	ND
1,4-Dichlorobenzene	0.002	ND	ND
Dichlorodifluoromethane	0.005	ND	ND
1,1-Dichloroethane	0.001	ND	ND
1,2-Dichloroethane	0.001	ND	ND
1,1-Dichloroethene	0.005	ND	ND
cis-1,2-Dichloroethene	0.002	ND	ND
trans-1,2-Dichloroethene	0.002	ND	ND
1,2-Dichloropropane	0.001	ND	ND
1,3-Dichloropropane	0.001	ND	ND
2,2-Dichloropropane	0.001	ND	ND
1,1-Dichloropropene	0.001	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/03/07
Project:	Supplemental Soil Investigation Sit	Date Received:	05/03/07
Job No.:	29618	Date Analyzed:	05/04/07
Matrix:	Soil	Batch Number:	MS28260S1126
Analyst:	TH		

	Sample ID:	Blank	IDW-050307-Bin2
Compounds	**RL**	mg/Kg	mg/Kg
cis-1,3-Dichloropropene	0.001	ND	ND
trans-1,3-Dichloropropene	0.001	ND	ND
Diisopropyl Ether (DIPE)	0.002	ND	ND
Ethylbenzene	0.001	ND	ND
Ethyl tert-Butyl Ether (EtBE)	0.002	ND	ND
Hexachlorobutadiene	0.001	ND	ND
2-Hexanone	0.010	ND	ND
Isopropylbenzene	0.001	ND	ND
p-Isopropyltoluene	0.002	ND	ND
Methylene chloride	0.050	ND	ND
4-Methyl-2-pentanone	0.010	ND	ND
Methyl tert-Butyl Ether (MtBE)	0.002	ND	ND
Naphthalene	0.002	ND	ND
n-Propylbenzene	0.001	ND	ND
Styrene	0.001	ND	ND
1,1,1,2-Tetrachloroethane	0.001	ND	ND
1,1,2,2-Tetrachloroethane	0.002	ND	ND
Tetrachloroethene	0.001	ND	ND
Toluene	0.001	ND	ND
1,2,3-Trichlorobenzene	0.002	ND	ND
1,2,4-Trichlorobenzene	0.002	ND	ND
1,1,1-Trichloroethane	0.001	ND	ND
1,1,2-Trichloroethane	0.003	ND	ND
Trichloroethene	0.001	ND	ND
1,2,3-Trichloropropane	0.003	ND	ND
Trichlorofluoromethane	0.001	ND	ND
Trichlorotrifluoroethane	0.005	ND	ND
1,2,4-Trimethylbenzene	0.001	ND	ND
1,3,5-Trimethylbenzene	0.001	ND	ND
Vinyl chloride	0.002	ND	ND
Xylenes, m-,p-	0.002	ND	ND
Xylene, o-	0.001	ND	ND

Surrogates in % Recovery (Acceptance Limits: 70 - 130%)

	Sample ID:	Blank	IDW-050307-Bin2
Dibromofluoromethane		100	99
Toluene-d8		95	93
Bromofluorobenzene		88	85

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Soil
Batch Number: MS28260S1126

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	0.050	**100**	70 - 130	**Pass**
Benzene	0.050	**110**	70 - 130	**Pass**
Trichloroethene	0.050	**98**	70 - 130	**Pass**
Toluene	0.050	**104**	70 - 130	**Pass**
Chlorobenzene	0.050	**99**	70 - 130	**Pass**

Batch Precision Results

MS/MSD Sample ID: 29621-01

Analytical Notes:

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	0.0521	0.0513	**1%**	25%	**Pass**
Benzene	0.0526	0.0528	**0%**	25%	**Pass**
Trichloroethene	0.0479	0.0474	**1%**	25%	**Pass**
Toluene	0.0491	0.0484	**1%**	25%	**Pass**
Chlorobenzene	0.0440	0.0429	**3%**	25%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Calscience Environmental Laboratories, Inc.

May 11, 2007

Marilu Escher
Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Subject: **Calscience Work Order No.: 07-05-0416**
Client Reference: 29618 / Supplemental Soil Investigation Site 1

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/4/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Vikas Patel for

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Centrum Analytical Laboratories, Inc.		Date Received:	05/04/07
1401 Research Park Drive		Work Order No:	07-05-0416
Suite 100		Preparation:	N/A
Riverside, CA 92507-2111		Method:	EPA 314.0

Project: 29618 / Supplemental Soil Investigation Site 1 — Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
LEB-050307	**07-05-0416-1**	**05/03/07**	**Aqueous**	**IC 6**	**N/A**	**05/05/07**	**070505L01**

Parameter	Result	RL	DF	Qual	Units
Perchlorate	ND	2.0	1		ug/L

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	**099-05-203-580**	**N/A**	**Aqueous**	**IC 6**	**N/A**	**05/05/07**	**070505L01**

Parameter	Result	RL	DF	Qual	Units
Perchlorate	ND	2.0	1		ug/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Centrum Analytical Laboratories, Inc.		Date Received:	05/04/07
1401 Research Park Drive		Work Order No:	07-05-0416
Suite 100		Preparation:	Cartridge
Riverside, CA 92507-2111		Method:	EPA 314.0M

Project: 29618 / Supplemental Soil Investigation Site 1 — Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Composite: IDW-050307-Bin 2	**07-05-0416-2**	**05/03/07**	**Solid**	**IC 6**	**05/09/07**	**05/09/07**	**070509L01**

Parameter	Result	RL	DF	Qual	Units
Perchlorate	376	20.0	1		ug/kg

Method Blank	**099-05-205-252**	**N/A**	**Solid**	**IC 6**	**05/09/07**	**05/09/07**	**070509L01**

Parameter	Result	RL	DF	Qual	Units
Perchlorate	ND	20.0	1		ug/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Centrum Analytical Laboratories, Inc.		Date Received:	05/04/07
1401 Research Park Drive		Work Order No:	07-05-0416
Suite 100		Preparation:	N/A
Riverside, CA 92507-2111		Method:	EPA 314.0

Project 29618 / Supplemental Soil Investigation Site 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
07-05-0449-6	**Aqueous**	**IC 6**	**N/A**	**05/05/07**	**070505S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Perchlorate	93	94	80-120	0	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Centrum Analytical Laboratories, Inc.		Date Received:	05/04/07
1401 Research Park Drive		Work Order No:	07-05-0416
Suite 100		Preparation:	Cartridge
Riverside, CA 92507-2111		Method:	EPA 314.0M

Project 29618 / Supplemental Soil Investigation Site 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
07-05-0698-1	**Solid**	**IC 6**	**05/09/07**	**05/09/07**	**070509S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Perchlorate	94	92	80-120	2	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Centrum Analytical Laboratories, Inc.	Date Received:	N/A
1401 Research Park Drive	Work Order No:	07-05-0416
Suite 100	Preparation:	N/A
Riverside, CA 92507-2111	Method:	EPA 314.0

Project: 29618 / Supplemental Soil Investigation Site 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-203-580	**Aqueous**	**IC 6**	**N/A**	**05/05/07**	**070505L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Perchlorate	93	94	85-115	1	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Centrum Analytical Laboratories, Inc.		Date Received:	N/A
1401 Research Park Drive		Work Order No:	07-05-0416
Suite 100		Preparation:	Cartridge
Riverside, CA 92507-2111		Method:	EPA 314.0M

Project: 29618 / Supplemental Soil Investigation Site 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-205-252	**Solid**	**IC 6**	**05/09/07**	**05/09/07**	**070509L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Perchlorate	97	97	85-115	0	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 07-05-0416

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 951.779.0310 ● 800.798.9336
Fax: 951.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90755
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

04/16 Centrum Job #

Project No: 29618	Project Name: Supplemental Soil Investigation Site 1
Project Manager: Marilu Escher	Phone: Fax: email:
Client Name: (Report and Billing) Centrum	Address: (Report and Billing) Riverside CA Note: Reports and Invoice will be sent here

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type
	LEB-050307	5/3/07	1040	W	29618-3	1 poly
	Composite:	1		S	-8	10z jar
	IDW-050307					
	-Bin 2					

Please Circle Analyses Requested

LUFT Diesel, or EPA 8015B DRO	LUFT Gas, or EPA 8015B GRO	Fuel ID (TVH, TEH), Carbon Chain (specify ranges)	8021B: BTEX/MtBE Only	314.0 Perchlorate	VOCs: 8260B, or 624	VOCs: BTEX/Oxygenates Only	SVOCs: 8270C, or 625	8081A/8082: Pesticides, or PCBs, or Pest/PCB		Metals: Title 22 (CAM), or RCRA, or PP	Metals: TCLP, STLC	pH, TDS, TSS	418.1 (TRPH), or 413.2, or 1664	
				X										
				X										

Turn-Around Time see note *
- ☐ 24 Hr. RUSH *
- ☐ 48 Hr. RUSH *
- ☒ Normal TAT
- ☐ Other _____

* Requires PRIOR approval, additional charges apply

Requested due date: _____

Remarks/Special Instructions

	Date:	Time:
1) Relinquished by: (Sampler's Signature)	5/7/07	1507
2) Received by:	5/7/07	1507
3) Relinquished by:		
4) Received by:		
5) Relinquished by:		
6) Received for Laboratory by:		

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Laboratory Notes:

To be completed by Laboratory personnel:
Chilled? ☐ Yes Temp ____C ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Sample Locator Number: _____

Report Formats: Check all applicable
- ☐ Paper report
- ☐ PDF report (include email address)
- ☐ LARWQCB
- ☐ EDF (include global ID)
- ☐ EDD (GISKEY)
- ☐ EDD (Other) *

* with prior approval only

v7.2 9/05 coc-0905.xls

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Client Copy

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 07 - 0 5 - 0 4 1 6

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Cenhum

DATE: 05.04.07

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
✓ Ambient temperature.

Initial: [signature]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Present: ✓

Initial: [signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: [signature]

COMMENTS:

29618

CHAIN OF CUSTODY RECORD

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Centrum

DATE 5-3-07 PAGE 1 OF 1

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation Site 1
PROJECT MANAGER: B. Meyer
TC #: 19967
SAMPLERS (Signatures) Linda Margulis

TURN-AROUND TIME: 5 Day

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC's	314.0 Perchlorate	8015 TPH (DRO)	6010B/7000 Title 22 metals	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	LTB-050307	5-3-07	850	X				U	W	G	2	HCl	
2.	LEB3-050307		1035	X					W	G	1	HCl	
3.	LEB-050307		1040		X				W	P	1	NR	
4.	LEB1-050307		1044				X		W	P	1	HNO_3	
5.	LEB2-050307		1047			X			W	G	1	none	
6.	IDW-050307-Bin2		1100	X				U	S	P	3	NR	Consolidate samples for testing please
7.	IDW-050307-Bin2		1113		X	X	X	U	S	G	5	NR	
8.			1120										
9.													
10.													

CM

FILTERING: [X] FILTERED [ ] UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NaOH; NR (None required); H_2SO_4

RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY:
L Margulis	Linda Margulis	TETRA TECH, INC.	5-3-07	1353	11
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	METHOD OF SHIPMENT/SHIPMENT NO.
					HAND DELIVERED
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	Special Shipping/Handling/Storage Requirements:
					chilled & intact
RECEIVED BY Marilu Escher	SIGNATURE	COMPANY Centrum	DATE 05/03/07	TIME 1353	(J)

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

Centrum
Analytical
Laboratories, Inc.
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

Client:	Tetra Tech, Inc. 348 W. Hospitality Lane, Ste. 100 San Bernardino, CA 92408-3216	Date Sampled: Date Received: Job Number:	05/10/07 05/10/07 29646

Project: Supplemental Soil Investigation

CASE NARRATIVE

The following information applies to samples which were received on 05/10/07:

The samples were received at the laboratory chilled and sample containers were intact.

The Perchlorate analysis was subcontracted to ELAP Lab #1230. The original report is attached to, but is not part of, this report.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 05/18/07.

Report approved by:

Robert R. Clark, PhD
President

ELAP Lab# 2419, 2479, 2527, 2373, 2562

RL: Reporting Limit -- The lowest level at which the compound can be reliably detected under normal laboratory conditions.
ND: Not Detected -- The compound was analyzed for, but was not found to be present at or above the Reporting Limit.
NA: Not Analyzed -- This compound was not on the list of compounds requested for analysis.

951•779•0310 or 800•798•9336 fax 951•779•0344
www.centrum-labs.com 1401 Research Park Drive, Suite 100, Riverside, CA 92507

Centrum Analytical Laboratories, Inc.

Metals by EPA 6010B and EPA 7471A

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No:	29646	Date Digested:	05/15/07
Matrix:	Soil	Date Analyzed:	05/15/07
Analyst:	TLB	Batch Number:	6010S3984
			7471S1562

		Sample ID:	Blank	Composite: IDW-051007-Bin3
Metals	**Method**	**RL**	mg/Kg	mg/Kg
Antimony	6010B	5.0	ND	ND
Arsenic	6010B	1.0	ND	ND
Barium	6010B	0.50	ND	**96.6**
Beryllium	6010B	0.50	ND	ND
Cadmium	6010B	0.50	ND	ND
Chromium	6010B	0.50	ND	**8.35**
Cobalt	6010B	0.50	ND	**6.30**
Copper	6010B	1.0	ND	**4.60**
Lead	6010B	1.0	ND	**1.77**
Molybdenum	6010B	5.0	ND	ND
Nickel	6010B	1.0	ND	**3.32**
Selenium	6010B	5.0	ND	ND
Silver	6010B	2.0	ND	ND
Thallium	6010B	10	ND	ND
Vanadium	6010B	5.0	ND	**26.2**
Zinc	6010B	10	ND	**52.4**
Mercury	7471A	0.02	ND	ND

Centrum Analytical Laboratories, Inc.

QC Sample Report - Metals by EPA 6010B and EPA 7471A

Matrix: Soil

Metals by EPA 6010B

Batch Number: 6010S3984
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: Composite: IDW-051007-Bin3

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Antimony	50	**104**	75 - 125	**Pass**	47.15	47.43	**1%**	20%	**Pass**
Arsenic	50	**98**	75 - 125	**Pass**	48.59	49.33	**2%**	20%	**Pass**
Barium	50	**98**	75 - 125	**Pass**	132.2	147.2	**11%**	20%	**Pass**
Beryllium	50	**95**	75 - 125	**Pass**	48.66	48.95	**1%**	20%	**Pass**
Cadmium	50	**99**	75 - 125	**Pass**	46.45	46.73	**1%**	20%	**Pass**
Chromium	50	**101**	75 - 125	**Pass**	54.83	56.61	**3%**	20%	**Pass**
Cobalt	50	**97**	75 - 125	**Pass**	50.51	52.66	**4%**	20%	**Pass**
Copper	50	**104**	75 - 125	**Pass**	51.98	52.92	**2%**	20%	**Pass**
Lead	50	**97**	75 - 125	**Pass**	46.61	48.01	**3%**	20%	**Pass**
Molybdenum	50	**99**	75 - 125	**Pass**	47.18	48.34	**2%**	20%	**Pass**
Nickel	50	**101**	75 - 125	**Pass**	48.45	49.49	**2%**	20%	**Pass**
Selenium	50	**94**	75 - 125	**Pass**	46.53	48.23	**4%**	20%	**Pass**
Silver	50	**103**	75 - 125	**Pass**	48.85	48.09	**2%**	20%	**Pass**
Thallium	50	**96**	75 - 125	**Pass**	38.32	40.46	**5%**	20%	**Pass**
Vanadium	50	**100**	75 - 125	**Pass**	71.22	75.10	**5%**	20%	**Pass**
Zinc	50	**104**	75 - 125	**Pass**	93.21	102.4	**9%**	20%	**Pass**

Mercury by EPA 7471A

Batch Number: 7471S1562
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: Composite: IDW-051007-Bin3

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.42	**99**	75 - 125	**Pass**	0.448	0.446	**0%**	20%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Metals by EPA 6010B and EPA 7470A

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No:	29646	Date Digested:	05/14/07
Matrix:	Water	Date Analyzed:	05/14/07
Analyst:	TLB	Batch Number:	6010W3983
			7470W1561

		Sample ID:	Blank	LEB2-051007-Bin3
Metals	**Method #**	**RL**	mg/L	mg/L
Antimony	6010B	0.10	ND	ND
Arsenic	6010B	0.020	ND	ND
Barium	6010B	0.010	ND	**0.054**
Beryllium	6010B	0.010	ND	ND
Cadmium	6010B	0.010	ND	ND
Chromium	6010B	0.010	ND	ND
Cobalt	6010B	0.010	ND	ND
Copper	6010B	0.070	ND	ND
Lead	6010B	0.020	ND	ND
Molybdenum	6010B	0.10	ND	ND
Nickel	6010B	0.020	ND	ND
Selenium	6010B	0.10	ND	ND
Silver	6010B	0.040	ND	ND
Thallium	6010B	0.20	ND	ND
Vanadium	6010B	0.10	ND	ND
Zinc	6010B	0.20	ND	**0.220**
Mercury	7470A	0.0004	ND	ND

Centrum Analytical Laboratories, Inc.

QC Sample Report - Metals by EPA 6010B and EPA 7470A

Matrix: Water

Metals by EPA 6010B

Batch Number: 6010W3983
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: 29645-1

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Antimony	1.0	**102**	75 - 125	**Pass**	1.092	1.037	**5%**	20%	**Pass**
Arsenic	1.0	**93**	75 - 125	**Pass**	0.978	0.942	**4%**	20%	**Pass**
Barium	1.0	**90**	75 - 125	**Pass**	0.992	0.979	**1%**	20%	**Pass**
Beryllium	1.0	**90**	75 - 125	**Pass**	0.960	0.908	**5%**	20%	**Pass**
Cadmium	1.0	**89**	75 - 125	**Pass**	0.879	0.848	**4%**	20%	**Pass**
Chromium	1.0	**91**	75 - 125	**Pass**	0.916	0.881	**4%**	20%	**Pass**
Cobalt	1.0	**88**	75 - 125	**Pass**	0.791	0.759	**4%**	20%	**Pass**
Copper	1.0	**100**	75 - 125	**Pass**	0.881	0.815	**8%**	20%	**Pass**
Lead	1.0	**90**	75 - 125	**Pass**	0.860	0.809	**6%**	20%	**Pass**
Molybdenum	1.0	**90**	75 - 125	**Pass**	0.952	0.900	**6%**	20%	**Pass**
Nickel	1.0	**91**	75 - 125	**Pass**	0.856	0.831	**3%**	20%	**Pass**
Selenium	1.0	**91**	75 - 125	**Pass**	0.986	0.951	**4%**	20%	**Pass**
Silver	1.0	**99**	75 - 125	**Pass**	0.999	0.976	**2%**	20%	**Pass**
Thallium	1.0	**95**	75 - 125	**Pass**	0.880	0.818	**7%**	20%	**Pass**
Vanadium	1.0	**88**	75 - 125	**Pass**	0.970	0.930	**4%**	20%	**Pass**
Zinc	1.0	**99**	75 - 125	**Pass**	0.973	0.924	**5%**	20%	**Pass**

Mercury by EPA 7470A

Batch Number: 7470W1561
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: 29645-1

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.010	**99**	75 - 125	**Pass**	0.010	0.010	**4%**	20%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No.:	29646	Date Extracted:	05/11/07
Matrix:	Soil	Date Analyzed:	05/11/07
Analyst:	AW	Batch Number:	8015DS4082

	Reporting Limit	**Diesel**	**Surrogate (OTP)**
Sample ID	mg/Kg	mg/Kg	Limit: 50 - 150%
Method Blank	10	ND	105 %
Composite: IDW-051007-Bin3	10	ND	106 %

Centrum Analytical Laboratories, Inc.

QC Sample Report - Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Matrix: Soil
Batch Number: 8015DS4082

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Diesel	100	**88**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Composite: IDW-051007-Bin3

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Diesel	94.2	92.7	**2%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No.:	29646	Date Extracted:	05/14/07
Matrix:	Water	Date Analyzed:	05/14/07
Analyst:	AW	Batch Number:	8015DW4084

	Reporting Limit	**Diesel**	**Surrogate (OTP)**
Sample ID	mg/L	mg/L	Limit: 50 - 150%
Method Blank	0.40	ND	87 %
LEB1-051007-Bin3	0.40	ND	71 %

Centrum Analytical Laboratories, Inc.

QC Sample Report - Extractable Hydrocarbons as Diesel by mod. EPA 8015B

Matrix: Water
Batch number: 8015DW4084

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Diesel	3.2	**71**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Diesel	2.29	2.71	**17%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No.:	29646	Date Analyzed:	05/10/07
Matrix:	Soil	Batch Number:	M58260S680
Analyst:	MBH		

Sample ID:	Blank	IDW-051007-Bin3
Compounds	**RL**	mg/Kg	mg/Kg
Acetone	0.050	ND	ND
tert-Amyl Methyl Ether (TAME)	0.002	ND	ND
Benzene	0.001	ND	ND
Bromobenzene	0.005	ND	ND
Bromochloromethane	0.005	ND	ND
Bromodichloromethane	0.001	ND	ND
Bromoform	0.005	ND	ND
Bromomethane	0.005	ND	ND
tert-Butanol (TBA)	0.020	ND	ND
2-Butanone (MEK)	0.010	ND	ND
n-Butylbenzene	0.002	ND	ND
sec-Butylbenzene	0.002	ND	ND
tert-Butylbenzene	0.002	ND	ND
Carbon disulfide	0.010	ND	ND
Carbon tetrachloride	0.001	ND	ND
Chlorobenzene	0.001	ND	ND
Chloroethane	0.005	ND	ND
Chloroform	0.002	ND	ND
Chloromethane	0.001	ND	ND
2-Chlorotoluene	0.002	ND	ND
4-Chlorotoluene	0.002	ND	ND
Dibromochloromethane	0.002	ND	ND
1,2-Dibromoethane	0.002	ND	ND
1,2-Dibromo-3-chloropropane	0.010	ND	ND
Dibromomethane	0.001	ND	ND
1,2-Dichlorobenzene	0.001	ND	ND
1,3-Dichlorobenzene	0.002	ND	ND
1,4-Dichlorobenzene	0.002	ND	ND
Dichlorodifluoromethane	0.005	ND	ND
1,1-Dichloroethane	0.001	ND	ND
1,2-Dichloroethane	0.001	ND	ND
1,1-Dichloroethene	0.005	ND	ND
cis-1,2-Dichloroethene	0.002	ND	ND
trans-1,2-Dichloroethene	0.002	ND	ND
1,2-Dichloropropane	0.001	ND	ND
1,3-Dichloropropane	0.001	ND	ND
2,2-Dichloropropane	0.001	ND	ND
1,1-Dichloropropene	0.001	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No.:	29646	Date Analyzed:	05/10/07
Matrix:	Soil	Batch Number:	M58260S680
Analyst:	MBH		

	Sample ID:	Blank	IDW-051007-Bin3
Compounds	**RL**	mg/Kg	mg/Kg
cis-1,3-Dichloropropene	0.001	ND	ND
trans-1,3-Dichloropropene	0.001	ND	ND
Diisopropyl Ether (DIPE)	0.002	ND	ND
Ethylbenzene	0.001	ND	ND
Ethyl tert-Butyl Ether (EtBE)	0.002	ND	ND
Hexachlorobutadiene	0.001	ND	ND
2-Hexanone	0.010	ND	ND
Isopropylbenzene	0.001	ND	ND
p-Isopropyltoluene	0.002	ND	ND
Methylene chloride	0.050	ND	ND
4-Methyl-2-pentanone	0.010	ND	ND
Methyl tert-Butyl Ether (MtBE)	0.002	ND	ND
Naphthalene	0.002	ND	ND
n-Propylbenzene	0.001	ND	ND
Styrene	0.001	ND	ND
1,1,1,2-Tetrachloroethane	0.001	ND	ND
1,1,2,2-Tetrachloroethane	0.002	ND	ND
Tetrachloroethene	0.001	ND	ND
Toluene	0.001	ND	ND
1,2,3-Trichlorobenzene	0.002	ND	ND
1,2,4-Trichlorobenzene	0.002	ND	ND
1,1,1-Trichloroethane	0.001	ND	ND
1,1,2-Trichloroethane	0.003	ND	ND
Trichloroethene	0.001	ND	ND
1,2,3-Trichloropropane	0.003	ND	ND
Trichlorofluoromethane	0.001	ND	ND
Trichlorotrifluoroethane	0.005	ND	ND
1,2,4-Trimethylbenzene	0.001	ND	**0.001**
1,3,5-Trimethylbenzene	0.001	ND	ND
Vinyl chloride	0.002	ND	ND
Xylenes, m-,p-	0.002	ND	ND
Xylene, o-	0.001	ND	ND

Surrogates in % Recovery (Acceptance Limits: 70 - 130%)

	Sample ID:	Blank	IDW-051007-Bin3
Dibromofluoromethane		98	101
Toluene-d8		101	102
Bromofluorobenzene		97	96

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Soil
Batch Number: M58260S680

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	0.050	**109**	70 - 130	**Pass**
Benzene	0.050	**99**	70 - 130	**Pass**
Trichloroethene	0.050	**101**	70 - 130	**Pass**
Toluene	0.050	**98**	70 - 130	**Pass**
Chlorobenzene	0.050	**100**	70 - 130	**Pass**

Batch Precision Results

MS/MSD Sample ID: 29633-01

Analytical Notes:

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	0.0488	0.0514	**5%**	25%	**Pass**
Benzene	0.0473	0.0486	**3%**	25%	**Pass**
Trichloroethene	0.0435	0.0491	**12%**	25%	**Pass**
Toluene	0.0422	0.0476	**12%**	25%	**Pass**
Chlorobenzene	0.0405	0.0490	**19%**	25%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No.:	29646	Date Analyzed:	05/11/07
Matrix:	Water	Batch Number:	SH18260W486
Analyst:	RCG		

	Sample ID:	Blank	LTB-051007-Bin3	LEB3-051007-Bin3
Compounds	**RL**	µg/L	µg/L	µg/L
Acetone	50	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	1.0	ND	ND	ND
Benzene	0.5	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND
Bromodichloromethane	0.5	ND	ND	ND
Bromoform	0.5	ND	ND	ND
Bromomethane	2.0	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND
2-Butanone (MEK)	10	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND
sec-Butylbenzene	0.5	ND	ND	ND
tert-Butylbenzene	0.5	ND	ND	ND
Carbon disulfide	10	ND	ND	ND
Carbon tetrachloride	0.5	ND	ND	ND
Chlorobenzene	0.5	ND	ND	ND
Chloroethane	0.5	ND	ND	ND
Chloroform	0.5	ND	ND	ND
Chloromethane	2.0	ND	ND	ND
2-Chlorotoluene	0.5	ND	ND	ND
4-Chlorotoluene	0.5	ND	ND	ND
Dibromochloromethane	0.5	ND	**0.5**	ND
1,2-Dibromoethane	0.5	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND
Dibromomethane	0.5	ND	ND	ND
1,2-Dichlorobenzene	0.5	ND	ND	ND
1,3-Dichlorobenzene	0.5	ND	ND	ND
1,4-Dichlorobenzene	0.5	ND	ND	ND
Dichlorodifluoromethane	0.5	ND	ND	ND
1,1-Dichloroethane	0.5	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND
1,1-Dichloroethene	0.5	ND	ND	ND
cis-1,2-Dichloroethene	0.5	ND	ND	ND
trans-1,2-Dichloroethene	0.5	ND	ND	ND
1,2-Dichloropropane	0.5	ND	ND	ND
1,3-Dichloropropane	0.5	ND	ND	ND
2,2-Dichloropropane	0.5	ND	ND	ND
1,1-Dichloropropene	0.5	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	05/10/07
Project:	Supplemental Soil Investigation	Date Received:	05/10/07
Job No.:	29646	Date Analyzed:	05/11/07
Matrix:	Water	Batch Number:	SH18260W486
Analyst:	RCG		

	Sample ID:	Blank	LTB-051007-Bin3	LEB3-051007-Bin3
Compounds	**RL**	µg/L	µg/L	µg/L
cis-1,3-Dichloropropene	0.5	ND	ND	ND
trans-1,3-Dichloropropene	0.5	ND	ND	ND
Diisopropyl Ether (DIPE)	1.0	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	1.0	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND
2-Hexanone	10	ND	ND	ND
Isopropylbenzene	0.5	ND	ND	ND
p-Isopropyltoluene	0.5	ND	ND	ND
Methylene chloride	50	ND	ND	ND
4-Methyl-2-pentanone	5.0	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	1.0	ND	ND	ND
Naphthalene	0.5	ND	ND	ND
n-Propylbenzene	0.5	ND	ND	ND
Styrene	0.5	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.5	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND
Tetrachloroethene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
1,2,3-Trichlorobenzene	0.5	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	ND	ND	ND
1,1,1-Trichloroethane	0.5	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	ND
Trichloroethene	0.5	ND	ND	ND
1,2,3-Trichloropropane	0.5	ND	ND	ND
Trichlorofluoromethane	0.5	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND
1,2,4-Trimethylbenzene	0.5	ND	ND	ND
1,3,5-Trimethylbenzene	0.5	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND
Xylenes, m-,p-	1.0	ND	ND	ND
Xylene, o-	0.5	ND	ND	ND

Surrogates in % Recovery (Acceptance Limits: 70 - 130%)

	Sample ID:	Blank	LTB-051007-Bin3	LEB3-051007-Bin3
Dibromofluoromethane		101	102	102
Toluene-d8		100	101	102
Bromofluorobenzene		100	101	99

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Water
Batch Number: SH18260W486

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (µg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	50	**98**	70 - 130	**Pass**
Benzene	50	**100**	70 - 130	**Pass**
Trichloroethene	50	**101**	70 - 130	**Pass**
Toluene	50	**99**	70 - 130	**Pass**
Chlorobenzene	50	**101**	70 - 130	**Pass**

Batch Precision Results

MS/MSD Sample ID: 29637-5

Analytical Notes:

Compound	MS Sample Result (µg/L)	MSD Sample Result (µg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	50.14	47.52	**5%**	25%	**Pass**
Benzene	61.30	59.85	**2%**	25%	**Pass**
Trichloroethene	50.96	49.64	**3%**	25%	**Pass**
Toluene	50.72	49.72	**2%**	25%	**Pass**
Chlorobenzene	49.44	49.11	**1%**	25%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Calscience Environmental Laboratories, Inc.

May 18, 2007

Marilu Escher
Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Subject: **Calscience Work Order No.: 07-05-0904**
Client Reference: 29646 / Sup. Soil Inv. Site 1

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/11/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Date Received: 05/11/07
Work Order No: 07-05-0904

Project: 29646 / Sup. Soil Inv. Site 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
LTB-051007-Bin3	**07-05-0904-1**	**05/10/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	ND	2.0	1		ug/L	N/A	05/11/07	EPA 314.0

Client Sample Number	Lab Sample Number	Date Collected	Matrix
IDW-051007-Bin3	**07-05-0904-2**	**05/10/07**	**Solid**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	91.3	20.0	1		ug/kg	05/15/07	05/15/07	EPA 314.0M

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Method Blank		**N/A**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	ND	2.0	1		ug/L	N/A	05/11/07	EPA 314.0
Perchlorate	ND	20.0	1		ug/kg	05/15/07	05/15/07	EPA 314.0M

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Date Received: N/A
Work Order No: 07-05-0904

Project: 29646 / Sup. Soil Inv. Site 1

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Perchlorate	EPA 314.0	07-05-0868-2	05/11/07	N/A	65	63	80-120	2	0-15	3
Perchlorate	EPA 314.0M	IDW-051007-Bin3	05/15/07	5/15/07	99	100	80-120	1	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Date Received: N/A
Work Order No: 07-05-0904

Project: 29646 / Sup. Soil Inv. Site 1

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Perchlorate	EPA 314.0	099-05-203-582	N/A	05/11/07	94	94	85-115	0	0-15	
Perchlorate	EPA 314.0M	099-05-205-253	05/15/07	05/15/07	91	90	85-115	1	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 07-05-0904

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 951.779.0310 ● 800.798.9336
Fax: 951.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90755
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job #

0904

Project No: 29646

Project Name: Sup. Soil Inv. Site 1

Project Manager: Marilu Escher

Phone: Fax:

email:

Client Name: (Report and Billing) Centrum

Address: (Report and Billing) Note: Reports and Invoice will be sent here

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	LUFT Diesel, or EPA 8015B DRO	LUFT Gas, or EPA 8015B GRO	Fuel ID (TVH, TEH), Carbon Chain (specify ranges)	8021B: BTEX/MtBE Only	Perchlorate 314.0	VOCs: 8260B, or 624	VOCs: BTEX/Oxygenates Only	SVOCs: 8270C, or 625	8081A/8082: Pesticides, or PCBs, or Pest/PCB		Metals: Title 22 (CAM), or RCRA, or PP	Metals: TCLP, STLC	pH, TDS, TSS	418.1 (TRPH), or 413.2, or 1664		Remarks/Special Instructions
	LTB-051007-Bin 3 5/10		840	water	29646-2	Plastic					X											
	IDW-051007-Bin 3 5/10		910	soil	-8	glass					X											

Turn-Around Time
see note *
- ☐ 24 Hr. RUSH *
- ☐ 48 Hr. RUSH *
- ☒ Normal TAT
- ☐ Other _____

* Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature) R. Bruhn	Date: 5/11/07	Time: 0950	3) Relinquished by:	Date:	Time:
2) Received by: Shenfanna (CEL)	Date: 05.11.07	Time: 0950	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
			6) Received for Laboratory by:	Date:	Time:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Chilled? ☐ Yes Temp ____C ☐ From Field
Custody seals? ☐ Yes ☐ No
All sample containers intact? ☐ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal

Sample Locator Number: _____

Laboratory Notes:

Report Formats: Check all applicable
☐ Paper report ☐ PDF report (include email address)
☐ LARWQCB ☐ EDF (include global ID) ☐ EDD (GISKEY) ☐ EDD (Other) *
* with prior approval only

v7.2 9/05 coc-0905.xls

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Client Copy

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 07 - 05 - 0904

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Centrum **DATE:** 05.11.07

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.
_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
3.7 °C IR thermometer.
_____ Ambient temperature.

Initial: _____

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Present: ✓

Initial: _____

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: _____

COMMENTS:

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Centrum

CHAIN OF CUSTODY RECORD

CENTRUM: 296476

DATE 5-10-07 PAGE 1 OF ___

CLIENT: LMC
PROJECT NAME: Supplemental Soil Investigation
PROJECT MANAGER: B. Meyer
TC #: 19967
SAMPLERS (Signatures): Linda Marquis

LINE ITEM	SAMPLE NO.	DATE	TIME	8260 VOC's	314.0 Perchlorate	8015 TPH(DRO)	6010B/7000 Title 22 metals	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	LTB-051007-Bn3	5-10-07	800	X				U	W	G	2	HCl	
2.	LEB-051007-Bn3		840		X			U	W	P	1	NR	
3.	LEB1-051007-Bn3		840			X		U	W	G	1	none	used unpres. - transferred to correct bottle upon arrival 5/10/07 QD
4.	LEB2-051007-Bn3		840				X	U	W	P	1	HNO_3	
5.	LEB3-051007-Bn3		840	X				U	W	G	1	HCl	
6.	IDW-051007-Bn3		905	X				U	S	P	3	NR	
7.	IDW-051007-Bn3		910		X	X	X	U	S	G	3	NR	composite (8) The sample for testing please
8.													
9.							LM						
10.													

TURN-AROUND TIME: 5-Day

FILTERING: ☐ FILTERED ☒ UNFILTERED

MATRIX TYPE: S - Soil; M - Sediment; W - Water

CONTAINER TYPE: G - Glass Bottle/Jar; SS - Stainless Steel Sleeve; SB - Brass Sleeve; P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only) HCL; NR (None required); NaOH; H_2SO_4

RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME
L. Marquis	Linda Marquis	TETRA TECH, INC.	5-10-07	11:55
RECEIVED BY: JEN IÑIGUEZ	Jen Iñiguez	CENTRUM	5.10.07	11:55am
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME

TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: 12

METHOD OF SHIPMENT/SHIPMENT NO.: HAND DELIVERY

Special Shipping/Handling/Storage Requirements: CHILLED & INTACT (K/SH)

X:\GIS\ATT-MISC\COCR.CDR

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

Centrum
Analytical
Laboratories, Inc.
Certified Hazardous Waste Testing Mobile & In House Laboratories

Client:	Tetra Tech, Inc. 348 W. Hospitality Lane, Ste. 100 San Bernardino, CA 92408-3216	Date Sampled: Date Received: Job Number:	08/09/07 08/09/07 30028

Project: LMC Beaumont Site 1

CASE NARRATIVE

The following information applies to samples which were received on 08/09/07:

The samples were received at the laboratory directly from the field and were cooled to 4ºC upon arrival. The sample containers were intact.

The Perchlorate analysis was subcontracted to ELAP Lab #1230. The original report is attached to, but is not part of, this report.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 08/15/07.

Report approved by:

Robert R. Clark, PhD
President

ELAP Lab# 2419, 2479, 2527, 2373, 2562

RL: Reporting Limit -- The lowest level at which the compound can be reliably detected under normal laboratory conditions.
ND: Not Detected -- The compound was analyzed for, but was not found to be present at or above the Reporting Limit.
NA: Not Analyzed -- This compound was not on the list of compounds requested for analysis.

951•779•0310 or 800•798•9336 fax 951•779•0344
www.centrum-labs.com 1401 Research Park Drive, Suite 100, Riverside, CA 92507

Centrum Analytical Laboratories, Inc.

Metals by EPA 6010B and EPA 7471A

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No:	30028	Date Digested:	08/13/07
Matrix:	Soil	Date Analyzed:	08/13/07
Analyst:	TLB	Batch Number:	6010S4047
			7471S1607

		Sample ID:	Blank	IDW1-Soil
Metals	**Method**	**RL**	mg/Kg	mg/Kg
Antimony	6010B	5.0	ND	ND
Arsenic	6010B	1.0	ND	**1.32**
Barium	6010B	0.50	ND	**50.0**
Beryllium	6010B	0.50	ND	ND
Cadmium	6010B	0.50	ND	ND
Chromium	6010B	0.50	ND	**18.8**
Cobalt	6010B	0.50	ND	**4.53**
Copper	6010B	1.0	ND	**5.76**
Lead	6010B	1.0	ND	**1.51**
Molybdenum	6010B	5.0	ND	ND
Nickel	6010B	1.0	ND	**3.37**
Selenium	6010B	5.0	ND	ND
Silver	6010B	2.0	ND	ND
Thallium	6010B	10	ND	ND
Vanadium	6010B	5.0	ND	**18.8**
Zinc	6010B	10	ND	**40.0**
Mercury	7471A	0.02	ND	ND

Centrum Analytical Laboratories, Inc.

