# VAPOR INTRUSION INVESTIGATION REPORT

# Former Lockheed Electronics Company Site Boroughs of Watchung & North Plainfield Somerset County, New Jersey

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November 22, 2011



#### CERTIFICATION

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- 2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or;
- 3. For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
- 4. For persons other than 1 through 3 above, by the person with legal responsibility for the site.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

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# **Accompanying Laboratory Data Reports**

Laboratory Analytical Results - Sub-Slab Soil Gas Sampling - February 17-18, 2011 Accutest Laboratories Analytical Data Report No. JA68565

### Laboratory Analytical Results - Air Sampling - July 18-19, 2011

Accutest Laboratories Analytical Data Report No. JA81330



### Acronyms

AOC area of concern

BEE baseline ecological evaluation

CEA classification exception area

CDM Camp Dresser and McKee

ECRA Environmental Cleanup Responsibility Act

FJT flush joint thread

FSPM Field Sampling Procedures Manual

GWES Ground Water Extraction System

gpm gallons per minute

Hg mercury

IASL indoor air screening level

ISRA Industrial Site Recovery Act

LEC Lockheed Electronics Company, Inc.

LMC Lockheed Martin Corporation

μg/m3 microgram per cubic meter

N.J.A.C. New Jersey Administrative Code

NJDEP New Jersey Department of Environmental Protection

PCE tetrachloroethene (also known as perchloroethene)

PVC polyvinyl chloride

QAPP quality assurance project plan

QA/QC quality assurance / quality control

RAL Rapid Action Level

SGSL Soil Gas Screening Level

TCE trichloroethene

TRC TRC Environmental Corporation

TRSR Technical Requirements for Site Remediation (N.J.A.C. 7:26E)

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

VI vapor intrusion

VOC volatile organic compound



# Section 1 Introduction

Camp Dresser and McKee (CDM) has prepared this Vapor Intrusion (VI) Investigation Report on behalf of Lockheed Martin Corporation (LMC) for the former Lockheed Electronics Company, Inc. facility (LEC or the "Site") located on Route 22 West in the Boroughs of Watchung and North Plainfield, Somerset County, New Jersey. The VI Investigation Report has been prepared in accordance with the New Jersey Department of Environmental Protection's (NJDEP's) current VI Guidance of October 2005 and Draft VI Guidance of May 2011, and the Technical Requirements for Site Remediation (N.J.A.C. 7:26E; TRSR).

Environmental investigation and remedial activities associated with the LEC site are under purview of the NJDEP and are performed pursuant to the regulatory authority of the Industrial Site Recovery Act (ISRA) and in accordance with the ISRA Rules (N.J.A.C. 7:26B). The Site is recorded within the NJDEP's ISRA program as Case No. E90038.

TRC Environmental Corporation (TRC) has been involved in the investigation and remediation of the Site on behalf of LMC since 1999. In their July 2009 *Remedial Action Progress Report*, TRC presented an evaluation of the potential for elevated vapor exposure within structures near the Site's ground water contaminant plume, including:

- the known or suspected Site-specific contaminant source,
- contaminant migration pathways,
- potential human receptors, and
- the exposure routes by which these receptors may come in contact with contaminants on a site-specific basis.

The evaluation concluded that the potential exists for VI to occur and to result in unacceptable indoor air quality in structures nearest to the Site, and that further investigation was warranted.

Based upon their evaluation, TRC subsequently prepared a *Revised Vapor Intrusion Investigation Workplan*, dated August 2010. The VI Investigation Workplan outlined the proposed investigation activities which focused on sub-slab soil vapor and indoor air sampling at structures present nearest to the ground water plume source area at the Site. The *Revised Vapor Intrusion Investigation Workplan* was approved by the NJDEP on December 9, 2010. TRC conducted the proposed sub-slab soil vapor sampling on February 17-18, 2011, and the proposed indoor air sampling on July 18-19, 2011.



This VI Investigation Report discusses the soil gas and indoor air vapor intrusion investigation sampling that TRC conducted at the Site, and is organized as follows: background Site information is summarized in Section 2; an overview of the approved VI Investigation Workplan is presented in Section 3, an overview of the approved Quality Assurance Project Plan is presented in Section 4, the VI sampling results are discussed in Section 5, and conclusions and recommendations are provided in Section 6.



# Section 2 Background Information

# 2.1 Site Location and Description

The Site is a parcel of land approximately 80 acres in size located on the north side of US Route 22 in the boroughs of Watchung and North Plainfield, Somerset County, New Jersey. Following cessation of activities at the Site by LEC, it was re-developed as the Watchung Square Mall. **Figure 2-1** provides a map showing the location of the Site on a United States Geologic Survey (USGS) 7.5-minute series topographic map (Chatham, NJ quadrangle), and depicts the Site's location, local topography, and surface drainage patterns.

The Site is located in a mixed residential and commercial area. U.S. Route 22 borders the Site to the south, and is predominately commercial with residential properties located on side streets, and mapped wetlands in drainage areas. An apartment complex (Crystal Ridge Club) and a condominium complex (Regency Village) are located west of the Site. Forested areas and residences border the Site to the north, and commercial properties border the Site to the east.

# 2.2 Physical Setting

The following sections describe the physical setting of the subject property.

# 2.2.1 Topography, Surface Water and Wetlands

As shown on **Figure 2-1**, the Site ranges in elevation from 140 to 320 feet above mean sea level, and slopes from the First Watchung Mountain, located to the northwest of the Site, to U.S. Route 22, located southeast of the Site.

**Figure 2-2** provides a map showing the Site, and the Site's monitoring well network located onsite, as well as offsite to the south, southwest and southeast of the Site. As shown on **Figure 2-2**, the closest surface water body is Crab Brook. Within one mile of the Site, wetlands areas have been mapped by the NJDEP at locations immediately north of the Site, and south of the Site along U.S. Route 22.

# 2.2.2 Geology

The overburden at the Site is generally composed of construction fill associated with the remediation area of former LEC Building #3, a sandy outwash deposit, and a thin layer of glacial till. In the vicinity of the Site, the thickness of the overburden decreases towards the south-southwest but increases south of Crab Brook. The overburden was thinnest at well cluster MW-546 (3 feet) and generally increases south of US Route 22 with the greatest thickness of 47 feet observed at well cluster MW-542.



Below the overburden deposits is the Passaic Formation, a reddish-brown siltstone of Jurassic age. The upper surface of the bedrock is generally weathered and soft, and becomes more competent with depth. Bedrock surface topography generally slopes to the southeast parallel to the First Watchung Mountain. The highest bedrock elevation is approximately 138 feet above sea level at well cluster MW-548 and the lowest is approximately 53 feet above sea level at wells P-524 and MW-542.

### 2.2.3 Hydrogeology

Ground water at the Site occurs within the bedrock, and locally within the overburden. Within the bedrock aquifer, contaminant migration is influenced by both bedrock structure and local ground water discharge areas, particularly Crab Brook. The ground water in the bedrock enters the Site from the easterly direction, moves across the site to the southwest (along the strike direction of regional bedrock bedding), and then trends in a more southerly direction toward Crab Brook and beyond.

At monitoring well cluster MW-549 (at the Site), the depth to ground water is approximately 55 feet below grade. At monitoring well cluster MW-550 (at the Regency Village, located topographically and hydrogeologically downgradient of the Site), the depth to ground water is approximately 23 feet below grade. While no monitoring wells are present at the Crystal Ridge Club, the depth to ground water beneath the apartment complex is expected to be between 23 and 55 feet below grade.

Ground water in the shallow water table zone flows across the Site under an average horizontal gradient of 0.002 feet per foot (ft/ft). Ground water gradients in the shallow system steepen significantly (up to 0.018 ft/ft) southwest of the Site.

# 2.3 Site Ownership History and Facility Operations

The Site was originally developed in 1953 by Stavid Engineering. Lockheed Corporation acquired Stavid Engineering in 1959 and created Lockheed Electronics Corporation, which was subsequently operated by Sanders, a Lockheed Martin Company. Additional land acquisitions resulted in the current Site boundaries. The Site was used to manufacture, assemble, and test electronic components. Trichloroethene (TCE) was used in Building 7 (near the MW-549 well cluster) as a solvent to clean circuit boards. Site operations ceased in 1989.

# 2.4 Environmental Investigation History

The cessation of Site activities in 1989 triggered a site investigation under the New Jersey Environmental Cleanup Responsibility Act (ECRA) (superseded by the Industrial Site Recovery Act [ISRA]). The initial investigations identified several areas of concern (AOCs) and included collection of soil, sediment, ground water, and surface water samples. Investigation and remedial action results have been documented in a series of reports submitted to the NJDEP since 1991. Soil AOCs contained volatile organic compounds (VOCs), primarily TCE, as well as fuel oil, and were addressed either through excavation and off-site disposal or soil vapor



extraction. Site-wide soil remediation has been completed to the satisfaction of the NJDEP.

Early investigation activities identified a TCE ground water plume emanating from the Site. An extensive monitoring well network has been installed to delineate and monitor the plume. There are currently more than 40 active monitoring wells and piezometers associated with this project in the Boroughs of Watchung and North Plainfield, all of which are installed as either well couplets or triplets to evaluate the vertical distribution of contaminants. Ground water monitoring activities are ongoing in accordance with the Site's NJDEP-approved monitoring schedule.

Historic surface water sampling additionally indicated that ground water from the ground water plume provided base flow to Crab Brook, and historically resulted in measurable impact to surface water quality between North Avenue (Norwood Avenue) and Watchung Avenue. Four active surface water locations are utilized to monitor the surface water of Crab Brook. Surface water monitoring activities are ongoing in accordance with the Site's NJDEP-approved monitoring schedule.

To remediate the ground water plume and intercept ground water base flow to Crab Brook, the Site's ground water extraction system (GWES) was activated on July 17, 2003. Until the GWES was temporarily deactivated in late May 2011, ground water was pumped from extraction well RW-1, located on North Drive in North Plainfield, at an approximate rate of 120 gallons per minute (gpm). Until deactivation, the GWES had worked almost continuously from start-up and has functioned as designed, providing control of the bedrock ground water plume and intercepting ground water base flow prior to its reaching Crab Brook.

### 2.5 Well Search

As part of the Site's most recent ground water Classification Exception Area (CEA) biennial certification (submitted March 2009), TRC completed a NJDEP Bureau of Water Allocation 1-mile radius well records search and a computerized 5-mile radius search of water allocation permitted wells. The recent well search results were reviewed by TRC in order to identify all potentially active wells within a 1-mile radius of the Site. The well records generated during this search show that a total of 82 wells are located within one mile of the Site as follows: one domestic well, two industrial wells, and 79 monitoring wells. The domestic well and one of the industrial wells identified in the well records search are located either sidegradient or upgradient of the Site, and are not within the plume area. The second industrial well was located on the Crystal Ridge Club property prior to the construction of this apartment complex, and was likely abandoned or its location was lost during the redevelopment of the property. NJDEP records indicate this well was owned by Lawrence Zarinsky, the former owner of the property prior to its redevelopment.



# 2.6 Baseline Ecological Evaluation

A Baseline Ecological Evaluation (BEE) was conducted at the Site during February 1999 by Environmental Management Group, Inc. and Sevee and Maher Engineers, Inc. The BEE concluded that there was no measurable acute effect on aquatic species in Crab Brook from the inflow of the former LEC site plume containing TCE. The NJDEP approved the BEE in an August 9, 1999 letter concluding that no further ecological evaluation with regard to Crab Brook was required.

### 2.7 Contact Information

The following is a list of the applicable contact information of the project team and key roles for the LMC Site:

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# Section 3 Vapor Intrusion Investigation Workplan

# 3.1 Approved VI Investigation Workplan

As described in Section 1, TRC prepared the August 2010 *Revised Vapor Intrusion Investigation Workplan* which was subsequently approved by the NJDEP on December 9, 2010. A complete copy of TRC's *Revised Vapor Intrusion Investigation Workplan*, along with the associated NJDEP approval letter, are provided in **Appendix A**.

As set forth in the VI Investigation Workplan, one structure at the Watchung Square Mall (Walmart store) and one adjoining property (the Crystal Ridge Club, a residential apartment complex located adjacent to the southern boundary of the former LEC property) were selected for VI investigation activities. The Walmart and the Crystal Ridge Club structures were assumed to have the highest potential for VI to occur due to their proximity to the ground water plume source area. The locations of the Walmart and the Crystal Ridge Club relative to the Site and the shallow ground water plume source area (monitoring well cluster MW-549) are shown on Figure 3 of the VI Investigation Workplan contained in **Appendix A**.

The sub-slab soil gas and indoor air sampling activities proposed in the approved VI Investigation Workplan are described below in Sections 3.1.1 and 3.1.2. The specific sampling activities that were conducted in the field, including any deviations from the proposed VI Investigation Workplan, are detailed in Section 4.

# 3.1.1 Proposed Sub-Slab Soil Gas Sampling Activities

To determine if vapors associated with VOC-impacted ground water were migrating through subsurface soils and accumulating beneath the building slab at the Walmart or the Crystal Ridge buildings, a total of 13 soil vapor samples were proposed to be collected in the VI Investigation Workplan. The proposed sub-slab soil vapor sample locations are shown on Figure 3 of the VI Investigation Workplan contained in **Appendix A**.

Two sub-slab soil vapor samples were proposed to be collected from locations at the Walmart. The Walmart is a retail store covering an area of approximately 114,000 square feet. The store is constructed on a hill side, where a portion of the retail store is underlain by a warehouse/storeroom area, and the remainder of the retail store is located on a floor slab that is elevated/uphill of the warehouse/storeroom area. Since the warehouse/storeroom area is lower in elevation, and therefore vertically closer to the shallow ground water plume, this area was selected as the area to be assessed for potential vapor intrusion conditions.



The Crystal Ridge Club is an apartment complex consisting of fifteen residential buildings, a club house, and a maintenance building¹. Each of the fifteen residential buildings contains between 22 and 24 apartment units, and is identified by a building number (1 through 15), as shown on Figure 3 of the VI Investigation Workplan contained in **Appendix A**. The fifteen residential buildings are subdivided based on their floor plans into five different building types (Types A, B, C, D, and D Option E). Building type A (Building 1), building type B (Buildings 2 and 3), and building type C (Buildings 4, 5, 13, and 15) have no ground floor apartment units, whereas building type D (Buildings 6 through 11) and type D option E (Buildings 12 and 14) each contain 2 ground floor apartment units. Elevation plans and ground level floor plans for all building types are presented in Appendix A of the VI Investigation Workplan contained in **Appendix A** of this report. (Note: At the time TRC prepared the VI Investigation Workplan, only plans for building types C, D and D option E were available. CDM was recently able to obtain the plans for the remaining building types and added them to the original TRC Workplan).

One sub-slab soil vapor sample was proposed to be collected from each of eleven Crystal Ridge buildings (Buildings 3 through 12, and 14). Eight of these sample locations (Buildings 6 through 12, and 14) correspond to buildings that contain ground floor apartment units, and three sample locations (Buildings 3 through 5) correspond to buildings that contain basement areas, but no ground floor apartments.

As reported to TRC by representatives of the owners of the Crystal Ridge Club, each of the apartment complex buildings incorporated a passive radon mitigation system into their construction. Each of the radon mitigation systems reportedly consists of a membrane installed beneath the poured concrete floor slab, and connected to two vent pipes (one located at each end of the building) that vent to the atmosphere at the roofline of the building. At some locations, the vent pipes are exposed (inside garage spaces), and marked "radon". No construction plans or "as-built" drawings of this passive radon mitigation system were reportedly available for review. However, specifications from a building plan sheet describing the radon mitigation system requirements was obtained by CDM and has been inserted for reference in Appendix A of the VI Investigation Workplan contained in **Appendix A** of this report.

To minimize the potential for damage to the passive radon mitigation system beneath the floor slabs of the Crystal Ridge Club buildings, sub-slab soil vapor samples at the Crystal Ridge buildings were proposed to be collected from holes drilled laterally through the concrete walls of each building's elevator pit, at a depth of approximately 2 feet below floor level. Prior to sampling activities, each elevator was proposed to be taken out of service using lock-out, tag-out procedures, to ensure the safety of the sampling team.

<sup>&</sup>lt;sup>1</sup> The maintenance building at Crystal Ridge consists of two floors; a ground floor level used for storage of lawn mowers and other maintenance equipment, and a second floor containing a small office. Since this building primarily serves as a storage garage and is not used for continuous occupancy, no VI Investigation sampling activities were proposed to be conducted there.



All sub-slab soil gas samples were proposed to be collected in 1-Liter certified clean SUMMA® canisters equipped with flow regulators to collect soil gas over a 5 to 30-minute period. A duplicate sub-slab soil gas sample was also proposed to be collected for quality assurance/quality control (QA/QC) purposes. Following collection, all sub-slab soil gas samples were proposed to be submitted to an NJDEP-licensed laboratory and analyzed for VOCs only using USEPA method TO-15, and all drilling locations were proposed to be restored with concrete patch.

Following sub-slab soil gas sample analysis, the analytical results were to be compared to the NJDEP Soil Gas Screening Levels (SGSLs) to determine whether indoor air sampling would be required. For each building where proposed soil gas sampling is completed, if sample analytical results are below the SGSLs for the former LEC site contaminants of concern (TCE and its break-down products), no additional sampling (sub-slab or indoor air) was proposed to be completed. However, if contaminants of concern associated with the former LEC site were detected in a sub-slab soil gas sample at concentrations that exceeded the SGSLs, indoor air sampling was proposed to be completed at that building, as described below.

### 3.1.2 Proposed Indoor Air Sampling Activities

For each Crystal Ridge Club and Walmart building, the determination of the need for collection and analysis of indoor air samples was to be contingent upon detections of site contaminants in the sub-slab samples at concentrations exceeding the NJDEP SGSLs:

- At Crystal Ridge Club buildings with ground floor apartments (i.e., Buildings 6 through 12, and Building 14), two indoor air samples were proposed to be collected (one per ground floor apartment) for analysis, if warranted based on the sub-slab soil gas sample result corresponding with the building.
- At Crystal Ridge Club structure without ground floor apartments (i.e., Buildings 3 through 5), one indoor air sample was proposed to be collected from a ground-level garage or storage area for analysis, if warranted based on the corresponding sub-slab soil gas sample result corresponding with the building.
- At the Walmart, two indoor air samples were proposed to be collected at locations proximal to the sub-slab sample locations, if warranted based on the sub-slab soil gas sample result corresponding with the building.

In total, up to 21 indoor air samples could have been collected from the Crystal Ridge Club structures and/or the Walmart; the actual number of samples collected being contingent upon the findings of the sub-slab soil gas samples. The proposed indoor air sample locations are shown on Figure 3 of the VI Investigation Workplan contained in **Appendix A**.



Indoor air samples at Crystal Ridge were proposed to be collected in 6-Liter certified clean SUMMA® canisters equipped with flow regulators to collect air over a 24-hour period. Indoor air samples collected at Walmart were proposed to be collected over an eight-hour period based upon commercial use of the building. Following collection, all indoor air samples from Crystal Ridge were proposed to be submitted to an NJDEP-licensed laboratory and analyzed for VOCs using USEPA method TO-15.

Prior to conducting the indoor air sampling at each location, TRC proposed to perform a survey of each structure to be sampled to determine the presence of commonly stored or used materials and products, such as paints, cleaners, and degreasers, that may interfere with indoor air results or potentially produce false positive analytical results. Additionally, if the owner/operator or apartment tenant was present during TRC's survey, instructions were to be given to the owner/operator or apartment tenant concerning commercial/household materials and activities that have the potential to influence the indoor air sample results, and a copy of the VI Guidance Appendix C (Instructions for Occupants – Indoor Air Sampling Events) were to be distributed as a reference.

# 3.2 Approved Quality Assurance Project Plan

A Quality Assurance Project Plan (QAPP), established in accordance with the NJDEP TRSR, the NJDEP Field Sampling Procedures Manual of August 2005, and the VI Guidance of October 2005, was included in the approved VI Investigation Workplan contained in **Appendix A**.

The primary components of the approved QAPP for this project include: project quality objectives, project team responsibilities, sample collection and documentation, sample handling and custody requirements, sample quality assurance and quality control, field equipment maintenance, and laboratory deliverables.

### 3.2.1 Deviations from Approved QAPP

There were no deviations in project execution as compared to the protocol established in the QAPP approved for this project.



# Section 4 Vapor Intrusion Investigation Sampling

# 4.1 Sub-Slab Soil Gas Sampling

Sub-slab soil gas sampling was conducted by TRC on February 17 and 18, 2011. Deviations in the actual sampling locations from those proposed in the VI Intrusion Workplan as well as a description of the sampling activities are detailed in the subsections below.

### 4.1.1 Deviations from Proposed Sub-Slab Soil Gas Sampling

As stipulated in the approved VI Investigation Workplan, two sub-slab soil vapor samples were proposed to be collected from the Walmart and one sub-slab soil vapor sample was proposed to be collected from each of eleven Crystal Ridge buildings (Buildings 3 through 12, and Building 14). All eleven sub-slab soil vapor samples were collected from the Crystal Ridge buildings as planned. However, due to the inability to resolve an access agreement with the owners of the Walmart building, the two proposed sub-slab soil vapor samples on that property have not yet been collected.

The locations of the sub-slab soil vapor samples collected at Crystal Ridge are shown in **Figure 4-1**.

### 4.1.2 Sub-Slab Soil Gas Sampling Activities

Sub-slab soil gas samples were collected at Buildings 3, 4, 5, 6, 7 and 8 on February 17, 2011. The samples were labeled according to building number location (i.e., SV-3, SV-4, SV-5, SV-6, SV-7 and SV-8). A quality assurance duplicate sample was also collected on this date at Building 8 (SV-DUP). Sub-slab soil gas samples were collected at Buildings 9, 10, 11, 12 and 14 on February 18, 2011. These samples were also labeled according to the respective building number (i.e., SV-9, SV-10, SV-11, SV-12 and SV-14).

In accordance with the VI Investigation Workplan, temporary sub-slab soil gas sampling points were constructed in the elevator pit of each building. A hammerdrill was used to advance a 1/2" diameter hole laterally through the wall of each elevator shaft at a depth of approximately 2 feet below floor level. Each hole was advanced approximately 3" into the soil situated beyond the concrete walls. Polyethylene tubing with a 3/8" outer diameter was installed in each opening, and the annular space between the hole and the sample tubing was filled and sealed with VOC-free modeling clay.

Prior to sampling, sample probes were tested for potential surface air infiltration using a helium tracer gas test. The helium tracer gas testing was conducted as follows:



- A polyethylene testing shroud was placed over the sample tubing and modeling clay seal, and set securely in place. The sample tubing was connected to a fitting that penetrated through the shroud. The fitting was then connected to a low-flow peristaltic air sample pump, and a helium detector was connected to the peristaltic pump's effluent port.
- Helium gas was released through a sample port into the shroud until the airspace between the shroud and the concrete wall was saturated.
- The soil gas sample tubing was purged using the low-flow peristaltic air sample pump purging at a rate of not more than 100 milliliters per minute. The soil gas sample tubing was screened for helium using a helium gas detector.

Tracer gas testing was performed at all sample locations. No helium was detected during the leak detection tracer tests confirming no helium had passed from the shroud airspace through the sample tubing seal, and into the sub-slab environment.

After completion of the tracer test, approximately three dead air volumes of gas were purged from the sample tubing with the peristaltic pump. The end of the sample tubing was then connected directly to the Summa<sup>©</sup> canister's regulator intake valve and the soil gas sample was collected. Flow rates for sample collection did not exceed 100 milliliters per minute to minimize ambient air infiltration during sampling.

The samples were collected with 1-Liter, laboratory-certified Summa $^{\circ}$  canisters with 10-minute regulators and an initial vacuum of 28 inches mercury (Hg)  $\pm$  2 inches. A vacuum of 5 inches Hg  $\pm$  1 inch was a target pressure when the sample collection was completed. Each of the sub-slab soil gas samples had a final pressure of -5 inches of Hg after collection periods which varied between 8 and 13 minutes.

After the samples were collected, the sample tubing was removed and the openings in the concrete were sealed with cement patch. A copy of the TRC field logbook entry for the sub-slab soil gas sampling is provided in **Appendix B**.

All soil gas samples were submitted to Accutest Laboratories (NJDEP Certification No. 12129) on February 18, 2011 for VOC analysis using EPA Method TO-15. The analytical results of these samples are discussed in Section 5.

# 4.2 Indoor Air Sampling

Indoor air sampling was conducted by TRC on July 18 and 19, 2011. Deviations in the actual sampling locations from those proposed in the VI Intrusion Workplan as well as a description of the sampling activities are detailed in the sub-sections below.

### 4.2.1 Deviations from Proposed Indoor Air Sampling

As stipulated in the approved VI Investigation Workplan, indoor air sampling would be conducted at building locations where contaminants of concern associated with the former LEC site were detected in a sub-slab soil gas sample at concentrations that exceeded the SGSLs. Based on the results of the sub-slab soil gas sampling (refer to



Section 5 – Vapor Intrusion Investigation Results), indoor air samples were required at Crystal Ridge Buildings 3, 6 and 12.

While not specified in the approved VI Investigation Workplan, air samples were also collected from Crystal Ridge Building 7 and Regency Village Building 26. These indoor air sample locations were requested by the NJDEP after the February 2011 subslab sampling was completed by TRC. More specifically, the NJDEP requested that air sampling be conducted at Crystal Ridge Building 7 to evaluate the SGSL exceedences that were reported there for non-Site related contaminants (i.e., 1,3-Butadiene, Benzene and Tetrachloroethylene [PCE]), and also at Regency Village Building 26 to confirm results of indoor air sampling previously conducted there in 2003.

The locations of the indoor air samples collected by TRC at Crystal Ridge and the Regency Village Condominium are shown in **Figure 4-1**.

### 4.2.2 Indoor Air Sampling Activities

Indoor air samples were collected at Crystal Ridge Buildings 3, 6, 7 and 12 and at Regency Village Building 26. The 24-hour sampling period began on July 18, 2011 and ended July 19, 2011.

Sample BLDG 3 CR was collected from the ground floor storage unit in Crystal Ridge Building 3. Two samples were collected from first floor apartment units in Crystal Ridge Building 6; sample 6006 CR in apartment 6006 and sample 6007 CR in apartment 6007. Two samples were collected from first floor apartment units in Crystal Ridge Building 7; sample 7006 CR in apartment 7006 and sample 7007 CR in apartment 7007. Two samples were collected from first floor apartment units in Crystal Ridge Building 12; sample 12002 CR in apartment 12002 and sample 12003 CR in apartment 12003. Sample BLDG 26 RV was collected from the basement of Regency Village Building 26.

The samples were collected with 6-Liter, laboratory-certified Summa® canisters with 24-hour regulators and an initial vacuum of 28 inches mercury (Hg)  $\pm$  2 inches. A vacuum of 5 inches Hg  $\pm$  1 inch was a target pressure when the sample collection was completed. All of the indoor air samples had a final canister pressure of between -3 and -7 inches of Hg after collection periods which varied between 22 hours 23 minutes and 24 hours 3 minutes.

Prior to conducting the indoor air sampling at each location, TRC performed a survey of each structure to determine the presence of commonly stored or used materials and products, such as paints, cleaners, and degreasers, that may interfere with indoor air results or potentially produce false positive analytical results. Copies of the NJDEP Indoor Air Building Survey and Sampling Forms completed by TRC for each collected air sample are provided in **Appendix C**.



All indoor air samples were submitted to Accutest Laboratories on July 19, 2011 for VOC analysis using EPA Method TO-15. The analytical results of these samples are discussed in Section 5.



# **Section 5**

# Vapor Intrusion Investigation Results

# 5.1 Sub-Slab Soil Gas Sample Results

The results of the sub-slab soil gas sample analyses are summarized in **Table 5-1**. The result for each target analyte was compared to its corresponding NJDEP SGSL. The Residential SGSLs are presented in Table 1 (revised March 2007) of the NJDEP Vapor Intrusion Guidance document. All results in **Table 5-2** are presented in concentration units of micrograms per cubic meter ( $\mu g/m^3$ ). The full laboratory data package with complete QA/QC documentation (Accutest Analytical Data Report No. JA68565) accompanies this report. The sub-slab soil gas sample locations along with their corresponding analytical results are presented in **Figure 5-1**.

As shown in **Table 5-1**, four of the twelve sub-slab soil gas samples (SV-3, SV-6, SV-7 and SV-12) contained target VOCs above their respective Residential SGSLs. TCE was detected at concentrations exceeding the SGSL of 27  $\mu g/m^3$  in 3 samples; SV-3 (220  $\mu g/m^3$ ), SV-6 (247  $\mu g/m^3$ ), and SV-12 (37  $\mu g/m^3$ ). Sample SV-3 also contained Chloroform at 168  $\mu g/m^3$ ; a concentration that is above the 24  $\mu g/m^3$  SGSL for that analyte. Sample SV-7 contained three target analytes at concentrations above their respective Residential SGSLs: 1,3-Butadiene (41.1  $\mu g/m^3$  vs. an 11  $\mu g/m^3$  SGSL), Benzene (26  $\mu g/m^3$  vs. a 16  $\mu g/m^3$  SGSL), and PCE (36  $\mu g/m^3$  vs. a 34  $\mu g/m^3$  SGSL).

The approved VI Investigation Workplan specified the site-related constituents to be TCE and degradation compounds, and specified that exceedences of those compounds would trigger indoor air sampling. Only 3 of the 12 samples met those requirements (i.e., TCE in samples SV-3, SV-6 and SV-12 at concentrations exceeding the Residential SGSL of  $27~\mu g/m^3$ ). As described in Section 4.2.1, NJDEP also requested the collection of indoor air samples at Crystal Ridge Building 7 and Regency Village Building 26 even though these samples were not required per the conditions of the approved VI Investigation Workplan. Consequently, the indoor air sampling phase of the vapor intrusion investigation was initiated at Crystal Ridge Buildings 3, 6, 7 and 12 and Regency Village Building 26.

### 5.2 Indoor Air Sample Results

The results of the indoor air sample analyses are summarized in **Table 5-2**. The result for each target analyte was compared to its corresponding NJDEP Residential Indoor Air Screening Level (IASL). The Residential IASLs are as presented in Table 1 (revised March 2007) of the NJDEP Vapor Intrusion Guidance document. All results in **Table 5-2** are presented in concentration units of  $\mu g/m^3$ . The full laboratory data package with complete QA/QC documentation (Accutest Analytical Data Report No. JA81330) accompanies this report. The indoor air sample locations along with their corresponding analytical results are presented in **Figure 5-1**.

As shown in **Table 5-2**, six of the seven indoor air samples collected at Crystal Ridge Apartments (6006 CR, 6007 CR, 7006 CR, 7007CR, 12002 CR and 12003 CR) and the



one indoor air sample collected at Regency Village Condominiums (BLDG 26 RV) contained target VOCs above their respective Residential IASLs. Benzene was detected at concentrations exceeding its IASL of 2  $\mu g/m^3$  in six samples; 6006 CR (7.7  $\mu g/m^3$ ), 7006 CR (4.8  $\mu g/m^3$ ), 7007 CR (5.8  $\mu g/m^3$ ), 12002 CR (7.3  $\mu g/m^3$ ), 12003 CR (5.4  $\mu g/m^3$ ), and BLDG 26 RV (3.5  $\mu g/m^3$ ). No Benzene concentrations were detected above the 14  $\mu g/m^3$  Indoor Air Rapid Action Level (RAL) established for this compound.

Chloroform was detected at concentrations exceeding its IASL of 2  $\mu$ g/m³ in two samples; 6007 CR (4.3  $\mu$ g/m³) and 12002 CR (3.8  $\mu$ g/m³). No Chloroform concentrations were detected above the 8  $\mu$ g/m³ Indoor Air RAL established for this compound.

1,2-Dichloroethane was detected at concentrations exceeding its IASL of 2  $\mu g/m^3$  in three samples; 6006 CR (3.1  $\mu g/m^3$ ), 7007 CR (2.5  $\mu g/m^3$ ) and 12003 CR (2.7  $\mu g/m^3$ ). No Indoor Air RAL has been established for 1,2-Dichloroethane .

p-Dichlorobenzene was detected at a concentration exceeding its IASL of 3  $\mu g/m^3$  in one sample; 6007 CR (6.6  $\mu g/m^3$ ). No Indoor Air RAL has been established for p-Dichlorobenzene.

PCE was detected at concentrations exceeding its IASL of 3  $\mu$ g/m³ in six samples; 6006 CR (7.5  $\mu$ g/m³), 7006 CR (5.1  $\mu$ g/m³), 7007 CR (7.5  $\mu$ g/m³), 12002 CR (8.1  $\mu$ g/m³), 12003 CR (12  $\mu$ g/m³), and BLDG 26 RV (8.1  $\mu$ g/m³). No PCE concentrations were detected above the 30  $\mu$ g/m³ Indoor Air RAL established for this compound.



# Section 6 Conclusions and Recommendations

### 6.1 Conclusions

Based upon the sub-slab soil gas and indoor air sampling results described above, the following conclusions pertaining to the VI Investigation at the Site are made by CDM:

- 1. There are no exceedences of any Indoor Air Rapid Action Levels, therefore there are no Immediate Environmental Concerns in any building.
- 2. There are no exceedences of the indoor air screening level for TCE or its related breakdown compounds, the contaminants of concern for the former LEC site. Since the levels of TCE in the sub-slab samples ranged as high as 247  $\mu g/m^3$  at Building 6 (highest indoor air measurement was 0.21  $\mu g/m^3$ ) and 220  $\mu g/m^3$  at Building 3 (highest indoor air measurement was 0.46  $\mu g/m^3$ ), this is compelling evidence that vapor intrusion is not occurring. A graphical representation of the comparison of sub-slab soil gas and indoor air TCE results is presented as **Graph 1** in **Appendix D**.
- 3. There are exceedences of the indoor air screening level for PCE in six of the eight samples, including the sample from Regency Village Building 26. The concentration of PCE in indoor air ranged from 1.4 to 12  $\mu g/m^3$ ; five of the six exceedences were between 5.1 and 8.1  $\mu g/m^3$ . At Crystal Ridge, only one subslab sample marginally exceeded the screening level for PCE (36  $\mu g/m^3$  vs. a standard of 34  $\mu g/m^3$  in Building 7), while the indoor air samples from this building for PCE were 5.1 and 7.5  $\mu g/m^3$ . In three of the samples the indoor air concentration actually exceeded the sub-slab concentration, indicating that the sub-slab vapors could not account for the elevated indoor air concentrations. The highest concentrations of PCE in indoor air were reported in Building 12, which had the second lowest sub-slab concentration of the four Crystal Ridge buildings where indoor air samples were collected. A graphical representation of the comparison of sub-slab soil gas and indoor air TCE results is presented as **Graph 2** in **Appendix D**.

PCE is a common indoor air contaminant present in a variety of household products such as metal degreasers, adhesives and glues, and rug cleaners. The lack of correlation between sub-slab levels and indoor levels for PCE, combined with the clear evidence from the TCE results that VI is not occurring, indicates that the indoor air PCE levels are not related to vapor intrusion.

4. There are exceedences of the indoor air screening level for benzene in six of the eight samples (the same six samples with PCE), ranging from 1.6 to 7.7  $\mu g/m^3$ . Only one sub-slab sample exceeded the screening level for benzene (Crystal Ridge Building 7), and in most cases the indoor air levels exceeded the



sub-slab concentrations. A graphical representation of the comparison of sub-slab soil gas and indoor air benzene results is presented as **Graph 3** in **Appendix D**.

Benzene is not a contaminant of concern for the former LEC site, it has not been reported in ground water samples collected from wells near the site, and it is a common indoor air contaminant in residential and commercial buildings. It is also noted that all of the Crystal Ridge buildings include garages on the ground floor, a potential source of benzene from automobile exhaust. Based on the above, the presence of benzene is not considered to be related to vapor intrusion.

There are a few exceedences of the indoor air screening levels for chloroform, 1,2-dichloroethane (1,2-DCA) and p-dichlorobenzene. None of these are contaminants of concern for the former LEC site, all of them are common indoor air contaminants, and none were reported in sub-slab samples at concentrations exceeding the screening levels with the exception of chloroform for Building 3 (168  $\mu$ g/m<sup>3</sup>). Interestingly, the Building 3 sample, which was collected from a utility room with numerous pipe and utility openings, also exhibited the lowest concentration of chloroform in indoor air (an estimated concentration of  $0.93 \mu g/m^3$ ). Although the chloroform is not attributable to the former LEC site, this is notable since the difference between the elevated sub-slab concentration and the extremely low indoor air concentration is further evidence that vapor intrusion is not occurring. Furthermore, the utility room sample from Crystal Ridge Building 3 is the only indoor air sample that reported no exceedences for any indoor air screening level, even though the sub-slab soil gas sample reported one of the highest TCE concentrations at 220 μg/m<sup>3</sup> as well as the chloroform results described above. This result may be due to the fact that it is not a residential space and lacks the household products, furniture, carpet, and other sources of indoor air contamination that have impacted indoor air quality at the other locations. Therefore, it is concluded that these exceedences are not related to vapor intrusion.

To summarize, there is no evidence that contaminants from the former LEC site are impacting indoor air quality at Crystal Ridge or Regency Village, strong evidence that vapor intrusion is not taking place, and the exceedences of indoor air quality that were reported are minor and associated with common household contaminants.

### 6.2 Recommendations

Based upon the information presented in this VI Investigation Report as well as the information discussed at the October 20, 2011 status meeting between LMC and the NJDEP, the following actions for continued VI investigation work are proposed:

1. VI investigation sampling will be conducted at the Walmart store at the Watchung Square Mall as originally proposed in the August 2010 VI Investigation Workplan. While this work has always been planned to be completed, unexpected delays have been encountered in the development and

acquisition of the access agreement needed to proceed with the sampling. Upon resolution of the access agreement negotiations with the owners of the Walmart building, the VI investigation sampling will be conducted within the lower-elevation warehouse/storeroom area of the building. Two sub-slab soil gas samples from this area will be collected initially. If the results of the sub-slab soil gas sampling exhibit exceedences to the SGSLs, two indoor air samples will be collected at locations proximal to the sub-slab sample locations.

This field work will be scheduled to be conducted as soon as the access agreement is obtained from the owners of the Walmart building.

2. To evaluate the potential seasonal influence on the advective/convective vapor transport conditions at the Site, heating season indoor air sampling shall be conducted at Crystal Ridge Buildings 3, 6, 7 and 12. This confirmation round of air sampling will be performed in the same locations where indoor air sampling was performed in July 2011, and will replicate the sampling protocol that was previously used. This round of sampling will include the collection of one air sample from the ground floor storage unit in Building 3 and one air sample from each of the two ground floor apartment units in Buildings 6, 7 and 12.

This field work is scheduled to be completed in December 2011.

3. Sub-slab soil gas sampling conducted in February 2011 revealed that 7 of the 11 buildings that were sampled (Crystal Ridge Buildings 4, 5, 8, 9, 10, 11 and 14) did not exhibit any sub-slab soil gas concentrations above corresponding SGSLs. Based on these results and in accordance with NJDEP's current VI Guidance of October 2005 and Draft VI Guidance of May 2011, no further VI investigation activities are required or proposed for these locations.

However, as an adjunct to soil gas monitoring at locations that previously exhibited sub-slab soil gas concentrations above corresponding SGSLs, confirmation sub-slab soil gas samples will be collected from Crystal Ridge Buildings 3, 6, 7 and 12. This confirmation sub-slab soil gas sampling will be conducted using the same protocol and techniques employed during the February 2011 sampling activities. In accordance with the original VI Investigation Workplan, temporary sub-slab soil gas sampling points will be constructed in the sidewall of the elevator pit of the identified buildings. Once the sub-slab sample probes are installed, the four soil gas samples will be collected using 6-Liter stainless steel Summa® canisters for subsequent VOC analysis using EPA Method TO-15.

This field work is scheduled to be completed in December 2011.

4. To supplement soil gas monitoring at the Crystal Ridge, sub-slab soil gas samples will be collected from Crystal Ridge Buildings 1, 2, 13, 15 and at the Crystal Ridge Clubhouse, locations that have not been previously sampled.

The proposed soil gas sampling probe placement and construction will follow the same protocol presented in Recommendation 3 above and will include the installation of temporary sub-slab soil gas sampling points in the sidewall of the elevator pit in each of the identified buildings. The five sub-slab soil gas samples will be collected using 6-Liter stainless steel Summa<sup>©</sup> canisters for subsequent VOC analysis using EPA Method TO-15.

This field work is scheduled to be completed in December 2011.

5. After completion of the soil gas and indoor air sampling activities described above, the analytical data will be evaluated, summarized in tabular form and plotted on site maps for submission to the NJDEP.

As part of the evaluation, the analytical results of the new sub-slab soil gas samples will be compared to the SGSLs, and if found below the SGSLs for the former LEC site contaminants of concern (TCE and its break-down products), no additional sampling (sub-slab or indoor air) will be recommended or proposed at those particular locations. However, if contaminants of concern associated with the former LEC site are detected in a sub-slab soil gas sample in concentrations that exceed the SGSLs, indoor air sampling will be proposed to be completed at that building.

Additionally, it is anticipated that if there is a future need to perform continued soil gas investigation, then that continued monitoring will be conducted through the use of permanent near-slab soil gas sampling probes to be installed at the affected Crystal Ridge Building(s). While the use of near-slab sampling locations may not necessarily be preferred over sampling at locations obtained through direct slab penetration, there exists an unacceptable risk of damage to, and compromise of, the radon migration prevention systems that exist beneath the concrete slabs of all the buildings should the slabs be penetrated directly on an ongoing basis. The permanent sampling points will allow future sampling to occur with significantly less disruption to the building occupants and building management, and also avoids the inherent dangers and safety issues associated with elevator shutdown and entering the elevator pits.

Permanent near-slab soil gas probes will be installed in accordance with the requirements of NJDEP's Draft VI Guidance of May 2011 and Field Sampling Procedures Manual of August 2005. The locations of the proposed permanent monitoring points will be situated within 10 feet horizontally of the building's foundation (two per building), and will be placed in as close proximity as practicable to all previous sub-slab soil gas sample locations. The probes will be installed using direct-push borehole methods. The soil gas probes will be advanced to depths ranging between 5 and 8 feet below grade, corresponding to the range between 2 feet and 5 feet below the depth of the slab. The bottom of the soil gas probes will be advanced into the unsaturated vadose zone to a depth of at least 1 to 2 feet above the local water table. The soil gas probes will be constructed of 1/2" diameter Schedule 40 PVC, with FJT 10 Slot screening

and solid riser. The annular space between the borehole and the screen will be filled with gravel pack (Morie Number 1 or 2 sand) with a minimum 2-foot bentonite seal above the screen, and either a flush mount or above grade surface protective casing set in cement above that. The top of the PVC probe casing will be fit with a PVC ball valve to prevent continuous venting of the probe and to aid in soil gas sample collection.

### **TABLES**



TABLE 5-1 Sub-Slab Soil Gas Sampling Results - February 17-18, 2011 Former Lockheed Electronics Corporation, Boroughs of Watchung and North Plainfield, NJ

Client Sample ID:		SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-DUP 2	SV-9	SV-10	SV-11	SV-12	SV-14
Lab Sample ID:	NJ Vapor Intrusion	JA68565-2	JA68565-1	JA68565-3	JA68565-4	JA68565-5	JA68565-6	JA68565-7	JA68565-10	JA68565-11	JA68565-12	JA68565-9	JA68565-8
Date Sampled:	Residential Soil Gas	2/17/2011	2/17/2011	2/17/2011	2/17/2011	2/17/2011	2/17/2011	2/17/2011	2/18/2011	2/18/2011	2/18/2011	2/18/2011	2/18/2011
Matrix:	Screening Level 1	Soil Vapor											
GC/MS Volatiles (TO-15)					Con	centration - micr	ograms per cubi	c meter (µg/m³)					
Acetone	160,000	342	584	172	394	442	323	461	254	117	584	158	273
1,3-Butadiene	11	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	41.1	ND (0.24)						
Benzene Bromodichloromethane	16 34	1.6 J ND (0.67)	1.7 J ND (0.67)	ND (0.64) ND (0.67)	1.6 J ND (0.67)	26 ND (0.67)	1.4 J ND (0.67)	2.0 J ND (0.67)	ND (0.64) ND (0.67)	2.9 ND (0.67)	2.1 J ND (0.67)	1.7 J ND (0.67)	1.5 J ND (0.67)
Bromoform	80	ND (1.0)	ND (0.67)	ND (1.0)	ND (0.07)	ND (1.0)	ND (1.0)	ND (0.07)	ND (1.0)	ND (1.0)	ND (0.67)	ND (1.0)	ND (0.67)
Bromomethane	260	ND (0.39)											
Bromoethene	22	ND (0.57)											
Benzyl Chloride	-	ND (0.72)											
Carbon disulfide Chlorobenzene	36,000 2,600	1.8 J ND (0.55)	12 ND (0.55)	ND (0.37) ND (0.55)	17 ND (0.55)	12 3.6 J	4.7 ND (0.55)	21 ND (0.55)	3.1 ND (0.55)	2.5 ND (0.55)	20 ND (0.55)	2.2 J ND (0.55)	5.9 ND (0.55)
Chloroethane	2,000	ND (0.53)											
Chloroform	24	168	8.3	ND (0.49)	2.1 J	ND (0.49)	6.3						
Chloromethane	4,700	ND (0.43)	1.8	ND (0.43)	ND (0.43)	ND (0.43)							
3-Chloropropene	16	ND (0.44)											
2-Chlorotoluene Carbon tetrachloride	3,600 31	ND (0.67) ND (0.57)											
Cyclohexane	310,000	2.8	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.59)	ND (0.57)	ND (0.57)	ND (0.59)	3.4	4.1	ND (0.57)	ND (0.57)
1,1-Dichloroethane	26,000	ND (0.40)											
1,1-Dichloroethylene	11,000	3.1 J	5.2	ND (0.38)									
1,2-Dibromoethane	38	ND (0.92)											
1,2-Dichloroethane 1,2-Dichloropropane	20 23	ND (0.38) ND (1.0)											
1,4-Dioxane	- 23	ND (1.0) ND (0.58)	ND (1.0) 5	ND (1.0) ND (0.58)									
Dichlorodifluoromethane	9,100	2.6 J	2.9 J	3.2 J	9.9	2.1 J	2.4 J	2.4 J	2.0 J	3.3 J	2.6 J	2.9 J	2.2 J
Dibromochloromethane	43	ND (2.8)											
trans-1,2-Dichloroethylene	3,600	ND (0.56)											
cis-1,2-Dichloroethylene	1,800	ND (0.52) ND (0.39)	0.67 J ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)	ND (0.52) ND (0.39)
cis-1,3-Dichloropropene m-Dichlorobenzene	550	ND (0.39)	ND (0.39) ND (0.60)	ND (0.39)	ND (0.39) ND (0.60)	ND (0.39)	ND (0.39) ND (0.60)						
o-Dichlorobenzene	7.300	ND (0.78)											
p-Dichlorobenzene	30	7.8	11	7.2	9	6.6	7.8	9	6.6	ND (0.66)	9	3.4 J	7.2
trans-1,3-Dichloropropene	-	ND (1.4)											
Ethanol Ethylbenzene	53,000	61.4 2.1 J	144 1.8 J	45 ND (0.48)	196 ND (0.48)	230 116	243 14	187 4	203 6.9	236 2.2 J	232 2.6 J	68.8 2.3 J	145 3.3 J
Ethyl Acetate	53,000	23	1.0 3	13	51.5	13	32	12	8.6	13	7.6	7.2	4.3
4-Ethyltoluene	-	1.9 J	ND (0.47)	ND (0.47)	ND (0.47)	24	11	3.2 J	7.4	ND (0.47)	3.7 J	2.0 J	2.5 J
Freon 113	1,600,000	ND (0.77)	ND (0.77)	3.7 J	36	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)	7.7	3.1 J	22	5.6 J
Freon 114	-	ND (0.84)											
Heptane Hexachlorobutadiene	53	4.5 ND (2.6)	3.9 ND (2.6)	3.3 ND (2.6)	2.3 J ND (2.6)	18 ND (2.6)	2.3 J ND (2.6)	4.1 ND (2.6)	ND (0.39) ND (2.6)	ND (2.6)	6.6 ND (2.6)	3.2 J ND (2.6)	2.9 J ND (2.6)
Hexane	36,000	4.6	4.2	1.8 J	2.0 J	8.5	2.1 J	3.9	ND (0.31)	3.9	6	3.1	2.6 J
2-Hexanone	-	3.6	2.0 J	1.7 J	ND (0.70)	9	1.6 J	2.7 J	ND (0.70)	ND (0.70)	2.3 J	ND (0.70)	ND (0.70)
Isopropyl Alcohol	-	18	85.8	8.6	41.8	33.9	41.3	30.5	33.7	20	71	31.5	30
Methylene chloride	190	ND (0.38)											
Methyl ethyl ketone Methyl Isobutyl Ketone	260,000 160,000	14 ND (0.61)	25 7	5.9 ND (0.61)	12 ND (0.61)	27 393	14 7	24 2.5 J	5.6 2.2 J	5.3 ND (0.61)	13 1.8 J	11 ND (0.61)	11 1.5 J
Methyl Tert Butyl Ether	78	ND (0.61)	ND (0.61)	ND (0.61)	ND (0.61)	25	ND (0.61)	3.4	ND (0.61)	2.5 J	ND (0.61)	ND (0.61)	ND (0.61)
Methylmethacrylate	-	ND (0.53)											
Propylene	-	ND (0.65)	5.7	2.1 J	4.1	10	3.3 J	12	1.7 J	7.4	ND (0.65)	7	ND (0.65)
Styrene 1,1,1-Trichloroethane	52,000 51,000	ND (0.47) ND (0.53)	ND (0.47) ND (0.53)	ND (0.47) ND (0.53)	ND (0.47) ND (0.53)	94.9 ND (0.53)	21 ND (0.53)	3.7 ND (0.53)	11 ND (0.53)	ND (0.47) ND (0.53)	2.8 J ND (0.53)	2.0 J ND (0.53)	3.8 ND (0.53)
1,1,2,2-Tetrachloroethane	51,000	ND (0.53)	ND (0.53) ND (0.69)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53) ND (0.69)	ND (0.53) ND (0.69)	ND (0.53)				
1,1,2-Trichloroethane	27	ND (0.52)											
1,2,4-Trichlorobenzene	1,800	ND (3.4)											
1,2,4-Trimethylbenzene	-	8.4	4.9	4.5	4.9	75.2	43	17	36	6.4	16	7.4	12
1,3,5-Trimethylbenzene	-	2.2 J 2.2 J	ND (0.54) ND (0.39)	ND (0.54) ND (0.39)	ND (0.54) ND (0.39)	32	15 ND (0.39)	4.6 2.0 J	11 ND (0.39)	2.2 J 1.9 J	5.4 ND (0.39)	2.3 J ND (0.39)	3.7 J ND (0.39)
2,2,4-Trimethylpentane Tertiary Butyl Alcohol	3,300	2.2 J 2.2 J	ND (0.39) 2.8	ND (0.39) 1.7 J	ND (0.39) 3	22 9.4	ND (0.39) 18	2.0 J 3.3	ND (0.39) 17	1.9 J 1.5 J	ND (0.39) 2.8	ND (0.39) ND (0.49)	ND (0.39) 2.0 J
Tetrachloroethylene	3,300	9.5	4.3	1.7 3	3.9	36	4.1	1.8	2.1	1.2	4.1	4.2	2.5
Tetrahydrofuran	-	ND (0.68)	7.7	ND (0.68)	ND (0.68)	0	ND (0.68)						
Toluene	260,000	8.3	8.7	6	9	247	19	11	7.9	9.8	7.9	8.3	6.4
Trichloroethylene	27	220	12	5.9	247	11	16	4.7	2.2	11	3.5	37	2.3
Trichlorofluoromethane Vinyl chloride	36,000	ND (0.73) ND (0.31)	ND (0.73) ND (0.31)	ND (0.73) ND (0.31)	2.8 J ND (0.31)	31 ND (0.31)	ND (0.73) ND (0.31)	ND (0.73) ND (0.31)	ND (0.73) ND (0.31)	ND (0.73) ND (0.31)	4.1 J ND (0.31)	ND (0.73) ND (0.31)	ND (0.73) ND (0.31)
Vinyl Acetate	13	ND (0.31)	ND (0.31) ND (1.9)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31) ND (1.9)	ND (0.31)				
m,p-Xylene	-	8.7	7.4	6.5	6.1	348	61.2	17	31	7.8	11	9.6	14
o-Xylene	-	4.8	5.6	4	4	138	27	9.1	14	3.4 J	5.6	4.3	7.8
Xylenes (total)	5,500	14	13	11	10	486	88.2	26	45.2	11	17	14	22

NJ Vapor Intrusion Residential Soil Gas Screening Levels according to NJDEP Vapor Intrusion Guidance - Table 1 (rev. March 2007)
 Sample SV-DUP is a quality assurance duplicate of sample SV-8
 ND - The compound was not detected within the calibration range; the estimated value is shown parentheses.
 J - The result is an estimated value less than the quantitation limit but greater than the method detection limit.

Highlighted results exceed regulatory criteria

#### TABLE 5-2 Indoor Air Sampling Results - July 18-19, 2011 Former Lockheed Electronics Corporation, Boroughs of Watchung and North Plainfield, NJ

Client Sample ID:	NJ Vapor Intrusion	BLDG 3 CR	6006 CR	6007 CR	7006 CR	7007 CR	12002 CR	12003 CR	BLDG 26 RV
Lab Sample ID:	Residential Indoor Air	JA81330-6	JA81330-7	JA81330-5	JA81330-1	JA81330-2	JA81330-3	JA81330-4	JA81330-8
Date Sampled:	Screening Level 1	7/19/2011	7/19/2011	7/19/2011	7/19/2011	7/19/2011	7/19/2011	7/19/2011	7/19/2011
Matrix:		Indoor Air	Indoor Air	Indoor Air	Indoor Air				
GC/MS Volatiles (TO-15)				entration - micro					
Acetone	3300 1	49.6	231	235	321	328 ND (0.053)	264	368	148
1,3-Butadiene Benzene	2	ND (0.053) 1.6	ND (0.053)	ND (0.053)	ND (0.053) 4.8	5.8	ND (0.053) 7.3	ND (0.053) 5.4	ND (0.053) 3.5
Bromodichloromethane	3	ND (0.20)	ND (1.3)	ND (0.20)	ND (0.20)				
Bromoform	5	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)				
Bromomethane	5	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.14)				
Bromoethene	2	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)				
Benzyl Chloride Carbon disulfide	730	ND (0.21) ND (0.10)	ND (0.21) 0.87	ND (0.21) 0.44 J	ND (0.21) 0.87	ND (0.21) 1.6	ND (0.21) 0.84	ND (0.21) 1.2	ND (0.21) 0.50 J
Chlorobenzene	51	ND (0.10)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Chloroethane	2	ND (0.10)	0.25 J	ND (0.10)	0.25 J	0.29 J	ND (0.10)	ND (0.10)	ND (0.10)
Chloroform	2	0.93 J	1.1	4.3	1.7	1.5	3.8	1.8	1.1
Chloromethane	95	ND (0.076)	1.7	2.5	1.9	1.7	1.6	ND (0.076)	1.3
3-Chloropropene	2	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)				
2-Chlorotoluene Carbon tetrachloride	73	ND (0.16) 0.61 J	ND (0.16) ND (0.25)	ND (0.16) 1.2 J	ND (0.16) 0.82 J	ND (0.16) ND (0.25)	ND (0.16) ND (0.25)	ND (0.16) 2.1	ND (0.16) ND (0.25)
Cyclohexane	6200	0.61 J	3	1.2 J	0.82 J 1.7	2.4	2.8	2.5	1.8
1,1-Dichloroethane	510	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)				
1,1-Dichloroethylene	220	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)				
1,2-Dibromoethane	4	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)				
1,2-Dichloroethane	2 2	ND (0.17)	3.1 ND (0.18)	0.73 J	1.1 ND (0.18)	2.5 ND (0.18)	ND (0.17)	2.7	0.73 J
1,2-Dichloropropane 1,4-Dioxane	2	ND (0.18) ND (0.20)	ND (0.18) ND (0.20)	ND (0.18) ND (0.20)	ND (0.18) ND (0.20)				
Dichlorodifluoromethane	180	2.3	2.4	12	2.4	2.6	2.3	2.3	2.3
Dibromochloromethane	4	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)				
trans-1,2-Dichloroethylene	73	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)				
cis-1,2-Dichloroethylene	36	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)				
cis-1,3-Dichloropropene	- 11	ND (0.20) ND (0.22)	ND (0.20) ND (0.22)	ND (0.20) ND (0.22)	ND (0.20) ND (0.22)				
m-Dichlorobenzene o-Dichlorobenzene	150	ND (0.22) ND (0.16)	ND (0.22) ND (0.16)	ND (0.22) ND (0.16)	ND (0.22) ND (0.16)	ND (0.22)	ND (0.22) ND (0.16)	ND (0.22) ND (0.16)	ND (0.22) ND (0.16)
p-Dichlorobenzene	3	1.7	ND (0.15)	6.6	ND (0.15)	ND (0.15)	ND (0.15)	0.84 J	1.1 J
trans-1,3-Dichloropropene	-	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)				
Ethanol	-	987 E	1030 E	3900 E	1610 E	416	294	644 E	136
Ethylbenzene	1100	2	17	2.4	14	17 17	18	17	14
Ethyl Acetate 4-Ethyltoluene	-	7.2 0.59 J	19 26	21 1.1	29 28	29	13 37	19 32	7.9 31
Freon 113	31000	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	0.77 J	ND (0.26)	ND (0.26)	ND (0.26)
Freon 114	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)				
Heptane	-	1.3	7	2.7	7.8	6.1	6.6	5.7	7.4
Hexachlorobutadiene	5	ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)				
Hexane 2-Hexanone	730	1.3 0.53 J	9.2 1.6	1.9 0.78 J	4.6 14	7.8	8.8 2.1	6.3 1.3	5.6
Isopropyl Alcohol	-	37.1	60.5	209	56.8	38.1	64.4	261	21
Methylene chloride	4	0.83	0.9	1	0.8	0.94	0.94	1.2	2.5
Methyl ethyl ketone	5100	3.5	9.7	7.1	50.4	18	14	11	22
Methyl Isobutyl Ketone	3100	2.3	0.9	1.4	7.8	1.1	0.86	2.8	0.78 J
Methyl Tert Butyl Ether	2	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.097) ND (0.18)	ND (0.097)	ND (0.097)	ND (0.097)
Methylmethacrylate Propylene		ND (0.18) 7.6	ND (0.18) ND (0.12)	ND (0.18) ND (0.12)	ND (0.18) 8.8	7 (U. 10)	ND (0.18) 8.6	ND (0.18) 18	ND (0.18) ND (0.12)
Styrene	1000	1.4	1.8	3.5	2	2.2	2.6	3.8	2.6
1,1,1-Trichloroethane	1000	ND (0.12)	ND (0.12)	ND (0.12)	0.93 J				
1,1,2,2-Tetrachloroethane	3	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)				
1,1,2-Trichloroethane	3	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)				
1,2,4-Trichlorobenzene	36	ND (0.38) 2.3	ND (0.38) 42	ND (0.38) 5.4	ND (0.38) 59.5	ND (0.38) 51.6	ND (0.38) 81.1	ND (0.38) 70.8	ND (0.38) 66.9
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	-	0.59 J	14	1.3	59.5 18	18	81.1 24	70.8 21	20
2,2,4-Trimethylpentane	-	1.1	5.6	1.1	2.8	4.7	6.5	5.6	2.3
Tertiary Butyl Alcohol	66	0.79	25	ND (0.097)	12	35.8	57	29	11
Tetrachloroethylene	3	2.2	7.5	1.4	5.1	7.5	8.1	12	8.1
Tetrahydrofuran	-	0.91	2.9	1.4	2.9	3.5	3.2	2.7	13
Toluene Trichloroethylene	5100 3	12 0.46	59.5 ND (0.18)	19 0.21	39.9 1.2	56.2 2.7	61.4 0.7	50.5 0.47	46 ND (0.18)
Trichlorofluoromethane	730	1.6	1.7	6.2	2.1	1.6	1.6	1.5	ND (0.18)
Vinyl chloride	1	ND (0.082)	ND (0.082)	ND (0.082)	ND (0.082)				
Vinyl Acetate	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)				
m,p-Xylene	-	6.5	62.1	7.8	55.6	64.3	72.5	66	58.2
o-Xylene	-	2.3	26	2.6	23	28	32	29	25
Xylenes (total)	110	8.7	88.2	10	79.1	92.5	105	95.1	83

 <sup>1 -</sup> NJ Vapor Intrusion Residential Indoor Air Screening Levels according to NJDEP Vapor Intrusion Guidance - Table 1 (rev. March 2007)
 ND - The compound was not detected within the calibration range; the estimated value is shown parentheses.