QC Sample Report - Metals by EPA 6010B and EPA 7471A

Matrix: Soil

Metals by EPA 6010B

Batch Number: 6010S4047
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: IDW1-Soil

	Batch Accuracy Results				Batch Precision Results				
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Antimony*	50	**102**	75 - 125	**Pass**	51.04	48.19	**6%**	20%	**Pass**
Arsenic	50	**99**	75 - 125	**Pass**	45.20	46.09	**2%**	20%	**Pass**
Barium	50	**96**	75 - 125	**Pass**	86.61	87.62	**1%**	20%	**Pass**
Beryllium	50	**95**	75 - 125	**Pass**	44.68	45.53	**2%**	20%	**Pass**
Cadmium	50	**96**	75 - 125	**Pass**	43.85	43.78	**0%**	20%	**Pass**
Chromium	50	**90**	75 - 125	**Pass**	65.16	62.43	**4%**	20%	**Pass**
Cobalt	50	**87**	75 - 125	**Pass**	45.44	46.46	**2%**	20%	**Pass**
Copper	50	**99**	75 - 125	**Pass**	51.33	51.23	**0%**	20%	**Pass**
Lead	50	**94**	75 - 125	**Pass**	42.47	45.37	**7%**	20%	**Pass**
Molybdenum	50	**95**	75 - 125	**Pass**	39.35	39.41	**0%**	20%	**Pass**
Nickel	50	**94**	75 - 125	**Pass**	46.53	46.33	**0%**	20%	**Pass**
Selenium	50	**98**	75 - 125	**Pass**	44.01	45.91	**4%**	20%	**Pass**
Silver	50	**102**	75 - 125	**Pass**	47.43	47.11	**1%**	20%	**Pass**
Thallium	50	**97**	75 - 125	**Pass**	45.40	50.49	**11%**	20%	**Pass**
Vanadium	50	**91**	75 - 125	**Pass**	63.53	63.22	**0%**	20%	**Pass**
Zinc	50	**102**	75 - 125	**Pass**	86.00	88.12	**2%**	20%	**Pass**

Analytical Notes:

*Unable to use the MS/MSD pair for this analyte due to sample matrix; the LCS/LCSD pair was used to provide precision data for this analytical batch.

Mercury by EPA 7471A

Batch Number: 7471S1607
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: IDW1-Soil

	Batch Accuracy Results				Batch Precision Results				
Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.42	**94**	75 - 125	**Pass**	0.417	0.405	**3%**	20%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Metals by EPA 6010B and EPA 7470A

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No:	30028	Date Digested:	08/10/07
Matrix:	Water	Date Analyzed:	08/10-13/07
Analyst:	TLB	Batch Number:	6010W4046
			7470W1606

		Sample ID:	Blank	IDW2-Water	IDW3-Water
Metals	**Method #**	**RL**	mg/L	mg/L	mg/L
Antimony	6010B	0.10	ND	ND	ND
Arsenic	6010B	0.020	ND	ND	ND
Barium	6010B	0.010	ND	**0.050**	**0.035**
Beryllium	6010B	0.010	ND	ND	ND
Cadmium	6010B	0.010	ND	ND	ND
Chromium	6010B	0.010	ND	**0.039**	ND
Cobalt	6010B	0.010	ND	ND	ND
Copper	6010B	0.020	ND	ND	**0.024**
Lead	6010B	0.020	ND	ND	ND
Molybdenum	6010B	0.10	ND	**0.151**	ND
Nickel	6010B	0.020	ND	**0.024**	ND
Selenium	6010B	0.10	ND	ND	ND
Silver	6010B	0.040	ND	ND	ND
Thallium	6010B	0.20	ND	ND	ND
Vanadium	6010B	0.10	ND	ND	ND
Zinc	6010B	0.20	ND	ND	ND
Mercury	7470A	0.0004	ND	ND	ND

Centrum Analytical Laboratories, Inc.

QC Sample Report - Metals by EPA 6010B and EPA 7470A

Matrix: Water

Metals by EPA 6010B

Batch Number: 6010W4046
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: IDW3-Water

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Antimony	1.0	**97**	75 - 125	**Pass**	0.987	1.013	**3%**	20%	**Pass**
Arsenic	1.0	**93**	75 - 125	**Pass**	0.973	1.005	**3%**	20%	**Pass**
Barium	1.0	**84**	75 - 125	**Pass**	0.894	0.912	**2%**	20%	**Pass**
Beryllium	1.0	**89**	75 - 125	**Pass**	0.954	0.962	**1%**	20%	**Pass**
Cadmium	1.0	**92**	75 - 125	**Pass**	0.957	0.975	**2%**	20%	**Pass**
Chromium	1.0	**93**	75 - 125	**Pass**	0.955	0.972	**2%**	20%	**Pass**
Cobalt	1.0	**90**	75 - 125	**Pass**	0.910	0.930	**2%**	20%	**Pass**
Copper	1.0	**93**	75 - 125	**Pass**	0.962	0.982	**2%**	20%	**Pass**
Lead	1.0	**92**	75 - 125	**Pass**	0.889	0.909	**2%**	20%	**Pass**
Molybdenum	1.0	**93**	75 - 125	**Pass**	0.955	0.984	**3%**	20%	**Pass**
Nickel	1.0	**93**	75 - 125	**Pass**	0.969	0.984	**2%**	20%	**Pass**
Selenium	1.0	**90**	75 - 125	**Pass**	0.932	0.953	**2%**	20%	**Pass**
Silver	1.0	**116**	75 - 125	**Pass**	0.992	1.008	**2%**	20%	**Pass**
Thallium	1.0	**93**	75 - 125	**Pass**	0.891	0.916	**3%**	20%	**Pass**
Vanadium	1.0	**92**	75 - 125	**Pass**	0.992	1.011	**2%**	20%	**Pass**
Zinc	1.0	**97**	75 - 125	**Pass**	0.995	1.025	**3%**	20%	**Pass**

Mercury by EPA 7470A

Batch Number: 7470W1606
Spike Sample ID: Laboratory Control Sample
MS/MSD Sample ID: IDW3-Water

Analytical Notes:

Compound	Batch Accuracy Results				Batch Precision Results				
	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Mercury	0.010	**96**	75 - 125	**Pass**	0.009	0.009	**2%**	20%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

C6 to C40 Hydrocarbons by GCMS and GC/FID

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Batch Number:	MS5TPHGS357
Matrix:	Soil		8015DS4136
Analyst:	CMR / AW		

Carbon Chain Length:	C6-C12	C12-C22	C22-C40
Reporting Limits:	0.50	10	20
Units:	mg/Kg	mg/Kg	mg/Kg
Method Blank	ND	ND	ND
IDW1 - Soil	ND	ND	ND
Method:	GCMS	GC/FID	GC/FID
Date Extracted:	N/A	08/09/07	08/09/07
Date Analyzed:	08/10/07	09/09-10/07	09/09-10/07

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Hydrocarbons as Gasoline by GCMS

Matrix: Soil
Batch Number: MS5TPHGS357

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Gasoline	2.0	**78**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Gasoline	1.68	1.88	**11%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

QC Sample Report - Extractable Hydrocarbons as Diesel by GC/FID

Matrix: Soil
Batch Number: 8015DS4136

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Diesel	100	**103**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: 30022-5

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Diesel	100.5	103.5	**3%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

C6 to C40 Hydrocarbons by GCMS and GC/FID

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Batch Number:	SH1TPHGW536
Matrix:	Water		8015DW4135
Analyst:	RCG / AW		

Carbon Chain Length:	C6-C12	C12-C22	C22-C40
Reporting Limits:	0.10	0.40	0.40
Units:	mg/L	mg/L	mg/L
Method Blank	ND	ND	ND
IDW2-Water	ND	ND	ND
IDW3-Water	ND	ND	ND
Method:	GCMS	GC/FID	GC/FID
Date Extracted:	N/A	08/10/07	08/10/07
Date Analyzed:	08/10/07	08/10/07	08/10/07

Centrum Analytical Laboratories, Inc.

QC Sample Report - Extractable Hydrocarbons as Diesel by GC/FID

Matrix: Water
Batch number: 8015DW4135

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Diesel	3.2	**74**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Diesel	2.36	2.58	**9%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Hydrocarbons as Gasoline by GCMS

Matrix: Water
Batch Number: SH1TPHGW536

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Compound	Spike Concentration (mg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Gasoline	2.0	**104**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Compound	MS Sample Result (mg/L)	MSD Sample Result (mg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Gasoline	2.08	2.09	**0%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Analyzed:	08/10/07
Matrix:	Soil	Batch Number:	MS58260S357
Analyst:	CMR		

	Sample ID:	Blank	IDW1-Soil
Compounds	**RL**	mg/Kg	mg/Kg
Acetone	0.050	ND	ND
tert-Amyl Methyl Ether (TAME)	0.002	ND	ND
Benzene	0.001	ND	ND
Bromobenzene	0.005	ND	ND
Bromochloromethane	0.005	ND	ND
Bromodichloromethane	0.001	ND	ND
Bromoform	0.005	ND	ND
Bromomethane	0.005	ND	ND
tert-Butanol (TBA)	0.020	ND	ND
2-Butanone (MEK)	0.010	ND	ND
n-Butylbenzene	0.002	ND	ND
sec-Butylbenzene	0.002	ND	ND
tert-Butylbenzene	0.002	ND	ND
Carbon disulfide	0.010	ND	ND
Carbon tetrachloride	0.001	ND	ND
Chlorobenzene	0.001	ND	ND
Chloroethane	0.005	ND	ND
Chloroform	0.002	ND	ND
Chloromethane	0.001	ND	ND
2-Chlorotoluene	0.002	ND	ND
4-Chlorotoluene	0.002	ND	ND
Dibromochloromethane	0.002	ND	ND
1,2-Dibromoethane	0.002	ND	ND
1,2-Dibromo-3-chloropropane	0.010	ND	ND
Dibromomethane	0.001	ND	ND
1,2-Dichlorobenzene	0.001	ND	ND
1,3-Dichlorobenzene	0.002	ND	ND
1,4-Dichlorobenzene	0.002	ND	ND
Dichlorodifluoromethane	0.005	ND	ND
1,1-Dichloroethane	0.001	ND	ND
1,2-Dichloroethane	0.001	ND	ND
1,1-Dichloroethene	0.005	ND	ND
cis-1,2-Dichloroethene	0.002	ND	ND
trans-1,2-Dichloroethene	0.002	ND	ND
1,2-Dichloropropane	0.001	ND	ND
1,3-Dichloropropane	0.001	ND	ND
2,2-Dichloropropane	0.001	ND	ND
1,1-Dichloropropene	0.001	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Analyzed:	08/10/07
Matrix:	Soil	Batch Number:	MS58260S357
Analyst:	CMR		

	Sample ID:	Blank	IDW1-Soil
Compounds	**RL**	mg/Kg	mg/Kg
cis-1,3-Dichloropropene	0.001	ND	ND
trans-1,3-Dichloropropene	0.001	ND	ND
Diisopropyl Ether (DIPE)	0.002	ND	ND
Ethylbenzene	0.001	ND	ND
Ethyl tert-Butyl Ether (EtBE)	0.002	ND	ND
Hexachlorobutadiene	0.001	ND	ND
2-Hexanone	0.010	ND	ND
Isopropylbenzene	0.001	ND	ND
p-Isopropyltoluene	0.002	ND	ND
Methylene chloride	0.050	ND	ND
4-Methyl-2-pentanone	0.010	ND	ND
Methyl tert-Butyl Ether (MtBE)	0.002	ND	ND
Naphthalene	0.002	ND	ND
n-Propylbenzene	0.001	ND	ND
Styrene	0.001	ND	ND
1,1,1,2-Tetrachloroethane	0.001	ND	ND
1,1,2,2-Tetrachloroethane	0.002	ND	ND
Tetrachloroethene	0.001	ND	ND
Toluene	0.001	ND	ND
1,2,3-Trichlorobenzene	0.002	ND	ND
1,2,4-Trichlorobenzene	0.002	ND	ND
1,1,1-Trichloroethane	0.001	ND	ND
1,1,2-Trichloroethane	0.003	ND	ND
Trichloroethene	0.001	ND	ND
1,2,3-Trichloropropane	0.003	ND	ND
Trichlorofluoromethane	0.001	ND	ND
Trichlorotrifluoroethane	0.005	ND	ND
1,2,4-Trimethylbenzene	0.001	ND	ND
1,3,5-Trimethylbenzene	0.001	ND	ND
Vinyl chloride	0.002	ND	ND
Xylenes, m-,p-	0.002	ND	ND
Xylene, o-	0.001	ND	ND

Surrogates in % Recovery (Acceptance Limits: 70 - 130%)

	Sample ID:	Blank	IDW1-Soil
Dibromofluoromethane		97	92
Toluene-d8		91	91
Bromofluorobenzene		93	92

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Soil
Batch Number: MS58260S357

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	0.050	**93**	70 - 130	**Pass**
Benzene	0.050	**92**	70 - 130	**Pass**
Trichloroethene	0.050	**100**	70 - 130	**Pass**
Toluene	0.050	**98**	70 - 130	**Pass**
Chlorobenzene	0.050	**113**	70 - 130	**Pass**

Batch Precision Results

MS/MSD Sample ID: 30026-13

Analytical Notes:

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	0.0422	0.0415	**2%**	25%	**Pass**
Benzene	0.0446	0.0432	**3%**	25%	**Pass**
Trichloroethene	0.0455	0.0465	**2%**	25%	**Pass**
Toluene	0.0451	0.0451	**0%**	25%	**Pass**
Chlorobenzene	0.0497	0.0494	**1%**	25%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Analyzed:	08/10/07
Matrix:	Water	Batch Number:	SH18260W536
Analyst:	RCG		

	Sample ID:	Blank	TB-080907	IDW2-Water	IDW3-Water
Compounds	**RL**	µg/L	µg/L	µg/L	µg/L
Acetone	50	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	1.0	ND	ND	ND	ND
Benzene	0.5	ND	ND	ND	ND
Bromobenzene	1.0	ND	ND	ND	ND
Bromochloromethane	1.0	ND	ND	ND	ND
Bromodichloromethane	0.5	ND	ND	ND	ND
Bromoform	0.5	ND	ND	ND	ND
Bromomethane	2.0	ND	ND	ND	ND
tert-Butanol (TBA)	10	ND	ND	ND	ND
2-Butanone (MEK)	10	ND	ND	ND	ND
n-Butylbenzene	1.0	ND	ND	ND	ND
sec-Butylbenzene	0.5	ND	ND	ND	ND
tert-Butylbenzene	0.5	ND	ND	ND	ND
Carbon disulfide	10	ND	ND	ND	ND
Carbon tetrachloride	0.5	ND	ND	ND	ND
Chlorobenzene	0.5	ND	ND	ND	ND
Chloroethane	0.5	ND	ND	ND	ND
Chloroform	0.5	ND	ND	ND	ND
Chloromethane	2.0	ND	ND	ND	ND
2-Chlorotoluene	0.5	ND	ND	ND	ND
4-Chlorotoluene	0.5	ND	ND	ND	ND
Dibromochloromethane	0.5	ND	ND	ND	ND
1,2-Dibromoethane	0.5	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	10	ND	ND	ND	ND
Dibromomethane	0.5	ND	ND	ND	ND
1,2-Dichlorobenzene	0.5	ND	ND	ND	ND
1,3-Dichlorobenzene	0.5	ND	ND	ND	ND
1,4-Dichlorobenzene	0.5	ND	ND	ND	ND
Dichlorodifluoromethane	0.5	ND	ND	ND	ND
1,1-Dichloroethane	0.5	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND
1,1-Dichloroethene	0.5	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.5	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.5	ND	ND	ND	ND
1,2-Dichloropropane	0.5	ND	ND	ND	ND
1,3-Dichloropropane	0.5	ND	ND	ND	ND
2,2-Dichloropropane	0.5	ND	ND	ND	ND
1,1-Dichloropropene	0.5	ND	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Volatile Organic Compounds by EPA 8260B

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Analyzed:	08/10/07
Matrix:	Water	Batch Number:	SH18260W536
Analyst:	RCG		

	Sample ID:	Blank	TB-080907	IDW2-Water	IDW3-Water
Compounds	**RL**	µg/L	µg/L	µg/L	µg/L
cis-1,3-Dichloropropene	0.5	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.5	ND	ND	ND	ND
Diisopropyl Ether (DIPE)	1.0	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	1.0	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND
2-Hexanone	10	ND	ND	ND	ND
Isopropylbenzene	0.5	ND	ND	ND	ND
p-Isopropyltoluene	0.5	ND	ND	ND	ND
Methylene chloride	50	ND	ND	ND	ND
4-Methyl-2-pentanone	5.0	ND	ND	ND	ND
Methyl-tert-butyl ether (MtBE)	1.0	ND	ND	ND	ND
Naphthalene	0.5	ND	ND	ND	ND
n-Propylbenzene	0.5	ND	ND	ND	ND
Styrene	0.5	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.5	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	0.5	ND	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0.5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	ND	ND	ND	ND
1,1,1-Trichloroethane	0.5	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	ND	ND
Trichloroethene	0.5	ND	ND	ND	ND
1,2,3-Trichloropropane	0.5	ND	ND	ND	ND
Trichlorofluoromethane	0.5	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.5	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.5	ND	ND	ND	ND
Vinyl chloride	0.5	ND	ND	ND	ND
Xylenes, m-,p-	1.0	ND	ND	ND	ND
Xylene, o-	0.5	ND	ND	ND	ND

Surrogates in % Recovery (Acceptance Limits: 70 - 130%)

	Sample ID:	Blank	TB-080907	IDW2-Water	IDW3-Water
Dibromofluoromethane		101	101	103	101
Toluene-d8		103	102	104	102
Bromofluorobenzene		102	101	101	100

Centrum Analytical Laboratories, Inc.

QC Sample Report - Volatile Organic Compounds by EPA 8260B

Matrix: Water
Batch Number: SH18260W536

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (µg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
1,1-Dichloroethene	50	**99**	70 - 130	**Pass**
Benzene	50	**105**	70 - 130	**Pass**
Trichloroethene	50	**101**	70 - 130	**Pass**
Toluene	50	**103**	70 - 130	**Pass**
Chlorobenzene	50	**102**	70 - 130	**Pass**

Batch Precision Results

MS/MSD Sample ID: 30024-2

Analytical Notes:

Compound	MS Sample Result (µg/L)	MSD Sample Result (µg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
1,1-Dichloroethene	51.07	53.11	**4%**	25%	**Pass**
Benzene	53.20	54.37	**2%**	25%	**Pass**
Trichloroethene	50.14	52.25	**4%**	25%	**Pass**
Toluene	52.18	54.03	**3%**	25%	**Pass**
Chlorobenzene	51.00	52.84	**4%**	25%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Semivolatile Organic Compounds by EPA 8270C

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Extracted:	08/13/07
Matrix:	Soil	Date Analyzed:	08/14-15/07
Analyst:	TLB	Batch Number:	8270S1771

	Sample ID:	Blank	IDW1-Soil
Compound	**RL**	mg/Kg	mg/Kg
Acenaphthene	0.033	ND	ND
Acenaphthylene	0.033	ND	ND
Anthracene	0.033	ND	ND
Benzo[a]anthracene	0.066	ND	ND
Benzo[a]pyrene	0.033	ND	ND
Benzo[b]fluoranthene	0.033	ND	ND
Benzo[g,h,i]perylene	0.099	ND	ND
Benzo[k]fluoranthene	0.033	ND	ND
Benzyl alcohol	0.13	ND	ND
bis(2-Chloroethoxy)methane	0.066	ND	ND
bis(2-Chloroethyl)ether	0.066	ND	ND
bis(2-Chloroisopropyl)ether	0.099	ND	ND
bis(2-Ethylhexyl)phthalate	0.33	ND	ND
4-Bromophenylphenylether	0.033	ND	ND
Butylbenzylphthalate	0.033	ND	ND
4-Chloro-3-methylphenol	0.16	ND	ND
4-Chloroaniline	0.16	ND	ND
2-Chloronaphthalene	0.033	ND	ND
2-Chlorophenol	0.13	ND	ND
4-Chlorophenylphenylether	0.033	ND	ND
Chrysene	0.033	ND	ND
Di-n-butylphthalate	0.33	ND	ND
Di-n-octylphthalate	0.033	ND	ND
Dibenzo[a,h]anthracene	0.099	ND	ND
Dibenzofuran	0.033	ND	ND
1,2-Dichlorobenzene	0.033	ND	ND
1,3-Dichlorobenzene	0.033	ND	ND
1,4-Dichlorobenzene	0.033	ND	ND
3,3-Dichlorobenzidine	0.13	ND	ND
2,4-Dichlorophenol	0.16	ND	ND
Diethylphthalate	0.33	ND	ND
2,4-Dimethylphenol	0.099	ND	ND
Dimethylphthalate	0.033	ND	ND
4,6-Dinitro-2-methylphenol	0.33	ND	ND
2,4-Dinitrophenol	1.6	ND	ND
2,4-Dinitrotoluene	0.033	ND	ND

Centrum Analytical Laboratories, Inc.

Semivolatile Organic Compounds by EPA 8270C

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Extracted:	08/13/07
Matrix:	Soil	Date Analyzed:	08/14-15/07
Analyst:	TLB	Batch Number:	8270S1771

	Sample ID:	Blank	IDW1-Soil
Compound	**RL**	mg/Kg	mg/Kg
2,6-Dinitrotoluene	0.099	ND	ND
Fluoranthene	0.033	ND	ND
Fluorene	0.033	ND	ND
Hexachlorobenzene	0.033	ND	ND
Hexachlorobutadiene	0.033	ND	ND
Hexachlorocyclopentadiene	1.6	ND	ND
Hexachloroethane	0.033	ND	ND
Indeno[1,2,3-c,d]pyrene	0.13	ND	ND
Isophorone	0.033	ND	ND
2-Methylnaphthalene	0.033	ND	ND
2-Methylphenol	0.16	ND	ND
4-Methylphenol	0.16	ND	ND
N-Nitrosodi-n-propylamine	0.033	ND	ND
N-Nitrosodiphenylamine	0.033	ND	ND
Naphthalene	0.033	ND	ND
2-Nitroaniline	0.099	ND	ND
3-Nitroaniline	0.099	ND	ND
4-Nitroaniline	0.33	ND	ND
Nitrobenzene	0.099	ND	ND
2-Nitrophenol	0.13	ND	ND
4-Nitrophenol	0.33	ND	ND
Pentachlorophenol	1.6	ND	ND
Phenanthrene	0.066	ND	ND
Phenol	0.13	ND	ND
Pyrene	0.033	ND	ND
1,2,4-Trichlorobenzene	0.033	ND	ND
2,4,5-Trichlorophenol	0.20	ND	ND
2,4,6-Trichlorophenol	0.33	ND	ND

Surrogates in % Recovery (Acceptance Limits)

Sample ID:	Blank	IDW1-Soil
2-Fluorophenol (25 - 121%)	63	59
Phenol-D5 (24 - 113%)	70	67
Nitrobenzene-D5 (23 - 120%)	66	59
2-Fluorobiphenyl (30 - 115%)	65	58
2,4,6-Tribromophenol (19 - 122%)	72	65
p-Terphenyl-D14 (18 - 137%)	66	59

Centrum Analytical Laboratories, Inc.

QC Sample Report - Semivolatile Organic Compounds by EPA 8270C

Matrix: Soil
Batch Number: 8270S1771

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (mg/Kg)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Phenol	2.66	**68**	5 - 112	**Pass**
2-Chlorophenol	2.66	**73**	23 - 134	**Pass**
1,4-Dichlorobenzene	1.33	**71**	20 - 124	**Pass**
N-Nitrosodi-n-propylamine	1.33	**80**	0 - 230	**Pass**
1,2,4-Trichlorobenzene	1.33	**74**	44 - 142	**Pass**
4-Chloro-3-Methylphenol	2.66	**75**	22 - 147	**Pass**
Acenaphthene	1.33	**74**	47 - 145	**Pass**
4-Nitrophenol	2.66	**75**	0 - 132	**Pass**
2,4-Dinitrotoluene	1.33	**79**	39 - 139	**Pass**
Pentachlorophenol	2.66	**73**	14 - 176	**Pass**
Pyrene	1.33	**64**	52 - 115	**Pass**

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	MS Sample Result (mg/Kg)	MSD Sample Result (mg/Kg)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Phenol	1.81	1.50	**19%**	35%	**Pass**
2-Chlorophenol	1.95	1.62	**18%**	50%	**Pass**
1,4-Dichlorobenzene	0.94	0.79	**17%**	27%	**Pass**
N-Nitrosodi-n-propylamine	1.06	0.90	**16%**	38%	**Pass**
1,2,4-Trichlorobenzene	0.99	0.86	**14%**	28%	**Pass**
4-Chloro-3-Methylphenol	2.01	1.75	**14%**	33%	**Pass**
Acenaphthene	0.99	0.82	**19%**	23%	**Pass**
4-Nitrophenol	1.99	1.62	**20%**	50%	**Pass**
2,4-Dinitrotoluene	1.06	0.89	**17%**	47%	**Pass**
Pentachlorophenol	1.95	1.68	**15%**	47%	**Pass**
Pyrene	0.86	0.80	**7%**	36%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Centrum Analytical Laboratories, Inc.

Semivolatile Organic Compounds by EPA 8270C

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Extracted:	08/10/07
Matrix:	Water	Date Analyzed:	08/13/07
Analyst:	TLB	Batch Number:	8270W1170

	Sample ID:	Blank	IDW2-Water	IDW3-Water
Compound	**RL**	mg/L	mg/L	mg/L
Acenaphthene	0.001	ND	ND	ND
Acenaphthylene	0.001	ND	ND	ND
Anthracene	0.001	ND	ND	ND
Benzo[a]anthracene	0.002	ND	ND	ND
Benzo[a]pyrene	0.002	ND	ND	ND
Benzo[b]fluoranthene	0.002	ND	ND	ND
Benzo[g,h,i]perylene	0.003	ND	ND	ND
Benzo[k]fluoranthene	0.002	ND	ND	ND
Benzyl alcohol	0.004	ND	ND	ND
bis(2-Chloroethoxy)methane	0.002	ND	ND	ND
bis(2-Chloroethyl)ether	0.002	ND	ND	ND
bis(2-Chloroisopropyl)ether	0.003	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010	ND	ND	ND
4-Bromophenylphenylether	0.002	ND	ND	ND
Butylbenzylphthalate	0.003	ND	ND	ND
4-Chloro-3-methylphenol	0.005	ND	ND	ND
4-Chloroaniline	0.005	ND	ND	ND
2-Chloronaphthalene	0.001	ND	ND	ND
2-Chlorophenol	0.004	ND	ND	ND
4-Chlorophenylphenylether	0.001	ND	ND	ND
Chrysene	0.001	ND	ND	ND
Di-n-butylphthalate	0.010	ND	ND	ND
Di-n-octylphthalate	0.001	ND	ND	ND
Dibenzo[a,h]anthracene	0.003	ND	ND	ND
Dibenzofuran	0.001	ND	ND	ND
1,2-Dichlorobenzene	0.002	ND	ND	ND
1,3-Dichlorobenzene	0.002	ND	ND	ND
1,4-Dichlorobenzene	0.002	ND	ND	ND
3,3-Dichlorobenzidine	0.004	ND	ND	ND
2,4-Dichlorophenol	0.005	ND	ND	ND
Diethylphthalate	0.010	ND	ND	ND
2,4-Dimethylphenol	0.003	ND	ND	ND
Dimethylphthalate	0.050	ND	ND	ND
4,6-Dinitro-2-methylphenol	0.010	ND	ND	ND
2,4-Dinitrophenol	0.050	ND	ND	ND
2,4-Dinitrotoluene	0.002	ND	ND	ND

Centrum Analytical Laboratories, Inc.

Semivolatile Organic Compounds by EPA 8270C

Client:	Tetra Tech, Inc.	Date Sampled:	08/09/07
Project:	LMC Beaumont Site 1	Date Received:	08/09/07
Job No.:	30028	Date Extracted:	08/10/07
Matrix:	Water	Date Analyzed:	08/13/07
Analyst:	TLB	Batch Number:	8270W1170

	Sample ID:	Blank	IDW2-Water	IDW3-Water
Compound	**RL**	mg/L	mg/L	mg/L
2,6-Dinitrotoluene	0.003	ND	ND	ND
Fluoranthene	0.001	ND	ND	ND
Fluorene	0.001	ND	ND	ND
Hexachlorobenzene	0.001	ND	ND	ND
Hexachlorobutadiene	0.002	ND	ND	ND
Hexachlorocyclopentadiene	0.050	ND	ND	ND
Hexachloroethane	0.002	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.004	ND	ND	ND
Isophorone	0.001	ND	ND	ND
2-Methylnaphthalene	0.002	ND	ND	ND
2-Methylphenol	0.005	ND	ND	ND
4-Methylphenol	0.005	ND	ND	ND
N-Nitroso-di-n-propylamine	0.001	ND	ND	ND
N-Nitrosodiphenylamine	0.001	ND	ND	ND
Naphthalene	0.001	ND	ND	ND
2-Nitroaniline	0.003	ND	ND	ND
3-Nitroaniline	0.003	ND	ND	ND
4-Nitroaniline	0.010	ND	ND	ND
Nitrobenzene	0.003	ND	ND	ND
2-Nitrophenol	0.004	ND	ND	ND
4-Nitrophenol	0.010	ND	ND	ND
Pentachlorophenol	0.050	ND	ND	ND
Phenanthrene	0.002	ND	ND	ND
Phenol	0.004	ND	ND	ND
Pyrene	0.002	ND	ND	ND
1,2,4-Trichlorobenzene	0.001	ND	ND	ND
2,4,5-Trichlorophenol	0.006	ND	ND	ND
2,4,6-Trichlorophenol	0.010	ND	ND	ND

Surrogates in % Recovery (Acceptance Limits)

Sample ID:	Blank	IDW2-Water	IDW3-Water
2-Fluorophenol (21 - 100%)	57	53	54
Phenol-D5 (10 - 94%)	41	39	40
Nitrobenzene-D5 (35 - 114%)	72	66	70
2-Fluorobiphenyl (43 - 116%)	76	70	74
2,4,6-Tribromophenol (10 - 123%)	86	91	90
p-Terphenyl-D14 (33 - 141%)	79	71	78

Centrum Analytical Laboratories, Inc.

QC Sample Report - Semivolatile Organic Compounds by EPA 8270C

Matrix: Water
Batch Number: 8270W1170

Batch Accuracy Results

Spike Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	Spike Concentration (µg/L)	Spike Sample % Recovery	% Recovery Acceptance Limits	Pass/Fail
Phenol	80	**33**	5 - 112	**Pass**
2-Chlorophenol	80	**71**	23 - 134	**Pass**
1,4-Dichlorobenzene	40	**64**	20 - 124	**Pass**
N-Nitrosodi-n-propylamine	40	**83**	0 - 230	**Pass**
1,2,4-Trichlorobenzene	40	**66**	44 - 142	**Pass**
4-Chloro-3-Methylphenol	80	**78**	22 - 147	**Pass**
Acenaphthene	40	**70**	47 - 145	**Pass**
4-Nitrophenol	80	**29**	0 - 132	**Pass**
2,4-Dinitrotoluene	40	**78**	39 - 139	**Pass**
Pentachlorophenol	80	**64**	14 - 176	**Pass**
Pyrene	40	**71**	52 - 115	**Pass**

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analytical Notes:

Compound	MS Sample Result (µg/L)	MSD Sample Result (µg/L)	Relative Percent Difference (RPD)	RPD Acceptance Limit	Pass/Fail
Phenol	26.0	29.0	**11%**	35%	**Pass**
2-Chlorophenol	57.0	63.0	**10%**	50%	**Pass**
1,4-Dichlorobenzene	26.0	28.0	**7%**	27%	**Pass**
N-Nitrosodi-n-propylamine	33.0	39.0	**17%**	38%	**Pass**
1,2,4-Trichlorobenzene	26.0	28.0	**7%**	28%	**Pass**
4-Chloro-3-Methylphenol	62.0	69.0	**11%**	33%	**Pass**
Acenaphthene	28.0	29.0	**4%**	23%	**Pass**
4-Nitrophenol	23.0	21.0	**9%**	50%	**Pass**
2,4-Dinitrotoluene	31.0	31.0	**0%**	47%	**Pass**
Pentachlorophenol	51.0	54.0	**6%**	47%	**Pass**
Pyrene	28.0	28.0	**0%**	36%	**Pass**

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate

Calscience Environmental Laboratories, Inc.

August 14, 2007

Marilu Escher
Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Subject: **Calscience Work Order No.: 07-08-0786**
Client Reference: LMC Beaumont Site 1 / 30028

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/10/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Date Received: 08/10/07
Work Order No: 07-08-0786

Project: LMC Beaumont Site 1 / 30028

Client Sample Number	Lab Sample Number	Date Collected	Matrix
IDW1-SOIL	**07-08-0786-1**	**08/09/07**	**Solid**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	ND	20.0	1		ug/kg	08/11/07	08/11/07	EPA 314.0M

IDW2-WATER	**07-08-0786-2**	**08/09/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	15	2.0	1		ug/L	N/A	08/13/07	EPA 314.0

IDW3-WATER	**07-08-0786-3**	**08/09/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	840	40	20		ug/L	N/A	08/13/07	EPA 314.0

Method Blank	**N/A**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Perchlorate	ND	2.0	1		ug/L	N/A	08/13/07	EPA 314.0
Perchlorate	ND	20.0	1		ug/kg	08/11/07	08/11/07	EPA 314.0M

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Date Received: N/A
Work Order No: 07-08-0786

Project: LMC Beaumont Site 1 / 30028

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Perchlorate	EPA 314.0	IDW2-WATER	08/13/07	N/A	108	113	80-120	2	0-15	
Perchlorate	EPA 314.0M	07-08-0743-1	08/11/07	8/11/07	85	86	80-120	0	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive
Suite 100
Riverside, CA 92507-2111

Date Received: N/A
Work Order No: 07-08-0786

Project: LMC Beaumont Site 1 / 30028

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Perchlorate	EPA 314.0	099-05-203-653	N/A	08/13/07	93	93	85-115	1	0-15	
Perchlorate	EPA 314.0M	099-05-205-275	08/11/07	08/11/07	93	93	85-115	0	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 07-08-0786

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 951.779.0310 ● 800.798.9336
Fax: 951.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90755
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Chain of Custody Record

Centrum Job # 0786

Project No: 30028	Project Name: LMC Beaumont Site 1
Project Manager: Marilu Escher	Phone: Fax: email:
Client Name: (Report and Billing) Centrum	Address: (Report and Billing) Note: Reports and Invoice will be sent here Riverside. CA

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	LUFT Diesel, or EPA 8015B DRO	LUFT Gas, or EPA 8015B GRO	Fuel ID (TVH, TEH), Carbon Chain (specify ranges)	8021B: BTEX/MtBE Only	PERCHLORATE	VOCs: 8260B, or 624	VOCs: BTEX/Oxygenates Only	SVOCs: 8270C, or 625	8081A/8082: Pesticides, or PCBs, or Pest/PCB		Metals: Title 22 (CAM), or RCRA, or PP	Metals: TCLP, STLC	pH, TDS, TSS	418.1 (TRPH), or 413.2, or 1664		Remarks/Special Instructions
	IDW1-Soil	8/9/07	1000	Soil	30028-2	1oz JAR					X											
	IDW2-Water	"	1130	water	" -3	1- poly					X											
	IDW3-Water	"	1200	"	" -4	1- poly					X											

Turn-Around Time (see note *)
- ☐ 24 Hr. RUSH *
- ☒ 48 Hr. RUSH *
- ☐ Normal TAT
- ☐ Other _____

* Requires PRIOR approval, additional charges apply

Requested due date: 8/14/07

1) Relinquished by: (Sampler's Signature)	Date: 8/10/07	Time: 1239	3) Relinquished by:
2) Received by:	Date: 08/10/07	Time: 1239	4) Received by:
			5) Relinquished by:
			6) Received for Laboratory by:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Laboratory Notes:

To be completed by Laboratory personnel:
- Chilled? ☐ Yes Temp ___C ☐ From Field
- Custody seals? ☐ Yes ☐ No
- All sample containers intact? ☐ Yes ☐ No
- ☐ Courier ☐ UPS/Fed Ex ☐ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal
- Sample Locator Number: _____

Report Formats: Check all applicable
- ☐ Paper report ☐ PDF report (Include email address)
- ☐ LARWQCB ☐ EDF (Include global ID) ☐ EDD (GISKEY) ☐ EDD (Other) *

* with prior approval only

v7.2 9/05 coc-0905.xls

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Client Copy

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 07 - 08 - 0786

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Centrum **DATE:** 08.10.07

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.
_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
4.9 °C IR thermometer.
_____ Ambient temperature.

Initial: _____

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Present: ✓

Initial: _____

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: _____

COMMENTS:

TETRA TECH, INC.
348 W. Hospitality Lane, Suite 100
San Bernardino, California 92408
Telephone: (909) 381-1674
FAX: (909) 889-1391

SHIP TO: Centrum Labs
Riverside, CA

CHAIN OF CUSTODY RECORD

CENTRUM: 30028

DATE 08/09/2007 PAGE 1 OF 1

CLIENT: Tetra Tech
PROJECT NAME: LMC Beaumont Site 1
PROJECT MANAGER: Tom Villeneuve
TC #: 19897-02
SAMPLERS (Signatures)

TURN-AROUND TIME By: 2 Days 7/14/07 QD

RUSH

PARAMETERS

LINE ITEM	SAMPLE NO.	DATE	TIME	VOCs (SW8260B)	TPH C6-C40 (8015M)	SVOCs (SW8270C)	Perchlorate (314.0)	CAM17 metals (6010B/7471A)	FILTERED/UNFILTERED	MATRIX TYPE	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE	OBSERVATIONS/COMMENTS
1.	TB-080907	08/09/2007	0800	X					Un	W	G	2	HCl	
2.	IDW1-Soil	↓	1000	X	X	X	X	X	N/A	S	G	8	See bottle	6 Drums/Soil Gas Borings
* 3.	IDW2-Water	↓	1130	X	X	X	X	X	Un	W	G/P	10 ~~9~~ ocs		Roll-off bin next to soil bin
* 4.	IDW3-Water	↓	1200	X	X	X	X	X	Un	W	G/P	10 ~~9~~ ocs		Poly Tank w/ Purge H2O
5.														
6.														
7.														
8.														
9.														
10.														

*BOTH 8270 + DIESEL WATER SAMPLER WERE REC'D UNPRESERVED. TRANSFERRED TO PROPER BOTTLES UPON ARRIVAL TO LAB 8/9/07 QD

FILTERING:
☐ FILTERED ☐ UNFILTERED

MATRIX TYPE:
S - Soil
M - Sediment
W - Water

CONTAINER TYPE:
G - Glass Bottle/Jar
SS - Stainless Steel Sleeve
SB - Brass Sleeve
P - Plastic Bottle/Jar

PRESERVATIVES: (Water Only)
HCL
NR (None required)
NaOH
H_2SO_4

RELINQUISHED BY	SIGNATURE		DATE	TIME	
David Bertolacci		TETRA TECH, INC.	08/09/2007	1530	TOTAL NUMBER OF CONTAINERS ON THIS CHAIN OF CUSTODY: ~~28~~ 30
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	METHOD OF SHIPMENT/SHIPMENT NO.
JEN INIGUEZ	Jen Iñiguez	CENTRUM LABS	8.9.07	1530	drop-off
RELINQUISHED BY	SIGNATURE	COMPANY	DATE	TIME	Special Shipping/Handling/Storage Requirements:
RECEIVED BY	SIGNATURE	COMPANY	DATE	TIME	FROM FIELD + INTACT (H)

DISTRIBUTION: White and Pink = Tetra Tech, Inc. Canary = Laboratory

X:\GIS\ATT-MISC\COCR.CDR

Appendix G

Geophysical Survey Report for Burn/Burial Pits

SUMMARY REPORT

GEOPHYSICAL SURVEY FOR BURN/BURIAL PITS 2007 SOIL CHARACTERIZATION



Lockheed Martin Corporation
Former Beaumont Site No. 1
Beaumont, California

LOCKHEED MARTIN
We never forget who we're working for™

Prepared by:

Tetra Tech

12100 NE 195th Street, Suite 200

Bothell, WA 98011

May 2007

This report documents a geophysical survey performed as part of a soil characterization in Operational Areas B and C at Beaumont Site 1. It contains a description of the procedures implemented and the areas where the evaluation was conducted. The report also contains a summary of the results of the survey and conclusions regarding the location of potential buried waste. By their signatures, the undersigned certify this report has been reviewed and accurately reflects the work performed in accordance with the work plan and industry standards.

APPROVALS:

Carol Hutley, P.E.
Project Manager (UXO activities)
(362) 668-2039

2/25/2009
Date

Kerry Hennon, RG
Independent Geophysical Review
(909) 862-0626

2/25/2009
Date



EXECUTIVE SUMMARY

In late 2003, approximately 94% of former Beaumont Site 1 facility near Beaumont, California was sold to the State of California. The portion of the facility sold is being managed by the California Department of Fish and Game (CDFG). CDFG proposes to use the property as a wildlife conservation area and allows limited use of the property for public recreation.

During the active industrial life of Beaumont Site 1 from 1960 until 1974, LMC used the facility for solid propellant mixing, testing, and incineration, as well as ballistics testing. A burn pit area for disposal of excess propellant and other hazardous wastes was constructed in the portion of the site now known as Operational Area C. According to historical information available (Radian, 1986a, 1986b and 1990) the waste was disposed of by placing it in strip pits (trenches), pouring perchlorate oxidizer or diesel fuel on the waste and igniting it. Historical information also indicates contaminated soils and solid wastes have been removed from the burn pit area. Recently, during a munitions assessment and removal conducted on site, two former employees at the facility indicated that there may be additional waste burn pits present in Operational Area B to the northwest of Area C.

Tetra Tech, Inc. (Tetra Tech) was tasked by LMC to perform a geophysical survey of the suspect area and provide information regarding potential burn pits or buried waste. The survey was performed using a Geonics EM31-Mark I geophysical detector linked to a Leica differential global positioning system.

The survey did not reveal any areas where large concentrations of buried waste are present. The mapping showed the presence of known surface features and a single buried pipeline leaving the historical burn pits in Area C.

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ABBREVIATIONS AND ACRONYMS

CDFG	California Department of Fish and Game
DGPS	Differential Global Positioning System
EHSP	Environmental Health and Safety Plan
EMI	Electromagnetic induction
EM31	Geonics EM31-Mark I
GPS	Global Positioning System
LMC	Lockheed Martin Corporation
MEC	Munitions and explosive of concern
SKR	Stephens' Kangaroo Rat
Tetra Tech	Tetra Tech, EC Incorporated
The Site	Operational Area H Landfill
UXO	Unexploded ordnance

1.0 INTRODUCTION

In late 2003, approximately 94% of former Beaumont Site 1 facility near Beaumont, California was sold to the State of California. The portion of the facility sold is being managed by the California Department of Fish and Game (CDFG). CDFG proposes to use the property as a wildlife conservation area and allows limited use of the property for public recreation.

During the active industrial life of Beaumont Site 1 from 1960 until 1974, LMC used the facility for solid propellant mixing, testing, and incineration, as well as ballistics testing. A disposal area for excess propellant and other hazardous waste was constructed at the facility in an area now known as Operational Area C. Operational Area C is one of nine known historical operational areas at Beaumont Site 1. According to historical information available (Radian, 1986a, 1986b and 1990) the propellant was disposed of by placing it in strip pits (trenches) or pits, pouring perchlorate oxidizer or diesel fuel on the waste and igniting it. Some reportedly spectacular burns took place at the site creating temperatures high enough to melt sand. Historical information also indicates that the burn pit area has been remediated and contaminated soils and solid wastes have been removed. Recently, during a munitions assessment and removal on site, two former facility employees indicated that there may be additional burn pits present in Operational Area B to the northwest of Area C. Tetra Tech, Inc. (Tetra Tech) was tasked by LMC to perform a geophysical survey of the suspect areas and provide information regarding the validity of this information.

1.1 PURPOSE AND OBJECTIVES

The purpose of this geophysical survey was to evaluate the subsurface in suspect areas (portions of Operational Areas B and C) to identify and locate any potential burn pits or buried disposal sites that may require assessment or removal.

1.2 SCOPE OF WORK

The scope of the survey was limited to geophysical evaluation in accessible areas within Operational Area B where there was potential for subsurface burn pits or debris disposal areas to be present based on information provided by the former employees. Portions of Area B already investigated for munitions were not included in this survey since they had already been subjected to geophysical evaluation as part of the MEC investigation. A limited portion of Operational Area C immediately surrounding the

known former burn pits was also surveyed. No intrusive investigation was performed. The approved Environmental Health and Safety Plan (EHSP) for the munitions and explosives of concern (MEC) evaluation conducted on site in 2005 (Tetra Tech, 2005b) was used for the Area B survey even though no munitions were anticipated to be present. This plan was readily available and covered all potential hazards associated with the survey operations. The specific tasks executed for this survey included:

- Staking of control points/navigation points for the survey;
- Evaluation of the survey area using a Geonics EM31-Mark I geophysical instrument to detect buried waste using both magnetic and conductivity data;
- Processing and interpretation of the geophysical data to determine the presence of potential subsurface burn pits or debris areas; and,
- Preparation of this brief summary report documenting the methods, processes and results for the survey.

1.3 TECHNICAL APPROACH

The technical approach for the geophysical survey was designed to provide accurate identification of significant subsurface features that might represent buried burn pits or waste disposal areas. It included a geophysical survey of the area using a Geonics EM31-Mark I (EM31) detector coupled with a Leica differential global positioning system (DGPS). The EM31 was selected not only because it is effective for delineating large concentrations of metal-containing buried materials, but because it is also capable of detecting the subtle contrast in ground conductivity that may exist between non-metallic buried material and the adjacent undisturbed earth, or changes in ground conductivity that may commonly occur as a result of disturbing the earth to create disposal areas. The DGPS was used to achieve very accurate location control for the survey. The Leica DGPS system is capable of delivering location data with sub-meter accuracy.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

The former Beaumont Site 1 is located in Riverside County south of the City of Beaumont, California approximately 70 miles east of the City of Los Angeles, California.

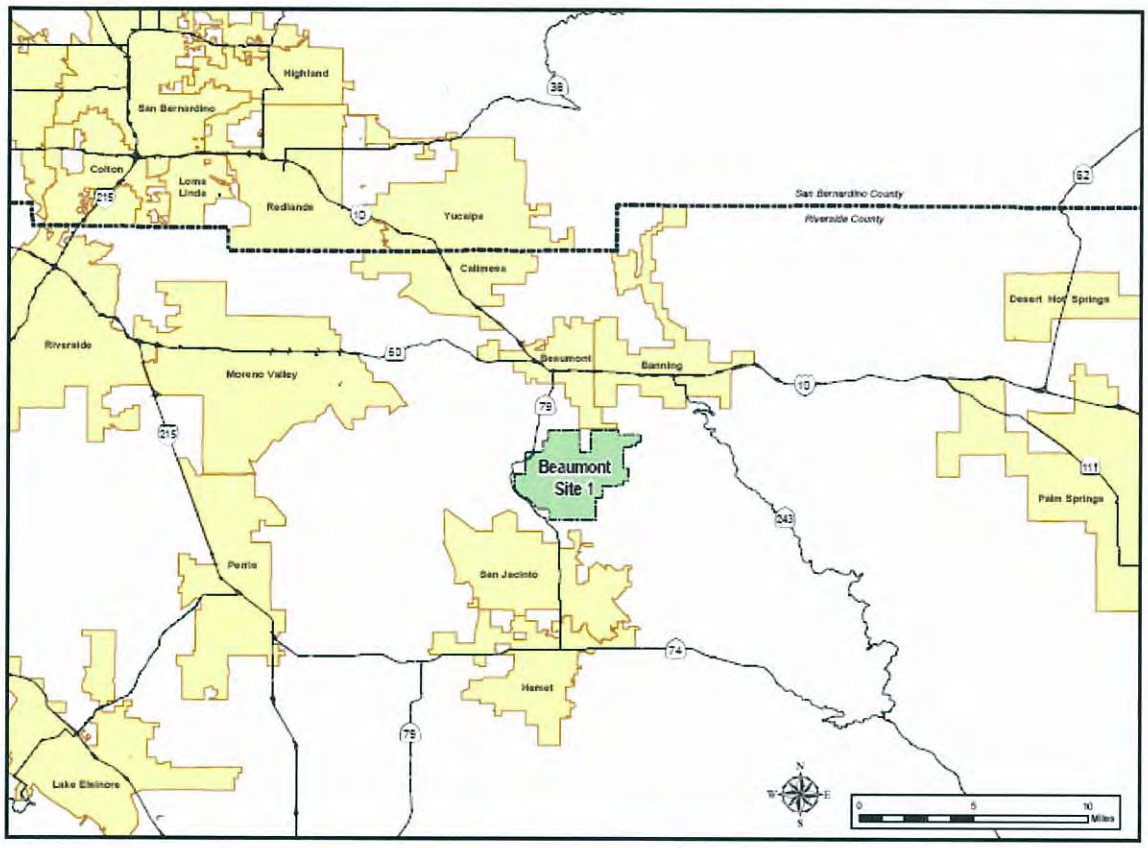
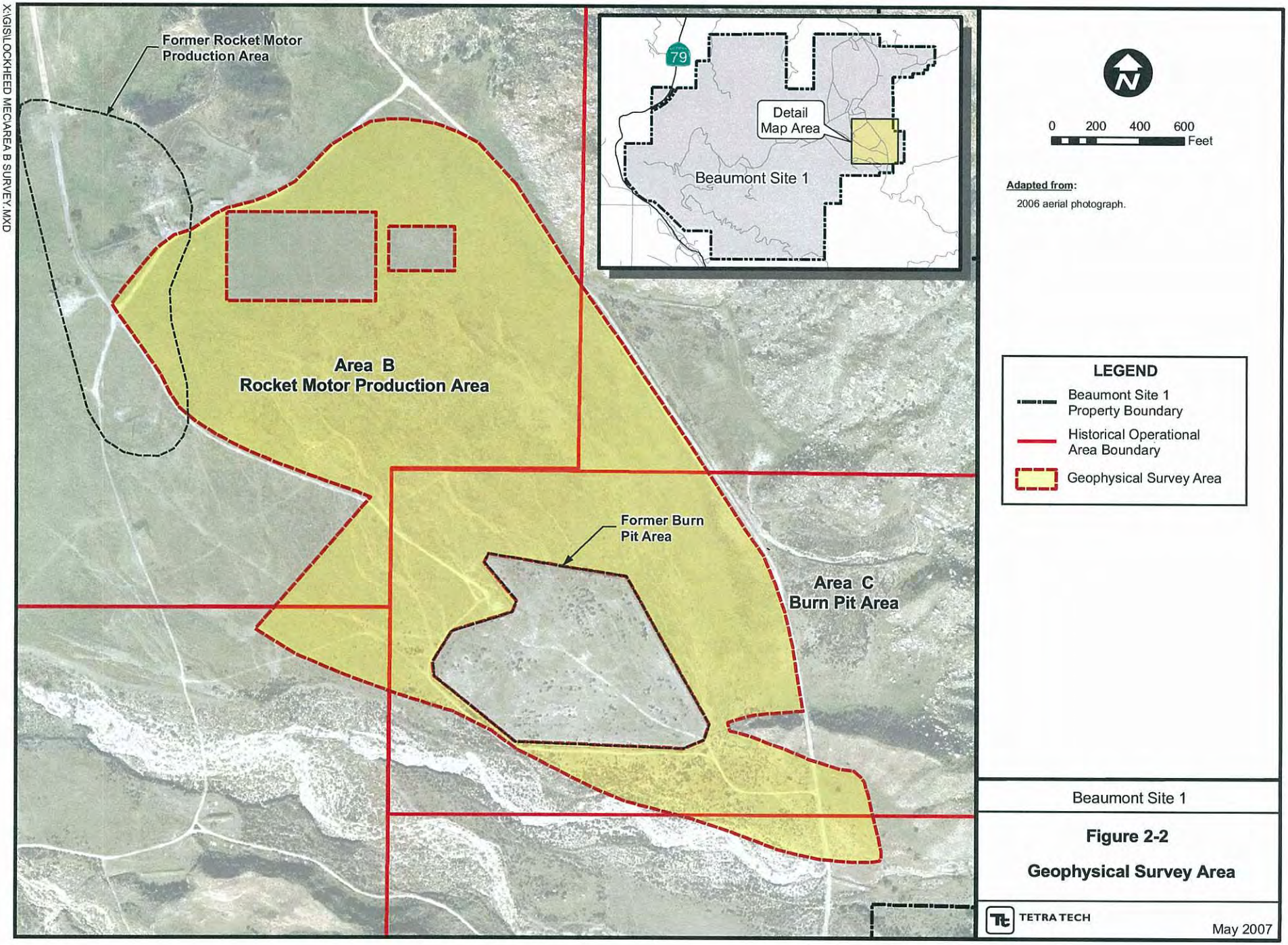


Figure 2-1. Former Beaumont Site 1 Vicinity Map

The survey area for the soil characterization at Beaumont Site 1 is located within Operational Areas B and C in the eastern portion of this 9,100 facility (Figure 2-2). The area has generally flat terrain and there was little vegetation as a result of a large wildfire that burned across the site late in 2006. The area is approximately ?? acres in size and surrounds the known burn pit area in Operational Area C. Priority was given to areas north and west of Operational Area C where the former employees indicated additional burn pits may be present; however, a small area to the south and east of the former burn pits was also evaluated.


X:\GIS\LOCKHEED MEC\AREA B SURVEY.MXD
Former Rocket Motor Production Area
Area B
Rocket Motor Production Area
Former Burn Pit Area
Area C
Burn Pit Area
79
Detail Map Area
Beaumont Site 1
N
0 200 400 600
Feet
Adapted from:
2006 aerial photograph.
LEGEND
Beaumont Site 1 Property Boundary
Historical Operational Area Boundary
Geophysical Survey Area
Beaumont Site 1
Figure 2-2
Geophysical Survey Area
TETRA TECH
May 2007

3.0 SURVEY ACTIVITIES

3.1 GEOPHYSICAL MAPPING

An EM31 was the geophysical sensor used to map the survey area. The EM31 was selected because it is useful for delineating large concentrations of metal-containing materials. However, if the buried material contains relatively little or no metal, the EM31 is also capable of detecting the subtle contrast in ground conductivity that may exist between the buried material and the adjacent undisturbed earth, or changes in ground conductivity that may commonly occur as a result of disturbing the earth to create burn pits or disposal trenches.

The EM31 uses frequency domain electromagnetic induction (EMI) to detect metallic and non-metallic debris using current from a transmitter coil to generate a primary magnetic field beneath the ground surface. This primary magnetic field induces current to flow within the ground (i.e., eddy currents), which produce a secondary magnetic field that is detected along with the primary field at the receiver coil. The ratio of the secondary field to the primary field is linearly related to terrain conductivity under certain constraints. Two components of the secondary magnetic field are digitally measured: the quadrature phase component (terrain conductivity) as millimhos per meter, and the in-phase component expressed in parts per thousand of the primary signal (a measure of signal amplitude). The in-phase component of the signal is particularly sensitive to ferrous and non-ferrous metallic material. The EM31 was carried with the boom oriented perpendicular to the direction of travel. The digital data were recorded using a Juniper Allegro data logger. The Juniper was set to record data at a rate of 15-readings/second.

Positioning of the EM31 instrument was accomplished using a high-resolution DGPS. The DGPS base station unit was erected over a known survey control point. The rover unit transmitter was mounted at the mid point of the EM31 detector and the electronics package was carried by the EM31 operator in the instrument daypack. The DGPS system was configured to record at a rate of 2-readings/second. At the completion of acquisition, the rover GPS data were post-processed with respect to the base data and the resulting data were output in California State Plane Zone 6, North American Datum of 1983 (NAD83).

The survey was conducted over an area that is irregular in shape. The area was established based on the location of former site roads, the known location of propellant

disposal, the location of areas investigated for MEC presence during 2006 and 2007 and information obtained from former employees at the facility with respect to disposal of propellant and hazardous waste. The survey area is generally bounded by former facility roads on the north, easy and northwest and by a deep drainage ravine (ephemeral creek bed) along the southern edge (See Figure 2-2). Surface features such as monitoring well heads and power poles were noted during the survey, but no protruding debris was observed and there were no distinctive terrain features indicative of burial (depression or mounds).

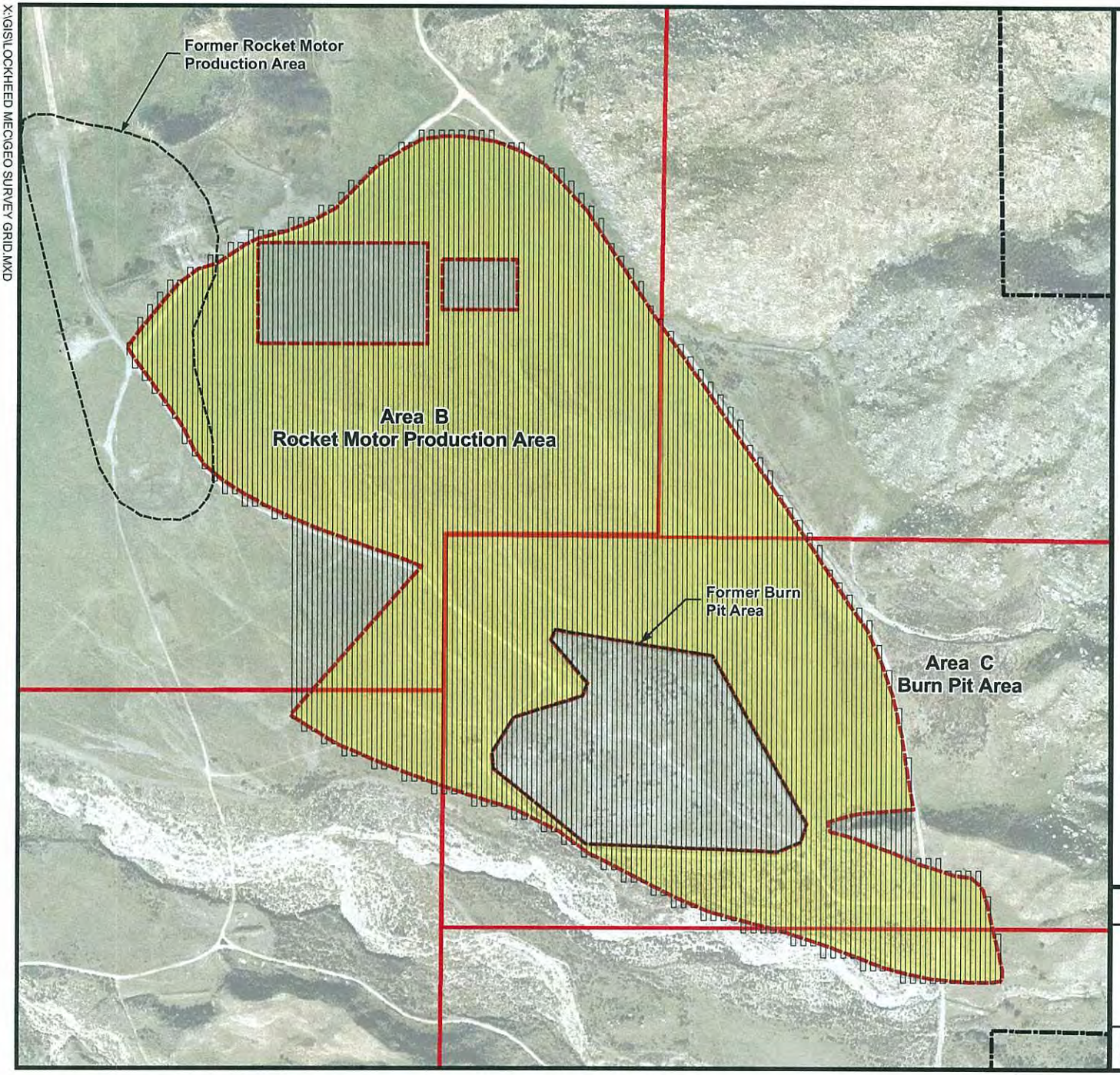
The survey was conducted using north-south trending transects.

3.2 DATA PROCESSING AND INTERPRETATION

Following the completion of the survey, the EM31 and DGPS positioning data were uploaded to a laptop computer at the site, and backed up on storage media. The EM31 and position data were merged and track maps were reviewed to ensure that the required transect spacing was accomplished. The transect lines walked by the geophysicist are shown on Figure 3-1.

The EM31 and DGPS data were processed and uploaded into Geosoft Oasis Montaj, and color-coded images of the sensor intensity were generated. These color-coded images can be used to define areas that are representative of subsurface debris. In general, surface and near-surface metallic material may cause a large-amplitude response with the EM31. The response may be positive or negative; areas shaded in the lighter colored red to pink, as well as the deep blues are indicative of filled areas.

X:\GIS\LOCKHEED MEC\GEO SURVEY GRID.MXD



N

0 200 400 600 Feet

Adapted from:

2006 aerial photograph.

LEGEND

- Beaumont Site 1 Property Boundary
- Historical Operational Area Boundary
- Geophysical Survey Area

Beaumont Site 1

Figure 3-1

Geophysical Survey Grid

TETRA TECH

May 2007

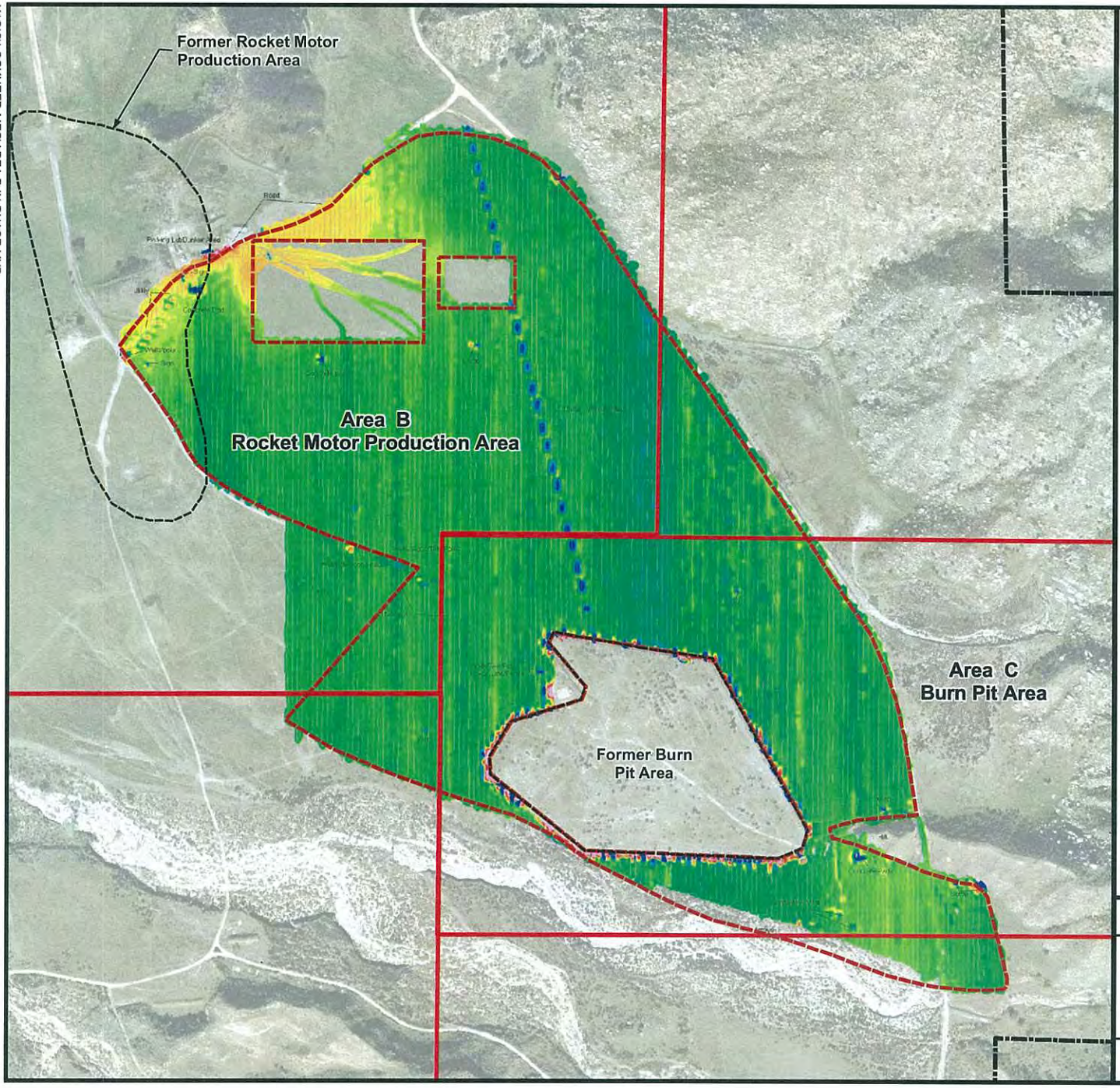
4.0 SURVEY RESULTS

The color-coded maps depicting the results of the EM31 landfill survey show similar trends in the in-phase and quadrature phase responses. The in-phase geophysical map (Figure 4-1) clearly shows greater concentrations of subsurface metallic artifacts near the facility roadways on the north and east of the survey area. This is to be expected due to the presence of features such as power poles and underground utilities, as well as the proclivity of humans to discard waste at convenient locations such as along roadways. The quadrature phase map (Figure 4-2) which depicts soil disturbance or variations in soil conductivity also shows a higher concentration of disturbance near the former roadways which is anticipated based upon the excavation, grading and other activities which took place in these areas.

There are several areas illustrated on the in-phase response map that support the presence of buried metal materials; however, all of these areas have been linked to visible surface features such as monitoring well heads or power poles, except one. This single area appears as blue line running north-northwest from the former burn pit area. The shape and size (length) are not indicative of a burial trench or pit, but rather indicate that the anomaly is a buried metallic pipeline or conduit. Specific anomalies appear on the in-phase geophysical map (Figure 4-1) as responses that are either greater than background (pink, dark orange and red shades) or much less than background (dark blue, cyan and green shades).

The quadrature phase geophysical map reflects the same surface features and pipeline/conduit that appear on the in-phase map. The largest amplitude in-phase anomalies show a corresponding quadrature phase response. There are no areas of disturbance on the quadrature map that do not have corresponding features on the in-phase map. Areas of higher conductivity appear in pink, dark orange and red shades on the quadrature geophysical map (Figure 4-2). Areas of low conductivity are blue or green on the figure.

X:\GIS\LOCKHEED MEC\AREA B IN-PHASE.MXD



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0 200 400 600 Feet

Adapted from:

2006 aerial photograph.

LEGEND

Inphase PPT

Beaumont Site 1 Property Boundary

Historical Operational Area Boundary

Geophysical Survey Area

Beaumont Site 1

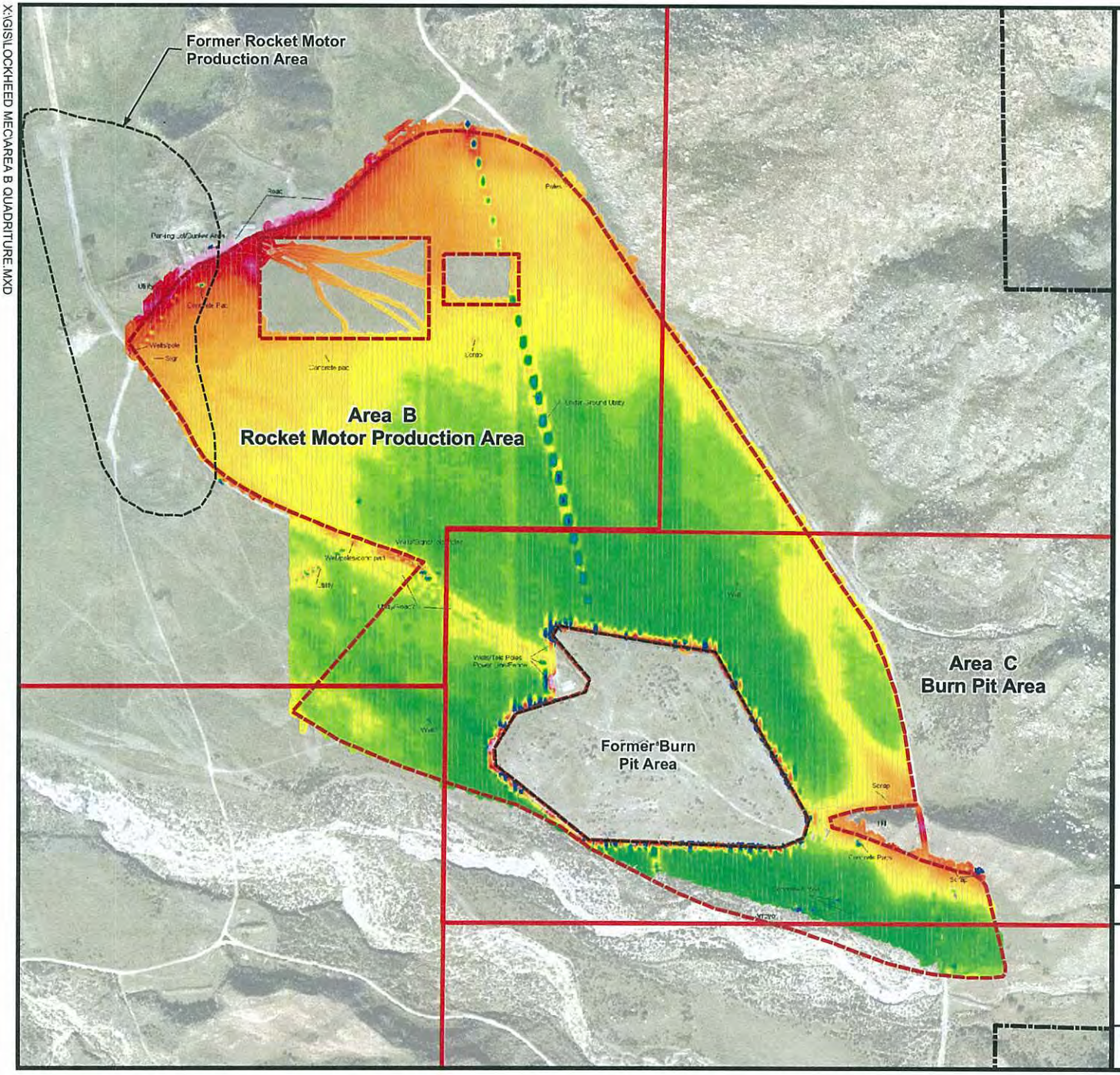
Figure 4-1

Geophysical Survey EM31 In-Phase Results

TETRA TECH

May 2007

X:\GIS\LOCKHEED MEC\AREA B QUADRITURE.MXD



N

0 200 400 600
Feet

Adapted from:

2006 aerial photograph.

LEGEND

Apparent Conductivity

Beaumont Site 1 Property Boundary

Historical Operational Area Boundary

Geophysical Survey Area

Beaumont Site 1

Figure 4-2

Geophysical Survey
EM31 Quadriture Phase Results

TETRA TECH

May 2007

5.0 CONCLUSIONS

There are no apparent subsurface burning or burial sites within the surveyed area. Subsurface anomalies and disturbances present can generally be attributed to man-made artifacts such as monitoring wells, roads, fences, power poles, etc. Although there are areas within the survey boundaries where metallic anomalies exist or where higher soil conductivity is present, these areas are the result of human activity related to construction, environmental sampling/monitoring and/or historical ranching. There are no apparent indications that large scale burning or disposal by burial occured in the survey area.

6.0 REFERENCES

Radian, 1986a. Lockheed Propulsion Company, Beaumont Test Facilities, Historical Report. September 1986.

Tetra Tech, 2005b. Environmental Health and Safety Plan, MEC Construction Support. April 2005.

Appendix H

Investigation-Derived Waste Manifests

NH 1344040.7 OP 81270

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	CAD983613753	1	909-889-5607	54635-A

5. Generator's Name and Mailing Address
Lockheed Martin Corp.
2950 Hollywood Way #125
Burbank CA 91505
Generator's Phone: 818 847-9901

Att: Attn: ~~Mr. Christopher Ingalls~~ MR. GENE MATSUSHITA

Generator's Site Address (if different than mailing address)
Lockheed Martin Corp.
17255 Highland Springs Ave.
Beaumont CA

6. Transporter 1 Company Name: Haz Mat Trans, Inc. — U.S. EPA ID Number: CAT080012800

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Chemical Waste Management
35251 Old Skyline Road
Kettleman City CA 93239
Facility's Phone: 800 222-2964
U.S. EPA ID Number: CAT000646117

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
	1. NON-HAZARDOUS WASTE SOLID	1	CM	18	Y
	2.				
	3.				
	4.				

13. Special Handling Instructions and Additional Information
9b.1) soil/debris- Profile #100315CA Gloves & Goggles

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Thomas J. Villeneuve — Signature: For Lockheed Martin Corp — Month 7 Day 5 Year 07

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: BRUCE YOUNG — Signature: [signature] — Month 7 Day 5 Year 07
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

H132

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Ginger Adams — Signature: [signature] — Month 7 Day 10 Year 07

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLC-O 6 10498 DESIGNATED FACILITY TO GENERATOR

A H132.00

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	C A D 9 8 3 6 1 3 7 5 3	1	909-889-5607	54608 - A

GENERATOR

5. Generator's Name and Mailing Address
Lockheed Martin Corp.
2950 Hollywood Way #125
Burbank CA 91505
Att: Attn: ~~Mr. Christopher Ingalls~~ MR. GENE MATSUSHITA
Generator's Phone: 818 847-9901

Generator's Site Address (if different than mailing address)
Lockheed Martin Corp
17255 Highland Springs Ave.
Beaumont CA

6. Transporter 1 Company Name
Haz Mat Trans, inc.
U.S. EPA ID Number
C A T 0 8 0 0 1 2 8 0 0

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Chemical Waste Management
35251 Old Skyline Road
Kettleman City CA 93239
Facility's Phone: 800 222-2964
U.S. EPA ID Number
C A T 0 0 0 6 4 6 1 1 7

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON-HAZARDOUS WASTE SOLID	1	CM	18	Y	H132
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
9b.1) soil/debris- Profile #100315CA
Gloves & Goggles

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Thomas J. Villeneuve
Signature: For Lockheed Martin Corp
Month 7 Day 5 Year 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: BRUCE Young
Signature:
Month 7 Day 5 Year 07
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a
Printed/Typed Name
Signature
Month Day Year

169-BLC-O 6 10498

TRANSPORTER #1

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	CAD983613753	1	909-889-5607	54928-A

GENERATOR

5. Generator's Name and Mailing Address
Lockheed Martin Corp.
2950 Hollywood Way #125
Burbank CA 91505
Generator's Phone: 818 847-9901
Att: Attn: Mr. ~~Christopher Ingalls~~ Gene Matsushita

Generator's Site Address (if different than mailing address)
Lockheed Martin Site #2
Jack Rabbit Trail
Beaumont CA

6. Transporter 1 Company Name: Haz Mat Trans, Inc. — U.S. EPA ID Number: CAT080012800

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Siemens Water Technologies Corp.
5375 South Boyle Ave.
Vernon CA 90058
Facility's Phone: 800 266-7747
U.S. EPA ID Number: CAD097030993

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON-HAZARDOUS WASTE LIQUID	001	DM	30	G	
	2. NON-HAZARDOUS WASTE SOLID	006	DM	300	P	
	3.					
	4.					