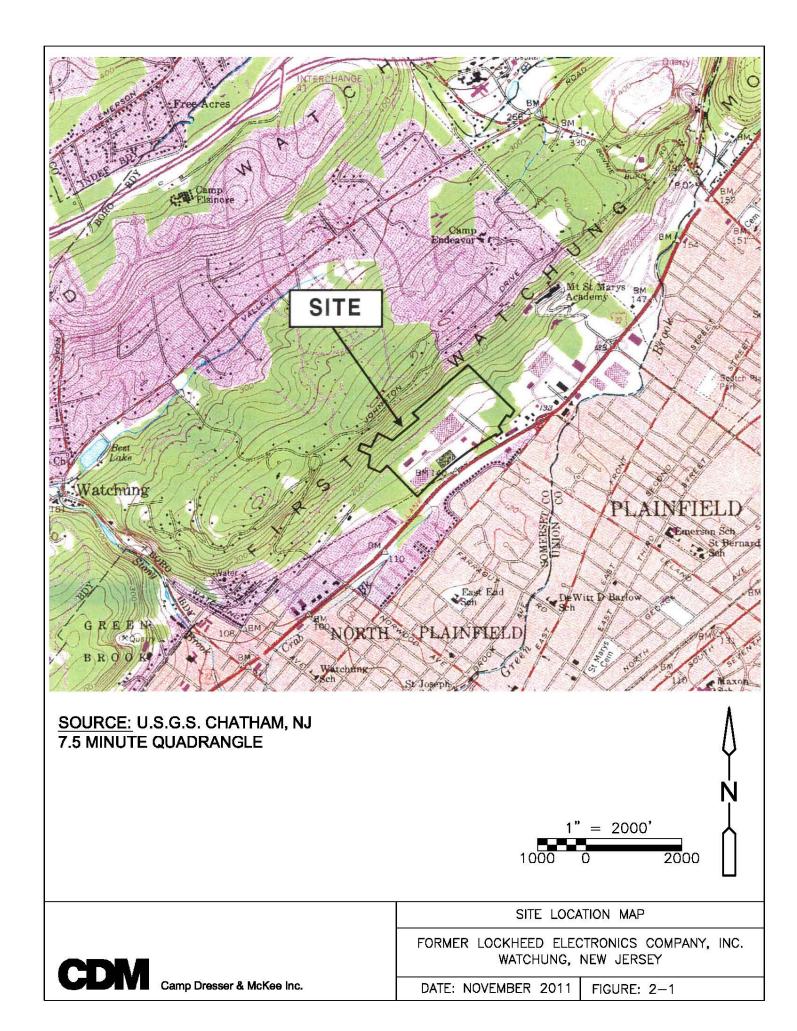
J - The result is an estimated value less than the quantitation limit but greater than the method detection limit.

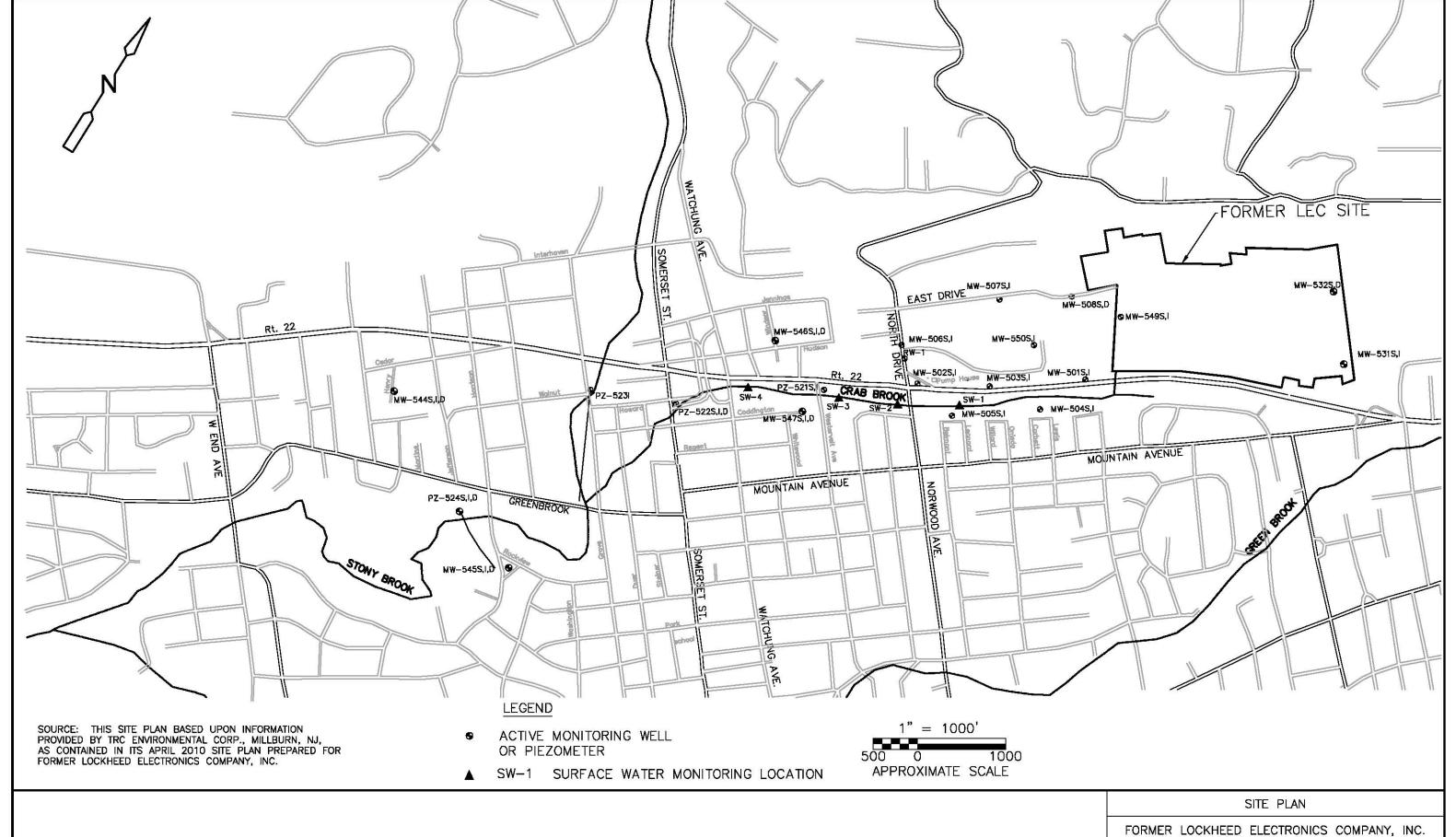
E - The result is an estimated value exceeding the the calibration range.

Highlighted results exceed regulatory criteria

### **FIGURES**





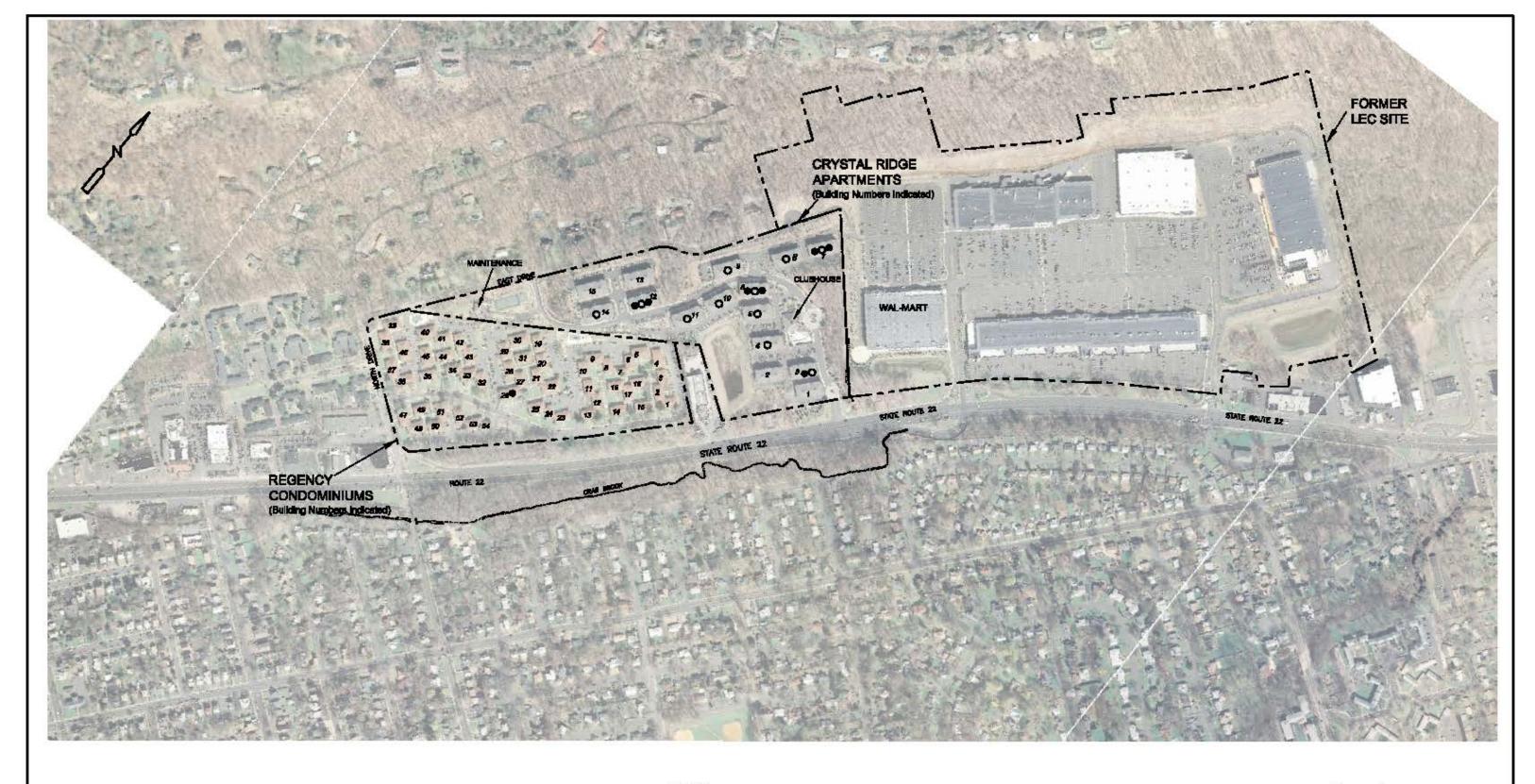


CDW Camp Dresser & McKee Inc.

FORMER LOCKHEED ELECTRONICS COMPANY, INC.
WATCHUNG, NEW JERSEY

DATE: NOVEMBER 2011

FIGURE: 2-2



LEGEND

SOURCE: THIS FIGURE BASED UPON INFORMATION PROVIDED BY TRC ENVIRONMENTAL CORP., MILLBURN, NJ, AS CONTAINED IN ITS APRIL 2011 VAPOR INTRUSION INFORMATION MAP PREPARED FOR FORMER LOCKHEED ELECTRONICS COMPANY, INC.

INDOOR AIR SAMPLE LOCATIONS

SUB-SLAB VAPOR SAMPLE LOCATIONS

1" = 400' 200 0 400 APPROXIMATE SCALE

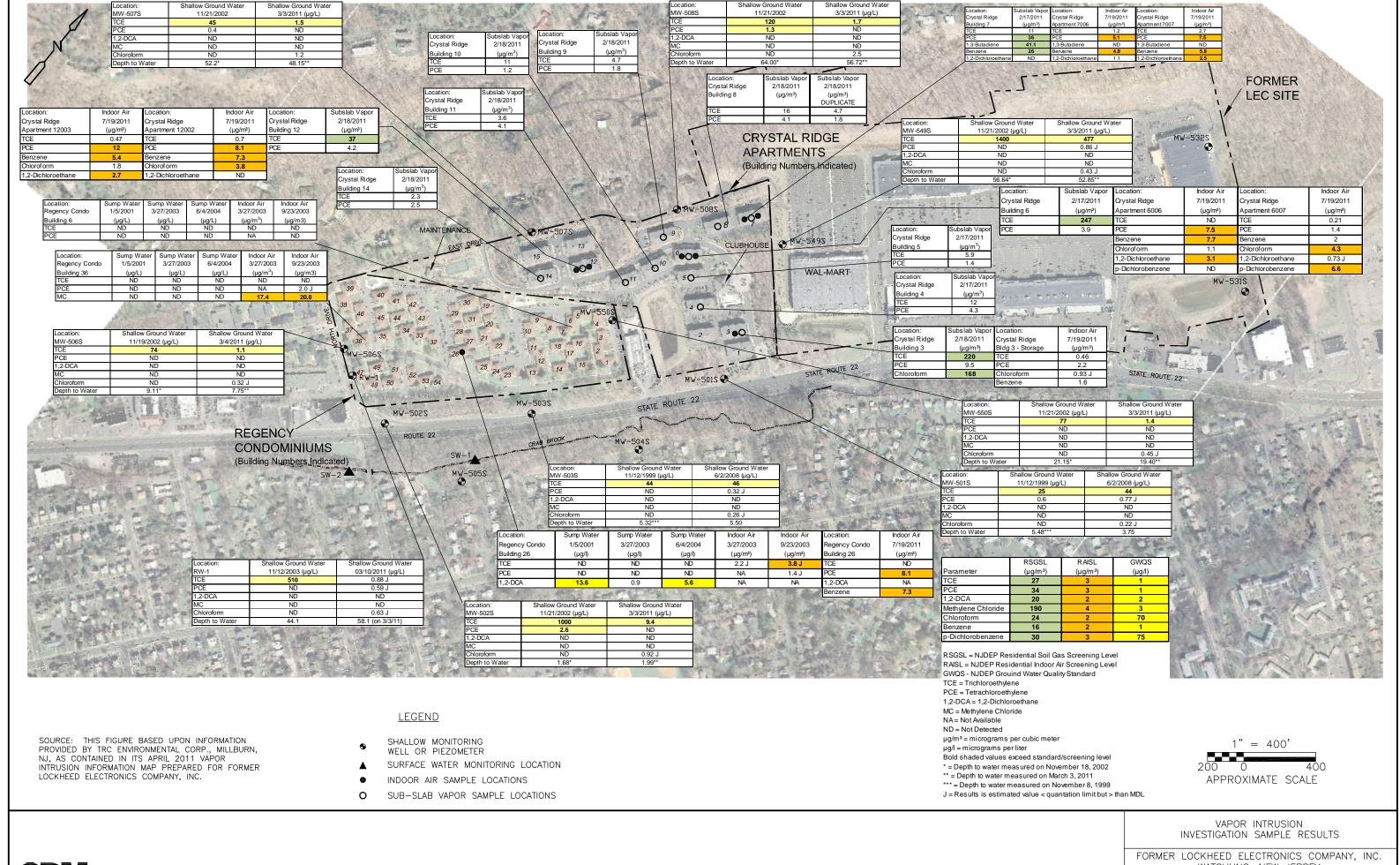
VAPOR INTRUSION INVESTIGATION SAMPLE LOCATIONS

FORMER LOCKHEED ELECTRONICS COMPANY, INC. WATCHUNG, NEW JERSEY

FIGURE: 4-1

DATE: NOVEMBER 2011

CDM Camp Drusser & McKee Inc.



Camp Dresser & McKee Inc.

WATCHUNG, NEW JERSEY

DATE: NOVEMBER 2011

FIGURE: 5-1

### APPENDIX A

Approved Vapor Intrusion Investigation Workplan





### State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION



KIM GUADAGNO Lt. Governor

> Bureau of Operation Maintenance & Monitoring BOMM 401 East State Street PO Box 420 Mail Code 401-06 Trenton, NJ 08625-0413 Phone #: 609-984-2990 Fax #: 609-633-2360

> > December 9, 2010

Stephen Tappert TRC 57 E Willow St Millburn, NJ 07041

#### Vapor Intrusion Remedial Investigation Work (VIRIW) Approval

Re:

VIRIW/GWRAPR Dated: August 26, 2010 (via email)

Lockheed Electronics Co Inc

1501 Rte 22

Watchung Boro, NJ 07061

SRP PI# 004334 EA ID #: SUB090003

Dear Mr. Tappert:

The New Jersey Department of Environmental Protection (Department) has completed review of the VIRW referenced above. The Department has determined that the VIRW is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements.

Pursuant to the schedule applicable to the site you shall submit the results of the VIRW and a proposal for additional investigation if warranted by April 1, 2011. Please submit the document by that date, or submit a written request for an extension at least 2 weeks prior to the due date. For your convenience, the regulations concerning the Department's remediation requirements can be found at http://www.state.nj.us/dep/srp/regs/.

Thank you for your cooperation in this matter. If you have any questions, call me at (609) 292-1945.

Sincerely,

Mark R. Souders, Site Manager

BOMM

C: Mark R. Souders, BOMM Renee' Bancroft, BGWPA Chris Lacy, BEERA

#### **CASE NO. E90038**

# DRAFT REVISED VAPOR INTRUSION INVESTIGATION WORKPLAN FORMER LOCKHEED ELECTRONICS COMPANY WATCHUNG, NEW JERSEY

TRC JOB NO. 2542-116473.0000

prepared by:

TRC Environmental Corporation 57 East Willow Street Millburn, New Jersey 07041

#### **DRAFT**

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#### **CASE NO. E90038**

#### VAPOR INTRUSION INVESTIGATION WORKPLAN

## FORMER LOCKHEED ELECTRONICS COMPANY WATCHUNG, NEW JERSEY

#### 1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Revised Vapor Intrusion (VI) Investigation Workplan to define proposed investigation activities to investigate the potential for VI conditions to exist in the vicinity of the former Lockheed Electronics Company (LEC) property (currently the Watchung Square Mall) (Site) located on Route 22 in the Boroughs of Watchung and North Plainfield, Somerset County, New Jersey (Figures 1 and 2). The VI Investigation Workplan has been prepared in accordance with the New Jersey Department of Environmental Protection's (NJDEP's) VI Guidance of October 2005 and the Technical Requirements for Site Remediation (N.J.A.C. 7:26E) (TRSR).

In their July 2009 Remedial Action Progress Report, TRC presented an evaluation of the potential for elevated vapor exposure within structures near the Site's ground water contaminant plume. This evaluation included an evaluation of the known or suspected Site-specific contaminant source, contaminant migration pathways, potential human receptors and the exposure routes by which these receptors may come in contact with contaminants on a site-specific basis. The evaluation concluded that that the potential for VI to occur and to result in unacceptable indoor air quality in structures nearest to the Site exists, and that further investigation is warranted. As such, this workplan focuses on the structures present nearest to the ground water plume source area at the Site (MW-549 cluster, as shown on Figure 2). Pending the results of investigation activities proposed in this workplan, additional VI investigation activities may be warranted to address other structures identified within the proximity of the LEC site's shallow ground water plume.

This workplan discusses the proposed sampling locations and sampling methods for the VI investigation, and is organized as follows: Background Site information is summarized in Section 2.0; an overview of the proposed investigation activities is presented in Section 3.0, and the proposed VI investigation schedule is presented in Section 4.0.

#### 2.0 BACKGROUND INFORMATION

#### 2.1 Site Location and Description

The Site is a parcel of land approximately 80 acres in size located on the north side of US Route 22 in the boroughs of Watchung and North Plainfield, Somerset County, New Jersey. Following cessation of activities at the Site by LEC, it was re-developed as the Watchung Square Mall. Figure 1 provides a map showing the locaiton of the Site on a United States Geologic Survey (USGS) 7.5-minute series topographic map (Chatham, NJ quadrangle), and depicts the Site's location, local topography, surface drainage patterns.

The Site is located in a mixed residential and commercial area. The Route 22 strip borders the Site to the south, and is predominately commercial with residential properties located on side streets and mapped wetlands in drainage areas. An apartment complex (Crystal Ridge Club), and a condominium complex (Regency Village) are located west of the Site. Forested areas and residences border the Site to the north, and commercial properties border the Site to the east.

#### 2.2 Physical Setting

#### 2.2.1 Topography, Surface Water, and Wetlands

As shown on Figure 1, the Site ranges in elevation from 140 to 320 feet above mean sea level, and slopes from the First Watchung Mountain, located to the northwest of the Site, to US Route 22, located southeast of the Site.

Figure 2 provides a map showing the Site, and the Site's monitoring well network located both onsite and to the south and east of the Site. As shown on Figure 2, the closest surface water body is Crab Brook. Within 1 mile of the Site, wetlands areas have been mapped by the NJDEP in locations immediately north of the Site, and south of the Site along US Route 22.

#### 2.2.2 Geology

The overburden at the Site is generally composed of construction fill associated with the remediation area of former LEC Building #3, a sandy outwash deposit, and a thin layer of glacial till. In the vicinity of the Site, the thickness of the overburden decreases towards the south-southwest but increases south of Crab Brook. The overburden was thinnest at well cluster MW-546 (3 feet) and generally increases south of US Route 22 with the greatest thickness of 47 feet observed at well cluster MW-542.

Below the overburden deposits is the Passaic Formation, a reddish-brown siltstone of Jurassic age. The upper surface of the bedrock is generally weathered and soft, and becomes more competent with depth. Bedrock surface topography generally slopes to the southeast parallel to the First Watchung Mountain. The highest bedrock elevation is approximately 138 feet above sea level at wells P-524 and MW-542.

#### 2.2.3 <u>Hydrogeology</u>

Ground water at the Site occurs within the bedrock, and locally within the overburden. Within the bedrock aquifer, contaminant migration is influenced by both bedrock structure and local ground water discharge areas, particularly Crab Brook. The ground water in the bedrock enters

the Site from the easterly direction, moves across the site to the southwest (along the strike direction of regional bedrock bedding), and then trends in a more southerly direction toward Crab Brook and beyond.

At monitoring well cluster MW-549 (at the Site), the depth to ground water is approximately 55 feet below grade. At monitoring well cluster MW-550 (at the Regency Village, located topographically and hydrogeologically downgradient of the Site), the depth to ground water is approximately 23 feet below grade. While no monitoring wells are present at the Crystal Ridge Club, the depth to ground water beneath the apartment complex is expected to be between 23 and 55 feet below grade.

Ground water in the shallow water table zone flows across the Site under an average horizontal gradient of 0.002 feet per foot (ft/ft). Ground water gradients in the shallow system steepen significantly (up to 0.018 ft/ft) southwest of the Site.

#### 2.3 Site Ownership History and Facility Operations

The site was originally developed in 1953 by Stavid Engineering. Lockheed Corporation acquired Stavid Engineering in 1959 and created Lockheed Electronics Corporation, which was subsequently operated by Sanders, A Lockheed Martin Company (Sanders). Additional land acquisitions resulted in the current Site boundaries. The site was used to manufacture, assemble, and test electronic components. Trichloroethene (TCE) was used in Building 7 (near the MW-549 well cluster) as a solvent to clean circuit boards. Site operations ceased in 1989.

#### 2.4 Environmental Investigation History

The cessation of Site activities in 1989 triggered a site investigation under the New Jersey Environmental Cleanup Responsibility Act (ECRA) (superseded by the Industrial Site Recovery Act [ISRA]). The initial investigations identified several areas of concern (AOCs) and included collection of soil, sediment, ground water, and surface water samples. Investigation and remedial action results have been documented in a series of reports submitted to the NJDEP since 1991. Soil AOCs contained volatile organic compounds (VOCs), primarily TCE, as well as fuel oil, and were addressed either through excavation and off-site disposal or soil vapor extraction, and site-wide soil remediation has been completed to the satisfaction of the NJDEP.

Early investigation activities identified a TCE ground water plume emanating from the Site. An extensive monitoring well network has been installed to delineate and monitor the plume. There are currently more than 40 active monitoring wells and piezometers associated with this project in the Boroughs of Watchung and North Plainfield, all of which are installed as either well couplets or triplets to evaluate the vertical distribution of contaminants. Ground water monitoring activities are ongoing in accordance with the Site's NJDEP-approved monitoring schedule.

Historic surface water sampling additionally identified that ground water from the ground water plume provided base flow to Crab Brook, and historically resulted in measurable impact to surface water quality between North Avenue (Norwood Avenue) and Watchung Avenue. Four active surface water locations are established to monitor the surface water of Crab Brook. Surface water monitoring activities are ongoing in accordance with the Site's NJDEP-approved monitoring schedule.

To remediate the ground water plume and intercept ground water base flow to Crab Brook, the Site's ground water extraction system (GWES) was activated on July 17, 2003. Ground water is pumped from extraction well RW-1, located on North Drive in North Plainfield, at an approximate rate of 120 gallons per minute (gpm). The GWES has worked almost continuously from start-up and has functioned as designed, providing control of the bedrock ground water plume and intercepting ground water base flow prior to its reaching Crab Brook.

#### 2.5 Well Search

As part of the Site's most recent ground water Classification Exception Area (CEA) biennial certification (submitted March 2009), TRC completed a NJDEP Bureau of Water Allocation 1-mile radius well records search and a computerized 5-mile radius search of water allocation permitted wells. The recent well search results were reviewed by TRC in order to identify all potentially active wells within a 1-mile radius of the Site. The well records generated during this search show that a total of 82 wells are located within one mile of the Site as follows: one domestic well, two industrial wells, and 79 monitoring wells. The domestic well and one of the industrial wells identified in the well records search are located either sidegradient or upgradient of the Site's TCE plume, and are not within the plume area. The second industrial well was located on the Crystal Ridge Club property prior to the construction of this apartment complex, and was likely abandoned or lost during the redevelopment of the property.

#### 2.6 <u>Baseline Ecological Evaluation</u>

A Baseline Ecological Evaluation (BEE) was conducted at the Site during February 1999 by Environmental Management Group, Inc. and Sevee and Maher Engineers, Inc. The BEE concluded that there was no measurable acute effect on aquatic species in Crab Brook from the inflow of the former LEC site plume containing TCE. The NJDEP approved the BEE in the August 9, 1999 letter concluding that no further ecological evaluation with regard to Crab Brook was required.

#### 2.7 <u>Contact Information</u>

The following is a list of the applicable contact information. Note that TRC is the lead responsible party pursuant to a Remediation Agreement executed in 2001.

	Mailing Address	Representative
Lead Responsible Party/ Consultant TRC Environmental Corp.	57 East Willow Street Millburn, NJ 07041	Stephen E. Tappert 973.564.6006 x 240 Scott McCray x 287
<b>Current Site Owner/Operator</b>	641 Shunpike Road	Al Tafro
Watchung Square Assoc., LLC	Chatham, NJ 07928	973.966.2800
Former Site Owner	6801 Rockledge Drive	Chuck Trione
Lockheed Electronics Corp.	MP CCT 246	(301) 548-2223
	Bethesda, MD 20817	

#### 3.0 PROPOSED VAPOR INTRUSION INVESTIGATION

The TRSR and NJDEP guidance require a vapor intrusion investigation when a shallow ground water plume containing TCE concentrations that exceed the NJDEP's vapor intrusion ground water screening level (GWSL) is identified within 100 feet of a structure. As a part of the required vapor intrusion investigation, the TRSR additionally requires the identification of all structures located within 200 feet of shallow ground water containing TCE concentrations that exceed the NJDEP's vapor intrusion GWSL. As such, the extent of the shallow TCE ground water plume, and the locations of structures within 100 and 200 feet of this plume are shown on Figure 3 and summarized in Table I.

As described in Section 1.0, the focus of this workplan is to initiate a vapor intrusion investigation of the structures located nearest to the Site's ground water plume source area (monitoring well cluster MW-549), as described in the following subsections. Pending the results of this investigation, additional investigation activities addressing structures located at greater distances from the ground source area within the shallow ground water plume may also be warranted, and will be proposed under separate cover.

#### 3.1 Area of Investigation

To assess the potential for VI to be occurring from the Site's shallow ground water plume into nearby structures near to the ground water plume source area, one structure at the Watchung Square Mall (Wal-Mart store) and one adjoining property (the Crystal Ridge Club, a residential apartment complex located adjacent to the southern boundary of the former LEC property) have been selected for VI investigation activities. Due to their proximity of these structures to the ground water plume source area, the Wal-Mart and the Crystal Ridge Club structures are the structures that have the highest potential for VI to occur. The locations of the Wal-Mart and the Crystal Ridge Club relative to the Site and the shallow ground water plume source area (monitoring well cluster MW-549) are shown on Figure 3.

The Wal-Mart is a retail store covering an area of approximately 114,000 square feet in area. The store is constructed on a hill side, where a portion of the retail store is underlain by a warehouse/storeroom area, and the remainder of the retail store is located on a floor slab that is elevated (uphill) of the warehouse/storeroom area. Since the warehouse/storeroom area is lower in elevation, and therefore vertically closer to the shallow ground water plume, this area has been selected as the area to be assessed for potential vapor intrusion conditions.

The Crystal Ridge Club is an apartment complex consisting of fifteen residential buildings, a club house, and a maintenance building. Each of the fifteen residential buildings contains between 22 and 24 apartment units, and is identified by a building number (1 through 15), as shown on Figure 3. The fifteen residential buildings are subdivided based on their floor plans into five different building types (Types A, B, C, D, and D Option E). Building type A (Building 1), building type B (Buildings 2 and 3), and building type C (Buildings 4, 5, 13, and 15) have no ground floor apartment units, whereas building type D (Buildings 6 through 11) and type D option E (Buildings 12 and 14) each contain 2 ground floor apartment units. Available ground level floor plans for the building types are located in Appendix A

During a meeting at the Crystal Ridge Club on March 3, 2010, representatives of the Crystal Ridge Club ownership reported to TRC that the each of the apartment complex buildings incorporated a passive radon mitigation system into their construction. Each of the radon

mitigation systems reportedly consists of a membrane installed beneath the poured concrete floor slab, and connected to two vent pipes (one located at each end of the building) that vent to the atmosphere at the roofline of the building. At some locations, the vent pipes are exposed (inside garage spaces), and marked "radon". However, no plans or 'as-built" drawings of this passive radon mitigation system are available for review.

#### 3.2 Access Negotiation

To complete VI investigation activities at the Wal-Mart and the Crystal Ridge Club, it will be necessary to negotiate an access agreement with the Wal-Mart and the Crystal Ridge Club property owners. These discussions have been initiated and are ongoing. For purposes of this VI Investigation Workplan, it is assumed that access to the Wal-Mart and the Crystal Ridge Club to complete VI investigation activities will be granted.

#### 3.3 Proposed Sub-Slab Soil Gas Sampling Activities

To determine if vapors associated with VOC-impacted ground water are migrating through subsurface soils and accumulating beneath the building slab at the Wal-Mart or the Crystal Ridge buildings, a total of 13 soil vapor samples will be collected. Two sub-slab soil vapor samples will be collected from locations at the Wal-Mart. Additionally, one sub-slab soil vapor sample will be collected from a total of eleven Crystal Ridge buildings (Buildings #3 through #12, and #14). To minimize the potential for damage to the passive radon mitigation system beneath the floor slabs of the Crystal Ridge Club buildings, sub-slab soil vapor samples at the Crystal Ridge buildings will be collected through holes drilled laterally through the concrete walls of each building's elevator pit, at a depth of approximately 2 feet below floor level. Prior to sampling activities, each elevator will be taken out of service using lock-out, tag-out procedures, to ensure the safety of the sampling team. Proposed sub-slab soil gas sample locations are shown on Figure 3. Final soil gas sample locations will be determined following access negotiations based on facility-specific building constructions and access restrictions.

All sub-slab soil gas samples will be collected in 1-Liter certified clean SUMMA canisters equipped with flow regulators to collect soil gas over a 5 to 30-minute period. A duplicate sub-slab soil gas sample will also be collected for quality assurance/quality control (QA/QC) purposes. Following collection, all sub-slab soil gas samples will be submitted to a NJDEP-licensed laboratory and analyzed for VOCs only using USEPA method TO-15, and all drilling locations will be restored with concrete patch.

#### 3.4 Proposed Indoor Air Sampling Activities

Immediately prior to sub-slab soil gas sample collection, indoor air samples will be collected at the Wal-Mart and Crystal Ridge buildings to determine if vapors that may be present beneath the building slabs are present within the indoor air. At the Wal-Mart, two indoor air samples will be collected at locations proximal to the sub-slab sample locations. At the Crustal Ridge buildings, one indoor air sample will be collected from each of the ground floor apartments at the Crystal Ridge Club (Buildings #6 through #12, and Building #14), and one indoor air sample will be collected from three additional structures (Buildings #3 through # 5). Proposed indoor air sample locations are shown on Figure 3. Final sample locations will be determined following access negotiations based on facility-specific building constructions and access restrictions.

Concurrently with indoor air sampling at each location, TRC will perform a survey of each structure to be sampled to determine the presence of commonly stored or used materials and products, such as paints, cleaners, and degreasers, that may interfere with indoor air results or potentially produce false positive analytical results. Additionally, if the owner/operator or apartment tenant is present during TRC's survey, instructions will be given to the owner/operator or apartment tenant concerning commercial/household materials and activities that have the potential to influence the indoor air sample results, and a copy of the VI Guidance Appendix C (Instructions for Occupants – Indoor Air Sampling Events) will be distributed as a reference.

Indoor air samples at Crystal Ridge will be collected in 6-Liter certified clean SUMMA canisters equipped with flow regulators to collect air over a 24-hour period. Indoor air samples collected at Wal-Mart will be collected over an eight-hour period based upon commercial use of the building. Following collection, all indoor air samples from Crystal Ridge will be submitted to a NJDEP-licensed laboratory and analyzed for VOCs using USEPA method TO-15. Analysis of the samples from Wal-Mart will be contingent upon detections of site contaminants at concentrations exceeding screening levels in the sub slab samples.

#### 3.5 <u>Data Validation/Evaluation/Management</u>

Upon receipt of laboratory results, TRC will evaluate these data for accuracy and validity. These data will be summarized in tabular form and plotted on site maps for submission to the NJDEP. As required by NJDEP, all analytical data will be submitted in hard copy and in an electronic deliverable format which adheres to the guidelines specified in the NJDEP Site Remediation Program Electronic Data Interchange Manual.

#### 3.6 Reporting

Following the completion of all field activities proposed in this VI Investigation Workplan and receipt of the analytical results, TRC will prepare a VI investigation report consistent with the requirements of the TRSR. The report will include a summary of historic VI sampling activities, a technical overview of the investigation program including methods and techniques employed, present and discuss the analytical results of the program (including tables and figures as warranted), and provide conclusions and recommendations. The completed VI investigation report will be submitted to the NJDEP for review and comment.

#### 4.0 QUALITY ASSURANCE PROJECT PLAN

Pursuant to the NJDEP TRSR (N.J.A.C. 7:26E-2.2), the following subsections describe Quality Assurance Project Plan (QAPP) components to be employed for this project.

#### **4.1 Project Quality Objectives**

The objective of this investigation is to comply with the NJDEP TRSR (N.J.A.C. 7:26E), and to define the nature and extent of contamination in soil gas and indoor air;

#### **4.2 Project Team Responsibilities**

This section identifies the contact information and the responsibilities of management, quality assurance (QA), field and laboratory personnel involved with this project.

Personnel	Role	Organization	Telephone No.	Responsibilities
Stephen E. Tappert	Principal-In- Charge & Project Manager	TRC	973-564-6006 (x240)	Oversees technical aspects of project and primary contact with NJDEP for technical matters. Manages project and coordinates with field team.
Scott McCray	Project QA Manager	TRC	973-564-6006 (x287)	Provides QA oversight and technical assistance to field team, communicates with Project Manager/Principal In Charge
Martin MacDonald	Field Team Manager / Site Safety Officer	TRC	973-564-6006 (x281)	Supervises field sampling and coordinates all field activities, communicates with Project Manager
Matt Cordova	Lab Project Manager	Accutest	732-329-0200	Oversees project in laboratory and laboratory staff adherence to Standard Operating Procedures; maintains contact with TRC

Analyses will be performed by the following New Jersey-certified laboratory:

	NJDEP	
Laboratory	Certification No.	Analyses to be Performed
<b>Accutest Laboratories</b>		
2235 Route 130	12129	United States Environmental Protection
Dayton, NJ 08810		Agency Method TO15
732-329-0200		
Contact: Matt Cordova		

#### 4.2.1 Management Responsibilities

#### Principal-in-Charge

The Principal-in-Charge will serve as the primary point of contact to the NJDEP for technical matters as they relate to the project plans and regularly communicate with the QA Manager and Field Team Manager. Other duties (as required) will include:

- Assisting with project task scoping,
- Assuring that approved procedures meet project objectives,
- Coordinating field and office activities with the Project QA Manager and Field Team Manager,
- Implementing recommendations made by Project QA Manager,
- Initiating corrective actions,
- Monitoring schedules for field, analytical and data validation activities associated with the field sampling and office activities, and
- Reviewing and editing key technical deliverables.

#### Project Manager

The Project Manager will communicate directly with Project QA Manager and Field Team Manager. The Project Manager will ensure that all the technical, administrative, and regulatory compliance objectives are met on a day-to-day basis. Other duties (as required) will include:

- Assuring adherence to project plans and obtaining approvals for any changes to these plans,
- Assigning duties to project staff and orienting the staff to the specific needs and requirements of the project,
- Assisting in the coordination of all field tasks, communications, reports, and technical reviews, and other support functions, and facilitating activities with the technical requirements of the project,
- Scheduling and coordinating field and office activities with the Principal-in-Charge, Project QA Manager, and Field Team Manager,
- Implementing recommendations made by Project QA Manager,
- Monitoring schedules for field, analytical and data validation activities associated with the field sampling program,
- Ensuring the successful completion of the project in terms of budget, schedule, and data quality objectives,
- Interpreting site data and providing input into the development and finalization of key technical deliverables, and
- Maintaining project file.

#### **4.2.2 Quality Assurance Responsibilities**

#### Project QA Manager

The Project QA Manager has the overall responsibility for quality assurance oversight. The Project QA Manager will communicate directly with the Principal-in-Charge, the Project Manager and the Field Team Manager. Specific responsibilities include:

- Reviewing and approving QA procedures,
- Assuring adherence to the QAPP and documenting any approved changes to the project plans,
- Ensuring that QA audits of the various project phases are conducted as required,
- Providing technical QA assistance to project staff,
- Following up on corrective actions,
- Ensuring that data collection is conducted in accordance with the QAPP, and
- Reporting on the adequacy, status and effectiveness of the QA program to the Project Manager.

#### **4.2.3 Field Responsibilities**

#### Field Team Manager/Site Safety Officer

The Field Team Manager and Site Safety Officer has the overall responsibility for the completion of all field activities in accordance with the QAPP and the other project plans and is the communication link between the field team, subcontractors, and TRC project management. Specific responsibilities include:

- Understanding and implementing the QAPP,
- Mobilizing and demobilizing the field team and subcontractors to and from the Site,
- Coordinating activities in the field,
- Assigning specific duties to field team members,
- Ensuring site security and access,
- Overseeing and coordinating field data collection in accordance with this VI Investigation Workplan,
- Resolving logistical problems that could hinder the implementation of field activities or meeting specific data quality objectives, including equipment malfunctions, weatherdependent working conditions or personnel conflicts,
- Implementing field quality control procedures including issuing and tracking of measurement testing equipment, the proper labeling, handling, storage and shipment of samples, chain-of-custody procedures, and control and collection of field documentation,
- Summarizing and interpreting site data,
- Providing input into the development and finalization of key technical deliverables,
- Ensuring that all field activities are being implemented in accordance with the Health and Safety Plan (HASP),
- Evaluating new hazards and operation changes when necessary, and
- Correcting all HASP non-compliance situations immediately and stopping work in cases of immediate danger.

#### Field Staff

The Field Staff will report directly to the Field Team Manager. The responsibilities of the field team include:

 Understanding and implementing the QAPP requirements as they relate to their specified duties,

- Collecting samples and field measurements and decontaminating equipment in accordance with NJDEP guidance and the documented procedures stated in the QAPP,
- Ensuring that field instruments are properly calibrated, operated, and maintained and that adequate documentation is maintained for all instruments,
- Collecting the required QA samples and documenting the QA sample collection details,
- Ensuring that field documentation are complete, legible and accurate, and
- Documenting and communicating any non-conformance or potential data quality issues to the Field Team Manager.

#### 4.2.4 Laboratory Responsibilities

#### Laboratory Manager

The Laboratory Manager is ultimately responsible for the data produced by the laboratory. Specific responsibilities include:

- Implementing and adhering to QA and corporate policies and procedures with the laboratory,
- Approving Standard Operating Procedures (SOPs),
- Maintaining adequate staffing and equipment, and
- Reviewing internal/external audits findings and implementing corrective actions.

#### Laboratory QA Manager

The Laboratory QA Manager reports directly to the Laboratory Manager. Specific responsibilities include:

- Approving the laboratory SOPs,
- Ensuring and improving quality within the laboratory,
- Supervising and providing guidance and training to laboratory staff,
- Addressing all client inquiries involving data quality issues,
- Performing QA audits and assessments,
- Tracking internal and external findings of QA audits, and
- Coordinating laboratory certification and accreditation programs.

#### Laboratory Project Manager

The Laboratory Project Manager is the primary point of contact between the laboratory and TRC. Specific responsibilities include:

- Maintaining communication with the client and laboratory staff on project status,
- Monitoring, reviewing and evaluating the progress and performance of projects,
- Reporting client inquiries involving data quality issues or data acceptability to Laboratory QA Manager and the operations staff, and
- Reviewing data packages for completeness and compliance to client requirements/specifications.

#### Laboratory Analyst/Technician

Each analyst or technician is responsible for:

- Evaluating instrument performance
- Performing technical procedures and data recording in accordance with documented procedures,
- Performing and documenting calibration and preventative maintenance,
- Performing data processing and data review procedures,
- Reporting non-conformance to the Laboratory Manager or other appropriate personnel, and
- Ensuring sample and data integrity by adhering to internal chain-of-custody procedures.

#### Laboratory Sample Custodian

The Sample Custodian ensures the implementation of proper sample receipt procedures, including maintenance of the chain-of-custody. Other responsibilities include:

- Notifying the Laboratory Project Manager of any discrepancies or anomalies with incoming samples,
- Logging samples into the laboratory tracking system,
- Ensuring that all samples are stored in the proper equipment, and
- Overseeing sample disposal.

#### 4.3 Sample Collection and Documentation

All VI Investigation activities to be conducted will be consistent with the TRSR and the NJDEP Field Sampling Procedures Manual (2005) and the NJDEP VI Guidance document. Specific sample collection details and requirements for all environmental and quality assurance samples identified in this VI Investigation Workplan will be complied with during program execution. A record of all field observations and procedural methodologies will be kept in field logbooks throughout the duration of the field effort. The logbooks will be bound field survey books or notebooks. The TRC field team will review all field notes recorded each day for legibility, accuracy and completeness. Each completed field note page will include the date, names and affiliation of personnel on-site, chronology of activities including entry and exit times, weather conditions, level of personnel protection, site observations, field equipment measurements, sampling details, sketches and diagrams, information pertaining to photographs collected, page number and the signature of the author. All instructions given by the Project Manager and other field decisions related to the additional delineation sampling will be recorded in the field logbook (e.g., sampling rationale, new sampling identification numbers, analytical parameters). Large site maps will be maintained in the field headquarters, and all sampling locations will be marked in the field and hand-plotted on these maps each day.

#### 4.4 Sample Handling and Custody Requirements

The TRC Field Team personnel will coordinate with the laboratory for shipment and receipt of SUMMA canisters, flow regulators, and chain-of-custody forms. After collection of each sample, the chain-of-custody will be filled out and returned with the samples to the laboratory. An important consideration for the collection of environmental data is the ability to demonstrate

that the analytical samples have been obtained from pre-determined locations and that they have reached the laboratory without alteration. Evidence of collection, shipment, laboratory receipt, and laboratory custody until disposal must be documented to accomplish this. Documentation will be accomplished through a chain-of-custody form that records each sample and the names of the individuals responsible for sample collection, transport, and receipt. Sample custody will be initiated by field personnel upon collection of samples. Sample labels will be securely affixed to each sample container. Sample labels will clearly identify the particular sample, and include the following information:

- Site name and designated project number;
- Sampling location;
- Sample matrix (media type)
- Unique sample identification number;
- Date and time the sample was collected;
- Sample preservation method (if appropriate);
- Sample pH (if appropriate);
- Analytical Method requested; and
- Laboratory Turnaround (standard or expedited).

The TRC field personnel will package all SUMMA canisters to minimize the potential for canister damage or leakage. SUMMA canisters will then be either delivered to the laboratory by a laboratory sample courier or directly transported by TRC vehicle. The chain-of-custody will be carefully reviewed by TRC field personnel and compared with the contents of the accompanying shipment to confirm the accuracy of the custody record. Each individual who has the samples in his or her possession will sign the chain-of-custody record. The original chain-ofcustody record will be sealed in a watertight envelope, taped to the top (inside) of the shipping container, and the shipping container sealed prior to being given to the laboratory sample courier. A copy of the chain-of-custody record will be kept on-site. Upon delivery at the laboratory, the laboratory sample custodian (or designated laboratory technician) will take possession of the samples. The sample custodian will open the shipping container(s), verify that the custody tape is intact, examine all sample containers for damage, compare the container contents with the chain-of-custody, verify that the holding times have not been exceeded, record, and sign and date the chain-of-custody record. The sample custodian will record any discrepancies or problems on the chain-of custody record and notify the Laboratory Project Manager, who will subsequently notify the TRC QA Manager. In addition, the sample custodian will notify the Laboratory Project Manager of the sample arrival. The sample custodian will attach labels with a unique laboratory identification to each sample container and place them in proper laboratory storage. The samples will be entered into the electronic laboratory tracking system with all pertinent information including lab tracking number, project name, TRC sample identification, type of sample media, required test, data and time of lab receipt of samples, and sample collection time and date. Evidence of the chain-of-custody and additional documentation will be placed in the final evidence file maintained by the laboratory.

#### 4.5 Sample Quality Assurance and Quality Control

A New Jersey-certified laboratory will provide all sample containers for all environmental and quality assurance samples to be collected. As required, duplicate samples and ambient air blanks will be collected during the sampling event for the same analytical parameters being proposed to

assess and validate the quality of data generated. The table below summarizes the sampling program for all environmental and quality assurance samples to be collected.

#### **Analytical Methods / Quality Assurance Summary Table**

Matrix	Analysis	Number of Samples (estimated)	Field Duplicates	Trip Blanks	Field Equipment Blanks	Sample Volume/ Container (number, size and type_	Preservation	Maximum Holding Time (prep/analysis)	Analytical Method
Vapor (Soil Gas)	Volatile Organics (TO15)	13	1	0	0	1-liter SUMMA canister	Maintain Canister Under Vacuum	30 Days from date SUMMA placed under vacuum	USEPA Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry Method TO15 SIM
Vapor (Indoor Air)	Volatile Organics (TO15)	21	1	0	1 (Ambient Blank)	6-liter SUMMA Canister	Maintain Canister under vacuum	30 Days from date SUMMA placed under vacuum	USEPA. Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry .Method TO15 SIM

#### **4.6 Field Equipment Maintenance**

#### 4.6.1 Field Equipment Calibration

All field equipment will be calibrated in accordance with the manufacturer's instructions (using specific reference materials and test procedures). Any equipment which provides unusual responses or questionable results will be re-calibrated or replaced to ensure satisfactory equipment performance. The TRC sampling team will record the daily field equipment calibration activities in the field logbook with a clear description of equipment type, manufacturer name and identification number, calibration test performed and results, time and date.

#### **4.6.2** Field Equipment Decontamination

All disposable, dedicated sampling equipment will be used only once and discarded after sampling. SUMMA canisters and flow regulators will be supplied by the laboratory, and will be decontaminated, evacuated, and prepared for sample collection by the laboratory in accordance with the NJDEP's October 2005 VI Guidance document

#### **4.7 Laboratory Deliverables**

Upon receipt of laboratory results, TRC will evaluate these data for accuracy and validity. As required by NJDEP (N.J.A.C. 7:26E-3.13), all analytical data will be submitted in hard copy and in an electronic deliverable format which adheres to the guidelines specified in the NJDEP Site Remediation Program Electronic Data Interchange Manual. In accordance with these requirements, TRC will complete the electronic dataset files for the individual laboratory data sets generated and include this on a diskette(s) with the report submittal to the NJDEP. The electronic dataset files specify all required fields and valid entries. Prior to submittal, the files will be checked by running the NJDEP's Electronic Data Submission Application on them which will eliminate many of the most common errors and includes some administrative checks. In

addition, these data will be summarized in tabular form and plotted on site maps for submission to the NJDEP.

#### 5.0 HEALTH AND SAFETY PLAN

As required by N.J.A.C. 7:26E-1.9, 1.10 and 4.2, a site-specific Health and Safety Plan (HASP) was developed for the proposed field activities described in the VI Investigation Workplan. Appendix B contains the complete HASP for the Site.

The purpose of the HASP is to establish requirements for protecting the health and safety of personnel from possible exposure to potentially hazardous substances during the implementation of the RI activities. The HASP has been developed to establish the health and safety procedures required to minimize any potential risk to personnel performing certain activities at the Site. The HASP is written to meet the requirements of all applicable federal, state and local health and safety regulations, including the Occupational Safety and Health Administration (OSHA), Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120) and is based on current knowledge regarding the specific chemical and physical hazards that are known or anticipated at the Site.

The provisions of the HASP (Appendix B) apply to all on-site personnel and visitors who may potentially be exposed to health and/or safety hazards related to specific RI activities at the Site. All activities will be conducted in accordance with this plan. Personnel and visitors who cannot or will not comply with this HASP will be excluded from on-site activities.

Daily safety meetings will be held at the start of each work shift to ensure that all personnel understand site conditions and operating procedures, that personal protective equipment (PPE) is used correctly, and that worker health and safety concerns are addressed.

All personnel involved in the field work, including subcontractors conducting field activities, will be trained in accordance with OSHA's Hazwoper requirements in 29 CFR 1910.120. All subcontractors will be responsible for complying with all applicable OSHA requirements and all other federal, state and local safety requirements.

#### 6.0 SCHEDULE

Following formal NJDEP approval of this VI Investigation Workplan, TRC anticipates initiation of the investigation activities described herein. Assuming that access requests are granted in a timely manner, field activities are anticipated to be completed in September 2010, and NJDEP-submission of the VI investigation report is anticipated to be completed by December 30, 2010.

Following NJDEP approval and procurement of off-Site property access, the NJDEP will be notified via the Potable Well/Indoor Air Sampling Notification form and the sampling notification spreadsheet at least 7 days prior to conducting field activities, as required, and provided with an updated schedule for the completion of these VI investigation activities. The property owners and/or tenants will also be notified at least 7 days in advance of any field activities.

### **FIGURES**



SOURCE: U.S.G.S. CHATHAM, NJ 7.5 MINUTE QUADRANGLE





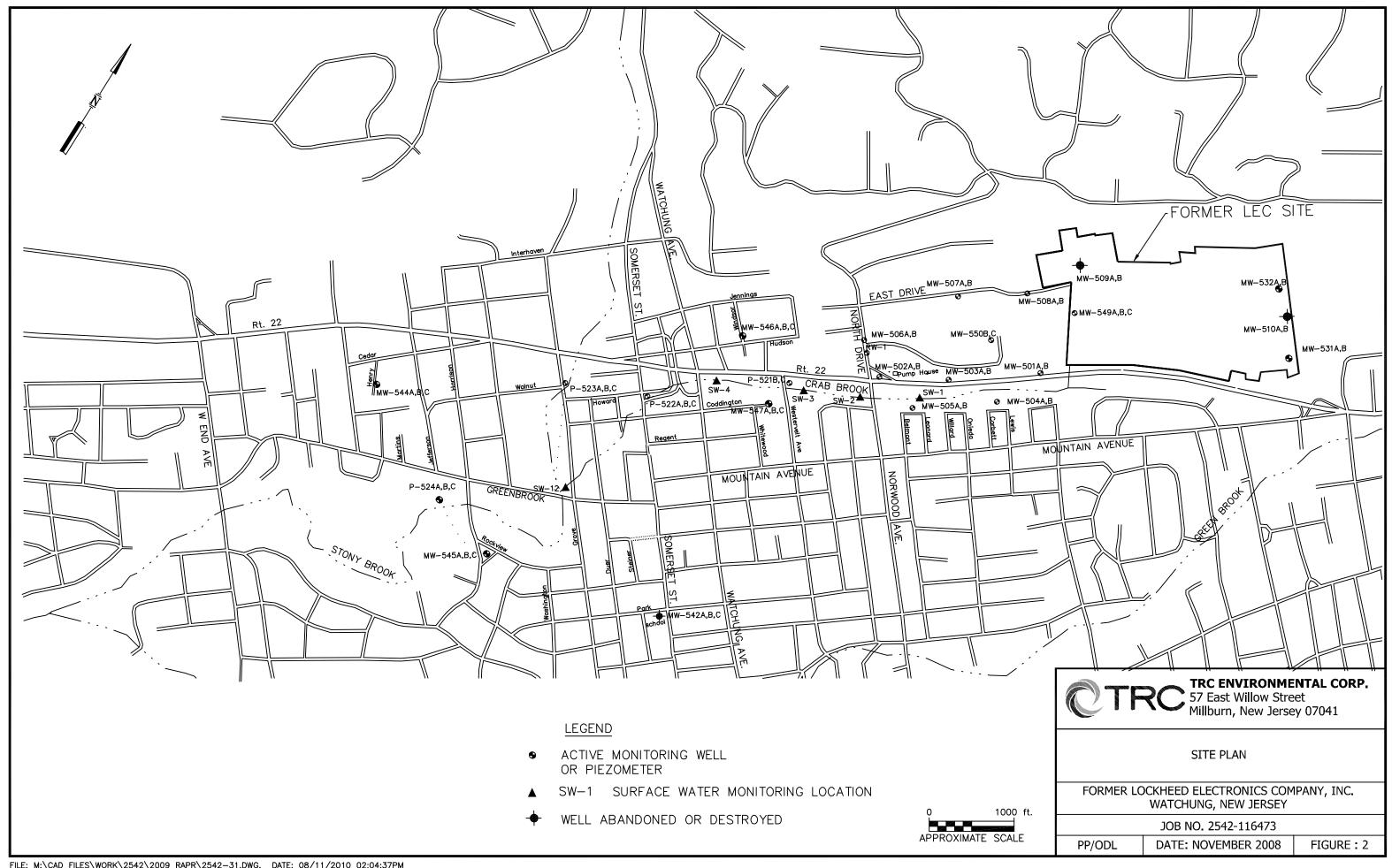


SITE LOCATION MAP

FORMER LOCKHEED ELECTRONICS COMPANY, INC. WATCHUNG, NEW JERSEY

PREPARED BY: DD/LB DATE: APRIL 2007

JOB NO.: 2542 FIGURE: 1





#### EXPLANATION

- ACTIVE MONITORING WELL OR PIEZOMETER
- ▲ SURFACE WATER MONITORING LOCATION
- PROPOSED INDOOR AIR SAMPLE LOCATIONS
- O PROPOSED SUB-SLAB SOIL VAPOR SAMPLE LOCATIONS

- - 200 FEET FROM EXTENT OF SHALLOW GROUND WATER PLUME

EXTENT OF SHALLOW GROUND WATER PLUME

- - 100 FEET FROM EXTENT OF SHALLOW GROUND WATER PLUME

NOTE: ACTUAL SAMPLE LOCATIONS WILL BE BASED UPON FACILITY—SPECIFIC BUILDING CONSTRUCTIONS AND ACCESS RESTRICTIONS.