13. Special Handling Instructions and Additional Information
9b.1) IDW, Liquid, Decon Water- Profile #AP174026 1X55
9b.2) IDW, Solids, Well Installation- Profile #AP174027 6X55
Gloves & Goggles

RS55410 D104063

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Thomas J. Villeneuve
Signature: For Lockheed Martin — Thomas J. Villeneuve
Month Day Year: 08 09 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Ovalle
Signature:
Month Day Year: 08 09 07

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

AUG 10 '07 AM 7:10

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year: 08 10 07

169-BLC-O 6 10498

DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
CAD983613753	1	909-889-5607	55157

GENERATOR

5. Generator's Name and Mailing Address
Lockheed Martin Corp.
Attn: Attn: Mr. Christopher Ingalls
Mr. Gene Matsuoka
2950 Hollywood Way #125
Burbank CA 91505 0117
Generator's Phone: 818 847-9861

Generator's Site Address (if different than mailing address)
Lockheed Martin Corp.
17255 Highland Springs Ave.
Beaumont CA

6. Transporter 1 Company Name: Haz Mat Trans, Inc.
U.S. EPA ID Number: CAT080012800

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Siemens Water Technologies Corp
5375 South Boyle Ave.
Vernon CA 90058
Facility's Phone: 800 266-7747
U.S. EPA ID Number: CAD097030993

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON-HAZARDOUS WASTE SOLID	006	DM	340	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
9b: Ph. Raw Drill Cuttings Profile #P174502 6@55 Gloves & Goggles
Beaumont Site 1 - MW Install

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Thomas J. Villeneuve
Signature: For Lockheed Martin
Month: 05 Day: 23 Year: 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Michael Ovalle
Signature:
Month: 05 Day: 23 Year: 07

Transporter 2 Printed/Typed Name
Signature
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month: Day: Year:

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
CAD983613753	1	909-889-5607	55115

GENERATOR

5. Generator's Name and Mailing Address
Lockheed Martin Corp.
2950 Hollywood Way #125
Burbank CA 91505 0137
Generator's Phone: 818 847-9951

Att: Attn: Mr. Christopher Ingalls
Mr. Gene McLaughlin

Generator's Site Address (if different than mailing address)
Lockheed Martin Corp.
17255 Highland Springs Ave.
Beaumont CA

6. Transporter 1 Company Name: Haz Mat Trans, Inc.
U.S. EPA ID Number: CAT080012800

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Siemens Water Technologies Corp
5375 South Boyle Ave.
Vernon CA 90058
Facility's Phone: 800 266-7747
U.S. EPA ID Number: CAD097030993

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON-HAZARDOUS WASTE LIQUID	1	TT	2610	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
9b.1) IDW development & sampling water - Profile #P174501 Gloves & Goggles
Beaumont Site 1 - MW Install

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Thomas J. Villeneuve
Signature: For Lockheed Martin Thomas J. Villeneuve
Month: 08 Day: 23 Year: 07

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARIO J BARRA
Signature:
Month: 08 Day: 23 Year: 07

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

GENERATOR'S/SHIPPER'S INITIAL COPY

Appendix I

Validated Analytical Results

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B11-HSAS10-10-11.5				B11-HSAS10-25-26.5				B11-HSAS10-30-31.5			
		SDG:		07D051				07D051				07D051		
		Batch ID:		PCD004S				PCD004S				PCD004S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 5										
Perchlorate	10		104	725		g	22.5	270		g	22.8	318		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B11-HSAS8-20-21.5				B11-HSAS8-25-26.5				B11-HSAS8-5-6.5			
		SDG:		07D051				07D051				07D051		
		Batch ID:		PCD004S				PCD004S				PCD004S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21.6	ND	U	g	22.2	141		g	20.7	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B11-HSAS8-5-6.5D				B11-HSAS9-15-16.5				B11-HSAS9-20-21.5			
		SDG:		07D051				07D051				07D051		
		Batch ID:		PCD004S				PCD004S				PCD004S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
												Dilution 2		
Perchlorate	10		20.6	ND	U	g	22.2	261		g	45.3	388		g

Project: Beaumont						Table E - 1							
Site: 1						Analytical Data Summary							
Extraction Method: METHOD						EPA Method E314.0							
Analytical Method: E314.0													
Matrix: Soil													
Units: ug/kg			Environmental Samples										
		Field ID:	B11-HSAS9-25-26.5										
		SDG:		07D051									
		Batch ID:		PCD004S									
Parameters	MDL		PQL	Result	Validity	Comments							
				Dilution 2									
Perchlorate	10		45.5	364		g							

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:		A6-HAS1@0.5				A6-HAS101@0.5				A6-HAS1@5		
		SDG:		07D134				07D134				07D134		
		Batch ID:		PCD008S				PCD008S				PCD008S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21	ND	U	g	22.9	ND	U	g	22.3	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS22-12.5-14				C22-HSAS22-30-31.5				C22-HSAS22-60-61.5			
		SDG:		07D165				07D165				07D165		
		Batch ID:		PCD008S				PCD008S				PCD008S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 200				Dilution 20						
Perchlorate	10		4230	39600		g	467	5570		g	21.2	ND	U	g

Project: Beaumont				Table E - 1										
Site: 1				Analytical Data Summary										
Extraction Method: METHOD				EPA Method E314.0										
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS25-13-14.5			C22-HSAS25-25-26.5				C22-HSAS25-46-46.5				
		SDG:		07D165				07D165				07D165		
		Batch ID:		PCD008S				PCD008S				PCD008S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.6	31.9		g	20.8	62.4		g	21	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B19-HSAS1-10-11.5'				B19-HSAS1-20-21.5'				B19-HSAS1-5-6.5'			
		SDG:		07D181				07D181				07D181		
		Batch ID:		PCD010S				PCD010S				PCD010S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2								Dilution 2		
Perchlorate	10		41.8	470		g	24.3	267		g	41.1	292		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B19-HSAS17-10-11.5'				B19-HSAS17-20-21.5'				B19-HSAS17-5-6.5'			
		SDG:		07D181				07D181				07D181		
		Batch ID:		PCD010S				PCD010S				PCD010S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.9	63.8		g	22.5	213		g	21.3	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS26-15-16.5'				C22-HSAS26-20-21.5'				C22-HSAS26-35-36.5'			
		SDG:		07D181				07D181				07D181		
		Batch ID:		PCD010S				PCD010S				PCD010S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21.2	34.1		g	20.9	ND	U	g	21.1	87.5		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS21-12-15.5				C22-HSAS21-30-31.5				C22-HSAS21-60-61.5			
		SDG:		07D207				07D207				07D207		
		Batch ID:		PCD010S				PCD010S				PCD010S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
												Dilution 2		
Perchlorate	10		21	108		g	22.2	39.2		g	43.2	330		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS2101-60-61.5				C22-HSAS21-9.5-11				C22-HSAS23-10-11.5			
		SDG:		07D207				07D207				07D207		
		Batch ID:		PCD010S				PCD010S				PCD010S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2								Dilution 5		
Perchlorate	10		42.8	365		g	20.2	17.6	J	q	107	522		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS23-30-31.5				C22-HSAS23-60-61.5				C22-HSAS2301-60-61.5			
		SDG:		07D207				07D207				07D207		
		Batch ID:		PCD010S				PCD010S				PCD010S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 20								Dilution 2		
Perchlorate	10		418	3070		g	21.7	153		g	42.5	416		g

Project: Beaumont						Table E - 1							
Site: 1						Analytical Data Summary							
Extraction Method: METHOD						EPA Method E314.0							
Analytical Method: E314.0													
Matrix: Soil													
Units: ug/kg			Environmental Samples										
		Field ID:		IDW-041807-BIN1									
		SDG:		07D207									
		Batch ID:		PCD010S									
Parameters	MDL		PQL	Result	Validity	Comments							
Perchlorate	10		20.8	120		g							

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C22-HSAS24-20-21.5				C22-HSAS24-5-6.5				C22-HSAS24-55-56.5			
		SDG:		07D244				07D244				07D244		
		Batch ID:		PCD013S				PCD013S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 5										
Perchlorate	10		106	651		g	20.6	110		g	21.3	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C23-HSAS27-20-21.5				C23-HSAS27-30-31.5				C23-HSAS2701-30-31.5			
		SDG:		07D244				07D244				07D244		
		Batch ID:		PCD013S				PCD013S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.9	ND	U	g	20.3	ND	U	g	20.3	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C23-HSAS27-5-6.5				C23-HSAS2701-5-6.5				C23-HSAS28-20-21.5			
		SDG:		07D244				07D244				07D244		
		Batch ID:		PCD013S				PCD013S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.6	ND	U	g	20.7	ND	U	g	22.2	ND	U	g

Project: Beaumont				Table E - 1										
Site: 1				Analytical Data Summary										
Extraction Method: METHOD				EPA Method E314.0										
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	C23-HSAS2801-20-21.5				C23-HSAS28-40-41.5				C23-HSAS28-5-6.5			
		SDG:		07D244				07D244				07D244		
		Batch ID:		PCD013S				PCD013S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21.9	ND	U	g	20.6	ND	U	g	20.7	ND	U	g

Project: Beaumont				Table E - 1											
Site: 1				Analytical Data Summary											
Extraction Method: METHOD				EPA Method E314.0											
Analytical Method: E314.0															
Matrix: Soil															
Units: ug/kg			Environmental Samples												
		Field ID:	B10-HSAS4-15-16.5				B10-HSAS4-30-31.5				B10-HSAS4-5-6.5				
		SDG:		07D245				07D245				07D245			
		Batch ID:		PCD015S				PCD015S				PCD015S			
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	
Perchlorate	10		21.9	196		g	22.5	206		g	22.7	40.6		g	

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B14-HSAS12-10-11.5				B14-HSAS12-25-26.5				B14-HSAS12-5-6.5			
		SDG:		07D245				07D245				07D245		
		Batch ID:		PCD015S				PCD015S				PCD015S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		22.3	210		g	22.1	92.5		g	21.3	24.2		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B14-HSAS13-10-11.5				B14-HSAS13-25-26.5				B14-HSAS13-5-6.5			
		SDG:		07D245				07D245				07D245		
		Batch ID:		PCD015S				PCD015S				PCD015S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		22.8	64.2		g	23.4	24.6		g	21.4	15.5	J	q

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B19-HSAS18-10-11.5				B19-HSAS18-20-21.5				B19-HSAS18-5-6.5			
		SDG:		07D245				07D245				07D245		
		Batch ID:		PCD013S				PCD013S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 20										
Perchlorate	10		421	1550		g	23.3	217		g	21.9	26.6		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B9-HSAS2-10-11.5					B9-HSAS2-20-21.5				B9-HSAS2-5-6.5		
		SDG:		07D245				07D245				07D245		
		Batch ID:		PCD013S				PCD013S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 20										
Perchlorate	10		423	5480		g	20.8	45.7		g	21.1	193		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B9-HSAS3-10-11.5				B9-HSAS3-20-21.5				B9-HSAS3-5-6.5			
		SDG:		07D245				07D245				07D245		
		Batch ID:		PCD015S				PCD015S				PCD013S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
								Dilution 20						
Perchlorate	10		21.4	46.4		g	466	960		g	21	208		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B10-HSAS7-15-16.5				B10-HSAS7-30-31.5				B10-HSAS7-5-6.5			
		SDG:		07D266				07D266				07D266		
		Batch ID:		PCD018S				PCD018S				PCD018S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		22.5	17	J	q	21.6	105		g	22.5	25.5		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B20-HSAS19-10-11.5				B20-HSAS1901-10-11.5				B20-HSAS19-15-16.5			
		SDG:		07D266				07D266				07D266		
		Batch ID:		PCD018S				PCD018S				PCD018S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.7	85.4		g	20.6	99		g	21.2	94.4		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B20-HSAS19-25-26.5				B20-HSAS19-30-31.5				F33-HSAS15-10-11.5			
		SDG:		07D266				07D266				07D266		
		Batch ID:		PCD018S				PCD018S				PCD018S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.9	77.7		g	24.9	270		g	22.1	44.2		g

Project: Beaumont						Table E - 1							
Site: 1						Analytical Data Summary							
Extraction Method: METHOD						EPA Method E314.0							
Analytical Method: E314.0													
Matrix: Soil													
Units: ug/kg			Environmental Samples										
		Field ID:	F33-HSAS15-15-16.5					F33-HSAS15-20-21.5					
		SDG:		07D266				07D266					
		Batch ID:		PCD018S				PCD018S					
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments			
Perchlorate	10		22.1	119		g	23.2	ND	U	g			

Project: Beaumont				Table E - 1											
Site: 1				Analytical Data Summary											
Extraction Method: METHOD				EPA Method E314.0											
Analytical Method: E314.0															
Matrix: Soil															
Units: ug/kg			Environmental Samples												
		Field ID:	B10-HSAS-15-16.5				B10-HSAS501-15-16.5				B10-HSAS5-20-21.5				
		SDG:		07D314					07D314					07D314		
		Batch ID:		PCD019S					PCD019S					PCD019S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	
Perchlorate	10		23.3	189		g	22.7	209		g	25	328		g	

Project: Beaumont				Table E - 1											
Site: 1				Analytical Data Summary											
Extraction Method: METHOD				EPA Method E314.0											
Analytical Method: E314.0															
Matrix: Soil															
Units: ug/kg			Environmental Samples												
		Field ID:	B10-HSAS5-25-26.5				B10-HSAS6-10-11.5				B10-HSAS6-20-21.5				
		SDG:		07D314				07D314					07D314		
		Batch ID:		PCD019S				PCD019S					PCD019S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	
								Dilution 10							
Perchlorate	10		23	155		g	234	1080		g	23.3	181		g	

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B10-HSAS6-30-31.5				B20-HSAS20-10-11.5				B20-HSAS20-20-21.5			
		SDG:		07D314				07D314				07D314		
		Batch ID:		PCD019S				PCD019S				PCD019S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		26.7	286		g	20.7	68.2		g	24.1	224		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B20-HSAS20-25-26.5				B20-HSAS20-30-31.5							
		SDG:		07D314				07D314						
		Batch ID:		PCD019S				PCD019S						
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments				
Perchlorate	10		25.6	322		g	25.8	302		g				

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B14-HSAS11-10-11.5				B14-HSAS11-20-21.5				B14-HSAS11-30-31.5			
		SDG:		07D315				07D315				07D315		
		Batch ID:		PCD019S				PCD019S				PCD019S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 20				Dilution 20						
Perchlorate	10		476	3200		g	439	5360		g	22.8	198		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B18-HSAS14-15-16.5				B18-HSAS14-20-21.5				B18-HSAS14-5-6.5			
		SDG:		07D315				07D315				07D315		
		Batch ID:		PCD020S				PCD020S				PCD020S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		22	ND	U	g	21.3	ND	U	g	20.5	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B18-HSAS15-15-16.5				B18-HSAS15-20-21.5				B18-HSAS15-5-6.5			
		SDG:		07D315				07D315				07D315		
		Batch ID:		PCD020S				PCD020S				PCD019S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		23.1	41.8		g	21.7	27.7		g	20.7	19.2	J	q

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	B18-HSAS16-10-11.5				B18-HSAS16-20-21.5				B18-HSAS16-5-6.5			
		SDG:		07D315				07D315				07D315		
		Batch ID:		PCD020S				PCD020S				PCD020S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21.1	ND	U	g	21.4	22		g	20.8	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:		D29-HAS14-0.5				D29-HAS14-5				D29-HAS15-0.5		
		SDG:		07G343				07G343				07G343		
		Batch ID:		PCG014S				PCG014S				PCG014S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 5										
Perchlorate	10		101	ND	U	g	20.7	ND	U	g	20.2	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:		D29-HAS15-5				D29-HAS16-0.5				D29-HAS16-5		
		SDG:		07G343				07G343				07G343		
		Batch ID:		PCG014S				PCG014S				PCG014S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.4	ND	U	g	20.3	ND	U	g	21.4	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	H49-HSAS13-15-16.5				H49-HSAS13-20-21.5				H49-HSAS13-25-26.5			
		SDG:		07E016				07E016				07E016		
		Batch ID:		PCD022S				PCD022S				PCD022S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		29.2	ND	U	g	26.7	ND	U	g	28	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	H49-HSAS7-15-16.5				H49-HSAS7-30-31.5				H49-HSAS7-45-46.5			
		SDG:		07E016				07E016				07E016		
		Batch ID:		PCD022S				PCD022S				PCD022S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		24.6	55		g	24.4	ND	U	g	21.1	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	H49-HSAS7-5-6.5				H49-HSAS8-10-11.5				H49-HSAS8-25-26.5			
		SDG:		07E016				07E016				07E016		
		Batch ID:		PCD022S				PCD022S				PCD022S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		22.9	40.1		g	20.9	ND	U	g	20.8	ND	U	g

Project: Beaumont				Table E - 1										
Site: 1				Analytical Data Summary										
Extraction Method: METHOD				EPA Method E314.0										
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	H49-HSAS8-40-41.5											
		SDG:		07E016										
		Batch ID:		PCD022S										
Parameters	MDL		PQL	Result	Validity	Comments								
Perchlorate	10		20.9	ND	U	g								

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:		F33-HAS11@.5				F33-HAS11@5				F33-HAS12@.5		
		SDG:		07E017				07E017				07E017		
		Batch ID:		PCD022S				PCD022S				PCD025S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21.6	22.3		g	21.7	17.2	J	q	20.7	212		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:		F33-HAS12@5.0				F33-HAS13@.5				F33-HAS13@5.0		
		SDG:		07E017				07E017				07E017		
		Batch ID:		PCD025S				PCD025S				PCD025S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		20.8	100		g	20.7	18	J	q	23.3	ND	U	g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:		F33-HAS16@.5				F33-HAS16@5				F33-HSAS10-10-11.5		
		SDG:		07E017				07E017				07E017		
		Batch ID:		PCD025S				PCD025S				PCD022S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Perchlorate	10		21.5	ND	U	g	24.8	ND	U	g	21.2	111		g

Project: Beaumont				Table E - 1										
Site: 1				Analytical Data Summary										
Extraction Method: METHOD				EPA Method E314.0										
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	F33-HSAS10-15-16.5			F33-HSAS10-20-21.5				F33-HSAS14-10-11.5				
		SDG:		07E017				07E017					07E017		
		Batch ID:		PCD022S				PCD022S					PCD022S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
												Dilution 20		
Perchlorate	10		21.6	54.9		g	22.8	ND	U	g	428	6260		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	F33-HSAS14-15-16.5				F33-HSAS14-20-21.5				F33-HSAS14-5-6.5			
		SDG:		07E017				07E017				07E017		
		Batch ID:		PCD025S				PCD022S				PCD022S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 100				Dilution 200				Dilution 2		
Perchlorate	10		2110	14400		g	5100	51100		g	41.8	328		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	H49-HSAS6-10-11.5				H49-HSAS6-20-21.5				H49-HSAS6-40-41.5			
		SDG:		07E018				07E018				07E018		
		Batch ID:		PCD025S				PCD025S				PCD025S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
								Dilution 2				Dilution 100		
Perchlorate	10		24.5	103		g	50.4	361		g	2320	4910		g

Project: Beaumont						Table E - 1								
Site: 1						Analytical Data Summary								
Extraction Method: METHOD						EPA Method E314.0								
Analytical Method: E314.0														
Matrix: Soil														
Units: ug/kg			Environmental Samples											
		Field ID:	H49-HSAS601-40-41.5											
		SDG:		07E018										
		Batch ID:		PCD025S										
Parameters	MDL		PQL	Result	Validity	Comments								
				Dilution 100										
Perchlorate	10		2680	6470		g								

Project: Beaumont						Table E - 2								
Site: 1						Analytical Data Summary								
Extraction Method: SW3050B						EPA Method SW6010B								
Analytical Method: SW6010B														
Matrix: Soil														
Units: mg/kg														
			Environmental Samples											
		Field ID:		A6-HAS1@0.5				A6-HAS101@0.5				A6-HAS1@5		
		SDG:		07D134				07D134				07D134		
		Batch ID:		IPD029S				IPD029S				IPD029S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				(Unfiltered)				(Unfiltered)				(Unfiltered)		
Antimony	2		10.5	<2.1	U	g	11.5	<2.29	U	g	11.1	<2.23	U	g
Arsenic	0.4		1.05	3.04	J	f	1.15	8.11	J	f	1.11	5.87		g
Barium	0.2		1.05	52.8	J	f	1.15	165	J	f	1.11	123		g
Beryllium	0.2		1.05	<0.21	U	g	1.15	0.674	J	q	1.11	0.587	J	q
Cadmium	0.5		1.05	<0.526	U	g	1.15	<0.573	U	g	1.11	<0.557	U	g
Chromium	1		2.1	7.57	J	f	2.29	31.9	J	f	2.23	25.8		g
Cobalt	1		2.1	4.84	J	f	2.29	12.5	J	f	2.23	10.5		g
Copper	0.5		2.1	5.42	J	f	2.29	17.4	J	f	2.23	14.4		g
Lead	0.2		1.05	2.76	J	f	1.15	6.68	J	f	1.11	5.59		g
Molybdenum	0.5		5.26	<0.526	U	g	5.73	<0.573	U	g	5.57	<0.557	U	g
Nickel	1		2.1	5.67	J	f	2.29	20.7	J	f	2.23	16.1		g
Selenium	0.5		1.05	<0.526	U	g	1.15	1.1	J	q	1.11	1.04	J	q
Silver	0.5		2.1	<0.526	U	g	2.29	<0.573	U	g	2.23	<0.557	U	g
Thallium	0.5		1.05	<0.526	U	g	1.15	0.744	J	q	1.11	0.767	J	q
Vanadium	0.5		2.1	20.1	J	f	2.29	63.8	J	f	2.23	52.3		g
Zinc	0.5		2.1	26.3	J	f	2.29	73.1	J	f	2.23	58.9		g

Project: Beaumont						Table E - 2								
Site: 1						Analytical Data Summary								
Extraction Method: SW3050B						EPA Method SW6010B								
Analytical Method: SW6010B														
Matrix: Soil														
Units: mg/kg														
			Environmental Samples											
		Field ID:		C23-SS1				C23-SS2				C23-SS3		
		SDG:		07D164				07D164				07D164		
		Batch ID:		IPD029S				IPD029S				IPD029S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				(Unfiltered)				(Unfiltered)				(Unfiltered)		
Beryllium	0.2		1.01	0.679	J	q	1.01	0.339	J	q	1.01	0.362	J	q

Project: Beaumont						Table E - 2								
Site: 1						Analytical Data Summary								
Extraction Method: SW3050B						EPA Method SW6010B								
Analytical Method: SW6010B														
Matrix: Soil														
Units: mg/kg														
			Environmental Samples											
		Field ID:		C23-SS4				C23-SS5				C23-SS6		
		SDG:		07D164				07D164				07D164		
		Batch ID:		IPD029S				IPD029S				IPD029S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				(Unfiltered)				(Unfiltered)				(Unfiltered)		
Beryllium	0.2		1.03	0.336	J	q	1.02	0.479	J	q	1.01	0.461	J	q

Project: Beaumont						Table E - 2								
Site: 1						Analytical Data Summary								
Extraction Method: SW3050B						EPA Method SW6010B								
Analytical Method: SW6010B														
Matrix: Soil														
Units: mg/kg														
			Environmental Samples											
		Field ID:		C23-SS7				C23-SS107				C23-SS8		
		SDG:		07D164				07D164				07D164		
		Batch ID:		IPD029S				IPD029S				IPD029S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				(Unfiltered)				(Unfiltered)				(Unfiltered)		
Beryllium	0.2		1.01	0.303	J	q	1.01	0.658	J	q	1.01	<0.201	U	g

Project: Beaumont						Table E - 2								
Site: 1						Analytical Data Summary								
Extraction Method: SW3050B						EPA Method SW6010B								
Analytical Method: SW6010B														
Matrix: Soil														
Units: mg/kg														
			Environmental Samples											
		Field ID:	IDW-041807-BIN1											
		SDG:	07D207											
		Batch ID:	IPD031S											
Parameters	MDL		PQL	Result	Validity	Comments								
				(Unfiltered)										
Antimony	2		10.4	<2.08	U	g								
Arsenic	0.4		1.04	0.951	J	q								
Barium	0.2		1.04	82.8		g								
Beryllium	0.2		1.04	<0.208	U	g								
Cadmium	0.5		1.04	<0.519	U	g								
Chromium	1		2.08	27.4		g								
Cobalt	1		2.08	3.66		g								
Copper	0.5		2.08	<0.519	U	g								
Lead	0.2		1.04	2.49		g								
Molybdenum	0.5		5.19	<0.519	U	g								
Nickel	1		2.08	1.84	J	q								
Selenium	0.5		1.04	<0.519	U	g								
Silver	0.5		2.08	<0.519	U	g								
Thallium	0.5		1.04	1.01	J	q								
Vanadium	0.5		2.08	22.7		g								
Zinc	0.5		2.08	49.1		g								

Project: Beaumont					Table E - 3							
Site: 1					Analytical Data Summary							
Extraction Method: SW7471A					EPA Method SW7471A							
Analytical Method: SW7471A												
Matrix: Soil												
Units: mg/kg												
		Environmental Samples										
		Field ID:			A6-HAS1@0.5					A6-HAS101@0.5		
		SDG:			07D134					07D134		
Parameters	MDL		Batch ID	PQL	Result	Validity	Comments	Batch ID	PQL	Result	Validity	Comments
					(Unfiltered)					(Unfiltered)		
Mercury	0.033		HGD011S	0.105	<0.0347	U	g	HGD011S	0.115	<0.0378	U	g

Project: Beaumont					Table E - 3							
Site: 1					Analytical Data Summary							
Extraction Method: SW7471A					EPA Method SW7471A							
Analytical Method: SW7471A												
Matrix: Soil												
Units: mg/kg												
		Environmental Samples										
		Field ID:			A6-HAS1@5							
		SDG:			07D134							
Parameters	MDL		Batch ID	PQL	Result	Validity	Comments					
					(Unfiltered)							
Mercury	0.033		HGD011S	0.111	<0.0367	U	g					

Project: Beaumont					Table E - 3							
Site: 1					Analytical Data Summary							
Extraction Method: SW7471A					EPA Method SW7471A							
Analytical Method: SW7471A												
Matrix: Soil												
Units: mg/kg												
		Environmental Samples										
		Field ID:			IDW-041807-BIN1							
		SDG:			07D207							
Parameters	MDL		Batch ID	PQL	Result	Validity	Comments					
					(Unfiltered)							
Mercury	0.033		HGD016S	0.104	<0.0343	U	g					

Project: Beaumont				Table E - 4			
Site: 1				Analytical Data Summary			
Extraction Method: SW3550B				EPA Method SW8015B (Diesel Range Organics)			
Analytical Method: SW8015B DRO							
Matrix: Soil							
Units: mg/kg							
			Environmental Samples				
		Field ID:		IDW-041807-BIN1			
		SDG:		07D207			
		Batch ID:		DSD044S			
Parameters	MDL		PQL	Result	Validity	Comments	
Diesel Components	5		10	<5.2	U	g	
Motor Oil	5		21	<5.2	U	g	

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F35-HAS2@0.5'	F35-HAS2@0.5'				F35-HAS2@5'	F35-HAS2@5'		
		SDG:		07D106	07D106				07D106	07D106		
		Batch ID:		CPD020S	CPD020S				CPD020S	CPD020S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1221	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1232	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1242	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1248	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1254	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1260	20		51	<20	<20	U	g	52	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F35-HAS3@0.5'	F35-HAS3@0.5'				F35-HAS3@5'	F35-HAS3@5'		
		SDG:		07D106	07D106				07D106	07D106		
		Batch ID:		CPD020S	CPD020S				CPD020S	CPD020S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	53	<21	<21	U	g
Aroclor-1221	20		51	<20	<20	U	g	53	<21	<21	U	g
Aroclor-1232	20		51	<20	<20	U	g	53	<21	<21	U	g
Aroclor-1242	20		51	<20	<20	U	g	53	<21	<21	U	g
Aroclor-1248	20		51	<20	<20	U	g	53	<21	<21	U	g
Aroclor-1254	20		51	<20	<20	U	g	53	<21	<21	U	g
Aroclor-1260	20		51	<20	<20	U	g	53	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F40-HAS10@0.5	F40-HAS10@0.5'				F40-HAS10@5'	F40-HAS10@5'		
		SDG:		07D106	07D106				07D106	07D106		
		Batch ID:		CPD020S	CPD020S				CPD020S	CPD020S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1221	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1232	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1242	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1248	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1254	20		51	<20	<20	U	g	52	<21	<21	U	g
Aroclor-1260	20		51	<20	<20	U	g	52	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F40-HAS7@0.5'	F40-HAS7@0.5'				F40-HAS7@5'	F40-HAS7@5'		
		SDG:		07D106	07D106				07D106	07D106		
		Batch ID:		CPD020S	CPD020S				CPD020S	CPD020S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1221	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1232	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1242	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1248	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1254	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1260	20		51	<20	<20	U	g	51	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F40-HAS8@0.5'	F40-HAS8@0.5'				F40-HAS8@5'	F40-HAS8@5'		
		SDG:		07D106	07D106				07D106	07D106		
		Batch ID:		CPD020S	CPD020S				CPD020S	CPD020S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1221	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1232	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1242	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1248	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1254	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1260	20		51	<20	<20	U	g	51	<20	<20	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F40-HAS9@0.5'	F40-HAS9@0.5'				F40-HAS9@5'	F40-HAS9@5'		
		SDG:		07D106	07D106				07D106	07D106		
		Batch ID:		CPD020S	CPD020S				CPD020S	CPD020S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1221	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1232	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1242	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1248	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1254	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1260	20		51	<20	<20	U	g	51	<20	<20	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	BLDG309-HAS1@0	LDG309-HAS1@0.5'				BLDG309-HAS1@	LDG309-HAS1@2'			
		SDG:		07D107	07D107				07D107	07D107		
		Batch ID:		60D021S	60D021S				60D021S	60D021S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1221	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1232	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1242	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1248	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1254	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1260	20		51	<20	<20	U	g	51	<20	<20	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	BLDG309-HAS2@0	LDG309-HAS2@0.5'				BLDG309-HAS2@	LDG309-HAS2@2'			
		SDG:		07D107	07D107				07D107	07D107		
		Batch ID:		60D021S	60D021S				60D021S	60D021S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1221	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1232	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1242	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1248	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1254	20		51	<20	<20	U	g	51	<20	<20	U	g
Aroclor-1260	20		51	<20	<20	U	g	51	<20	<20	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	BLDG309-HAS3@0		LDG309-HAS3@0.5'			BLDG309-HAS3@		LDG309-HAS3@2'		
		SDG:		07D107	07D107				07D107	07D107		
		Batch ID:		60D021S	60D021S				60D021S	60D021S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1221	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1232	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1242	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1248	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1254	20		51	<20	<20	U	g	51	<21	<21	U	g
Aroclor-1260	20		51	<20	<20	U	g	51	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	BLDG309-HAS4@0	LDG309-HAS4@0.5'				BLDG309-HAS4@	LDG309-HAS4@2'			
		SDG:		07D107	07D107				07D107	07D107		
		Batch ID:		60D021S	60D021S				60D021S	60D021S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		52	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1221	20		52	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1232	20		52	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1242	20		52	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1248	20		52	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1254	20		52	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1260	20		52	<21	<21	U	g	53	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F35-HAS1@0.5'	F35-HAS1@0.5'				F35-HAS1@1.5'	F35-HAS1@1.5'		
		SDG:		07D107	07D107				07D107	07D107		
		Batch ID:		60D021S	60D021S				60D021S	60D021S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1221	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1232	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1242	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1248	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1254	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1260	20		52	<21	<21	U	g	52	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F35-HAS4@0.5'	F35-HAS4@0.5'				F35-HAS4@5'	F35-HAS4@5'		
		SDG:		07D107	07D107				07D107	07D107		
		Batch ID:		60D021S	60D021S				60D021S	60D021S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		51	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1221	20		51	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1232	20		51	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1242	20		51	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1248	20		51	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1254	20		51	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1260	20		51	<21	<21	U	g	53	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F36-HSAS1@10	F36-HSAS1@10'				F36-HSAS1@15	F36-HSAS1@15'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		60D034S	60D034S				60D034S	60D034S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		53	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1221	20		53	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1232	20		53	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1242	20		53	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1248	20		53	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1254	20		53	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1260	20		53	<21	<21	U	g	52	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F36-HSAS1@5'	F36-HSAS1@5'				F36-HSAS2@10	F36-HSAS2@10'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		60D034S	60D034S				60D034S	60D034S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		53	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1221	20		53	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1232	20		53	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1242	20		53	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1248	20		53	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1254	20		53	<21	<21	U	g	53	<21	<21	U	g
Aroclor-1260	20		53	<21	<21	U	g	53	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F36-HSAS2@15	F36-HSAS2@15'				F36-HSAS2@5'	F36-HSAS2@5'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		60D034S	60D034S				60D034S	60D034S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1221	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1232	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1242	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1248	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1254	20		52	<21	<21	U	g	52	<21	<21	U	g
Aroclor-1260	20		52	<21	<21	U	g	52	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F36-HSAS3@10	F36-HSAS3@10'				F36-HSAS3@15	F36-HSAS3@15'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		60D034S	60D034S				60D034S	60D034S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		53	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1221	20		53	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1232	20		53	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1242	20		53	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1248	20		53	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1254	20		53	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1260	20		53	<21	<21	U	g	54	<22	<22	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F36-HSAS3@5'	F36-HSAS3@5'				F36-HSAS4@10	F36-HSAS4@10'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		60D034S	60D034S				60D034S	60D034S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Arodlor-1016	20		55	<22	<22	U	g	52	<21	<21	U	g
Arodlor-1221	20		55	<22	<22	U	g	52	<21	<21	U	g
Arodlor-1232	20		55	<22	<22	U	g	52	<21	<21	U	g
Arodlor-1242	20		55	<22	<22	U	g	52	<21	<21	U	g
Arodlor-1248	20		55	<22	<22	U	g	52	<21	<21	U	g
Arodlor-1254	20		55	<22	<22	U	g	52	<21	<21	U	g
Arodlor-1260	20		55	<22	<22	U	g	52	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		F36-HSAS4@15	F36-HSAS4@15'				F36-HSAS4@5'	F36-HSAS4@5'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		60D034S	60D034S				60D034S	60D034S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		54	<22	<22	U	g	53	<21	<21	U	g
Aroclor-1221	20		54	<22	<22	U	g	53	<21	<21	U	g
Aroclor-1232	20		54	<22	<22	U	g	53	<21	<21	U	g
Aroclor-1242	20		54	<22	<22	U	g	53	<21	<21	U	g
Aroclor-1248	20		54	<22	<22	U	g	53	<21	<21	U	g
Aroclor-1254	20		54	<22	<22	U	g	53	<21	<21	U	g
Aroclor-1260	20		54	<22	<22	U	g	53	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS10-10-11		49-HSAS10-10-11.5				H49-HSAS10-15-16	49-HSAS10-15-16.5		
		SDG:		07D316	07D316				07D316	07D316		
		Batch ID:		60E001S	60E001S				60E001S	60E001S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1221	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1232	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1242	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1248	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1254	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1260	20		53	<21	<21	U	g	61	<24	<24	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS10-20-21	9-HSAS10-20-21.5				H49-HSAS11-10-11	9-HSAS11-10-11.5			
		SDG:		07D316	07D316				07D316	07D316		
		Batch ID:		60E001S	60E001S				60E001S	60E001S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		63	<25	<25	U	g	59	<24	<24	U	g
Aroclor-1221	20		63	<25	<25	U	g	59	<24	<24	U	g
Aroclor-1232	20		63	<25	<25	U	g	59	<24	<24	U	g
Aroclor-1242	20		63	<25	<25	U	g	59	<24	<24	U	g
Aroclor-1248	20		63	<25	<25	U	g	59	<24	<24	U	g
Aroclor-1254	20		63	<25	<25	U	g	59	<24	<24	U	g
Aroclor-1260	20		63	<25	<25	U	g	59	<24	<24	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS11-25-26	9-HSAS11-25-26.5				H49-HSAS1101-25-2	9-HSAS1101-25-26.5			
		SDG:		07D316	07D316				07D316	07D316		
		Batch ID:		60E001S	60E001S				60E001S	60E001S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		53	<21	<21	U	g	60	<24	<24	U	g
Aroclor-1221	20		53	<21	<21	U	g	60	<24	<24	U	g
Aroclor-1232	20		53	<21	<21	U	g	60	<24	<24	U	g
Aroclor-1242	20		53	<21	<21	U	g	60	<24	<24	U	g
Aroclor-1248	20		53	<21	<21	U	g	60	<24	<24	U	g
Aroclor-1254	20		53	<21	<21	U	g	60	<24	<24	U	g
Aroclor-1260	20		53	<21	<21	U	g	60	<24	<24	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS11-35-3		49-HSAS11-35-36.5							
		SDG:		07D316	07D316							
		Batch ID:		60E001S	60E001S							
	Primary		Primary	Primary	Secondary							
Parameters	MDL		PQL	Result	Result	Validity	Comments					
Aroclor-1016	20		54	<21	<21	U	g					
Aroclor-1221	20		54	<21	<21	U	g					
Aroclor-1232	20		54	<21	<21	U	g					
Aroclor-1242	20		54	<21	<21	U	g					
Aroclor-1248	20		54	<21	<21	U	g					
Aroclor-1254	20		54	<21	<21	U	g					
Aroclor-1260	20		54	<21	<21	U	g					

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS13-15-16		49-HSAS13-15-16.5			H49-HSAS13-20-21		49-HSAS13-20-21.5		
		SDG:		07E016	07E016				07E016	07E016		
		Batch ID:		60E005S	60E005S				60E005S	60E005S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		73	<29	<29	U	g	67	<27	<27	U	g
Aroclor-1221	20		73	<29	<29	U	g	67	<27	<27	U	g
Aroclor-1232	20		73	<29	<29	U	g	67	<27	<27	U	g
Aroclor-1242	20		73	<29	<29	U	g	67	<27	<27	U	g
Aroclor-1248	20		73	<29	<29	U	g	67	<27	<27	U	g
Aroclor-1254	20		73	<29	<29	U	g	67	<27	<27	U	g
Aroclor-1260	20		73	<29	<29	U	g	67	<27	<27	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS13-25-26		H49-HSAS13-25-26.5							
		SDG:		07E016	07E016							
		Batch ID:		60E005S	60E005S							
	Primary		Primary	Primary	Secondary							
Parameters	MDL		PQL	Result	Result	Validity	Comments					
Aroclor-1016	20		70	<28	<28	U	g					
Aroclor-1221	20		70	<28	<28	U	g					
Aroclor-1232	20		70	<28	<28	U	g					
Aroclor-1242	20		70	<28	<28	U	g					
Aroclor-1248	20		70	<28	<28	U	g					
Aroclor-1254	20		70	<28	<28	U	g					
Aroclor-1260	20		70	<28	<28	U	g					

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS9-10-11		49-HSAS9-10-11.5				H49-HSAS9-20-21	49-HSAS9-20-21.5		
		SDG:		07E017	07E017				07E017	07E017		
		Batch ID:		60E005S	60E005S				60E005S	60E005S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		52	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1221	20		52	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1232	20		52	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1242	20		52	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1248	20		52	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1254	20		52	<21	<21	U	g	54	<22	<22	U	g
Aroclor-1260	20		52	<21	<21	U	g	54	<22	<22	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS901-20-2		9-HSAS901-20-21.5			H49-HSAS9-35-36		49-HSAS9-35-36.5		
		SDG:		07E017	07E017				07E017	07E017		
		Batch ID:		60E005S	60E005S				60E005S	60E005S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		54	<22	<22	U	g	51	<21	<21	U	g
Aroclor-1221	20		54	<22	<22	U	g	51	<21	<21	U	g
Aroclor-1232	20		54	<22	<22	U	g	51	<21	<21	U	g
Aroclor-1242	20		54	<22	<22	U	g	51	<21	<21	U	g
Aroclor-1248	20		54	<22	<22	U	g	51	<21	<21	U	g
Aroclor-1254	20		54	<22	<22	U	g	51	<21	<21	U	g
Aroclor-1260	20		54	<22	<22	U	g	51	<21	<21	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS12-10-11	9-HSAS12-10-11.5				H49-HSAS12-15-16	49-HSAS12-15-16.5			
		SDG:		07E018	07E018				07E018	07E018		
		Batch ID:		60E005S	60E005S				60E005S	60E005S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
Aroclor-1016	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1221	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1232	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1242	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1248	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1254	20		53	<21	<21	U	g	61	<24	<24	U	g
Aroclor-1260	20		53	<21	<21	U	g	61	<24	<24	U	g

Project: Beaumont					Table E - 5							
Site: 1					Analytical Data Summary							
Extraction Method: SW3550B					EPA Method SW8082							
Analytical Method: SW8082												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	H49-HSAS12-20-21		9-HSAS12-20-21.5							
		SDG:		07E018	07E018							
		Batch ID:		60E005S	60E005S							
	Primary		Primary	Primary	Secondary							
Parameters	MDL		PQL	Result	Result	Validity	Comments					
Aroclor-1016	20		66	<26	<26	U	g					
Aroclor-1221	20		66	<26	<26	U	g					
Aroclor-1232	20		66	<26	<26	U	g					
Aroclor-1242	20		66	<26	<26	U	g					
Aroclor-1248	20		66	<26	<26	U	g					
Aroclor-1254	20		66	<26	<26	U	g					
Aroclor-1260	20		66	<26	<26	U	g					

Project: Beaumont						Table E - 6								
Site: 1						Analytical Data Summary								
Extraction Method: SW5035						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:		A6-HAS1@0.5				A6-HAS101@0.5				A6-HAS1@5		
		SDG:		07D134				07D134				07D134		
		Batch ID:		VO03D17				VO03D17				VO03D17		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
Bromodichloromethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
2-Butanone	5		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
Bromomethane	2		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
Bromoform	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Benzene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Carbon Disulfide	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Chlorobenzene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Chloroethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Chloromethane	2		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
Carbon Tetrachloride	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Chloroform	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Dibromochloromethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,1-Dichloroethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,2-Dichloroethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,1-Dichloroethene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
c-1,2-Dichloroethene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
t-1,2-Dichloroethene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
c-1,3-Dichloropropene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
t-1,3-Dichloropropene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,2-Dichloropropane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Ethylbenzene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
2-Hexanone	5		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
4-Methyl-2-Pentanone	5		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Methylene Chloride	2		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
Styrene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Toluene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,1,1-Trichloroethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,1,2-Trichloroethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Trichloroethene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
1,1,2,2-Tetrachloroethane	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Tetrachloroethene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
Vinyl Chloride	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g
p/m-Xylene	2		11	ND	U	g	11	ND	U	g	8.7	ND	U	g
o-Xylene	2		5.3	ND	U	g	5.7	ND	U	g	4.3	ND	U	g

Project: Beaumont						Table E - 6								
Site: 1						Analytical Data Summary								
Extraction Method: SW5030B						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:	C22-HSAS22-11-12.5				C22-HSAS22-30-31.5				C22-HSAS22-60-61.5			
		SDG:		07D165				07D165				07D165		
		Batch ID:		VO67D29				VO67D29				VO67D29		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
Bromodichloromethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
2-Butanone	5		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
Bromomethane	2		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
Bromoform	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Benzene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Carbon Disulfide	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Chlorobenzene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Chloroethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Chloromethane	2		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
Carbon Tetrachloride	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Chloroform	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Dibromochloromethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,1-Dichloroethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,2-Dichloroethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,1-Dichloroethene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
c-1,2-Dichloroethene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
t-1,2-Dichloroethene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
c-1,3-Dichloropropene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
t-1,3-Dichloropropene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,2-Dichloropropane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Ethylbenzene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
2-Hexanone	5		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
4-Methyl-2-Pentanone	5		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Methylene Chloride	2		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
Styrene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Toluene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,1,1-Trichloroethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,1,2-Trichloroethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Trichloroethene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
1,1,2,2-Tetrachloroethane	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Tetrachloroethene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
Vinyl Chloride	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g
p/m-Xylene	2		9.7	ND	U	g	9.6	ND	U	g	10	ND	U	g
o-Xylene	2		4.8	ND	U	g	4.8	ND	U	g	5	ND	U	g

Project: Beaumont				Table E - 6											
Site: 1				Analytical Data Summary											
Extraction Method: SW5030B				EPA Method SW8260B											
Analytical Method: SW8260B															
Matrix: Soil			Environmental Samples												
Units: ug/kg															
		Field ID:	C22-HSAS25-13-14.5				C22-HSAS25-25-26.5				C22-HSAS25-46-46.5				
		SDG:		07D165				07D165					07D165		
		Batch ID:		VO67D29				VO67D29					VO67D29		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	
Acetone	5		9.2	ND	U	g	9.8	ND	U	g	9.4	5.5	J	q	
Bromodichloromethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
2-Butanone	5		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
Bromomethane	2		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
Bromoform	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Benzene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Carbon Disulfide	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Chlorobenzene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Chloroethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Chloromethane	2		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
Carbon Tetrachloride	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Chloroform	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Dibromochloromethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,1-Dichloroethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,2-Dichloroethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,1-Dichloroethene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
c-1,2-Dichloroethene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
t-1,2-Dichloroethene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
c-1,3-Dichloropropene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
t-1,3-Dichloropropene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,2-Dichloropropane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Ethylbenzene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
2-Hexanone	5		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
4-Methyl-2-Pentanone	5		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
Methyl-t-Butyl Ether (MTBE)	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Methylene Chloride	2		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
Styrene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Toluene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,1,1-Trichloroethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,1,2-Trichloroethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Trichloroethene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
1,1,2,2-Tetrachloroethane	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Tetrachloroethene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
Vinyl Chloride	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	
p/m-Xylene	2		9.2	ND	U	g	9.8	ND	U	g	9.4	ND	U	g	
o-Xylene	2		4.6	ND	U	g	4.9	ND	U	g	4.7	ND	U	g	

Project: Beaumont				Table E - 6											
Site: 1				Analytical Data Summary											
Extraction Method: SW5035				EPA Method SW8260B											
Analytical Method: SW8260B															
Matrix: Soil			Environmental Samples												
Units: ug/kg															
		Field ID:	C22-HSAS26-15-16.5'				C22-HSAS26-20-21.5'				C22-HSAS26-35-36.5'				
		SDG:		07D181				07D181					07D181		
		Batch ID:		VO67D37				VO67D37					VO67D37		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	
Acetone	5		9.9	5	J	q	11	ND	U	g	13	ND	U	g	
Bromodichloromethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
2-Butanone	5		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
Bromomethane	2		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
Bromoform	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Benzene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Carbon Disulfide	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Chlorobenzene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Chloroethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Chloromethane	2		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
Carbon Tetrachloride	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Chloroform	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Dibromochloromethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
1,1-Dichloroethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
1,2-Dichloroethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
1,1-Dichloroethene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
c-1,2-Dichloroethene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
t-1,2-Dichloroethene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
c-1,3-Dichloropropene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
t-1,3-Dichloropropene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
1,2-Dichloropropane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Ethylbenzene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
2-Hexanone	5		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
4-Methyl-2-Pentanone	5		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
Methyl-t-Butyl Ether (MTBE)	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Methylene Chloride	2		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
Styrene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Toluene	2		5	2.6	J	q	5.7	ND	U	g	6.3	ND	U	g	
1,1,1-Trichloroethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
1,1,2-Trichloroethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Trichloroethene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
1,1,2,2-Tetrachloroethane	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Tetrachloroethene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
Vinyl Chloride	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	
p/m-Xylene	2		9.9	ND	U	g	11	ND	U	g	13	ND	U	g	
o-Xylene	2		5	ND	U	g	5.7	ND	U	g	6.3	ND	U	g	

Project: Beaumont							Table E - 6							
Site: 1							Analytical Data Summary							
Extraction Method: SW5035							EPA Method SW8260B							
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:	C22-HSAS21-12-15.5				C22-HSAS21-30-31.5				C22-HSAS21-60-61.5			
		SDG:		07D207				07D207				07D207		
		Batch ID:		VO67D47				VO67D47				VO67D47		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		9.9	ND	U	g	10	ND	U	g	9.5	4.9	J	q
Bromodichloromethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
2-Butanone	5		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
Bromomethane	2		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
Bromoform	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Benzene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Carbon Disulfide	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Chlorobenzene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Chloroethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Chloromethane	2		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
Carbon Tetrachloride	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Chloroform	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Dibromochloromethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,1-Dichloroethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,2-Dichloroethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,1-Dichloroethene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
c-1,2-Dichloroethene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
t-1,2-Dichloroethene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
c-1,3-Dichloropropene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
t-1,3-Dichloropropene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,2-Dichloropropane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Ethylbenzene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
2-Hexanone	5		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
4-Methyl-2-Pentanone	5		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Methylene Chloride	2		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
Styrene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Toluene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,1,1-Trichloroethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,1,2-Trichloroethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Trichloroethene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
1,1,2,2-Tetrachloroethane	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Tetrachloroethene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
Vinyl Chloride	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g
p/m-Xylene	2		9.9	ND	U	g	10	ND	U	g	9.5	ND	U	g
o-Xylene	2		4.9	ND	U	g	5.2	ND	U	g	4.8	ND	U	g

Project: Beaumont						Table E - 6								
Site: 1						Analytical Data Summary								
Extraction Method: SW5035						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:	C22-HSAS2101-60-61.5				C22-HSAS21-9.5-11				C22-HSAS23-10-11.5			
		SDG:		07D207				07D207				07D207		
		Batch ID:		VO67D47				VO67D47				VO67D47		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
Bromodichloromethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
2-Butanone	5		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
Bromomethane	2		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
Bromoform	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Benzene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Carbon Disulfide	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Chlorobenzene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Chloroethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Chloromethane	2		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
Carbon Tetrachloride	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Chloroform	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Dibromochloromethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,1-Dichloroethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,2-Dichloroethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,1-Dichloroethene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
c-1,2-Dichloroethene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
t-1,2-Dichloroethene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
c-1,3-Dichloropropene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
t-1,3-Dichloropropene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,2-Dichloropropane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Ethylbenzene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
2-Hexanone	5		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
4-Methyl-2-Pentanone	5		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Methylene Chloride	2		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
Styrene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Toluene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,1,1-Trichloroethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,1,2-Trichloroethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Trichloroethene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
1,1,2,2-Tetrachloroethane	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Tetrachloroethene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
Vinyl Chloride	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g
p/m-Xylene	2		10	ND	U	g	9.9	ND	U	g	9.4	ND	U	g
o-Xylene	2		5	ND	U	g	5	ND	U	g	4.7	ND	U	g

Project: Beaumont							Table E - 6							
Site: 1							Analytical Data Summary							
Extraction Method: SW5035							EPA Method SW8260B							
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:	C22-HSAS23-30-31.5				C22-HSAS23-60-61.5				C22-HSAS2301-60-61.5			
		SDG:		07D207				07D207				07D207		
		Batch ID:		VO67D47				VO67D47				VO67D47		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
Bromodichloromethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
2-Butanone	5		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
Bromomethane	2		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
Bromoform	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Benzene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Carbon Disulfide	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Chlorobenzene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Chloroethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Chloromethane	2		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
Carbon Tetrachloride	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Chloroform	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Dibromochloromethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,1-Dichloroethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,2-Dichloroethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,1-Dichloroethene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
c-1,2-Dichloroethene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
t-1,2-Dichloroethene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
c-1,3-Dichloropropene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
t-1,3-Dichloropropene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,2-Dichloropropane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Ethylbenzene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
2-Hexanone	5		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
4-Methyl-2-Pentanone	5		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Methylene Chloride	2		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
Styrene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Toluene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,1,1-Trichloroethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,1,2-Trichloroethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Trichloroethene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
1,1,2,2-Tetrachloroethane	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Tetrachloroethene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
Vinyl Chloride	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g
p/m-Xylene	2		11	ND	U	g	9.7	ND	U	g	9.7	ND	U	g
o-Xylene	2		5.7	ND	U	g	4.8	ND	U	g	4.8	ND	U	g

Project: Beaumont						Table E - 6								
Site: 1						Analytical Data Summary								
Extraction Method: SW5035						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:		IDW-041807-BIN1										
		SDG:		07D207										
		Batch ID:		VO67D47										
Parameters	MDL		PQL	Result	Validity	Comments								
				Dilution 1.9										
Acetone	5		20	ND	U	g								
Bromodichloromethane	2		9.9	ND	U	g								
2-Butanone	5		20	ND	U	g								
Bromomethane	2		20	ND	U	g								
Bromoform	2		9.9	ND	U	g								
Benzene	2		9.9	ND	U	g								
Carbon Disulfide	2		9.9	ND	U	g								
Chlorobenzene	2		9.9	ND	U	g								
Chloroethane	2		9.9	ND	U	g								
Chloromethane	2		20	ND	U	g								
Carbon Tetrachloride	2		9.9	ND	U	g								
Chloroform	2		9.9	ND	U	g								
Dibromochloromethane	2		9.9	ND	U	g								
1,1-Dichloroethane	2		9.9	ND	U	g								
1,2-Dichloroethane	2		9.9	ND	U	g								
1,1-Dichloroethene	2		9.9	ND	U	g								
c-1,2-Dichloroethene	2		9.9	ND	U	g								
t-1,2-Dichloroethene	2		9.9	ND	U	g								
c-1,3-Dichloropropene	2		9.9	ND	U	g								
t-1,3-Dichloropropene	2		9.9	ND	U	g								
1,2-Dichloropropane	2		9.9	ND	U	g								
Ethylbenzene	2		9.9	ND	U	g								
2-Hexanone	5		20	ND	U	g								
4-Methyl-2-Pentanone	5		20	ND	U	g								
Methyl-t-Butyl Ether (MTBE)	2		9.9	ND	U	g								
Methylene Chloride	2		20	ND	U	g								
Styrene	2		9.9	ND	U	g								
Toluene	2		9.9	ND	U	g								
1,1,1-Trichloroethane	2		9.9	ND	U	g								
1,1,2-Trichloroethane	2		9.9	ND	U	g								
Trichloroethene	2		9.9	ND	U	g								
1,1,2,2-Tetrachloroethane	2		9.9	ND	U	g								
Tetrachloroethene	2		9.9	ND	U	g								
Vinyl Chloride	2		9.9	ND	U	g								
p/m-Xylene	2		20	ND	U	g								
o-Xylene	2		9.9	ND	U	g								

Project: Beaumont							Table E - 6							
Site: 1							Analytical Data Summary							
Extraction Method: SW5035							EPA Method SW8260B							
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:	C22-HSAS24-20-21.5				C22-HSAS24-5-6.5				C22-HSAS24-55-56.5			
		SDG:		07D244				07D244				07D244		
		Batch ID:		VO67D49				VO67D49				VO67D49		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		10	ND	U	g	10	ND	U	g	10	ND	U	g
Bromodichloromethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
2-Butanone	5		10	ND	U	g	10	ND	U	g	10	ND	U	g
Bromomethane	2		10	ND	U	g	10	ND	U	g	10	ND	U	g
Bromoform	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Benzene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Carbon Disulfide	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Chlorobenzene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Chloroethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Chloromethane	2		10	ND	U	g	10	ND	U	g	10	ND	U	g
Carbon Tetrachloride	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Chloroform	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Dibromochloromethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,1-Dichloroethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,2-Dichloroethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,1-Dichloroethene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
c-1,2-Dichloroethene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
t-1,2-Dichloroethene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
c-1,3-Dichloropropene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
t-1,3-Dichloropropene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,2-Dichloropropane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Ethylbenzene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
2-Hexanone	5		10	ND	U	g	10	ND	U	g	10	ND	U	g
4-Methyl-2-Pentanone	5		10	ND	U	g	10	ND	U	g	10	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Methylene Chloride	2		10	ND	U	g	10	ND	U	g	10	ND	U	g
Styrene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Toluene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,1,1-Trichloroethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,1,2-Trichloroethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Trichloroethene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
1,1,2,2-Tetrachloroethane	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Tetrachloroethene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
Vinyl Chloride	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g
p/m-Xylene	2		10	ND	U	g	10	ND	U	g	10	ND	U	g
o-Xylene	2		5.1	ND	U	g	5.2	ND	U	g	5	ND	U	g

Project: Beaumont						Table E - 6								
Site: 1						Analytical Data Summary								
Extraction Method: SW5035						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:		D29-HAS14-0.5				D29-HAS14-5				D29-HAS15-0.5		
		SDG:		07G343				07G343				07G343		
		Batch ID:		VO03G77				VO03G77				VO03G77		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		11	7.2	J	q	10	ND	U	g	12	12		g
Bromodichloromethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
2-Butanone	5		11	ND	U	g	10	ND	U	g	12	ND	U	g
Bromomethane	2		11	ND	U	g	10	ND	U	g	12	ND	U	g
Bromoform	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Benzene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Carbon Disulfide	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Chlorobenzene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Chloroethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Chloromethane	2		11	ND	U	g	10	ND	U	g	12	ND	U	g
Carbon Tetrachloride	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Chloroform	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Dibromochloromethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,1-Dichloroethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,2-Dichloroethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,1-Dichloroethene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
c-1,2-Dichloroethene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
t-1,2-Dichloroethene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
c-1,3-Dichloropropene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
t-1,3-Dichloropropene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,2-Dichloropropane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Ethylbenzene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
2-Hexanone	5		11	ND	U	g	10	ND	U	g	12	ND	U	g
4-Methyl-2-Pentanone	5		11	ND	U	g	10	ND	U	g	12	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Methylene Chloride	2		11	2.4	J	q	10	ND	U	g	12	ND	U	g
Styrene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Toluene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,1,1-Trichloroethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,1,2-Trichloroethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Trichloroethene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
1,1,2,2-Tetrachloroethane	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Tetrachloroethene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
Vinyl Chloride	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g
p/m-Xylene	2		11	ND	U	g	10	ND	U	g	12	ND	U	g
o-Xylene	2		5.6	ND	U	g	5.1	ND	U	g	6.1	ND	U	g

Project: Beaumont							Table E - 6							
Site: 1							Analytical Data Summary							
Extraction Method: SW5035							EPA Method SW8260B							
Analytical Method: SW8260B														
Matrix: Soil			Environmental Samples											
Units: ug/kg														
		Field ID:		D29-HAS15-5				D29-HAS16-0.5				D29-HAS16-5		
		SDG:		07G343				07G343				07G343		
		Batch ID:		VO03G77				VO03G77				VO03G77		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		9.8	ND	U	g	11	6.6	J	q	10	ND	U	g
Bromodichloromethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
2-Butanone	5		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
Bromomethane	2		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
Bromoform	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Benzene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Carbon Disulfide	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Chlorobenzene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Chloroethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Chloromethane	2		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
Carbon Tetrachloride	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Chloroform	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Dibromochloromethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,1-Dichloroethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,2-Dichloroethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,1-Dichloroethene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
c-1,2-Dichloroethene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
t-1,2-Dichloroethene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
c-1,3-Dichloropropene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
t-1,3-Dichloropropene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,2-Dichloropropane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Ethylbenzene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
2-Hexanone	5		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
4-Methyl-2-Pentanone	5		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
Methyl-t-Butyl Ether (MTBE)	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Methylene Chloride	2		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
Styrene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Toluene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,1,1-Trichloroethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,1,2-Trichloroethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Trichloroethene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
1,1,2,2-Tetrachloroethane	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Tetrachloroethene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
Vinyl Chloride	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g
p/m-Xylene	2		9.8	ND	U	g	11	ND	U	g	10	ND	U	g
o-Xylene	2		4.9	ND	U	g	5.6	ND	U	g	5.1	ND	U	g

Project: Beaumont						Table E - 7								
Site: 1						Analytical Data Summary								
Extraction Method: SW3550B						EPA Method SW8270C Modified 1,4-Dioxane								
Analytical Method: SW8270C Modified 1,4-Dioxane														
Matrix: Soil														
Units: ug/kg														
			Environmental Samples											
		Field ID:		A6-HAS1@0.5				A6-HAS101@0.5				A6-HAS1@5		
		SDG:		07D134				07D134				07D134		
		Batch ID:		SVD020S				SVD020S				SVD020S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
1,4-Dioxane	20		53	<21	U	g	57	<23	U	g	56	<22	U	g

Project: Beaumont						Table E - 8								
Site: 1						Analytical Data Summary								
Extraction Method: SW3550B						EPA Method SW8270C								
Analytical Method: SW8270C														
Matrix: Soil														
Units: ug/kg														
			Environmental Samples											
		Field ID:		A6-HAS1@0.5				A6-HAS101@0.5				A6-HAS1@5		
		SDG:		07D134				07D134				07D134		
		Batch ID:		SVD018S				SVD018S				SVD018S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acenaphthene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Acenaphthylene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Anthracene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Butyl benzyl phthalate	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Bromophenyl phenyl ether	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Benzo(a)anthracene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Benzo(a)pyrene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Benzo(b)fluoranthene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Benzo(g,h,i)perylene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Benzo(k)fluoranthene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Chloro-3-methylphenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
bis(2-Chloroethoxy) methane	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
bis(2-Chloroethyl) ether	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
bis(2-Chloroisopropyl) ether	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Chrysene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Chloroaniline	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2-Chlorophenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2-Chloronaphthalene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Chlorophenyl phenyl ether	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Dibenz(a,h) anthracene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Dibenzofuran	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
3,3'-Dichlorobenzidine	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
1,2-Dichlorobenzene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
1,3-Dichlorobenzene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
1,4-Dichlorobenzene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2,4-Dichlorophenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Diethyl phthalate	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2,4-Dimethylphenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Dimethyl phthalate	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4,6-Dinitro-2-methylphenol	170		690	<180	U	g	760	<190	U	g	730	<190	U	g
Di-n-butylphthalate	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Di-n-octylphthalate	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2,4-Dinitrophenol	170		690	<180	U	g	760	<190	U	g	730	<190	U	g
2,4-Dinitrotoluene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2,6-Dinitrotoluene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
bis(2-Ethylhexyl) phthalate	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Fluorene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Fluoranthene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g

Project: Beaumont						Table E - 8								
Site: 1						Analytical Data Summary								
Extraction Method: SW3550B						EPA Method SW8270C								
Analytical Method: SW8270C														
Matrix: Soil														
Units: ug/kg														
			Environmental Samples											
		Field ID:		A6-HAS1@0.5				A6-HAS101@0.5				A6-HAS1@5		
		SDG:		07D134				07D134				07D134		
		Batch ID:		SVD018S				SVD018S				SVD018S		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Hexachlorobutadiene	190		350	<200	U	g	380	<220	U	g	370	<210	U	g
Hexachlorocyclopentadiene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Hexachlorobenzene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Hexachloroethane	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Indeno(1,2,3-c,d)pyrene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Isophorone	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2-Methylphenol (o-Cresol)	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Methylphenol (p-Cresol)	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2-Methylnaphthalene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Naphthalene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
N-Nitrosodiphenylamine	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
N-Nitrosodi-n-propylamine	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2-Nitroaniline	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
3-Nitroaniline	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Nitroaniline	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Nitrobenzene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2-Nitrophenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
4-Nitrophenol	170		690	<180	U	g	760	<190	U	g	730	<190	U	g
Pentachlorophenol	170		690	<180	U	g	760	<200	U	g	730	<190	U	g
Phenanthrene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Phenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
Pyrene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
1,2,4-Trichlorobenzene	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2,4,5-Trichlorophenol	170		350	<180	U	g	380	<190	U	g	370	<190	U	g
2,4,6-Trichlorophenol	180		350	<190	U	g	380	<210	U	g	370	<200	U	g

Project: Beaumont					Table E - 9							
Site: 1					Analytical Data Summary							
Extraction Method: METHOD					EPA Method SW8330							
Analytical Method: SW8330												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	D29-HAS11@0.5		D29-HAS11@0.5'				D29-HAS11@5'	D29-HAS11@5'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		EXD004S	EXD004S				EXD004S	EXD004S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
1,3,5-TNB	200		400	ND	NR	U	g	400	ND	NR	U	g
1,3-DNB	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4,6-TNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-AM-4,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
3-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
4-AM-2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
4-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
HMX	200		400	ND	NR	U	g	400	ND	NR	U	g
Nitrobenzene	200		400	ND	NR	U	g	400	ND	NR	U	g
RDX	200		400	ND	NR	U	g	400	ND	NR	U	g
Tetryl	200		400	ND	NR	U	g	400	ND	NR	U	g

Project: Beaumont					Table E - 9							
Site: 1					Analytical Data Summary							
Extraction Method: METHOD					EPA Method SW8330							
Analytical Method: SW8330												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	D29-HAS12@0.5		D29-HAS12@0.5'				D29-HAS12@5'	D29-HAS12@5'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		EXD004S	EXD004S				EXD004S	EXD004S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
1,3,5-TNB	200		400	ND	NR	U	g	400	ND	NR	U	g
1,3-DNB	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4,6-TNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-AM-4,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
3-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
4-AM-2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
4-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
HMX	200		400	ND	NR	U	g	400	ND	NR	U	g
Nitrobenzene	200		400	ND	NR	U	g	400	ND	NR	U	g
RDX	200		400	ND	NR	U	g	400	ND	NR	U	g
Tetryl	200		400	ND	NR	U	g	400	ND	NR	U	g

Project: Beaumont					Table E - 9							
Site: 1					Analytical Data Summary							
Extraction Method: METHOD					EPA Method SW8330							
Analytical Method: SW8330												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:	D29-HAS13@0.5		D29-HAS13@0.5'				D29-HAS13@5'	D29-HAS13@5'		
		SDG:		07D166	07D166				07D166	07D166		
		Batch ID:		EXD004S	EXD004S				EXD004S	EXD004S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
1,3,5-TNB	200		400	ND	NR	U	g	400	ND	NR	U	g
1,3-DNB	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4,6-TNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-AM-4,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
3-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
4-AM-2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
4-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
HMX	200		400	ND	NR	U	g	400	ND	NR	U	g
Nitrobenzene	200		400	ND	NR	U	g	400	ND	NR	U	g
RDX	200		400	ND	NR	U	g	400	ND	NR	U	g
Tetryl	200		400	ND	NR	U	g	400	ND	NR	U	g

Project: Beaumont					Table E - 9							
Site: 1					Analytical Data Summary							
Extraction Method: METHOD					EPA Method SW8330							
Analytical Method: SW8330												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		D29-HAS14-0.5	D29-HAS14-0.5				D29-HAS14-5	D29-HAS14-5		
		SDG:		07G343	07G343				07G343	07G343		
		Batch ID:		EXG013S	EXG013S				EXG013S	EXG013S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
1,3,5-TNB	200		400	ND	NR	U	g	400	ND	NR	U	g
1,3-DNB	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4,6-TNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-AM-4,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
3-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
4-AM-2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
4-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
HMX	200		400	ND	NR	U	g	400	ND	NR	U	g
Nitrobenzene	200		400	ND	NR	U	g	400	ND	NR	U	g
RDX	200		400	ND	NR	U	g	400	ND	NR	U	g
Tetryl	200		400	ND	NR	U	g	400	ND	NR	U	g

Project: Beaumont					Table E - 9							
Site: 1					Analytical Data Summary							
Extraction Method: METHOD					EPA Method SW8330							
Analytical Method: SW8330												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		D29-HAS15-0.5	D29-HAS15-0.5				D29-HAS15-5	D29-HAS15-5		
		SDG:		07G343	07G343				07G343	07G343		
		Batch ID:		EXG013S	EXG013S				EXG013S	EXG013S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
1,3,5-TNB	200		400	ND	NR	U	g	400	ND	NR	U	g
1,3-DNB	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4,6-TNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-AM-4,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
3-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
4-AM-2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
4-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
HMX	200		400	ND	NR	U	g	400	ND	NR	U	g
Nitrobenzene	200		400	ND	NR	U	g	400	ND	NR	U	g
RDX	200		400	ND	NR	U	g	400	ND	NR	U	g
Tetryl	200		400	ND	NR	U	g	400	ND	NR	U	g

Project: Beaumont					Table E - 9							
Site: 1					Analytical Data Summary							
Extraction Method: METHOD					EPA Method SW8330							
Analytical Method: SW8330												
Matrix: Soil												
Units: ug/kg												
			Environmental Samples									
		Field ID:		D29-HAS16-0.5	D29-HAS16-0.5				D29-HAS16-5	D29-HAS16-5		
		SDG:		07G343	07G343				07G343	07G343		
		Batch ID:		EXG013S	EXG013S				EXG013S	EXG013S		
	Primary		Primary	Primary	Secondary			Primary	Primary	Secondary		
Parameters	MDL		PQL	Result	Result	Validity	Comments	PQL	Result	Result	Validity	Comments
1,3,5-TNB	200		400	ND	NR	U	g	400	ND	NR	U	g
1,3-DNB	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4,6-TNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,4-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-AM-4,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
2-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
3-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
4-AM-2,6-DNT	200		400	ND	NR	U	g	400	ND	NR	U	g
4-Nitrotoluene	200		400	ND	NR	U	g	400	ND	NR	U	g
HMX	200		400	ND	NR	U	g	400	ND	NR	U	g
Nitrobenzene	200		400	ND	NR	U	g	400	ND	NR	U	g
RDX	200		400	ND	NR	U	g	400	ND	NR	U	g
Tetryl	200		400	ND	NR	U	g	400	ND	NR	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	B11-HSAS10-SVP-10'				B11-HSAS10-SVP-20'				B11-HSAS8-SVP-10'			
		SDG:		41945				41945				41945		
		Batch ID:		50307				50307				50307		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	14.4		g	10.0	25.2		g	10.0	36.2		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	ND	U	g	2.0	11.6		g	2.0	8.29		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	7.03		g	3.0	51.5		g	3.0	37.7		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	6.05		g	3.0	30.7		g	3.0	6.60		g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	28.3		g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	45.4		g	3.0	1490		g	3.0	902		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	ND	U	g	3.0	5.21		g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	45.3		g	10.0	23.8		g	10.0	250		g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	5010		g	2000	ND	U	g
Methylene Chloride	5.0		10.0	15.4		g	10.0	39.0		g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	ND	U	g	4.0	17.0		g	4.0	ND	U	g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	6.16		g	2.0	ND	U	g
Styrene	1.5		3.0	ND	U	g	3.0	5.20		g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	372		g	2.0	84.1		g	2.0	571		g
1,1,1-Trichloroethane	1.5		3.0	14.0		g	3.0	22.9		g	3.0	24.4		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	466		g	3.0	985		g	3.0	1230		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	11.2		g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	6.98		g	3.0	ND	U	g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	B11-HSAS10-SVP-10'				B11-HSAS10-SVP-20'				B11-HSAS8-SVP-10'			
		SDG:		41945				41945				41945		
		Batch ID:		50307				50307				50307		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g	3.0	10.8		g	3.0	11.2		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	B11-HSAS8-SVP-25'				B11-HSAS9-SVP-10'				B11-HSAS9-SVP-20'			
		SDG:		41945				41945				41945		
		Batch ID:		50307				50307				50307		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	41.3		g	10.0	20.7		g	10.0	50.9		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	15.2		g	2.0	5.37		g	2.0	14.8		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	49.1		g	3.0	26.7		g	3.0	42.1		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	86.3		g	3.0	ND	U	g	3.0	32.9		g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	76.0		g	3.0	ND	U	g	3.0	40.8		g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	5270		g	3.0	19.4		g	3.0	503		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	10.3		g	3.0	ND	U	g	3.0	6.86		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	223		g	10.0	154		g	10.0	147		g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	2810		g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	11.3		g	10.0	38.2		g
m,p-Xylene	2.0		4.0	34.9		g	4.0	7.12		g	4.0	22.3		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	11.9		g	2.0	ND	U	g	2.0	7.81		g
Styrene	1.5		3.0	8.46		g	3.0	ND	U	g	3.0	7.75		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	95.8		g	2.0	428		g	2.0	97.6		g
1,1,1-Trichloroethane	1.5		3.0	105		g	3.0	9.05		g	3.0	26.1		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	4150		g	3.0	223		g	3.0	1060		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	13.8		g	3.0	ND	U	g	3.0	8.75		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	B11-HSAS8-SVP-25'				B11-HSAS9-SVP-10'				B11-HSAS9-SVP-20'			
		SDG:		41945				41945				41945		
		Batch ID:		50307				50307				50307		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	60.4		g	3.0	ND	U	g	3.0	54.8		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	F34-HSAS24-SVP-15'				F34-HSAS5-SVP-15'				F39-HSAS4-SVP-10'			
		SDG:		42014				42014				42014		
		Batch ID:		50907				50907				50907		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	13.7		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	8.37		g	2.0	ND	U	g	2.0	8.13		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	122		g	3.0	16.2		g	3.0	71.6		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	14.1		g	3.0	ND	U	g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	20.8		g	3.0	7.04		g	3.0	5.93		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	10.1		g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	96.7		g	4.0	62.7		g	4.0	9.43		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	27.7		g	2.0	8.49		g	2.0	ND	U	g
Styrene	1.5		3.0	7.26		g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	359		g	2.0	465		g	2.0	239		g
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	18.1		g	3.0	ND	U	g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	9.46		g	4.0	ND	U	g	4.0	75.0		g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	9.61		g	3.0	ND	U	g	3.0	ND	U	g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	F34-HSAS24-SVP-15'				F34-HSAS5-SVP-15'				F39-HSAS4-SVP-10'			
		SDG:		42014				42014				42014		
		Batch ID:		50907				50907				50907		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	14.2		g	3.0	10.0		g	3.0	24.7		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS25-SVP-20'				C22-HSAS25-SVP-30'				C22-HSAS25-SVP-40'			
		SDG:	42031				42031				42031			
		Batch ID:	50807				50807				50807			
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	10.0		g	10.0	25.9		g	10.0	19.7		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	4.90		g	2.0	8.00		g	2.0	10.3		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	14.9		g	3.0	12.7		g	3.0	21.5		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	73.5		g	3.0	138		g	3.0	157		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	6.30		g	3.0	8.60		g	3.0	11.0		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	16.8		g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	81.6		g	10.0	603		g	10.0	278		g
m,p-Xylene	2.0		4.0	34.2		g	4.0	24.9		g	4.0	32.0		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	9.70		g	2.0	10.6		g	2.0	11.8		g
Styrene	1.5		3.0	15.7		g	3.0	27.5		g	3.0	38.1		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	169		g	2.0	112		g	2.0	209		g
1,1,1-Trichloroethane	1.5		3.0	60.5		g	3.0	107		g	3.0	121		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	31.0		g	3.0	44.5		g	3.0	42.5		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	6.20		g	3.0	12.3		g	3.0	11.0		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS25-SVP-20'				C22-HSAS25-SVP-30'				C22-HSAS25-SVP-40'			
		SDG:		42031				42031				42031		
		Batch ID:		50807				50807				50807		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	113		g	3.0	208		g	3.0	331		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	G46-HSAS1-SVP-10'				G46-HSAS1-SVP-20'				G46-HSAS2-SVP-10'			
		SDG:	42031				42031				42031			
		Batch ID:	50807				50807				50807			
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	29.4		g	10.0	35.3		g	10.0	17.6		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	9.20		g	2.0	6.57		g	2.0	4.79		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	75.7		g	3.0	68.9		g	3.0	72.4		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	9.90		g	3.0	5.96		g	3.0	5.82		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	11.1		g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	237		g	10.0	264		g	10.0	190		g
m,p-Xylene	2.0		4.0	21.9		g	4.0	13.6		g	4.0	11.6		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	9.80		g	2.0	6.05		g	2.0	5.82		g
Styrene	1.5		3.0	34.5		g	3.0	22.9		g	3.0	23.7		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	75.0		g	2.0	109		g	2.0	222		g
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	10.2		g	3.0	6.24		g	3.0	6.98		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	G46-HSAS1-SVP-10'				G46-HSAS1-SVP-20'				G46-HSAS2-SVP-10'			
		SDG:		42031				42031				42031		
		Batch ID:		50807				50807				50807		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	226		g	3.0	201		g	3.0	179		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	G46-HSAS2-SVP-20'				G46-HSAS2-SVP-20'Dup							
		SDG:	42031				42031							
		Batch ID:	50807				50807							
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments				
				Dilution 2				Dilution 2						
Acetone	5.0		10.0	46.1	J	f	10.0	29.8	J	f				
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g				
Benzene	1.0		2.0	4.91		g	2.0	5.34		g				
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g				
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g				
Carbon Disulfide	1.5		3.0	39.6		g	3.0	48.6		g				
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g				
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g				
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g				
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g				
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g				
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g				
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g				
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g				
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g				
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g				
Ethylbenzene	1.5		3.0	5.87		g	3.0	6.48		g				
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g				
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g				
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g				
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	36.4		g				
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g				
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g				
Methylene Chloride	5.0		10.0	669	J	f	10.0	241	J	f				
m,p-Xylene	2.0		4.0	14.2		g	4.0	17.4		g				
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g				
o-Xylene	1.0		2.0	5.70	J	f	2.0	7.77	J	f				
Styrene	1.5		3.0	19.6	J	f	3.0	27.4	J	f				
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g				
Toluene	1.0		2.0	58.7		g	2.0	44.8		g				
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g				
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g				
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g				
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g				
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g				
Trichlorotrifluoroethane	2.5		5.0	21.5		g	5.0	ND	U	g				
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	7.63		g				
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g				