EXTENT OF SHALLOW GROUND WATER PLUME AND PROPOSED VAPOR INSTRUSION INVESTIGATION SAMPLE LOCATIONS

FORMER LOCKHEED ELECTRONICS COMPANY, INC. WATCHUNG, NEW JERSEY

JOB NO. 2542-116473

SM/LB DATE: MARCH 2010 FIGURE: 3

### **TABLES**

## Table I List of Property Owners and Tenants Within a 100- and 200- Feet Radius of the Shallow Ground Water Plume Former Lockheed Electronics Corp.

		Property Owners/Tenants Within 100 Feet Radio	us of Shallow Ground Water Pi	iume Area	
Block	Lot	Owner/Tenant Name/Bldg Identifier	Property Address	Town, State, Zip	Structure(s)
WATCHUNG	G	•			
		Crystal Ridge Maintenance Building	EAST DRIVE	WATCHUNG, NJ 07069	Storage Bldg
		Crystal Ridge Building No. 12	12 CRYSTAL RIDGE DRIVE	WATCHUNG, NJ 07069	24-Unit Apartment Bldg
		Crystal Ridge Building No. 13	13 DIAMOND COURT	Watchung, NJ 07069	24-Unit Apartment Bldg
		Crystal Ridge Building No. 14	14 CRYSTAL RIDGE DRIVE	Watchung, NJ 07069	24-Unit Apartment Bldg
56.01 4		Crystal Ridge Building No. 15	15 DIAMOND COURT	Watchung, NJ 07069	24-Unit Apartment Bldg
56.02 1		JOHANSSON, BENGT & MARIE	17 EAST DRIVE	WATCHUNG, NJ 07069	House
56.02 6	6	STEGIS, KARLIS & INESE	63 EAST DRIVE	WATCHUNG, NJ 07069	House
56.02 7	7	HASTALL, VERONICA	51 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 5	5	GRICHINA, IRINA	163 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 6	6	GURA, DIANE	147 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 7		PFITZNER, ROBERT & MARY LOU	131 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 8	8	KIRPAN, JOHN & JANET	115 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 9	9	POLE-POLICASTRO, MARIE	99 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 1	10	MESSERCOLA, AUGUSTO & ANTONIETTA M.	89 EAST DRIVE	WATCHUNG, NJ 07069	House
56.03 1	11	ABASHIDZE, OLGA V & GELA	77 EAST DRIVE	WATCHUNG, NJ 07069	House
57.03 2	2.01	WATCHUNG SQUARE ASSOCIATES LLC - OWNER, BORDERS, INC TENANT	1511 ROUTE 22 WEST	WATCHUNG, NJ 07060	4A
		WATCHUNG SQUARE ASSOCIATES LLC - OWNER, TJ MAXX # 811, ETCTENANTS	1515 ROUTE 22 WEST	WATCHUNG, NJ 07060	4A
57.03 2			ROUTE 22	WATCHUNG, NJ 07069	Store
		WATCHUNG SQUARE ASSOCIATES LLC-OWNER, WAL-MART-TENANT	1501 ROUTE 22 WEST	WATCHUNG, NJ 07069	4A
	2.06	TARGET CORP T-1155 PROPTAX TPN0950	ROUTE 22	WATCHUNG, NJ 07069	Store
	11	Crystal Ridge Building No. 7	7 SUMMIT WAY	WATCHUNG, NJ 07069	24-Unit Apartment Bldg
		Crystal Ridge Building No. 8	8 SUMMIT WAY	WATCHUNG, NJ 07069	24-Unit Apartment Bldg
57.03 1		Crystal Ridge Building No. 4	4 CLUB COURT	WATCHUNG, NJ 07069	22-Unit Apartment Bldg
57.03 1		Crystal Ridge Building No. 5	5 EMERALD DRIVE	WATCHUNG, NJ 07069	22-Unit Apartment Bldg
		Crystal Ridge Building No. 6	6 CRYSTAL RIDGE DRIVE	WATCHUNG, NJ 07069	22-Unit Apartment Bldg
		Crystal Ridge Building No. 9	9 SUMMIT WAY	WATCHUNG, NJ 07069	24-Unit Apartment Bldg
57.03 1		Crystal Ridge Building No. 10	10 CRYSTAL RIDGE DRIVE	WATCHUNG, NJ 07069	24-Unit Apartment Bldg
57.03 1	12, 13	Crystal Ridge Building No. 11	11 CRYSTAL RIDGE DRIVE	WATCHUNG, NJ 07069	24-Unit Apartment Bldg
NORTH PLA					
5 2		ILLMENSEE, SADAME	288-90 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	House
5 3		BZDULA, JOZEF & LUCYNA	284-86 NORTH DRIVE	NORTH PLAINFIELD. NJ 07060	
-		DE TOMMASO, PETER & ROSE	240 BELMONT AVE	,	House
-		Regency Village Building 1		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 2		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 3		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 4		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 5		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 6		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 7		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 8		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 9		NORTH PLAINFIELD, NJ 07060	Condo
		Regency Village Building 10		NORTH PLAINFIELD, NJ 07060	

## Table I List of Property Owners and Tenants Within a 100- and 200- Feet Radius of the Shallow Ground Water Plume Former Lockheed Electronics Corp.

		Property Owners/Tenants Within 100 Feet	Radius of Shallow Ground Water	Plume Area	
Block	Lot	Owner/Tenant Name/Bldg Identifier	Property Address	Town, State, Zip	Structure(s)
6.01	11.01-11.08	Regency Village Building 11		NORTH PLAINFIELD, NJ 07060	Condo
6.01	12.01-12.08	Regency Village Building 12		NORTH PLAINFIELD, NJ 07060	Condo
6.01	13.01-13.08	Regency Village Building 13		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 14		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 15		NORTH PLAINFIELD, NJ 07060	Condo
6.01	16.01-16.08	Regency Village Building 16		NORTH PLAINFIELD, NJ 07060	Condo
6.01	17.01-17.09	Regency Village Building 17		NORTH PLAINFIELD, NJ 07060	Condo
6.01	18.01-18.08	Regency Village Building 18		NORTH PLAINFIELD, NJ 07060	Condo
6.01	19.01-19.08	Regency Village Building 19		NORTH PLAINFIELD, NJ 07060	Condo
6.01	20.01-20.08	Regency Village Building 20		NORTH PLAINFIELD, NJ 07060	Condo
6.01	21.01-21.08	Regency Village Building 21		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 22		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 23		NORTH PLAINFIELD, NJ 07060	Condo
6.01	24.01-24.08	Regency Village Building 24		NORTH PLAINFIELD, NJ 07060	Condo
6.01	25.01-25.08	Regency Village Building 25		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 26		NORTH PLAINFIELD, NJ 07060	Condo
6.01	27.01-27.08	Regency Village Building 27		NORTH PLAINFIELD, NJ 07060	Condo
6.01	28.01-28.08	Regency Village Building 28		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 29		NORTH PLAINFIELD, NJ 07060	
6.01		Regency Village Building 30		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 31		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 32		NORTH PLAINFIELD, NJ 07060	Condo
6.01	33.01-33.08	Regency Village Building 33		NORTH PLAINFIELD, NJ 07060	Condo
6.01	34.01-34.08	Regency Village Building 34		NORTH PLAINFIELD, NJ 07060	Condo
6.01	35.01-35.08	Regency Village Building 35		NORTH PLAINFIELD, NJ 07060	
6.01		Regency Village Building 36		NORTH PLAINFIELD, NJ 07060	Condo
6.01	37.01-37.09	Regency Village Building 37		NORTH PLAINFIELD, NJ 07060	Condo
6.01	38.01-38.09	Regency Village Building 38		NORTH PLAINFIELD, NJ 07060	Condo
6.01	39.01-39.08	Regency Village Building 39		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 40		NORTH PLAINFIELD, NJ 07060	Condo
6.01	41.01-41.08	Regency Village Building 41		NORTH PLAINFIELD, NJ 07060	Condo
6.01	42.01-42.08	Regency Village Building 42		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 43		NORTH PLAINFIELD, NJ 07060	Condo
6.01	44.01-44.08	Regency Village Building 44		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 45		NORTH PLAINFIELD, NJ 07060	
6.01		Regency Village Building 46		NORTH PLAINFIELD, NJ 07060	
6.01		Regency Village Building 47		NORTH PLAINFIELD, NJ 07060	Condo
6.01	48.01-48.08	Regency Village Building 48		NORTH PLAINFIELD, NJ 07060	Condo
6.01	49.01-49.08	Regency Village Building 49		NORTH PLAINFIELD, NJ 07060	
6.01		Regency Village Building 50		NORTH PLAINFIELD, NJ 07060	
6.01		Regency Village Building 51		NORTH PLAINFIELD, NJ 07060	Condo
6.01		Regency Village Building 52		NORTH PLAINFIELD, NJ 07060	
6.01	53.01-53.08	Regency Village Building 53		NORTH PLAINFIELD, NJ 07060	Condo
6.01	54.01-54.04	Regency Village Building 54		NORTH PLAINFIELD, NJ 07060	Condo

## Table I List of Property Owners and Tenants Within a 100- and 200- Feet Radius of the Shallow Ground Water Plume Former Lockheed Electronics Corp.

Block	Lot	Owner/Tenant Name/Bldg Identifier	Property Address	Town, State, Zip	Structure(s)
6.02	1	De Tommaso, Peter c/o Homeowners Heaven	351 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	
5.02	2, 3	Crystal Ridge Clubhouse	1101 GATEHOUSE LANE	NORTH PLAINFIELD, NJ 07060	Clubhouse
5.02	2, 3	Crystal Ridge Building No. 1	1 GATEHOUSE LANE	NORTH PLAINFIELD, NJ 07060	22-Unit Apartment Bldg
5.02	2, 3	Crystal Ridge Building No. 2	2 CRYSTAL TERRACE	NORTH PLAINFIELD, NJ 07060	22-Unit Apartment Bldg
6.02	2, 3	Crystal Ridge Building No. 3	3 CRYSTAL TERRACE	NORTH PLAINFIELD, NJ 07060	22-Unit Apartment Bldg
3.04	1	UMRATH, FRIEDA	379-83 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	House
3.04	2.01	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
3.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
6.04	6	NBO STORES, INCBRISTOL MOTORS	529-41 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	Commercial (Nissan Dlr)
6.04	7	ROUTE 22 SJ REALTY,LLC	513-27 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	
6.04	8	P.F.VITARIS,TRUSTEE C/O BP AMERICA	497-511 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	Commercial (BP Gas Stn)
3.04	9	VILLA FURNITURE J&A,L.L.C.	481-95 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	
5.04	10	WAREHOUSE REALTY CORP	325-339 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Commercial (sears Auto)
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
3.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
3.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
3.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
3.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
28.01	8	LEMBO, JOYCE & VALENTI, JOY	260 SANDFORD AVE	NORTH PLAINFIELD, NJ 07060	House
28.01	9	POLTORAK, FRANCIS & MARGARET	36-8 FOREST BROOK DR	NORTH PLAINFIELD, NJ 07060	House
28.01	10	EGBERT, KEVIN SCOTT & HEATHER M.	40-44 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	
28.02	8	RIVERA, TINA E.	220 DE LACY DR	NORTH PLAINFIELD, NJ 07060	House
28.02	9	LI, JUN & DUONG, QUYEN	8 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	House
28.02	10	ALSTON, PATRICIA	265 SANDFORD AVENUE	NORTH PLAINFIELD, NJ 07060	
28.03	1	LYNCH, JOSEPH J. & MONA M.	43 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	House
28.03	2	LABOMBARDA, SAVERIO & BETTINA	39 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	
28.03	3	ESOGBUE, NKEMDILIM	31 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	
28.03	4.01	MILLS, AVANEL	27 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	
28.03	4.02	EISELE, ROBERT J. & JOANNA C.	21 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	
28.03	5	RODRIGUEZ, JOSE T.	17 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	House

### Table I

#### List of Property Owners and Tenants Within a 100- and 200- Feet Radius of the Shallow Ground Water Plume Former Lockheed Electronics Corp.

Block	Lot	Owner/Tenant Name/Bldg Identifier	Property Address	Town, State, Zip	Structure(s)
28.03	6	FIGUEROA,M., ENCARNACION & CATHERINE	13 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	House
8.03	7	SULLIVAN, KEVIN W & ANNETTE	7 FOREST BROOK DRIVE	NORTH PLAINFIELD, NJ 07060	
8.03	8	NOWIK, JOHN P & MARTHA E	3 FOREST BROOK DR		House
8.03	9	ORTIZ, ELSA G.	223 DELACY DR	NORTH PLAINFIELD, NJ 07060	
28.03	10	MILLER, VAUGHN & LAURIE N	223 DELACY DR 221 DELACY DR	NORTH PLAINFIELD, NJ 07060	
20.03	110	·		· · · · · · · · · · · · · · · · · · ·	nouse
		Property Owners/Tenants Betweeen 100 Feet Rad	lius and 200 Feet Radius of Shallow Gr	ound Water Plume Area	
Block	Lot	Owner/Tenant Name/Bldg Identifier	Property Address	Town, State, Zip	Structure(s)
VATCHU		E			T
6.03	3	LIDSKY, ARNOLD & MARGO		WATCHUNG, NJ 07069	House
56.03	4	GREENSTEIN, MICHAEL S	164 EDGEMONT ROAD	WATCHUNG, NJ 07069	House
NORTH F	PLAINFIELD				
1.02	3	ESBRANDT, BRET & MARIA	268 FARRAGUT ROAD	NORTH PLAINFIELD, NJ 07060	House
1.02	17	BREWER, MILBURN E. & JUANITA	357-9 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	18	ZIMMERMAN, JR., HAROLD P. & B. M.	361 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	
1.02	19	TROTTE, JOHN A. & TONI E.	365 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
4.02	20	MONTICELLO, BRUCE A. & ALICIA	369-71 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	21	CORTORREAL, R.& C. & PEREZ,H.A.	373 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	22	CZEREUTA, JOHN	379-81 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	
4.02	23	SMITH, WENDY	383 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	24	TOWNLEY, RICHARD S. & MAUREEN E.	387-89 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	25	PAGANO, VINCENT J. & ROSALIND M.	391 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	26	BROWN, DARNELL	395-7 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	27	IMPORTICO, MARIA	399 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	28	GARGANO, R & GARGANO, V F	403-05 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	29	MEZZO, ALEXANDER & MARY	407 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	
1.02	30	REAVES, ALISHIA D.	413 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
1.02	31	PENNYCOOKE, ALFANSO & EUNICE	419-23 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	House
4.02	32	CESPEDES, LUIS & ANDRES	425 RICHARD WAY	NORTH PLAINFIELD, NJ 07060	
5.00	4	ACEVEDO, BENJAMIN & MARITZA	278-80 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
5.00	5	DILONE, NIWTON & MELISSA M	272-6 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
5.00	15	BRANCH, PETER J & CATHERINE	232 BELMONT AVE	NORTH PLAINFIELD, NJ 07060	
5.00	16	LEFANTO, CARMINE & JANE	236 BELMONT AVE	NORTH PLAINFIELD, NJ 07060	House
5.04	2.01, 2.02	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
5.04	2.01, 2.02	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
5.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
3.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
5.04	2.03	HOME PROPERTIES NORTH PLAINFIELD	347-75 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	Apartment Bldg
6.04	5	BRISTOL MOTORS, INC.	545-55 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	
3.04	11	NORTH DRIVE ARMS, L.L.C.	341-345 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	
3.00	1	SYLVESTER, PAUL & GLADYS	289 JEFFERIES PLACE	NORTH PLAINFIELD, NJ 07060	
8.00	15	STOKES, WILLIAM & ESTHER	290-294 LEWIS ST	NORTH PLAINFIELD, NJ 07060	
10.00	13	PIZARRO, JOEL & SHIRLEY A.	292 ONEIDA AVE	NORTH PLAINFIELD, NJ 07060	

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## Table I List of Property Owners and Tenants Within a 100- and 200- Feet Radius of the Shallow Ground Water Plume Former Lockheed Electronics Corp.

Property Owners/Tenants Betweeen 100 Feet Radius and 200 Feet Radius of Shallow Ground Water Plume Area					
Block	Lot	Owner/Tenant Name/Bldg Identifier	Property Address	Town, State, Zip	Structure(s)
26.00	1	DE ROSE, ANTHONY JR. & PATRICIA	289 WILLARD PL	NORTH PLAINFIELD, NJ 07060	House
26.00	14	MC CARTHY, CLYDE J. & MARY ANN	290 LEONARD PL	NORTH PLAINFIELD, NJ 07060	House
27.00	1	BEY, PAUL H & MAUREEN Y	329 BELMONT AVE	NORTH PLAINFIELD, NJ 07060	House
27.00	11	MOORE, LA DEBRA L & FLETCHER, ALVIN	215 BELMONT AVE	NORTH PLAINFIELD, NJ 07060	House
27.00	12	HICKS, JOHN R. & DOLORES A.	325 BELMONT AVE	NORTH PLAINFIELD, NJ 07060	House
28.01	6	VOLCY, JUDE	250 SANDFORD AVE	NORTH PLAINFIELD, NJ 07060	House
28.01	7	BROUSE,RUSSELL L.& CISNEROS,MICHAEL	258 SANDFORD AVE	NORTH PLAINFIELD, NJ 07060	House
28.01	11	GACZYNSKI, RICHARD & ANNE	273-275 NORTH DRIVE	NORTH PLAINFIELD, NJ 07060	House
28.02	7.01	WINGATE, BONNIE	210 DE LACY DR	NORTH PLAINFIELD, NJ 07060	House
28.02	7.02	ROXAS, EDGAR & MARIA S	214 DE LACY DR	NORTH PLAINFIELD, NJ 07060	House
28.02	11	SIROKI, JANET I.	263 SANDFORD AVENUE	NORTH PLAINFIELD, NJ 07060	House
28.02	12	TRUPPI, MARIAN	257-59 SANDFORD AVE	NORTH PLAINFIELD, NJ 07060	House
28.03	11	MAGGIO, FRANCIS A. & MELISSA	215 DELACY DR	NORTH PLAINFIELD, NJ 07060	House
28.03	12	BETHEA, CLARA B.	211 DELACY DRIVE	NORTH PLAINFIELD, NJ 07060	House
28.03	29	FERRARA, CORINTO & ANNA	218-222 WESTERVELT AVE.	NORTH PLAINFIELD, NJ 07060	House
28.03	30	ABRAHAM, HANY	224-28 WESTERVELT AVENUE	NORTH PLAINFIELD, NJ 07060	House
28.03	31	JOHNSON, CAROLINE GARRY	230-32 WESTERVELT AVE	NORTH PLAINFIELD, NJ 07060	House
28.04	2.02	HARVAN, INC.	548-556 HIGHWAY 22	NORTH PLAINFIELD, NJ 07060	Commercial (Avis)

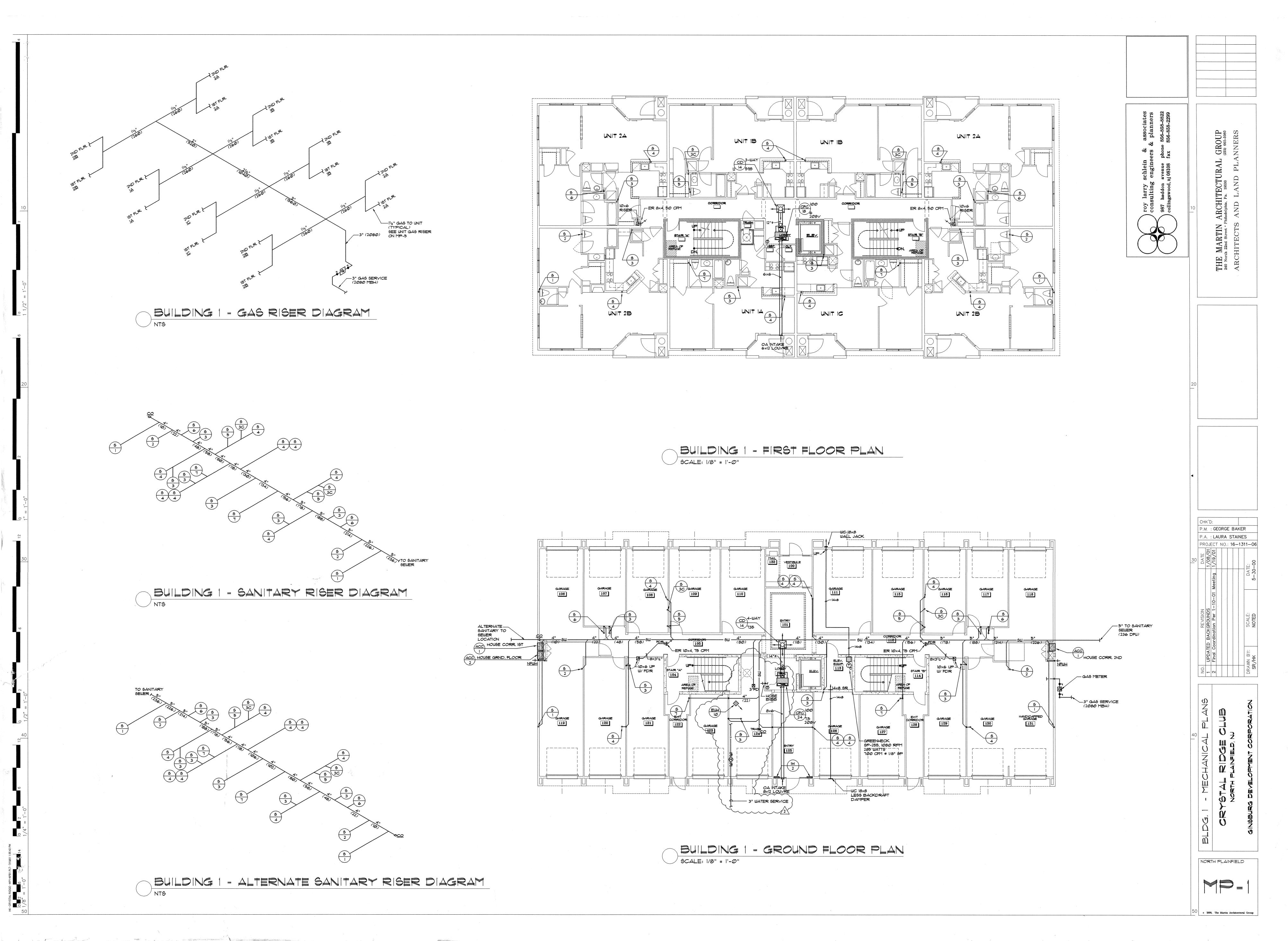
#### **APPENDIX A**

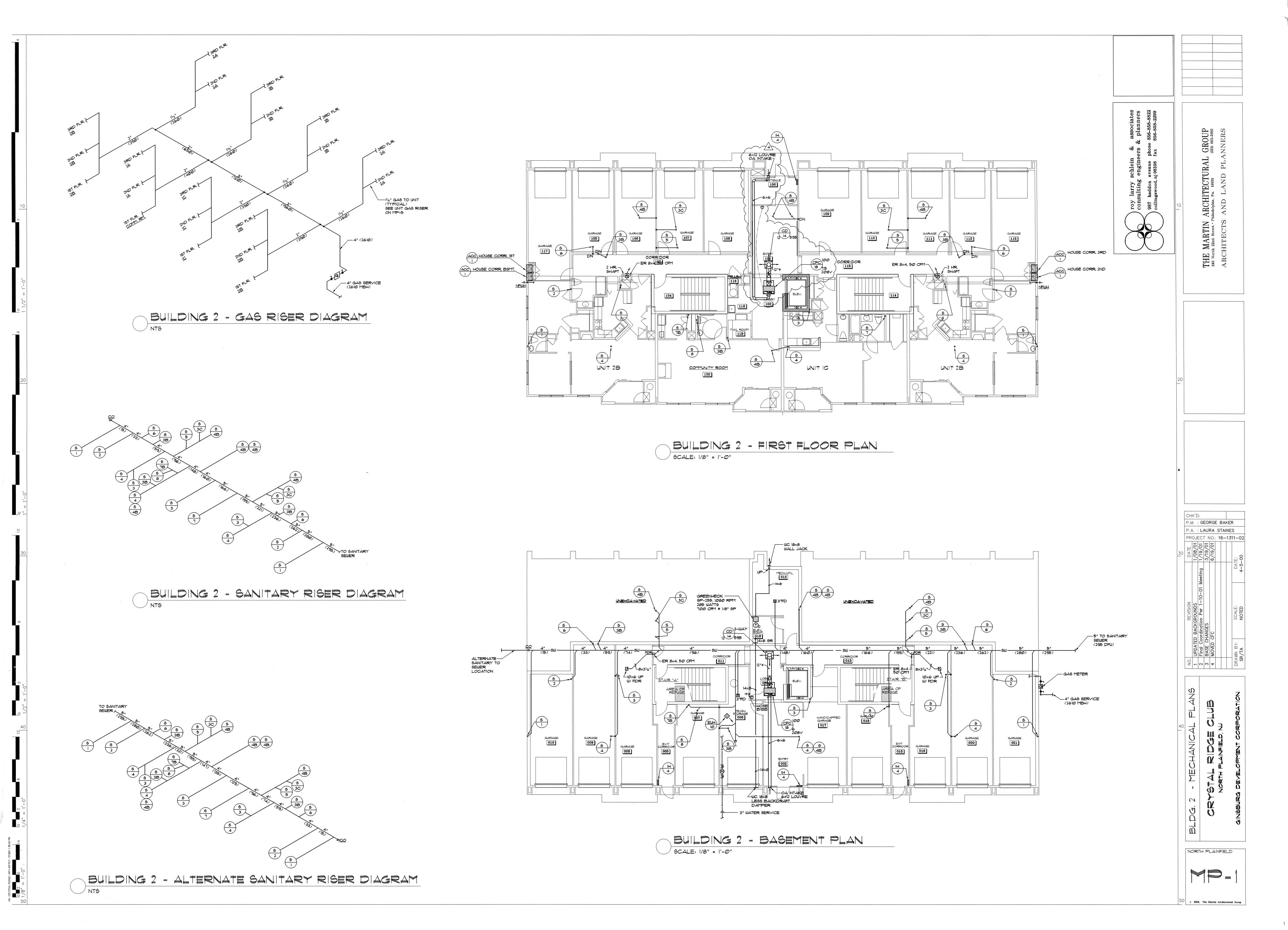
Floor Plans for Building Types C, D and D with Option E

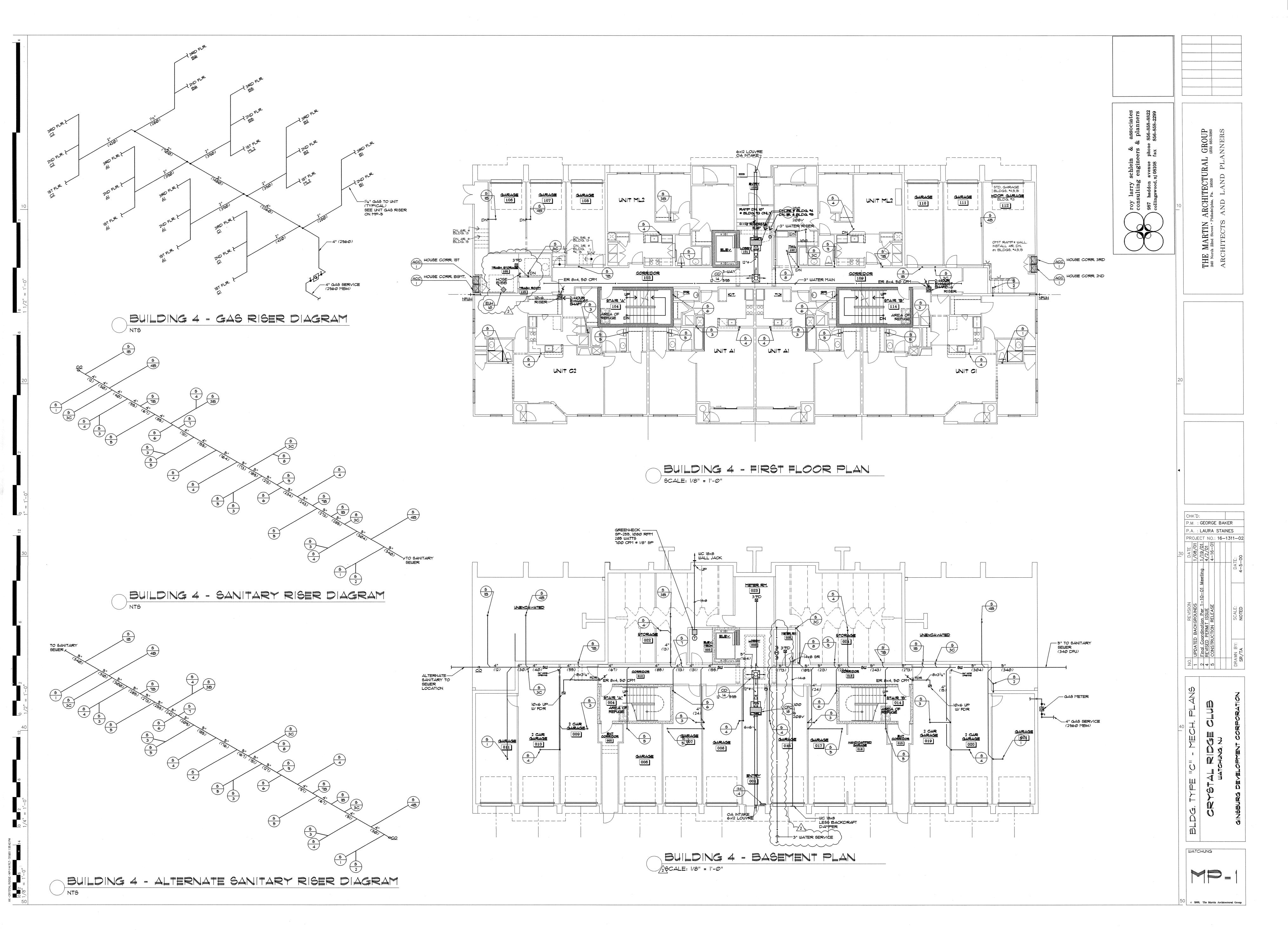
(NOTE: CDM ADDED MISSING FLOOR PLANS FOR BUILDINGS A AND B AND RADON MITIGATION SYSTEM NOTES TO THIS APPENDIX)

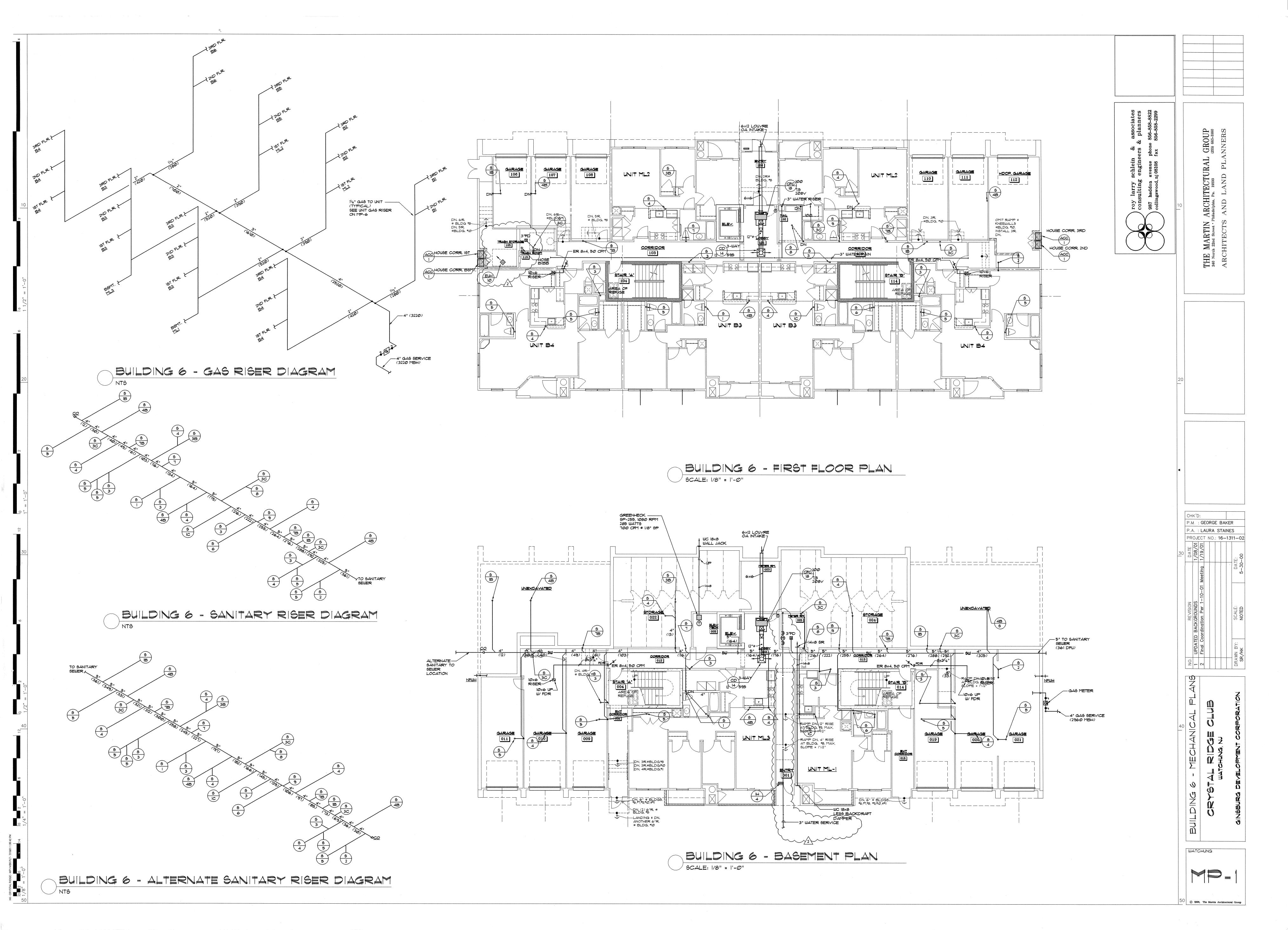
Site Plan

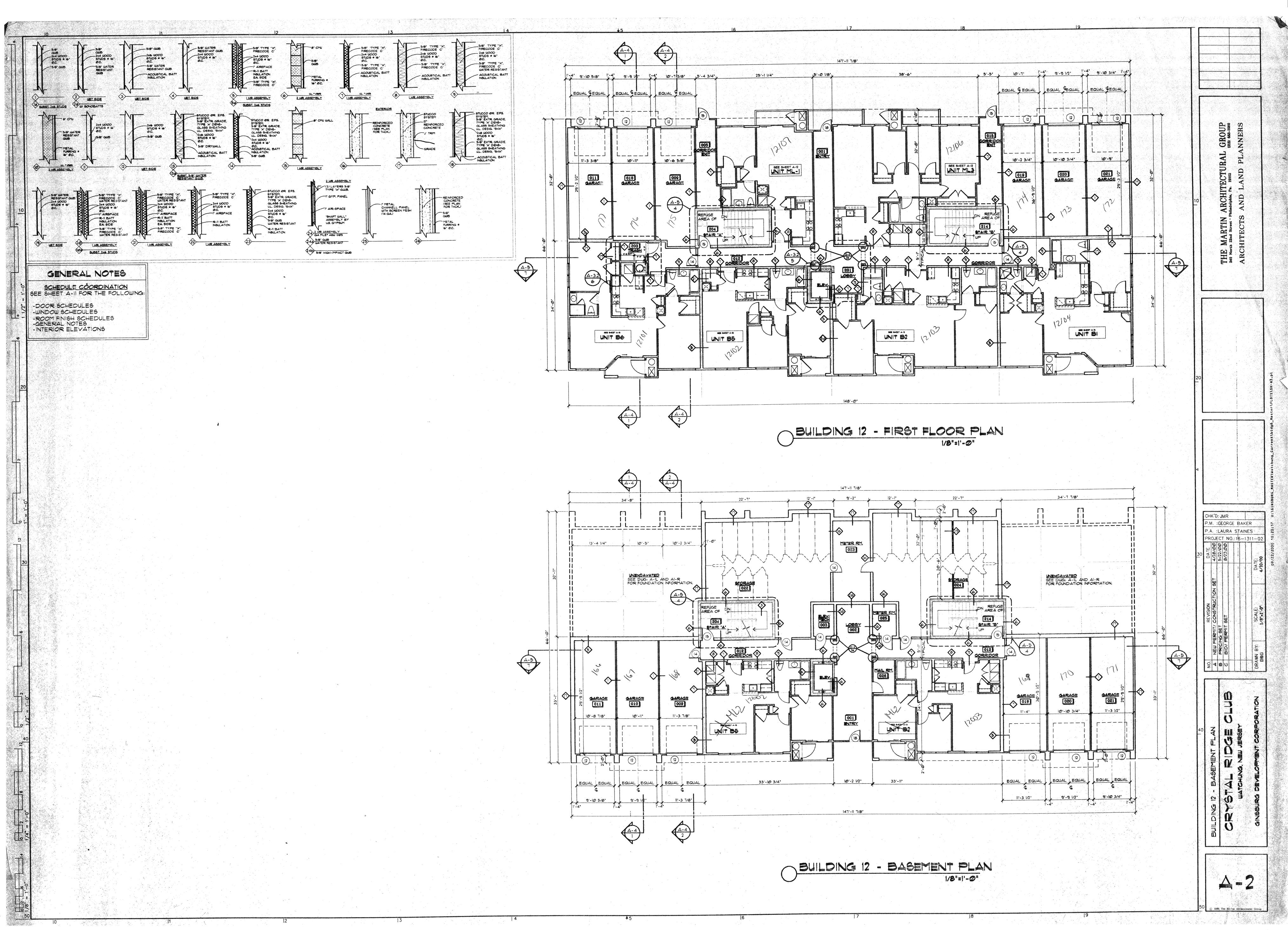


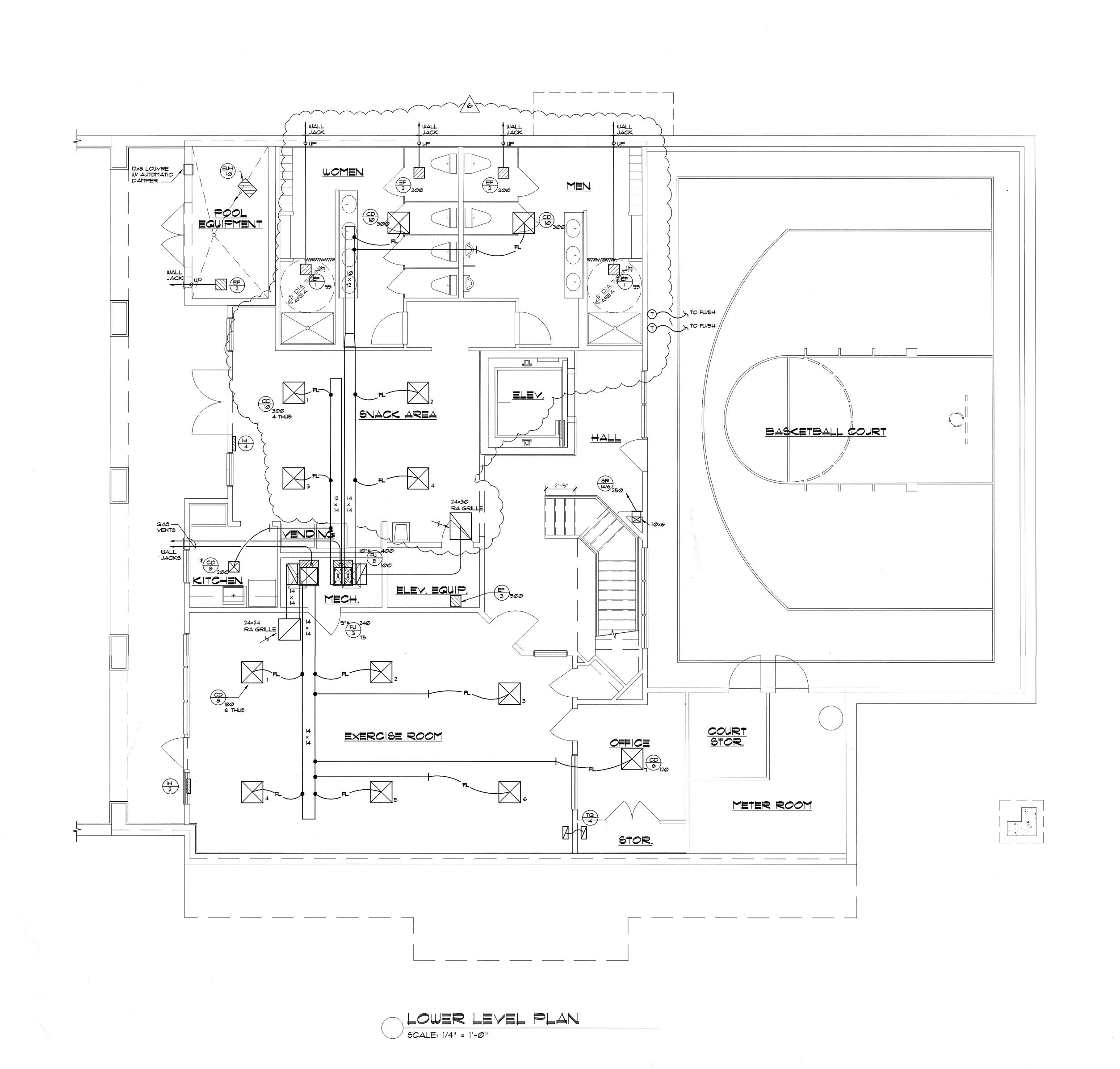












THE MARTIN ARCHITECTURAL GROUP 240 North 22nd Street · Philadelphia, Pa. 19103 (215) 665-1080 ARCHITECTS AND LAND PLANNERS

P.M. : GEORGE BAKER P.A. : LAURA C. STAINES PROJECT NO.: 16-1311-03

c 1998, The Martin Architectural Group



# RADON MITIGATION REQUIREMENTS

- A CONTINUOUS VAPOR BARRIER NOT LESS THAN SIX-MIL. (1,006 INCH, 1152 MM) POLYVINYL CHLORIDE OR POLYTHYLENE WITH ANY SEAMS OVERLAPPED NOT LESS THAN 12 INCHES (13,05 MM), OR OTHER APPROVED MATERIALS, SHALL BE INSTALLED UNDER THE SLAB IN BASEMENT AND SLAB-ON-GRADE CONSTRUCTION AND ON THE SOIL IN CRAWL SPACE CONSTRUCTION.
- FLOORS OF BASEMENTS AND SLAB-ON-GRADE CONSTRUCTION SHALL BE PLACED OVER A BASE COURSE, NOT LESS THAN FOUR INCHES (102 MM) IN THICKNESS, CONSISTING OF GRAVEL OR CHRUSHED STONE CONTAINING NOT MORE THAN 10 PERCENT OF MATERIAL THAT PASS THROUGH A NO. 4 SIEVE.
- BASEMENT SLABS WITH INTERIOR FOUNDATION PIPE DRAINS INSTALLED SHALL HAVE A SOLID THREE-INCH MINIMUM DIAMETER VENT PIPE SECTION INSTALLED IN CONJUNCTION WITH THIS DRAINAGE SYSTEM WITH TERMINATION BETWEEN SIX AND 12 INCHES ABOVE THE SLAB AND APPROPIATELY CAPPED OR CONNECTED TO AN INDEPENDENT VENT STACK PIPE TERMINATING AT AN APPROVED LOCATION ON THE EXTERIOR OF THE BUILDING m
- MINIMUM SOLID VENT PIPE SECTION WITH A "T" PIPE FITTING FOR EVERY 1500 SQUARE FEET, OR PORTION THEREOF, OF SLAB AREA, THIS VENT PIPE SECTION TO BE INSTALLED INTO THE SUB-SLAB AGGREGATE. THE VERTICAL PORTION OF THE "T" PIPE FITTING SHALL TERMINATE BETWEEN SIX AND 12 INCHES ABOVE THE SLAB. THESE FITTINGS SHALL BE CLEARLY LABELED AND APPROPRIATELY CAPPED AND CONNECTED TO AN INDEPENDENT VENT STACK PIPE TERMINATING TO AN APPROVED LOCATION BASMENT SLABS WHICH DO NOT HAVE AN INTERIOR FOUNDATION PIPE DRAIN SHALL BE PROVIDED WITH ONE THREE-INCH ON THE EXTERIOR OF THE BUILDING. 4,
- BASEMENT SLABS WITH FRENCH DRAINS OR CHANNEL DRAINS SHALL NOT BE ALLOWED UNLESS INTERIOR FOUNDATION PIPE DRAINS AS DESRIBED IN THIS SECTION ARE INSTALLED 'n,
- JOINTS IN FOUNDATION WALLS AND FLOORS, INCLUDING, WITHOUT LIMITATION, CONTROL JOINTS BETWEEN SLAB SECTIONS POURED SEPERATELY, AND BETWEEN FOUNDATION WALL. AND FLOOR (EXCEPT FOR FRENCH DRAINS OR CHANNEL DRAINS), AS WELL AS PENETRATIONS OF THE FOUNDATION WALLS AND FLOOR INCLUDING, BUT NOT LIMITED TO, UTILITY PENETRATIONS, SHALL BE SUBSTANTIALLY SEALED BY UTILIZING A NON-CRACKING POLYURETHANE OR SIMILIAR CAULK, OR EQUIVALENT, IN ORDER TO CLOSE OFF THE SOIL GAS ENTRY ROUTES. ANY OPENINGS OR PENETRATIONS OF THE FLOOR OVER THE CRAWL SPACE SHALL BE SUBSTANTIALLY SEALED IN ORDER TO CLOSE OFF THE SOIL GAS ENTRY ROUTES. ٥
- UNTRAPPED FLOOR DRAINS SHALL BE PROVIDED WITH REMOVABLE STOPPERS WHICH SUBSTANTIALLY CLOSE OFF THE SOIL GAS ENTRY ROUTES L,
- A SUMP COVER WHICH SUBSTANTIALLY CLOSES OFF THE SOIL GAS ENTRY ROUTES SHALL BE PROVIDED FOR ALL SUMP INSTALLATIONS. IF FOUNDATION PIPE DRAINS TERMINATE AT A SUMP INSTALLATION AND PROVISIONS ARE MADE FOR VENTING FROM THE SUMP INSTALLATION, THE THREE-INCH DIAMETER SOLID VENT PIPE SECTION REQUIREMENT OF \*3 ABOVE NEED NOT BE PROVIDED. ø,
- ANY DUCTWORK THAT IS ROUTED THROUGH A CRAWL SPACE OR BENEATH A SLAB SHALL BE PROPERLY TAPED OR SEALED. σ'n
- SEALANT MATERIALS THAT SUBSTANTIALLY CLOSE OFF THE SOIL GAS ENTRY ROUTES SHALL BE INSTALLED ON ANY DOORS OR OTHER OPENINGS BETWEEN BASEMENTS AND AJOINING CRAWL SPACES THAT ARE VENTED TO THE EXTERIOR <u>ø</u>
- THE TOPS OF FOUNDATION WALLS, INCLUDING, WITHOUT LIMITATION, INTERIOR LEDGES THAT ARE COSTRUCTED OF HOLLOW MASONRY UNITS SHALL BE CAPPED OR THE VOIDS SHALL BE COMPLETELY FILLED. =
- WHEN CAPPED INTERIOR VENT FIPE SECTIONS ARE PROVIDED, OR VENTING FROM THE SUMP INSTALLATION IS PROVIDED, IN ACCORDENCE WITH 93, 44, OR 86 ABOVE, AN ADEQUATELY SUPPORTED THREE-INCH MINIMUM DIAMETER SOLID VENT PIPE SHALL BE INSTALLED FROM A POINT THAT IS WITHIN IS FEET OF THE CAPPED INTERIOR VENT PIPE SECTION OF SUMP INSTALLATION, THROUGH ANY ENCLOSED PORTIONS OF THE BUILDING, TERMINATING AT AN APPROVED LOCATION ON THE EXTERIOR OF THE BUILDING, THIS VENT PIPE SHALL BE CLEARLY LABELED AND SHALL MEET YHE TERMINATION REQUIREMENTS OF SECTION 124 OF THE PLUMBING SUBCODE. JOINTS AND CONNECTIONS IN THE VENT PIPE SHALL BE GAS TIGHT. UNUSED OPENINGS SHALL BE CLOSED OR CAPPED. 더

11/2" = 1'-0"

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#### APPENDIX B

TRC Sub-Slab Sampling Field Notes



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3/17/11 (2) 2540	1300 Cetting up in alle clevator chart & Rede S. Frank asserted MM 12 Dack art lag on t	1218 Dalling 12" diameter 1682. 1823 Begen purging to delermine. Se aleino. Obdetice ante.	1326 Filling up the Alolo county 2-28th FC403 (Sample SV-5)	Patelled the KN 1 to be with a cervice to with the cervice

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## APPENDIX C

TRC Indoor Air Building Survey and Sampling Forms





# New Jersey Department of Environmental Protection

# INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date: 7/18/2	2011		
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564	-6006		
Site Name:	Former LEC Facility	Case #:90	0038		
Part I - Occupants					
Building Address:	Ground Floor Storage Unit, 3 Crystal Ridge T	errace, North Plainfield, N	J		
Property Contact:	Maintenance Supervisor	Owner Renter / other:			
Contact's Phone:	home work		cell		
# of Building occupants:	Children under age 13 N/A	Children age 13-18	N/A	Adults	N/A
Part II – Building Chara	cteristics				
Building type: residential	/ multi-family residential office / strip mall	/ commercial / industrial			
Describe building:		Year constructed:	2002-2003		
Sensitive population:	day care / nursing home / hospital / school / or	ther (specify):			
Number of floors below gr	ade:0 (full basement / crawl space /ab	on grade)			
Number of floors at or abo	ve grade:3				
Depth of basement below g	grade surface: N/Aft.	Basement size: N/A	_ft <sup>2</sup>		
Basement floor construction	on: oncrete / dirt / floating / stone / other (s	specify):			
Foundation walls:	poured concrete / cinder blocks / stone / of	ther (specify)			
Basement sump present?	Y Sump pump? $(Yes)$ No (In Elevator Shaft)	Water in sump? Yes /	No		
Type of heating system (ci hot air circulation heat pump other (specify):Space is	hot air radiation wood hot water radiation kerosene	steam ra heater electric l	diation baseboard		
Type of ventilation system central air conditioning Individual conditioning un	mechanical fans	bathroom ventilation far outside air intake tilated	ns		
Type of fuel utilized (circle	e all that apply):  Natural gas / electric / fuel oil / wood / co	oal / solar / kerosene			
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epoxy coat?	tings?	Yes No	) )	
Septic system?			Yes / Yes (but no	ot used) No	

Irrigation/private well?				Yes / Yes (but not used) / No
Type of ground cover outside of building:	grass/ oncrete	asphalt other	(specify)	
Existing subsurface depressurization (radon) system	in place?	Yes No		active passive
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)	
Part III - Outside Contaminant Sources				
NJDEP contaminated site (1000-ft. radius):	Former LEC Fac	cility		
Other stationary sources nearby (gas stations, emissi	on stacks, etc.):		N/A	
Heavy vehicular traffic nearby (or other mobile sour	ces):	US Route	e 22	

#### <u>Part IV – Indoor Contaminant Sources</u>

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

Potential Sources	Location(s)	Removed (Yes / No /
		NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	-	-
Cleaning solvents	-	-
Oven cleaners	-	-
Carpet / upholstery cleaners	-	-
Other house cleaning products	-	-
Moth balls	-	-
Polishes / waxes	-	-
Insecticides	-	-
Furniture / floor polish	-	-
Nail polish / polish remover	-	-
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	-	-
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building** Has Garages If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? If yes, whe and where? Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas Tedlar bag / Sorbent / Stainless Steel Canister / Oher (specify): Sampler Type:

Analytical Method: O-15 TO-17 / other: Cert. Laboratory: Accutest Labs (Dayton, NJ)

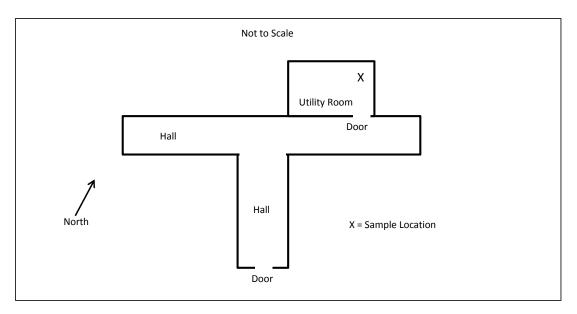
Sample locations (floor, room):

Field ID #: Field ID #:

Field ID #: Field ID #:

Were "Instructions for Occupants" followed? Yes No (Assumed)

If not, describe modifications:



#### Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes / No

Describe the general weather conditions: Sunny, temperatures ranging from 70 to 90 degrees Fahrenheit.

#### Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Sample location biased to unsealed water pipe penetration through poured concrete wall (soil present on opposite side of wall)

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



# New Jersey Department of Environmental Protection

## INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date:7/18/2011
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564-6006
Site Name:	Former LEC Facility	Case #:90038
Part I - Occupants		
Building Address:	6 Crystal Ridge Drive, Apartment 6006, V	Vatchung, NJ
Property Contact:	Maintenance Supervisor	Owner Renter / other:
Contact's Phone:	home work	cell
# of Building occupants:	Children under age 13 N/A	Children age 13-18 N/A Adults N/A
Part II – Building Chara	cteristics	
Building type: residential	/ multi-family residential office / strip n	nall / commercial / industrial
Describe building:		Year constructed: <u>2002-2003</u>
Sensitive population:	day care / nursing home / hospital / school	/ other (specify):
Number of floors below gr	rade:0 (full basement / crawl space /	slab on grade)
Number of floors at or abo	ve grade:3	
Depth of basement below	grade surface: N/Aft.	Basement size: N/A ft <sup>2</sup>
Basement floor construction	on: (oncrete / dirt / floating / stone / oth	er (specify):
Foundation walls:	poured concrete / cinder blocks / stone	/ other (specify)
Basement sump present?	Y. Sump pump? Yes No (In Elevator Sha	ft) Water in sump? Yes / No
Type of heating system (ci not air circulation heat pump other (specify):	hot air radiation wood	steam radiation ene heater electric baseboard
Type of ventilation system central air conditioning individual conditioning un	mechanical fans	bathroom ventilation fans outside air intake
Type of fuel utilized (circle	e all that apply): Natural gas electric / fuel oil / wood	/ coal / solar / kerosene
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epoxy?	coatings? Yes No
Septic system?		Yes / Yes (but not used) / No

Irrigation/private well?				Yes / Yes (but not used)	/ <b>(</b> 0)
Type of ground cover outside of building:	grass/ oncrete	asphalt other	(specify)		
Existing subsurface depressurization (radon) system	in place?	Yes No		active (passive	
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)		
Part III - Outside Contaminant Sources					
NJDEP contaminated site (1000-ft. radius):	Former LEC Faci	lity			
Other stationary sources nearby (gas stations, emiss	ion stacks, etc.):		N/A		
Heavy vehicular traffic nearby (or other mobile sou	rces):	US Route	22		

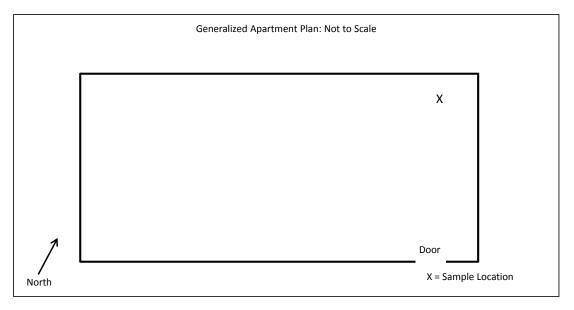
#### <u>Part IV – Indoor Contaminant Sources</u>

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	Kitchen	No
Cleaning solvents	Kitchen	No
Oven cleaners	-	-
Carpet / upholstery cleaners	Kitchen	No
Other house cleaning products	Kitchen, Bathroom	No
Moth balls	-	-
Polishes / waxes	-	-
Insecticides	Kitchen	No
Furniture / floor polish	-	-
Nail polish / polish remover	Bathroom	No
Hairspray	Bathroom	No
Cologne / perfume	Bathroom	No
Air fresheners	Kitchen	No
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

#### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? and where? \_\_ If yes, when \_\_\_\_ Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas

# Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): Sampler Type: Analytical Method: (TO-15 /)TO-17 / other: Cert. Laboratory: Accutest Labs (Dayton, NJ) Sample locations (floor, room): Field ID#: Field ID #: Field ID#: Field ID #: Yes No Were "Instructions for Occupants" followed? (Assumed) If not, describe modifications:



#### Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes / No.

Describe the general weather conditions: Sunny, temperatures ranging from 70 to 90 degrees Fahrenheit.

#### Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Other products in apartment included shoe water repellant, sneaker cleaner, shoe cleaner, Glade plug-ins, scented candles, and carpet spot treater.

Tenant upstairs smokes, and smoke sometimes enters apartment from upstairs tenant space.

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



# New Jersey Department of Environmental Protection

## INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date: 7/18/2	011	
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564-	-6006	
Site Name:	Former LEC Facility	Case #:90	038	
Part I - Occupants				
Building Address:	6 Crystal Ridge Drive, Apartment 60	07, Watchung, NJ		
Property Contact:	Maintenance Supervisor	Owner Renter / other:		
Contact's Phone:	home	work	cell	
# of Building occupants:	Children under age 13 N/A	Children age 13-18	N/A	Adults N/A
Part II – Building Chara	cteristics			
Building type: residential	/ multi-family residential office / st	rip mall / commercial / industrial		
Describe building:		Year constructed:	2002-2003	
Sensitive population:	day care / nursing home / hospital / so	chool / other (specify):		
Number of floors below gr	rade:0 (full basement / crawl space	e / slab on grade)		
Number of floors at or abo	ve grade:3			
Depth of basement below	grade surface: N/Aft.	Basement size: N/A	$_{\cdot}$ ft <sup>2</sup>	
Basement floor construction	on: (oncrete / ) irt / floating / stone	/ other (specify):		
Foundation walls:	poured concrete / cinder blocks / se	one / other (specify)		
Basement sump present?	Y Sump pump? $(Yes)$ No (In Elevato	r Shaft) Water in sump? Yes /	Vo	
Type of heating system (cintot air circulation) heat pump other (specify):	hot air radiation	wood steam rac kerosene heater electric b	diation paseboard	
Type of ventilation system central air conditioning Individual conditioning un	mechanical fans	bathroom ventilation far outside air intake	ıs	
Type of fuel utilized (circle		ood / coal / solar / kerosene		
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or ep?	oxy coatings?	Yes No Yes No	
Septic system?			Yes / Yes (but i	not used) / <b>V</b> o

Irrigation/private well?				Yes / Yes (but not used)	/ <b>(</b> 0)
Type of ground cover outside of building:	grass/ oncrete	asphalt other	(specify)		
Existing subsurface depressurization (radon) system	in place?	Yes No		active (passive	
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)		
Part III - Outside Contaminant Sources					
NJDEP contaminated site (1000-ft. radius):	Former LEC Faci	lity			
Other stationary sources nearby (gas stations, emiss	ion stacks, etc.):		N/A		
Heavy vehicular traffic nearby (or other mobile sou	rces):	US Route	22		

#### <u>Part IV – Indoor Contaminant Sources</u>

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

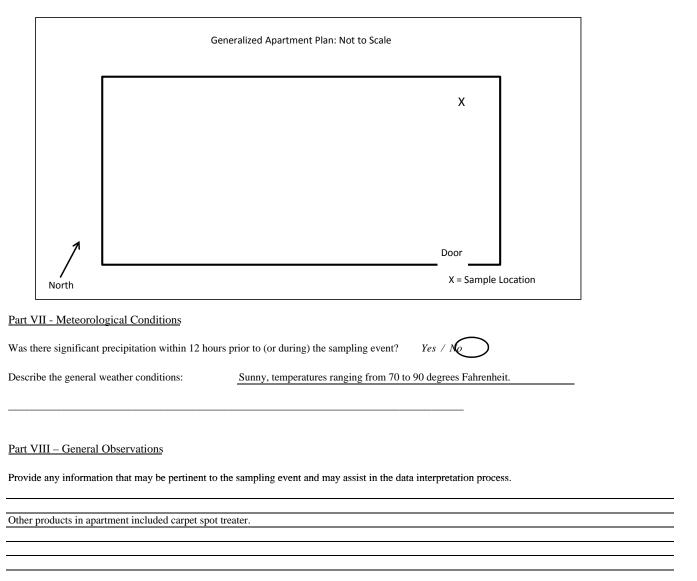
Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	<u>-</u>	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	-	-
Cleaning solvents	-	-
Oven cleaners	-	-
Carpet / upholstery cleaners	-	-
Other house cleaning products	-	-
Moth balls	-	-
Polishes / waxes	-	-
Insecticides	Kitchen	No
Furniture / floor polish	-	-
Nail polish / polish remover	-	-
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	Kitchen	No
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

#### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? and where? If yes, when \_\_\_\_ Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): Sampler Type:

Cert. Laboratory:

Accutest Labs (Dayton, NJ)

Analytical Method: (TO-15 /)TO-17 / other:



(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



# New Jersey Department of Environmental Protection

# INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date: 7/18/201	11		
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564-60	006		
Site Name:	Former LEC Facility	Case #:9003	38		
Part I - Occupants					
Building Address:	7 Summit Way, Apartment 7006, Watchur	ng, NJ			
Property Contact:	Maintenance Supervisor	Owner Renter / other:			
Contact's Phone:	home work		cell		
# of Building occupants:	Children under age 13 N/A	Children age 13-18	N/A	Adults	N/A
Part II – Building Chara	cteristics				
Building type: residential	/ multi-family residential office / strip n	nall / commercial / industrial			
Describe building:		Year constructed:	2002-2003		
Sensitive population:	day care / nursing home / hospital / school	/ other (specify):			
Number of floors below gr	rade:0 (full basement / crawl space /	slab on grade)			
Number of floors at or abo	ove grade:3				
Depth of basement below	grade surface: N/Aft.	Basement size: N/A ft	2		
Basement floor construction	on: (oncrete / dirt / floating / stone / other	er (specify):			
Foundation walls:	poured concrete / cinder blocks / stone	/ other (specify)			
Basement sump present?	Y.Sump pump? Yes No (In Elevator Sha	nft) Water in sump? Yes / No	$\odot$		
Type of heating system (ci not air circulation heat pump other (specify):	hot air radiation wood	steam radia ene heater electric bas			
Type of ventilation system central air conditioning undividual conditioning un	mechanical fans	bathroom ventilation fans outside air intake			
Type of fuel utilized (circle	e all that apply): Natural gas (electric / fuel oil / wood	/ coal / solar / kerosene			
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epoxy?	coatings?	Yes No		
Septic system?			Yes / Yes (but i	not used) / 😡	

Irrigation/private well?				Yes / Yes (but not used)	/ <b>No</b>
Type of ground cover outside of building:	grass/ oncrete /	asphalt other	(specify)		
Existing subsurface depressurization (radon) system	in place?	Yes No		active passive	
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)		
Part III - Outside Contaminant Sources					
NJDEP contaminated site (1000-ft. radius):	Former LEC Facilit	у			
Other stationary sources nearby (gas stations, emiss	ion stacks, etc.):		N/A		
Heavy vehicular traffic nearby (or other mobile sou	rces):	US Route	22		

#### <u>Part IV – Indoor Contaminant Sources</u>

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

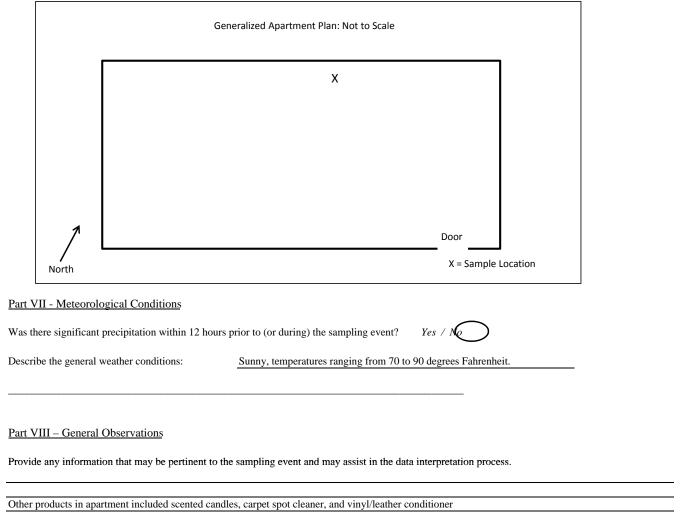
Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	-	-
Cleaning solvents	-	-
Oven cleaners	-	-
Carpet / upholstery cleaners	Kitchen	No
Other house cleaning products	Kitchen	No
Moth balls	-	-
Polishes / waxes	-	-
Insecticides	-	-
Furniture / floor polish	Kitchen	No
Nail polish / polish remover	Bathroom	No
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	-	-
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days ago Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Unknown Yes / No Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? Yes /No If yes, when \_\_\_\_\_ and where? \_\_\_\_ Part VI - Sampling Information Sample Technician: Phone number: Scott McCray 973-564-6006

Sample Source: Indoor A	ir Sub-Slab / Near Slab Soil Gas / Exterior Soil	Gas	
Sampler Type:			
Analytical Method: (O-15	/TO-17 / other:	Cert. Laboratory:	Accutest Labs (Dayton, NJ)
Sample locations (floor	r, room):		
Field ID #:	7006 CR	Field ID #:	
Field ID #:		Field ID #:	
Were "Instructions for Occi	upants" followed? Yes No	(Assumed)	

If not, describe modifications:

(Assumed)



(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



# New Jersey Department of Environmental Protection

## INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date: 7/18/2	011	
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564-	-6006	
Site Name:	Former LEC Facility	Case #:90	038	
Part I - Occupants				
Building Address:	7 Summit Way, Apartment 7007, Wat	chung, NJ		
Property Contact:	Maintenance Supervisor	Owner Renter / other:		
Contact's Phone:	home v	vork	cell	
# of Building occupants:	Children under age 13 N/A	Children age 13-18	N/A	Adults N/A
Part II – Building Chara	cteristics			
Building type: residential	/ multi-family residential office / str	ip mall / commercial / industrial		
Describe building:		Year constructed:	2002-2003	
Sensitive population:	day care / nursing home / hospital / scl	hool / other (specify):		
Number of floors below gr	rade:0 (full basement / crawl space	(slab on grade)		
Number of floors at or abo	ve grade: <b>3</b>			
Depth of basement below	grade surface: N/Aft.	Basement size:N/A_	$ft^2$	
Basement floor construction	on: concrete / dirt / floating / stone /	other (specify):		
Foundation walls:	poured concrete / cinder blocks / sto	one / other (specify)		
Basement sump present?	Y Sump pump? $(Yes)$ No (In Elevator	Shaft) Water in sump? Yes /	Vo	
Type of heating system (ci hot air circulation heat pump other (specify):	hot air radiation w	ood steam rac erosene heater electric b	diation paseboard	
Type of ventilation system central air conditioning Individual conditioning un	mechanical fans	bathroom ventilation fan outside air intake	is	
Type of fuel utilized (circle		ood / coal / solar / kerosene		
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epo?	oxy coatings?	Yes No Yes No	
Septic system?			Yes / Yes (but r	not used) / <b>V</b> o

Irrigation/private well?				Yes / Yes (but not used)	/ <b>No</b>
Type of ground cover outside of building:	grass/ oncrete	asphalt other	(specify)		
Existing subsurface depressurization (radon) system	in place?	Yes No		active passive	
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)		
Part III - Outside Contaminant Sources					
NJDEP contaminated site (1000-ft. radius):	Former LEC Facilit	у			
Other stationary sources nearby (gas stations, emiss	ion stacks, etc.):		N/A		
Heavy vehicular traffic nearby (or other mobile sou	rces):	US Route	22		

#### <u>Part IV – Indoor Contaminant Sources</u>

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	-	-
Cleaning solvents	-	-
Oven cleaners	Closet	No
Carpet / upholstery cleaners	Closet	No
Other house cleaning products	Closet/Bathroom	No
Moth balls	-	-
Polishes / waxes	Closet	No
Insecticides	-	-
Furniture / floor polish	Closet	No
Nail polish / polish remover	Closet/Bathroom	No
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	Closet/Bathroom	No
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	- -	-
New carpeting / flooring	- -	-
Hobbies - glues, paints, etc.	-	-

#### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? and where? If yes, when \_\_\_\_ Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): Sampler Type:

Analytical Method: TO-15 / TO-17 / other:

Sample locations (floor, room):

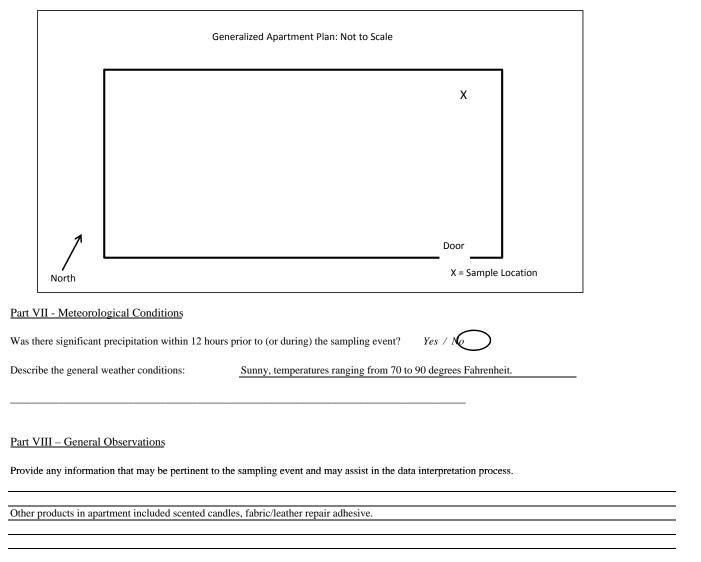
Field ID #:

Field ID #:

Field ID #:

Were "Instructions for Occupants" followed?

If not, describe modifications:



(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



# New Jersey Department of Environmental Protection

# INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date: 7/18/2011
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564-6006
Site Name:	Former LEC Facility	Case #: 90038
Part I - Occupants		
Building Address:	12 Crystal Ridge Drive, Apartment 12002	, Watchung, NJ
Property Contact:	Maintenance Supervisor	Owner Renter / other:
Contact's Phone:	home work	cell
# of Building occupants:	Children under age 13 N/A	Children age 13-18 N/A Adults N/A
Part II – Building Chara	cteristics	
Building type: residential	/ multi-family residential office / strip n	nall / commercial / industrial
Describe building:		Year constructed: 2002-2003
Sensitive population:	day care / nursing home / hospital / school	1 / other (specify):
Number of floors below gr	rade:0 (full basement / crawl space /	slab on grade)
Number of floors at or abo	eve grade:3	
Depth of basement below	grade surface: N/Aft.	Basement size:N/A_ ft <sup>2</sup>
Basement floor construction	on: (oncrete / )tirt / floating / stone / other	er (specify):
Foundation walls:	poured concrete / cinder blocks / stone	/ other (specify)
Basement sump present?	Y Sump pump? Yes No (In Elevator Sha	oft) Water in sump? Yes / No
Type of heating system (ci not air circulation heat pump other (specify):	hot air radiation wood	steam radiation ene heater electric baseboard
Type of ventilation system central air conditioning undividual conditioning un	mechanical fans	bathroom ventilation fans outside air intake
Type of fuel utilized (circle	e all that apply): Natural gas electric / fuel oil / wood	/ coal / solar / kerosene
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epoxy?	coatings?  Yes No Yes No
Septic system?		Yes / Yes (but not used) / No

Irrigation/private well?				Yes / Yes (but not used)	/ <b>(!</b> 0)
Type of ground cover outside of building:	grass/ oncrete	asphalt other	(specify)		
Existing subsurface depressurization (radon) system	n in place?	Yes No		active passive	
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)		
Part III - Outside Contaminant Sources					
NJDEP contaminated site (1000-ft. radius):	Former LEC Fac	ility			
Other stationary sources nearby (gas stations, emiss	sion stacks, etc.):		N/A		
Heavy vehicular traffic nearby (or other mobile so	irces).	LIC Pouto	. 22		

#### Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	-	-
Cleaning solvents	-	-
Oven cleaners	-	-
Carpet / upholstery cleaners	-	-
Other house cleaning products	Kitchen	No
Moth balls	-	-
Polishes / waxes	Kitchen	No
Insecticides	-	-
Furniture / floor polish	-	-
Nail polish / polish remover	-	-
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	-	-
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

#### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? Yes No 3 weeks prior to sampling If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? and where? If yes, when Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): Sampler Type: Analytical Method: (TO-15 /)TO-17 / other: Cert. Laboratory: Accutest Labs (Dayton, NJ)

Field ID #:

Field ID #:

(Assumed)

Yes No

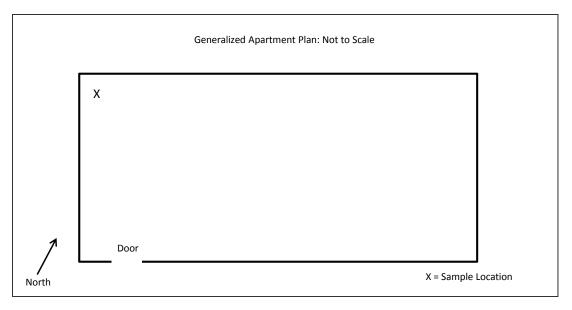
Sample locations (floor, room):

Were "Instructions for Occupants" followed?

If not, describe modifications:

Field ID#:

Field ID#:



#### Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes / No

Describe the general weather conditions: Sunny, temperatures ranging from 70 to 90 degrees Fahrenheit.

#### Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Other products in apartment included scented candles, carpet spot cleaner.

Building hallway painted recently. Building hallway has odor resembling solvent or cleaning product.

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



## New Jersey Department of Environmental Protection

## INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date: 7/18/2011
Preparer's affiliation:	TRC Environmental Corp.	Phone #: 973-564-6006
Site Name:	Former LEC Facility	Case #:90038
Part I - Occupants		
Building Address:	12 Crystal Ridge Drive, Apartment 120	03, Watchung, NJ
Property Contact:	Maintenance Supervisor	Owner Renter / other:
Contact's Phone:	home wo	rk cell
# of Building occupants:	Children under age 13 N/A	Children age 13-18 N/A Adults N/A
Part II – Building Chara	cteristics	
Building type: residential	/ multi-family residential office / strip	mall / commercial / industrial
Describe building:		Year constructed: 2002-2003
Sensitive population:	day care / nursing home / hospital / scho	ool / other (specify):
Number of floors below gr	rade:0 (full basement / crawl space	(lab on grade)
Number of floors at or abo	ve grade:3	
Depth of basement below	grade surface: N/Aft.	Basement size: N/A ft <sup>2</sup>
Basement floor construction	on: concrete / dirt / floating / stone / o	ther (specify):
Foundation walls:	poured concrete / cinder blocks / ston	e / other (specify)
Basement sump present?	Y. Sump pump? (Yes No (In Elevator S	haft) Water in sump? Yes / No
Type of heating system (cintot air circulation) heat pump other (specify):	hot air radiation wo	od steam radiation osene heater electric baseboard
Type of ventilation system central air conditioning Individual conditioning un	mechanical fans	bathroom ventilation fans outside air intake
Type of fuel utilized (circle		d / coal / solar / kerosene
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epox?	y coatings?  Yes No Yes No
Septic system?		Yes / Yes (but not used) / No

Irrigation/private well?				Yes / Yes (but not used)	/ <b>(</b> 0)
Type of ground cover outside of building:	grass/ oncrete	asphalt other	(specify)		
Existing subsurface depressurization (radon) system	in place?	Yes No		active (passive	
Sub-slab vapor/moisture barrier in place?  Type of barrier:	Unknown	Yes No	(assumed)		
Part III - Outside Contaminant Sources					
NJDEP contaminated site (1000-ft. radius):	Former LEC Faci	lity			
Other stationary sources nearby (gas stations, emiss	ion stacks, etc.):		N/A		
Heavy vehicular traffic nearby (or other mobile sou	rces):	US Route	22		

#### <u>Part IV – Indoor Contaminant Sources</u>

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	-	-
Cleaning solvents	-	-
Oven cleaners	-	-
Carpet / upholstery cleaners	Bathroom	No
Other house cleaning products	Bathroom	No
Moth balls	-	-
Polishes / waxes	-	-
Insecticides	-	-
Furniture / floor polish	-	-
Nail polish / polish remover	Bathroom	No
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	-	-
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

#### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? and where? If yes, when \_\_\_\_ Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): Sampler Type:

Analytical Method: TO-15 / TO-17 / other:

Sample locations (floor, room):

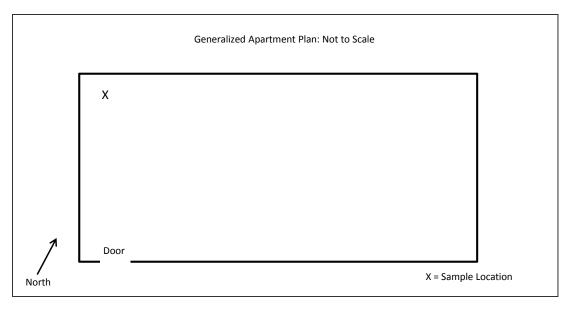
Field ID #:

Field ID #:

Field ID #:

Were "Instructions for Occupants" followed?

If not, describe modifications:



#### Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes / No

Describe the general weather conditions: Sunny, temperatures ranging from 70 to 90 degrees Fahrenheit.

#### Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Other products in apartment included scented candles, carpet spot cleaner.

Building hallway painted recently. Building hallway has odor resembling solvent or cleaning product.

(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)



## New Jersey Department of Environmental Protection

# INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name:	Scott McCray	Date:	7/18/2011			
Preparer's affiliation:	TRC Environmental Corp.	Phone #:	973-564-6006			
Site Name:	Former LEC Facility	Case #:	90038			
Part I - Occupants						
Building Address:	401 Route 22 West, Building 26, North Plainfi	eld, NJ				
Property Contact:	Maintenance Supervisor	Owner Rente	er / other:			
Contact's Phone:	home work		ce	ell		
# of Building occupants:	Children under age 13 N/A	Children	age 13-18	N/A	Adults	N/A
Part II – Building Chara	cteristics					
Building type: residential	/ multi-family residential office / strip mall /	/ commercial /	industrial			
Describe building:		Year con	nstructed: <u>Ur</u>	ıknown		
Sensitive population:	day care / nursing home / hospital / school / oth	her (specify):				
Number of floors below gr	rade:1 (ull basement / crawl space / slab o	on grade)				
Number of floors at or abo	eve grade:2					
Depth of basement below	grade surface: _6_ ft.	Basement size	e:6,000 ft <sup>2</sup>			
Basement floor construction	on: oncrete / dirt / floating / stone / other (sp	pecify):				
Foundation walls:	poured concrete / cinder blocks / stone / oth	her (specify)				
Basement sump present?	Y. Sump pump? Yes No (In Elevator Shaft)	Water in sump	o? <b>(</b> Yes /)No			
Type of heating system (ci hot air circulation heat pump other (specify):None in	rcle all that apply): hot air radiation wood hot water radiation kerosene hot water, unknown for rest of building	neater	steam radiation electric baseboar	rd		
Type of ventilation system central air conditioning Individual conditioning un	mechanical fans	bathroom ven outside air int , unknown for re	ake			
Type of fuel utilized (circle	e all that apply):  Natural gas electric / fuel oil / wood / co	al / solar / ker	osene			
Are the basement walls or Is there a whole house fan	floor sealed with waterproof paint or epoxy coati?	ings?		Yes No		
Septic system?				Yes / Yes (but not	used) / Vo	

Irrigation/private well?			Yes / Yes (but not used) / No
Type of ground cover outside of building:	grass/ oncrete /as	phalt other (specify)	
Existing subsurface depressurization (radon) system	in place?	Yes No	active / passive
Sub-slab vapor/moisture barrier in place?  Type of barrier:		Yes No (assumed)	
Part III - Outside Contaminant Sources			
NJDEP contaminated site (1000-ft. radius):	Former LEC Facility		
Other stationary sources nearby (gas stations, emissi	ion stacks, etc.):	N/A	
Heavy vehicular traffic nearby (or other mobile sou	rces):	US Route 22	

#### Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed

at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	-	-
Gas-powered equipment	-	-
Kerosene storage cans	-	-
Paints / thinners / strippers	Basement	No
Cleaning solvents	-	-
Oven cleaners	-	-
Carpet / upholstery cleaners	Basement	No
Other house cleaning products	Basement	No
Moth balls	-	-
Polishes / waxes	-	-
Insecticides	-	-
Furniture / floor polish	-	-
Nail polish / polish remover	-	-
Hairspray	-	-
Cologne / perfume	-	-
Air fresheners	-	-
Fuel tank (inside building)	-	-
Wood stove or fireplace	-	-
New furniture / upholstery	-	-
New carpeting / flooring	-	-
Hobbies - glues, paints, etc.	-	-

#### Part V – Miscellaneous Items Do any occupants of the building smoke? How often? Last time someone smoked in the building? hours / days Does the building have an attached garage directly connected to living space? **Ground Floor of Building Has Garages** If so, is a car usually parked in the garage? Unknown Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Unknown Do the occupants of the building have their clothes dry cleaned? If yes, how often? weekly / monthly / 3-4 times a year Do any of the occupants use solvents in work? If yes, what types of solvents are used? Yes / No If yes, are their clothes washed at work? Have any pesticides/herbicides been applied around the building or in the yard? If so, when and which chemicals? \_ Yes No If yes, when? Has there ever been a fire in the building? Has painting or staining been done in the building in the last 6 months? and where? If yes, when \_\_\_\_ Part VI - Sampling Information Sample Technician: Scott McCray Phone number: 973-564-6006 Sample Source: Indoor Air Sub-Slab / Near Slab Soil Gas / Exterior Soil Gas Tedlar bag / Sorbent / Stainless Steel Canister / Other (specify): Sampler Type:

Analytical Method: TO-15 / TO-17 / other: Cert. Laboratory: Accutest Labs (Dayton, NJ)

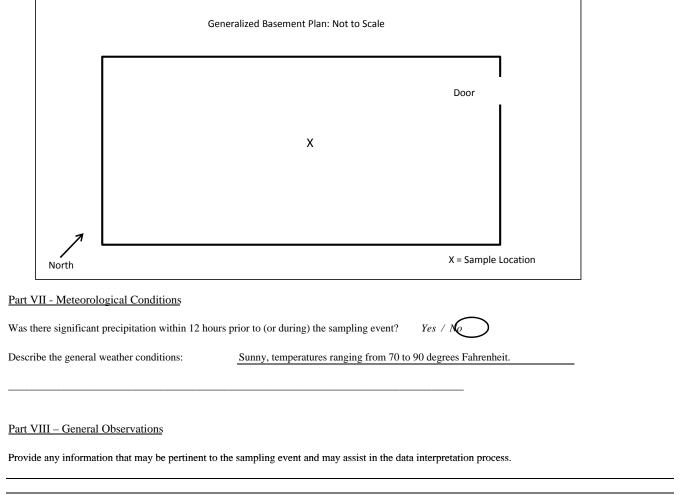
Sample locations (floor, room):

Field ID #: Field ID #:

Field ID #: Field ID #:

Were "Instructions for Occupants" followed? Yes No (Assumed)

If not, describe modifications:

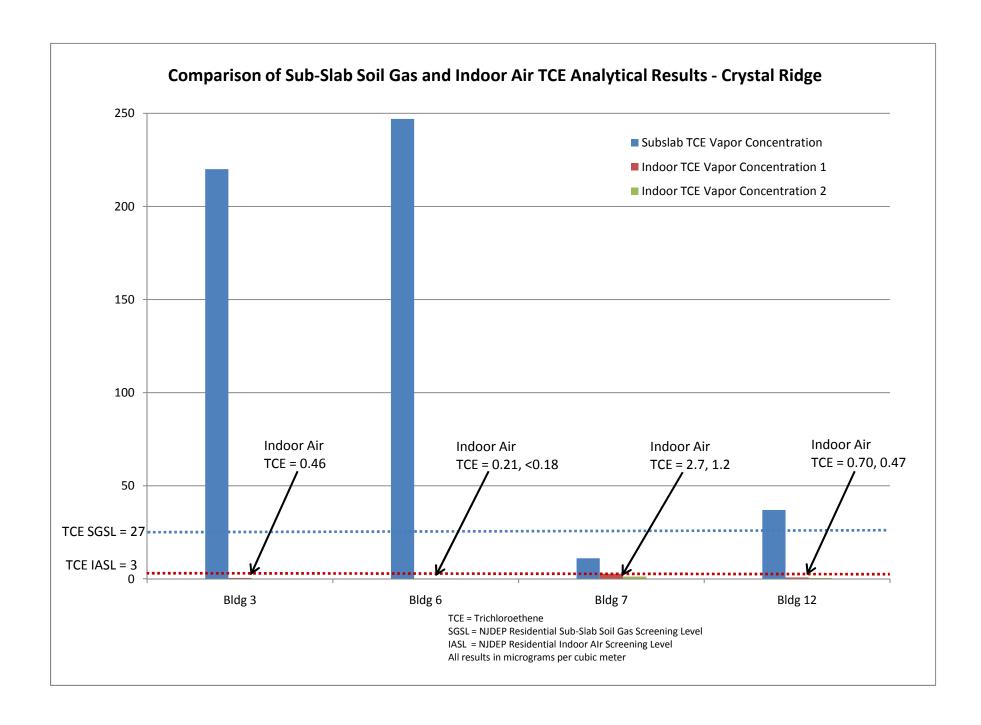


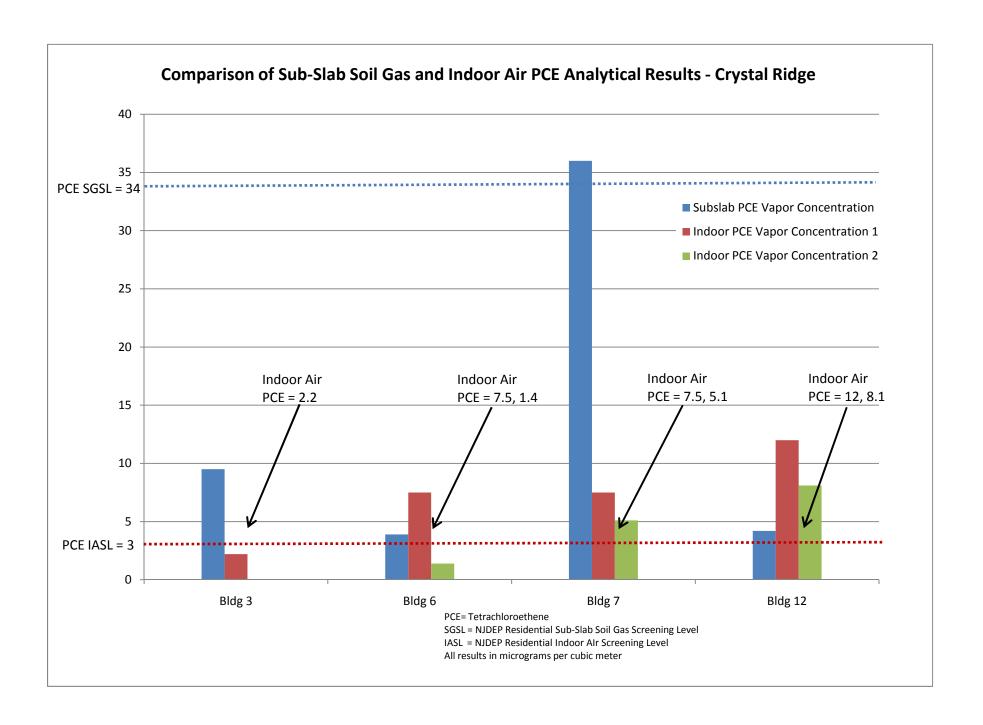
(NJDEP 1997; NHDES 1998; VDOH 1993; MassDEP 2002; NYSDOH 2005; CalEPA 2005)

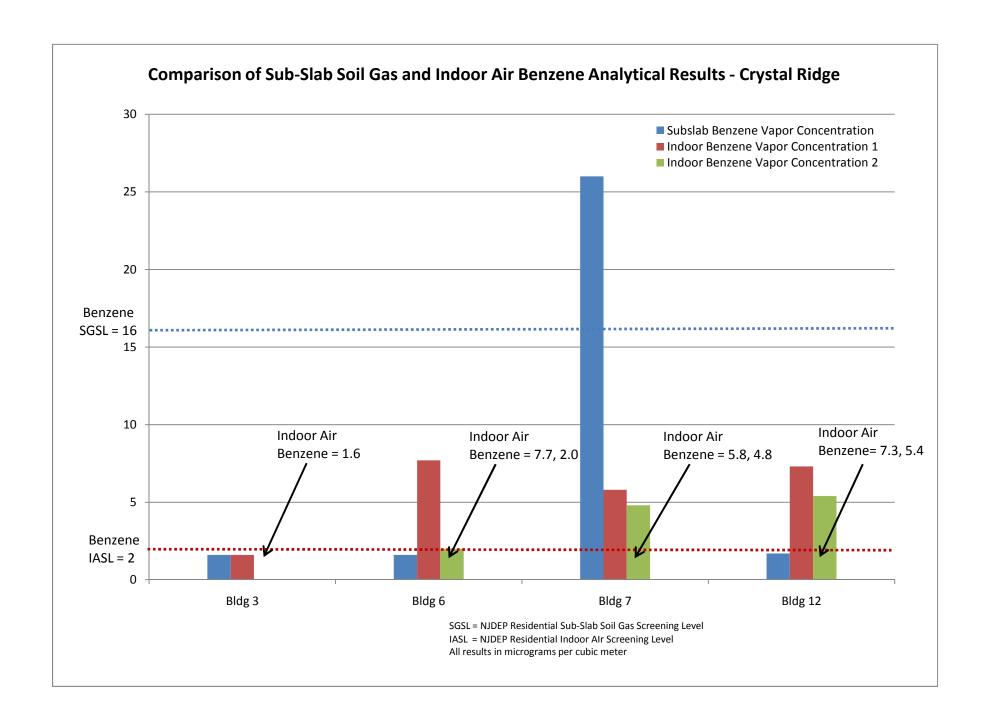
#### APPENDIX D

Graphs - Comparison of Sub-Slab Soil Gas and Indoor Air Results















07/08/11



## **Technical Report for**

**TRC** 

Lockheed Electronics Co, Watchung, NJ

116473

Accutest Job Number: JA68565

Sampling Dates: 02/17/11 - 02/18/11

#### Report to:

**TRC Environmental Corporation** 

JOBrien@TRCSOLUTIONS.com

**ATTN: Jim OBrien** 

Total number of pages in report: 840



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

David N. Speis VP, Laboratory Director

Client Service contact: Matt Cordova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

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## **Sample Summary**

TRC

Job No: JA68565

Lockheed Electronics Co, Watchung, NJ Project No: 116473

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID
JA68565-1	02/17/11	09:48 RC	02/18/11	AIR	Air	SV-4
JA68565-2	02/17/11	10:48 RC	02/18/11	AIR	Air	SV-3
JA68565-3	02/17/11	12:36 RC	02/18/11	AIR	Air	SV-5
JA68565-4	02/17/11	13:48 RC	02/18/11	AIR	Air	SV-6
JA68565-5	02/17/11	14:30 RC	02/18/11	AIR	Air	SV-7
JA68565-6	02/17/11	13:15 RC	02/18/11	AIR	Air	SV-8
JA68565-7	02/17/11	13:24 RC	02/18/11	AIR	Air	SV-DUP
JA68565-8	02/18/11	10:23 RC	02/18/11	AIR	Air	SV-14
JA68565-9	02/18/11	11:05 RC	02/18/11	AIR	Air	SV-12
JA68565-10	02/18/11	12:03 RC	02/18/11	AIR	Air	SV-9
JA68565-11	02/18/11	12:52 RC	02/18/11	AIR	Air	SV-10
JA68565-12	02/18/11	13:35 RC	02/18/11	AIR	Air	SV-11





#### CASE NARRATIVE / CONFORMANCE SUMMARY

Client: TRC Job No: JA68565

Site: Lockheed Electronics Co, Watchung, NJ Report Date 3/11/2011 5:17:56 PM

On 02/18/2011, 12 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories. Samples were intact and properly preserved, unless noted below. An Accutest Job Number of JA68565 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

#### **Volatiles by GCMS By Method TO-15**

Matrix: AIR Batch ID: V3W828

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JA68565-4DUP were used as the QC samples indicated.
- Blank Spike Recovery(s) for Hexachlorobutadiene, trans-1,3-Dichloropropene are outside control limits. High percent recoveries and no associated positive found in the QC batch.
- RPD(s) for Duplicate for 1,2,4-Trimethylbenzene, Benzene, Carbon disulfide, Ethyl Acetate, Freon 113, Heptane, Methyl ethyl ketone, Tertiary Butyl Alcohol, Trichloroethylene are outside control limits for sample JA68565-4DUP. Outside in house control limits.

Matrix: AIR Batch ID: V3W829

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JA68864-8DUP were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover



Sample Results	
Report of Analysis	



Page 1 of 3

Client Sample ID: SV-4

Lab Sample ID: JA68565-1 Matrix: AIR - Air Summa ID: A398 Method: TO-15

Project: Lockheed Electronics Co, Watchung, NJ **Date Sampled:** 02/17/11 **Date Received:** 02/18/11 Percent Solids: n/a

DF **Prep Date Prep Batch Analytical Batch** File ID Analyzed By Run #1 3W21000.D 1 02/25/11 YXC n/aV3W828 n/aV3W829 Run #2 3W21011.D 1 02/25/11 YXC n/a n/a

**Initial Volume** Run #1 100 ml 30.0 ml Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	246 a	2.7	0.82	ppbv		584 <sup>a</sup>	6.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.53	0.80	0.20	ppbv	J	1.7	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	3.9	0.80	0.12	ppbv		12	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	1.7	0.80	0.10	ppbv		8.3	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv		ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	1.3	0.80	0.095	ppbv		5.2	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	1.4	0.80	0.16	ppbv		5.0	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.59	0.80	0.29	ppbv	J	2.9	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.17	0.80	0.13	ppbv	J	0.67	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.8	0.80	0.11	ppbv		11	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-4

 Lab Sample ID:
 JA68565-1
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A398
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	76.3	2.0	0.68	ppbv	144	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.42	0.80	0.11	ppbv J	1.8	3.5	ug/m3
141-78-6	88	Ethyl Acetate	5.2	0.80	0.31	ppbv	19	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.096	ppbv	ND	3.9	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.10	ppbv	ND	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv	ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.96	0.80	0.094	ppbv	3.9	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv	ND	8.5	ug/m3
110-54-3	86.17	Hexane	1.2	0.80	0.087	ppbv	4.2	2.8	ug/m3
591-78-6	100	2-Hexanone	0.50	0.80	0.17	ppbv J	2.0	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	34.9	0.80	0.22	ppbv	85.8	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv	ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	8.4	0.80	0.12	ppbv	25	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.7	0.80	0.15	ppbv	7.0	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv	ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv	ND	3.3	ug/m3
115-07-1	42	Propylene	3.3	2.0	0.38	ppbv	5.7	3.4	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.11	ppbv	ND	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv	ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv	ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv	ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv	ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.0	0.80	0.11	ppbv	4.9	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.11	ppbv	ND	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv	ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.94	0.80	0.16	ppbv	2.8	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.63	0.16	0.16	ppbv	4.3	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	2.6	0.80	0.23	ppbv	7.7	2.4	ug/m3
108-88-3	92.14	Toluene	2.3	0.80	0.10	ppbv	8.7	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	2.2	0.16	0.097	ppbv	12	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv	ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv	ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv	ND	2.8	ug/m3
	106.2	m,p-Xylene	1.7	0.80	0.24	ppbv	7.4	3.5	ug/m3
95-47-6	106.2	o-Xylene	1.3	0.80	0.10	ppbv	5.6	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	3.0	0.80	0.10	ppbv	13	3.5	ug/m3

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 109% 102% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Page 3 of 3

Client Sample ID: SV-4

 Lab Sample ID:
 JA68565-1
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A398
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 2

Client Sample ID: SV-3

Lab Sample ID: JA68565-2

Matrix: AIR - Air Summa ID: A590

Method: TO-15

**Project:** Lockheed Electronics Co, Watchung, NJ **Date Sampled:** 02/17/11 **Date Received:** 02/18/11

Percent Solids: n/a

File ID DF **Prep Date Prep Batch Analytical Batch** Analyzed By V3W828 Run #1 3W21001.D 1 02/25/11 YXC n/an/a

Run #2

**Initial Volume** 

Run #1 100 ml

Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	144	0.80	0.25	ppbv		342	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.49	0.80	0.20	ppbv	J	1.6	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	0.57	0.80	0.12	ppbv	J	1.8	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	34.5	0.80	0.10	ppbv		168	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	0.81	0.80	0.17	ppbv		2.8	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	0.79	0.80	0.095	ppbv	J	3.1	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.53	0.80	0.29	ppbv	J	2.6	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.3	0.80	0.11	ppbv		7.8	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-3

Lab Sample ID: JA68565-2 **Date Sampled:** 02/17/11 **Date Received:** 02/18/11 Matrix: AIR - Air Summa ID: A590 Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	32.6	2.0	0.68	ppbv		61.4	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.49	0.80	0.11	ppbv	J	2.1	3.5	ug/m3
141-78-6	88	Ethyl Acetate	6.5	0.80	0.31	ppbv		23	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.38	0.80	0.096	ppbv	J	1.9	3.9	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.10	ppbv		ND	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	1.1	0.80	0.094	ppbv		4.5	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	1.3	0.80	0.087	ppbv		4.6	2.8	ug/m3
591-78-6	100	2-Hexanone	0.87	0.80	0.17	ppbv		3.6	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	7.4	0.80	0.22	ppbv		18	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.6	0.80	0.12	ppbv		14	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.15	ppbv		ND	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	ND	2.0	0.38	ppbv		ND	3.4	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.11	ppbv		ND	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.7	0.80	0.11	ppbv		8.4	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.45	0.80	0.11	ppbv	J	2.2	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.48	0.80	0.083	ppbv	J	2.2	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.73	0.80	0.16	ppbv	J	2.2	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.4	0.16	0.16	ppbv		9.5	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.2	0.80	0.10	ppbv		8.3	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	41.0	0.16	0.097	ppbv		220	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	2.0	0.80	0.24	ppbv		8.7	3.5	ug/m3
95-47-6	106.2	o-Xylene	1.1	0.80	0.10	ppbv		4.8	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	3.2	0.80	0.10	ppbv		14	3.5	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 108% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 2

Client Sample ID: SV-5

Lab Sample ID: JA68565-3

Matrix: AIR - Air Summa ID: A600 Method: TO-15

**Date Sampled:** 02/17/11 **Date Received:** 02/18/11

Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

File ID DF **Prep Date Prep Batch Analytical Batch** Analyzed By V3W828 Run #1 3W20984.D 1 02/24/11 YXC n/an/a

Run #2

**Initial Volume** 

Run #1 100 ml

Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	58.08	Acetone	72.4	0.80	0.25	ppbv	172	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv	ND	1.8	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.20	ppbv	ND	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv	ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv	ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv	ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv	ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv	ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.12	ppbv	ND	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv	ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv	ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv	ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv	ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv	ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv	ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv	ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv	ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv	ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv	ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv	ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv	ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv	ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv	ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.65	0.80	0.29	ppbv J	3.2	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv	ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv	ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv	ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv	ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv	ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv	ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.2	0.80	0.11	ppbv	7.2	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv	ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-5

 Lab Sample ID:
 JA68565-3
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A600
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	23.9	2.0	0.68	ppbv		45.0	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.11	ppbv		ND	3.5	ug/m3
141-78-6	88	Ethyl Acetate	3.7	0.80	0.31	ppbv		13	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.096	ppbv		ND	3.9	ug/m3
76-13-1	187.4	Freon 113	0.48	0.80	0.10	ppbv	J	3.7	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.81	0.80	0.094	ppbv		3.3	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	0.50	0.80	0.087	ppbv	J	1.8	2.8	ug/m3
591-78-6	100	2-Hexanone	0.41	0.80	0.17	ppbv	J	1.7	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	3.5	0.80	0.22	ppbv		8.6	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.0	0.80	0.12	ppbv		5.9	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.15	ppbv		ND	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	1.2	2.0	0.38	ppbv	J	2.1	3.4	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.11	ppbv		ND	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.91	0.80	0.11	ppbv		4.5	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.11	ppbv		ND	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv		ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.55	0.80	0.16	ppbv	J	1.7	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.21	0.16	0.16	ppbv		1.4	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	1.6	0.80	0.10	ppbv		6.0	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	1.1	0.16	0.097	ppbv		5.9	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	1.5	0.80	0.24	ppbv		6.5	3.5	ug/m3
95-47-6	106.2	o-Xylene	0.93	0.80	0.10	ppbv		4.0	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	2.5	0.80	0.10	ppbv		11	3.5	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 109% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 3

**Client Sample ID:** SV-6

Lab Sample ID: JA68565-4 **Date Sampled:** 02/17/11 Matrix: **Date Received:** 02/18/11 AIR - Air Summa ID: A791 Method: TO-15 Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

DF **Analytical Batch** File ID Analyzed By **Prep Date Prep Batch** Run #1 3W20985.D 1 02/24/11 YXC n/aV3W828 n/aV3W829 Run #2 3W21012.D 1 02/25/11 YXC n/a n/a

	Initial Volume
n #1	
ın #1	100 ml
Run #2	40.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	58.08	Acetone	166 <sup>a</sup>	2.0	0.61	ppbv	394 a	4.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv	ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.51	0.80	0.20	ppbv J	1.6	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv	ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv	ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv	ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv	ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv	ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	5.4	0.80	0.12	ppbv	17	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv	ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv	ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv	ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv	ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv	ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv	ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv	ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv	ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv	ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv	ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv	ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv	ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv	ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv	ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	2.0	0.80	0.29	ppbv	9.9	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv	ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv	ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv	ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv	ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv	ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv	ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.5	0.80	0.11	ppbv	9.0	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv	ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-6

 Lab Sample ID:
 JA68565-4
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A791
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	104	2.0	0.68	ppbv		196	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.11	ppbv		ND	3.5	ug/m3
141-78-6	88	Ethyl Acetate	14.3	0.80	0.31	ppbv		51.5	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.096	ppbv		ND	3.9	ug/m3
76-13-1	187.4	Freon 113	4.7	0.80	0.10	ppbv		36	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.57	0.80	0.094	ppbv	J	2.3	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	0.58	0.80	0.087	ppbv	J	2.0	2.8	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.17	ppbv		ND	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	17.0	0.80	0.22	ppbv		41.8	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.2	0.80	0.12	ppbv		12	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.15	ppbv		ND	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	2.4	2.0	0.38	ppbv		4.1	3.4	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.11	ppbv		ND	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.0	0.80	0.11	ppbv		4.9	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.11	ppbv		ND	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv		ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	1.0	0.80	0.16	ppbv		3.0	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.58	0.16	0.16	ppbv		3.9	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.4	0.80	0.10	ppbv		9.0	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	46.0	0.16	0.097	ppbv		247	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.49	0.80	0.13	ppbv	J	2.8	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	1.4	0.80	0.24	ppbv		6.1	3.5	ug/m3
95-47-6	106.2	o-Xylene	0.91	0.80	0.10	ppbv		4.0	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	2.4	0.80	0.10	ppbv		10	3.5	ug/m3

CAS No. Surrogate Reco	overies Run# 1	Run# 2	Limits
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460-00-4 4-Bromofluorobenzene 108% 107% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



## C

## **Report of Analysis**

Client Sample ID: SV-6

 Lab Sample ID:
 JA68565-4
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A791
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 1 of 3

Client Sample ID: SV-7

Lab Sample ID: JA68565-5

Matrix: AIR - Air Summa ID: A592

Method: TO-15

Project: Lockheed Electronics Co, Watchung, NJ **Date Sampled:** 02/17/11 **Date Received:** 02/18/11

Percent Solids: n/a

DF **Prep Date Prep Batch Analytical Batch** File ID Analyzed By Run #1 3W20987.D 1 02/24/11 YXC n/aV3W828 n/a V3W829 Run #2 3W21028.D 1 02/26/11 YXC n/a n/a

	<b>Initial Volume</b>
Run #1	100 ml
Run #2	40.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	186 <sup>a</sup>	2.0	0.61	ppbv		442 a	4.8	ug/m3
106-99-0	54.09	1,3-Butadiene	18.6	0.80	0.11	ppbv		41.1	1.8	ug/m3
71-43-2	78.11	Benzene	8.0	0.80	0.20	ppbv		26	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	3.9	0.80	0.12	ppbv		12	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	0.79	0.80	0.12	ppbv	J	3.6	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv		ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv		ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv		ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.42	0.80	0.29	ppbv	J	2.1	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.1	0.80	0.11	ppbv		6.6	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-7

Lab Sample ID: JA68565-5 **Date Sampled:** 02/17/11 **Date Received:** 02/18/11 Matrix: AIR - Air Summa ID: A592 Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	122	2.0	0.68	ppbv	230	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	26.8	0.80	0.11	ppbv	116	3.5	ug/m3
141-78-6	88	Ethyl Acetate	3.7	0.80	0.31	ppbv	13	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	4.8	0.80	0.096	ppbv	24	3.9	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.10	ppbv	ND	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv	ND	5.6	ug/m3
142-82-5	100.2	Heptane	4.5	0.80	0.094	ppbv	18	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv	ND	8.5	ug/m3
110-54-3	86.17	Hexane	2.4	0.80	0.087	ppbv	8.5	2.8	ug/m3
591-78-6	100	2-Hexanone	2.2	0.80	0.17	ppbv	9.0	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	13.8	0.80	0.22	ppbv	33.9	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv	ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	9.3	0.80	0.12	ppbv	27	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	96.0	0.80	0.15	ppbv	393	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	6.9	0.80	0.17	ppbv	25	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv	ND	3.3	ug/m3
115-07-1	42	Propylene	5.9	2.0	0.38	ppbv	10	3.4	ug/m3
100-42-5	104.1	Styrene	22.3	0.80	0.11	ppbv	94.9	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv	ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv	ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv	ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv	ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	15.3	0.80	0.11	ppbv	75.2	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	6.5	0.80	0.11	ppbv	32	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	4.7	0.80	0.083	ppbv	22	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	3.1	0.80	0.16	ppbv	9.4	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	5.3	0.16	0.16	ppbv	36	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.0	0.80	0.23	ppbv	0.0	2.4	ug/m3
108-88-3	92.14	Toluene	65.6	0.80	0.10	ppbv	247	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	2.1	0.16	0.097	ppbv	11	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	5.6	0.80	0.13	ppbv	31	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv	ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv	ND	2.8	ug/m3
	106.2	m,p-Xylene	80.2	0.80	0.24	ppbv	348	3.5	ug/m3
95-47-6	106.2	o-Xylene	31.8	0.80	0.10	ppbv	138	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	112	0.80	0.10	ppbv	486	3.5	ug/m3

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 110% 110% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-7

Lab Sample ID: JA68565-5 **Date Sampled:** 02/17/11 **Date Received:** 02/18/11 Matrix: AIR - Air Summa ID: A592 Method: TO-15 Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

CAS No. MWCompound Result RL MDL Units Q Result RLUnits

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



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#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 3

**Client Sample ID:** SV-8

Lab Sample ID: JA68565-6

Matrix: AIR - Air Summa ID: A565

Method: TO-15

Project: Lockheed Electronics Co, Watchung, NJ **Date Sampled:** 02/17/11 **Date Received:** 02/18/11

Percent Solids: n/a

	File ID	DF	Analyzed	By	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3W20988.D	1	02/24/11	YXC	n/a	n/a	V3W828
Run #2	3W21014.D	1	02/25/11	YXC	n/a	n/a	V3W829

	Initial Volume
Run #1	100 ml
Run #2	40.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	136 <sup>a</sup>	2.0	0.61	ppbv		323 a	4.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.44	0.80	0.20	ppbv	J	1.4	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	1.5	0.80	0.12	ppbv		4.7	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv		ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv		ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv		ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.48	0.80	0.29	ppbv	J	2.4	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.3	0.80	0.11	ppbv		7.8	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-8

 Lab Sample ID:
 JA68565-6
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A565
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	129	2.0	0.68	ppbv		243	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	3.3	0.80	0.11	ppbv		14	3.5	ug/m3
141-78-6	88	Ethyl Acetate	9.0	0.80	0.31	ppbv		32	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	2.3	0.80	0.096	ppbv		11	3.9	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.10	ppbv		ND	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.56	0.80	0.094	ppbv	J	2.3	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	0.61	0.80	0.087	ppbv	J	2.1	2.8	ug/m3
591-78-6	100	2-Hexanone	0.38	0.80	0.17	ppbv	J	1.6	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	16.8	0.80	0.22	ppbv		41.3	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.9	0.80	0.12	ppbv		14	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.7	0.80	0.15	ppbv		7.0	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	1.9	2.0	0.38	ppbv	J	3.3	3.4	ug/m3
100-42-5	104.1	Styrene	4.9	0.80	0.11	ppbv		21	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	8.8	0.80	0.11	ppbv		43	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	3.1	0.80	0.11	ppbv		15	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv		ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	6.1	0.80	0.16	ppbv		18	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.61	0.16	0.16	ppbv		4.1	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	5.0	0.80	0.10	ppbv		19	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	2.9	0.16	0.097	ppbv		16	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	14.1	0.80	0.24	ppbv		61.2	3.5	ug/m3
95-47-6	106.2	o-Xylene	6.2	0.80	0.10	ppbv		27	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	20.3	0.80	0.10	ppbv		88.2	3.5	ug/m3

CAS No. Surr	ogate Recoveries	Run# 1	Run# 2	Limits
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460-00-4 4-Bromofluorobenzene 109% 112% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



Client Sample ID: SV-8

 Lab Sample ID:
 JA68565-6
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A565
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound





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#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 2

Client Sample ID: SV-DUP

Lab Sample ID: JA68565-7 **Date Sampled:** 02/17/11 Matrix: **Date Received:** 02/18/11 AIR - Air Summa ID: A712 Method: TO-15 Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

DF **Analytical Batch** File ID Analyzed By **Prep Date Prep Batch** V3W828 Run #1 3W20989.D 1 02/24/11 YXC n/an/a Run #2

**Initial Volume** Run #1 100 ml

Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	58.08	Acetone	107	0.80	0.25	ppbv	254	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv	ND	1.8	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.20	ppbv	ND	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv	ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv	ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv	ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv	ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv	ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	1.0	0.80	0.12	ppbv	3.1	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv	ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv	ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv	ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv	ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv	ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv	ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv	ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv	ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv	ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv	ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv	ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv	ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv	ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv	ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.41	0.80	0.29	ppbv J	2.0	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv	ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv	ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv	ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv	ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv	ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv	ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.1	0.80	0.11	ppbv	6.6	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv	ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



of 2

Client Sample ID: SV-DUP

 Lab Sample ID:
 JA68565-7
 Date Sampled:
 02/17/11

 Matrix:
 AIR - Air
 Summa ID: A712
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	108	2.0	0.68	ppbv	203	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	1.6	0.80	0.11	ppbv	6.9	3.5	ug/m3
141-78-6	88	Ethyl Acetate	2.4	0.80	0.31	ppbv	8.6	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	1.5	0.80	0.096	ppbv	7.4	3.9	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.10	ppbv	ND	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv	ND	5.6	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.094	ppbv	ND	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv	ND	8.5	ug/m3
110-54-3	86.17	Hexane	ND	0.80	0.087	ppbv	ND	2.8	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.17	ppbv	ND	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	13.7	0.80	0.22	ppbv	33.7	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv	ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.9	0.80	0.12	ppbv	5.6	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.53	0.80	0.15	ppbv J	2.2	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv	ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv	ND	3.3	ug/m3
115-07-1	42	Propylene	1.0	2.0	0.38	ppbv J	1.7	3.4	ug/m3
100-42-5	104.1	Styrene	2.6	0.80	0.11	ppbv	11	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv	ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv	ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv	ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv	ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	7.3	0.80	0.11	ppbv	36	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	2.3	0.80	0.11	ppbv	11	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv	ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	5.7	0.80	0.16	ppbv	17	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.31	0.16	0.16	ppbv	2.1	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv	ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.1	0.80	0.10	ppbv	7.9	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	0.41	0.16	0.097	ppbv	2.2	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv	ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv	ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv	ND	2.8	ug/m3
	106.2	m,p-Xylene	7.2	0.80	0.24	ppbv	31	3.5	ug/m3
95-47-6	106.2	o-Xylene	3.2	0.80	0.10	ppbv	14	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	10.4	0.80	0.10	ppbv	45.2	3.5	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 109% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

**Date Sampled:** 02/18/11

Page 1 of 2

Client Sample ID: SV-14

Lab Sample ID: JA68565-8 Matrix: AIR - Air

**Date Received:** 02/18/11 Summa ID: A573 Percent Solids: n/a

Method: TO-15

**Project:** Lockheed Electronics Co, Watchung, NJ

DF **Analytical Batch** File ID Analyzed By **Prep Date Prep Batch** V3W828 Run #1 3W20990.D 1 02/24/11 YXC n/an/a

Run #2

**Initial Volume** 

Run #1 100 ml

Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	115	0.80	0.25	ppbv		273	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.48	0.80	0.20	ppbv	J	1.5	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	1.9	0.80	0.12	ppbv		5.9	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	1.3	0.80	0.10	ppbv		6.3	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv		ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv		ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.45	0.80	0.29	ppbv	J	2.2	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.2	0.80	0.11	ppbv		7.2	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



## **Report of Analysis**

Client Sample ID: SV-14

 Lab Sample ID:
 JA68565-8
 Date Sampled:
 02/18/11

 Matrix:
 AIR - Air
 Summa ID: A573
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	76.8	2.0	0.68	ppbv		145	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.77	0.80	0.11	ppbv	J	3.3	3.5	ug/m3
141-78-6	88	Ethyl Acetate	1.2	0.80	0.31	ppbv		4.3	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.50	0.80	0.096	ppbv	J	2.5	3.9	ug/m3
76-13-1	187.4	Freon 113	0.73	0.80	0.10	ppbv	J	5.6	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.71	0.80	0.094	ppbv	J	2.9	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	0.74	0.80	0.087	ppbv	J	2.6	2.8	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.17	ppbv		ND	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	12.2	0.80	0.22	ppbv		30.0	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	3.8	0.80	0.12	ppbv		11	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.36	0.80	0.15	ppbv	J	1.5	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	ND	2.0	0.38	ppbv		ND	3.4	ug/m3
100-42-5	104.1	Styrene	0.90	0.80	0.11	ppbv		3.8	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	2.5	0.80	0.11	ppbv		12	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.76	0.80	0.11	ppbv	J	3.7	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv		ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.67	0.80	0.16	ppbv	J	2.0	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.37	0.16	0.16	ppbv		2.5	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	1.7	0.80	0.10	ppbv		6.4	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	0.43	0.16	0.097	ppbv		2.3	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	3.3	0.80	0.24	ppbv		14	3.5	ug/m3
95-47-6	106.2	o-Xylene	1.8	0.80	0.10	ppbv		7.8	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	5.1	0.80	0.10	ppbv		22	3.5	ug/m3

CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limits
CAS NO.	Surrogate Recoveries	Kuliπ 1	Kuliπ 2	Lillius

460-00-4 4-Bromofluorobenzene 110% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 2

Client Sample ID: SV-12

Lab Sample ID: JA68565-9 **Date Sampled:** 02/18/11 Matrix: **Date Received:** 02/18/11 AIR - Air Summa ID: A500 Method: TO-15 Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