Project: Beaumont						Table E - 10							
Site: 1						Analytical Data Summary							
Extraction Method: None						EPA Method TO15							
Analytical Method: TO15													
Matrix: G			Environmental Samples										
Units: ug/m3													
		Field ID:	G46-HSAS2-SVP-20'				G46-HSAS2-SVP-20'Dup						
		SDG:		42031				42031					
		Batch ID:		50807				50807					
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments			
				Dilution 2				Dilution 2					
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g			
Tetrachloroethylene(PCE)	1.5		3.0	195		g	3.0	197		g			
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g			
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g			

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS22-SVP-20'				C22-HSAS22-SVP-30'				C22-HSAS22-SVP-40'			
		SDG:		42073				42073				42073		
		Batch ID:		50907				50907				50907		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	43.7		g	10.0	91.7		g	10.0	35.9		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	5.44		g	2.0	13.3		g	2.0	8.37		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	6.11		g	3.0	19.3		g	3.0	15.3		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	9.59		g	3.0	11.3		g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	818		g	3.0	3220		g	3.0	9750		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	6.35		g	3.0	11.0		g	3.0	11.2		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	39.5		g	10.0	127		g	10.0	90.0		g
m,p-Xylene	2.0		4.0	33.0		g	4.0	33.1		g	4.0	32.7		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	8.91		g	2.0	13.3		g	2.0	12.5		g
Styrene	1.5		3.0	11.8		g	3.0	45.4		g	3.0	28.1		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	206		g	2.0	92.2		g	2.0	183		g
1,1,1-Trichloroethane	1.5		3.0	43.7		g	3.0	121		g	3.0	230		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	269		g	3.0	933		g	3.0	1140		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	64.2		g	5.0	194		g	5.0	460		g
1,2,4-Trimethylbenzene	1.5		3.0	6.01		g	3.0	16.4		g	3.0	11.9		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS22-SVP-20'				C22-HSAS22-SVP-30'				C22-HSAS22-SVP-40'			
		SDG:		42073				42073				42073		
		Batch ID:		50907				50907				50907		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	69.0		g	3.0	259		g	3.0	187		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS22-SVP-50'				C22-HSAS2201-SVP-30'				C22-HSAS25-SVP-10'			
		SDG:		42073				42073				42073		
		Batch ID:		50907				50907				50907		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	17.6		g	10.0	74.5		g	10.0	15.6		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	4.28		g	2.0	11.7		g	2.0	8.24		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	8.28		g	3.0	20.2		g	3.0	23.0		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	11.4		g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	5310		g	3.0	2740		g	3.0	54.1		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	ND	U	g	3.0	9.19		g	3.0	5.04		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	12.9		g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	64.6		g	10.0	83.5		g	10.0	364		g
m,p-Xylene	2.0		4.0	10.9		g	4.0	27.4		g	4.0	12.8		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	11.8		g	2.0	5.38		g
Styrene	1.5		3.0	12.0		g	3.0	36.8		g	3.0	25.7		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	54.3		g	2.0	61.1		g	2.0	275		g
1,1,1-Trichloroethane	1.5		3.0	112		g	3.0	141		g	3.0	85.5		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	1080		g	3.0	1150		g	3.0	37.6		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	275		g	5.0	210		g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	16.0		g	3.0	6.88		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS22-SVP-50'				C22-HSAS2201-SVP-30'				C22-HSAS25-SVP-10'			
		SDG:		42073				42073				42073		
		Batch ID:		50907				50907				50907		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	92.3		g	3.0	166		g	3.0	219		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS21-SVP-50'				C22-HSAS22-SVP-10'				C22-HSAS23-SVP-10'			
		SDG:	42100				42100				42100			
		Batch ID:	051407-1				051407-1				051407-1			
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	19.0		g	10.0	18.4		g	10.0	ND	U	g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	25.4		g	2.0	5.49		g	2.0	8.90		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	66.0		g	3.0	10.9		g	3.0	16.1		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	7.90		g	3.0	6.05		g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	48.1		g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	9200		g	3.0	705		g	3.0	141		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	8.20		g	4.0	ND	U	g	4.0	6.90		g
Ethylbenzene	1.5		3.0	14.8		g	3.0	ND	U	g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	32.8		g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	111		g	10.0	94.7		g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	22.8		g	4.0	ND	U	g	4.0	9.30		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	12.8		g	2.0	ND	U	g	2.0	4.70		g
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	30.8		g	2.0	260		g	2.0	525		g
1,1,1-Trichloroethane	1.5		3.0	2460		g	3.0	44.5		g	3.0	38.6		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	1560		g	3.0	259		g	3.0	32.8		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	9.40		g	4.0	ND	U	g	4.0	7.50		g
Trichlorotrifluoroethane	2.5		5.0	13.9		g	5.0	54.9		g	5.0	85.9		g
1,2,4-Trimethylbenzene	1.5		3.0	12.9		g	3.0	ND	U	g	3.0	8.20		g
1,3,5-Trimethylbenzene	1.5		3.0	7.00		g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS21-SVP-50'				C22-HSAS22-SVP-10'				C22-HSAS23-SVP-10'			
		SDG:		42100				42100				42100		
		Batch ID:		051407-1				051407-1				051407-1		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	46.0		g	3.0	13.7		g	3.0	12.7		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	3.60		g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS23-SVP-20'				C22-HSAS23-SVP-30'				C22-HSAS23-SVP-40'			
		SDG:		42100				42100				42100		
		Batch ID:		051407-1				051407-1				051407-1		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	ND	U	g	10.0	21.4		g	10.0	ND	U	g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	6.30		g	2.0	12.5		g	2.0	17.3		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	18.4		g	3.0	67.7		g	3.0	18.6		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	8.10		g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	552		g	3.0	274		g	3.0	110		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	8.10		g	4.0	6.33		g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	13.2		g	3.0	10.9		g	3.0	25.0		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	92.4		g	4.0	31.1		g	4.0	53.6		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	23.4		g	2.0	12.8		g	2.0	18.1		g
Styrene	1.5		3.0	7.40		g	3.0	9.11		g	3.0	8.35		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	440		g	2.0	81.3		g	2.0	185		g
1,1,1-Trichloroethane	1.5		3.0	77.7		g	3.0	24.1		g	3.0	11.9		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	97.0		g	3.0	ND	U	g	3.0	ND	U	g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	9.40		g	4.0	10.4		g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	193		g	5.0	153		g	5.0	23.7		g
1,2,4-Trimethylbenzene	1.5		3.0	13.7		g	3.0	13.6		g	3.0	13.7		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	6.98		g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS23-SVP-20'				C22-HSAS23-SVP-30'				C22-HSAS23-SVP-40'			
		SDG:		42100				42100				42100		
		Batch ID:		051407-1				051407-1				051407-1		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	18.9		g	3.0	17.6		g	3.0	16.8		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS23-SVP-50'											
		SDG:		42100										
		Batch ID:		051407-1										
Parameters	MDL		PQL	Result	Validity	Comments								
				Dilution 2										
Acetone	5.0		10.0	ND	U	g								
Bromodichloromethane	1.5		3.0	ND	U	g								
Bromomethane	1.5		3.0	ND	U	g								
Bromoform	1.5		3.0	ND	U	g								
Benzene	1.0		2.0	9.00		g								
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g								
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g								
Carbon Disulfide	1.5		3.0	25.5		g								
Chlorobenzene	1.0		2.0	ND	U	g								
Chloroethane	1.5		3.0	ND	U	g								
Chloromethane	1.0		2.0	ND	U	g								
Carbon Tetrachloride	2.0		4.0	ND	U	g								
Chloroform	1.5		3.0	ND	U	g								
Dibromochloromethane	1.5		3.0	ND	U	g								
1,1-Dichloroethane	1.5		3.0	ND	U	g								
1,2-Dichloroethane	1.5		3.0	ND	U	g								
1,2-Dichlorobenzene	2.0		4.0	ND	U	g								
1,3-Dichlorobenzene	2.0		4.0	ND	U	g								
1,4-Dichlorobenzene	2.0		4.0	ND	U	g								
1,1-Dichloroethene	1.5		3.0	125		g								
1,2-Dichloropropane	1.5		3.0	ND	U	g								
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g								
1,2-Dibromoethane	2.0		4.0	ND	U	g								
Dichlorodifluoromethane	2.0		4.0	ND	U	g								
Ethylbenzene	1.5		3.0	5.99		g								
4-Ethyltoluene	5.0		10.0	ND	U	g								
Hexachlorobutadiene	6.0		12.0	ND	U	g								
2-Hexanone	5.0		10.0	ND	U	g								
Methyl Ethyl Ketone	5.0		10.0	ND	U	g								
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g								
2-Methylpropane	1000		2000	ND	U	g								
Methylene Chloride	5.0		10.0	18.1		g								
m,p-Xylene	2.0		4.0	9.55		g								
Naphthalene	5.0		10.0	ND	U	g								
o-Xylene	1.0		2.0	5.12		g								
Styrene	1.5		3.0	ND	U	g								
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g								
Toluene	1.0		2.0	11.7		g								
1,1,1-Trichloroethane	1.5		3.0	11.6		g								
1,1,2-Trichloroethane	1.5		3.0	ND	U	g								
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g								
Trichloroethylene (TCE)	1.5		3.0	ND	U	g								
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g								
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g								
Trichlorofluoromethane	2.0		4.0	ND	U	g								
Trichlorotrifluoroethane	2.5		5.0	125		g								
1,2,4-Trimethylbenzene	1.5		3.0	5.50		g								
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g								

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS23-SVP-50'											
		SDG:		42100										
		Batch ID:		051407-1										
Parameters	MDL		PQL	Result	Validity	Comments								
				Dilution 2										
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g								
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g								
Vinyl Acetate	5.0		10.0	ND	U	g								
Vinyl Chloride	1.0		2.0	ND	U	g								

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS21-SVP-10'				C22-HSAS21-SVP-20'				C22-HSAS21-SVP-30'			
		SDG:		42127				42127				42127		
		Batch ID:		51707				51707				51707		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	52.5		g	10.0	51.5		g	10.0	43.7		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	11.0		g	2.0	16.7		g	2.0	15.3		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	11.0		g	3.0	73.7		g	3.0	91.6		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	9.70		g	3.0	8.32		g	3.0	10.2		g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	21.6		g	3.0	29.1		g	3.0	52.4		g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	4720		g	3.0	6100		g	3.0	10400		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	6.70		g	3.0	17.7		g	3.0	10.2		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	63.3		g	10.0	12.9		g	10.0	24.0		g
m,p-Xylene	2.0		4.0	18.6		g	4.0	112		g	4.0	27.1		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	6.40		g	2.0	28.7		g	2.0	11.4		g
Styrene	1.5		3.0	8.00		g	3.0	7.53		g	3.0	6.98		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	622		g	2.0	590		g	2.0	88.0		g
1,1,1-Trichloroethane	1.5		3.0	4730		g	3.0	3900		g	3.0	4110		g
1,1,2-Trichloroethane	1.5		3.0	55.2		g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	2790		g	3.0	1100		g	3.0	2190		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	7.64		g
Trichlorotrifluoroethane	2.5		5.0	12.6		g	5.0	16.1		g	5.0	24.7		g
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	10.9		g	3.0	12.7		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS21-SVP-10'				C22-HSAS21-SVP-20'				C22-HSAS21-SVP-30'			
		SDG:		42127				42127				42127		
		Batch ID:		51707				51707				51707		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	271		g	3.0	37.9		g	3.0	52.5		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS21-SVP-40'				C22-HSAS2101-SVP-30'				C22-HSAS26-SVP-10'			
		SDG:		42127				42127				42127		
		Batch ID:		51707				51707				51707		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	20.7		g	10.0	35.4		g	10.0	128		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	21.1		g	2.0	16.4		g	2.0	4.60		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	66.0		g	3.0	82.0		g	3.0	10.1		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	9.37		g	3.0	10.3		g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	92.9		g	3.0	50.1		g	3.0	5.40		g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	26100		g	3.0	12400		g	3.0	2100		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	10.2		g	3.0	10.4		g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	27.0		g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	25.7		g	4.0	25.9		g	4.0	15.7		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	11.4		g	2.0	12.2		g	2.0	ND	U	g
Styrene	1.5		3.0	7.24		g	3.0	7.15		g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	208		g	2.0	57.6		g	2.0	498		g
1,1,1-Trichloroethane	1.5		3.0	10800		g	3.0	6240		g	3.0	125		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	4760		g	3.0	2460		g	3.0	1090		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	8.76		g	4.0	6.63		g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	21.6		g	5.0	22.5		g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	11.7		g	3.0	12.1		g	3.0	ND	U	g
1,3,5-Trimethylbenzene	1.5		3.0	6.39		g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS21-SVP-40'				C22-HSAS2101-SVP-30'				C22-HSAS26-SVP-10'			
		SDG:		42127				42127				42127		
		Batch ID:		51707				51707				51707		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	93.8		g	3.0	66.2		g	3.0	16.0		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS26-SVP-20'				C22-HSAS26-SVP-30'				C22-HSAS26-SVP-40'			
		SDG:		42127				42127				42127		
		Batch ID:		51707				51707				51707		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	73.6		g	10.0	89.4		g	10.0	50.9		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	ND	U	g	2.0	3.80		g	2.0	10.7		g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	13.6		g	3.0	18.8		g	3.0	10.7		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	5.80		g	3.0	9.40		g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	9.50		g	3.0	ND	U	g	3.0	21.0		g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	3570		g	3.0	5100		g	3.0	5290		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	6.10		g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	11.6		g	3.0	8.30		g	3.0	6.50		g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	11.5		g	10.0	10.8		g	10.0	61.5		g
m,p-Xylene	2.0		4.0	104		g	4.0	31.5		g	4.0	18.1		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	23.6		g	2.0	12.6		g	2.0	6.30		g
Styrene	1.5		3.0	5.80		g	3.0	7.70		g	3.0	7.80		g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	567		g	2.0	97.2		g	2.0	604		g
1,1,1-Trichloroethane	1.5		3.0	187		g	3.0	272		g	3.0	2670		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	53.6		g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	1670		g	3.0	2820		g	3.0	2710		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	12.2		g
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	15.6		g	3.0	ND	U	g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS26-SVP-20'				C22-HSAS26-SVP-30'				C22-HSAS26-SVP-40'			
		SDG:		42127				42127				42127		
		Batch ID:		51707				51707				51707		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	32.8		g	3.0	34.6		g	3.0	263		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS24-SVP-10'				C22-HSAS24-SVP-20'				C22-HSAS24-SVP-30'			
		SDG:		42166				42166				42166		
		Batch ID:		51507				51507				51507		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	8.50		g	3.0	6.47		g	3.0	6.72		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	11.7		g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	ND	U	g	3.0	5.21		g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	8.00		g	4.0	54.2		g	4.0	13.5		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	11.1		g	2.0	5.47		g
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	396		g	2.0	377		g	2.0	75.6		g
1,1,1-Trichloroethane	1.5		3.0	36.5		g	3.0	43.9		g	3.0	68.8		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	7.73		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	5.60		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS24-SVP-10'				C22-HSAS24-SVP-20'				C22-HSAS24-SVP-30'			
		SDG:		42166				42166				42166		
		Batch ID:		51507				51507				51507		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g	3.0	9.09		g	3.0	13.2		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS24-SVP-40'				C22-HSAS24-SVP-50'				C22-HSAS2401-SVP-20'			
		SDG:		42166				42166				42166		
		Batch ID:		51507				51507				51507		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	11.8		g	10.0	76.1		g	10.0	ND	U	g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	3.74		g	3.0	ND	U	g	3.0	6.80		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	154		g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	523		g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	14.9		g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	7.02		g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	4.60		g	3.0	99.7		g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	33.7		g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	13.5		g	4.0	308		g	4.0	40.8		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	90.6		g	2.0	8.80		g
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	2840		g	2.0	30.7		g	2.0	214		g
1,1,1-Trichloroethane	1.5		3.0	69.9		g	3.0	ND	U	g	3.0	47.0		g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	7.41		g	3.0	914		g	3.0	6.40		g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	18.8		g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	92.7		g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	22.5		g	3.0	ND	U	g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	7.47		g	3.0	ND	U	g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	C22-HSAS24-SVP-40'				C22-HSAS24-SVP-50'				C22-HSAS2401-SVP-20'			
		SDG:		42166				42166				42166		
		Batch ID:		51507				51507				51507		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	12.7		g	3.0	5930		g	3.0	10.2		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont				Table E - 10											
Site: 1				Analytical Data Summary											
Extraction Method: None				EPA Method TO15											
Analytical Method: TO15															
Matrix: G			Environmental Samples												
Units: ug/m3															
		Field ID:	F39-HSAS1-SVP-20'				F39-HSAS3-SVP-10'				F39-HSAS4-SVP-10'				
		SDG:		42234				42234					42234		
		Batch ID:		051607-1				051607-1					051607-1		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	
				Dilution 2				Dilution 2				Dilution 2			
Acetone	5.0		10.0	16.5		g	10.0	34.1		g	10.0	29.5		g	
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Benzene	1.0		2.0	16.0		g	2.0	8.40		g	2.0	7.92		g	
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Carbon Disulfide	1.5		3.0	ND	U	g	3.0	3.80		g	3.0	44.6		g	
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g	
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g	
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g	
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g	
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g	
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g	
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g	
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g	
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g	
Ethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g	
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g	
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g	
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g	
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g	
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g	2000	ND	U	g	
Methylene Chloride	5.0		10.0	ND	U	g	10.0	16.4		g	10.0	17.9		g	
m,p-Xylene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	7.03		g	
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g	
o-Xylene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g	
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	6.39		g	
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g	
Toluene	1.0		2.0	ND	U	g	2.0	45.5		g	2.0	158		g	
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g	
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	130		g	3.0	317		g	
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	146		g	4.0	ND	U	g	
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	161		g	
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g	

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	F39-HSAS1-SVP-20'				F39-HSAS3-SVP-10'				F39-HSAS4-SVP-10'			
		SDG:		42234				42234				42234		
		Batch ID:		051607-1				051607-1				051607-1		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g	3.0	14.1		g	3.0	22.8		g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	F34-HSAS2-SVP-25'				F34-HSAS6-SVP-15'							
		SDG:		42258				42258						
		Batch ID:		52107				52107						
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments				
				Dilution 2				Dilution 2						
Acetone	5.0		10.0	19.7		g	10.0	21.5		g				
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g				
Benzene	1.0		2.0	ND	U	g	2.0	ND	U	g				
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g				
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g				
Carbon Disulfide	1.5		3.0	4.29		g	3.0	ND	U	g				
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g				
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g				
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g				
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g				
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g				
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g				
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g				
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	7.53		g				
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g				
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g				
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g				
Ethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g				
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g				
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g				
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g				
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g				
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g				
2-Methylpropane	1000		2000	ND	U	g	2000	ND	U	g				
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g				
m,p-Xylene	2.0		4.0	ND	U	g	4.0	ND	U	g				
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g				
o-Xylene	1.0		2.0	ND	U	g	2.0	ND	U	g				
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g				
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g				
Toluene	1.0		2.0	ND	U	g	2.0	ND	U	g				
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g				
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g				
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g				
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g				
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g				
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g				
1,2,4-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g				
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g				

Project: Beaumont						Table E - 10							
Site: 1						Analytical Data Summary							
Extraction Method: None						EPA Method TO15							
Analytical Method: TO15													
Matrix: G			Environmental Samples										
Units: ug/m3													
		Field ID:	F34-HSAS2-SVP-25'				F34-HSAS6-SVP-15'						
		SDG:		42258				42258					
		Batch ID:		52107				52107					
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments			
				Dilution 2				Dilution 2					
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g			
Tetrachloroethylene(PCE)	1.5		3.0	17.2		g	3.0	14.2		g			
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g			
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g			

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:		D28-HSAS1-10'				D28-HSAS1-20'				D28-HSAS1-30'		
		SDG:		43663				43663				43663		
		Batch ID:		82207				82207				82207		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	53.9		g	10.0	54.8		g	10.0	53.6		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	7.66		g	2.0	4.14		g	2.0	ND	U	g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	53.5		g	3.0	25.7		g	3.0	18.7		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	5.52		g	4.0	7.60		g	4.0	7.01	J	f
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	5.09		g	2.0	ND	U	g
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	24.3		g	2.0	29.3		g	2.0	12.4	J	f
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	11.8		g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	12.6		g	3.0	15.4		g	3.0	12.4		g
1,3,5-Trimethylbenzene	1.5		3.0	6.45		g	3.0	7.89		g	3.0	6.82		g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:		D28-HSAS1-10'				D28-HSAS1-20'				D28-HSAS1-30'		
		SDG:		43663				43663				43663		
		Batch ID:		82207				82207				82207		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	7.92		g	3.0	ND	U	g	3.0	ND	U	g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	D28-HSAS1-30'DUP					D28-HSAS2-10'				D28-HSAS2-20'		
		SDG:	43663					43663				43663		
		Batch ID:	82207					82207				82207		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	65.1		g	10.0	ND	U	g	10.0	34.5		g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	ND	U	g	2.0	8.49		g	2.0	ND	U	g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	17.6		g	3.0	40.3		g	3.0	15.1		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	ND	U	g	3.0	5.09		g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	5.04	J	f	4.0	9.03		g	4.0	8.31		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	4.83		g	2.0	6.14		g
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	7.61	J	f	2.0	29.2		g	2.0	30.9		g
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	12.1		g	3.0	12.9		g	3.0	18.5		g
1,3,5-Trimethylbenzene	1.5		3.0	5.99		g	3.0	6.98		g	3.0	9.71		g

Project: Beaumont				Table E - 10										
Site: 1				Analytical Data Summary										
Extraction Method: None				EPA Method TO15										
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:	D28-HSAS1-30'DUP					D28-HSAS2-10'				D28-HSAS2-20'		
		SDG:		43663				43663				43663		
		Batch ID:		82207				82207				82207		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:		D28-HSAS2-30'				D28-HSAS3-10'				D28-HSAS3-20'		
		SDG:		43663				43663				43663		
		Batch ID:		82207				82207				82207		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
Acetone	5.0		10.0	44.8		g	10.0	ND	U	g	10.0	ND	U	g
Bromodichloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromomethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Bromoform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Benzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Carbon Disulfide	1.5		3.0	11.4		g	3.0	17.2		g	3.0	4.55		g
Chlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Chloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Chloromethane	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Carbon Tetrachloride	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Chloroform	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Dibromochloromethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,3-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,4-Dichlorobenzene	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
1,1-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichloropropane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2-Dibromoethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Dichlorodifluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Ethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
4-Ethyltoluene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Hexachlorobutadiene	6.0		12.0	ND	U	g	12.0	ND	U	g	12.0	ND	U	g
2-Hexanone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Ethyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Methylene Chloride	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
m,p-Xylene	2.0		4.0	6.14		g	4.0	ND	U	g	4.0	7.98		g
Naphthalene	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
o-Xylene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Styrene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Toluene	1.0		2.0	12.9		g	2.0	13.0		g	2.0	21.6		g
1,1,1-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,1,2-Trichloroethane	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g
Trichloroethylene (TCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Trichlorofluoromethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Trichlorotrifluoroethane	2.5		5.0	ND	U	g	5.0	ND	U	g	5.0	ND	U	g
1,2,4-Trimethylbenzene	1.5		3.0	5.04		g	3.0	9.62		g	3.0	10.0		g
1,3,5-Trimethylbenzene	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:		D28-HSAS2-30'				D28-HSAS3-10'				D28-HSAS3-20'		
		SDG:		43663				43663				43663		
		Batch ID:		82207				82207				82207		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
				Dilution 2				Dilution 2				Dilution 2		
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g	4.0	ND	U	g	4.0	ND	U	g
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g	3.0	ND	U	g	3.0	ND	U	g
Vinyl Acetate	5.0		10.0	ND	U	g	10.0	ND	U	g	10.0	ND	U	g
Vinyl Chloride	1.0		2.0	ND	U	g	2.0	ND	U	g	2.0	ND	U	g

Project: Beaumont						Table E - 10								
Site: 1						Analytical Data Summary								
Extraction Method: None						EPA Method TO15								
Analytical Method: TO15														
Matrix: G			Environmental Samples											
Units: ug/m3														
		Field ID:		D28-HSAS3-30'										
		SDG:		43663										
		Batch ID:		82207										
Parameters	MDL		PQL	Result	Validity	Comments								
				Dilution 2										
Acetone	5.0		10.0	16.6		g								
Bromodichloromethane	1.5		3.0	ND	U	g								
Bromomethane	1.5		3.0	ND	U	g								
Bromoform	1.5		3.0	ND	U	g								
Benzene	1.0		2.0	ND	U	g								
cis-1,2-Dichloroethylene	1.5		3.0	ND	U	g								
cis-1,3-Dichloropropene	1.5		3.0	ND	U	g								
Carbon Disulfide	1.5		3.0	29.1		g								
Chlorobenzene	1.0		2.0	ND	U	g								
Chloroethane	1.5		3.0	ND	U	g								
Chloromethane	1.0		2.0	ND	U	g								
Carbon Tetrachloride	2.0		4.0	ND	U	g								
Chloroform	1.5		3.0	ND	U	g								
Dibromochloromethane	1.5		3.0	ND	U	g								
1,1-Dichloroethane	1.5		3.0	ND	U	g								
1,2-Dichloroethane	1.5		3.0	ND	U	g								
1,2-Dichlorobenzene	2.0		4.0	ND	U	g								
1,3-Dichlorobenzene	2.0		4.0	ND	U	g								
1,4-Dichlorobenzene	2.0		4.0	ND	U	g								
1,1-Dichloroethene	1.5		3.0	ND	U	g								
1,2-Dichloropropane	1.5		3.0	ND	U	g								
1,2-Dichlorotetrafluoroethane	2.5		5.0	ND	U	g								
1,2-Dibromoethane	2.0		4.0	ND	U	g								
Dichlorodifluoromethane	2.0		4.0	ND	U	g								
Ethylbenzene	1.5		3.0	5.19		g								
4-Ethyltoluene	5.0		10.0	ND	U	g								
Hexachlorobutadiene	6.0		12.0	ND	U	g								
2-Hexanone	5.0		10.0	ND	U	g								
Methyl Ethyl Ketone	5.0		10.0	ND	U	g								
Methyl Isobutyl Ketone	5.0		10.0	ND	U	g								
Methylene Chloride	5.0		10.0	ND	U	g								
m,p-Xylene	2.0		4.0	8.58		g								
Naphthalene	5.0		10.0	ND	U	g								
o-Xylene	1.0		2.0	ND	U	g								
Styrene	1.5		3.0	ND	U	g								
Tert-Butyl Methyl Ether	1.0		2.0	ND	U	g								
Toluene	1.0		2.0	9.78		g								
1,1,1-Trichloroethane	1.5		3.0	ND	U	g								
1,1,2-Trichloroethane	1.5		3.0	ND	U	g								
1,2,4-Trichlorobenzene	1.0		2.0	ND	U	g								
Trichloroethylene (TCE)	1.5		3.0	ND	U	g								
trans-1,2-Dichloroethene	1.5		3.0	ND	U	g								
trans-1,3-Dichloropropene	1.5		3.0	ND	U	g								
Trichlorofluoromethane	2.0		4.0	ND	U	g								
Trichlorotrifluoroethane	2.5		5.0	ND	U	g								
1,2,4-Trimethylbenzene	1.5		3.0	14.5		g								
1,3,5-Trimethylbenzene	1.5		3.0	8.09		g								

Project: Beaumont						Table E - 10							
Site: 1						Analytical Data Summary							
Extraction Method: None						EPA Method TO15							
Analytical Method: TO15													
Matrix: G			Environmental Samples										
Units: ug/m3													
		Field ID:		D28-HSAS3-30'									
		SDG:		43663									
		Batch ID:		82207									
Parameters	MDL		PQL	Result	Validity	Comments							
				Dilution 2									
1,1,2,2-Tetrachloroethane	2.0		4.0	ND	U	g							
Tetrachloroethylene(PCE)	1.5		3.0	ND	U	g							
Vinyl Acetate	5.0		10.0	ND	U	g							
Vinyl Chloride	1.0		2.0	ND	U	g							

Project: Beaumont						Table E - 11		
Site: 1						Analytical Data Summary		
Extraction Method: METHOD						EPA Method E314.0		
Analytical Method: E314.0								
Matrix: Water								
Units: ug/L			Environmental Samples					
		Field ID:		B11-GW01				
		SDG:		07D051				
		Batch ID:		PCD005W				
Parameters	MDL		PQL	Result	Validity	Comments		
				Dilution 200				
Perchlorate	0.5		400	1980		g		

Project: Beaumont						Table E - 11		
Site: 1						Analytical Data Summary		
Extraction Method: METHOD						EPA Method E314.0		
Analytical Method: E314.0								
Matrix: Water								
Units: ug/L			Environmental Samples					
		Field ID:	F39-HSAS-GW-01					
		SDG:		07D105				
		Batch ID:		PCD005W				
Parameters	MDL		PQL	Result	Validity	Comments		
Perchlorate	0.5		2	<0.5	U	g		

Project: Beaumont						Table E - 11		
Site: 1						Analytical Data Summary		
Extraction Method: METHOD						EPA Method E314.0		
Analytical Method: E314.0								
Matrix: Water								
Units: ug/L			Environmental Samples					
		Field ID:		F33-HSAS10GW				
		SDG:		7.00E+17				
		Batch ID:		PCD024W				
Parameters	MDL		PQL	Result	Validity	Comments		
				Dilution 5				
Perchlorate	0.5		10	54.9		g		

Project: Beaumont						Table E - 12								
Site: 1						Analytical Data Summary								
Extraction Method: SW5030B						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Water			Environmental Samples											
Units: ug/L														
		Field ID:		B11-GW01				B11-GW01DL						
		SDG:		07D051				07D051						
		Batch ID:		VO01D09				VO01D14						
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments				
								Dilution 25						
Acetone	5		10	<5	U	g	250	<120	U	g				
Bromodichloromethane	0.2		1	<0.2	U	g	25	<5	U	g				
2-Butanone	5		10	<5	U	g	250	<120	U	g				
Bromomethane	0.2		1	<0.2	U	g	25	<5	U	g				
Bromoform	0.3		1	<0.3	U	g	25	<7.5	U	g				
Benzene	0.2		1	<0.2	U	g	25	<5	U	g				
Carbon Disulfide	0.2		1	<0.2	U	g	25	<5	U	g				
Chlorobenzene	0.2		1	<0.2	U	g	25	<5	U	g				
Chloroethane	0.2		1	<0.2	U	g	25	<5	U	g				
Chloromethane	0.2		1	<0.2	U	g	25	<5	U	g				
Carbon Tetrachloride	0.2		1	<0.2	U	g	25	<5	U	g				
Chloroform	0.2		1	2.3		g	25	<5	U	g				
Dibromochloromethane	0.2		1	<0.2	U	g	25	<5	U	g				
1,1-Dichloroethane	0.2		1	1.9		g	25	<5	U	g				
1,2-Dichloroethane	0.2		1	0.45	J	q	25	<5	U	g				
1,1-Dichloroethene	0.2		1	31		g	25	19	J	q				
c-1,2-Dichloroethene	0.2		1	0.23	J	q	25	<5	U	g				
t-1,2-Dichloroethene	0.2		1	<0.2	U	g	25	<5	U	g				
c-1,3-Dichloropropene	0.2		1	<0.2	U	g	25	<5	U	g				
t-1,3-Dichloropropene	0.2		1	<0.2	U	g	25	<5	U	g				
1,2-Dichloropropane	0.2		1	<0.2	U	g	25	<5	U	g				
Ethylbenzene	0.2		1	<0.2	U	g	25	<5	U	g				
2-Hexanone	5		10	<5	U	g	250	<120	U	g				
4-Methyl-2-Pentanone	5		10	<5	U	g	250	<120	U	g				
Methyl-t-Butyl Ether (MTBE)	0.2		1	<0.2	U	g	25	<5	U	g				
Methylene Chloride	0.5		1	<0.5	U	g	25	<12	U	g				
Styrene	0.2		1	<0.2	U	g	25	<5	U	g				
Toluene	0.2		1	<0.2	U	g	25	<5	U	g				
1,1,1-Trichloroethane	0.2		1	0.73	J	q	25	<5	U	g				
1,1,2-Trichloroethane	0.2		1	0.26	J	q	25	<5	U	g				
Trichloroethene	0.2		1	96	J	r	25	110		g				
1,1,2,2-Tetrachloroethane	0.2		1	<0.2	U	g	25	<5	U	g				
Tetrachloroethene	0.2		1	0.24	J	q	25	<5	U	g				
Vinyl Chloride	0.2		1	<0.2	U	g	25	<5	U	g				
p/m-Xylene	0.5		2	<0.5	U	g	50	<12	U	g				
o-Xylene	0.2		1	<0.2	U	g	25	<5	U	g				

Project: Beaumont				Table E - 12										
Site: 1				Analytical Data Summary										
Extraction Method: SW5030B				EPA Method SW8260B										
Analytical Method: SW8260B														
Matrix: Water			Environmental Samples											
Units: ug/L														
		Field ID:	F39-HSAS-GW-01											
		SDG:		07D105										
		Batch ID:		VO05D26										
Parameters	MDL		PQL	Result	Validity	Comments								
Acetone	5		10	11		g								
Bromodichloromethane	0.2		1	<0.2	U	g								
2-Butanone	5		10	<5	U	g								
Bromomethane	0.2		1	<0.2	U	g								
Bromoform	0.3		1	<0.3	U	g								
Benzene	0.2		1	0.29	J	q								
Carbon Disulfide	0.2		1	<0.2	U	g								
Chlorobenzene	0.2		1	<0.2	U	g								
Chloroethane	0.2		1	<0.2	U	g								
Chloromethane	0.2		1	<0.2	U	g								
Carbon Tetrachloride	0.2		1	<0.2	U	g								
Chloroform	0.2		1	<0.2	U	g								
Dibromochloromethane	0.2		1	<0.2	U	g								
1,1-Dichloroethane	0.2		1	<0.2	U	g								
1,2-Dichloroethane	0.2		1	<0.2	U	g								
1,1-Dichloroethene	0.2		1	<0.2	U	g								
c-1,2-Dichloroethene	0.2		1	<0.2	U	g								
t-1,2-Dichloroethene	0.2		1	<0.2	U	g								
c-1,3-Dichloropropene	0.2		1	<0.2	U	g								
t-1,3-Dichloropropene	0.2		1	<0.2	U	g								
1,2-Dichloropropane	0.2		1	<0.2	U	g								
Ethylbenzene	0.2		1	<0.2	U	g								
2-Hexanone	5		10	<5	U	g								
4-Methyl-2-Pentanone	5		10	<5	U	g								
Methyl-t-Butyl Ether (MTBE)	0.2		1	<0.2	U	g								
Methylene Chloride	0.5		1	<0.5	U	g								
Styrene	0.2		1	<0.2	U	g								
Toluene	0.2		1	<0.2	U	g								
1,1,1-Trichloroethane	0.2		1	<0.2	U	g								
1,1,2-Trichloroethane	0.2		1	<0.2	U	g								
Trichloroethene	0.2		1	1.8		g								
1,1,2,2-Tetrachloroethane	0.2		1	<0.2	U	g								
Tetrachloroethene	0.2		1	<0.2	U	g								
Vinyl Chloride	0.2		1	<0.2	U	g								
p/m-Xylene	0.5		2	<0.5	U	g								
o-Xylene	0.2		1	<0.2	U	g								

Project: Beaumont							Table E - 12							
Site: 1							Analytical Data Summary							
Extraction Method: SW5030B							EPA Method SW8260B							
Analytical Method: SW8260B														
Matrix: Water			Environmental Samples											
Units: ug/L														
		Field ID:		F39-HSAS2@10				F39-HSAS2@10DL				F39-HSAS2@120		
		SDG:		7.00E+184				7.00E+184				7.00E+184		
		Batch ID:		VODE39				VODE53				VODE43		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
								Dilution 5						
Acetone	5		10	<5	U	g	50	<25	U	g	10	<5	U	g
Bromodichloromethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
2-Butanone	5		10	<5	U	g	50	<25	U	g	10	<5	U	g
Bromomethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Bromoform	0.3		1	<0.3	U	g	5	<1.5	U	g	1	<0.3	U	g
Benzene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Carbon Disulfide	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Chlorobenzene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Chloroethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Chloromethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Carbon Tetrachloride	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Chloroform	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Dibromochloromethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
1,1-Dichloroethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
1,2-Dichloroethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
1,1-Dichloroethene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
c-1,2-Dichloroethene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
t-1,2-Dichloroethene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
c-1,3-Dichloropropene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
t-1,3-Dichloropropene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
1,2-Dichloropropane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Ethylbenzene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
2-Hexanone	5		10	<5	U	g	50	<25	U	g	10	<5	U	g
4-Methyl-2-Pentanone	5		10	<5	U	g	50	<25	U	g	10	<5	U	g
Methyl-t-Butyl Ether (MTBE)	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Methylene Chloride	0.5		1	<0.5	U	g	5	<2.5	U	g	1	<0.5	U	g
Styrene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Toluene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
1,1,1-Trichloroethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
1,1,2-Trichloroethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Trichloroethene	0.2		1	60	J	r	5	64		g	1	4.4		g
1,1,2,2-Tetrachloroethane	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Tetrachloroethene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
Vinyl Chloride	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g
p/m-Xylene	0.5		2	<0.5	U	g	10	<2.5	U	g	2	<0.5	U	g
o-Xylene	0.2		1	<0.2	U	g	5	<1	U	g	1	<0.2	U	g