DF **Analytical Batch** File ID Analyzed By **Prep Date Prep Batch** V3W828 Run #1 3W20991.D 1 02/24/11 YXC n/an/a

Run #2

**Initial Volume** 

Run #1 100 ml

Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	66.5	0.80	0.25	ppbv		158	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.52	0.80	0.20	ppbv	J	1.7	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	0.70	0.80	0.12	ppbv	J	2.2	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv		ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv		ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv		ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.59	0.80	0.29	ppbv	J	2.9	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	0.56	0.80	0.11	ppbv	J	3.4	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-12

 Lab Sample ID:
 JA68565-9
 Date Sampled:
 02/18/11

 Matrix:
 AIR - Air
 Summa ID: A500
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	36.5	2.0	0.68	ppbv		68.8	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.54	0.80	0.11	ppbv	J	2.3	3.5	ug/m3
141-78-6	88	Ethyl Acetate	2.0	0.80	0.31	ppbv		7.2	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.40	0.80	0.096	ppbv	J	2.0	3.9	ug/m3
76-13-1	187.4	Freon 113	2.9	0.80	0.10	ppbv		22	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.78	0.80	0.094	ppbv	J	3.2	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	0.88	0.80	0.087	ppbv		3.1	2.8	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.17	ppbv		ND	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	12.8	0.80	0.22	ppbv		31.5	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	3.8	0.80	0.12	ppbv		11	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.15	ppbv		ND	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	4.1	2.0	0.38	ppbv		7.0	3.4	ug/m3
100-42-5	104.1	Styrene	0.47	0.80	0.11	ppbv	J	2.0	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.5	0.80	0.11	ppbv		7.4	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.47	0.80	0.11	ppbv	J	2.3	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv		ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.16	ppbv		ND	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.62	0.16	0.16	ppbv		4.2	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.2	0.80	0.10	ppbv		8.3	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	6.9	0.16	0.097	ppbv		37	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	2.2	0.80	0.24	ppbv		9.6	3.5	ug/m3
95-47-6	106.2	o-Xylene	0.99	0.80	0.10	ppbv		4.3	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	3.2	0.80	0.10	ppbv		14	3.5	ug/m3

CAS No. Surrogate Reco	overies Run# 1	Run# 2	Limits
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460-00-4 4-Bromofluorobenzene 113% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 3

**Client Sample ID:** SV-9

Lab Sample ID: JA68565-10 **Date Sampled:** 02/18/11 **Date Received:** 02/18/11 Matrix: AIR - Air Summa ID: A796 Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
Run #1	3W20992.D	1	02/24/11	YXC	n/a	n/a	V3W828
Run #2	3W21015.D	1	02/25/11	YXC	n/a	n/a	V3W829

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	194 <sup>a</sup>	2.7	0.82	ppbv		461 <sup>a</sup>	6.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.62	0.80	0.20	ppbv	J	2.0	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	6.6	0.80	0.12	ppbv		21	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv		ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.17	ppbv		ND	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv		ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.49	0.80	0.29	ppbv	J	2.4	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.5	0.80	0.11	ppbv		9.0	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



## **Report of Analysis**

Page 2 of 3

Client Sample ID: SV-9

 Lab Sample ID:
 JA68565-10
 Date Sampled:
 02/18/11

 Matrix:
 AIR - Air
 Summa ID: A796
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	99.2	2.0	0.68	ppbv		187	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.93	0.80	0.11	ppbv		4.0	3.5	ug/m3
141-78-6	88	Ethyl Acetate	3.2	0.80	0.31	ppbv		12	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.66	0.80	0.096	ppbv	J	3.2	3.9	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.10	ppbv		ND	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	1.0	0.80	0.094	ppbv		4.1	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	1.1	0.80	0.087	ppbv		3.9	2.8	ug/m3
591-78-6	100	2-Hexanone	0.67	0.80	0.17	ppbv	J	2.7	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	12.4	0.80	0.22	ppbv		30.5	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	8.2	0.80	0.12	ppbv		24	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.60	0.80	0.15	ppbv	J	2.5	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	0.93	0.80	0.17	ppbv		3.4	2.9	ug/m3
80-62-6		Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	6.9	2.0	0.38	ppbv		12	3.4	ug/m3
100-42-5	104.1	Styrene	0.88	0.80	0.11	ppbv		3.7	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	3.4	0.80	0.11	ppbv		17	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.94	0.80	0.11	ppbv		4.6	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.42	0.80	0.083	ppbv	J	2.0	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	1.1	0.80	0.16	ppbv		3.3	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.26	0.16	0.16	ppbv		1.8	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.8	0.80	0.10	ppbv		11	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	0.88	0.16	0.097	ppbv		4.7	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	3.9	0.80	0.24	ppbv		17	3.5	ug/m3
95-47-6	106.2	o-Xylene	2.1	0.80	0.10	ppbv		9.1	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	6.0	0.80	0.10	ppbv		26	3.5	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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460-00-4 4-Bromofluorobenzene 110% 106% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



## **Report of Analysis**

Page 3 of 3

Client Sample ID: SV-9

 Lab Sample ID:
 JA68565-10
 Date Sampled:
 02/18/11

 Matrix:
 AIR - Air
 Summa ID: A796
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 2

Client Sample ID: SV-10

Lab Sample ID: JA68565-11 **Date Sampled:** 02/18/11 Matrix: AIR - Air Summa ID: A580

**Date Received:** 02/18/11 Percent Solids: n/a

Method: TO-15

**Project:** Lockheed Electronics Co, Watchung, NJ

DF **Prep Date Prep Batch Analytical Batch** File ID Analyzed By V3W828 Run #1 3W20993.D 1 02/24/11 YXC n/an/a

Run #2

**Initial Volume** 

Run #1 100 ml

Run #2

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	58.08	Acetone	49.1	0.80	0.25	ppbv	117	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv	ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.91	0.80	0.20	ppbv	2.9	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv	ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv	ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv	ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv	ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv	ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	0.81	0.80	0.12	ppbv	2.5	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv	ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv	ND	2.1	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.10	ppbv	ND	3.9	ug/m3
74-87-3	50.49	Chloromethane	0.87	0.80	0.21	ppbv	1.8	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv	ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv	ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv	ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	1.0	0.80	0.17	ppbv	3.4	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv	ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv	ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv	ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv	ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv	ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv	ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.67	0.80	0.29	ppbv J	3.3	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv	ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv	ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv	ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv	ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv	ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv	ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.11	ppbv	ND	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv	ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-10

Lab Sample ID: JA68565-11 **Date Sampled:** 02/18/11 Matrix: **Date Received:** 02/18/11 AIR - Air Summa ID: A580 Method: TO-15 Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	125	2.0	0.68	ppbv		236	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.51	0.80	0.11	ppbv	J	2.2	3.5	ug/m3
141-78-6	88	Ethyl Acetate	3.6	0.80	0.31	ppbv		13	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.096	ppbv		ND	3.9	ug/m3
76-13-1	187.4	Freon 113	1.0	0.80	0.10	ppbv		7.7	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	0.97	0.80	0.094	ppbv		4.0	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	1.1	0.80	0.087	ppbv		3.9	2.8	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.17	ppbv		ND	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	8.3	0.80	0.22	ppbv		20	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.8	0.80	0.12	ppbv		5.3	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.15	ppbv		ND	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	0.68	0.80	0.17	ppbv	J	2.5	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	4.3	2.0	0.38	ppbv		7.4	3.4	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.11	ppbv		ND	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.3	0.80	0.11	ppbv		6.4	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.44	0.80	0.11	ppbv	J	2.2	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.40	0.80	0.083	ppbv	J	1.9	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.51	0.80	0.16	ppbv	J	1.5	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.18	0.16	0.16	ppbv		1.2	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.6	0.80	0.10	ppbv		9.8	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	2.1	0.16	0.097	ppbv		11	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.13	ppbv		ND	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	1.8	0.80	0.24	ppbv		7.8	3.5	ug/m3
95-47-6	106.2	o-Xylene	0.79	0.80	0.10	ppbv	J	3.4	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	2.6	0.80	0.10	ppbv		11	3.5	ug/m3

460-00-4 4-Bromofluorobenzene 111% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



#### Accutest LabLink@623710 09:27 08-Jul-2011

## **Report of Analysis**

Page 1 of 3

Client Sample ID: SV-11

Lab Sample ID: JA68565-12

Matrix: AIR - Air Summa ID: A514

Method: TO-15

Project: Lockheed Electronics Co, Watchung, NJ **Date Sampled:** 02/18/11 **Date Received:** 02/18/11

Percent Solids: n/a

	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3W20994.D	1	02/25/11	YXC	n/a	n/a	V3W828
Run #2	3W21016.D	1	02/25/11	YXC	n/a	n/a	V3W829

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	246 a	2.0	0.61	ppbv		584 <sup>a</sup>	4.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	ug/m3
71-43-2	78.11	Benzene	0.65	0.80	0.20	ppbv	J	2.1	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.10	ppbv		ND	5.4	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.098	ppbv		ND	8.3	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.10	ppbv		ND	3.1	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.13	ppbv		ND	3.5	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.14	ppbv		ND	4.1	ug/m3
75-15-0	76.14	Carbon disulfide	6.4	0.80	0.12	ppbv		20	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.12	ppbv		ND	3.7	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.20	ppbv		ND	2.1	ug/m3
67-66-3	119.4	Chloroform	0.44	0.80	0.10	ppbv	J	2.1	3.9	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.14	ppbv		ND	2.5	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.091	ppbv		ND	5.0	ug/m3
110-82-7	84.16	Cyclohexane	1.2	0.80	0.17	ppbv		4.1	2.8	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.098	ppbv		ND	3.2	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.095	ppbv		ND	3.2	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.12	ppbv		ND	6.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.094	ppbv		ND	3.2	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.22	ppbv		ND	3.7	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.16	ppbv		ND	2.9	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.53	0.80	0.29	ppbv	J	2.6	4.0	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.33	ppbv		ND	6.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.14	ppbv		ND	3.2	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.13	ppbv		ND	3.2	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.087	ppbv		ND	3.6	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.10	ppbv		ND	4.8	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	ug/m3
106-46-7	147	p-Dichlorobenzene	1.5	0.80	0.11	ppbv		9.0	4.8	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.31	ppbv		ND	3.6	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: SV-11

 Lab Sample ID:
 JA68565-12
 Date Sampled:
 02/18/11

 Matrix:
 AIR - Air
 Summa ID:
 A514
 Date Received:
 02/18/11

 Method:
 TO-15
 Percent Solids:
 n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	123	2.0	0.68	ppbv		232	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.60	0.80	0.11	ppbv	J	2.6	3.5	ug/m3
141-78-6	88	Ethyl Acetate	2.1	0.80	0.31	ppbv		7.6	2.9	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.75	0.80	0.096	ppbv	J	3.7	3.9	ug/m3
76-13-1	187.4	Freon 113	0.40	0.80	0.10	ppbv	J	3.1	6.1	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	ug/m3
142-82-5	100.2	Heptane	1.6	0.80	0.094	ppbv		6.6	3.3	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.24	ppbv		ND	8.5	ug/m3
110-54-3	86.17	Hexane	1.7	0.80	0.087	ppbv		6.0	2.8	ug/m3
591-78-6	100	2-Hexanone	0.56	0.80	0.17	ppbv	J	2.3	3.3	ug/m3
67-63-0	60.1	Isopropyl Alcohol	28.9	0.80	0.22	ppbv		71.0	2.0	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.11	ppbv		ND	2.8	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.4	0.80	0.12	ppbv		13	2.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.43	0.80	0.15	ppbv	J	1.8	3.3	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.17	ppbv		ND	2.9	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.13	ppbv		ND	3.3	ug/m3
115-07-1	42	Propylene	ND	2.0	0.38	ppbv		ND	3.4	ug/m3
100-42-5	104.1	Styrene	0.65	0.80	0.11	ppbv	J	2.8	3.4	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.097	ppbv		ND	4.4	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.10	ppbv		ND	5.5	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.096	ppbv		ND	4.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.46	ppbv		ND	5.9	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	3.2	0.80	0.11	ppbv		16	3.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.1	0.80	0.11	ppbv		5.4	3.9	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.083	ppbv		ND	3.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.93	0.80	0.16	ppbv		2.8	2.4	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.61	0.16	0.16	ppbv		4.1	1.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.23	ppbv		ND	2.4	ug/m3
108-88-3	92.14	Toluene	2.1	0.80	0.10	ppbv		7.9	3.0	ug/m3
79-01-6	131.4	Trichloroethylene	0.66	0.16	0.097	ppbv		3.5	0.86	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.73	0.80	0.13	ppbv	J	4.1	4.5	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.53	ppbv		ND	2.8	ug/m3
	106.2	m,p-Xylene	2.5	0.80	0.24	ppbv		11	3.5	ug/m3
95-47-6	106.2	o-Xylene	1.3	0.80	0.10	ppbv		5.6	3.5	ug/m3
1330-20-7	106.2	Xylenes (total)	3.8	0.80	0.10	ppbv		17	3.5	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

112%

108%

ND = Not detected MDL - Method Detection Limit

4-Bromofluorobenzene

RL = Reporting Limit

460-00-4

E = Indicates value exceeds calibration range

J = Indicates an estimated value

65-128%

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



## **Report of Analysis**

Page 3 of 3

Client Sample ID: SV-11

Lab Sample ID: JA68565-12 **Date Sampled:** 02/18/11 **Date Received:** 02/18/11 Matrix: AIR - Air Summa ID: A514 Method: TO-15 Percent Solids: n/a

**Project:** Lockheed Electronics Co, Watchung, NJ

CAS No. MWCompound Result RL MDL Units Q Result RLUnits

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound





Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- · Chain of Custody
- Summa Canister and Flow Controller Log
- Sample Tracking Chronicle
- Internal Chain of Custody
- 2010 MDL Study Method: TO-15



# CHAIN OF CUSTODY Air Sampling Field Data Sheet

		, ,
FED-EX Tracking #	Bottle Order-Control#/3/2011 - 2	PAGEOF_2
Lab Quote #	Lab Job #	

Laboratories	2235 US Highway 130, Dayton,	NJ 08810	Lab Quote #	Lab Job #	
www.accutest.com	Tel: 732.329.0200 Fax: 732.3			JA68565	
Company Name	Client / Reporting Information Project Name		1 + 1 THE	Weather Parameters	Requested Analysis
TRC ENVIRONMENTAL		el le <b>c</b>		Temperature (Fahrenheit) Start: Maximum:	<del> </del>
Address	0				
57 BAST WILLOW ST		+ 22 W		Stop: Minimum:	
State NT	Zip City	x 11 - 1 - 1 C -	State		
Project Contact E-mail	Project #	CHUNG	()	Atmoshpharic Pressure (inches of Hg) Start: Maximum:	
SCOTT MC (RAY		473			
Phone # 973 564 6006	Client Purchase	Order#		Stop: Minimum:	
Sampler(s) Name(s) Pia Cava Cav				Other weather comment:	――[전
13 23 29 20	Air Type Sampling Equipment Info	Start Sam	pling Information	Stop Sampling Information	<u></u> ,,,
	Indoor (I) Canister Canister Flow	Date Time (	anister Interior Sampler	Date Time Canister Interior	Sampler 10
Lab Sample # Field ID / Point of Collection	Soir Vap (SV) Serial # Size Controlle Ambient(A) 6L or 1L Serial #	er 🔯 (24 hr 🛭 P	ressure Temp Init.	(24 hr Pressure Temp	Init.
-i 5V-Y			30 75 RC	21111 29u8 - 5 75	RX
-2 SV-3			30 75 RC	21171111048 -5 75	RCX
3 SV-5			28 67 60	211111 1236 - 5 67	16 X
-4 SV-6		11 211711 1339 -		2/17/11 1348 -5 68	O X
-5 SU-7	SV 1592 11 FC10	20 217/1/14/20 -	30 70 Re	2117/1/1430 -5 70	
-6 50-8		6 2/17/11 1305 -	31 75 W	2/17/11/13/5 -5 75	Q X
· 7 SV-DUP		78 21714 1316 -	-30 75 Te	917/11 1324 -5 75	w X
· 8 SV-14	SV AST31L FC38	8 3/18/11/013 -	29 65 60	218/11/022 -5 65	eex
-9 SV-12	SU A500 14 FC17	1 2118/11/055 -	27 66 2	2118/1/1105 -2 66	
-10   SV-9	SU A796 IL FC25	DII8111152 -	30 go W	2 5 80	
Turnaround Time (Business Days)		Data Deliv	erable Information	Comments / Remarks	
Standard - 15 Days	<i>a 1</i> .	All NJDEP TO-15 is r	andatory Full T1	Emmo	
10 Day Appr	roved By:	Comm A		(Contraction of the Contraction	
5 Day		Comm B			
3 Day	Dato: 2/13   1	Reduced T2			
2 Day	•	Full T1			
1 Day		Other:			1
Other -	Sample Custody must the deal man	oted below out time and the	0.44		STACKED STACKE
Relinquished by Laborgray Date T		Relinquished o	nge passes for including courier de	Male West Beceived by:	
1 Refirquished by Dala II	S/// Navo/Vactor	(a) 2	MK ON A	V 1851181182)	
Julan 3/1	F// 193 Q MALIA	37/1 Relinquished b	Yds Ser	Date Tiple   Received by:	Malus
Relinquished by: Dalle Ti	lime: Received by:	Custody Set	171 gr/	2)110/11 14 Jan 2	7>
5	5		- // /		

JA68565: Chain of Custody Page 1 of 3



#### CHAIN OF CUSTODY Air Sampling Field Data Sheet

2235 US Highway 130, Dayton, NJ 08810

FED-EX Tracking #	Bottle Grider Control # /3/2010 - 2	PAGE $\frac{Z}{2}$ OF $\frac{Z}{2}$
Lab Quote #	Lab Job# TA68565	

	accutest.com		Tel:	732.329.02	200 Fa	x: 732.32	9.3499		Lab Quote	· #		Lab	100 #	JA68	565				
			Client / Rep	orting Informa	937829850		· Aft			100				ather Paramete		<b>M</b> . 1 700	Req	uested	Analysis
Company Name	Marie Paris	a ( A	,		Proje	ct Name	~ I					Temperature	Fahrenheit)						
Address	ENVIRONM	TEINTH			Stree	or M	<u>د ۲ د</u>	<del>12</del>				Start:		Maximu	:m:				- I i
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City	Cital Wi	LLOW State Z	îp		City	131		<u> </u>		State		эюр.		WINNITE	11.		1		
MILL	bukin	N.2				ATU	tun(	Г		N		Atmoshpheri	Pressure (in	ches of Hal			1		
Project Contact	BUKN MCCRAY	E-mail			Proje	ct#					-	Start:		Maximu	m:		1		1 1
7001	- MCCKAY						<u>473</u>												
Phone # 97	2	Fax#			Client	Purchase Ord	ler#					Stop:		Minimu	n:		1	- 1	
Sampler(s) Name(s	7	06										Other weathe	commont:				ł. I		
	Ma CANA 91	<u>w</u>					· k.					outer meaning	COMMICINE.				$ \lambda $		
			Air Type	Sampling	Equipmen	t info		Start S	Sampling Info	rmation		ii .	Stop 8	Sampling Info	mation		7	- [	
			Indoor (I)	Canister	Canister	Flow	Date	Time	Canister	Interior	Sampler	Date	Time	Canister	Interior	Sampler	101		
Lab Sample #	Field ID / Point of Co	ollection	Indoor (I) Soil Vap (SV) Ambient(A)	Canister Serial #	Canister Size 6L or 1L	Controller Serial #		Time (24 hr clock)	Pressure ("Hg)	Temp (F)	Init.		(24 hr clock)	Pressure ("Hg)	Temp (F)	Init.			-   -
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- 12	SV-		SV	<u> 4514</u>	11	FC165	2/18/1	1325	-29	72	ie	2118/11	1335	-5	72	10	X	_	
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Williams			\$1975900000000000000000000000000000000000		***************************************							6				<u> </u>		丄	
Standard -	Turnaround Time (Business	s Days)		diay.		Arm.	20000000	Data C	Deliverable Info	rmation				Comments	/ Remarks	科圖/ 组			
Sianuai u -	- <del></del>	_					AllA	UDEP TO-15	is mandatory	Full T1									
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	5 Day			10			Соп	п В		1									
	3 Day		ved By:	א/או			Red	ced T2		1									ł
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	1 Day						Othe	c	<del>/`</del>		¬								-
	Other							<u> </u>			-								
			12 6 75 6	Sample Cus	tody must	be documente	d below each	time samples	chapp oss	ssion, includ	ing courier d	livery.	10 Feb. 10			HHIII WA			
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3 ///	'IUNL	2/15	4/14		Ksi	AR			11/10		1	Į.	Thol	Received	M	odina			
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5	<u>-</u> -		5			<u>"                                    </u>			/										

JA68565: Chain of Custody Page 2 of 3





#### **Accutest Laboratories Sample Receipt Summary**

ACCUTEST: LABORATORIES Accutest Job Number: JA68565 Client: Immediate Client Services Action Required: No Client Service Action Required at Login: Date / Time Received: 2/18/2011 **Delivery Method:** Nο Project: No. Coolers: Airbill #'s: 0 Y or N Y or N Sample Integrity - Documentation **Cooler Security** Y or N V П 3. COC Present: **√** 1. Custody Seals Present: ✓ 1. Sample labels present on bottles: ✓ 4. Smpl Dates/Time OK ✓ 2. Custody Seals Intact: ✓ 2. Container labeling complete: 3. Sample container label / COC agree: ✓ Cooler Temperature Y or N 1. Temp criteria achieved: Υ N or Sample Integrity - Condition 2. Cooler temp verification: Infared gun 1 1. Sample recvd within HT: 3. Cooler media: Ice (bag) 2. All containers accounted for: 1 **Quality Control Preservatio** Y or N N/A 3. Condition of sample: Intact 1. Trip Blank present / cooler: **√** Sample Integrity - Instructions or N N/A **✓** 2. Trip Blank listed on COC: 1 

1. Analysis requested is clear:

2. Bottles received for unspecified tests

3. Sufficient volume recvd for analysis:

4. Compositing instructions clear:

5. Filtering instructions clear:

3. Samples preserved properly:

4. VOCs headspace free:

✓

**✓** 

Accutest Laboratories V:732.329.0200

2235 US Highway 130 F: 732.329.3499

Dayton, New Jersey www/accutest.com

✓

✓

✓

**✓** 

JA68565: Chain of Custody Page 3 of 3

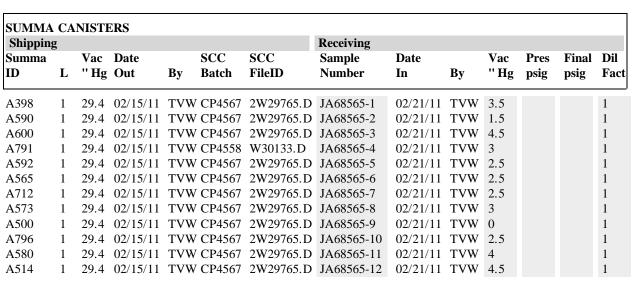


#### **Summa Canister and Flow Controller Log**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

**Received:** 02/18/11



FLOW C	CONTROL	LERS					
Shipping	g				Receivin	ıg	
Flow Crtl ID	Date Out	By	cc/ min	Time hrs.	Date In	Bv	cc/ min
CIUID	Out	Бу	111111	111 5.	111	Бу	111111
FC071	02/15/11	TVW	82	.166	02/21/11	TVW	105
FC100	02/15/11	TVW	82	.166	02/21/11	TVW	85
FC109	02/15/11	TVW	82	.166	02/21/11	TVW	87
FC165	02/15/11	TVW	82	.166	02/21/11	TVW	85.5
FC175	02/15/11	TVW	82	.166	02/21/11	TVW	81
FC177	02/15/11	TVW	82	.166	02/21/11	TVW	85
FC257	02/15/11	TVW	82	.166	02/21/11	TVW	86
FC278	02/15/11	TVW	82	.166	02/21/11	TVW	87
FC286	02/15/11	TVW	82	.166	02/21/11	TVW	83
FC309	02/15/11	TVW	82	.166	02/21/11	TVW	85
FC388	02/15/11	TVW	82	.166	02/21/11	TVW	84
FC402	02/15/11	TVW	82	.166	02/21/11	TVW	86

#### **Accutest Bottle Order(s):**

MC-2/3/2011-2

 Prep Date
 Room Temp(F)
 Bar Pres ''Hg

 02/15/11
 70.7
 30.15

Page 1 of 1



# **Internal Sample Tracking Chronicle**

TRC

Job No: JA68565

Lockheed Electronics Co, Watchung, NJ Project No: 116473

Sample Number	Method	Analyzed	Ву	Prepped	Ву	Test Codes
JA68565-1 SV-4	Collected: 17-FEB-11	09:48 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-1 JA68565-1		25-FEB-11 04:54 25-FEB-11 14:18	YXC YXC			VTO15STD VTO15STD
JA68565-2 SV-3	Collected: 17-FEB-11	10:48 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-2	TO-15	25-FEB-11 05:33	YXC			VTO15STD
JA68565-3 SV-5	Collected: 17-FEB-11	12:36 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-3	TO-15	24-FEB-11 17:38	YXC			VTO15STD
JA68565-4 SV-6	Collected: 17-FEB-11	13:48 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-4 JA68565-4		24-FEB-11 18:18 25-FEB-11 14:57	YXC YXC			VTO15STD VTO15STD
JA68565-5 SV-7	Collected: 17-FEB-11	14:30 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-5 JA68565-5		24-FEB-11 19:36 26-FEB-11 02:15	YXC YXC			VTO15STD VTO15STD
JA68565-6 SV-8	Collected: 17-FEB-11	13:15 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-6 JA68565-6		24-FEB-11 20:16 25-FEB-11 16:19	YXC YXC			VTO15STD VTO15STD
JA68565-7 SV-DUP	Collected: 17-FEB-11	13:24 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-7	TO-15	24-FEB-11 20:55	YXC			VTO15STD



# **Internal Sample Tracking Chronicle**

TRC

Job No: JA68565

Lockheed Electronics Co, Watchung, NJ Project No: 116473

Sample Number	Method	Analyzed	Ву	Prepped	Ву	Test Codes
JA68565-8 SV-14	Collected: 18-FEB-11	10:23 By: RC	Receiv	ved: 18-FEB-	11 By:	MPC
JA68565-8	TO-15	24-FEB-11 21:35	YXC			VTO15STD
JA68565-9 SV-12	Collected: 18-FEB-11	11:05 By: RC	Receiv	ved: 18-FEB-	11 By:	MPC
JA68565-9	TO-15	24-FEB-11 22:14	YXC			VTO15STD
JA68565-10 SV-9	Collected: 18-FEB-11	12:03 By: RC	Receiv	ved: 18-FEB-	11 By:	MPC
JA68565-10 JA68565-10		24-FEB-11 22:54 25-FEB-11 16:57				VTO15STD VTO15STD
JA68565-11 SV-10	Collected: 18-FEB-11	12:52 By: RC	Receiv	ed: 18-FEB-	11 By:	MPC
JA68565-11	TO-15	24-FEB-11 23:33	YXC			VTO15STD
JA68565-12 SV-11	Collected: 18-FEB-11	13:35 By: RC	Receiv	ved: 18-FEB-	11 By:	MPC
JA68565-12 JA68565-12		25-FEB-11 00:13 25-FEB-11 17:37	YXC YXC			VTO15STD VTO15STD



# **Accutest Internal Chain of Custody Job Number:** JA68565

RAVIV TRC Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

Received: 02/18/11

Sample. Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JA68565-1.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-1.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-1.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-1.1	GCMS3W	Yunxia Chen		Unload from Instrument
JA68565-1.1	Yunxia Chen	Air Storage	03/01/11 15:08	Return to Storage
JA68565-1.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-2.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-2.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-2.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-2.1	GCMS3W	Yunxia Chen	02/25/11 11:19	Unload from Instrument
JA68565-2.1	Yunxia Chen	Air Storage	02/25/11 11:19	Return to Storage
JA68565-2.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-3.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-3.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-3.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-3.1	GCMS3W	Yunxia Chen	02/25/11 11:19	Unload from Instrument
JA68565-3.1	Yunxia Chen	Air Storage	02/25/11 11:19	Return to Storage
JA68565-3.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-4.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-4.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-4.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-4.1	GCMS3W	Yunxia Chen		Unload from Instrument
JA68565-4.1	Yunxia Chen	Air Storage	03/01/11 15:08	Return to Storage
JA68565-4.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-5.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-5.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-5.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-5.1	GCMS3W	Yunxia Chen	03/01/11 15:08	Unload from Instrument
JA68565-5.1	Yunxia Chen	Air Storage		Return to Storage
JA68565-5.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-6.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-6.1	Air Storage	Yunxia Chen		Retrieve from Storage
JA68565-6.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-6.1	GCMS3W	Yunxia Chen	03/01/11 15:08	Unload from Instrument
JA68565-6.1	Yunxia Chen	Air Storage		Return to Storage
JA68565-6.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-7.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-7.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage



# Accutest Internal Chain of Custody Job Number: JA68565

RAVIV TRC Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

Received: 02/18/11

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JA68565-7.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-7.1	GCMS3W	Yunxia Chen	02/25/11 11:19	Unload from Instrument
JA68565-7.1	Yunxia Chen	Air Storage	02/25/11 11:19	Return to Storage
JA68565-7.1	Dave Hunkele	C	03/31/11 06:35	Disposed
JA68565-8.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-8.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-8.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-8.1	GCMS3W	Yunxia Chen	02/25/11 11:19	Unload from Instrument
JA68565-8.1	Yunxia Chen	Air Storage	02/25/11 11:19	Return to Storage
JA68565-8.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-9.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-9.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-9.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-9.1	GCMS3W	Yunxia Chen	02/25/11 11:19	Unload from Instrument
JA68565-9.1	Yunxia Chen	Air Storage	02/25/11 11:19	Return to Storage
JA68565-9.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-10.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-10.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-10.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-10.1	GCMS3W	Yunxia Chen	03/01/11 15:08	Unload from Instrument
JA68565-10.1	Yunxia Chen	Air Storage	03/01/11 15:08	Return to Storage
JA68565-10.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-11.1	Andrew N. Marcelino	Air Storage	02/18/11 19:26	Return to Storage
JA68565-11.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-11.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-11.1	GCMS3W	Yunxia Chen	02/25/11 11:19	Unload from Instrument
JA68565-11.1	Yunxia Chen	Air Storage	02/25/11 11:19	Return to Storage
JA68565-11.1	Dave Hunkele		03/31/11 06:35	Disposed
JA68565-12.1	Andrew N. Marcelino	Air Storage		Return to Storage
JA68565-12.1	Air Storage	Yunxia Chen	02/24/11 12:21	Retrieve from Storage
JA68565-12.1	Yunxia Chen	GCMS3W	02/24/11 12:21	Load on Instrument
JA68565-12.1	GCMS3W	Yunxia Chen	03/01/11 15:08	Unload from Instrument
JA68565-12.1	Yunxia Chen	Air Storage	03/01/11 15:08	Return to Storage
JA68565-12.1	Dave Hunkele	-	03/31/11 06:35	Disposed



# Accutest Laboratories Annual Method Detection Limit Determination Dayton, NJ Facility

 Method:
 TO-15 (VTO14/15)

 Instrument(s):
 GCMS2W, GCMS3W, GCMSW

 Analyst:
 Pooled

Matrix: AIR 1.00 Quant Factor: 1.00 Study Period: March, 2010

						Replicate Spikes	es			•	•	•		
	Analysis	Spike	72	R2	R3	R4	R5	R6	R7	X-Bar	X-Bar	STD.Dev.	MDL	Spike/MDL
Cmpd./Element/Parm. Name	Date	vddd	vddd	hpbv	hpbv	hpbv	hpbv	hpbv	vddd	hpbv	%Recov.	vddd		Ratio
Acetone	9-Mar-10	0.1	0.16	0.12	0.10	0.13	0.14	0.15	0.14	0.13	134.91	0.05	0.06	1.63
Acrolein	5-Mar-10	0.2	0.13	0.13	0.13	0.11	0.12	0.13	0.14	0.13	63.82	0.01	0.03	7.80
1,3-Butadiene	24-Feb-10	0.1	0.12	0.10	0.10	0.11	0.12	0.10	0.11	0.11	107.28	0.01	0.03	3.52
Benzene	9-Mar-10	0.2	0.20	0.24	0.20	0.19	0.19	0.21	0.20	0.21	103.35	0.02	0.05	4.06
Bromodichloromethane	5-Mar-10	0.1	0.05	0.07	90.0	0.07	0.07	0.07	0.07	90.0	63.63	0.01	0.03	3.98
Bromoform	5-Mar-10	0.2	0.15	0.15	0.13	0.14	0.14	0.14	0.14	0.14	70.85	0.01	0.02	8.16
Bromomethane	24-Feb-10	0.1	0.13	0.11	0.11	0.12	0.12	0.11	0.12	0.12	117.75	0.01	0.03	3.83
Bromoethene	9-Mar-10	0.1	0.11	0.12	0.10	0.11	0.13	0.12	0.10	0.11	112.36	0.01	0.03	3.12
n-Butane	24-Feb-10	0.1	0.14	0.11	0.11	0.11	0.13	0.11	0.12	0.12	120.12	0.01	0.04	2.40
Benzyl Chloride	5-Mar-10	0.2	0.12	0.12	0.10	0.11	0.11	60.0	0.11	0.11	53.60	0.01	0.03	5.83
n-Butylbenzene	9-Mar-10	0.2	0.12	0.16	0.10	0.10	0.08	0.12	60.0	0.11	55.08	0.03	0.09	2.21
sec-Butylbenzene	24-Feb-10	0.1	0.08	0.07	0.08	0.07	0.00	0.05	0.05	0.07	66.88	0.01	0.04	2.83
tert-Butylbenzene	5-Mar-10	0.1	0.03	0.05	0.04	90.0	90.0	0.05	0.05	0.05	49.15	0.01	0.03	3.41
Carbon disulfide	5-Mar-10	0.1	90.0	0.08	0.07	0.08	0.08	0.08	0.08	0.08	75.71	0.01	0.03	3.44
Chlorobenzene	5-Mar-10	0.1	90.0	0.08	90.0	60.0	0.08	0.08	0.08	0.08	76.01	0.01	0.03	3.25
Chlorodifluoromethane	9-Mar-10	0.1	0.18	0.14	0.17	0.14	0.14	0.17	0.17	0.16	157.46	0.02	0.06	1.66
Chloroethane	24-Feb-10	0.1	0.13	0.10	0.11	0.12	0.14	0.10	0.10	0.12	115.77	0.02	0.05	2.00
Chloroform	24-Feb-10	0.1	0.13	0.11	0.12	0.11	0.12	0.11	0.11	0.12	116.16	0.01	0.03	3.90
Chloromethane	9-Mar-10	0.1	0.08	0.13	0.12	0.11	0.09	0.12	0.11	0.11	109.61	0.02	0.05	1.88
3-Chloropropene	9-Mar-10	0.1	90.0	0.10	0.08	0.08	0.00	0.09	0.08	0.08	82.55	0.01	0.04	2.85
2-Chlorotoluene	24-Feb-10	0.1	0.09	0.08	0.07	0.07	0.10	0.08	0.08	0.08	81.27	0.01	0.03	3.09
Carbon tetrachloride	5-Mar-10	0.2	0.18	0.18	0.17	0.16	0.18	0.17	0.17	0.17	86.27	0.01	0.02	8.76
Cyclohexane	9-Mar-10	0.1	0.10	0.08	0.07	90.0	0.10	0.08	0.08	0.08	80.45	0.01	0.04	2.41
1,1-Dichloroethane	5-Mar-10	0.1	0.05	0.07	90.0	0.07	0.07	0.07	0.07	0.07	67.70	0.01	0.02	4.08
1,1-Dichloroethylene	5-Mar-10	0.2	0.21	0.21	0.20	0.20	0.21	0.19	0.19	0.20	100.32	0.01	0.02	8.40
1,2-Dibromoethane	24-Feb-10	0.2	0.15	0.16	0.15	0.15	0.14	0.13	0.16	0.15	74.73	0.01	0.03	6.72
1,2-Dichloroethane	5-Mar-10	0.1	0.05	0.07	0.05	0.07	0.07	0.07	0.07	0.06	63.01	0.01	0.02	4.23
1,2-Dichloropropane	9-Mar-10	0.1	0.09	0.13	0.09	0.09	0.12	0.09	0.11	0.10	104.14	0.02	0.05	1.86
1,4-Dioxane	24-Feb-10	0.2	0.15	0.14	0.14	0.17	0.15	0.15	0.17	0.15	76.92	0.01	0.04	5.07
Dichlorodifluoromethane	9-Mar-10	0.1	0.13	60.0	0.15	0.14	0.14	0.16	0.16	0.14	140.66	0.02	0.07	1.36
Dibromochloromethane	9-Mar-10	0.2	0.22	0.27	0.20	0.20	0.18	0.21	0.21	0.21	106.69	0.03	0.08	2.44
trans-1,2-Dichloroethylene	24-Feb-10	0.1	0.13	0.10	0.12	0.10	0.12	0.10	0.11	0.11	109.97	0.01	0.04	2.84
cis-1,2-Dichloroethylene	24-Feb-10	0.2	0.19	0.16	0.18	0.18	0.16	0.17	0.18	0.17	87.15	0.01	0.03	6.39
cis-1,3-Dichloropropene	5-Mar-10	0.1	0.04	0.06	0.05	0.06	0.00	0.06	0.06	0.05	53.97	0.01	0.02	4.58
m-Dichlorobenzene	5-Mar-10	0.1	0.03	0.05	0.04	0.05	0.02	0.05	0.04	0.05	46.14	0.01	0.03	3.99
o-Dichlorobenzene	9-Mar-10	0.1	0.05	0.04	0.07	0.05	0.04	0.04	0.04	0.05	48.39	0.01	0.03	3.16
p-Dichlorobenzene	5-Mar-10	0.1	0.03	0.05	0.04	0.05	0.00	0.05	0.04	0.02	45.72	0.01	0.03	3.71



Detection limits derived using the method described in 40 CFR Part 136, Appendix B

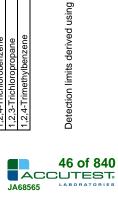
TO-15 (VTO14/15) GCMS2W, GCMS3W, GCMSW Pooled

Method: Instrument(s): Analyst:

Matrix: Quant Factor: Study Period:

1.00 March,2010

					Rei	Replicate Spikes	202							
	Analysis	Spike	72	R2	R3	R4	R5	R6	R7	X-Bar	X-Bar	STD.Dev.	MDL	Spike/MDL
Cmpd./Element/Parm. Name	Date	nddd	hpbv	ppbv	ppbv	ppbv	ppbv	yddd	ppbv	ppbv	%Recov.	ppbv		Ratio
													0	
trans-1,3-Dichloropropene	9-Mar-10	0.2	0.15	0.20	0.14		0.13	0.17	0.15	0.15	76.22		0.08	
Di-Isopropyl ether	5-Mar-10	0.1	0.05	0.07	0.06		0.07	0.02	0.07	0.06		0.01	0.02	4.06
2,3-Dimethylpentane	24-Feb-10	0.2	0.24	0.22	0.25	0.24	0.24	0.21	0.23	0.23	115.99	0.01	0.04	4.77
2,4-Dimethylpentane	24-Feb-10	0.1	0.11	0.09	0.09	60.0	0.09	60.0	60.0	60.0	92.44	0.01	0.02	4.97
Ethanol	9-Mar-10	0.2	0.46	0.35	0:30	0.32	0.36	0.34	0.40	0.36	180.71	0.05	0.17	1.19
Ethylbenzene	5-Mar-10	0.1	0.05	0.07	0.05	0.07	0.07	0.07	0.07	90.0	64.44	0.01	0.03	3.71
Ethyl Acetate	9-Mar-10	0.2	0.13	0.18	0.13	0.10	0.14	0.14	0.15	0.14	68.76	0.02	0.08	2.60
4-Ethyltoluene	5-Mar-10	0.1	0.03	0.05	0.04	0.05	0.05	0.05	0.04	0.05	45.81	0.01	0.02	4.16
Freon 113	9-Mar-10	0.1	0.13	0.15	0.13	0.13	0.13	0.15	0.14	0.14	138.16	0.01	0.03	3.88
Freon 114	5-Mar-10	0.2	0.20	0.19	0.18	0.18	0.20	0.18	0.18	0.19	92.57	0.01	0.03	6.83
Freon 123	24-Feb-10	0.1	0.13	0.12	0.13	0.12	0.13	0.12	0.12	0.12	124.69	0.01	0.02	4.61
Freon 123A	5-Mar-10	0.1	0.07	0.09	0.07	60.0	0.09	60:0	0.09	0.08	84.85	0.01	0.03	3.64
Freon 152A	9-Mar-10	0.1	0.13	0.12	0.11	0.12	0.14	0.10	0.12	0.12	119.27	0.01	0.04	2.62
Heptane	24-Feb-10	0.2	0.19	0.21	0.20	0.20	0.20	0.19	0.20	0.20	99.44	0.01	0.02	8.47
Hexachlorobutadiene	5-Mar-10	0.1	0.03	0.09	0.04	0.07	0.07	90:0	90.0	90.0	62.03	0.02	90.0	1.68
Hexane	24-Feb-10	0.1	0.11	0.09	0.09	0.10	0.10	0.10	0.10	0.10	100.42	0.01	0.02	4.62
2-Hexanone	9-Mar-10	0.2	0.07	0.10	90.0	90'0	0.08	0.08	90.0	0.07	35.22	0.01	0.04	4.70
Iodomethane	5-Mar-10	0.2	0.20	0.20	0.20	0.19	0.21	0.19	0.20	0.20	68.33	0.01	0.02	8.51
Isopropylbenzene	5-Mar-10	0.1	0.02	0.07	0.05	0.07	0.07	0.07	90.0	0.00	08.89	0.01	0.03	3.54
Isopropyl Alcohol	9-Mar-10	0.1	0.13	0.09	0.11	0.14	0.13	0.12	0.11	0.12	117.50	0.02	0.05	1.83
p-IsopropyItoluene	5-Mar-10	0.1	0.02	0.05	0.03	0.04	0.04	0.03	0.03	0.03	34.58	0.01	0.03	3.79
Methylene chloride	5-Mar-10	0.2	0.22	0.23	0.22	0.22	0.23	0.21	0.22	0.22	110.79	0.01	0.03	7.48
Methyl ethyl ketone	9-Mar-10	0.1	90.0	90.0	0.02		0.05	0.04	0.05	0.02	54.10	0.01	0.03	
Methyl Isobutyl Ketone	24-Feb-10	0.1	0.11	0.08	0.08	60'0	0.09	0.09	0.08	0.00	88.13	0.01	0.04	2.70
Methyl Tert Butyl Ether	5-Mar-10	0.1	0.02	0.07	0.00	0.09	0.09	0.08	0.08	0.08	75.43	0.01	0.04	2.35
Methylmethacrylate	24-Feb-10	0.1	0.10	0.07	0.10		0.08	0.09	0.08	0.09	87.78	0.01	0.03	2.97
Nonane	5-Mar-10	0.1	0.04	0.02	0.04	0.05	0.05	0.05	0.04	0.04	44.34	0.01	0.02	5.57
Octane	24-Feb-10	0.1	0.11	0.10	0.10	0.11	0.11	0.08	0.00	0.10	101.20	0.01	0.03	3.04
Pentane	9-Mar-10	0.1	0.09	0.17	0.14	0.13	0.12	0.12	0.13	0.13	128.84	0.02	0.08	1.32
n-Propylbenzene	9-Mar-10	0.2	0.12	0.17	0.13	0.11	0.11	0.12	0.10	0.12	61.25	0.02	0.07	2.86
Propane	5-Mar-10	0.1	0.12	0.14	0.12	0.11	0.12	0.13	0.12	0.12	123.15	0.01	0.02	4.55
Propylene	9-Mar-10	0.1	0.10	0.17	0.12	0.09	0.10	0.11	0.16	0.12	120.70	0.03	0.10	
Styrene	24-Feb-10	0.1	0.09	0.07	0.08	0.08	0.07	90.0	0.07	0.07	73.16	0.01	0.03	3.77
1,1,1-Trichloroethane	5-Mar-10	0.1	90.0	0.08	0.06	0.08	0.08	0.08	0.08	0.07	71.98	0.01	0.02	4.13
1,1,1,2-Tetrachloroethane	5-Mar-10	0.1	90.0	0.08	90.0		0.08	0.08	0.08	0.07	74.47	0.01	0.03	3.27
1,1,2,2-Tetrachloroethane	5-Mar-10	0.1	0.04	0.02	0.04	90'0	0.00	0.05	0.02	0.02		0.01	0.03	3.93
1,1,2-Trichloroethane	5-Mar-10	0.1	0.02	0.00	0.02	90.0	0.07	0.06	0.00	0.06	59.01	0.01	0.02	4.17
1,2,4-Trichlorobenzene	24-Feb-10	0.2	0.15	0.08	0.06		0.07	0.05	0.07	0.07		0.04	0.11	1.74
1,2,3-Trichloropropane	5-Mar-10	0.2	0.18	0.17	0.15		0.15	0.15	0.17	0.16		0.01	0.04	5.10
1,2,4-Trimethylbenzene	5-Mar-10	0.1	0.03	0.05	0.04	0.05	0.05	0.05	0.04	0.05	45.24	0.01	0.03	3.68



TO-15 (VTO14/15) GCMS2W, GCMS3W, GCMSW Pooled			
	TO-15 (VTO14/15)	GCMS2W, GCMS3W, GCMSW	Pooled

Method: Instrument(s): Analyst:

1.00 March,2010

Matrix: Quant Factor: Study Period:

					Rep	Replicate Spikes	es							
	Analysis	Spike	R1	R2	R3	R4	R5	R6	R7	X-Bar	X-Bar	STD.Dev.	MDL	Spike/MDL
Cmpd./Element/Parm. Name	Date	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	%Recov.	ppbv		Ratio
1,3,5-Trimethylbenzene	5-Mar-10	0.1	0.04	90.0	0.04	90.0	90.0	0.02	0.05	0.02	51.68	0.01	0.03	3.69
2,2,4-Trimethylpentane	24-Feb-10	1.0	0.12	0.10	0.10	0.10	0.11	0.10	0.10	0.11	106.20	0.01	0.02	4.81
Tertiary Butyl Alcohol	24-Feb-10	0.2	0.20	0.19	0.17	0.16	0.19	0.19	0.19	0.18	91.68	0.01	0.04	5.12
Tetrachloroethylene	24-Feb-10	1.0	0.15	0.11	0.12	0.12	0.12	0.11	0.12	0.12	120.45	0.01	0.04	2.46
Tetrahydrofuran	9-Mar-10	0.2	0.11	0.16	0.13	0.10	0.12	0.11	0.12	0.12	60.53	0.02	90.0	3.50
Toluene	5-Mar-10	0.1	0.05	0.07	0.05	0.07	0.07	0.07	90.0	0.00	62.72	0.01	0.03	3.98
Trichloroethylene	5-Mar-10	0.1	0.05	0.07	90.0	0.07	0.07	0.07	0.07	0.07	65.03	0.01	0.02	4.14
Trichlorofluoromethane	9-Mar-10	0.1	0.15	0.16	0.17	0.16	0.15	0.17	0.18	0.16	162.87	0.01	0.03	3.12
Vinyl chloride	5-Mar-10	0.1	0.06	0.08	90.0	0.07	0.08	0.08	0.08	0.07	73.64	0.01	0.03	3.41
Vinyl Acetate	9-Mar-10	0.2	0.19	0.16	0.10	0.08	0.08	0.10	0.12	0.12	58.69	0.04	0.13	1.50
m,p-Xylene	24-Feb-10	0.2	0.23	0.19	0.20	0.21	0.22	0.18	0.18	0.20	100.52	0.05	0.00	3.39
o-Xylene	5-Mar-10	0.1	0.05	0.07	0.05	0.07	0.07	0.06	90.0	0.00	63.06	0.01	0.03	3.90
TVHC As Equiv Pentane	9-Mar-10	0.2	0.25	0.44	0.35	0.23	0.29	0.34	0.30	0.31	157.22	0.07	0.22	0.91
TVHC As Equiv Heptane	9-Mar-10	0.2	0.20	0.27	0.19	0.20	0.17	0.22	0.19	0.21	103.53	0.03	0.10	1.96



#### GC/MS Volatiles

## QC Data Summaries

#### Includes the following where applicable:

- · Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Initial Calibration RT/ISTD Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries



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Method: TO-15

## **Method Blank Summary**

Job Number: JA68565 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample V3W828-MB	<b>File ID</b> 3W20975.D	<b>DF</b> 1	<b>Analyzed</b> 02/24/11	By YXC	Prep Date n/a	Prep Batch n/a	Analytical Batch V3W828

The QC reported here applies to the following samples:

JA68565-1, JA68565-2, JA68565-3, JA68565-4, JA68565-5, JA68565-6, JA68565-7, JA68565-8, JA68565-9, 10, JA68565-11, JA68565-12

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.061	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.049	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.025	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.025	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.026	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.032	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.034	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.029	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.031	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.050	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.026	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.053	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.035	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.032	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.023	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.042	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.025	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.024	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.030	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.024	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.054	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.040	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.073	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.082	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.035	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.031	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.022	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.032	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.079	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.17	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.027	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.077	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



Method: TO-15

## **Method Blank Summary**

Job Number: JA68565 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch	
V3W828-MB	3W20975.D	1	02/24/11	YXC	n/a	n/a	V3W828	

#### The QC reported here applies to the following samples:

JA68565-1, JA68565-2, JA68565-3, JA68565-4, JA68565-5, JA68565-6, JA68565-7, JA68565-8, JA68565-9, 10, JA68565-11, JA68565-12

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.026	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.029	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.024	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.060	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.022	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.055	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.030	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.037	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.043	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.034	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.096	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.025	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.021	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.039	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.040	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.057	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.025	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.024	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.032	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.029	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.13	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.059	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.026	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.026	ppbv	ND	0.87	ug/m3



Method: TO-15

# C

## **Method Blank Summary**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample V3W828-MB	<b>File ID</b> 3W20975.D	<b>DF</b> 1	<b>Analyzed</b> 02/24/11	By YXC	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch V3W828

The QC reported here applies to the following samples:

 $JA68565-1,\ JA68565-2,\ JA68565-3,\ JA68565-4,\ JA68565-5,\ JA68565-6,\ JA68565-7,\ JA68565-8,\ JA68565-9,\ JA68565-10,\ JA68565-11,\ JA68565-12$ 

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	84%	65-128%



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Method: TO-15

**Method Blank Summary** 

Job Number: JA68565 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	<b>Prep Date</b>	Prep Batch	Analytical Batch
V3W829-MB	3W21006.D	1	02/25/11	YXC	n/a	n/a	V3W829

The QC reported here applies to the following samples:

 ${\rm JA68565\text{--}1,\ JA68565\text{--}4,\ JA68565\text{--}5,\ JA68565\text{--}6,\ JA68565\text{--}10,\ JA68565\text{--}12}$ 

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.061	ppbv	ND	0.48	ug/m3

CAS No. **Surrogate Recoveries** Limits 460-00-4 4-Bromofluorobenzene 78% 65-128%



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Method: TO-15

# Method Blank Summary Job Number: JA68565

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
VW1236-MB	W30129.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here applies to the following samples:

VW1236-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.061	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.049	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.025	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.025	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.026	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.032	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.034	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.029	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.031	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.050	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.026	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.053	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.035	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.032	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.023	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.042	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.025	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.024	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.030	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.024	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.054	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.040	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.073	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.082	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.035	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.031	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.022	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.032	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.079	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.17	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.027	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.077	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



Method: TO-15

# Method Blank Summary Job Number: JA68565

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1236-MB	W30129.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here applies to the following samples:

VW1236-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.026	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.029	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.024	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.060	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.022	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.055	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.030	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.037	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.043	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.034	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.096	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.025	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.021	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.039	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.040	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.057	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.025	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.024	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.032	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.029	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.13	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.059	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.026	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.026	ppbv	ND	0.87	ug/m3

Method: TO-15

#### Method Blank Summary Job Number: JA68565

**Job Number:** JA68565 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample VW1236-MB	<b>File ID</b> W30129.D	<b>DF</b> 1	<b>Analyzed</b> 02/11/11	<b>By</b> YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch VW1236

The QC reported here applies to the following samples:

VW1236-SCC

CAS No. Surrogate Recoveries Limits

460-00-4 4-Bromofluorobenzene 86% 65-128%



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Method: TO-15

# Method Blank Summary Job Number: JA68565

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
V2W1256-MB	2W29761.D	1	02/14/11	YMH	n/a	n/a	V2W1256

The QC reported here applies to the following samples:

V2W1256-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.061	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.049	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.025	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.025	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.026	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.032	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.034	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.029	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.031	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.050	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.026	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.053	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.035	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.032	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.023	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.042	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.025	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.024	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.030	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.024	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.054	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.040	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.073	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.082	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.035	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.031	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.022	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.032	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.079	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.17	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.027	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.077	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



Method: TO-15

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## Method Blank Summary Job Number: JA68565

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>	
V2W1256-MB	2W29761.D	1	02/14/11	YMH	n/a	n/a	V2W1256	

The QC reported here applies to the following samples:

V2W1256-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.026	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.029	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.024	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.060	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.022	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.055	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.030	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.037	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.043	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.034	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.096	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.025	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.021	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.039	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.040	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.057	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.025	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.024	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.032	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.029	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.13	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.059	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.026	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.026	ppbv	ND	0.87	ug/m3

Method: TO-15

## **Method Blank Summary**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample V2W1256-MB	<b>File ID</b> 2W29761.D	<b>DF</b> 1	<b>Analyzed</b> 02/14/11	<b>By</b> YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch V2W1256

The QC reported here applies to the following samples:

V2W1256-SCC

CAS No. Surrogate Recoveries Limits

460-00-4 4-Bromofluorobenzene 89% 65-128%



Method: TO-15

### Blank Spike/Blank Spike Duplicate Summary

Job Number: JA68565 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample V3W828-BS V3W828-BSD	File ID 3W20973.D 3W20974.D	<b>Analyzed</b> 02/24/11 02/24/11	By YXC YXC	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V3W828 V3W828

The QC reported here applies to the following samples:

JA68565-1, JA68565-2, JA68565-3, JA68565-4, JA68565-5, JA68565-6, JA68565-7, JA68565-8, JA68565-9, 10, JA68565-11, JA68565-12

		Spike	BSP	BSP	BSD	BSD		Limits
CAS No.	Compound	ppbv	ppbv	<b>%</b>	ppbv	<b>%</b>	RPD	Rec/RPD
67.64.1	<b>A</b>	10	0.1	0.1	0.0	00	2	70 120/20
67-64-1	Acetone	10	9.1	91	8.8	88	3	70-130/30
106-99-0	1,3-Butadiene	10	9.8	98	9.9	99	1	70-130/30
71-43-2	Benzene	10	10.5	105	10.4	104	1	70-130/30
75-27-4	Bromodichloromethane	10	10.9	109	10.8	108	1	70-130/30
75-25-2	Bromoform	10	10.1	101	10.2	102	1	70-130/30
74-83-9	Bromomethane	10	9.6	96	9.7	97	1	70-130/30
593-60-2	Bromoethene	10	10	100	10.0	100	0	70-130/30
100-44-7	Benzyl Chloride	10	10.1	101	10.3	103	2	70-130/30
75-15-0	Carbon disulfide	10	9.6	96	9.5	95	1	70-130/30
108-90-7	Chlorobenzene	10	9.7	97	9.8	98	1	70-130/30
75-00-3	Chloroethane	10	11.3	113	11.3	113	0	70-130/30
67-66-3	Chloroform	10	10.7	107	10.7	107	0	70-130/30
74-87-3	Chloromethane	10	10.9	109	10.9	109	0	70-130/30
107-05-1	3-Chloropropene	10	11.2	112	11.1	111	1	70-130/30
95-49-8	2-Chlorotoluene	10	10.3	103	10.4	104	1	70-130/30
56-23-5	Carbon tetrachloride	10	11.0	110	11.1	111	1	70-130/30
110-82-7	Cyclohexane	10	10.3	103	10.2	102	1	70-130/30
75-34-3	1,1-Dichloroethane	10	10.9	109	10.9	109	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.4	94	9.4	94	0	70-130/30
106-93-4	1,2-Dibromoethane	10	10.9	109	11.0	110	1	70-130/30
107-06-2	1,2-Dichloroethane	10	12.7	127	12.5	125	2	70-130/30
78-87-5	1,2-Dichloropropane	10	10.8	108	10.8	108	0	70-130/30
123-91-1	1,4-Dioxane	10	9.4	94	9.6	96	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.5	95	9.4	94	1	70-130/30
124-48-1	Dibromochloromethane	10	10.2	102	10.0	100	2	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.5	105	10.7	107	2	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.4	104	10.4	104	0	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	12.3	123	12.2	122	1	70-130/30
541-73-1	m-Dichlorobenzene	10	11.7	117	11.9	119	2	70-130/30
95-50-1	o-Dichlorobenzene	10	11.4	114	11.6	116	2	70-130/30
106-46-7	p-Dichlorobenzene	10	11.0	110	11.1	111	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	13.3	133* a	13.0	130	2	70-130/30
64-17-5	Ethanol	10	9.0	90	8.9	89	1	70-130/30
100-41-4	Ethylbenzene	10	10.3	103	10.4	104	1	70-130/30
141-78-6	Ethyl Acetate	10	9.2	92	9.4	94	2	70-130/30
622-96-8	4-Ethyltoluene	10	9.4	94	9.6	96	2	70-130/30
	<b>3</b>	-						



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Method: TO-15

## Blank Spike/Blank Spike Duplicate Summary

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
V3W828-BS	3W20973.D	1	02/24/11	YXC	n/a	n/a	V3W828
V3W828-BSD	3W20974.D	1	02/24/11	YXC	n/a	n/a	V3W828

The QC reported here applies to the following samples:

JA68565-1, JA68565-2, JA68565-3, JA68565-4, JA68565-5, JA68565-6, JA68565-7, JA68565-8, JA68565-9, JA68565-10, JA68565-11, JA68565-12

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.7	97	9.8	98	1	70-130/30
76-14-2	Freon 114	10	9.6	96	9.5	95	1	70-130/30
142-82-5	Heptane	10	11.1	111	11.3	113	2	70-130/30
87-68-3	Hexachlorobutadiene	10	13.1	131* a	13.5	135* a	3	70-130/30
110-54-3	Hexane	10	10.4	104	10.4	104	0	70-130/30
591-78-6	2-Hexanone	10	9.9	99	10.2	102	3	70-130/30
67-63-0	Isopropyl Alcohol	10	9.8	98	9.9	99	1	70-130/30
75-09-2	Methylene chloride	10	10.3	103	10.6	106	3	70-130/30
78-93-3	Methyl ethyl ketone	10	9.5	95	9.7	97	2	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.3	103	10.3	103	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.1	81	8.1	81	0	70-130/30
80-62-6	Methylmethacrylate	10	9.3	93	9.2	92	1	70-130/30
115-07-1	Propylene	10	9.5	95	9.4	94	1	70-130/30
100-42-5	Styrene	10	12.2	122	12.3	123	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.6	106	10.6	106	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	12.1	121	12.1	121	0	70-130/30
79-00-5	1,1,2-Trichloroethane	10	12.0	120	11.6	116	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10.3	103	10.9	109	6	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.5	95	9.7	97	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.2	92	9.2	92	0	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.7	107	10.7	107	0	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.0	100	10.0	100	0	70-130/30
127-18-4	Tetrachloroethylene	10	8.7	87	8.9	89	2	70-130/30
109-99-9	Tetrahydrofuran	10	9.4	94	8.9	89	5	70-130/30
108-88-3	Toluene	10	10.7	107	10.6	106	1	70-130/30
79-01-6	Trichloroethylene	10	9.5	95	9.5	95	0	70-130/30
75-69-4	Trichlorofluoromethane	10	9.8	98	9.8	98	0	70-130/30
75-01-4	Vinyl chloride	10	10.2	102	10.2	102	0	70-130/30
108-05-4	Vinyl Acetate	10	10.4	104	10.0	100	4	70-130/30
	m,p-Xylene	20	20.0	100	20.1	101	0	70-130/30
95-47-6	o-Xylene	10	10.3	103	10.3	103	0	70-130/30
1330-20-7	Xylenes (total)	30	30.3	101	30.4	101	0	70-130/30



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Method: TO-15

## Blank Spike/Blank Spike Duplicate Summary

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample V3W828-BS V3W828-BSD	File ID 3W20973.D 3W20974.D	<b>Analyzed</b> 02/24/11 02/24/11	By YXC YXC	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V3W828 V3W828

#### The QC reported here applies to the following samples:

JA68565-1, JA68565-2, JA68565-3, JA68565-4, JA68565-5, JA68565-6, JA68565-7, JA68565-8, JA68565-9, JA68565-10, JA68565-11, JA68565-12

CAS No.	<b>Surrogate Recoveries</b>	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	101%	102%	65-128%

(a) High percent recoveries and no associated positive found in the QC batch.



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample V3W829-BS V3W829-BSD	<b>File ID</b> 3W21004.D 3W21005.D	<b>Analyzed</b> 02/25/11 02/25/11	By YXC YXC	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V3W829 V3W829

The QC reported here applies to the following samples:

 ${\rm JA68565\text{--}1,\ JA68565\text{--}4,\ JA68565\text{--}5,\ JA68565\text{--}6,\ JA68565\text{--}10,\ JA68565\text{--}12}$ 

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.5	95	9.2	92	3	70-130/30
CAS No.	Surrogate Recoveries	BSP	BSI	D	Limits			
460-00-4	4-Bromofluorobenzene	110%	109	%	65-1289	6		



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
VW1236-BS	W30127.D	1	02/11/11	YMH	n/a	n/a	VW1236
VW1236-BSD	W30128.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here applies to the following samples:

VW1236-SCC

CAS No.	Compound	Spike	BSP	BSP 0/	BSD	BSD %	RPD	Limits Rec/RPD
CAS No.	Compound	ppbv	ppbv	%	ppbv	%0	KPD	Rec/RPD
67-64-1	Acetone	10	9.1	91	9.2	92	1	70-130/30
106-99-0	1,3-Butadiene	10	9.1	91	9.6	96	5	70-130/30
71-43-2	Benzene	10	9.5	95	9.8	98	3	70-130/30
75-27-4	Bromodichloromethane	10	10	100	10.4	104	4	70-130/30
75-25-2	Bromoform	10	10.8	108	10.9	109	1	70-130/30
74-83-9	Bromomethane	10	9.6	96	10.2	102	6	70-130/30
593-60-2	Bromoethene	10	10.3	103	10.7	107	4	70-130/30
100-44-7	Benzyl Chloride	10	9.9	99	9.7	97	2	70-130/30
75-15-0	Carbon disulfide	10	9.2	92	9.6	96	4	70-130/30
108-90-7	Chlorobenzene	10	10.7	107	10.6	106	1	70-130/30
75-00-3	Chloroethane	10	10.0	100	10.6	106	6	70-130/30
67-66-3	Chloroform	10	9.3	93	9.8	98	5	70-130/30
74-87-3	Chloromethane	10	9.8	98	10.4	104	6	70-130/30
107-05-1	3-Chloropropene	10	9.9	99	10.1	101	2	70-130/30
95-49-8	2-Chlorotoluene	10	11.5	115	11.5	115	0	70-130/30
56-23-5	Carbon tetrachloride	10	9.5	95	10.0	100	5	70-130/30
110-82-7	Cyclohexane	10	9.1	91	9.6	96	5	70-130/30
75-34-3	1,1-Dichloroethane	10	9.7	97	9.9	99	2	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.1	101	10.7	107	6	70-130/30
106-93-4	1,2-Dibromoethane	10	10.6	106	10.7	107	1	70-130/30
107-06-2	1,2-Dichloroethane	10	10.1	101	10.6	106	5	70-130/30
78-87-5	1,2-Dichloropropane	10	9.5	95	9.7	97	2	70-130/30
123-91-1	1,4-Dioxane	10	8.3	83	8.5	85	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.7	97	10.3	103	6	70-130/30
124-48-1	Dibromochloromethane	10	10.7	107	10.9	109	2	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.3	93	9.6	96	3	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.2	92	9.7	97	5	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	10.2	102	3	70-130/30
541-73-1	m-Dichlorobenzene	10	11.2	112	11.0	110	2	70-130/30
95-50-1	o-Dichlorobenzene	10	11.0	110	10.8	108	2	70-130/30
106-46-7	p-Dichlorobenzene	10	11.1	111	10.9	109	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.2	102	10.4	104	2	70-130/30
64-17-5	Ethanol	10	9.2	92	8.7	87	6	70-130/30
100-41-4	Ethylbenzene	10	10.7	107	10.5	105	2	70-130/30
141-78-6	Ethyl Acetate	10	9.1	91	9.5	95	4	70-130/30
622-96-8	4-Ethyltoluene	10	11.7	117	11.5	115	2	70-130/30



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1236-BS	W30127.D	1	02/11/11	YMH	n/a	n/a	VW1236
VW1236-BSD	W30128.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here applies to the following samples:

VW1236-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.6	106	10.9	109	3	70-130/30
76-14-2	Freon 114	10	9.4	94	9.9	99	5	70-130/30
142-82-5	Heptane	10	9.5	95	9.8	98	3	70-130/30
87-68-3	Hexachlorobutadiene	10	9.5	95	9.3	93	2	70-130/30
110-54-3	Hexane	10	8.9	89	9.4	94	5	70-130/30
591-78-6	2-Hexanone	10	9.3	93	9.1	91	2	70-130/30
67-63-0	Isopropyl Alcohol	10	9.5	95	9.8	98	3	70-130/30
75-09-2	Methylene chloride	10	9.3	93	9.8	98	5	70-130/30
78-93-3	Methyl ethyl ketone	10	8.9	89	8.9	89	0	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	9.3	93	9.7	97	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.5	95	9.7	97	2	70-130/30
80-62-6	Methylmethacrylate	10	9.0	90	8.7	87	3	70-130/30
115-07-1	Propylene	10	9.3	93	10.1	101	8	70-130/30
100-42-5	Styrene	10	11.4	114	11.2	112	2	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.6	96	10.1	101	5	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.2	102	10.1	101	1	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.7	97	10.0	100	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10.6	106	11.1	111	5	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	11.6	116	11.5	115	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	12.0	120	11.7	117	3	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	9.7	97	10.1	101	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	9.0	90	9.6	96	6	70-130/30
127-18-4	Tetrachloroethylene	10	11.1	111	11.3	113	2	70-130/30
109-99-9	Tetrahydrofuran	10	9.3	93	9.3	93	0	70-130/30
108-88-3	Toluene	10	10.3	103	10.3	103	0	70-130/30
79-01-6	Trichloroethylene	10	9.8	98	10.1	101	3	70-130/30
75-69-4	Trichlorofluoromethane	10	10.1	101	10.6	106	5	70-130/30
75-01-4	Vinyl chloride	10	9.3	93	9.6	96	3	70-130/30
108-05-4	Vinyl Acetate	10	9.4	94	9.6	96	2	70-130/30
	m, p-Xylene	20	22.4	112	22.1	111	1	70-130/30
95-47-6	o-Xylene	10	10.9	109	11.0	110	1	70-130/30
1330-20-7	Xylenes (total)	30	33.3	111	33.1	110	1	70-130/30

#### Page 3 of 3

Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565 Account: **RAVIV TRC** 

Lockheed Electronics Co, Watchung, NJ **Project:** 

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
VW1236-BS	W30127.D	1	02/11/11	YMH	n/a	n/a	VW1236
VW1236-BSD	W30128.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here applies to the following samples:

Method: TO-15

VW1236-SCC

CAS No.	<b>Surrogate Recoveries</b>	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	101%	99%	65-128%



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W1256-BS	2W29759.D	1	02/14/11	YMH	n/a	n/a	V2W1256
V2W1256-BSD	2W29760.D	1	02/14/11	YMH	n/a	n/a	V2W1256

The QC reported here applies to the following samples:

V2W1256-SCC

CACNO	Compound	Spike	BSP	BSP 0/	BSD	BSD %	RPD	Limits
CAS No.	Compound	ppbv	ppbv	%	ppbv	<b>70</b>	KPD	Rec/RPD
67-64-1	Acetone	10	8.5	85	7.9	79	7	70-130/30
106-99-0	1,3-Butadiene	10	8.9	89	9.2	92	3	70-130/30
71-43-2	Benzene	10	9.1	91	9.4	94	3	70-130/30
75-27-4	Bromodichloromethane	10	9.6	96	10.6	106	10	70-130/30
75-25-2	Bromoform	10	9.7	97	10.3	103	6	70-130/30
74-83-9	Bromomethane	10	8.6	86	9.1	91	6	70-130/30
593-60-2	Bromoethene	10	9.0	90	9.6	96	6	70-130/30
100-44-7	Benzyl Chloride	10	10.4	104	10.9	109	5	70-130/30
75-15-0	Carbon disulfide	10	8.4	84	8.6	86	2	70-130/30
108-90-7	Chlorobenzene	10	9.5	95	10.0	100	5	70-130/30
75-00-3	Chloroethane	10	8.6	86	9.1	91	6	70-130/30
67-66-3	Chloroform	10	9.2	92	9.9	99	7	70-130/30
74-87-3	Chloromethane	10	8.7	87	8.7	87	0	70-130/30
107-05-1	3-Chloropropene	10	9.7	97	9.9	99	2	70-130/30
95-49-8	2-Chlorotoluene	10	9.9	99	10.6	106	7	70-130/30
56-23-5	Carbon tetrachloride	10	8.3	83	9.0	90	8	70-130/30
110-82-7	Cyclohexane	10	8.3	83	8.6	86	4	70-130/30
75-34-3	1,1-Dichloroethane	10	8.7	87	9.2	92	6	70-130/30
75-35-4	1,1-Dichloroethylene	10	8.7	87	9.2	92	6	70-130/30
106-93-4	1,2-Dibromoethane	10	10.0	100	10.3	103	3	70-130/30
107-06-2	1,2-Dichloroethane	10	10.1	101	10.4	104	3	70-130/30
78-87-5	1,2-Dichloropropane	10	9.7	97	9.9	99	2	70-130/30
123-91-1	1,4-Dioxane	10	10.1	101	10.6	106	5	70-130/30
75-71-8	Dichlorodifluoromethane	10	8.1	81	8.5	85	5	70-130/30
124-48-1	Dibromochloromethane	10	9.9	99	10.4	104	5	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	8.7	87	9.2	92	6	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.7	97	10.0	100	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	10.0	100	1	70-130/30
541-73-1	m-Dichlorobenzene	10	10	100	10.7	107	7	70-130/30
95-50-1	o-Dichlorobenzene	10	10.2	102	10.5	105	3	70-130/30
106-46-7	p-Dichlorobenzene	10	9.7	97	10.1	101	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.7	107	10.8	108	1	70-130/30
64-17-5	Ethanol	10	7.9	79	7.7	77	3	70-130/30
100-41-4	Ethylbenzene	10	9.8	98	10.3	103	5	70-130/30
141-78-6	Ethyl Acetate	10	8.3	83	8.4	84	1	70-130/30
622-96-8	4-Ethyltoluene	10	10.6	106	11.3	113	6	70-130/30
	-							



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W1256-BS	2W29759.D	1	02/14/11	YMH	n/a	n/a	V2W1256
V2W1256-BSD	2W29760.D	1	02/14/11	YMH	n/a	n/a	V2W1256

The QC reported here applies to the following samples:

V2W1256-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	8.3	83	9.2	92	10	70-130/30
76-14-2	Freon 114	10	8.1	81	8.6	86	6	70-130/30
142-82-5	Heptane	10	9.4	94	9.7	97	3	70-130/30
87-68-3	Hexachlorobutadiene	10	10.0	100	10.8	108	8	70-130/30
110-54-3	Hexane	10	8.3	83	8.8	88	6	70-130/30
591-78-6	2-Hexanone	10	9.0	90	8.7	87	3	70-130/30
67-63-0	Isopropyl Alcohol	10	8.5	85	9.2	92	8	70-130/30
75-09-2	Methylene chloride	10	8.7	87	9.1	91	4	70-130/30
78-93-3	Methyl ethyl ketone	10	8.9	89	8.5	85	5	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	8.8	88	9.0	90	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.0	90	9.9	99	10	70-130/30
80-62-6	Methylmethacrylate	10	9.3	93	9.4	94	1	70-130/30
115-07-1	Propylene	10	8.9	89	8.9	89	0	70-130/30
100-42-5	Styrene	10	10.7	107	11.0	110	3	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.5	85	9.2	92	8	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.6	96	10.1	101	5	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.2	102	10.7	107	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	8.2	82	8.8	88	7	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.7	107	11.4	114	6	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.1	101	10.9	109	8	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	8.3	83	8.6	86	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	8.4	84	9.6	96	13	70-130/30
127-18-4	Tetrachloroethylene	10	8.9	89	9.7	97	9	70-130/30
109-99-9	Tetrahydrofuran	10	8.3	83	8.5	85	2	70-130/30
108-88-3	Toluene	10	10	100	10.5	105	5	70-130/30
79-01-6	Trichloroethylene	10	8.4	84	8.6	86	2	70-130/30
75-69-4	Trichlorofluoromethane	10	8.2	82	8.9	89	8	70-130/30
75-01-4	Vinyl chloride	10	8.4	84	8.6	86	2	70-130/30
108-05-4	Vinyl Acetate	10	10.9	109	10.9	109	0	70-130/30
	m,p-Xylene	20	20.0	100	21.2	106	6	70-130/30
95-47-6	o-Xylene	10	9.8	98	10.6	106	8	70-130/30
1330-20-7	Xylenes (total)	30	29.9	100	31.7	106	6	70-130/30



# Blank Spike/Blank Spike Duplicate Summary Job Number: JA68565

Account: **RAVIV TRC** 

Lockheed Electronics Co, Watchung, NJ **Project:** 

Sample V2W1256-BS V2W1256-BSD	<b>File ID</b> 2W29759.D 2W29760.D	<b>Analyzed</b> 02/14/11 02/14/11	By YMH YMH	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V2W1256 V2W1256

The QC reported here applies to the following samples:

V2W1256-SCC

CAS No.	<b>Surrogate Recoveries</b>	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	98%	65-128%



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Method: TO-15

Method: TO-15

## **Duplicate Summary**

Job Number: JA68565 **Account: RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample JA68565-4DUP JA68565-4	File ID 3W20986.D 3W20985.D	<b>Analyzed</b> 02/24/11 02/24/11	By YXC YXC	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V3W828 V3W828

The QC reported here applies to the following samples:

JA68565-1, JA68565-2, JA68565-3, JA68565-4, JA68565-5, JA68565-6, JA68565-7, JA68565-8, JA68565-9, 10, JA68565-11, JA68565-12

CAS No.	Compound	JA68565 ppbv	5-4 Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	248	Е	195	Е	24	27
106-99-0	1,3-Butadiene	ND		ND		nc	20
71-43-2	Benzene	0.51	J	0.41	J	22* a	17
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
593-60-2	Bromoethene	ND		ND		nc	30
100-44-7	Benzyl Chloride	ND		ND		nc	20
75-15-0	Carbon disulfide	5.4		4.6		16* a	11
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	12
74-87-3	Chloromethane	ND		ND		nc	22
107-05-1	3-Chloropropene	ND		ND		nc	10
95-49-8	2-Chlorotoluene	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	10
110-82-7	Cyclohexane	ND		ND		nc	12
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethylene	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
123-91-1	1,4-Dioxane	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	2.0		1.8		11	22
124-48-1	Dibromochloromethane	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	10
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	10
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
541-73-1	m-Dichlorobenzene	ND		ND		nc	20
95-50-1	o-Dichlorobenzene	ND		ND		nc	10
106-46-7	p-Dichlorobenzene	1.5		1.3		14	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
64-17-5	Ethanol	104		85.2		20	33
100-41-4	Ethylbenzene	ND		ND		nc	15
141-78-6	Ethyl Acetate	14.3		10.8		28* a	20
622-96-8	4-Ethyltoluene	ND		ND		nc	13



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Method: TO-15

### **Duplicate Summary**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample JA68565-4DUP JA68565-4	File ID 3W20986.D 3W20985.D	<b>Analyzed</b> 02/24/11 02/24/11	By YXC YXC	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V3W828 V3W828

The QC reported here applies to the following samples:

 $JA68565-1,\ JA68565-2,\ JA68565-3,\ JA68565-4,\ JA68565-5,\ JA68565-6,\ JA68565-7,\ JA68565-8,\ JA68565-9,\ JA68565-10,\ JA68565-11,\ JA68565-12$ 

CAS No.	Compound	JA68565 ppbv	JA68565-4 ppbv Q		Q	RPD Limits		
0120 1100	ompound	PP~ ·	×	ppbv	×		23111100	
76-13-1	Freon 113	4.7		4.0		16* a	10	
76-14-2	Freon 114	ND		ND		nc	20	
142-82-5	Heptane	0.57	J	0.44	J	26* a	20	
87-68-3	Hexachlorobutadiene	ND		ND		nc	20	
110-54-3	Hexane	0.58	J	0.51	J	13	17	
591-78-6	2-Hexanone	ND		ND		nc	20	
67-63-0	Isopropyl Alcohol	17.0		14.1		19	26	
75-09-2	Methylene chloride	ND		ND		nc	26	
78-93-3	Methyl ethyl ketone	4.2		3.2		27* a	21	
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	20	
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20	
80-62-6	Methylmethacrylate	ND		ND		nc	20	
115-07-1	Propylene	2.4		2.2		9	16	
100-42-5	Styrene	ND		ND		nc	11	
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20	
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20	
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20	
95-63-6	1,2,4-Trimethylbenzene	1.0		0.77	J	26* a	19	
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	13	
540-84-1	2,2,4-Trimethylpentane	ND		ND		nc	18	
75-65-0	Tertiary Butyl Alcohol	1.0		0.79	J	23* a	21	
127-18-4	Tetrachloroethylene	0.58		0.49		17	17	
109-99-9	Tetrahydrofuran	ND		ND		nc	20	
108-88-3	Toluene	2.4		2.0		18	20	
79-01-6	Trichloroethylene	46.0		38.9		17* a	13	
75-69-4	Trichlorofluoromethane	0.49	J	0.42	J	15	21	
75-01-4	Vinyl chloride	ND		ND		nc	20	
108-05-4	Vinyl Acetate	ND		ND		nc	20	
	m, p-Xylene	1.4		1.2		15	26	
95-47-6	o-Xylene	0.91		0.81		12	20	
1330-20-7	Xylenes (total)	2.4		2.0		18	26	



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Method: TO-15

## **Duplicate Summary**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

<b>Sample</b> JA68565-4DUP JA68565-4	File ID 3W20986.D 3W20985.D	<b>Analyzed</b> 02/24/11 02/24/11	By YXC YXC	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch V3W828 V3W828

#### The QC reported here applies to the following samples:

 $JA68565-1,\ JA68565-2,\ JA68565-3,\ JA68565-4,\ JA68565-5,\ JA68565-6,\ JA68565-7,\ JA68565-8,\ JA68565-9,\ JA68565-10,\ JA68565-11,\ JA68565-12$ 

CAS No.	Surrogate Recoveries	DUP	JA68565-4	Limits
460-00-4	4-Bromofluorobenzene	112%	108%	65-128%

(a) Outside in house control limits.

Method: TO-15

**Duplicate Summary Job Number:** JA68565

**Account: RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JA68864-8DUP	3W21018.D	1	02/25/11	YXC	n/a	n/a	V3W829
JA68864-8	3W21017.D	1	02/25/11	YXC	n/a	n/a	V3W829

The QC reported here applies to the following samples:

JA68565-1, JA68565-4, JA68565-5, JA68565-6, JA68565-10, JA68565-12

		JA68864-8	DUP	
CAS No.	Compound	ppbv Q	ppbv Q	RPD Limits
67-64-1	Acetone	5.4	5.0	8 27
CAS No.	Surrogate Recoveries	DUP	JA68864-8	Limits
460-00-4	4-Bromofluorobenzene	102%	107%	65-128%



# **Summa Cleaning Certification Job Number:** JA68565

**Account: RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
VW1236-SCC	W30133.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here (Summa A791) applies to the following samples: Method: TO-15

Batch CP4558 cleaned 02/09/11: JA68565-4(A791)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.061	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.049	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.025	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.025	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.026	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.032	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.034	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.029	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.031	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.050	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.026	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.053	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.035	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.032	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.023	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.042	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.025	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.024	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.030	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.024	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.054	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.040	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.073	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.082	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.035	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.031	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.022	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.032	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.079	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.17	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.027	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.077	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



## **Summa Cleaning Certification Job Number:** JA68565

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1236-SCC	W30133.D	1	02/11/11	YMH	n/a	n/a	VW1236

The QC reported here (Summa A791) applies to the following samples: Method: TO-15

Batch CP4558 cleaned 02/09/11: JA68565-4(A791)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.026	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.029	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.024	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.060	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.022	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.055	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.030	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.037	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.043	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.034	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.096	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.025	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.021	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.039	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.040	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.057	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.025	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.024	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.032	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.029	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.13	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.059	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.026	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.026	ppbv	ND	0.87	ug/m3

# **Summa Cleaning Certification Job Number:** JA68565

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample VW1236-SCC	<b>File ID</b> W30133.D	<b>DF</b> 1	<b>Analyzed</b> 02/11/11	By YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch VW1236

The QC reported here (Summa A791) applies to the following samples: Method: TO-15

Batch CP4558 cleaned 02/09/11: JA68565-4(A791)

CAS No. **Surrogate Recoveries** Limits 460-00-4 4-Bromofluorobenzene 96% 65-128%



### **Summa Cleaning Certification**

Job Number: JA68565 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

	Sample V2W1256-SCC	<b>File ID</b> 2W29765.D	<b>DF</b> 1	<b>Analyzed</b> 02/14/11	<b>By</b> YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch V2W1256
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The QC reported here (Summa A398) applies to the following samples: Method: TO-15

Batch CP4567 cleaned 02/10/11: JA68565-1(A398), JA68565-2(A590), JA68565-3(A600), JA68565-5(A592), JA68565-6(A565), JA68565-7(A712), JA68565-8(A573), JA68565-9(A500), JA68565-10(A796), JA68565-11(A580), JA68565-12(A514)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.061	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.049	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.025	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.025	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.026	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.032	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.034	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.029	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.031	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.050	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.026	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.053	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.035	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.032	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.023	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.042	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.025	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.024	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.030	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.024	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.054	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.040	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.073	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.082	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.035	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.031	ppbv	ND	0.79	ug/m3
10061-01-5	5 cis-1,3-Dichloropropene	ND	0.20	0.022	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.032	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
10061-02-0	trans-1,3-Dichloropropene	ND	0.20	0.079	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.17	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.027	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.077	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



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### **Summa Cleaning Certification**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W1256-SCC	2W29765.D	1	02/14/11	YMH	n/a	n/a	V2W1256

The QC reported here (Summa A398) applies to the following samples: Method: TO-15

Batch CP4567 cleaned 02/10/11: JA68565-1(A398), JA68565-2(A590), JA68565-3(A600), JA68565-5(A592), JA68565-6(A565), JA68565-7(A712), JA68565-8(A573), JA68565-9(A500), JA68565-10(A796), JA68565-11(A580), JA68565-12(A514)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.026	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.029	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.024	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.060	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.022	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.055	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.030	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.037	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.043	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.034	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.096	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.025	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.024	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.12	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.027	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.021	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.039	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.040	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.057	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.025	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.024	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.032	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.029	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.13	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.059	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.026	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.026	ppbv	ND	0.87	ug/m3



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### **Summa Cleaning Certification**

**Job Number:** JA68565 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample V2W1256-SCC	<b>File ID</b> 2W29765.D	<b>DF</b> 1	<b>Analyzed</b> 02/14/11	By YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch V2W1256

The QC reported here (Summa A398) applies to the following samples: Method: TO-15

Batch CP4567 cleaned 02/10/11: JA68565-1(A398), JA68565-2(A590), JA68565-3(A600), JA68565-5(A592), JA68565-6(A565), JA68565-7(A712), JA68565-8(A573), JA68565-9(A500), JA68565-10(A796), JA68565-11(A580), JA68565-12(A514)

CAS No. Surrogate Recoveries Limits
460-00-4 4-Bromofluorobenzene 84% 65-128%



### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: **Injection Date:** 01/21/11 V2W1240-BFB Lab File ID: **Injection Time:** 08:52 2W29351.D

**Instrument ID:** GCMS2W

m/e	Ion Abundance Criteria	Raw Abundance	% Relati Abundar		Pass/Fail
50	8.0 - 40.0% of mass 95	6816	16.1		Pass
75	30.0 - 66.0% of mass 95	19712	46.6		Pass
95	Base peak, 100% relative abundance	42267	100.0		Pass
96	5.0 - 9.0% of mass 95	2906	6.88		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	31965	75.6		Pass
175	4.0 - 9.01% of mass 174	2344	5.55	(7.33) a	Pass
176	93.0 - 101.0% of mass 174	31101	73.6	(97.3) a	Pass
177	5.0 - 9.0% of mass 176	2064	4.88	(6.64) b	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W1240-IC1240	2W29353.D	01/21/11	10:08	01:16	Initial cal 0.2
V2W1240-ICC1240		01/21/11	10:45	01:53	Initial cal 10
V2W1240-IC1240	2W29355.D	01/21/11	11:23	02:31	Initial cal 0.5
V2W1240-IC1240	2W29356.D	01/21/11	12:03	03:11	Initial cal 20
V2W1240-IC1240	2W29357.D	01/21/11	12:41	03:49	Initial cal 5
V2W1240-IC1240	2W29358.D	01/21/11	13:19	04:27	Initial cal 0.1
V2W1240-IC1240	2W29359.D	01/21/11	13:57	05:05	Initial cal 0.04
V2W1240-IC1240	2W29360.D	01/21/11	16:13	07:21	Initial cal 10
V2W1240-IC1240	2W29361.D	01/21/11	16:51	07:59	Initial cal 5
V2W1240-IC1240	2W29362.D	01/21/11	17:33	08:41	Initial cal 40
V2W1240-IC1240	2W29363.D	01/21/11	18:13	09:21	Initial cal 0.5
V2W1240-IC1240	2W29364.D	01/21/11	18:52	10:00	Initial cal 0.2
V2W1240-ICV1240	2W29365.D	01/21/11	19:32	10:40	Initial cal verification 10
V2W1240-IC1240	2W29366.D	01/21/11	20:12	11:20	Initial cal 20
V2W1240-IC1240	2W29367.D	01/21/11	20:54	12:02	Initial cal 40
V2W1240-SCC	2W29369.D	01/21/11	22:56	14:04	Summa Cleaning Certification



<sup>(</sup>b) Value is % of mass 176

### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: V2W1256-BFB **Injection Date:** 02/14/11 Lab File ID: **Injection Time:** 06:55 2W29757.D

**Instrument ID:** GCMS2W

m/e	Ion Abundance Criteria	Raw Abundance	% Relati Abundan		Pass/Fail
50	8.0 - 40.0% of mass 95	9229	17.4		Pass
75	30.0 - 66.0% of mass 95	25740	48.4		Pass
95	Base peak, 100% relative abundance	53179	100.0		Pass
96	5.0 - 9.0% of mass 95	3629	6.82		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	41789	78.6		Pass
175	4.0 - 9.01% of mass 174	3378	6.35	$(8.08)^{a}$	Pass
176	93.0 - 101.0% of mass 174	40280	75.7	(96.4) a	Pass
177	5.0 - 9.0% of mass 176	2655	4.99	(6.59) <sup>b</sup>	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
Sample 1D	THE ID	Anaryzcu	Anaryzcu	Lapscu	Sample 1D
V2W1256-CC1240	2W29758.D	02/14/11	07:33	00:38	Continuing cal 10
V2W1256-BS	2W29759.D	02/14/11	08:18	01:23	Blank Spike
V2W1256-BSD	2W29760.D	02/14/11	08:56	02:01	Blank Spike Duplicate
V2W1256-MB	2W29761.D	02/14/11	10:17	03:22	Method Blank
ZZZZZZ	2W29762.D	02/14/11	11:01	04:06	(unrelated sample)
ZZZZZZ	2W29763.D	02/14/11	11:38	04:43	(unrelated sample)
ZZZZZZ	2W29764.D	02/14/11	12:15	05:20	(unrelated sample)
V2W1256-SCC	2W29765.D	02/14/11	12:55	06:00	Summa Cleaning Certification
ZZZZZZ	2W29766.D	02/14/11	13:34	06:39	(unrelated sample)
ZZZZZZ	2W29767.D	02/14/11	14:11	07:16	(unrelated sample)
JA67951-4	2W29768.D	02/14/11	14:48	07:53	(used for QC only; not part of job JA68565)
JA67951-4DUP	2W29769.D	02/14/11	15:26	08:31	Duplicate
ZZZZZZ	2W29770.D	02/14/11	16:03	09:08	(unrelated sample)
ZZZZZZ	2W29771.D	02/14/11	16:41	09:46	(unrelated sample)
V2W1256-SCC	2W29772.D	02/14/11	17:57	11:02	Summa Cleaning Certification
ZZZZZZ	2W29773.D	02/14/11	18:37	11:42	(unrelated sample)
ZZZZZZ	2W29774.D	02/14/11	19:14	12:19	(unrelated sample)
V2W1256-SCC	2W29777.D	02/14/11	21:08	14:13	Summa Cleaning Certification
ZZZZZZ	2W29778.D	02/14/11	21:46	14:51	(unrelated sample)
ZZZZZZ	2W29779.D	02/14/11	22:23	15:28	(unrelated sample)
ZZZZZZ	2W29780.D	02/14/11	23:00	16:05	(unrelated sample)
ZZZZZZ	2W29781.D	02/14/11	23:38	16:43	(unrelated sample)
V2W1256-SCC	2W29782.D	02/15/11	00:54	17:59	Summa Cleaning Certification
ZZZZZZ	2W29783.D	02/15/11	01:31	18:36	(unrelated sample)



<sup>(</sup>b) Value is % of mass 176

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## **Instrument Performance Check (BFB)**

**Job Number:** JA68565 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Sample:
 V2W1256-BFB
 Injection Date:
 02/14/11

 Lab File ID:
 2W29757.D
 Injection Time:
 06:55

**Instrument ID:** GCMS2W

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
ZZZZZZ	2W29784.D	02/15/11	02:08	19:13	(unrelated sample)
ZZZZZZ	2W29785.D	02/15/11	02:45	19:50	(unrelated sample)
V2W1256-SCC	2W29786.D	02/15/11	04:02	21:07	Summa Cleaning Certification

### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: V3W821-BFB **Injection Date:** 02/15/11 Lab File ID: **Injection Time:** 17:04 3W20777.D

**Instrument ID:** GCMS3W

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	6895	16.7	Pass
75	30.0 - 66.0% of mass 95	18240	44.2	Pass
95	Base peak, 100% relative abundance	41264	100.0	Pass
96	5.0 - 9.0% of mass 95	2754	6.67	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) a	Pass
174	50.0 - 120.0% of mass 95	42746	103.6	Pass
175	4.0 - 9.01% of mass 174	3255	7.89 (7.61) <sup>a</sup>	Pass
176	93.0 - 101.0% of mass 174	42989	104.2 (100.6)	a Pass
177	5.0 - 9.0% of mass 176	2710	6.57 (6.30) b	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3W821-IC821	3W20778.D	02/15/11	18:24	01:20	Initial cal 0.5
V3W821-IC821	3W20779.D	02/15/11	21:02	03:58	Initial cal 20
V3W821-IC821	3W20780.D	02/15/11	22:21	05:17	Initial cal 0.1
V3W821-IC821	3W20781.D	02/15/11	23:00	05:56	Initial cal 0.04
V3W821-IC821	3W20782.D	02/16/11	00:20	07:16	Initial cal 10
V3W821-IC821	3W20783.D	02/16/11	01:00	07:56	Initial cal 5
V3W821-IC821	3W20784.D	02/16/11	01:44	08:40	Initial cal 40
V3W821-IC821	3W20785.D	02/16/11	02:23	09:19	Initial cal 0.5
V3W821-IC821	3W20786.D	02/16/11	03:02	09:58	Initial cal 0.2
V3W821-IC821	3W20787.D	02/16/11	04:22	11:18	Initial cal 20
V3W821-IC821	3W20788.D	02/16/11	05:06	12:02	Initial cal 40
V3W821-IC821	3W20789.D	02/16/11	07:02	13:58	Initial cal 0.2
V3W821-IC821	3W20790.D	02/16/11	10:32	17:28	Initial cal 5
V3W821-ICC821	3W20791.D	02/16/11	11:55	18:51	Initial cal 10
V3W821-ICV821	3W20792.D	02/16/11	12:49	19:45	Initial cal verification 10



<sup>(</sup>b) Value is % of mass 176

### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: V3W828-BFB **Injection Date:** 02/24/11 Lab File ID: **Injection Time:** 06:45 3W20971.D

**Instrument ID:** GCMS3W

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundanc	_	Pass/Fail
50	8.0 - 40.0% of mass 95	9921	19.6		Pass
75	30.0 - 66.0% of mass 95	23568	46.7		Pass
95	Base peak, 100% relative abundance	50496	100.0		Pass
96	5.0 - 9.0% of mass 95	3695	7.32		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	48472	96.0		Pass
175	4.0 - 9.01% of mass 174	3660	7.25	(7.55) a	Pass
176	93.0 - 101.0% of mass 174	47037	93.1	(97.0) a	Pass
177	5.0 - 9.0% of mass 176	3119	6.18	(6.63) b	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
V3W828-CC821	3W20972.D	02/24/11	07:25	00:40	Continuing cal 10
V3W828-BS	3W20973.D	02/24/11	08:05	01:20	Blank Spike
V3W828-BSD	3W20974.D	02/24/11	08:45	02:00	Blank Spike Duplicate
V3W828-MB	3W20975.D	02/24/11	10:07	03:22	Method Blank
V3W828-SCC	3W20976.D	02/24/11	10:50	04:05	Summa Cleaning Certification
V3W828-SCC	3W20977.D	02/24/11	11:32	04:47	Summa Cleaning Certification
ZZZZZZ	3W20978.D	02/24/11	12:12	05:27	(unrelated sample)
ZZZZZZ	3W20979.D	02/24/11	12:51	06:06	(unrelated sample)
ZZZZZZ	3W20980.D	02/24/11	14:09	07:24	(unrelated sample)
ZZZZZZ	3W20981.D	02/24/11	14:50	08:05	(unrelated sample)
JA68565-3	3W20984.D	02/24/11	17:38	10:53	SV-5
JA68565-4	3W20985.D	02/24/11	18:18	11:33	SV-6
JA68565-4DUP	3W20986.D	02/24/11	18:57	12:12	Duplicate
JA68565-5	3W20987.D	02/24/11	19:36	12:51	SV-7
JA68565-6	3W20988.D	02/24/11	20:16	13:31	SV-8
JA68565-7	3W20989.D	02/24/11	20:55	14:10	SV-DUP
JA68565-8	3W20990.D	02/24/11	21:35	14:50	SV-14
JA68565-9	3W20991.D	02/24/11	22:14	15:29	SV-12
JA68565-10	3W20992.D	02/24/11	22:54	16:09	SV-9
JA68565-11	3W20993.D	02/24/11	23:33	16:48	SV-10
JA68565-12	3W20994.D	02/25/11	00:13	17:28	SV-11
ZZZZZZ	3W20995.D	02/25/11	00:53	18:08	(unrelated sample)
ZZZZZZ	3W20996.D	02/25/11	01:33	18:48	(unrelated sample)
ZZZZZZ	3W20997.D	02/25/11	02:13	19:28	(unrelated sample)
					* *



<sup>(</sup>b) Value is % of mass 176

## **Instrument Performance Check (BFB)**

**Job Number:** JA68565 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Sample:
 V3W828-BFB
 Injection Date:
 02/24/11

 Lab File ID:
 3W20971.D
 Injection Time:
 06:45

**Instrument ID:** GCMS3W

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3W20998.D	02/25/11	02:53	20:08	(unrelated sample)
JA68565-1	3W21000.D	02/25/11	04:54	22:09	SV-4
JA68565-2	3W21001.D	02/25/11	05:33	22:48	SV-3

### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: V3W829-BFB **Injection Date:** 02/25/11 Lab File ID: **Injection Time:** 06:16 3W21002.D

**Instrument ID:** GCMS3W

m/e	Ion Abundance Criteria	Raw Abundance	% Relat Abunda		Pass/Fail
50	8.0 - 40.0% of mass 95	10379	19.9		Pass
75	30.0 - 66.0% of mass 95	24069	46.2		Pass
95	Base peak, 100% relative abundance	52072	100.0		Pass
96	5.0 - 9.0% of mass 95	3822	7.34		Pass
173	Less than 2.0% of mass 174	0	0.00	$(0.00)^{a}$	Pass
174	50.0 - 120.0% of mass 95	48813	93.7		Pass
175	4.0 - 9.01% of mass 174	3841	7.38	(7.87) a	Pass
176	93.0 - 101.0% of mass 174	48133	92.4	(98.6) a	Pass
177	5.0 - 9.0% of mass 176	3356	6.44	(6.97) b	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
V3W829-CC821	3W21003.D	02/25/11	06:55	00:39	Continuing cal 10
V3W829-CC821 V3W829-BS	3W21003.D 3W21004.D	02/25/11	08:54	02:38	Blank Spike
		02/25/11			•
V3W829-BSD	3W21005.D		09:34	03:18	Blank Spike Duplicate
V3W829-MB	3W21006.D	02/25/11	10:55	04:39	Method Blank
V3W829-SCC	3W21007.D	02/25/11	11:37	05:21	Summa Cleaning Certification
V3W829-SCC	3W21008.D	02/25/11	12:20	06:04	Summa Cleaning Certification
ZZZZZZ	3W21009.D	02/25/11	13:00	06:44	(unrelated sample)
ZZZZZZ	3W21010.D	02/25/11	13:39	07:23	(unrelated sample)
JA68565-1	3W21011.D	02/25/11	14:18	08:02	SV-4
JA68565-4	3W21012.D	02/25/11	14:57	08:41	SV-6
V3W829-SCC	3W21013.D	02/25/11	15:40	09:24	Summa Cleaning Certification
JA68565-6	3W21014.D	02/25/11	16:19	10:03	SV-8
JA68565-10	3W21015.D	02/25/11	16:57	10:41	SV-9
JA68565-12	3W21016.D	02/25/11	17:37	11:21	SV-11
JA68864-8	3W21017.D	02/25/11	18:19	12:03	(used for QC only; not part of job JA68565)
JA68864-8DUP	3W21018.D	02/25/11	19:00	12:44	Duplicate
ZZZZZZ	3W21019.D	02/25/11	19:39	13:23	(unrelated sample)
ZZZZZZ	3W21020.D	02/25/11	20:19	14:03	(unrelated sample)
ZZZZZZ	3W21021.D	02/25/11	21:00	14:44	(unrelated sample)
ZZZZZZ	3W21022.D	02/25/11	21:40	15:24	(unrelated sample)
ZZZZZZ	3W21023.D	02/25/11	22:20	16:04	(unrelated sample)
ZZZZZZ	3W21024.D	02/25/11	23:38	17:22	(unrelated sample)
ZZZZZZ	3W21025.D	02/26/11	00:17	18:01	(unrelated sample)
ZZZZZZ	3W21026.D	02/26/11	00:56	18:40	(unrelated sample)



<sup>(</sup>b) Value is % of mass 176

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## **Instrument Performance Check (BFB)**

**Job Number:** JA68565 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Sample:
 V3W829-BFB
 Injection Date:
 02/25/11

 Lab File ID:
 3W21002.D
 Injection Time:
 06:16

**Instrument ID:** GCMS3W

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3W21027.D	02/26/11	01:36	19:20	(unrelated sample)
JA68565-5	3W21028.D	02/26/11	02:15	19:59	SV-7
ZZZZZZ	3W21029.D	02/26/11	02:55	20:39	(unrelated sample)

### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

**Injection Date:** 01/19/11 Sample: VW1222-BFB Lab File ID: **Injection Time:** 17:08 W29765.D

**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relati Abundar		Pass/Fail
50	8.0 - 40.0% of mass 95	10988	21.5		Pass
75	30.0 - 66.0% of mass 95	29461	57.6		Pass
95	Base peak, 100% relative abundance	51162	100.0		Pass
96	5.0 - 9.0% of mass 95	3398	6.64		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	45442	88.8		Pass
175	4.0 - 9.01% of mass 174	4033	7.88	(8.88) a	Pass
176	93.0 - 101.0% of mass 174	44442	86.9	(97.8) a	Pass
177	5.0 - 9.0% of mass 176	2730	5.34	(6.14) b	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VW1222-ICC1222	W29766.D	01/19/11	17:47	00:39	Initial cal 10
VW1222-IC1222	W29770.D	01/19/11	21:46	04:38	Initial cal 20
VW1222-IC1222	W29771.D	01/19/11	22:26	05:18	Initial cal 5
VW1222-IC1222	W29774.D	01/20/11	01:46	08:38	Initial cal 40
VW1222-IC1222	W29775.D	01/20/11	06:34	13:26	Initial cal 0.5
VW1222-IC1222	W29776.D	01/20/11	07:15	14:07	Initial cal 0.2
VW1222-IC1222	W29777.D	01/20/11	11:23	18:15	Initial cal 0.1
VW1222-IC1222	W29778.D	01/20/11	12:02	18:54	Initial cal 0.04



<sup>(</sup>b) Value is % of mass 176

### **Instrument Performance Check (BFB)**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

**Injection Date:** 02/11/11 Sample: VW1236-BFB Lab File ID: **Injection Time:** 06:09 W30125.D

**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relati Abundan		Pass/Fail
50	8.0 - 40.0% of mass 95	6206	15.1		Pass
75	30.0 - 66.0% of mass 95	18570	45.0		Pass
95	Base peak, 100% relative abundance	41224	100.0		Pass
96	5.0 - 9.0% of mass 95	2942	7.14		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	36960	89.7		Pass
175	4.0 - 9.01% of mass 174	3165	7.68	(8.56) a	Pass
176	93.0 - 101.0% of mass 174	35760	86.7	(96.8) a	Pass
177	5.0 - 9.0% of mass 176	2272	5.51	(6.35) b	Pass

<sup>(</sup>a) Value is % of mass 174

#### This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
		0.2.1.1.1			~
VW1236-CC1222	W30126.D	02/11/11	07:13	01:04	Continuing cal 10
VW1236-BS	W30127.D	02/11/11	09:52	03:43	Blank Spike
VW1236-BSD	W30128.D	02/11/11	10:32	04:23	Blank Spike Duplicate
VW1236-MB	W30129.D	02/11/11	11:53	05:44	Method Blank
ZZZZZZ	W30130.D	02/11/11	12:37	06:28	(unrelated sample)
ZZZZZZ	W30131.D	02/11/11	13:17	07:08	(unrelated sample)
ZZZZZZ	W30132.D	02/11/11	13:58	07:49	(unrelated sample)
VW1236-SCC	W30133.D	02/11/11	14:38	08:29	Summa Cleaning Certification
JA67911-3	W30136.D	02/11/11	16:39	10:30	(used for QC only; not part of job JA68565)
JA67911-3DUP	W30137.D	02/11/11	17:20	11:11	Duplicate
VW1236-SCC	W30138.D	02/11/11	18:00	11:51	Summa Cleaning Certification
ZZZZZZ	W30139.D	02/11/11	18:41	12:32	(unrelated sample)
ZZZZZZ	W30140.D	02/11/11	19:21	13:12	(unrelated sample)
ZZZZZZ	W30141.D	02/11/11	20:01	13:52	(unrelated sample)
VW1236-SCC	W30142.D	02/11/11	20:41	14:32	Summa Cleaning Certification
ZZZZZZ	W30143.D	02/11/11	21:21	15:12	(unrelated sample)
ZZZZZZ	W30144.D	02/11/11	22:00	15:51	(unrelated sample)
ZZZZZZ	W30145.D	02/11/11	22:40	16:31	(unrelated sample)
ZZZZZZ	W30148.D	02/12/11	01:19	19:10	(unrelated sample)
ZZZZZZ	W30149.D	02/12/11	01:58	19:49	(unrelated sample)
ZZZZZZ	W30150.D	02/12/11	02:38	20:29	(unrelated sample)
VW1236-SCC	W30152.D	02/12/11	04:36	22:27	Summa Cleaning Certification



<sup>(</sup>b) Value is % of mass 176

#### Volatile Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 V2W1256-CC1240
 Injection Date:
 02/14/11

 Lab File ID:
 2W29758.D
 Injection Time:
 07:33

 Instrument ID:
 GCMS2W
 Method:
 TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std Upper Limit <sup>a</sup> Lower Limit <sup>b</sup>	227535 318549 136521	7.30 7.63 6.97	1165548 1631767 699329	9.15 9.48 8.82	553108 774351 331865	13.28 13.61 12.95
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V2W1256-BS	241630	7.30	1218655	9.15	567859	13.27
V2W1256-BSD	215667	7.31	1127500	9.16	532734	13.28
V2W1256-MB	225651	7.31	1114710	9.15	472276	13.27
ZZZZZZ	230046	7.30	1107618	9.15	464241	13.27
ZZZZZZ	231969	7.31	1193376	9.15	487553	13.28
ZZZZZZ	234773	7.30	1202811	9.15	491561	13.27
V2W1256-SCC	213110	7.31	978109	9.15	418851	13.28
ZZZZZZ 22222	216098	7.31 7.31	996396	9.15	409177	13.27
ZZZZZZ JA67951-4	225951	7.31	1122606 1193244	9.16	493336	13.28
JA67951-4 JA67951-4DUP	237665 217741	7.30	1193244	9.15 9.15	514103 429767	13.27 13.27
ZZZZZZ	217741 214732	7.30	1033416	9.15	456792	13.27
ZZZZZZ	262221	7.30	1258459	9.15	462771	13.27
V2W1256-SCC	210301	7.30	1036872	9.15	448034	13.27
ZZZZZZ	283341	7.29	1355714	9.15	531297	13.27
ZZZZZZ	276949	7.30	1510117	9.16	535994	13.27
V2W1256-SCC	206958	7.31	952860	9.15	408413	13.28
ZZZZZZ	244390	7.30	1208117	9.15	455288	13.27
ZZZZZZ	212877	7.31	1029354	9.15	443839	13.27
ZZZZZZ	229065	7.30	1086671	9.15	418812	13.27
ZZZZZZ	220977	7.30	1142032	9.15	508293	13.27
V2W1256-SCC	196096	7.31	888345	9.15	360388	13.27
ZZZZZZ	222107	7.31	1147716	9.15	418564	13.27

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

207762

204764

192546

7.31

7.31

7.31

ZZZZZZ

ZZZZZZ

V2W1256-SCC

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.

1005731

1046371

883027

9.15

9.15

9.15

386475

382894

376221

13.27

13.27

13.27

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



#### Volatile Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 V3W828-CC821
 Injection Date:
 02/24/11

 Lab File ID:
 3W20972.D
 Injection Time:
 07:25

 Instrument ID:
 GCMS3W
 Method:
 TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std Upper Limit <sup>a</sup> Lower Limit <sup>b</sup>	166107 232550 99664	7.57 7.90 7.24	823784 1153298 494270	9.20 9.53 8.87	387717 542804 232630	13.37 13.70 13.04
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V3W828-BS	167905	7.57	833282	9.20	407825	13.37
V3W828-BSD	171352	7.56	855433	9.20	409072	13.37
V3W828-MB	171151	7.57	838462	9.20	276863	13.37
V3W828-SCC	167191	7.56	817805	9.19	288674	13.37
V3W828-SCC	178063	7.57	874953	9.20	286751	13.37
ZZZZZZ	173539	7.57	841072	9.20	383557	13.37
ZZZZZZ	165299	7.56	799536	9.20	342632	13.37
ZZZZZZ	150503	7.57	700734	9.20	321081	13.37
ZZZZZZ	158945	7.56	744452	9.20	342385	13.37
JA68565-3	154395	7.57	748240	9.20	345836	13.37
JA68565-4	141868	7.56	690768	9.20	316404	13.37
JA68565-4DUP	151964	7.56	737257	9.20	344917	13.37
JA68565-5	151771	7.57	721159	9.20	353742	13.38
JA68565-6	142482	7.57	689845	9.20	325420	13.37
JA68565-7	171701	7.57	830112	9.20	378251	13.37
JA68565-8	161395	7.57	793624	9.20	364139	13.37
JA68565-9	148472	7.57	707691	9.21	339708	13.38
JA68565-10	149015	7.56	724097	9.20	334923	13.37
JA68565-11	138939	7.56	668546	9.20	312370	13.37
JA68565-12	134224	7.56	646783	9.20	309724	13.37
ZZZZZZ	158458	7.57	768464	9.20	349685	13.37
ZZZZZZ	138730	7.56	673042	9.20	312369	13.37
ZZZZZZ	143962	7.60	697940	9.22	311998	13.38
ZZZZZZ	142123	7.57	702915	9.22	323443	13.38

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

128924

139906

7.57

7.57

JA68565-1

JA68565-2

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.

617662

676966

9.20

291328

9.20 311636

13.37

13.37

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



#### **Volatile Internal Standard Area Summary**

Job Number: JA68565 Account: RAVIV TRC

IS 1

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 V3W829-CC821
 Injection Date:
 02/25/11

 Lab File ID:
 3W21003.D
 Injection Time:
 06:55

 Instrument ID:
 GCMS3W
 Method:
 TO-15

**IS 2** 

	AREA	RT	AREA	RT	AREA	RT
Check Std	150126	7.57	723218	9.21	358768	13.38
Upper Limit <sup>a</sup>	210176	7.90	1012505	9.54	502275	13.71
Lower Limit b	90076	7.24	433931	8.88	215261	13.05
Lab	IS 1		IS 2		IS 3	
Sample ID	AREA	RT	AREA	RT	AREA	RT
V3W829-BS	166460	7.57	827514	9.21	402315	13.38
V3W829-BSD	174989	7.57	889273	9.21	424973	13.38
V3W829-MB	190104	7.56	931225	9.20	379250	13.37
V3W829-SCC	198150	7.56	964978	9.20	361668	13.37
V3W829-SCC	153598	7.57	761251	9.20	255918	13.37
ZZZZZZ	168487	7.57	819723	9.20	371851	13.37
ZZZZZZ	192339	7.56	923618	9.20	428602	13.37
JA68565-1	165713	7.57	795827	9.20	362134	13.38
JA68565-4	163429	7.56	794327	9.20	371341	13.37
V3W829-SCC	150831	7.56	722354	9.20	302066	13.37
JA68565-6	160849	7.57	771610	9.20	365311	13.38
JA68565-10	194832	7.57	928006	9.20	428446	13.38
JA68565-12	137470	7.57	664116	9.20	306471	13.37
JA68864-8	128538	7.57	606804	9.20	282055	13.37
JA68864-8DUP	138124	7.57	663274	9.21	302375	13.37
ZZZZZZ	138232	7.57	658375	9.20	289328	13.37
ZZZZZZ	137600	7.57	572605	9.21	278432	13.38

9.20

9.23

9.21

9.22

9.20

9.20

9.20

9.20

9.20

308227

299877

314333

310006

286916

278671

289336

305557

229000

13.37

13.38

13.38

13.39

13.37

13.37

13.37

13.37

13.37

IS 3

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

145314

138372

139973

135037

131277

130124

136104

132739

127738

7.57

7.61

7.57

7.59

7.57

7.57

7.57

7.57

7.56

693168

671294

692779

672556

622911

607757

650607

634584

626328

ZZZZZZ

ZZZZZZ

ZZZZZZ

ZZZZZZ

ZZZZZZ

ZZZZZZ

ZZZZZZ

ZZZZZZ

JA68565-5

- (a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
- (b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



### **Volatile Internal Standard Area Summary**

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 VW1236-CC1222
 Injection Date:
 02/11/11

 Lab File ID:
 W30126.D
 Injection Time:
 07:13

 Instrument ID:
 GCMSW
 Method:
 TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std Upper Limit <sup>a</sup> Lower Limit <sup>b</sup>	95315 133441 57189	8.75 9.08 8.42	437021 611829 262213	10.79	239233 334926 143540	14.70 15.03 14.37
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VW1236-BS	114937	8.77	537952	10.46	277727	14.71
VW1236-BSD	110772	8.77	523327	10.46	277627	14.71
VW1236-MB	103829	8.77	470203	10.46	200738	14.70
ZZZZZZ	98096	8.82	477374	10.49	225613	14.71
ZZZZZZ	93324	8.76	439869	10.45	209754	14.70
ZZZZZZ	84583	8.81	402011	10.48	192046	14.70
VW1236-SCC	112877	8.74	520755	10.44	253129	14.69
JA67911-3	98990	8.77	475158	10.46	240065	14.70
JA67911-3DUP	100461	8.74	474495	10.44	243630	14.69
VW1236-SCC	81494	8.74	339718	10.43	154954	14.69
ZZZZZZ	92841	8.75	424765	10.44	209905	14.69
ZZZZZZ	79881	8.77	360204	10.46	178785	14.70
ZZZZZZ	91661	8.74	428110	10.44	212010	14.69
VW1236-SCC	76315	8.74	333658	10.44	159957	14.69
ZZZZZZ	83918	8.75	387826	10.45	189552	14.70
ZZZZZZ	93196	8.77	449343	10.46	241520	14.70
ZZZZZZ	122574	8.74	556304	10.44	280876	14.69
ZZZZZZ	126912	8.77	571147	10.46	256729	14.70

10.46 258159

10.44 238453

10.43 202011

14.70

14.69

14.69

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

122404

111933

100844

ZZZZZZ

ZZZZZZ

VW1236-SCC

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.