Project: Beaumont						Table E - 12								
Site: 1						Analytical Data Summary								
Extraction Method: SW5030B						EPA Method SW8260B								
Analytical Method: SW8260B														
Matrix: Water			Environmental Samples											
Units: ug/L														
		Field ID:		F39-HSAS2@20				F39-HSAS3@20				F39-HSAS4@20		
		SDG:		7.00E+184				7.00E+184				7.00E+184		
		Batch ID:		VODE43				VODE43				VODE43		
Parameters	MDL		PQL	Result	Validity	Comments	PQL	Result	Validity	Comments	PQL	Result	Validity	Comments
Acetone	5		10	<5	U	g	10	<5	U	g	10	<5	U	g
Bromodichloromethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
2-Butanone	5		10	<5	U	g	10	<5	U	g	10	<5	U	g
Bromomethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Bromoform	0.3		1	<0.3	U	g	1	<0.3	U	g	1	<0.3	U	g
Benzene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Carbon Disulfide	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Chlorobenzene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Chloroethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Chloromethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Carbon Tetrachloride	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Chloroform	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Dibromochloromethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
1,1-Dichloroethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
1,2-Dichloroethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
1,1-Dichloroethene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
c-1,2-Dichloroethene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
t-1,2-Dichloroethene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
c-1,3-Dichloropropene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
t-1,3-Dichloropropene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
1,2-Dichloropropane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Ethylbenzene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
2-Hexanone	5		10	<5	U	g	10	<5	U	g	10	<5	U	g
4-Methyl-2-Pentanone	5		10	<5	U	g	10	<5	U	g	10	<5	U	g
Methyl-t-Butyl Ether (MTBE)	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Methylene Chloride	0.5		1	<0.5	U	g	1	<0.5	U	g	1	<0.5	U	g
Styrene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Toluene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
1,1,1-Trichloroethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
1,1,2-Trichloroethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Trichloroethene	0.2		1	4.6		g	1	1.4		g	1	34		g
1,1,2,2-Tetrachloroethane	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Tetrachloroethene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
Vinyl Chloride	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g
p/m-Xylene	0.5		2	<0.5	U	g	2	<0.5	U	g	2	<0.5	U	g
o-Xylene	0.2		1	<0.2	U	g	1	<0.2	U	g	1	<0.2	U	g

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Inorganics													
Sample Location	Depth	Sample Date	Matrix	Filter Status	Perchlorate -ug/kg	Arsenic -mg/kg	Antimony -mg/kg	Barium -mg/kg	Beryllium -mg/kg	Cadmium -mg/kg	Cobalt -mg/kg	Chromium -mg/kg	Copper -mg/kg	Lead -mg/kg	Mercury -mg/kg	Molybdenum -mg/kg	Nickel -mg/kg	Silver -mg/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<11.5	8.11 Jf	<2.29	165 Jf	0.674 Jq	<0.573	12.5 Jf	31.9 Jf	17.4 Jf	6.68 Jf	<0.0378	<0.573	20.7 Jf	<0.573
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<10.5	3.04 Jf	<2.1	52.8 Jf	<0.21	<0.526	4.84 Jf	7.57 Jf	5.42 Jf	2.76 Jf	<0.0347	<0.526	5.67 Jf	<0.526
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<11.1	5.87	<2.23	123	0.587 Jq	<0.557	10.5	25.8	14.4	5.59	<0.0367	<0.557	16.1	<0.557
B10-HSAS-15-16.5	15	4/24/2007	Soil	Unfiltered	189													
B10-HSAS4-15-16.5	15	4/18/2007	Soil	Unfiltered	196													
B10-HSAS4-30-31.5	30	4/18/2007	Soil	Unfiltered	206													
B10-HSAS4-5-6.5	5	4/18/2007	Soil	Unfiltered	40.6													
B10-HSAS5-20-21.5	20	4/24/2007	Soil	Unfiltered	328													
B10-HSAS5-25-26.5	25	4/24/2007	Soil	Unfiltered	155													
B10-HSAS501-15-16.5	15	4/24/2007	Soil	Unfiltered	209													
B10-HSAS6-10-11.5	10	4/24/2007	Soil	Unfiltered	1080													
B10-HSAS6-20-21.5	20	4/24/2007	Soil	Unfiltered	181													
B10-HSAS6-30-31.5	30	4/24/2007	Soil	Unfiltered	286													
B10-HSAS7-15-16.5	15	4/23/2007	Soil	Unfiltered	17 Jq													
B10-HSAS7-30-31.5	30	4/23/2007	Soil	Unfiltered	105													
B10-HSAS7-5-6.5	5	4/23/2007	Soil	Unfiltered	25.5													
B11-HSAS10-10-11.5	10	4/3/2007	Soil	Unfiltered	725													
B11-HSAS10-25-26.5	25	4/3/2007	Soil	Unfiltered	270													
B11-HSAS10-30-31.5	30	4/3/2007	Soil	Unfiltered	318													
B11-HSAS8-20-21.5	20	4/4/2007	Soil	Unfiltered	<10.8													
B11-HSAS8-25-26.5	25	4/4/2007	Soil	Unfiltered	141													
B11-HSAS8-5-6.5	5	4/4/2007	Soil	Unfiltered	<10.4													
B11-HSAS8-5-6.5D	5	4/4/2007	Soil	Unfiltered	<10.3													
B11-HSAS9-15-16.5	15	4/3/2007	Soil	Unfiltered	261													
B11-HSAS9-20-21.5	20	4/3/2007	Soil	Unfiltered	388													
B11-HSAS9-25-26.5	25	4/3/2007	Soil	Unfiltered	364													
B14-HSAS11-10-11.5	10	4/25/2007	Soil	Unfiltered	3200													
B14-HSAS11-20-21.5	20	4/25/2007	Soil	Unfiltered	5360													
B14-HSAS11-30-31.5	30	4/25/2007	Soil	Unfiltered	198													
B14-HSAS12-10-11.5	10	4/18/2007	Soil	Unfiltered	210													
B14-HSAS12-25-26.5	25	4/18/2007	Soil	Unfiltered	92.5													
B14-HSAS12-5-6.5	5	4/18/2007	Soil	Unfiltered	24.2													
B14-HSAS13-10-11.5	10	4/18/2007	Soil	Unfiltered	64.2													
B14-HSAS13-25-26.5	25	4/18/2007	Soil	Unfiltered	24.6													
B14-HSAS13-5-6.5	5	4/18/2007	Soil	Unfiltered	15.5 Jq													
B18-HSAS14-15-16.5	15	4/25/2007	Soil	Unfiltered	<11													
B18-HSAS14-20-21.5	20	4/25/2007	Soil	Unfiltered	<10.6													
B18-HSAS14-5-6.5	5	4/25/2007	Soil	Unfiltered	<10.3													

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Inorganics													
Sample Location	Depth	Sample Date	Matrix	Filter Status	Perchlorate -ug/kg	Arsenic -mg/kg	Antimony -mg/kg	Barium -mg/kg	Beryllium -mg/kg	Cadmium -mg/kg	Cobalt -mg/kg	Chromium -mg/kg	Copper -mg/kg	Lead -mg/kg	Mercury -mg/kg	Molybdenum -mg/kg	Nickel -mg/kg	Silver -mg/kg
B18-HSAS15-15-16.5	15	4/25/2007	Soil	Unfiltered	41.8													
B18-HSAS15-20-21.5	20	4/25/2007	Soil	Unfiltered	27.7													
B18-HSAS15-5-6.5	5	4/25/2007	Soil	Unfiltered	19.2 Jq													
B18-HSAS16-10-11.5	10	4/25/2007	Soil	Unfiltered	<10.6													
B18-HSAS16-20-21.5	20	4/25/2007	Soil	Unfiltered	22													
B18-HSAS16-5-6.5	5	4/25/2007	Soil	Unfiltered	<10.4													
B19-HSAS1-10-11.5'	10	4/16/2007	Soil	Unfiltered	470													
B19-HSAS1-20-21.5'	20	4/16/2007	Soil	Unfiltered	267													
B19-HSAS1-5-6.5'	5	4/16/2007	Soil	Unfiltered	292													
B19-HSAS17-10-11.5'	10	4/16/2007	Soil	Unfiltered	63.8													
B19-HSAS17-20-21.5'	20	4/16/2007	Soil	Unfiltered	213													
B19-HSAS17-5-6.5'	5	4/16/2007	Soil	Unfiltered	<10.7													
B19-HSAS18-10-11.5	10	4/18/2007	Soil	Unfiltered	1550													
B19-HSAS18-20-21.5	20	4/18/2007	Soil	Unfiltered	217													
B19-HSAS18-5-6.5	5	4/18/2007	Soil	Unfiltered	26.6													
B20-HSAS19-10-11.5	10	4/23/2007	Soil	Unfiltered	85.4													
B20-HSAS19-15-16.5	15	4/23/2007	Soil	Unfiltered	94.4													
B20-HSAS19-25-26.5	25	4/23/2007	Soil	Unfiltered	77.7													
B20-HSAS19-30-31.5	30	4/23/2007	Soil	Unfiltered	270													
B20-HSAS1901-10-11.5	10	4/23/2007	Soil	Unfiltered	99													
B20-HSAS20-10-11.5	10	4/24/2007	Soil	Unfiltered	68.2													
B20-HSAS20-20-21.5	20	4/24/2007	Soil	Unfiltered	224													
B20-HSAS20-25-26.5	25	4/24/2007	Soil	Unfiltered	322													
B20-HSAS20-30-31.5	30	4/24/2007	Soil	Unfiltered	302													
B9-HSAS2-10-11.5	10	4/18/2007	Soil	Unfiltered	5480													
B9-HSAS2-20-21.5	20	4/18/2007	Soil	Unfiltered	45.7													
B9-HSAS2-5-6.5	5	4/18/2007	Soil	Unfiltered	193													
B9-HSAS3-10-11.5	10	4/18/2007	Soil	Unfiltered	46.4													
B9-HSAS3-20-21.5	20	4/18/2007	Soil	Unfiltered	960													
B9-HSAS3-5-6.5	5	4/18/2007	Soil	Unfiltered	208													
C22-HSAS21-12-15.5	12	4/17/2007	Soil	Unfiltered	108													
C22-HSAS21-30-31.5	30	4/17/2007	Soil	Unfiltered	39.2													
C22-HSAS21-60-61.5	60	4/17/2007	Soil	Unfiltered	330													
C22-HSAS21-9.5-11	9.5	4/17/2007	Soil	Unfiltered	17.6 Jq													
C22-HSAS2101-60-61.5	60	4/17/2007	Soil	Unfiltered	365													
C22-HSAS22-12.5-14	12.5	4/12/2007	Soil	Unfiltered	39600													
C22-HSAS22-30-31.5	30	4/12/2007	Soil	Unfiltered	5570													
C22-HSAS22-60-61.5	60	4/12/2007	Soil	Unfiltered	<10.6													

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Inorganics													
Sample Location	Depth	Sample Date	Matrix	Filter Status	Perchlorate -ug/kg	Arsenic -mg/kg	Antimony -mg/kg	Barium -mg/kg	Beryllium -mg/kg	Cadmium -mg/kg	Cobalt -mg/kg	Chromium -mg/kg	Copper -mg/kg	Lead -mg/kg	Mercury -mg/kg	Molybdenum -mg/kg	Nickel -mg/kg	Silver -mg/kg
C22-HSAS23-10-11.5	10	4/17/2007	Soil	Unfiltered	522													
C22-HSAS23-30-31.5	30	4/17/2007	Soil	Unfiltered	3070													
C22-HSAS23-60-61.5	60	4/17/2007	Soil	Unfiltered	153													
C22-HSAS2301-60-61.5	60	4/17/2007	Soil	Unfiltered	416													
C22-HSAS24-20-21.5	20	4/19/2007	Soil	Unfiltered	651													
C22-HSAS24-5-6.5	5	4/19/2007	Soil	Unfiltered	110													
C22-HSAS24-55-56.5	55	4/19/2007	Soil	Unfiltered	<10.6													
C22-HSAS25-13-14.5	13	4/13/2007	Soil	Unfiltered	31.9													
C22-HSAS25-25-26.5	25	4/13/2007	Soil	Unfiltered	62.4													
C22-HSAS25-46-46.5	46	4/13/2007	Soil	Unfiltered	<10.5													
C22-HSAS26-15-16.5'	15	4/16/2007	Soil	Unfiltered	34.1													
C22-HSAS26-20-21.5'	20	4/16/2007	Soil	Unfiltered	<10.4													
C22-HSAS26-35-36.5'	35	4/16/2007	Soil	Unfiltered	87.5													
C23-HSAS27-20-21.5	20	4/19/2007	Soil	Unfiltered	<10.4													
C23-HSAS27-30-31.5	30	4/19/2007	Soil	Unfiltered	<10.2													
C23-HSAS27-5-6.5	5	4/19/2007	Soil	Unfiltered	<10.3													
C23-HSAS2701-30-31.5	30	4/19/2007	Soil	Unfiltered	<10.1													
C23-HSAS2701-5-6.5	5	4/19/2007	Soil	Unfiltered	<10.3													
C23-HSAS28-20-21.5	20	4/19/2007	Soil	Unfiltered	<11.1													
C23-HSAS28-40-41.5	40	4/19/2007	Soil	Unfiltered	<10.3													
C23-HSAS28-5-6.5	5	4/19/2007	Soil	Unfiltered	<10.4													
C23-HSAS2801-20-21.5	20	4/19/2007	Soil	Unfiltered	<10.9													
C23-SS1	0.00	4/11/2007	Soil	Unfiltered					0.679 Jq									
C23-SS107	0.00	4/11/2007	Soil	Unfiltered					0.658 Jq									
C23-SS2	0.00	4/11/2007	Soil	Unfiltered					0.339 Jq									
C23-SS3	0.00	4/11/2007	Soil	Unfiltered					0.362 Jq									
C23-SS4	0.00	4/11/2007	Soil	Unfiltered					0.336 Jq									
C23-SS5	0.00	4/11/2007	Soil	Unfiltered					0.479 Jq									
C23-SS6	0.00	4/11/2007	Soil	Unfiltered					0.461 Jq									
C23-SS7	0.00	4/11/2007	Soil	Unfiltered					0.303 Jq									
C23-SS8	0.00	4/11/2007	Soil	Unfiltered					<0.201									
D29-HAS14-0.5	0.5	7/26/2007	Soil	Unfiltered	<50.6													
D29-HAS14-5	5	7/26/2007	Soil	Unfiltered	<10.3													
D29-HAS15-0.5	0.5	7/26/2007	Soil	Unfiltered	<10.1													
D29-HAS15-5	5	7/26/2007	Soil	Unfiltered	<10.2													
D29-HAS16-0.5	0.5	7/26/2007	Soil	Unfiltered	<10.2													
D29-HAS16-5	5	7/26/2007	Soil	Unfiltered	<10.7													
F33-HAS11@.5	.5	4/27/2007	Soil	Unfiltered	22.3													

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Inorganics													
Sample Location	Depth	Sample Date	Matrix	Filter Status	Perchlorate -ug/kg	Arsenic -mg/kg	Antimony -mg/kg	Barium -mg/kg	Beryllium -mg/kg	Cadmium -mg/kg	Cobalt -mg/kg	Chromium -mg/kg	Copper -mg/kg	Lead -mg/kg	Mercury -mg/kg	Molybdenum -mg/kg	Nickel -mg/kg	Silver -mg/kg
F33-HAS11@5	5	4/27/2007	Soil	Unfiltered	17.2 Jq													
F33-HAS12@.5	.5	4/27/2007	Soil	Unfiltered	212													
F33-HAS12@5.0	5.0	4/27/2007	Soil	Unfiltered	100													
F33-HAS13@.5	.5	4/27/2007	Soil	Unfiltered	18 Jq													
F33-HAS13@5.0	5.0	4/27/2007	Soil	Unfiltered	<11.6													
F33-HAS16@.5	.5	4/27/2007	Soil	Unfiltered	<10.7													
F33-HAS16@5	5	4/27/2007	Soil	Unfiltered	<12.4													
F33-HSAS10-10-11.5	10	4/27/2007	Soil	Unfiltered	111													
F33-HSAS10-15-16.5	15	4/27/2007	Soil	Unfiltered	54.9													
F33-HSAS10-20-21.5	20	4/27/2007	Soil	Unfiltered	<11.4													
F33-HSAS14-10-11.5	10	4/27/2007	Soil	Unfiltered	6260													
F33-HSAS14-15-16.5	15	4/27/2007	Soil	Unfiltered	14400													
F33-HSAS14-20-21.5	20	4/27/2007	Soil	Unfiltered	51100													
F33-HSAS14-5-6.5	5	4/27/2007	Soil	Unfiltered	328													
F33-HSAS15-10-11.5	10	4/20/2007	Soil	Unfiltered	44.2													
F33-HSAS15-15-16.5	15	4/20/2007	Soil	Unfiltered	119													
F33-HSAS15-20-21.5	20	4/20/2007	Soil	Unfiltered	<11.6													
H49-HSAS13-15-16.5	15	4/27/2007	Soil	Unfiltered	<14.6													
H49-HSAS13-20-21.5	20	4/27/2007	Soil	Unfiltered	<13.4													
H49-HSAS13-25-26.5	25	4/27/2007	Soil	Unfiltered	<14													
H49-HSAS6-10-11.5	10	4/30/2007	Soil	Unfiltered	103													
H49-HSAS6-20-21.5	20	4/30/2007	Soil	Unfiltered	361													
H49-HSAS6-40-41.5	40	4/30/2007	Soil	Unfiltered	4910													
H49-HSAS601-40-41.5	40	4/30/2007	Soil	Unfiltered	6470													
H49-HSAS7-15-16.5	15	4/27/2007	Soil	Unfiltered	55													
H49-HSAS7-30-31.5	30	4/27/2007	Soil	Unfiltered	<12.2													
H49-HSAS7-45-46.5	45	4/27/2007	Soil	Unfiltered	<10.5													
H49-HSAS7-5-6.5	5	4/27/2007	Soil	Unfiltered	40.1													
H49-HSAS8-10-11.5	10	4/27/2007	Soil	Unfiltered	<10.4													
H49-HSAS8-25-26.5	25	4/27/2007	Soil	Unfiltered	<10.4													
H49-HSAS8-40-41.5	40	4/27/2007	Soil	Unfiltered	<10.5													

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Inorganics			
Sample Location	Depth	Sample Date	Matrix	Filter Status	Selenium -mg/kg	Thallium -mg/kg	Vanadium -mg/kg	Zinc -mg/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	1.1 Jq	0.744 Jq	63.8 Jf	73.1 Jf
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<0.526	<0.526	20.1 Jf	26.3 Jf
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	1.04 Jq	0.767 Jq	52.3	58.9

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
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					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	1,4-Dioxane -ug/kg	Acetone -ug/kg	Bromodichloromethane -ug/kg	2-Butanone -ug/kg	Bromomethane -ug/kg	Bromoform -ug/kg	Benzene -ug/kg	Carbon Disulfide -ug/kg	Chlorobenzene -ug/kg	Chloroethane -ug/kg	Chloromethane -ug/kg	Carbon Tetrachloride -ug/kg	Chloroform -ug/kg	Dibromochloromethane -ug/kg	1,1-Dichloroethane -ug/kg	1,2-Dichloroethane -ug/kg	1,1-Dichloroethene -ug/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<23	<5.7	<2.3	<5.7	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<21	<5.3	<2.1	<5.3	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<22	<4.3	<1.7	<4.3	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
C22-HSAS21-12-15.5	12	4/17/2007	Soil	Unfiltered		<4.9	<2	<4.9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS21-30-31.5	30	4/17/2007	Soil	Unfiltered		<5.2	<2.1	<5.2	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
C22-HSAS21-60-61.5	60	4/17/2007	Soil	Unfiltered		4.9 Jq	<1.9	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS21-9.5-11	9.5	4/17/2007	Soil	Unfiltered		<5	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS2101-60-61.5	60	4/17/2007	Soil	Unfiltered		<5	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS22-11-12.5	11	4/12/2007	Soil	Unfiltered		<4.8	<1.9	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS22-30-31.5	30	4/12/2007	Soil	Unfiltered		<4.8	<1.9	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS22-60-61.5	60	4/12/2007	Soil	Unfiltered		<5	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS23-10-11.5	10	4/17/2007	Soil	Unfiltered		<4.7	<1.9	<4.7	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS23-30-31.5	30	4/17/2007	Soil	Unfiltered		<5.7	<2.3	<5.7	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
C22-HSAS23-60-61.5	60	4/17/2007	Soil	Unfiltered		<4.8	<1.9	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS2301-60-61.5	60	4/17/2007	Soil	Unfiltered		<4.8	<1.9	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS24-20-21.5	20	4/19/2007	Soil	Unfiltered		<5.1	<2	<5.1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS24-5-6.5	5	4/19/2007	Soil	Unfiltered		<5.2	<2.1	<5.2	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
C22-HSAS24-55-56.5	55	4/19/2007	Soil	Unfiltered		<5	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS25-13-14.5	13	4/13/2007	Soil	Unfiltered		<4.6	<1.8	<4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
C22-HSAS25-25-26.5	25	4/13/2007	Soil	Unfiltered		<4.9	<2	<4.9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS25-46-46.5	46	4/13/2007	Soil	Unfiltered		5.5 Jq	<1.9	<4.7	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS26-15-16.5'	15	4/16/2007	Soil	Unfiltered		5 Jq	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS26-20-21.5'	20	4/16/2007	Soil	Unfiltered		<5.7	<2.3	<5.7	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
C22-HSAS26-35-36.5'	35	4/16/2007	Soil	Unfiltered		<6.3	<2.5	<6.3	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
D29-HAS14-0.5	0.5	7/26/2007	Soil	Unfiltered		7.2 Jq	<2.2	<5.6	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2
D29-HAS14-5	5	7/26/2007	Soil	Unfiltered		<5.1	<2	<5.1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
D29-HAS15-0.5	0.5	7/26/2007	Soil	Unfiltered		12	<2.4	<6.1	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4
D29-HAS15-5	5	7/26/2007	Soil	Unfiltered		<4.9	<2	<4.9	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
D29-HAS16-0.5	0.5	7/26/2007	Soil	Unfiltered		6.6 Jq	<2.2	<5.6	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2
D29-HAS16-5	5	7/26/2007	Soil	Unfiltered		<5.1	<2.1	<5.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
IDW-041807-BIN1	0.00	4/18/2007	Soil	Unfiltered		<9.9	<3.9	<9.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9

Consolidation Data Summary Table - Soil
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					Volatile Organics															
Sample Location	Depth	Sample Date	Matrix	Filter Status	c-1,2-Dichloroethene -ug/kg	t-1,2-Dichloroethene -ug/kg	c-1,3-Dichloropropene -ug/kg	t-1,3-Dichloropropene -ug/kg	1,2-Dichloropropane -ug/kg	Ethylbenzene -ug/kg	2-Hexanone -ug/kg	4-Methyl-2-Pentanone -ug/kg	Methyl-t-Butyl Ether (MTBE) -ug/kg	Methylene Chloride -ug/kg	Styrene -ug/kg	Toluene -ug/kg	1,1,1-Trichloroethane -ug/kg	1,1,2-Trichloroethane -ug/kg	Trichloroethene -ug/kg	1,1,2,2-Tetrachloroethane -ug/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<5.7	<5.7	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<5.3	<5.3	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<4.3	<4.3	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
C22-HSAS21-12-15.5	12	4/17/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<4.9	<4.9	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS21-30-31.5	30	4/17/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<5.2	<5.2	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
C22-HSAS21-60-61.5	60	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.8	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS21-9.5-11	9.5	4/17/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS2101-60-61.5	60	4/17/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS22-11-12.5	11	4/12/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.8	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS22-30-31.5	30	4/12/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.8	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS22-60-61.5	60	4/12/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS23-10-11.5	10	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.7	<4.7	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS23-30-31.5	30	4/17/2007	Soil	Unfiltered	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<5.7	<5.7	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
C22-HSAS23-60-61.5	60	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.8	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS2301-60-61.5	60	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.8	<4.8	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS24-20-21.5	20	4/19/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5.1	<5.1	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS24-5-6.5	5	4/19/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<5.2	<5.2	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
C22-HSAS24-55-56.5	55	4/19/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5	<5	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS25-13-14.5	13	4/13/2007	Soil	Unfiltered	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.6	<4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
C22-HSAS25-25-26.5	25	4/13/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<4.9	<4.9	<2	<2	<2	<2	<2	<2	<2	<2
C22-HSAS25-46-46.5	46	4/13/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<4.7	<4.7	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
C22-HSAS26-15-16.5'	15	4/16/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5	<5	<2	<2	<2	2.6 Jq	<2	<2	<2	<2
C22-HSAS26-20-21.5'	20	4/16/2007	Soil	Unfiltered	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<5.7	<5.7	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
C22-HSAS26-35-36.5'	35	4/16/2007	Soil	Unfiltered	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<6.3	<6.3	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
D29-HAS14-0.5	0.5	7/26/2007	Soil	Unfiltered	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<5.6	<5.6	<2.2	2.4 Jq	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2
D29-HAS14-5	5	7/26/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<5.1	<5.1	<2	<2	<2	<2	<2	<2	<2	<2
D29-HAS15-0.5	0.5	7/26/2007	Soil	Unfiltered	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<6.1	<6.1	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4	<2.4
D29-HAS15-5	5	7/26/2007	Soil	Unfiltered	<2	<2	<2	<2	<2	<2	<4.9	<4.9	<2	<2	<2	<2	<2	<2	<2	<2
D29-HAS16-0.5	0.5	7/26/2007	Soil	Unfiltered	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<5.6	<5.6	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2
D29-HAS16-5	5	7/26/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<5.1	<5.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1
IDW-041807-BIN1	0.00	4/18/2007	Soil	Unfiltered	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<9.9	<9.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics			
Sample Location	Depth	Sample Date	Matrix	Filter Status	Tetrachloroethene -ug/kg	Vinyl Chloride -ug/kg	p/m-Xylene -ug/kg	o-Xylene -ug/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<2.3	<2.3	<2.3	<2.3
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<1.7	<1.7	<1.7	<1.7
C22-HSAS21-12-15.5	12	4/17/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS21-30-31.5	30	4/17/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1
C22-HSAS21-60-61.5	60	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS21-9.5-11	9.5	4/17/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS2101-60-61.5	60	4/17/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS22-11-12.5	11	4/12/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS22-30-31.5	30	4/12/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS22-60-61.5	60	4/12/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS23-10-11.5	10	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS23-30-31.5	30	4/17/2007	Soil	Unfiltered	<2.3	<2.3	<2.3	<2.3
C22-HSAS23-60-61.5	60	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS2301-60-61.5	60	4/17/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS24-20-21.5	20	4/19/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS24-5-6.5	5	4/19/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1
C22-HSAS24-55-56.5	55	4/19/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS25-13-14.5	13	4/13/2007	Soil	Unfiltered	<1.8	<1.8	<1.8	<1.8
C22-HSAS25-25-26.5	25	4/13/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS25-46-46.5	46	4/13/2007	Soil	Unfiltered	<1.9	<1.9	<1.9	<1.9
C22-HSAS26-15-16.5'	15	4/16/2007	Soil	Unfiltered	<2	<2	<2	<2
C22-HSAS26-20-21.5'	20	4/16/2007	Soil	Unfiltered	<2.3	<2.3	<2.3	<2.3
C22-HSAS26-35-36.5'	35	4/16/2007	Soil	Unfiltered	<2.5	<2.5	<2.5	<2.5
D29-HAS14-0.5	0.5	7/26/2007	Soil	Unfiltered	<2.2	<2.2	<2.2	<2.2
D29-HAS14-5	5	7/26/2007	Soil	Unfiltered	<2	<2	<2	<2
D29-HAS15-0.5	0.5	7/26/2007	Soil	Unfiltered	<2.4	<2.4	<2.4	<2.4
D29-HAS15-5	5	7/26/2007	Soil	Unfiltered	<2	<2	<2	<2
D29-HAS16-0.5	0.5	7/26/2007	Soil	Unfiltered	<2.2	<2.2	<2.2	<2.2
D29-HAS16-5	5	7/26/2007	Soil	Unfiltered	<2.1	<2.1	<2.1	<2.1
IDW-041807-BIN1	0.00	4/18/2007	Soil	Unfiltered	<3.9	<3.9	<3.9	<3.9

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Semivolatile Organics																							
Sample Location	Depth	Sample Date	Matrix	Filter Status	Acenaphthene -ug/kg	Acenaphthylene -ug/kg	Anthracene -ug/kg	Butyl benzyl phthalate -ug/kg	4-Bromophenyl phenyl ether -ug/kg	Benzo(a)anthracene -ug/kg	Benzo(a)pyrene -ug/kg	Benzo(b)fluoranthene -ug/kg	Benzo(g,h,i)perylene -ug/kg	Benzo(k)fluoranthene -ug/kg	4-Chloro-3-methylphenol -ug/kg	bis(2-Chloroethoxy) methane -ug/kg	bis(2-Chloroethyl) ether -ug/kg	bis(2-Chloroisopropyl) ether -ug/kg	Chrysene -ug/kg	4-Chloroaniline -ug/kg	2-Chlorophenol -ug/kg	2-Chloronaphthalene -ug/kg	4-Chlorophenyl phenyl ether -ug/kg	Dibenz(a,h) anthracene -ug/kg	Dibenzofuran -ug/kg	3,3'-Dichlorobenzidine -ug/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Semivolatile Organics																						
Sample Location	Depth	Sample Date	Matrix	Filter Status	1,2-Dichlorobenzene -ug/kg	1,3-Dichlorobenzene -ug/kg	1,4-Dichlorobenzene -ug/kg	2,4-Dichlorophenol -ug/kg	Diethyl phthalate -ug/kg	2,4-Dimethylphenol -ug/kg	Dimethyl phthalate -ug/kg	4,6-Dinitro-2-methylphenol -ug/kg	Di-n-butylphthalate -ug/kg	Di-n-octylphthalate -ug/kg	2,4-Dinitrophenol -ug/kg	2,4-Dinitrotoluene -ug/kg	2,6-Dinitrotoluene -ug/kg	bis(2-Ethylhexyl) phthalate -ug/kg	Fluorene -ug/kg	Fluoranthene -ug/kg	Hexachlorobutadiene -ug/kg	Hexachlorocyclopentadiene -ug/kg	Hexachlorobenzene -ug/kg	Hexachloroethane -ug/kg	Indeno(1,2,3-c,d)pyrene -ug/kg	Isophorone -ug/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<220	<190	<190	<190	<190	<190
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<200	<180	<180	<180	<180	<180
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<210	<190	<190	<190	<190	<190

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Semivolatile Organics																		
Sample Location	Depth	Sample Date	Matrix	Filter Status	2-Methylphenol (o-Cresol) -ug/kg	4-Methylphenol (p-Cresol) -ug/kg	2-Methylnaphthalene -ug/kg	Naphthalene -ug/kg	N-Nitrosodiphenylamine -ug/kg	N-Nitrosodi-n-propylamine -ug/kg	2-Nitroaniline -ug/kg	3-Nitroaniline -ug/kg	4-Nitroaniline -ug/kg	Nitrobenzene -ug/kg	2-Nitrophenol -ug/kg	4-Nitrophenol -ug/kg	Pentachlorophenol -ug/kg	Phenanthrene -ug/kg	Phenol -ug/kg	Pyrene -ug/kg	1,2,4-Trichlorobenzene -ug/kg	2,4,5-Trichlorophenol -ug/kg	2,4,6-Trichlorophenol -ug/kg
A6-HAS101@0.5	0.5	4/10/2007	Soil	Unfiltered	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<200	<190	<190	<190	<190	<190	<210
A6-HAS1@0.5	0.5	4/10/2007	Soil	Unfiltered	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<180	<190
A6-HAS1@5	5	4/10/2007	Soil	Unfiltered	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<190	<200

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

						Explosives													
Sample Location	Depth	Sample Date	Matrix	Filter Status	2-AM-4,6-DNT -ug/kg	4-AM-2,6-DNT -ug/kg	1,3-DNB -ug/kg	2,4-DNT -ug/kg	2,6-DNT -ug/kg	HMX -ug/kg	2-Nitrotoluene -ug/kg	3-Nitrotoluene -ug/kg	4-Nitrotoluene -ug/kg	Nitrobenzene -ug/kg	RDX -ug/kg	Tetryl -ug/kg	1,3,5-TNB -ug/kg	2,4,6-TNT -ug/kg
D29-HAS14-0.5	0.5	7/26/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS14-5	5	7/26/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS15-0.5	0.5	7/26/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS15-5	5	7/26/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS16-0.5	0.5	7/26/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS16-5	5	7/26/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS11@0.5'	0.5	4/11/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS11@5'	5	4/11/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS12@0.5'	0.5	4/11/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS12@5'	5	4/11/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS13@0.5'	0.5	4/11/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
D29-HAS13@5'	5	4/11/2007	Soil	Unfiltered	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Polychlorinated Biphenyls (PCBs)						
Sample Location	Depth	Sample Date	Matrix	Filter Status	Aroclor-1016 -ug/kg	Aroclor-1221 -ug/kg	Aroclor-1232 -ug/kg	Aroclor-1242 -ug/kg	Aroclor-1248 -ug/kg	Aroclor-1254 -ug/kg	Aroclor-1260 -ug/kg
BLDG309-HAS1@0.5'	0.5	4/9/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
BLDG309-HAS1@2'	2	4/9/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
BLDG309-HAS2@0.5'	0.5	4/9/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
BLDG309-HAS2@2'	2	4/9/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
BLDG309-HAS3@0.5'	0.5	4/9/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
BLDG309-HAS3@2'	2	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
BLDG309-HAS4@0.5'	0.5	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
BLDG309-HAS4@2'	2	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F35-HAS1@0.5'	0.5	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F35-HAS1@1.5'	1.5	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F35-HAS2@0.5'	0.5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F35-HAS2@5'	5	4/6/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F35-HAS3@0.5'	0.5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F35-HAS3@5'	5	4/6/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F35-HAS4@0.5'	0.5	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F35-HAS4@5'	5	4/9/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS1@10'	10	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS1@15'	15	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS1@5'	5	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS2@10'	10	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS2@15'	15	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS2@5'	5	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS3@10'	10	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS3@15'	15	4/11/2007	Soil	Unfiltered	<22	<22	<22	<22	<22	<22	<22
F36-HSAS3@5'	5	4/11/2007	Soil	Unfiltered	<22	<22	<22	<22	<22	<22	<22
F36-HSAS4@10'	10	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F36-HSAS4@15'	15	4/11/2007	Soil	Unfiltered	<22	<22	<22	<22	<22	<22	<22
F36-HSAS4@5'	5	4/11/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F40-HAS10@0.5'	0.5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F40-HAS10@5'	5	4/6/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F40-HAS7@0.5'	0.5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F40-HAS7@5'	5	4/6/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
F40-HAS8@0.5'	0.5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F40-HAS8@5'	5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F40-HAS9@0.5'	0.5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
F40-HAS9@5'	5	4/6/2007	Soil	Unfiltered	<20	<20	<20	<20	<20	<20	<20
H49-HSAS10-10-11.5	10	4/26/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
H49-HSAS10-15-16.5	15	4/26/2007	Soil	Unfiltered	<24	<24	<24	<24	<24	<24	<24

Consolidation Data Summary Table - Soil
Supplemental Soil Investigation
Beaumont Site 1

					Polychlorinated Biphenyls (PCBs)						
Sample Location	Depth	Sample Date	Matrix	Filter Status	Aroclor-1016 -ug/kg	Aroclor-1221 -ug/kg	Aroclor-1232 -ug/kg	Aroclor-1242 -ug/kg	Aroclor-1248 -ug/kg	Aroclor-1254 -ug/kg	Aroclor-1260 -ug/kg
H49-HSAS10-20-21.5	20	4/26/2007	Soil	Unfiltered	<25	<25	<25	<25	<25	<25	<25
H49-HSAS11-10-11.5	10	4/26/2007	Soil	Unfiltered	<24	<24	<24	<24	<24	<24	<24
H49-HSAS11-25-26.5	25	4/26/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
H49-HSAS11-35-36.5	35	4/26/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
H49-HSAS1101-25-26.5	25	4/26/2007	Soil	Unfiltered	<24	<24	<24	<24	<24	<24	<24
H49-HSAS12-10-11.5	10	4/30/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
H49-HSAS12-15-16.5	15	4/30/2007	Soil	Unfiltered	<24	<24	<24	<24	<24	<24	<24
H49-HSAS12-20-21.5	20	4/30/2007	Soil	Unfiltered	<26	<26	<26	<26	<26	<26	<26
H49-HSAS13-15-16.5	15	4/27/2007	Soil	Unfiltered	<29	<29	<29	<29	<29	<29	<29
H49-HSAS13-20-21.5	20	4/27/2007	Soil	Unfiltered	<27	<27	<27	<27	<27	<27	<27
H49-HSAS13-25-26.5	25	4/27/2007	Soil	Unfiltered	<28	<28	<28	<28	<28	<28	<28
H49-HSAS9-10-11.5	10	4/27/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
H49-HSAS9-20-21.5	20	4/27/2007	Soil	Unfiltered	<22	<22	<22	<22	<22	<22	<22
H49-HSAS9-35-36.5	35	4/27/2007	Soil	Unfiltered	<21	<21	<21	<21	<21	<21	<21
H49-HSAS901-20-21.5	20	4/27/2007	Soil	Unfiltered	<22	<22	<22	<22	<22	<22	<22