563187

517410

443977

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

8.77

8.74

8.74



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Lockheed Electronics Co, Watchung, NJ **Project:** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	Reporting this level
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.26	7.32	0.719	ok	0.689	0.629-0.749
1,3-Butadiene	4.17	7.32	0.570	ok	0.569	0.509-0.629
Benzene	8.82	9.17	0.962	ok	0.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067	ok	1.067	1.007-1.127
Bromoform	13.92	13.29	1.047	ok	1.048	0.988-1.108
Bromomethane	4.33	7.32	0.592	ok	0.592	0.532-0.652
Bromoethene	4.65	7.32	0.635	ok	0.636	0.576-0.696
n-Butane	4.19	7.32	0.572	ok	0.573	0.513-0.633
Benzyl Chloride	16.23	13.29	1.221	ok	1.220	1.160-1.280
n-Butylbenzene	17.27	13.29	1.299	ok	1.279	1.219-1.339
sec-Butylbenzene	16.36	13.29	1.231	ok	1.231	1.171-1.291
tert-Butylbenzene	16.08	13.29	1.210	ok	1.210	1.150-1.270
Carbon disulfide	5.70	7.32	0.779	ok	0.779	0.719-0.839
Chlorobenzene	13.32	13.29	1.002	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.77	7.32	0.515	ok	0.514	0.454-0.574
Chloroethane	4.44	7.32	0.607	ok	0.606	0.546-0.666
Chloroform	7.43	7.32	1.015	ok	1.016	0.956-1.076
Chloromethane	3.94	7.32	0.538	ok	0.539	0.479-0.599
3-Chloropropene	5.55	7.32	0.758	ok	0.758	0.698-0.818
2-Chlorotoluene	15.40	13.29	1.159	ok	1.159	1.099-1.219
Carbon tetrachloride	8.95	7.32	1.223	ok	1.224	1.164-1.284
Cyclohexane	9.07	9.17	0.989	ok	0.989	0.929-1.049
1,1-Dichloroethane	6.40	7.32	0.874	ok	0.875	0.815-0.935
1,1-Dichloroethylene	6.25	7.32	0.854	ok	0.852	0.792-0.912
1,2-Dibromoethane	12.23	13.29	0.920	ok	0.920	0.860-0.980
1,2-Dichloroethane	8.14	7.32	1.112	ok	1.112	1.052-1.172
1,2-Dichloropropane	9.61	9.17	1.048	ok	1.047	0.987-1.107
1,4-Dioxane	11.03	9.17	1.203	ng	1.119	1.059-1.179
Dichlorodifluoromethane	3.84	7.32	0.525		0.524	0.464-0.584
Dibromochloromethane	11.99	13.29	0.902		0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.25	7.32	0.854		0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.17	7.32	0.980	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	10.68	9.17	1.165		1.163	1.103-1.223
m-Dichlorobenzene	16.23	13.29	1.221		1.221	1.161-1.281

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Lockheed Electronics Co, Watchung, NJ **Project:** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	Reporting this level
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	16.64	13.29	1.252	ok	1.252	1.192-1.312
p-Dichlorobenzene	16.30	13.29	1.226	ok	1.226	1.166-1.286
trans-1,3-Dichloropropene	11.19	9.17	1.220	ok	1.219	1.159-1.279
2,3-Dimethylpentane	9.32	9.17	1.016	ok	1.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.32	1.122	ok	1.122	1.062-1.182
Ethanol	4.75	7.32	0.649	ok	0.636	0.576-0.696
Ethylbenzene	13.71	13.29	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.86	7.32	1.074	ok	1.036	0.976-1.096
4-Ethyltoluene	15.60	13.29	1.174	ok	1.174	1.114-1.234
Freon 113	5.66	7.32	0.773	ok	0.773	0.713-0.833
Freon 114	4.00	7.32	0.546	ok	0.547	0.487-0.607
Freon 123	4.73	7.32	0.646	ok	0.647	0.587-0.707
Freon 123A	4.77	7.32	0.652	ok	0.652	0.592-0.712
Freon 152A	3.74	7.32	0.511	ok	0.511	0.451-0.571
Heptane	10.14	9.17	1.106	ok	1.106	1.046-1.166
Hexachlorobutadiene	18.79	13.29	1.414	ok	1.412	1.352-1.472
Hexane	7.37	7.32	1.007	ok	1.007	0.947-1.067
2-Hexanone	12.29	13.29	0.925	ok	0.905	0.845-0.965
Iodomethane	5.31	7.32	0.725	ok	0.726	0.666-0.786
Isopropylbenzene	14.93	13.29	1.123	ok	1.123	1.063-1.183
Isopropyl Alcohol	5.36	7.32	0.732	ok	0.709	0.649-0.769
p-Isopropyltoluene	16.53	13.29	1.244	ok	1.243	1.183-1.303
Methylene chloride	5.45	7.32	0.745	ok	0.744	0.684-0.804
Methyl ethyl ketone	7.61	7.32	1.040	ng	0.969	0.909-1.029
Methyl Isobutyl Ketone	11.03	9.17	1.203	ok	1.181	1.121-1.241
Methyl Tert Butyl Ether	6.81	7.32	0.930	ok	0.906	0.846-0.966
Methylmethacrylate	10.25	9.17	1.118	ok	1.104	1.044-1.164
Nonane	14.59	13.29	1.098	ok	1.098	1.038-1.158
Octane	12.58	13.29	0.947	ok	0.947	0.887-1.007
Pentane	5.16	7.32	0.705	ok	0.704	0.644-0.764
n-Propylbenzene	15.46	13.29	1.163	ok	1.163	1.103-1.223
Propylene	3.80	7.32	0.519		0.518	0.458-0.578
Styrene	14.23	13.29	1.071		1.071	1.011-1.131
1,1,1-Trichloroethane	8.37	7.32	1.143		1.144	1.084-1.204

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	Reporting this level
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,1,1,2-Tetrachloroethane	13.31	13.29	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.32	13.29	1.078 ok	1.078	1.018-1.138	
1,1,2-Trichloroethane	11.34	9.17	1.237 ok	1.236	1.176-1.296	
1,2,4-Trichlorobenzene	18.61	13.29	1.400 ok	1.384	1.324-1.444	
1,2,4-Trimethylbenzene	16.09	13.29	1.211 ok	1.211	1.151-1.271	
1,3,5-Trimethylbenzene	15.68	13.29	1.180 ok	1.180	1.120-1.240	
2,2,4-Trimethylpentane	9.88	9.17	1.077 ok	1.077	1.017-1.137	
Tertiary Butyl Alcohol	5.84	7.32	0.798 ok	0.774	0.714-0.834	
Tetrachloroethylene	12.68	13.29	0.954 ok	0.954	0.894-1.014	
Tetrahydrofuran	8.64	7.32	1.180 ng	1.114	1.054-1.174	
Toluene	11.61	9.17	1.266 ok	1.265	1.205-1.325	
Trichloroethylene	9.82	9.17	1.071 ok	1.071	1.011-1.131	
Trichlorofluoromethane	4.92	7.32	0.672 ok	0.672	0.612-0.732	
Vinyl chloride	4.08	7.32	0.557 ok	0.557	0.497-0.617	
Vinyl Acetate	6.73	7.32	0.919 ok	0.904	0.844-0.964	
m,p-Xylene	13.89	13.29	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.33	13.29	1.078 ok	1.079	1.019-1.139	
TVHC As Equiv Pentane	5.15	7.32	0.704 ok	0.704	0.644-0.764	
TVHC As Equiv Heptane	10.14	9.17	1.106 ok	1.106	1.046-1.166	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	( <b>min.</b> )	RT(min.)	(+ /- 0.33)	Area	Area	(+ /- 40 %)
Bromochloromethane	7.32 ol	x 7.32	6.99-7.65	122688	ok 129134	77480-180788
1,4-Difluorobenzene	9.17 ol	x 9.17	8.84-9.50	653411	ok 683713	410228-957198
Chlorobenzene-D5	13.29 ol	x 13.29	12.96-13.6	277492	ok 304534	182720-426348



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	4.90	7.31	0.670	ok	0.689	0.629-0.749
1,3-Butadiene	4.16	7.31	0.569	ok	0.569	0.509-0.629
Benzene	8.81	9.17	0.961	ok	0.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067	ok	1.067	1.007-1.127
Bromoform	13.92	13.28	1.048	ok	1.048	0.988-1.108
Bromomethane	4.33	7.31	0.592	ok	0.592	0.532-0.652
Bromoethene	4.65	7.31	0.636	ok	0.636	0.576-0.696
n-Butane	4.19	7.31	0.573	ok	0.573	0.513-0.633
Benzyl Chloride	16.20	13.28	1.220	ok	1.220	1.160-1.280
n-Butylbenzene	16.93	13.28	1.275	ok	1.279	1.219-1.339
sec-Butylbenzene	16.35	13.28	1.231	ok	1.231	1.171-1.291
tert-Butylbenzene	16.07	13.28	1.210	ok	1.210	1.150-1.270
Carbon disulfide	5.69	7.31	0.778	ok	0.779	0.719-0.839
Chlorobenzene	13.32	13.28	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.76	7.31	0.514	ok	0.514	0.454-0.574
Chloroethane	4.43	7.31	0.606	ok	0.606	0.546-0.666
Chloroform	7.43	7.31	1.016	ok	1.016	0.956-1.076
Chloromethane	3.94	7.31	0.539	ok	0.539	0.479-0.599
3-Chloropropene	5.54	7.31	0.758	ok	0.758	0.698-0.818
2-Chlorotoluene	15.39	13.28	1.159	ok	1.159	1.099-1.219
Carbon tetrachloride	8.95	7.31	1.224	ok	1.224	1.164-1.284
Cyclohexane	9.07	9.17	0.989	ok	0.989	0.929-1.049
1,1-Dichloroethane	6.40	7.31	0.876	ok	0.875	0.815-0.935
1,1-Dichloroethylene	6.22	7.31	0.851	ok	0.852	0.792-0.912
1,2-Dibromoethane	12.21	13.28	0.919	ok	0.920	0.860-0.980
1,2-Dichloroethane	8.13	7.31	1.112	ok	1.112	1.052-1.172
1,2-Dichloropropane	9.59	9.17	1.046	ok	1.047	0.987-1.107
1,4-Dioxane	9.96	9.17	1.086	ok	1.119	1.059-1.179
Dichlorodifluoromethane	3.83	7.31	0.524	ok	0.524	0.464-0.584
Dibromochloromethane	11.98	13.28	0.902	ok	0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.22	7.31	0.851	ok	0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.16	7.31	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	10.66	9.17	1.162	ok	1.163	1.103-1.223
m-Dichlorobenzene	16.21	13.28	1.221	ok	1.221	1.161-1.281



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	<b>Rel RT Range</b> (+ /06)
o-Dichlorobenzene	16.62	13.28	1.252	ok	1.252	1.192-1.312
p-Dichlorobenzene	16.28	13.28	1.226	ok	1.226	1.166-1.286
trans-1,3-Dichloropropene	11.17	9.17	1.218	ok	1.219	1.159-1.279
2,3-Dimethylpentane	9.32	9.17	1.016	ok	1.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.31	1.123	ok	1.122	1.062-1.182
Ethanol	4.61	7.31	0.631	ok	0.636	0.576-0.696
Ethylbenzene	13.70	13.28	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.46	7.31	1.021	ok	1.036	0.976-1.096
4-Ethyltoluene	15.59	13.28	1.174	ok	1.174	1.114-1.234
Freon 113	5.65	7.31	0.773	ok	0.773	0.713-0.833
Freon 114	4.00	7.31	0.547	ok	0.547	0.487-0.607
Freon 123	4.73	7.31	0.647	ok	0.647	0.587-0.707
Freon 123A	4.76	7.31	0.651	ok	0.652	0.592-0.712
Freon 152A	3.74	7.31	0.512	ok	0.511	0.451-0.571
Heptane	10.14	9.17	1.106	ok	1.106	1.046-1.166
Hexachlorobutadiene	18.74	13.28	1.411	ok	1.412	1.352-1.472
Hexane	7.37	7.31	1.008	ok	1.007	0.947-1.067
2-Hexanone	11.92	13.28	0.898	ok	0.905	0.845-0.965
Iodomethane	5.31	7.31	0.726	ok	0.726	0.666-0.786
Isopropylbenzene	14.92	13.28	1.123	ok	1.123	1.063-1.183
Isopropyl Alcohol	5.05	7.31	0.691	ok	0.709	0.649-0.769
p-Isopropyltoluene	16.51	13.28	1.243	ok	1.243	1.183-1.303
Methylene chloride	5.44	7.31	0.744	ok	0.744	0.684-0.804
Methyl ethyl ketone	6.89	7.31	0.943	ok	0.969	0.909-1.029
Methyl Isobutyl Ketone	10.75	9.17	1.172	ok	1.181	1.121-1.241
Methyl Tert Butyl Ether	6.50	7.31	0.889	ok	0.906	0.846-0.966
Methylmethacrylate	10.07	9.17	1.098	ok	1.104	1.044-1.164
Nonane	14.58	13.28	1.098	ok	1.098	1.038-1.158
Octane	12.58	13.28	0.947	ok	0.947	0.887-1.007
Pentane	5.15	7.31	0.705	ok	0.704	0.644-0.764
n-Propylbenzene	15.44	13.28	1.163	ok	1.163	1.103-1.223
Propylene	3.78	7.31	0.517	ok	0.518	0.458-0.578
Styrene	14.22	13.28	1.071		1.071	1.011-1.131
1,1,1-Trichloroethane	8.37	7.31	1.145		1.144	1.084-1.204



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,1,1,2-Tetrachloroethane	13.31	13.28	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.31	13.28	1.078 ok	1.078	1.018-1.138	
1,1,2-Trichloroethane	11.32	9.17	1.234 ok	1.236	1.176-1.296	
1,2,4-Trichlorobenzene	18.30	13.28	1.378 ok	1.384	1.324-1.444	
1,2,4-Trimethylbenzene	16.08	13.28	1.211 ok	1.211	1.151-1.271	
1,3,5-Trimethylbenzene	15.67	13.28	1.180 ok	1.180	1.120-1.240	
2,2,4-Trimethylpentane	9.88	9.17	1.077 ok	1.077	1.017-1.137	
Tertiary Butyl Alcohol	5.45	7.31	0.746 ok	0.774	0.714-0.834	
Tetrachloroethylene	12.67	13.28	0.954 ok	0.954	0.894-1.014	
Tetrahydrofuran	7.96	7.31	1.089 ok	1.114	1.054-1.174	
Toluene	11.60	9.17	1.265 ok	1.265	1.205-1.325	
Trichloroethylene	9.82	9.17	1.071 ok	1.071	1.011-1.131	
Trichlorofluoromethane	4.92	7.31	0.673 ok	0.672	0.612-0.732	
Vinyl chloride	4.07	7.31	0.557 ok	0.557	0.497-0.617	
Vinyl Acetate	6.57	7.31	0.899 ok	0.904	0.844-0.964	
m,p-Xylene	13.88	13.28	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.32	13.28	1.078 ok	1.079	1.019-1.139	
TVHC As Equiv Pentane	5.15	7.31	0.705 ok	0.704	0.644-0.764	
TVHC As Equiv Heptane	10.14	9.17	1.106 ok	1.106	1.046-1.166	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	7.31 o	k 7.32	6.99-7.65	155412	ok 129134	77480-180788
1,4-Difluorobenzene	9.17 o	k 9.17	8.84-9.50	809661	ok 683713	410228-957198
Chlorobenzene-D5	13.28 o	k 13.29	12.96-13.6	379609	ok 304534	182720-426348



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.19	7.31	0.710	ok	0.689	0.629-0.749
1,3-Butadiene	4.17	7.31	0.570	ok	0.569	0.509-0.629
Benzene	8.81	9.17	0.961	ok	0.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067	ok	1.067	1.007-1.127
Bromoform	13.92	13.28	1.048	ok	1.048	0.988-1.108
Bromomethane	4.33	7.31	0.592	ok	0.592	0.532-0.652
Bromoethene	4.65	7.31	0.636	ok	0.636	0.576-0.696
n-Butane	4.19	7.31	0.573	ok	0.573	0.513-0.633
Benzyl Chloride	16.22	13.28	1.221	ok	1.220	1.160-1.280
n-Butylbenzene	16.99	13.28	1.279	ok	1.279	1.219-1.339
sec-Butylbenzene	16.35	13.28	1.231		1.231	1.171-1.291
tert-Butylbenzene	16.07	13.28	1.210	ok	1.210	1.150-1.270
Carbon disulfide	5.70	7.31	0.780	ok	0.779	0.719-0.839
Chlorobenzene	13.33	13.28	1.004	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.77	7.31	0.516	ok	0.514	0.454-0.574
Chloroethane	4.44	7.31	0.607	ok	0.606	0.546-0.666
Chloroform	7.43	7.31	1.016	ok	1.016	0.956-1.076
Chloromethane	3.94	7.31	0.539	ok	0.539	0.479-0.599
3-Chloropropene	5.55	7.31	0.759	ok	0.758	0.698-0.818
2-Chlorotoluene	15.40	13.28	1.160	ok	1.159	1.099-1.219
Carbon tetrachloride	8.95	7.31	1.224	ok	1.224	1.164-1.284
Cyclohexane	9.07	9.17	0.989	ok	0.989	0.929-1.049
1,1-Dichloroethane	6.40	7.31	0.876	ok	0.875	0.815-0.935
1,1-Dichloroethylene	6.23	7.31	0.852	ok	0.852	0.792-0.912
1,2-Dibromoethane	12.23	13.28	0.921	ok	0.920	0.860-0.980
1,2-Dichloroethane	8.14	7.31	1.114	ok	1.112	1.052-1.172
1,2-Dichloropropane	9.61	9.17	1.048		1.047	0.987-1.107
1,4-Dioxane	10.73	9.17	1.170	ok	1.119	1.059-1.179
Dichlorodifluoromethane	3.83	7.31	0.524	ok	0.524	0.464-0.584
Dibromochloromethane	11.98	13.28	0.902	ok	0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.23	7.31	0.852	ok	0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.17	7.31	0.981	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	10.67	9.17	1.164	ok	1.163	1.103-1.223
m-Dichlorobenzene	16.22	13.28	1.221	ok	1.221	1.161-1.281



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Re RT	Rel RT Range (+ /06)
o-Dichlorobenzene	16.63	13.28	1.252	ok 1.252	1.192-1.312
p-Dichlorobenzene	16.29	13.28	1.227	ok 1.226	1.166-1.286
trans-1,3-Dichloropropene	11.18	9.17	1.219	ok 1.219	1.159-1.279
2,3-Dimethylpentane	9.32	9.17	1.016	ok 1.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.31	1.123	ok 1.122	1.062-1.182
Ethanol	4.74	7.31	0.648	ok 0.636	0.576-0.696
Ethylbenzene	13.70	13.28	1.032	ok 1.032	0.972-1.092
Ethyl Acetate	7.78	7.31	1.064	ok 1.036	0.976-1.096
4-Ethyltoluene	15.60	13.28	1.175	ok 1.174	1.114-1.234
Freon 113	5.65	7.31	0.773	ok 0.773	0.713-0.833
Freon 114	4.00	7.31	0.547	ok 0.547	0.487-0.607
Freon 123	4.73	7.31	0.647	ok 0.647	0.587-0.707
Freon 123A	4.77	7.31	0.653	ok 0.652	0.592-0.712
Freon 152A	3.74	7.31	0.512	ok 0.511	0.451-0.571
Heptane	10.14	9.17	1.106	ok 1.106	1.046-1.166
Hexachlorobutadiene	18.77	13.28	1.413	ok 1.412	1.352-1.472
Hexane	7.37	7.31	1.008	ok 1.007	0.947-1.067
2-Hexanone	12.17	13.28	0.916	ok 0.905	0.845-0.965
Iodomethane	5.31	7.31	0.726	ok 0.726	0.666-0.786
Isopropylbenzene	14.92	13.28	1.123	ok 1.123	1.063-1.183
Isopropyl Alcohol	5.33	7.31	0.729	ok 0.709	0.649-0.769
p-Isopropyltoluene	16.52	13.28	1.244	ok 1.243	1.183-1.303
Methylene chloride	5.45	7.31	0.746	ok 0.744	0.684-0.804
Methyl ethyl ketone	7.42	7.31	1.015	ok 0.969	0.909-1.029
Methyl Isobutyl Ketone	10.95	9.17	1.194	ok 1.181	1.121-1.241
Methyl Tert Butyl Ether	6.72	7.31	0.919	ok 0.906	0.846-0.966
Methylmethacrylate	10.21	9.17	1.113	ok 1.104	1.044-1.164
Nonane	14.59	13.28	1.099	ok 1.098	1.038-1.158
Octane	12.58	13.28	0.947	ok 0.947	0.887-1.007
Pentane	5.15	7.31	0.705	ok 0.704	0.644-0.764
n-Propylbenzene	15.45	13.28	1.163	ok 1.163	1.103-1.223
Propylene	3.80	7.31	0.520	ok 0.518	0.458-0.578
Styrene	14.23	13.28	1.072	ok 1.071	1.011-1.131
1,1,1-Trichloroethane	8.37	7.31	1.145	ok 1.144	1.084-1.204



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,1,1,2-Tetrachloroethane	13.31	13.28	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.32	13.28	1.078 ok	1.078	1.018-1.138	
1,1,2-Trichloroethane	11.33	9.17	1.236 ok	1.236	1.176-1.296	
1,2,4-Trichlorobenzene	18.51	13.28	1.394 ok	1.384	1.324-1.444	
1,2,4-Trimethylbenzene	16.08	13.28	1.211 ok	1.211	1.151-1.271	
1,3,5-Trimethylbenzene	15.68	13.28	1.181 ok	1.180	1.120-1.240	
2,2,4-Trimethylpentane	9.88	9.17	1.077 ok	1.077	1.017-1.137	
Tertiary Butyl Alcohol	5.73	7.31	0.784 ok	0.774	0.714-0.834	
Tetrachloroethylene	12.68	13.28	0.955 ok	0.954	0.894-1.014	
Tetrahydrofuran	8.50	7.31	1.163 ok	1.114	1.054-1.174	
Toluene	11.60	9.17	1.265 ok	1.265	1.205-1.325	
Trichloroethylene	9.82	9.17	1.071 ok	1.071	1.011-1.131	
Trichlorofluoromethane	4.92	7.31	0.673 ok	0.672	0.612-0.732	
Vinyl chloride	4.08	7.31	0.558 ok	0.557	0.497-0.617	
Vinyl Acetate	6.68	7.31	0.914 ok	0.904	0.844-0.964	
m,p-Xylene	13.88	13.28	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.33	13.28	1.079 ok	1.079	1.019-1.139	
TVHC As Equiv Pentane	5.15	7.31	0.705 ok	0.704	0.644-0.764	
TVHC As Equiv Heptane	10.14	9.17	1.106 ok	1.106	1.046-1.166	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	7.31 ok	7.32	6.99-7.65	128335	ok 129134	77480-180788
1,4-Difluorobenzene		9.17	8.84-9.50	679964	ok 683713	410228-957198
Chlorobenzene-D5		13.29	12.96-13.6		ok 304534	182720-426348



Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	4.86	7.31	0.665	ok	0.689	0.629-0.749
1,3-Butadiene	4.16	7.31	0.569	ok	0.569	0.509-0.629
Benzene	8.81	9.17	0.961		0.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067		1.067	1.007-1.127
Bromoform	13.92	13.29	1.047	ok	1.048	0.988-1.108
Bromomethane	4.33	7.31	0.592	ok	0.592	0.532-0.652
Bromoethene	4.65	7.31	0.636	ok	0.636	0.576-0.696
n-Butane	4.19	7.31	0.573	ok	0.573	0.513-0.633
Benzyl Chloride	16.20	13.29	1.219	ok	1.220	1.160-1.280
n-Butylbenzene	16.93	13.29	1.274	ok	1.279	1.219-1.339
sec-Butylbenzene	16.35	13.29	1.230	ok	1.231	1.171-1.291
tert-Butylbenzene	16.07	13.29	1.209	ok	1.210	1.150-1.270
Carbon disulfide	5.69	7.31	0.778	ok	0.779	0.719-0.839
Chlorobenzene	13.33	13.29	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.76	7.31	0.514	ok	0.514	0.454-0.574
Chloroethane	4.43	7.31	0.606	ok	0.606	0.546-0.666
Chloroform	7.43	7.31	1.016	ok	1.016	0.956-1.076
Chloromethane	3.94	7.31	0.539	ok	0.539	0.479-0.599
3-Chloropropene	5.53	7.31	0.756	ok	0.758	0.698-0.818
2-Chlorotoluene	15.39	13.29	1.158	ok	1.159	1.099-1.219
Carbon tetrachloride	8.95	7.31	1.224	ok	1.224	1.164-1.284
Cyclohexane	9.07	9.17	0.989	ok	0.989	0.929-1.049
1,1-Dichloroethane	6.40	7.31	0.876	ok	0.875	0.815-0.935
1,1-Dichloroethylene	6.22	7.31	0.851	ok	0.852	0.792-0.912
1,2-Dibromoethane	12.21	13.29	0.919	ok	0.920	0.860-0.980
1,2-Dichloroethane	8.13	7.31	1.112	ok	1.112	1.052-1.172
1,2-Dichloropropane	9.60	9.17	1.047	ok	1.047	0.987-1.107
1,4-Dioxane	9.89	9.17	1.079	ok	1.119	1.059-1.179
Dichlorodifluoromethane	3.83	7.31	0.524	ok	0.524	0.464-0.584
Dibromochloromethane	11.98	13.29	0.901	ok	0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.22	7.31	0.851	ok	0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.16	7.31	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	10.66	9.17	1.162	ok	1.163	1.103-1.223
m-Dichlorobenzene	16.21	13.29	1.220	ok	1.221	1.161-1.281



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	16.62	13.29	1.251 ol	k 1.252	1.192-1.312
p-Dichlorobenzene	16.28	13.29	1.225 o	k 1.226	1.166-1.286
trans-1,3-Dichloropropene	11.17	9.17	1.218 ol	k 1.219	1.159-1.279
2,3-Dimethylpentane	9.32	9.17	1.016 o	k 1.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.31	1.123 o	k 1.122	1.062-1.182
Ethanol	4.58	7.31	0.627 o	k 0.636	0.576-0.696
Ethylbenzene	13.70	13.29	1.031 o	k 1.032	0.972-1.092
Ethyl Acetate	7.42	7.31	1.015 o	k 1.036	0.976-1.096
4-Ethyltoluene	15.59	13.29	1.173 o	k 1.174	1.114-1.234
Freon 113	5.65	7.31	0.773 o	k 0.773	0.713-0.833
Freon 114	4.00	7.31	0.547 o	k 0.547	0.487-0.607
Freon 123	4.73	7.31	0.647 o	k 0.647	0.587-0.707
Freon 123A	4.76	7.31	0.651 o	k 0.652	0.592-0.712
Freon 152A	3.74	7.31	0.512 o	k 0.511	0.451-0.571
Heptane	10.14	9.17	1.106 o	k 1.106	1.046-1.166
Hexachlorobutadiene	18.74	13.29	1.410 o	k 1.412	1.352-1.472
Hexane	7.37	7.31	1.008 o	k 1.007	0.947-1.067
2-Hexanone	11.90	13.29	0.895 ol	k 0.905	0.845-0.965
Iodomethane	5.31	7.31	0.726 ol	k 0.726	0.666-0.786
Isopropylbenzene	14.92	13.29		k 1.123	1.063-1.183
Isopropyl Alcohol	5.01	7.31		k 0.709	0.649-0.769
p-Isopropyltoluene	16.51	13.29		k 1.243	1.183-1.303
Methylene chloride	5.44	7.31	0.744 o	k 0.744	0.684-0.804
Methyl ethyl ketone	6.83	7.31	0.934 ol	k 0.969	0.909-1.029
Methyl Isobutyl Ketone	10.73	9.17		k 1.181	1.121-1.241
Methyl Tert Butyl Ether	6.48	7.31		k 0.906	0.846-0.966
Methylmethacrylate	10.07	9.17		k 1.104	1.044-1.164
Nonane	14.58	13.29	1.097 ol	k 1.098	1.038-1.158
Octane	12.58	13.29		k 0.947	0.887-1.007
Pentane	5.15	7.31	0.705 ol	k 0.704	0.644-0.764
n-Propylbenzene	15.44	13.29	1.162 o	k 1.163	1.103-1.223
Propylene	3.78	7.31		k 0.518	0.458-0.578
Styrene	14.23	13.29		k 1.071	1.011-1.131
1,1,1-Trichloroethane	8.37	7.31	1.145 o	k 1.144	1.084-1.204



#### Initial Calibration Retention Time/Internal Standard Area Summary Page 12 of 81

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,1,1,2-Tetrachloroethane	13.31	13.29	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.32	13.29	1.078 ok	1.078	1.018-1.138	
1,1,2-Trichloroethane	11.32	9.17	1.234 ok	1.236	1.176-1.296	
1,2,4-Trichlorobenzene	18.30	13.29	1.377 ok	1.384	1.324-1.444	
1,2,4-Trimethylbenzene	16.08	13.29	1.210 ok	1.211	1.151-1.271	
1,3,5-Trimethylbenzene	15.67	13.29	1.179 ok	1.180	1.120-1.240	
2,2,4-Trimethylpentane	9.88	9.17	1.077 ok	1.077	1.017-1.137	
Tertiary Butyl Alcohol	5.42	7.31	0.741 ok	0.774	0.714-0.834	
Tetrachloroethylene	12.68	13.29	0.954 ok	0.954	0.894-1.014	
Tetrahydrofuran	7.89	7.31	1.079 ok	1.114	1.054-1.174	
Toluene	11.60	9.17	1.265 ok	1.265	1.205-1.325	
Trichloroethylene	9.82	9.17	1.071 ok	1.071	1.011-1.131	
Trichlorofluoromethane	4.92	7.31	0.673 ok	0.672	0.612-0.732	
Vinyl chloride	4.07	7.31	0.557 ok	0.557	0.497-0.617	
Vinyl Acetate	6.56	7.31	0.897 ok	0.904	0.844-0.964	
m,p-Xylene	13.88	13.29	1.044 ok	1.045	0.985-1.105	
o-Xylene	14.33	13.29	1.078 ok	1.079	1.019-1.139	
TVHC As Equiv Pentane	5.15	7.31	0.705 ok	0.704	0.644-0.764	
TVHC As Equiv Heptane	10.14	9.17	1.106 ok	1.106	1.046-1.166	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
inici nai Stanuai u	(111111.)	KI (IIIIII.)	(+ /- 0.33)	Alta	Alta	(+ / <b>- 4</b> 0 /0)
Bromochloromethane	7.31 o	k 7.32	6.99-7.65	161738	ok 129134	77480-180788
1,4-Difluorobenzene	9.17 o	k 9.17	8.84-9.50	820410	ok 683713	410228-957198
Chlorobenzene-D5	13.29 o	k 13.29	12.96-13.6	2 417753	ok 304534	182720-426348



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	4.97	7.31	0.680	ok	0.689	0.629-0.749
1,3-Butadiene	4.16	7.31	0.569	ok	0.569	0.509-0.629
Benzene	8.81	9.17	0.961	ok	0.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067	ok	1.067	1.007-1.127
Bromoform	13.92	13.28	1.048	ok	1.048	0.988-1.108
Bromomethane	4.33	7.31	0.592	ok	0.592	0.532-0.652
Bromoethene	4.65	7.31	0.636	ok	0.636	0.576-0.696
n-Butane	4.19	7.31	0.573	ok	0.573	0.513-0.633
Benzyl Chloride	16.20	13.28	1.220	ok	1.220	1.160-1.280
n-Butylbenzene	16.93	13.28	1.275	ok	1.279	1.219-1.339
sec-Butylbenzene	16.35	13.28	1.231	ok	1.231	1.171-1.291
tert-Butylbenzene	16.07	13.28	1.210	ok	1.210	1.150-1.270
Carbon disulfide	5.69	7.31	0.778	ok	0.779	0.719-0.839
Chlorobenzene	13.32	13.28	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.76	7.31	0.514	ok	0.514	0.454-0.574
Chloroethane	4.43	7.31	0.606	ok	0.606	0.546-0.666
Chloroform	7.43	7.31	1.016	ok	1.016	0.956-1.076
Chloromethane	3.94	7.31	0.539	ok	0.539	0.479-0.599
3-Chloropropene	5.54	7.31	0.758	ok	0.758	0.698-0.818
2-Chlorotoluene	15.39	13.28	1.159	ok	1.159	1.099-1.219
Carbon tetrachloride	8.95	7.31	1.224	ok	1.224	1.164-1.284
Cyclohexane	9.07	9.17	0.989	ok	0.989	0.929-1.049
1,1-Dichloroethane	6.40	7.31	0.876	ok	0.875	0.815-0.935
1,1-Dichloroethylene	6.22	7.31	0.851	ok	0.852	0.792-0.912
1,2-Dibromoethane	12.21	13.28	0.919	ok	0.920	0.860-0.980
1,2-Dichloroethane	8.13	7.31	1.112	ok	1.112	1.052-1.172
1,2-Dichloropropane	9.59	9.17	1.046		1.047	0.987-1.107
1,4-Dioxane	10.07	9.17	1.098	ok	1.119	1.059-1.179
Dichlorodifluoromethane	3.83	7.31	0.524	ok	0.524	0.464-0.584
Dibromochloromethane	11.98	13.28	0.902		0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.22	7.31	0.851		0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.16	7.31	0.979	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	10.66	9.17	1.162	ok	1.163	1.103-1.223
m-Dichlorobenzene	16.21	13.28	1.221	ok	1.221	1.161-1.281



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	16.62	13.28	1.252 c	k 1.252	1.192-1.312
p-Dichlorobenzene	16.28	13.28	1.226 c	k 1.226	1.166-1.286
trans-1,3-Dichloropropene	11.17	9.17	1.218 c	k 1.219	1.159-1.279
2,3-Dimethylpentane	9.32	9.17	1.016 c	k 1.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.31	1.123 o	k 1.122	1.062-1.182
Ethanol	4.64	7.31	0.635 o	ok 0.636	0.576-0.696
Ethylbenzene	13.70	13.28	1.032 o	k 1.032	0.972-1.092
Ethyl Acetate	7.51	7.31	1.027 c	k 1.036	0.976-1.096
4-Ethyltoluene	15.59	13.28	1.174 c	k 1.174	1.114-1.234
Freon 113	5.65	7.31	0.773 o	ok 0.773	0.713-0.833
Freon 114	4.00	7.31	0.547 o	ok 0.547	0.487-0.607
Freon 123	4.73	7.31	0.647 c	ok 0.647	0.587-0.707
Freon 123A	4.76	7.31	0.651	ok 0.652	0.592-0.712
Freon 152A	3.74	7.31	0.512	ok 0.511	0.451-0.571
Heptane	10.14	9.17	1.106 o	k 1.106	1.046-1.166
Hexachlorobutadiene	18.74	13.28	1.411 c	k 1.412	1.352-1.472
Hexane	7.36	7.31	1.007 c	k 1.007	0.947-1.067
2-Hexanone	11.95	13.28		ok 0.905	0.845-0.965
Iodomethane	5.31	7.31		ok 0.726	0.666-0.786
Isopropylbenzene	14.92	13.28		k 1.123	1.063-1.183
Isopropyl Alcohol	5.11	7.31		ok 0.709	0.649-0.769
p-Isopropyltoluene	16.51	13.28		ok 1.243	1.183-1.303
Methylene chloride	5.44	7.31	0.744 o	ok 0.744	0.684-0.804
Methyl ethyl ketone	6.98	7.31	0.955 o	ok 0.969	0.909-1.029
Methyl Isobutyl Ketone	10.78	9.17	1.176 o	k 1.181	1.121-1.241
Methyl Tert Butyl Ether	6.51	7.31	0.891 c	ok 0.906	0.846-0.966
Methylmethacrylate	10.09	9.17	1.100 c	k 1.104	1.044-1.164
Nonane	14.58	13.28	1.098 c	k 1.098	1.038-1.158
Octane	12.58	13.28		ok 0.947	0.887-1.007
Pentane	5.15	7.31	0.705 c	ok 0.704	0.644-0.764
n-Propylbenzene	15.44	13.28		k 1.163	1.103-1.223
Propylene	3.79	7.31		ok 0.518	0.458-0.578
Styrene	14.22	13.28		k 1.071	1.011-1.131
1,1,1-Trichloroethane	8.37	7.31	1.145 c	k 1.144	1.084-1.204



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)		Istd RT (min.)	Rel RT		Mean Rel RT		RT Range06)	
1,1,1,2-Tetrachloroethane	13.31		13.28	1.002	ok	1.002	0.94	2-1.062	
1,1,2,2-Tetrachloroethane	14.31		13.28	1.078	ok	1.078	1.01	8-1.138	
1,1,2-Trichloroethane	11.32		9.17	1.234	ok	1.236	1.17	6-1.296	
1,2,4-Trichlorobenzene	18.31		13.28	1.379	ok	1.384	1.32	24-1.444	
1,2,4-Trimethylbenzene	16.07		13.28	1.210	ok	1.211	1.15	51-1.271	
1,3,5-Trimethylbenzene	15.67		13.28	1.180	ok	1.180	1.12	20-1.240	
2,2,4-Trimethylpentane	9.88		9.17	1.077	ok	1.077	1.01	7-1.137	
Tertiary Butyl Alcohol	5.50		7.31	0.752	ok	0.774	0.71	4-0.834	
Tetrachloroethylene	12.67		13.28	0.954	ok	0.954	0.89	94-1.014	
Tetrahydrofuran	8.05		7.31	1.101	ok	1.114	1.05	54-1.174	
Toluene	11.60		9.17	1.265	ok	1.265	1.20	05-1.325	
Trichloroethylene	9.82		9.17	1.071	ok	1.071	1.01	1-1.131	
Trichlorofluoromethane	4.92		7.31	0.673	ok	0.672	0.61	2-0.732	
Vinyl chloride	4.07		7.31	0.557	ok	0.557	0.49	7-0.617	
Vinyl Acetate	6.59		7.31	0.902	ok	0.904	0.84	4-0.964	
m,p-Xylene	13.88		13.28	1.045	ok	1.045	0.98	35-1.105	
o-Xylene	14.32		13.28	1.078	ok	1.079	1.01	9-1.139	
TVHC As Equiv Pentane	5.15		7.31	0.705	ok	0.704	0.64	4-0.764	
TVHC As Equiv Heptane	10.14		9.17	1.106	ok	1.106	1.04	6-1.166	
	RT		Mean	RT Ra	nge			Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ /- 0.	.33)	Area		Area	(+ / <b>- 40 %</b> )
Bromochloromethane	7.31	ok	7.32	6.99-7.	.65	162230	ok	129134	77480-180788
1,4-Difluorobenzene	9.17	ok	9.17	8.84-9.	.50	791070	ok	683713	410228-957198
Chlorobenzene-D5	13.28	ok	13.29	12.96-	13.62	342822	ok	304534	182720-426348



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.26	7.32	0.719	ok 0.689	0.629-0.749
1,3-Butadiene	4.17	7.32	0.570	ok 0.569	0.509-0.629
Benzene	8.82	9.17	0.962	ok 0.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067	ok 1.067	1.007-1.127
Bromoform	13.92	13.29	1.047	ok 1.048	0.988-1.108
Bromomethane	4.33	7.32	0.592	ok 0.592	0.532-0.652
Bromoethene	4.66	7.32	0.637	ok 0.636	0.576-0.696
tert-Butylbenzene	16.09	13.29	1.211	ok 1.210	1.150-1.270
Carbon disulfide	5.70	7.32	0.779	ok 0.779	0.719-0.839
Chlorobenzene	13.33	13.29	1.003	ok 1.003	0.943-1.063
Chloroethane	4.44	7.32	0.607	ok 0.606	0.546-0.666
Chloroform	7.43	7.32	1.015	ok 1.016	0.956-1.076
3-Chloropropene	5.55	7.32	0.758	ok 0.758	0.698-0.818
2-Chlorotoluene	15.40	13.29	1.159	ok 1.159	1.099-1.219
Carbon tetrachloride	8.95	7.32	1.223	ok 1.224	1.164-1.284
Cyclohexane	9.07	9.17	0.989	ok 0.989	0.929-1.049
1,1-Dichloroethane	6.40	7.32	0.874	ok 0.875	0.815-0.935
1,1-Dichloroethylene	6.25	7.32	0.854	ok 0.852	0.792-0.912
1,2-Dibromoethane	12.24	13.29	0.921	ok 0.920	0.860-0.980
1,2-Dichloroethane	8.15	7.32	1.113	ok 1.112	1.052-1.172
1,2-Dichloropropane	9.61	9.17	1.048	ok 1.047	0.987-1.107
Dichlorodifluoromethane	3.84	7.32	0.525	ok 0.524	0.464-0.584
Dibromochloromethane	11.98	13.29	0.901	ok 0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.25	7.32	0.854	ok 0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.17	7.32	0.980	ok 0.979	0.919-1.039
cis-1,3-Dichloropropene	10.69	9.17	1.166	ok 1.163	1.103-1.223
2,3-Dimethylpentane	9.32	9.17	1.016	ok 1.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.32	1.122	ok 1.122	1.062-1.182
Ethylbenzene	13.71	13.29	1.032	ok 1.032	0.972-1.092
4-Ethyltoluene	15.62	13.29	1.175	ok 1.174	1.114-1.234
Freon 113	5.65	7.32	0.772	ok 0.773	0.713-0.833
Freon 114	4.00	7.32	0.546	ok 0.547	0.487-0.607
Freon 123	4.74	7.32	0.648	ok 0.647	0.587-0.707
Freon 123A	4.77	7.32	0.652	ok 0.652	0.592-0.712



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT R (+ /06)	ange	
Heptane	10.14	9.17	1.106	ok	1.106	1.046-1.1	66	
Hexane	7.37	7.32	1.007	ok	1.007	0.947-1.0	67	
Iodomethane	5.31	7.32	0.725	ok	0.726	0.666-0.7	86	
Isopropylbenzene	14.93	13.29	1.123	ok	1.123	1.063-1.13	83	
Isopropyl Alcohol	5.42	7.32	0.740	ok	0.709	0.649-0.7	69	
Methyl Tert Butyl Ether	6.91	7.32	0.944	ok	0.906	0.846-0.9	66	
Nonane	14.59	13.29	1.098	ok	1.098	1.038-1.1	58	
Octane	12.59	13.29	0.947	ok	0.947	0.887-1.0	07	
Pentane	5.17	7.32	0.706	ok	0.704	0.644-0.7	64	
n-Propylbenzene	15.47	13.29	1.164	ok	1.163	1.103-1.2	23	
Propylene	3.80	7.32	0.519	ok	0.518	0.458-0.5	78	
Styrene	14.23	13.29	1.071	ok	1.071	1.011-1.13	31	
1,1,1-Trichloroethane	8.37	7.32	1.143	ok	1.144	1.084-1.20	04	
1,1,1,2-Tetrachloroethane	13.31	13.29	1.002	ok	1.002	0.942-1.0	62	
1,1,2,2-Tetrachloroethane	14.33	13.29	1.078	ok	1.078	1.018-1.138		
1,1,2-Trichloroethane	11.34	9.17	1.237	ok	1.236	1.176-1.29	96	
1,2,4-Trimethylbenzene	16.10	13.29	1.211	ok	1.211	1.151-1.2	71	
1,3,5-Trimethylbenzene	15.70	13.29	1.181	ok	1.180	1.120-1.24	40	
2,2,4-Trimethylpentane	9.88	9.17	1.077	ok	1.077	1.017-1.13	37	
Tertiary Butyl Alcohol	5.94	7.32	0.811	ok	0.774	0.714-0.83	34	
Tetrachloroethylene	12.67	13.29	0.953	ok	0.954	0.894-1.0	14	
Toluene	11.61	9.17	1.266	ok	1.265	1.205-1.3	25	
Trichloroethylene	9.82	9.17	1.071	ok	1.071	1.011-1.13	31	
Trichlorofluoromethane	4.92	7.32	0.672	ok	0.672	0.612-0.73	32	
Vinyl chloride	4.08	7.32	0.557	ok	0.557	0.497-0.6	17	
m,p-Xylene	13.88	13.29	1.044	ok	1.045	0.985-1.10	05	
o-Xylene	14.34	13.29	1.079	ok	1.079	1.019-1.13	39	
TVHC As Equiv Heptane	10.14	9.17	1.106	ok	1.106	1.046-1.1	66	
	RT	Mean	RT Ra	_		Mea	n	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0	.33)	Area	Area	1	(+ / <b>- 40 %</b> )
Bromochloromethane	7.32 o	k 7.32	6.99-7	.65	119724	ok 1291	34	77480-180788
1,4-Difluorobenzene	9.17 o	k 9.17	8.84-9	.50	610868	ok 6837	13	410228-957198



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Chlorobenzene-D5	13.29 ok	13.29	12.96-13.62	253998	ok 304534	182720-426348



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	M R	Iean Rel T	Rel RT Range (+ /06)
1,3-Butadiene	4.17	7.32	0.570	ok 0.	569	0.509-0.629
Benzene	8.82	9.17	0.962	ok 0.	.961	0.901-1.021
Bromodichloromethane	9.78	9.17	1.067	ok 1.	.067	1.007-1.127
Bromomethane	4.33	7.32	0.592	ok 0.	.592	0.532-0.652
Bromoethene	4.67	7.32	0.638	ok 0.	.636	0.576-0.696
Carbon disulfide	5.71	7.32	0.780	ok 0.	779	0.719-0.839
Chlorobenzene	13.33	13.29	1.003	ok 1.	.003	0.943-1.063
Chloroethane	4.44	7.32	0.607	ok 0.	606	0.546-0.666
Chloroform	7.43	7.32	1.015	ok 1.	.016	0.956-1.076
3-Chloropropene	5.54	7.32	0.757	ok 0.	758	0.698-0.818
Carbon tetrachloride	8.95	7.32	1.223	ok 1.	.224	1.164-1.284
Cyclohexane	9.06	9.17	0.988	ok 0.	.989	0.929-1.049
1,1-Dichloroethane	6.41	7.32	0.876	ok 0.	.875	0.815-0.935
1,2-Dibromoethane	12.24	13.29	0.921	ok 0.	.920	0.860-0.980
1,2-Dichloroethane	8.15	7.32	1.113	ok 1.	112	1.052-1.172
Dichlorodifluoromethane	3.84	7.32	0.525	ok 0.	.524	0.464-0.584
Dibromochloromethane	11.99	13.29	0.902	ok 0.	.902	0.842-0.962
cis-1,2-Dichloroethylene	7.17	7.32	0.980	ok 0.	.979	0.919-1.039
2,3-Dimethylpentane	9.32	9.17	1.016	ok 1.	.016	0.956-1.076
2,4-Dimethylpentane	8.21	7.32	1.122	ok 1.	122	1.062-1.182
Ethylbenzene	13.71	13.29	1.032	ok 1.	.032	0.972-1.092
Freon 113	5.65	7.32	0.772	ok 0.	.773	0.713-0.833
Freon 114	4.00	7.32	0.546	ok 0.	.547	0.487-0.607
Freon 123	4.73	7.32	0.646	ok 0.	647	0.587-0.707
Freon 123A	4.78	7.32	0.653	ok 0.	652	0.592-0.712
Heptane	10.15	9.17	1.107	ok 1.	106	1.046-1.166
Hexane	7.37	7.32	1.007	ok 1.	.007	0.947-1.067
Iodomethane	5.32	7.32	0.727	ok 0.	726	0.666-0.786
Isopropylbenzene	14.93	13.29	1.123	ok 1.	123	1.063-1.183
Nonane	14.60	13.29	1.099	ok 1.	.098	1.038-1.158
Octane	12.59	13.29	0.947	ok 0.	.947	0.887-1.007
Pentane	5.15	7.32	0.704	ok 0.	704	0.644-0.764
1,1,1-Trichloroethane	8.37	7.32	1.143	ok 1.	144	1.084-1.204
1,1,1,2-Tetrachloroethane	13.31	13.29	1.002	ok 1.	.002	0.942-1.062



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)		Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)	
1,1,2,2-Tetrachloroethane	14.34		13.29	1.079	ok	1.078	1.018-1.138	
1,1,2-Trichloroethane	11.34		9.17	1.237	ok	1.236	1.176-1.296	
2,2,4-Trimethylpentane	9.88		9.17	1.077	ok	1.077	1.017-1.137	
Tertiary Butyl Alcohol	5.98		7.32	0.817	ok	0.774	0.714-0.834	
Tetrachloroethylene	12.68		13.29	0.954	ok	0.954	0.894-1.014	
Toluene	11.62		9.17	1.267	ok	1.265	1.205-1.325	
Trichloroethylene	9.83		9.17	1.072	ok	1.071	1.011-1.131	
Trichlorofluoromethane	4.92		7.32	0.672	ok	0.672	0.612-0.732	
Vinyl chloride	4.08		7.32	0.557	ok	0.557	0.497-0.617	
m,p-Xylene	13.88		13.29	1.044	ok	1.045	0.985-1.105	
o-Xylene	14.34		13.29	1.079	ok	1.079	1.019-1.139	
	RT		Mean	RT Ra	nge		Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ /- 0.	33)	Area	Area	(+ /- 40 %)
Bromochloromethane	7.32		7.32	6.99-7.		119523	ok 129134	77480-180788
1,4-Difluorobenzene	9.17	ok	9.17	8.84-9.	50	606905	ok 683713	410228-957198
Chlorobenzene-D5	13.29	ok	13.29	12.96-	13.62	249821	ok 304534	182720-426348



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#### Initial Calibration Retention Time/Internal Standard Area Summary

**Job Number:** JA68565 **Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	18.41	13.29	1.385 ok	1.396	1.336-1.456	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene	9.17 ol	7.32 x 9.17	6.99-7.65 8.84-9.50	112522 636749	ok 129134 ok 683713	77480-180788 410228-957198
Chlorobenzene-D5	13.29 ol	c 13.29	12.96-13.62	259865	ok 304534	182720-426348



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	18.48	13.28	1.392 ok	1.396	1.336-1.456	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene		7.32 9.17	6.99-7.65 8.84-9.50	118678 659127	ok 129134 ok 683713	77480-180788 410228-957198
Chlorobenzene-D5	13.28 ok	13.29	12.96-13.62	283241	ok 304534	182720-426348



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	4.84	7.33	0.660	ok	0.689	0.629-0.749
1,3-Butadiene	4.16	7.33	0.568	ok	0.569	0.509-0.629
Benzene	8.82	9.18	0.961	ok	0.961	0.901-1.021
Bromodichloromethane	9.79	9.18	1.066	ok	1.067	1.007-1.127
Bromoform	13.93	13.29	1.048	ok	1.048	0.988-1.108
Bromomethane	4.33	7.33	0.591	ok	0.592	0.532-0.652
Bromoethene	4.65	7.33	0.634	ok	0.636	0.576-0.696
n-Butane	4.19	7.33	0.572	ok	0.573	0.513-0.633
Benzyl Chloride	16.21	13.29	1.220	ok	1.220	1.160-1.280
n-Butylbenzene	16.93	13.29	1.274	ok	1.279	1.219-1.339
sec-Butylbenzene	16.35	13.29	1.230	ok	1.231	1.171-1.291
tert-Butylbenzene	16.08	13.29	1.210	ok	1.210	1.150-1.270
Carbon disulfide	5.69	7.33	0.776	ok	0.779	0.719-0.839
Chlorobenzene	13.34	13.29	1.004	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.76	7.33	0.513	ok	0.514	0.454-0.574
Chloroethane	4.43	7.33	0.604	ok	0.606	0.546-0.666
Chloroform	7.45	7.33	1.016	ok	1.016	0.956-1.076
Chloromethane	3.94	7.33	0.538	ok	0.539	0.479-0.599
3-Chloropropene	5.55	7.33	0.757	ok	0.758	0.698-0.818
2-Chlorotoluene	15.40	13.29	1.159	ok	1.159	1.099-1.219
Carbon tetrachloride	8.97	7.33	1.224	ok	1.224	1.164-1.284
Cyclohexane	9.08	9.18	0.989	ok	0.989	0.929-1.049
1,1-Dichloroethane	6.41	7.33	0.874	ok	0.875	0.815-0.935
1,1-Dichloroethylene	6.23	7.33	0.850	ok	0.852	0.792-0.912
1,2-Dibromoethane	12.23	13.29	0.920	ok	0.920	0.860-0.980
1,2-Dichloroethane	8.14	7.33	1.111	ok	1.112	1.052-1.172
1,2-Dichloropropane	9.61	9.18	1.047	ok	1.047	0.987-1.107
1,4-Dioxane	9.88	9.18	1.076	ok	1.119	1.059-1.179
Dichlorodifluoromethane	3.83	7.33	0.523	ok	0.524	0.464-0.584
Dibromochloromethane	12.00	13.29	0.903	ok	0.902	0.842-0.962
trans-1,2-Dichloroethylene	6.23	7.33	0.850	ok	0.852	0.792-0.912
cis-1,2-Dichloroethylene	7.17	7.33	0.978	ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	10.67	9.18	1.162	ok	1.163	1.103-1.223
m-Dichlorobenzene	16.23	13.29	1.221	ok	1.221	1.161-1.281



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	16.63	13.29	1.251	ok 1.252	1.192-1.312
p-Dichlorobenzene	16.29	13.29	1.226	ok 1.226	1.166-1.286
trans-1,3-Dichloropropene	11.18	9.18	1.218	ok 1.219	1.159-1.279
2,3-Dimethylpentane	9.33	9.18	1.016	ok 1.016	0.956-1.076
2,4-Dimethylpentane	8.22	7.33	1.121	ok 1.122	1.062-1.182
Ethanol	4.58	7.33	0.625	ok 0.636	0.576-0.696
Ethylbenzene	13.71	13.29	1.032	ok 1.032	0.972-1.092
Ethyl Acetate	7.42	7.33	1.012	ok 1.036	0.976-1.096
4-Ethyltoluene	15.60	13.29	1.174	ok 1.174	1.114-1.234
Freon 113	5.66	7.33	0.772	ok 0.773	0.713-0.833
Freon 114	4.00	7.33	0.546	ok 0.547	0.487-0.607
Freon 123	4.73	7.33	0.645	ok 0.647	0.587-0.707
Freon 123A	4.77	7.33	0.651	ok 0.652	0.592-0.712
Freon 152A	3.73	7.33	0.509	ok 0.511	0.451-0.571
Heptane	10.15	9.18	1.106	ok 1.106	1.046-1.166
Hexachlorobutadiene	18.74	13.29	1.410	ok 1.412	1.352-1.472
Hexane	7.37	7.33	1.005	ok 1.007	0.947-1.067
2-Hexanone	11.90	13.29	0.895	ok 0.905	0.845-0.965
Iodomethane	5.31	7.33	0.724	ok 0.726	0.666-0.786
Isopropylbenzene	14.93	13.29	1.123	ok 1.123	1.063-1.183
Isopropyl Alcohol	5.02	7.33	0.685	ok 0.709	0.649-0.769
p-Isopropyltoluene	16.52	13.29	1.243	ok 1.243	1.183-1.303
Methylene chloride	5.45	7.33	0.744	ok 0.744	0.684-0.804
Methyl ethyl ketone	6.81	7.33	0.929	ok 0.969	0.909-1.029
Methyl Isobutyl Ketone	10.74	9.18	1.170	ok 1.181	1.121-1.241
Methyl Tert Butyl Ether	6.48	7.33	0.884	ok 0.906	0.846-0.966
Methylmethacrylate	10.07	9.18	1.097	ok 1.104	1.044-1.164
Nonane	14.59	13.29	1.098	ok 1.098	1.038-1.158
Octane	12.59	13.29	0.947	ok 0.947	0.887-1.007
Pentane	5.15	7.33	0.703	ok 0.704	0.644-0.764
n-Propylbenzene	15.45	13.29	1.163	ok 1.163	1.103-1.223
Propylene	3.78	7.33	0.516	ok 0.518	0.458-0.578
Styrene	14.23	13.29	1.071	ok 1.071	1.011-1.131
1,1,1-Trichloroethane	8.39	7.33	1.145	ok 1.144	1.084-1.204



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,1,1,2-Tetrachloroethane	13.32	13.29	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.33	13.29	1.078 ok	1.078	1.018-1.138	
1,1,2-Trichloroethane	11.34	9.18	1.235 ok	1.236	1.176-1.296	
1,2,4-Trichlorobenzene	18.30	13.29	1.377 ok	1.384	1.324-1.444	
1,2,4-Trimethylbenzene	16.09	13.29	1.211 ok	1.211	1.151-1.271	
1,3,5-Trimethylbenzene	15.68	13.29	1.180 ok	1.180	1.120-1.240	
2,2,4-Trimethylpentane	9.89	9.18	1.077 ok	1.077	1.017-1.137	
Tertiary Butyl Alcohol	5.44	7.33	0.742 ok	0.774	0.714-0.834	
Tetrachloroethylene	12.68	13.29	0.954 ok	0.954	0.894-1.014	
Tetrahydrofuran	7.87	7.33	1.074 ok	1.114	1.054-1.174	
Toluene	11.60	9.18	1.264 ok	1.265	1.205-1.325	
Trichloroethylene	9.84	9.18	1.072 ok	1.071	1.011-1.131	
Trichlorofluoromethane	4.92	7.33	0.671 ok	0.672	0.612-0.732	
Vinyl chloride	4.07	7.33	0.555 ok	0.557	0.497-0.617	
Vinyl Acetate	6.56	7.33	0.895 ok	0.904	0.844-0.964	
m,p-Xylene	13.89	13.29	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.34	13.29	1.079 ok	1.079	1.019-1.139	
TVHC As Equiv Pentane	5.15	7.33	0.703 ok	0.704	0.644-0.764	
TVHC As Equiv Heptane	10.14	9.18	1.105 ok	1.106	1.046-1.166	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ /- 40 %)
Bromochloromethane	7.33 o	k 7.32	6.99-7.65	171345	ok 129134	77480-180788
1,4-Difluorobenzene	9.18 o	k 9.17	8.84-9.50	884162	ok 683713	410228-957198
Chlorobenzene-D5	13.29 o	k 13.29	12.96-13.6	487071	ng 304534	182720-426348



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#### Initial Calibration Retention Time/Internal Standard Area Summary

**Job Number:** JA68565 **Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	18.69	13.29	1.406 ok	1.396	1.336-1.456	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene	9.17 ol	x 7.32 x 9.17	6.99-7.65 8.84-9.50	110233 603711	ok 129134 ok 683713	77480-180788 410228-957198
Chlorobenzene-D5	13.29 ol	k 13.29	12.96-13.62	253587	ok 304534	182720-426348



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	18.87	13.29	1.420 ok	1.396	1.336-1.456	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33) Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1.4-Difluorobenzene		7.32 9.17	6.99-7.65 8.84-9.50	105216 556681	ok 129134 ok 683713	77480-180788 410228-957198
Chlorobenzene-D5		13.29	12.96-13.62	234371	ok 304534	182720-426348



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	Reporting this level
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	-

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	18.40	13.29	1.384 ok	1.396	1.336-1.456	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	7.33 ok	7.32	6.99-7.65	111648	ok 129134	77480-180788
1,4-Difluorobenzene	9.17 ok	9.17	8.84-9.50	618706	ok 683713	410228-957198
Chlorobenzene-D5	13.29 ok	13.29	12.96-13.62	264403	ok 304534	182720-426348



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
V2W1240-IC1240	2W29353.D	01/21/11 10:08	YMH 0.2	GCMS2W	TO-15	
V2W1240-ICC1240	2W29354.D	01/21/11 10:45	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29355.D	01/21/11 11:23	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29356.D	01/21/11 12:03	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29357.D	01/21/11 12:41	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29358.D	01/21/11 13:19	YMH 0.1	GCMS2W	TO-15	
V2W1240-IC1240	2W29359.D	01/21/11 13:57	YMH 0.04	GCMS2W	TO-15	
V2W1240-IC1240	2W29360.D	01/21/11 16:13	YMH 10	GCMS2W	TO-15	
V2W1240-IC1240	2W29361.D	01/21/11 16:51	YMH 5	GCMS2W	TO-15	
V2W1240-IC1240	2W29362.D	01/21/11 17:33	YMH 40	GCMS2W	TO-15	
V2W1240-IC1240	2W29363.D	01/21/11 18:13	YMH 0.5	GCMS2W	TO-15	
V2W1240-IC1240	2W29364.D	01/21/11 18:52	YMH 0.2	GCMS2W	TO-15	
V2W1240-IC1240	2W29366.D	01/21/11 20:12	YMH 20	GCMS2W	TO-15	
V2W1240-IC1240	2W29367.D	01/21/11 20:54	YMH 40	GCMS2W	TO-15	Reporting this level