Consolidation Data Summary Table - Soil Gas
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	Acetone -ug/m3	Bromodichloromethane -ug/m3	Bromomethane -ug/m3	Bromoform -ug/m3	Benzene -ug/m3	Carbon Disulfide -ug/m3	Chlorobenzene -ug/m3	Chloroethane -ug/m3	Chloromethane -ug/m3	Carbon Tetrachloride -ug/m3	Chloroform -ug/m3	Dibromochloromethane -ug/m3	1,1-Dichloroethane -ug/m3	1,2-Dichloroethane -ug/m3	1,2-Dichlorobenzene -ug/m3	1,3-Dichlorobenzene -ug/m3	1,4-Dichlorobenzene -ug/m3	1,1-Dichloroethene -ug/m3
B11-HSAS10-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered	14.4	<3.0	<3.0	<3.0	<2.0	7.03	<2.0	<3.0	<2.0	<4.0	6.05	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	45.4
B11-HSAS10-SVP-25'	20	5/2/2007	Soil Gas	Unfiltered	25.2 Jp	<3.0 Rp	<3.0 Rp	<3.0 Rp	11.6 Jp	51.5 Jp	<2.0 Rp	<3.0 Rp	<2.0 Rp	<4.0 Rp	30.7 Jp	<3.0 Rp	28.3 Jp	<3.0 Rp	<4.0 Rp	<4.0 Rp	<4.0 Rp	1490 Jp
B11-HSAS8-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered	36.2	<3.0	<3.0	<3.0	8.29	37.7	<2.0	<3.0	<2.0	<4.0	6.60	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	902
B11-HSAS8-SVP-25'	25	5/2/2007	Soil Gas	Unfiltered	41.3	<3.0	<3.0	<3.0	15.2	49.1	<2.0	<3.0	<2.0	<4.0	86.3	<3.0	76.0	<3.0	<4.0	<4.0	<4.0	5270
B11-HSAS9-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered	20.7	<3.0	<3.0	<3.0	5.37	26.7	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	19.4
B11-HSAS9-SVP-25'	20	5/2/2007	Soil Gas	Unfiltered	50.9 Jp	<3.0 Rp	<3.0 Rp	<3.0 Rp	14.8 Jp	42.1 Jp	<2.0 Rp	<3.0 Rp	<2.0 Rp	<4.0 Rp	32.9 Jp	<3.0 Rp	40.8 Jp	<3.0 Rp	<4.0 Rp	<4.0 Rp	<4.0 Rp	503 Jp
C22-HSAS21-SVP-10'	10	5/10/2007	Soil Gas	Unfiltered	52.5	<3.0	<3.0	<3.0	11.0	11.0	<2.0	<3.0	<2.0	<4.0	9.70	<3.0	21.6	<3.0	<4.0	<4.0	<4.0	4720
C22-HSAS21-SVP-20'	20	5/10/2007	Soil Gas	Unfiltered	51.5	<3.0	<3.0	<3.0	16.7	73.7	<2.0	<3.0	<2.0	<4.0	8.32	<3.0	29.1	<3.0	<4.0	<4.0	<4.0	6100
C22-HSAS21-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered	43.7	<3.0	<3.0	<3.0	15.3	91.6	<2.0	<3.0	<2.0	<4.0	10.2	<3.0	52.4	<3.0	<4.0	<4.0	<4.0	10400
C22-HSAS21-SVP-40'	40	5/10/2007	Soil Gas	Unfiltered	20.7	<3.0	<3.0	<3.0	21.1	66.0	<2.0	<3.0	<2.0	<4.0	9.37	<3.0	92.9	<3.0	<4.0	<4.0	<4.0	26100
C22-HSAS21-SVP-50'	50	5/9/2007	Soil Gas	Unfiltered	19.0	<3.0	<3.0	<3.0	25.4	66.0	<2.0	<3.0	<2.0	<4.0	7.90	<3.0	48.1	<3.0	<4.0	<4.0	<4.0	9200
C22-HSAS2101-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered	35.4	<3.0	<3.0	<3.0	16.4	82.0	<2.0	<3.0	<2.0	<4.0	10.3	<3.0	50.1	<3.0	<4.0	<4.0	<4.0	12400
C22-HSAS22-SVP-10'	10	5/9/2007	Soil Gas	Unfiltered	18.4	<3.0	<3.0	<3.0	5.49	10.9	<2.0	<3.0	<2.0	<4.0	6.05	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	705
C22-HSAS22-SVP-20'	20	5/8/2007	Soil Gas	Unfiltered	43.7	<3.0	<3.0	<3.0	5.44	6.11	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	818
C22-HSAS22-SVP-30'	30	5/8/2007	Soil Gas	Unfiltered	91.7	<3.0	<3.0	<3.0	13.3	19.3	<2.0	<3.0	<2.0	<4.0	9.59	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	3220
C22-HSAS22-SVP-40'	40	5/8/2007	Soil Gas	Unfiltered	35.9	<3.0	<3.0	<3.0	8.37	15.3	<2.0	<3.0	<2.0	<4.0	11.3	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	9750
C22-HSAS22-SVP-50'	50	5/8/2007	Soil Gas	Unfiltered	17.6	<3.0	<3.0	<3.0	4.28	8.28	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	5310
C22-HSAS2201-SVP-30'	30	5/8/2007	Soil Gas	Unfiltered	74.5	<3.0	<3.0	<3.0	11.7	20.2	<2.0	<3.0	<2.0	<4.0	11.4	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	2740
C22-HSAS23-SVP-10'	10	5/9/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	8.90	16.1	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	141
C22-HSAS23-SVP-20'	20	5/9/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	6.30	18.4	<2.0	<3.0	<2.0	<4.0	8.10	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	552
C22-HSAS23-SVP-30'	30	5/9/2007	Soil Gas	Unfiltered	21.4	<3.0	<3.0	<3.0	12.5	67.7	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	274
C22-HSAS23-SVP-40'	40	5/9/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	17.3	18.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	110
C22-HSAS23-SVP-50'	50	5/9/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	9.00	25.5	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	125
C22-HSAS24-SVP-10'	10	5/11/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	8.50	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
C22-HSAS24-SVP-20'	20	5/11/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	6.47	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
C22-HSAS24-SVP-30'	30	5/11/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	6.72	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	11.7
C22-HSAS24-SVP-40'	40	5/11/2007	Soil Gas	Unfiltered	11.8	<3.0	<3.0	<3.0	<2.0	3.74	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	14.9
C22-HSAS24-SVP-50'	50	5/11/2007	Soil Gas	Unfiltered	76.1	<3.0	<3.0	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	154	523	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
C22-HSAS2401-SVP-20'	20	5/11/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	6.80	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
C22-HSAS25-SVP-10'	10	5/8/2007	Soil Gas	Unfiltered	15.6	<3.0	<3.0	<3.0	8.24	23.0	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	54.1
C22-HSAS25-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered	10.0	<3.0	<3.0	<3.0	4.90	14.9	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	73.5
C22-HSAS25-SVP-30'	30	5/7/2007	Soil Gas	Unfiltered	25.9	<3.0	<3.0	<3.0	8.00	12.7	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	138
C22-HSAS25-SVP-40'	40	5/7/2007	Soil Gas	Unfiltered	19.7	<3.0	<3.0	<3.0	10.3	21.5	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	157
C22-HSAS26-SVP-10'	10	5/10/2007	Soil Gas	Unfiltered	128	<3.0	<3.0	<3.0	4.60	10.1	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	5.40	<3.0	<4.0	<4.0	<4.0	2100
C22-HSAS26-SVP-20'	20	5/10/2007	Soil Gas	Unfiltered	73.6	<3.0	<3.0	<3.0	<2.0	13.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	9.50	<3.0	<4.0	<4.0	<4.0	3570
C22-HSAS26-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered	89.4	<3.0	<3.0	<3.0	3.80	18.8	<2.0	<3.0	<2.0	<4.0	5.80	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	5100
C22-HSAS26-SVP-40'	40	5/10/2007	Soil Gas	Unfiltered	50.9	<3.0	<3.0	<3.0	10.7	10.7	<2.0	<3.0	<2.0	<4.0	9.40	<3.0	21.0	<3.0	<4.0	<4.0	<4.0	5290

Consolidation Data Summary Table - Soil Gas
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	Acetone -ug/m3	Bromodichloromethane -ug/m3	Bromomethane -ug/m3	Bromoform -ug/m3	Benzene -ug/m3	Carbon Disulfide -ug/m3	Chlorobenzene -ug/m3	Chloroethane -ug/m3	Chloromethane -ug/m3	Carbon Tetrachloride -ug/m3	Chloroform -ug/m3	Dibromochloromethane -ug/m3	1,1-Dichloroethane -ug/m3	1,2-Dichloroethane -ug/m3	1,2-Dichlorobenzene -ug/m3	1,3-Dichlorobenzene -ug/m3	1,4-Dichlorobenzene -ug/m3	1,1-Dichloroethene -ug/m3
D28-HSAS1-10'	10	8/21/2007	Soil Gas	Unfiltered	53.9	<3.0	<3.0	<3.0	7.66	53.5	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS1-20'	20	8/21/2007	Soil Gas	Unfiltered	54.8	<3.0	<3.0	<3.0	4.14	25.7	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS1-30'	30	8/21/2007	Soil Gas	Unfiltered	53.6	<3.0	<3.0	<3.0	<2.0	18.7	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS1-30'DUP	30	8/21/2007	Soil Gas	Unfiltered	65.1	<3.0	<3.0	<3.0	<2.0	17.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS2-10'	10	8/21/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	8.49	40.3	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS2-20'	20	8/21/2007	Soil Gas	Unfiltered	34.5	<3.0	<3.0	<3.0	<2.0	15.1	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS2-30'	30	8/21/2007	Soil Gas	Unfiltered	44.8	<3.0	<3.0	<3.0	<2.0	11.4	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS3-10'	10	8/21/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	17.2	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS3-20'	20	8/21/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	4.55	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
D28-HSAS3-30'	30	8/21/2007	Soil Gas	Unfiltered	16.6	<3.0	<3.0	<3.0	<2.0	29.1	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
F34-HSAS2-SVP-25'	25	5/16/2007	Soil Gas	Unfiltered	19.7	<3.0	<3.0	<3.0	<2.0	4.29	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
F34-HSAS2-SVP-15'	15	5/4/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	8.37	122	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
F34-HSAS5-SVP-15'	15	5/4/2007	Soil Gas	Unfiltered	<10.0	<3.0	<3.0	<3.0	<2.0	16.2	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	14.1
F34-HSAS6-SVP-15'	15	5/16/2007	Soil Gas	Unfiltered	21.5	<3.0	<3.0	<3.0	<2.0	<3.0	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	7.53
F39-HSAS1-SVP-20'	20	5/15/2007	Soil Gas	Unfiltered	16.5	<3.0	<3.0	<3.0	16.0	<3.0	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
F39-HSAS3-SVP-10'	10	5/15/2007	Soil Gas	Unfiltered	34.1	<3.0	<3.0	<3.0	8.40	3.80	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
F39-HSAS4-SVP-10'	10	5/4/2007	Soil Gas	Unfiltered	13.7	<3.0	<3.0	<3.0	8.13	71.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
F39-HSAS4-SVP-10'	10	5/15/2007	Soil Gas	Unfiltered	29.5	<3.0	<3.0	<3.0	7.92	44.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
G46-HSAS1-SVP-10'	10	5/7/2007	Soil Gas	Unfiltered	29.4	<3.0	<3.0	<3.0	9.20	75.7	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
G46-HSAS1-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered	35.3	<3.0	<3.0	<3.0	6.57	68.9	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
G46-HSAS2-SVP-10'	10	5/7/2007	Soil Gas	Unfiltered	17.6	<3.0	<3.0	<3.0	4.79	72.4	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
G46-HSAS2-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered	46.1 Jf	<3.0	<3.0	<3.0	4.91	39.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0
G46-HSAS2-SVP-20'Dup	20	5/7/2007	Soil Gas	Unfiltered	29.8 Jf	<3.0	<3.0	<3.0	5.34	48.6	<2.0	<3.0	<2.0	<4.0	<3.0	<3.0	<3.0	<3.0	<4.0	<4.0	<4.0	<3.0

Consolidation Data Summary Table - Soil Gas
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																
Sample Location	Depth	Sample Date	Matrix	Filter Status	cis-1,2-Dichloroethylene -ug/m3	trans-1,2-Dichloroethene -ug/m3	cis-1,3-Dichloropropene -ug/m3	trans-1,3-Dichloropropene -ug/m3	1,2-Dichloropropane -ug/m3	1,2-Dichlorotetrafluoroethane -ug/m3	1,2-Dibromoethane -ug/m3	Dichlorodifluoromethane -ug/m3	Ethylbenzene -ug/m3	4-Ethyltoluene -ug/m3	Hexachlorobutadiene -ug/m3	2-Hexanone -ug/m3	Methyl Ethyl Ketone -ug/m3	Methyl Isobutyl Ketone -ug/m3	2-Methylpropane -ug/m3	Methylene Chloride -ug/m3	Naphthalene -ug/m3
B11-HSAS10-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	45.3	<10.0	<2000	15.4	<10.0
B11-HSAS10-SVP-25'	20	5/2/2007	Soil Gas	Unfiltered	<3.0 Rp	<3.0 Rp	<3.0 Rp	<3.0 Rp	<3.0 Rp	<5.0 Rp	<4.0 Rp	<4.0 Rp	5.21 Jp	<10.0 Rp	<12.0 Rp	<10.0 Rp	23.8 Jp	<10.0 Rp	5010	39.0 Jp	<10.0 Rp
B11-HSAS8-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	250	<10.0	<2000	<10.0	<10.0
B11-HSAS8-SVP-25'	25	5/2/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	10.3	<10.0	<12.0	<10.0	223	<10.0	<2000	<10.0	<10.0
B11-HSAS9-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	154	<10.0	<2000	11.3	<10.0
B11-HSAS9-SVP-25'	20	5/2/2007	Soil Gas	Unfiltered	<3.0 Rp	<3.0 Rp	<3.0 Rp	<3.0 Rp	<3.0 Rp	<5.0 Rp	<4.0 Rp	<4.0 Rp	6.86 Jp	<10.0 Rp	<12.0 Rp	<10.0 Rp	147 Jp	<10.0 Rp	2810	38.2 Jp	<10.0 Rp
C22-HSAS21-SVP-10'	10	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	6.70	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	63.3	<10.0
C22-HSAS21-SVP-20'	20	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	17.7	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	12.9	<10.0
C22-HSAS21-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	10.2	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	24.0	<10.0
C22-HSAS21-SVP-40'	40	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	10.2	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS21-SVP-50'	50	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	8.20	14.8	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	111	<10.0
C22-HSAS2101-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	10.4	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	27.0	<10.0
C22-HSAS22-SVP-10'	10	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	32.8	<10.0	<2000	94.7	<10.0
C22-HSAS22-SVP-20'	20	5/8/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	6.35	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	39.5	<10.0
C22-HSAS22-SVP-30'	30	5/8/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	11.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	127	<10.0
C22-HSAS22-SVP-40'	40	5/8/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	11.2	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	90.0	<10.0
C22-HSAS22-SVP-50'	50	5/8/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	12.9	<10.0	<2000	64.6	<10.0
C22-HSAS2201-SVP-30'	30	5/8/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	9.19	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	83.5	<10.0
C22-HSAS23-SVP-10'	10	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	6.90	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS23-SVP-20'	20	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	8.10	13.2	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS23-SVP-30'	30	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	6.33	10.9	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS23-SVP-40'	40	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	25.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS23-SVP-50'	50	5/9/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.99	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	18.1	<10.0
C22-HSAS24-SVP-10'	10	5/11/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS24-SVP-20'	20	5/11/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.21	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS24-SVP-30'	30	5/11/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS24-SVP-40'	40	5/11/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	4.60	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS24-SVP-50'	50	5/11/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	7.02	99.7	<10.0	<12.0	<10.0	33.7	<10.0	<2000	<10.0	<10.0
C22-HSAS2401-SVP-20'	20	5/11/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS25-SVP-10'	10	5/8/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.04	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	364	<10.0
C22-HSAS25-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	6.30	<10.0	<12.0	<10.0	16.8	<10.0	<2000	81.6	<10.0
C22-HSAS25-SVP-30'	30	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	8.60	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	603	<10.0
C22-HSAS25-SVP-40'	40	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	11.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	278	<10.0
C22-HSAS26-SVP-10'	10	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
C22-HSAS26-SVP-20'	20	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	11.6	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	11.5	<10.0
C22-HSAS26-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	6.10	8.30	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	10.8	<10.0
C22-HSAS26-SVP-40'	40	5/10/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	6.50	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	61.5	<10.0

Consolidation Data Summary Table - Soil Gas
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																
Sample Location	Depth	Sample Date	Matrix	Filter Status	cis-1,2-Dichloroethylene -ug/m3	trans-1,2-Dichloroethene -ug/m3	cis-1,3-Dichloropropene -ug/m3	trans-1,3-Dichloropropene -ug/m3	1,2-Dichloropropane -ug/m3	1,2-Dichlorotetrafluoroethane -ug/m3	1,2-Dibromoethane -ug/m3	Dichlorodifluoromethane -ug/m3	Ethylbenzene -ug/m3	4-Ethyltoluene -ug/m3	Hexachlorobutadiene -ug/m3	2-Hexanone -ug/m3	Methyl Ethyl Ketone -ug/m3	Methyl Isobutyl Ketone -ug/m3	2-Methylpropane -ug/m3	Methylene Chloride -ug/m3	Naphthalene -ug/m3
D28-HSAS1-10'	10	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS1-20'	20	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS1-30'	30	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS1-30'DUP	30	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS2-10'	10	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.09	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS2-20'	20	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS2-30'	30	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS3-10'	10	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS3-20'	20	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
D28-HSAS3-30'	30	8/21/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.19	<10.0	<12.0	<10.0	<10.0	<10.0		<10.0	<10.0
F34-HSAS2-SVP-25'	25	5/16/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
F34-HSAS2-SVP-15'	15	5/4/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	20.8	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
F34-HSAS5-SVP-15'	15	5/4/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	7.04	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
F34-HSAS6-SVP-15'	15	5/16/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
F39-HSAS1-SVP-20'	20	5/15/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	<10.0	<10.0
F39-HSAS3-SVP-10'	10	5/15/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	16.4	<10.0
F39-HSAS4-SVP-10'	10	5/4/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.93	<10.0	<12.0	<10.0	10.1	<10.0	<2000	<10.0	<10.0
F39-HSAS4-SVP-10'	10	5/15/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	<3.0	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	17.9	<10.0
G46-HSAS1-SVP-10'	10	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	9.90	<10.0	<12.0	<10.0	11.1	<10.0	<2000	237	<10.0
G46-HSAS1-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.96	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	264	<10.0
G46-HSAS2-SVP-10'	10	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.82	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	190	<10.0
G46-HSAS2-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	5.87	<10.0	<12.0	<10.0	<10.0	<10.0	<2000	669 Jf	<10.0
G46-HSAS2-SVP-20'Dup	20	5/7/2007	Soil Gas	Unfiltered	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<4.0	<4.0	6.48	<10.0	<12.0	<10.0	36.4	<10.0	<2000	241 Jf	<10.0

Consolidation Data Summary Table - Soil Gas
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	2-Propanol - ug/m3	Styrene -ug/m3	Tert-Butyl Methyl Ether -ug/m3	Toluene -ug/m3	1,1,1-Trichloroethane -ug/m3	1,1,2-Trichloroethane -ug/m3	1,2,4-Trichlorobenzene -ug/m3	Trichloroethylene (TCE) -ug/m3	Trichlorofluoromethane -ug/m3	Trichlorotrifluoroethane -ug/m3	1,2,4-Trimethylbenzene -ug/m3	1,3,5-Trimethylbenzene -ug/m3	1,1,2,2-Tetrachloroethane -ug/m3	Tetrachloroethylene(PCE) -ug/m3	Vinyl Acetate -ug/m3	Vinyl Chloride -ug/m3	m,p-Xylene -ug/m3	o-Xylene -ug/m3
B11-HSAS10-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered		<3.0	<2.0	372	14.0	<3.0	<2.0	466	<4.0	<5.0	<3.0	<3.0	<4.0	<3.0	<10.0	<2.0	<4.0	<2.0
B11-HSAS10-SVP-25'	20	5/2/2007	Soil Gas	Unfiltered		5.20 Jp	<2.0 Rp	84.1 Jp	22.9 Jp	<3.0 Rp	<2.0 Rp	985 Jp	<4.0 Rp	11.2 Jp	6.98 Jp	<3.0 Rp	<4.0 Rp	10.8 Jp	<10.0 Rp	<2.0 Rp	17.0 Jp	6.16 Jp
B11-HSAS8-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered		<3.0	<2.0	571	24.4	<3.0	<2.0	1230	<4.0	<5.0	<3.0	<3.0	<4.0	11.2	<10.0	<2.0	<4.0	<2.0
B11-HSAS8-SVP-25'	25	5/2/2007	Soil Gas	Unfiltered		8.46	<2.0	95.8	105	<3.0	<2.0	4150	<4.0	<5.0	13.8	<3.0	<4.0	60.4	<10.0	<2.0	34.9	11.9
B11-HSAS9-SVP-10'	10	5/2/2007	Soil Gas	Unfiltered		<3.0	<2.0	428	9.05	<3.0	<2.0	223	<4.0	<5.0	<3.0	<3.0	<4.0	<3.0	<10.0	<2.0	7.12	<2.0
B11-HSAS9-SVP-25'	20	5/2/2007	Soil Gas	Unfiltered		7.75 Jp	<2.0 Rp	97.6 Jp	26.1 Jp	<3.0 Rp	<2.0 Rp	1060 Jp	<4.0 Rp	<5.0 Rp	8.75 Jp	<3.0 Rp	<4.0 Rp	54.8 Jp	<10.0 Rp	<2.0 Rp	22.3 Jp	7.81 Jp
C22-HSAS21-SVP-10'	10	5/10/2007	Soil Gas	Unfiltered		8.00	<2.0	622	4730	55.2	<2.0	2790	<4.0	12.6	<3.0	<3.0	<4.0	271	<10.0	<2.0	18.6	6.40
C22-HSAS21-SVP-20'	20	5/10/2007	Soil Gas	Unfiltered		7.53	<2.0	590	3900	<3.0	<2.0	1100	<4.0	16.1	10.9	<3.0	<4.0	37.9	<10.0	<2.0	112	28.7
C22-HSAS21-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered		6.98	<2.0	88.0	4110	<3.0	<2.0	2190	7.64	24.7	12.7	<3.0	<4.0	52.5	<10.0	<2.0	27.1	11.4
C22-HSAS21-SVP-40'	40	5/10/2007	Soil Gas	Unfiltered		7.24	<2.0	208	10800	<3.0	<2.0	4760	8.76	21.6	11.7	6.39	<4.0	93.8	<10.0	<2.0	25.7	11.4
C22-HSAS21-SVP-50'	50	5/9/2007	Soil Gas	Unfiltered		<3.0	<2.0	30.8	2460	<3.0	<2.0	1560	9.40	13.9	12.9	7.00	<4.0	46.0	<10.0	3.60	22.8	12.8
C22-HSAS2101-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered		7.15	<2.0	57.6	6240	<3.0	<2.0	2460	6.63	22.5	12.1	<3.0	<4.0	66.2	<10.0	<2.0	25.9	12.2
C22-HSAS22-SVP-10'	10	5/9/2007	Soil Gas	Unfiltered		<3.0	<2.0	260	44.5	<3.0	<2.0	259	<4.0	54.9	<3.0	<3.0	<4.0	13.7	<10.0	<2.0	<4.0	<2.0
C22-HSAS22-SVP-20'	20	5/8/2007	Soil Gas	Unfiltered		11.8	<2.0	206	43.7	<3.0	<2.0	269	<4.0	64.2	6.01	<3.0	<4.0	69.0	<10.0	<2.0	33.0	8.91
C22-HSAS22-SVP-30'	30	5/8/2007	Soil Gas	Unfiltered		45.4	<2.0	92.2	121	<3.0	<2.0	933	<4.0	194	16.4	<3.0	<4.0	259	<10.0	<2.0	33.1	13.3
C22-HSAS22-SVP-40'	40	5/8/2007	Soil Gas	Unfiltered		28.1	<2.0	183	230	<3.0	<2.0	1140	<4.0	460	11.9	<3.0	<4.0	187	<10.0	<2.0	32.7	12.5
C22-HSAS22-SVP-50'	50	5/8/2007	Soil Gas	Unfiltered		12.0	<2.0	54.3	112	<3.0	<2.0	1080	<4.0	275	<3.0	<3.0	<4.0	92.3	<10.0	<2.0	10.9	<2.0
C22-HSAS2201-SVP-30'	30	5/8/2007	Soil Gas	Unfiltered		36.8	<2.0	61.1	141	<3.0	<2.0	1150	<4.0	210	16.0	<3.0	<4.0	166	<10.0	<2.0	27.4	11.8
C22-HSAS23-SVP-10'	10	5/9/2007	Soil Gas	Unfiltered		<3.0	<2.0	525	38.6	<3.0	<2.0	32.8	7.50	85.9	8.20	<3.0	<4.0	12.7	<10.0	<2.0	9.30	4.70
C22-HSAS23-SVP-20'	20	5/9/2007	Soil Gas	Unfiltered		7.40	<2.0	440	77.7	<3.0	<2.0	97.0	9.40	193	13.7	<3.0	<4.0	18.9	<10.0	<2.0	92.4	23.4
C22-HSAS23-SVP-30'	30	5/9/2007	Soil Gas	Unfiltered		9.11	<2.0	81.3	24.1	<3.0	<2.0	<3.0	10.4	153	13.6	<3.0	<4.0	17.6	<10.0	<2.0	31.1	12.8
C22-HSAS23-SVP-40'	40	5/9/2007	Soil Gas	Unfiltered		8.35	<2.0	185	11.9	<3.0	<2.0	<3.0	<4.0	23.7	13.7	6.98	<4.0	16.8	<10.0	<2.0	53.6	18.1
C22-HSAS23-SVP-50'	50	5/9/2007	Soil Gas	Unfiltered		<3.0	<2.0	11.7	11.6	<3.0	<2.0	<3.0	<4.0	125	5.50	<3.0	<4.0	<3.0	<10.0	<2.0	9.55	5.12
C22-HSAS24-SVP-10'	10	5/11/2007	Soil Gas	Unfiltered		<3.0	<2.0	396	36.5	<3.0	<2.0	<3.0	<4.0	<5.0	<3.0	<3.0	<4.0	<3.0	<10.0	<2.0	8.00	<2.0
C22-HSAS24-SVP-20'	20	5/11/2007	Soil Gas	Unfiltered		<3.0	<2.0	377	43.9	<3.0	<2.0	<3.0	<4.0	<5.0	<3.0	<3.0	<4.0	9.09	<10.0	<2.0	54.2	11.1
C22-HSAS24-SVP-30'	30	5/11/2007	Soil Gas	Unfiltered		<3.0	<2.0	75.6	68.8	<3.0	<2.0	7.73	<4.0	<5.0	5.60	<3.0	<4.0	13.2	<10.0	<2.0	13.5	5.47
C22-HSAS24-SVP-40'	40	5/11/2007	Soil Gas	Unfiltered		<3.0	<2.0	2840	69.9	<3.0	<2.0	7.41	<4.0	<5.0	<3.0	<3.0	<4.0	12.7	<10.0	<2.0	13.5	<2.0
C22-HSAS24-SVP-50'	50	5/11/2007	Soil Gas	Unfiltered		<3.0	<2.0	30.7	<3.0	<3.0	<2.0	914	18.8	92.7	22.5	7.47	<4.0	5930	<10.0	<2.0	308	90.6
C22-HSAS2401-SVP-20'	20	5/11/2007	Soil Gas	Unfiltered		<3.0	<2.0	214	47.0	<3.0	<2.0	6.40	<4.0	<5.0	<3.0	<3.0	<4.0	10.2	<10.0	<2.0	40.8	8.80
C22-HSAS25-SVP-10'	10	5/8/2007	Soil Gas	Unfiltered		25.7	<2.0	275	85.5	<3.0	<2.0	37.6	<4.0	<5.0	6.88	<3.0	<4.0	219	<10.0	<2.0	12.8	5.38
C22-HSAS25-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered		15.7	<2.0	169	60.5	<3.0	<2.0	31.0	<4.0	<5.0	6.20	<3.0	<4.0	113	<10.0	<2.0	34.2	9.70
C22-HSAS25-SVP-30'	30	5/7/2007	Soil Gas	Unfiltered		27.5	<2.0	112	107	<3.0	<2.0	44.5	<4.0	<5.0	12.3	<3.0	<4.0	208	<10.0	<2.0	24.9	10.6
C22-HSAS25-SVP-40'	40	5/7/2007	Soil Gas	Unfiltered		38.1	<2.0	209	121	<3.0	<2.0	42.5	<4.0	<5.0	11.0	<3.0	<4.0	331	<10.0	<2.0	32.0	11.8
C22-HSAS26-SVP-10'	10	5/10/2007	Soil Gas	Unfiltered		<3.0	<2.0	498	125	<3.0	<2.0	1090	<4.0	<5.0	<3.0	<3.0	<4.0	16.0	<10.0	<2.0	15.7	<2.0
C22-HSAS26-SVP-20'	20	5/10/2007	Soil Gas	Unfiltered		5.80	<2.0	567	187	<3.0	<2.0	1670	<4.0	<5.0	<3.0	<3.0	<4.0	32.8	<10.0	<2.0	104	23.6
C22-HSAS26-SVP-30'	30	5/10/2007	Soil Gas	Unfiltered		7.70	<2.0	97.2	272	<3.0	<2.0	2820	<4.0	<5.0	15.6	<3.0	<4.0	34.6	<10.0	<2.0	31.5	12.6
C22-HSAS26-SVP-40'	40	5/10/2007	Soil Gas	Unfiltered		7.80	<2.0	604	2670	53.6	<2.0	2710	<4.0	12.2	<3.0	<3.0	<4.0	263	<10.0	<2.0	18.1	6.30

Consolidation Data Summary Table - Soil Gas
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	2-Propanol - ug/m3	Styrene -ug/m3	Tert-Butyl Methyl Ether -ug/m3	Toluene -ug/m3	1,1,1-Trichloroethane -ug/m3	1,1,2-Trichloroethane -ug/m3	1,2,4-Trichlorobenzene -ug/m3	Trichloroethylene (TCE) -ug/m3	Trichlorofluoromethane -ug/m3	Trichlorotrifluoroethane -ug/m3	1,2,4-Trimethylbenzene -ug/m3	1,3,5-Trimethylbenzene -ug/m3	1,1,2,2-Tetrachloroethane -ug/m3	Tetrachloroethylene(PCE) -ug/m3	Vinyl Acetate -ug/m3	Vinyl Chloride -ug/m3	m,p-Xylene -ug/m3	o-Xylene -ug/m3
D28-HSAS1-10'	10	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	24.3	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	12.6	6.45	<4.0	7.92	<10.0	<2.0	5.52	<2.0
D28-HSAS1-20'	20	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	29.3	<3.0	<3.0	<2.0	<3.0	11.8	<5.0	15.4	7.89	<4.0	<3.0	<10.0	<2.0	7.60	5.09
D28-HSAS1-30'	30	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	12.4 Jf	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	12.4	6.82	<4.0	<3.0	<10.0	<2.0	7.01 Jf	<2.0
D28-HSAS1-30'DUP	30	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	7.61 Jf	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	12.1	5.99	<4.0	<3.0	<10.0	<2.0	5.04 Jf	<2.0
D28-HSAS2-10'	10	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	29.2	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	12.9	6.98	<4.0	<3.0	<10.0	<2.0	9.03	4.83
D28-HSAS2-20'	20	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	30.9	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	18.5	9.71	<4.0	<3.0	<10.0	<2.0	8.31	6.14
D28-HSAS2-30'	30	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	12.9	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	5.04	<3.0	<4.0	<3.0	<10.0	<2.0	6.14	<2.0
D28-HSAS3-10'	10	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	13.0	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	9.62	<3.0	<4.0	<3.0	<10.0	<2.0	<4.0	<2.0
D28-HSAS3-20'	20	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	21.6	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	10.0	<3.0	<4.0	<3.0	<10.0	<2.0	7.98	<2.0
D28-HSAS3-30'	30	8/21/2007	Soil Gas	Unfiltered	<100	<3.0	<2.0	9.78	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	14.5	8.09	<4.0	<3.0	<10.0	<2.0	8.58	<2.0
F34-HSAS2-SVP-25'	25	5/16/2007	Soil Gas	Unfiltered		<3.0	<2.0	<2.0	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	<3.0	<3.0	<4.0	17.2	<10.0	<2.0	<4.0	<2.0
F34-HSAS2-SVP-15'	15	5/4/2007	Soil Gas	Unfiltered		7.26	<2.0	359	<3.0	<3.0	<2.0	<3.0	9.46	<5.0	9.61	<3.0	<4.0	14.2	<10.0	<2.0	96.7	27.7
F34-HSAS5-SVP-15'	15	5/4/2007	Soil Gas	Unfiltered		<3.0	<2.0	465	<3.0	<3.0	<2.0	18.1	<4.0	<5.0	<3.0	<3.0	<4.0	10.0	<10.0	<2.0	62.7	8.49
F34-HSAS6-SVP-15'	15	5/16/2007	Soil Gas	Unfiltered		<3.0	<2.0	<2.0	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	<3.0	<3.0	<4.0	14.2	<10.0	<2.0	<4.0	<2.0
F39-HSAS1-SVP-20'	20	5/15/2007	Soil Gas	Unfiltered		<3.0	<2.0	<2.0	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	<3.0	<3.0	<4.0	<3.0	<10.0	<2.0	<4.0	<2.0
F39-HSAS3-SVP-10'	10	5/15/2007	Soil Gas	Unfiltered		<3.0	<2.0	45.5	<3.0	<3.0	<2.0	130	146	<5.0	<3.0	<3.0	<4.0	14.1	<10.0	<2.0	<4.0	<2.0
F39-HSAS4-SVP-10'	10	5/4/2007	Soil Gas	Unfiltered		<3.0	<2.0	239	<3.0	<3.0	<2.0	<3.0	75.0	<5.0	<3.0	<3.0	<4.0	24.7	<10.0	<2.0	9.43	<2.0
F39-HSAS4-SVP-10'	10	5/15/2007	Soil Gas	Unfiltered		6.39	<2.0	158	<3.0	<3.0	<2.0	317	<4.0	161	<3.0	<3.0	<4.0	22.8	<10.0	<2.0	7.03	<2.0
G46-HSAS1-SVP-10'	10	5/7/2007	Soil Gas	Unfiltered		34.5	<2.0	75.0	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	10.2	<3.0	<4.0	226	<10.0	<2.0	21.9	9.80
G46-HSAS1-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered		22.9	<2.0	109	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	6.24	<3.0	<4.0	201	<10.0	<2.0	13.6	6.05
G46-HSAS2-SVP-10'	10	5/7/2007	Soil Gas	Unfiltered		23.7	<2.0	222	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	6.98	<3.0	<4.0	179	<10.0	<2.0	11.6	5.82
G46-HSAS2-SVP-20'	20	5/7/2007	Soil Gas	Unfiltered		19.6 Jf	<2.0	58.7	<3.0	<3.0	<2.0	<3.0	<4.0	21.5	<3.0	<3.0	<4.0	195	<10.0	<2.0	14.2	5.70 Jf
G46-HSAS2-SVP-20'Dup	20	5/7/2007	Soil Gas	Unfiltered		27.4 Jf	<2.0	44.8	<3.0	<3.0	<2.0	<3.0	<4.0	<5.0	7.63	<3.0	<4.0	197	<10.0	<2.0	17.4	7.77 Jf

Consolidation Data Summary Table - Water
Supplemental Soil Investigation
Beaumont Site 1

					Inorganics
Sample Location	Depth	Sample Date	Matrix	Filter Status	Perchlorate -ug/kg
B11-GW01	0.00	4/4/2007	Water	Unfiltered	1980
F33-HSAS10GW	0.00	4/27/2007	Water	Unfiltered	54.9
F39-HSAS-GW-01	0.00	4/6/2007	Water	Unfiltered	<0.5

Consolidation Data Summary Table - Water
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	Acetone -ug/kg	Bromodichloromethane -ug/kg	2-Butanone -ug/kg	Bromomethane -ug/kg	Bromoform -ug/kg	Benzene -ug/kg	Carbon Disulfide -ug/kg	Chlorobenzene -ug/kg	Chloroethane -ug/kg	Chloromethane -ug/kg	Carbon Tetrachloride -ug/kg	Chloroform -ug/kg	Dibromochloromethane -ug/kg	1,1-Dichloroethane -ug/kg	1,2-Dichloroethane -ug/kg	1,1-Dichloroethene -ug/kg	c-1,2-Dichloroethene -ug/kg	t-1,2-Dichloroethene -ug/kg
B11-GW01	0.00	4/4/2007	Water	Unfiltered	<5	<0.2	<5	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	2.3	<0.2	1.9	0.45 Jq	31	0.23 Jq	<0.2
B11-GW01DL	0.00	4/4/2007	Water	Unfiltered	<120	<5	<120	<5	<7.5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	19 Jq	<5	<5
F39-HSAS-GW-01	0.00	4/6/2007	Water	Unfiltered	11	<0.2	<5	<0.2	<0.3	0.29 Jq	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
F39-HSAS2@10	10	5/11/2007	Water	Unfiltered	<5	<0.2	<5	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
F39-HSAS2@120	120	5/11/2007	Water	Unfiltered	<5	<0.2	<5	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
F39-HSAS2@20	20	5/11/2007	Water	Unfiltered	<5	<0.2	<5	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
F39-HSAS3@20	20	5/11/2007	Water	Unfiltered	<5	<0.2	<5	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
F39-HSAS4@20	20	5/11/2007	Water	Unfiltered	<5	<0.2	<5	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Consolidation Data Summary Table - Water
Supplemental Soil Investigation
Beaumont Site 1

					Volatile Organics																	
Sample Location	Depth	Sample Date	Matrix	Filter Status	c-1,3-Dichloropropene -ug/kg	t-1,3-Dichloropropene -ug/kg	1,2-Dichloropropane -ug/kg	Ethylbenzene -ug/kg	2-Hexanone -ug/kg	4-Methyl-2-Pentanone -ug/kg	Methyl-t-Butyl Ether (MTBE) -ug/kg	Methylene Chloride -ug/kg	Styrene -ug/kg	Toluene -ug/kg	1,1,1-Trichloroethane -ug/kg	1,1,2-Trichloroethane -ug/kg	Trichloroethene -ug/kg	1,1,2,2-Tetrachloroethane -ug/kg	Tetrachloroethene -ug/kg	Vinyl Chloride -ug/kg	p/m-Xylene -ug/kg	o-Xylene -ug/kg
B11-GW01	0.00	4/4/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	0.73 Jq	0.26 Jq	96 Jr	<0.2	0.24 Jq	<0.2	<0.5	<0.2
B11-GW01DL	0.00	4/4/2007	Water	Unfiltered	<5	<5	<5	<5	<120	<120	<5	<12	<5	<5	<5	<5	110	<5	<5	<5	<12	<5
F39-HSAS-GW-01	0.00	4/6/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	1.8	<0.2	<0.2	<0.2	<0.5	<0.2
F39-HSAS2@10	10	5/11/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	64	<0.2	<0.2	<0.2	<0.5	<0.2
F39-HSAS2@120	120	5/11/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	4.4	<0.2	<0.2	<0.2	<0.5	<0.2
F39-HSAS2@20	20	5/11/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	4.6	<0.2	<0.2	<0.2	<0.5	<0.2
F39-HSAS3@20	20	5/11/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	1.4	<0.2	<0.2	<0.2	<0.5	<0.2
F39-HSAS4@20	20	5/11/2007	Water	Unfiltered	<0.2	<0.2	<0.2	<0.2	<5	<5	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	34	<0.2	<0.2	<0.2	<0.5	<0.2