<b>Target Compound</b>	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	18.40	13.28	1.386 ok	1.396	1.336-1.456	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-D5	9.17 ok	7.32 9.17 13.29	6.99-7.65 8.84-9.50 12.96-13.62	108580 640553 273666	ok 129134 ok 683713 ok 304534	77480-180788 410228-957198 182720-426348



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By I	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC (	0.5	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC 2	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC (	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC (	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC 1	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC 5	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC 4	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC (	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC (	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC 2	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC 4	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC (	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC 5	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC 1	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.41	7.56	0.716	ok	0.713	0.653-0.773
1,3-Butadiene	4.70	7.56	0.622	ok	0.621	0.561-0.681
Benzene	8.88	9.20	0.965	ok	0.966	0.906-1.026
Bromodichloromethane	9.79	9.20	1.064	ok	1.065	1.005-1.125
Bromoform	14.08	13.37	1.053	ok	1.053	0.993-1.113
Bromomethane	4.88	7.56	0.646	ok	0.645	0.585-0.705
Bromoethene	5.20	7.56	0.688	ok	0.687	0.627-0.747
n-Butane	4.72	7.56	0.624	ok	0.623	0.563-0.683
Benzyl Chloride	16.67	13.37	1.247	ok	1.247	1.187-1.307
n-Butylbenzene	17.50	13.37	1.309	ok	1.309	1.249-1.369
sec-Butylbenzene	16.80	13.37	1.257	ok	1.256	1.196-1.316
tert-Butylbenzene	16.46	13.37	1.231	ok	1.231	1.171-1.291
Carbon disulfide	6.17	7.56	0.816	ok	0.815	0.755-0.875
Chlorobenzene	13.42	13.37	1.004	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.32	7.56	0.571	ok	0.571	0.511-0.631
Chloroethane	4.98	7.56	0.659	ok	0.657	0.597-0.717
Chloroform	7.65	7.56	1.012	ok	1.012	0.952-1.072
Chloromethane	4.48	7.56	0.593	ok	0.592	0.532-0.652
3-Chloropropene	6.02	7.56	0.796	ok	0.797	0.737-0.857
2-Chlorotoluene	15.68	13.37	1.173	ok	1.173	1.113-1.233
Carbon tetrachloride	9.01	7.56	1.192	ok	1.191	1.131-1.251
Cyclohexane	9.06	9.20	0.985	ok	0.984	0.924-1.044
1,1-Dichloroethane	6.75	7.56	0.893	ok	0.893	0.833-0.953
1,1-Dichloroethylene	5.86	7.56	0.775	ok	0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.37	0.914	ok	0.914	0.854-0.974
1,2-Dichloroethane	8.26	7.56	1.093	ok	1.092	1.032-1.152
1,2-Dichloropropane	9.58	9.20	1.041	ok	1.041	0.981-1.101
1,4-Dioxane	10.01	9.20	1.088	ok	1.081	1.021-1.141
Dichlorodifluoromethane	4.37	7.56	0.578	ok	0.578	0.518-0.638
Dibromochloromethane	12.01	13.37	0.898		0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.59	7.56	0.872		0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.44	7.56	0.984	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	10.65	9.20	1.158		1.157	1.097-1.217
m-Dichlorobenzene	16.67	13.37	1.247		1.247	1.187-1.307



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC (	0.5	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC 2	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC (	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC (	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC:	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC 4	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC (	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC (	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC 2	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC 4	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC (	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC :	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	17.18	13.37	1.285	ok	1.285	1.225-1.345
p-Dichlorobenzene	16.76	13.37	1.254	ok	1.253	1.193-1.313
trans-1,3-Dichloropropene	11.15	9.20	1.212	ok	1.212	1.152-1.272
Di-Isopropyl ether	7.53	7.56	0.996	ok	0.996	0.936-1.056
2,3-Dimethylpentane	9.23	9.20	1.003	ok	1.003	0.943-1.063
2,4-Dimethylpentane	8.21	7.56	1.086	ok	1.085	1.025-1.145
Ethanol	5.13	7.56	0.679	ok	0.678	0.618-0.738
Ethylbenzene	13.79	13.37	1.031	ok	1.031	0.971-1.091
Ethyl Acetate	7.62	7.56	1.008	ok	1.003	0.943-1.063
4-Ethyltoluene	15.88	13.37	1.188	ok	1.188	1.128-1.248
Freon 113	6.11	7.56	0.808	ok	0.808	0.748-0.868
Freon 114	4.54	7.56	0.601	ok	0.599	0.539-0.659
Freon 123	5.27	7.56	0.697	ok	0.696	0.636-0.756
Freon 123A	5.30	7.56	0.701	ok	0.701	0.641-0.761
Freon 152A	4.29	7.56	0.567	ok	0.566	0.506-0.626
Heptane	10.00	9.20	1.087	ok	1.087	1.027-1.147
Hexachlorobutadiene	19.77	13.37	1.479	ok	1.478	1.418-1.538
Hexane	7.48	7.56	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.89	13.37	0.889	ok	0.888	0.828-0.948
Iodomethane	5.83	7.56	0.771	ok	0.770	0.710-0.830
Isopropylbenzene	15.12	13.37	1.131	ok	1.131	1.071-1.191
Isopropyl Alcohol	5.61	7.56	0.742	ok	0.737	0.677-0.797
p-Isopropyltoluene	16.98	13.37	1.270	ok	1.270	1.210-1.330
Methylene chloride	5.96	7.56	0.788	ok	0.789	0.729-0.849
Methyl ethyl ketone	7.11	7.56	0.940	ok	0.938	0.878-0.998
Methyl Isobutyl Ketone	10.71	9.20	1.164	ok	1.162	1.102-1.222
Methyl Tert Butyl Ether	6.82	7.56	0.902	ok	0.900	0.840-0.960
Methylmethacrylate	10.05	9.20	1.092	ok	1.092	1.032-1.152
Nonane	14.66	13.37	1.096	ok	1.096	1.036-1.156
Octane	12.48	13.37	0.933	ok	0.933	0.873-0.993
Pentane	5.64	7.56	0.746	ok	0.745	0.685-0.805
n-Propylbenzene	15.71	13.37	1.175	ok	1.175	1.115-1.235
Propylene	4.34	7.56	0.574	ok	0.572	0.512-0.632
Styrene	14.38	13.37	1.076	ok	1.075	1.015-1.135



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
1,1,1-Trichloroethane	8.47	7.56	1.120 ok	1.120	1.060-1.180	
1,1,1,2-Tetrachloroethane	13.39	13.37	1.001 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.50	13.37	1.085 ok	1.085	1.025-1.145	
1,1,2-Trichloroethane	11.30	9.20	1.228 ok	1.229	1.169-1.289	
1,2,4-Trichlorobenzene	19.22	13.37	1.438 ok	1.437	1.377-1.497	
1,2,3-Trichloropropane	14.63	13.37	1.094 ok	1.094	1.034-1.154	
1,2,4-Trimethylbenzene	16.47	13.37	1.232 ok	1.232	1.172-1.292	
1,3,5-Trimethylbenzene	15.98	13.37	1.195 ok	1.195	1.135-1.255	
2,2,4-Trimethylpentane	9.75	9.20	1.060 ok	1.059	0.999-1.119	
Tertiary Butyl Alcohol	6.02	7.56	0.796 ok	0.794	0.734-0.854	
Tetrachloroethylene	12.69	13.37	0.949 ok	0.949	0.889-1.009	
Tetrahydrofuran	8.08	7.56	1.069 ok	1.064	1.004-1.124	
Toluene	11.56	9.20	1.257 ok	1.257	1.197-1.317	
Trichloroethylene	9.82	9.20	1.067 ok	1.067	1.007-1.127	
Trichlorofluoromethane	5.44	7.56	0.720 ok	0.720	0.660-0.780	
Vinyl chloride	4.61	7.56	0.610 ok	0.610	0.550-0.670	
Vinyl Acetate	6.89	7.56	0.911 ok	0.909	0.849-0.969	
m,p-Xylene	13.97	13.37	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.48	13.37	1.083 ok	1.083	1.023-1.143	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	7.56 ol	k 7.56	7.23-7.89	117652	ok 126098	75659-176537
1,4-Difluorobenzene	9.20 o	k 9.20	8.87-9.53	573309	ok 621202	372721-869683
Chlorobenzene-D5	13.37 o	k 13.37	13.04-13.70	238373	ok 267439	160463-374415



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	•	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC		GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	<b>Rel RT Range</b> (+ /06)
Acetone	5.36	7.57	0.708	ok	0.713	0.653-0.773
1,3-Butadiene	4.69	7.57	0.620	ok	0.621	0.561-0.681
Benzene	8.89	9.21	0.965	ok	0.966	0.906-1.026
Bromodichloromethane	9.81	9.21	1.065	ok	1.065	1.005-1.125
Bromoform	14.10	13.38	1.054	ok	1.053	0.993-1.113
Bromomethane	4.87	7.57	0.643	ok	0.645	0.585-0.705
Bromoethene	5.20	7.57	0.687	ok	0.687	0.627-0.747
n-Butane	4.71	7.57	0.622	ok	0.623	0.563-0.683
Benzyl Chloride	16.69	13.38	1.247	ok	1.247	1.187-1.307
n-Butylbenzene	17.51	13.38	1.309	ok	1.309	1.249-1.369
sec-Butylbenzene	16.80	13.38	1.256	ok	1.256	1.196-1.316
tert-Butylbenzene	16.47	13.38	1.231	ok	1.231	1.171-1.291
Carbon disulfide	6.17	7.57	0.815	ok	0.815	0.755-0.875
Chlorobenzene	13.43	13.38	1.004	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.31	7.57	0.569	ok	0.571	0.511-0.631
Chloroethane	4.97	7.57	0.657	ok	0.657	0.597-0.717
Chloroform	7.66	7.57	1.012	ok	1.012	0.952-1.072
Chloromethane	4.48	7.57	0.592	ok	0.592	0.532-0.652
3-Chloropropene	6.03	7.57	0.797	ok	0.797	0.737-0.857
2-Chlorotoluene	15.70	13.38	1.173	ok	1.173	1.113-1.233
Carbon tetrachloride	9.02	7.57	1.192	ok	1.191	1.131-1.251
Cyclohexane	9.06	9.21	0.984	ok	0.984	0.924-1.044
1,1-Dichloroethane	6.76	7.57	0.893	ok	0.893	0.833-0.953
1,1-Dichloroethylene	5.87	7.57	0.775	ok	0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.38	0.913	ok	0.914	0.854-0.974
1,2-Dichloroethane	8.27	7.57	1.092	ok	1.092	1.032-1.152
1,2-Dichloropropane	9.59	9.21	1.041	ok	1.041	0.981-1.101
1,4-Dioxane	9.89	9.21	1.074	ok	1.081	1.021-1.141
Dichlorodifluoromethane	4.37	7.57	0.577	ok	0.578	0.518-0.638
Dibromochloromethane	12.01	13.38	0.898	ok	0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.59	7.57	0.871	ok	0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.45	7.57	0.984	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	10.65	9.21	1.156	ok	1.157	1.097-1.217
m-Dichlorobenzene	16.68	13.38	1.247	ok	1.247	1.187-1.307



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	•	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC		GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	17.19	13.38	1.285	ok 1.285	1.225-1.345
p-Dichlorobenzene	16.77	13.38	1.253	ok 1.253	1.193-1.313
trans-1,3-Dichloropropene	11.16	9.21	1.212	ok 1.212	1.152-1.272
Di-Isopropyl ether	7.51	7.57	0.992	ok 0.996	0.936-1.056
2,3-Dimethylpentane	9.24	9.21	1.003	ok 1.003	0.943-1.063
2,4-Dimethylpentane	8.21	7.57	1.085	ok 1.085	1.025-1.145
Ethanol	5.09	7.57	0.672	ok 0.678	0.618-0.738
Ethylbenzene	13.79	13.38	1.031	ok 1.031	0.971-1.091
Ethyl Acetate	7.58	7.57	1.001	ok 1.003	0.943-1.063
4-Ethyltoluene	15.90	13.38	1.188	ok 1.188	1.128-1.248
Freon 113	6.11	7.57	0.807	ok 0.808	0.748-0.868
Freon 114	4.53	7.57	0.598	ok 0.599	0.539-0.659
Freon 123	5.27	7.57	0.696	ok 0.696	0.636-0.756
Freon 123A	5.30	7.57	0.700	ok 0.701	0.641-0.761
Freon 152A	4.28	7.57	0.565	ok 0.566	0.506-0.626
Heptane	10.01	9.21	1.087	ok 1.087	1.027-1.147
Hexachlorobutadiene	19.77	13.38	1.478	ok 1.478	1.418-1.538
Hexane	7.49	7.57	0.989	ok 0.990	0.930-1.050
2-Hexanone	11.84	13.38	0.885	ok 0.888	0.828-0.948
Iodomethane	5.83	7.57	0.770	ok 0.770	0.710-0.830
Isopropylbenzene	15.13	13.38	1.131	ok 1.131	1.071-1.191
Isopropyl Alcohol	5.54	7.57	0.732	ok 0.737	0.677-0.797
p-Isopropyltoluene	17.00	13.38	1.271	ok 1.270	1.210-1.330
Methylene chloride	5.97	7.57	0.789	ok 0.789	0.729-0.849
Methyl ethyl ketone	7.06	7.57	0.933	ok 0.938	0.878-0.998
Methyl Isobutyl Ketone	10.65	9.21	1.156	ok 1.162	1.102-1.222
Methyl Tert Butyl Ether	6.77	7.57	0.894	ok 0.900	0.840-0.960
Methylmethacrylate	10.03	9.21	1.089	ok 1.092	1.032-1.152
Nonane	14.67	13.38	1.096	ok 1.096	1.036-1.156
Octane	12.48	13.38	0.933	ok 0.933	0.873-0.993
Pentane	5.64	7.57	0.745	ok 0.745	0.685-0.805
n-Propylbenzene	15.72	13.38	1.175	ok 1.175	1.115-1.235
Propylene	4.33	7.57	0.572	ok 0.572	0.512-0.632
Styrene	14.39	13.38	1.075	ok 1.075	1.015-1.135



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Le	evel	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC 0.5	5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC 20	)	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC 0.1	1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC 0.0	04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC 10	)	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC 5		GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC 40	)	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC 0.5	5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC 0.2	2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC 20	)	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC 40	)	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC 0.2	2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC 5		GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC 10	)	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Re	l Rel RT R (+ /06)	ange
1,1,1-Trichloroethane	8.47	7.57	1.119 ol	1.120	1.060-1.1	80
1,1,1,2-Tetrachloroethane	13.40	13.38	1.001 ol	1.001 ok 1.002		62
1,1,2,2-Tetrachloroethane	14.51	13.38	1.084 ol	1.085	1.025-1.1	45
1,1,2-Trichloroethane	11.32	9.21	1.229 ol	1.229	1.169-1.2	89
1,2,4-Trichlorobenzene	19.22	13.38	1.436 ol	1.437	1.377-1.4	97
1,2,3-Trichloropropane	14.64	13.38	1.094 ol	1.094	1.034-1.1	54
1,2,4-Trimethylbenzene	16.49	13.38	1.232 ol	1.232	1.172-1.2	92
1,3,5-Trimethylbenzene	15.99	13.38	1.195 ol	1.195	1.135-1.2	55
2,2,4-Trimethylpentane	9.75	9.21	1.059 ol	k 1.059 0.999-1.119		19
Tertiary Butyl Alcohol	5.93	7.57	0.783 ol	0.783 ok 0.794		54
Tetrachloroethylene	12.70	13.38	0.949 ol			09
Tetrahydrofuran	7.99	7.57	1.055 ol	1.064	1.004-1.1	24
Toluene	11.57	9.21	1.256 ol	1.257	1.197-1.3	17
Trichloroethylene	9.82	9.21	1.066 ol	1.067	1.007-1.1	27
Trichlorofluoromethane	5.45	7.57	0.720 ol	0.720	0.660-0.7	80
Vinyl chloride	4.62	7.57	0.610 ol	0.610	0.550-0.6	70
Vinyl Acetate	6.87	7.57	0.908 ol	0.909	0.849-0.9	69
m,p-Xylene	13.98	13.38	1.045 ol	1.045	0.985-1.1	05
o-Xylene	14.48	13.38	1.082 ol	1.083	1.023-1.1	43
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)		Mea Area	
Bromochloromethane	7.57	ok 7.56	7.23-7.89	12409	0 ok 1260	98 75659-176537
1,4-Difluorobenzene		ok 9.20	8.87-9.53	61408		
Chlorobenzene-D5		ok 13.37	13.04-13.7			



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.43	7.56	0.718	ok 0.713	0.653-0.773
1,3-Butadiene	4.70	7.56	0.622	ok 0.621	0.561-0.681
Benzene	8.88	9.20	0.965	ok 0.966	0.906-1.026
Bromodichloromethane	9.80	9.20	1.065	ok 1.065	1.005-1.125
Bromoform	14.08	13.37	1.053	ok 1.053	0.993-1.113
Bromomethane	4.88	7.56	0.646	ok 0.645	0.585-0.705
Bromoethene	5.19	7.56	0.687	ok 0.687	0.627-0.747
n-Butane	4.71	7.56	0.623	ok 0.623	0.563-0.683
Benzyl Chloride	16.68	13.37	1.248	ok 1.247	1.187-1.307
n-Butylbenzene	17.51	13.37	1.310	ok 1.309	1.249-1.369
sec-Butylbenzene	16.80	13.37	1.257	ok 1.256	1.196-1.316
tert-Butylbenzene	16.47	13.37	1.232	ok 1.231	1.171-1.291
Carbon disulfide	6.16	7.56	0.815	ok 0.815	0.755-0.875
Chlorobenzene	13.41	13.37	1.003	ok 1.003	0.943-1.063
Chlorodifluoromethane	4.33	7.56	0.573	ok 0.571	0.511-0.631
Chloroethane	4.97	7.56	0.657	ok 0.657	0.597-0.717
Chloroform	7.65	7.56	1.012	ok 1.012	0.952-1.072
Chloromethane	4.48	7.56	0.593	ok 0.592	0.532-0.652
3-Chloropropene	6.03	7.56	0.798	ok 0.797	0.737-0.857
2-Chlorotoluene	15.69	13.37	1.174	ok 1.173	1.113-1.233
Carbon tetrachloride	9.00	7.56	1.190	ok 1.191	1.131-1.251
Cyclohexane	9.06	9.20	0.985	ok 0.984	0.924-1.044
1,1-Dichloroethane	6.75	7.56	0.893	ok 0.893	0.833-0.953
1,1-Dichloroethylene	5.87	7.56	0.776	ok 0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.37	0.914	ok 0.914	0.854-0.974
1,2-Dichloroethane	8.26	7.56	1.093	ok 1.092	1.032-1.152
1,2-Dichloropropane	9.59	9.20	1.042	ok 1.041	0.981-1.101
Dichlorodifluoromethane	4.38	7.56	0.579	ok 0.578	0.518-0.638
Dibromochloromethane	12.01	13.37	0.898	ok 0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.59	7.56	0.872	ok 0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.44	7.56	0.984	ok 0.984	0.924-1.044
cis-1,3-Dichloropropene	10.65	9.20	1.158	ok 1.157	1.097-1.217
m-Dichlorobenzene	16.67	13.37	1.247	ok 1.247	1.187-1.307
o-Dichlorobenzene	17.18	13.37	1.285	ok 1.285	1.225-1.345



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Re RT	Rel RT Range (+ /06)
p-Dichlorobenzene	16.76	13.37	1.254	ok 1.253	1.193-1.313
trans-1,3-Dichloropropene	11.15	9.20	1.212	ok 1.212	1.152-1.272
Di-Isopropyl ether	7.57	7.56	1.001	ok 0.996	0.936-1.056
2,3-Dimethylpentane	9.23	9.20	1.003	ok 1.003	0.943-1.063
2,4-Dimethylpentane	8.21	7.56	1.086	ok 1.085	1.025-1.145
Ethanol	5.18	7.56	0.685	ok 0.678	0.618-0.738
Ethylbenzene	13.79	13.37	1.031	ok 1.031	0.971-1.091
Ethyl Acetate	7.65	7.56	1.012	ok 1.003	0.943-1.063
4-Ethyltoluene	15.89	13.37	1.188	ok 1.188	1.128-1.248
Freon 113	6.11	7.56	0.808	ok 0.808	0.748-0.868
Freon 114	4.53	7.56	0.599	ok 0.599	0.539-0.659
Freon 123	5.26	7.56	0.696	ok 0.696	0.636-0.756
Freon 123A	5.30	7.56	0.701	ok 0.701	0.641-0.761
Freon 152A	4.28	7.56	0.566	ok 0.566	0.506-0.626
Heptane	10.00	9.20	1.087	ok 1.087	1.027-1.147
Hexachlorobutadiene	19.78	13.37	1.479	ok 1.478	1.418-1.538
Hexane	7.49	7.56	0.991	ok 0.990	0.930-1.050
2-Hexanone	11.95	13.37	0.894	ok 0.888	0.828-0.948
Iodomethane	5.82	7.56	0.770	ok 0.770	0.710-0.830
Isopropylbenzene	15.13	13.37	1.132	ok 1.131	1.071-1.191
p-Isopropyltoluene	16.98	13.37	1.270	ok 1.270	1.210-1.330
Methylene chloride	5.96	7.56	0.788	ok 0.789	0.729-0.849
Methyl ethyl ketone	7.16	7.56	0.947	ok 0.938	0.878-0.998
Methyl Isobutyl Ketone	10.76	9.20	1.170	ok 1.162	1.102-1.222
Methylmethacrylate	10.06	9.20	1.093	ok 1.092	1.032-1.152
Nonane	14.67	13.37	1.097	ok 1.096	1.036-1.156
Octane	12.48	13.37	0.933	ok 0.933	0.873-0.993
Pentane	5.63	7.56	0.745	ok 0.745	0.685-0.805
n-Propylbenzene	15.71	13.37	1.175	ok 1.175	1.115-1.235
Propylene	4.33	7.56	0.573	ok 0.572	0.512-0.632
Styrene	14.38	13.37	1.076	ok 1.075	1.015-1.135
1,1,1-Trichloroethane	8.47	7.56	1.120	ok 1.120	1.060-1.180
1,1,1,2-Tetrachloroethane	13.40	13.37	1.002	ok 1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.50	13.37	1.085	ok 1.085	1.025-1.145



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)		Istd RT (min.)	Rel RT		Mean Rel RT		RT Range	
1,1,2-Trichloroethane	11.30		9.20	1.228	ok	1.229	1.16	59-1.289	
1,2,3-Trichloropropane	14.63		13.37	1.094	ok	1.094	1.03	34-1.154	
1,2,4-Trimethylbenzene	16.47		13.37	1.232 ok 1.232		1.232	1.17	72-1.292	
1,3,5-Trimethylbenzene	15.98		13.37	1.195 ok 1.195		1.13	35-1.255		
2,2,4-Trimethylpentane	9.75		9.20	1.060 ok 1.059		0.99	99-1.119		
Tertiary Butyl Alcohol	6.10		7.56	0.807 ok 0.794		0.73	34-0.854		
Tetrachloroethylene	12.70		13.37	0.950	0.950 ok 0.949		0.889-1.009		
Tetrahydrofuran	8.16		7.56	1.079	1.079 ok 1.064		1.00	1.004-1.124	
Toluene	11.56	11.56 9.20		1.257	ok	1.257	1.197-1.317		
Trichloroethylene	9.82		9.20	1.067	ok	1.067	1.007-1.127		
Trichlorofluoromethane	5.44		7.56	0.720	ok	0.720	0.660-0.780		
Vinyl chloride	4.62		7.56	0.611	ok	0.610	0.55	50-0.670	
m, p-Xylene	13.97		13.37	1.045	ok	1.045	0.98	35-1.105	
o-Xylene	14.48		13.37	1.083	ok	1.083	1.02	23-1.143	
	RT		Mean	RT Ra	_			Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ / <b>- 0.</b>	33)	Area		Area	(+ /- 40 %)
Bromochloromethane	7.56	ok	7.56	7.23-7.	89	118381	ok	126098	75659-176537
1,4-Difluorobenzene	9.20	ok	9.20	8.87-9.	53	581743	ok	621202	372721-869683
Chlorobenzene-D5	13.37	ok	13.37	13.04-1	13.70	207934	ok	267439	160463-374415



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.44	7.56	0.720	ok	0.713	0.653-0.773
1,3-Butadiene	4.70	7.56	0.622	ok	0.621	0.561-0.681
Benzene	8.88	9.20	0.965	ok	0.966	0.906-1.026
Bromodichloromethane	9.80	9.20	1.065	ok	1.065	1.005-1.125
Bromoform	14.08	13.37	1.053	ok	1.053	0.993-1.113
Bromomethane	4.88	7.56	0.646	ok	0.645	0.585-0.705
Bromoethene	5.20	7.56	0.688	ok	0.687	0.627-0.747
n-Butane	4.72	7.56	0.624	ok	0.623	0.563-0.683
Benzyl Chloride	16.67	13.37	1.247	ok	1.247	1.187-1.307
sec-Butylbenzene	16.79	13.37	1.256	ok	1.256	1.196-1.316
tert-Butylbenzene	16.47	13.37	1.232	ok	1.231	1.171-1.291
Carbon disulfide	6.17	7.56	0.816	ok	0.815	0.755-0.875
Chlorobenzene	13.42	13.37	1.004	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.35	7.56	0.575	ok	0.571	0.511-0.631
Chloroethane	4.98	7.56	0.659	ok	0.657	0.597-0.717
Chloroform	7.64	7.56	1.011	ok	1.012	0.952-1.072
Chloromethane	4.48	7.56	0.593	ok	0.592	0.532-0.652
3-Chloropropene	6.02	7.56	0.796	ok	0.797	0.737-0.857
2-Chlorotoluene	15.70	13.37	1.174	ok	1.173	1.113-1.233
Carbon tetrachloride	9.01	7.56	1.192	ok	1.191	1.131-1.251
Cyclohexane	9.05	9.20	0.984	ok	0.984	0.924-1.044
1,1-Dichloroethane	6.76	7.56	0.894	ok	0.893	0.833-0.953
1,1-Dichloroethylene	5.85	7.56	0.774	ok	0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.37	0.914	ok	0.914	0.854-0.974
1,2-Dichloropropane	9.57	9.20	1.040	ok	1.041	0.981-1.101
Dichlorodifluoromethane	4.37	7.56	0.578	ok	0.578	0.518-0.638
Dibromochloromethane	12.01	13.37	0.898	ok	0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.59	7.56	0.872	ok	0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.43	7.56	0.983	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	10.65	9.20	1.158	ok	1.157	1.097-1.217
m-Dichlorobenzene	16.67	13.37	1.247	ok	1.247	1.187-1.307
o-Dichlorobenzene	17.19	13.37	1.286	ok	1.285	1.225-1.345
p-Dichlorobenzene	16.75	13.37	1.253	ok	1.253	1.193-1.313
trans-1,3-Dichloropropene	11.15	9.20	1.212		1.212	1.152-1.272



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	7.57	7.56	1.001	ok 0.996	0.936-1.056
2,3-Dimethylpentane	9.19	9.20	0.999	ok 1.003	0.943-1.063
2,4-Dimethylpentane	8.20	7.56	1.085	ok 1.085	1.025-1.145
Ethanol	5.15	7.56	0.681	ok 0.678	0.618-0.738
Ethylbenzene	13.78	13.37	1.031	ok 1.031	0.971-1.091
Ethyl Acetate	7.45	7.56	0.985	ok 1.003	0.943-1.063
4-Ethyltoluene	15.88	13.37	1.188	ok 1.188	1.128-1.248
Freon 113	6.10	7.56	0.807	ok 0.808	0.748-0.868
Freon 114	4.54	7.56	0.601	ok 0.599	0.539-0.659
Freon 123	5.27	7.56	0.697	ok 0.696	0.636-0.756
Freon 123A	5.30	7.56	0.701	ok 0.701	0.641-0.761
Freon 152A	4.29	7.56	0.567	ok 0.566	0.506-0.626
Heptane	9.99	9.20	1.086	ok 1.087	1.027-1.147
Hexane	7.48	7.56	0.989	ok 0.990	0.930-1.050
Iodomethane	5.82	7.56	0.770	ok 0.770	0.710-0.830
Isopropylbenzene	15.12	13.37	1.131	ok 1.131	1.071-1.191
p-Isopropyltoluene	16.98	13.37	1.270	ok 1.270	1.210-1.330
Methylene chloride	5.96	7.56		ok 0.789	0.729-0.849
Methyl Tert Butyl Ether	6.86	7.56	0.907	ok 0.900	0.840-0.960
Methylmethacrylate	10.06	9.20		ok 1.092	1.032-1.152
Nonane	14.65	13.37	1.096	ok 1.096	1.036-1.156
Octane	12.48	13.37	0.933	ok 0.933	0.873-0.993
Pentane	5.63	7.56	0.745	ok 0.745	0.685-0.805
n-Propylbenzene	15.71	13.37	1.175	ok 1.175	1.115-1.235
Propylene	4.32	7.56	0.571	ok 0.572	0.512-0.632
Styrene	14.39	13.37	1.076	ok 1.075	1.015-1.135
1,1,1-Trichloroethane	8.47	7.56		ok 1.120	1.060-1.180
1,1,1,2-Tetrachloroethane	13.39	13.37		ok 1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.50	13.37		ok 1.085	1.025-1.145
1,1,2-Trichloroethane	11.31	9.20	1.229	ok 1.229	1.169-1.289
1,2,3-Trichloropropane	14.64	13.37		ok 1.094	1.034-1.154
1,2,4-Trimethylbenzene	16.48	13.37	1.233	ok 1.232	1.172-1.292
1,3,5-Trimethylbenzene	15.98	13.37		ok 1.195	1.135-1.255
2,2,4-Trimethylpentane	9.75	9.20	1.060	ok 1.059	0.999-1.119



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

V3W821-ICC821 3W20/91.D	02/10	0/11	11:33 1 A	C 10	GC	MISSW TO	1-13		
<b>Target Compound</b>	RT (min.)		Istd RT (min.)	Rel RT		Mean Rel RT		RT Range	
Tertiary Butyl Alcohol	6.09		7.56	0.806	ok	0.794	0.73	4-0.854	
Tetrachloroethylene	12.70		13.37	0.950	ok	0.949	0.88	9-1.009	
Toluene	11.57		9.20	1.258	ok	1.257	1.19	7-1.317	
Trichloroethylene	9.82		9.20	1.067	ok	1.067	1.00	7-1.127	
Trichlorofluoromethane	5.44		7.56	0.720	ok	0.720	0.66	0-0.780	
Vinyl chloride	4.61		7.56	0.610	ok	0.610	0.55	0-0.670	
m,p-Xylene	13.97		13.37	1.045	ok	1.045	0.98	5-1.105	
o-Xylene	14.48		13.37	1.083	ok	1.083	1.02	3-1.143	
	RT		Mean	RT Ra	nge			Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ /- 0.	33)	Area		Area	(+ /- 40 %)
Bromochloromethane	7.56	ok	7.56	7.23-7.	89	115052	ok	126098	75659-176537
1,4-Difluorobenzene	9.20	ok	9.20	8.87-9.	53	558199	ok	621202	372721-869683
Chlorobenzene-D5	13.37	ok	13.37	13.04-1	13.70	196174	ok	267439	160463-374415



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#### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	19.36	13.37	1.448 ok 1	1.448	1.388-1.508	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	7.56 o	k 7.56	7.23-7.89	134143	ok 126098	75659-176537
1,4-Difluorobenzene	9.20 o	k 9.20	8.87-9.53	644844	ok 621202	372721-869683
Chlorobenzene-D5	13.37 o	k 13.37	13.04-13.70	285175	ok 267439	160463-374415



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	19.36	13.37	1.448 ok	1.448	1.388-1.508	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene	9.20 ol	k 7.56 k 9.20	7.23-7.89 8.87-9.53	124505 618294	ok 126098 ok 621202	75659-176537 372721-869683
Chlorobenzene-D5	13.37 ol	k 13.37	13.04-13.70	274209	ok 267439	160463-374415



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	<b>Rel RT Range</b> (+ /06)
Acetone	5.38	7.59	0.709	ok	0.713	0.653-0.773
1,3-Butadiene	4.70	7.59	0.619	ok	0.621	0.561-0.681
Benzene	8.91	9.23	0.965	ok	0.966	0.906-1.026
Bromodichloromethane	9.83	9.23	1.065	ok	1.065	1.005-1.125
Bromoform	14.12	13.40	1.054	ok	1.053	0.993-1.113
Bromomethane	4.88	7.59	0.643	ok	0.645	0.585-0.705
Bromoethene	5.21	7.59	0.686	ok	0.687	0.627-0.747
n-Butane	4.73	7.59	0.623	ok	0.623	0.563-0.683
Benzyl Chloride	16.70	13.40	1.246	ok	1.247	1.187-1.307
n-Butylbenzene	17.52	13.40	1.307	ok	1.309	1.249-1.369
sec-Butylbenzene	16.82	13.40	1.255	ok	1.256	1.196-1.316
tert-Butylbenzene	16.49	13.40	1.231	ok	1.231	1.171-1.291
Carbon disulfide	6.18	7.59	0.814	ok	0.815	0.755-0.875
Chlorobenzene	13.44	13.40	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.32	7.59	0.569	ok	0.571	0.511-0.631
Chloroethane	4.98	7.59	0.656	ok	0.657	0.597-0.717
Chloroform	7.69	7.59	1.013	ok	1.012	0.952-1.072
Chloromethane	4.49	7.59	0.592	ok	0.592	0.532-0.652
3-Chloropropene	6.05	7.59	0.797	ok	0.797	0.737-0.857
2-Chlorotoluene	15.71	13.40	1.172	ok	1.173	1.113-1.233
Carbon tetrachloride	9.03	7.59	1.190	ok	1.191	1.131-1.251
Cyclohexane	9.08	9.23	0.984	ok	0.984	0.924-1.044
1,1-Dichloroethane	6.78	7.59	0.893	ok	0.893	0.833-0.953
1,1-Dichloroethylene	5.89	7.59	0.776	ok	0.776	0.716-0.836
1,2-Dibromoethane	12.25	13.40	0.914	ok	0.914	0.854-0.974
1,2-Dichloroethane	8.29	7.59	1.092	ok	1.092	1.032-1.152
1,2-Dichloropropane	9.61	9.23	1.041		1.041	0.981-1.101
1,4-Dioxane	9.92	9.23	1.075	ok	1.081	1.021-1.141
Dichlorodifluoromethane	4.38	7.59	0.577	ok	0.578	0.518-0.638
Dibromochloromethane	12.04	13.40	0.899	ok	0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.61	7.59	0.871	ok	0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.46	7.59	0.983	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	10.67	9.23	1.156	ok	1.157	1.097-1.217
m-Dichlorobenzene	16.70	13.40	1.246	ok	1.247	1.187-1.307



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Ro RT	el Rel RT Range (+ /06)
o-Dichlorobenzene	17.21	13.40	1.284	ok 1.285	1.225-1.345
p-Dichlorobenzene	16.78	13.40	1.252	ok 1.253	1.193-1.313
trans-1,3-Dichloropropene	11.18	9.23	1.211	ok 1.212	1.152-1.272
Di-Isopropyl ether	7.53	7.59	0.992	ok 0.996	0.936-1.056
2,3-Dimethylpentane	9.26	9.23	1.003	ok 1.003	0.943-1.063
2,4-Dimethylpentane	8.23	7.59	1.084	ok 1.085	1.025-1.145
Ethanol	5.13	7.59	0.676	ok 0.678	0.618-0.738
Ethylbenzene	13.81	13.40	1.031	ok 1.031	0.971-1.091
Ethyl Acetate	7.62	7.59	1.004	ok 1.003	0.943-1.063
4-Ethyltoluene	15.91	13.40	1.187	ok 1.188	1.128-1.248
Freon 113	6.13	7.59	0.808	ok 0.808	0.748-0.868
Freon 114	4.54	7.59	0.598	ok 0.599	0.539-0.659
Freon 123	5.28	7.59	0.696	ok 0.696	0.636-0.756
Freon 123A	5.32	7.59	0.701	ok 0.701	0.641-0.761
Freon 152A	4.29	7.59	0.565	ok 0.566	0.506-0.626
Heptane	10.03	9.23	1.087	ok 1.087	1.027-1.147
Hexachlorobutadiene	19.78	13.40	1.476	ok 1.478	1.418-1.538
Hexane	7.51	7.59	0.989	ok 0.990	0.930-1.050
2-Hexanone	11.88	13.40	0.887	ok 0.888	0.828-0.948
Iodomethane	5.85	7.59	0.771	ok 0.770	0.710-0.830
Isopropylbenzene	15.15	13.40	1.131	ok 1.131	1.071-1.191
Isopropyl Alcohol	5.60	7.59	0.738	ok 0.737	0.677-0.797
p-Isopropyltoluene	17.01	13.40	1.269	ok 1.270	1.210-1.330
Methylene chloride	5.99	7.59	0.789	ok 0.789	0.729-0.849
Methyl ethyl ketone	7.09	7.59	0.934	ok 0.938	0.878-0.998
Methyl Isobutyl Ketone	10.69	9.23	1.158	ok 1.162	1.102-1.222
Methyl Tert Butyl Ether	6.79	7.59	0.895	ok 0.900	0.840-0.960
Methylmethacrylate	10.06	9.23	1.090	ok 1.092	1.032-1.152
Nonane	14.68	13.40	1.096	ok 1.096	1.036-1.156
Octane	12.50	13.40	0.933	ok 0.933	0.873-0.993
Pentane	5.65	7.59	0.744	ok 0.745	0.685-0.805
n-Propylbenzene	15.74	13.40	1.175	ok 1.175	1.115-1.235
Propylene	4.33	7.59	0.570	ok 0.572	0.512-0.632
Styrene	14.41	13.40	1.075	ok 1.075	1.015-1.135

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
1,1,1-Trichloroethane	8.49	7.59	1.119 ok	1.120	1.060-1.180	
1, 1, 1, 2-Tetrachloroethane	13.42	13.40	1.001 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.54	13.40	1.085 ok	1.085	1.025-1.145	
1,1,2-Trichloroethane	11.34	9.23	1.229 ok	1.229	1.169-1.289	
1,2,4-Trichlorobenzene	19.23	13.40	1.435 ok	1.437	1.377-1.497	
1,2,3-Trichloropropane	14.67	13.40	1.095 ok	1.094	1.034-1.154	
1,2,4-Trimethylbenzene	16.50	13.40	1.231 ok	1.232	1.172-1.292	
1,3,5-Trimethylbenzene	16.01	13.40	1.195 ok	1.195	1.135-1.255	
2,2,4-Trimethylpentane	9.77	9.23	1.059 ok	1.059	0.999-1.119	
Tertiary Butyl Alcohol	5.99	7.59	0.789 ok	0.794	0.734-0.854	
Tetrachloroethylene	12.71	13.40	0.949 ok	0.949	0.889-1.009	
Tetrahydrofuran	8.02	7.59	1.057 ok	1.064	1.004-1.124	
Toluene	11.59	9.23	1.256 ok	1.257	1.197-1.317	
Trichloroethylene	9.84	9.23	1.066 ok	1.067	1.007-1.127	
Trichlorofluoromethane	5.46	7.59	0.719 ok	0.720	0.660-0.780	
Vinyl chloride	4.62	7.59	0.609 ok	0.610	0.550-0.670	
Vinyl Acetate	6.89	7.59	0.908 ok	0.909	0.849-0.969	
m,p-Xylene	14.00	13.40	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.51	13.40	1.083 ok	1.083	1.023-1.143	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ /- 40 %)
Bromochloromethane	7.59 ok	7.56	7.23-7.89	125021	ok 126098	75659-176537
1,4-Difluorobenzene	9.23 ok	9.20	8.87-9.53	633715	ok 621202	372721-869683
Chlorobenzene-D5	13.40 ok	13.37	13.04-13.70	313388	ok 267439	160463-374415



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	19.36	13.38	1.447 ok	1.448	1.388-1.508	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene		7.56 8 9.20	7.23-7.89 8.87-9.53	126806 595241	ok 126098 ok 621202	75659-176537 372721-869683
Chlorobenzene-D5	13.38 ol	(13.37	13.04-13.70	263185	ok 267439	160463-374415



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	-
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	19.36	13.37	1.448 ok 1	1.448	1.388-1.508	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane		7.56	7.23-7.89	131208	ok 126098	75659-176537
1,4-Difluorobenzene Chlorobenzene-D5		9.20 13.37	8.87-9.53 13.04-13.70	639973 275674	ok 621202 ok 267439	372721-869683 160463-374415



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

**Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By L	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC 0	).5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC 2	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC 0	). 1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC 0	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC 1	0	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC 5	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC 4	10	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC 0	).5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC 0	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC 2	20	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC 4	10	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC 0	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC 5	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC 1	0	GCMS3W	TO-15	

	RT	Istd RT		Mean Rel	Rel RT Range	
Target Compound	(min.)	(min.)	RT	RT	(+ /06)	
Naphthalene	19.36	13.37	1.448 ok	1.448	1.388-1.508	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	7.56 ok	7.56	7.23-7.89	127920	ok 126098	75659-176537
1,4-Difluorobenzene	9.20 ok	9.20	8.87-9.53	639792	ok 621202	372721-869683
Chlorobenzene-D5	13.37 ok	13.37	13.04-13.70	279986	ok 267439	160463-374415



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#### Initial Calibration Retention Time/Internal Standard Area Summary

**Job Number:** JA68565 **Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
Naphthalene	19.36	13.37	1.448 ok	1.448	1.388-1.508	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane 1,4-Difluorobenzene		7.56 7.20	7.23-7.89 8.87-9.53	120070 595950	ok 126098 ok 621202	75659-176537 372721-869683
Chlorobenzene-D5	13.37 ok	13.37	13.04-13.70	272405	ok 267439	160463-374415



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	- · · · · ·
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.41	7.55	0.717	ok	0.713	0.653-0.773
1,3-Butadiene	4.68	7.55	0.620	ok	0.621	0.561-0.681
Benzene	8.88	9.19	0.966	ok	0.966	0.906-1.026
Bromodichloromethane	9.79	9.19	1.065	ok	1.065	1.005-1.125
Bromoform	14.08	13.37	1.053	ok	1.053	0.993-1.113
Bromomethane	4.87	7.55	0.645	ok	0.645	0.585-0.705
Bromoethene	5.19	7.55	0.687	ok	0.687	0.627-0.747
n-Butane	4.71	7.55	0.624	ok	0.623	0.563-0.683
Benzyl Chloride	16.67	13.37	1.247	ok	1.247	1.187-1.307
n-Butylbenzene	17.50	13.37	1.309	ok	1.309	1.249-1.369
sec-Butylbenzene	16.79	13.37	1.256	ok	1.256	1.196-1.316
tert-Butylbenzene	16.47	13.37	1.232	ok	1.231	1.171-1.291
Carbon disulfide	6.16	7.55	0.816	ok	0.815	0.755-0.875
Chlorobenzene	13.41	13.37	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.31	7.55	0.571	ok	0.571	0.511-0.631
Chloroethane	4.96	7.55	0.657	ok	0.657	0.597-0.717
Chloroform	7.63	7.55	1.011	ok	1.012	0.952-1.072
Chloromethane	4.48	7.55	0.593	ok	0.592	0.532-0.652
3-Chloropropene	6.02	7.55	0.797	ok	0.797	0.737-0.857
2-Chlorotoluene	15.68	13.37	1.173	ok	1.173	1.113-1.233
Carbon tetrachloride	9.00	7.55	1.192	ok	1.191	1.131-1.251
Cyclohexane	9.05	9.19	0.985	ok	0.984	0.924-1.044
1,1-Dichloroethane	6.74	7.55	0.893	ok	0.893	0.833-0.953
1,1-Dichloroethylene	5.86	7.55	0.776	ok	0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.37	0.914	ok	0.914	0.854-0.974
1,2-Dichloroethane	8.25	7.55	1.093	ok	1.092	1.032-1.152
1,2-Dichloropropane	9.58	9.19	1.042	ok	1.041	0.981-1.101
1,4-Dioxane	10.03	9.19	1.091	ok	1.081	1.021-1.141
Dichlorodifluoromethane	4.37	7.55	0.579	ok	0.578	0.518-0.638
Dibromochloromethane	12.00	13.37	0.898	ok	0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.58	7.55	0.872	ok	0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.44	7.55	0.985	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	10.65	9.19	1.159	ok	1.157	1.097-1.217
m-Dichlorobenzene	16.67	13.37	1.247	ok	1.247	1.187-1.307



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	- · · · · ·
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	17.18	13.37	1.285	ok	1.285	1.225-1.345
p-Dichlorobenzene	16.76	13.37	1.254	ok	1.253	1.193-1.313
trans-1,3-Dichloropropene	11.14	9.19	1.212	ok	1.212	1.152-1.272
Di-Isopropyl ether	7.54	7.55	0.999	ok	0.996	0.936-1.056
2,3-Dimethylpentane	9.22	9.19	1.003	ok	1.003	0.943-1.063
2,4-Dimethylpentane	8.21	7.55	1.087	ok	1.085	1.025-1.145
Ethanol	5.14	7.55	0.681	ok	0.678	0.618-0.738
Ethylbenzene	13.78	13.37	1.031	ok	1.031	0.971-1.091
Ethyl Acetate	7.62	7.55	1.009	ok	1.003	0.943-1.063
4-Ethyltoluene	15.88	13.37	1.188	ok	1.188	1.128-1.248
Freon 113	6.10	7.55	0.808	ok	0.808	0.748-0.868
Freon 114	4.53	7.55	0.600	ok	0.599	0.539-0.659
Freon 123	5.26	7.55	0.697	ok	0.696	0.636-0.756
Freon 123A	5.29	7.55	0.701	ok	0.701	0.641-0.761
Freon 152A	4.28	7.55	0.567	ok	0.566	0.506-0.626
Heptane	9.99	9.19	1.087	ok	1.087	1.027-1.147
Hexachlorobutadiene	19.77	13.37	1.479	ok	1.478	1.418-1.538
Hexane	7.47	7.55	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.91	13.37	0.891	ok	0.888	0.828-0.948
Iodomethane	5.82	7.55	0.771	ok	0.770	0.710-0.830
Isopropylbenzene	15.12	13.37	1.131	ok	1.131	1.071-1.191
Isopropyl Alcohol	5.61	7.55	0.743	ok	0.737	0.677-0.797
p-Isopropyltoluene	16.98	13.37	1.270	ok	1.270	1.210-1.330
Methylene chloride	5.96	7.55	0.789	ok	0.789	0.729-0.849
Methyl ethyl ketone	7.12	7.55	0.943	ok	0.938	0.878-0.998
Methyl Isobutyl Ketone	10.72	9.19	1.166	ok	1.162	1.102-1.222
Methyl Tert Butyl Ether	6.83	7.55	0.905	ok	0.900	0.840-0.960
Methylmethacrylate	10.04	9.19	1.092	ok	1.092	1.032-1.152
Nonane	14.66	13.37	1.096	ok	1.096	1.036-1.156
Octane	12.47	13.37	0.933	ok	0.933	0.873-0.993
Pentane	5.62	7.55	0.744	ok	0.745	0.685-0.805
n-Propylbenzene	15.71	13.37	1.175	ok	1.175	1.115-1.235
Propylene	4.32	7.55	0.572	ok	0.572	0.512-0.632
Styrene	14.37	13.37	1.075	ok	1.075	1.015-1.135



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
1,1,1-Trichloroethane	8.46	7.55	1.121 ok	1.120	1.060-1.180	
1,1,1,2-Tetrachloroethane	13.40	13.37	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.50	13.37	1.085 ok	1.085	1.025-1.145	
1,1,2-Trichloroethane	11.30	9.19	1.230 ok	1.229	1.169-1.289	
1,2,4-Trichlorobenzene	19.22	13.37	1.438 ok	1.437	1.377-1.497	
1,2,3-Trichloropropane	14.62	13.37	1.093 ok	1.094	1.034-1.154	
1,2,4-Trimethylbenzene	16.47	13.37	1.232 ok	1.232	1.172-1.292	
1,3,5-Trimethylbenzene	15.98	13.37	1.195 ok	1.195	1.135-1.255	
2,2,4-Trimethylpentane	9.74	9.19	1.060 ok	1.059	0.999-1.119	
Tertiary Butyl Alcohol	6.03	7.55	0.799 ok	0.794	0.734-0.854	
Tetrachloroethylene	12.69	13.37	0.949 ok	0.949	0.889-1.009	
Tetrahydrofuran	8.09	7.55	1.072 ok	1.064	1.004-1.124	
Toluene	11.56	9.19	1.258 ok	1.257	1.197-1.317	
Trichloroethylene	9.81	9.19	1.067 ok	1.067	1.007-1.127	
Trichlorofluoromethane	5.44	7.55	0.721 ok	0.720	0.660 - 0.780	
Vinyl chloride	4.61	7.55	0.611 ok	0.610	0.550-0.670	
Vinyl Acetate	6.87	7.55	0.910 ok	0.909	0.849-0.969	
m,p-Xylene	13.97	13.37	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.48	13.37	1.083 ok	1.083	1.023-1.143	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	7.55 ok	7.56	7.23-7.89	122105	ok 126098	75659-176537
1,4-Difluorobenzene	9.19 ok	9.20	8.87-9.53	585920	ok 621202	372721-869683
Chlorobenzene-D5	13.37 ok	13.37	13.04-13.70	212921	ok 267439	160463-374415



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	Reporting this level
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	-

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.37	7.56	0.710	ok	0.713	0.653-0.773
1,3-Butadiene	4.69	7.56	0.620	ok	0.621	0.561-0.681
Benzene	8.88	9.19	0.966	ok	0.966	0.906-1.026
Bromodichloromethane	9.79	9.19	1.065	ok	1.065	1.005-1.125
Bromoform	14.08	13.37	1.053	ok	1.053	0.993-1.113
Bromomethane	4.87	7.56	0.644	ok	0.645	0.585-0.705
Bromoethene	5.19	7.56	0.687	ok	0.687	0.627-0.747
n-Butane	4.71	7.56	0.623	ok	0.623	0.563-0.683
Benzyl Chloride	16.67	13.37	1.247	ok	1.247	1.187-1.307
n-Butylbenzene	17.50	13.37	1.309	ok	1.309	1.249-1.369
sec-Butylbenzene	16.80	13.37	1.257	ok	1.256	1.196-1.316
tert-Butylbenzene	16.46	13.37	1.231	ok	1.231	1.171-1.291
Carbon disulfide	6.16	7.56	0.815	ok	0.815	0.755-0.875
Chlorobenzene	13.41	13.37	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.31	7.56	0.570	ok	0.571	0.511-0.631
Chloroethane	4.96	7.56	0.656		0.657	0.597-0.717
Chloroform	7.64	7.56	1.011	ok	1.012	0.952-1.072
Chloromethane	4.48	7.56	0.593	ok	0.592	0.532-0.652
3-Chloropropene	6.02	7.56	0.796	ok	0.797	0.737-0.857
2-Chlorotoluene	15.69	13.37	1.174		1.173	1.113-1.233
Carbon tetrachloride	9.01	7.56	1.192	ok	1.191	1.131-1.251
Cyclohexane	9.05	9.19	0.985	ok	0.984	0.924-1.044
1,1-Dichloroethane	6.75	7.56	0.893		0.893	0.833-0.953
1,1-Dichloroethylene	5.86	7.56	0.775		0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.37	0.914	ok	0.914	0.854-0.974
1,2-Dichloroethane	8.25	7.56	1.091		1.092	1.032-1.152
1,2-Dichloropropane	9.57	9.19	1.041	ok	1.041	0.981-1.101
1,4-Dioxane	9.92	9.19	1.079	ok	1.081	1.021-1.141
Dichlorodifluoromethane	4.37	7.56	0.578		0.578	0.518-0.638
Dibromochloromethane	12.01	13.37	0.898	ok	0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.59	7.56	0.872		0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.43	7.56	0.983		0.984	0.924-1.044
cis-1,3-Dichloropropene	10.64	9.19	1.158		1.157	1.097-1.217
m-Dichlorobenzene	16.67	13.37	1.247	ok	1.247	1.187-1.307



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	Reporting this level
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	17.18	13.37	1.285 c	k 1.285	1.225-1.345
p-Dichlorobenzene	16.76	13.37		k 1.253	1.193-1.313
trans-1,3-Dichloropropene	11.14	9.19		k 1.212	1.152-1.272
Di-Isopropyl ether	7.51	7.56		k 0.996	0.936-1.056
2,3-Dimethylpentane	9.23	9.19		k 1.003	0.943-1.063
2,4-Dimethylpentane	8.20	7.56		k 1.085	1.025-1.145
Ethanol	5.09	7.56		k 0.678	0.618-0.738
Ethylbenzene	13.78	13.37		k 1.031	0.971-1.091
Ethyl Acetate	7.58	7.56		k 1.003	0.943-1.063
4-Ethyltoluene	15.88	13.37	1.188 c	k 1.188	1.128-1.248
Freon 113	6.11	7.56	0.808	k 0.808	0.748-0.868
Freon 114	4.53	7.56	0.599 o	k 0.599	0.539-0.659
Freon 123	5.26	7.56	0.696 o	k 0.696	0.636-0.756
Freon 123A	5.30	7.56	0.701 c	k 0.701	0.641-0.761
Freon 152A	4.28	7.56	0.566	k 0.566	0.506-0.626
Heptane	9.99	9.19	1.087 c	k 1.087	1.027-1.147
Hexachlorobutadiene	19.77	13.37	1.479 o	k 1.478	1.418-1.538
Hexane	7.48	7.56	0.989 o	k 0.990	0.930-1.050
2-Hexanone	11.85	13.37	0.886	k 0.888	0.828-0.948
Iodomethane	5.82	7.56	0.770 c	k 0.770	0.710-0.830
Isopropylbenzene	15.12	13.37	1.131 o	k 1.131	1.071-1.191
Isopropyl Alcohol	5.54	7.56	0.733 o	k 0.737	0.677-0.797
p-Isopropyltoluene	16.98	13.37	1.270 c	k 1.270	1.210-1.330
Methylene chloride	5.96	7.56	0.788 c	k 0.789	0.729-0.849
Methyl ethyl ketone	7.07	7.56	0.935 o	k 0.938	0.878-0.998
Methyl Isobutyl Ketone	10.66	9.19	1.160 o	k 1.162	1.102-1.222
Methyl Tert Butyl Ether	6.78	7.56	0.897 o	k 0.900	0.840-0.960
Methylmethacrylate	10.03	9.19	1.091 o	k 1.092	1.032-1.152
Nonane	14.66	13.37	1.096 o	k 1.096	1.036-1.156
Octane	12.48	13.37	0.933 o	k 0.933	0.873-0.993
Pentane	5.63	7.56		k 0.745	0.685-0.805
n-Propylbenzene	15.71	13.37		k 1.175	1.115-1.235
Propylene	4.32	7.56		k 0.572	0.512-0.632
Styrene	14.37	13.37	1.075 c	k 1.075	1.015-1.135



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	Reporting this level
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	-

Target Compound	RT (min.)	Istd RT (min.)		Mean Rel RT	Rel RT Range (+ /06)	
1,1,1-Trichloroethane	8.46	7.56	1.119 ok	1.120	1.060-1.180	
1, 1, 1, 2-Tetrachloroethane	13.39	13.37	1.001 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.50	13.37	1.085 ok	1.085	1.025-1.145	
1,1,2-Trichloroethane	11.30	9.19	1.230 ok	1.229	1.169-1.289	
1,2,4-Trichlorobenzene	19.22	13.37	1.438 ok	1.437	1.377-1.497	
1,2,3-Trichloropropane	14.62	13.37	1.093 ok	1.094	1.034-1.154	
1,2,4-Trimethylbenzene	16.47	13.37	1.232 ok	1.232	1.172-1.292	
1,3,5-Trimethylbenzene	15.98	13.37	1.195 ok	1.195	1.135-1.255	
2,2,4-Trimethylpentane	9.75	9.19	1.061 ok	1.059	0.999-1.119	
Tertiary Butyl Alcohol	5.94	7.56	0.786 ok	0.794	0.734-0.854	
Tetrachloroethylene	12.70	13.37	0.950 ok	0.949	0.889-1.009	
Tetrahydrofuran	8.01	7.56	1.060 ok	1.064	1.004-1.124	
Toluene	11.56	9.19	1.258 ok	1.257	1.197-1.317	
Trichloroethylene	9.81	9.19	1.067 ok	1.067	1.007-1.127	
Trichlorofluoromethane	5.44	7.56	0.720 ok	0.720	0.660-0.780	
Vinyl chloride	4.60	7.56	0.608 ok	0.610	0.550-0.670	
Vinyl Acetate	6.86	7.56	0.907 ok	0.909	0.849-0.969	
m,p-Xylene	13.97	13.37	1.045 ok	1.045	0.985-1.105	
o-Xylene	14.48	13.37	1.083 ok	1.083	1.023-1.143	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ /- 40 %)
Bromochloromethane	7.56 ok	7.56	7.23-7.89	157191	ok 126098	75659-176537
1,4-Difluorobenzene	9.19 ok	9.20	8.87-9.53	795574	ok 621202	372721-869683
Chlorobenzene-D5	13.37 ok	13.37	13.04-13.70	353147	ok 267439	160463-374415



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.37	7.57	0.709 ok	0.713	0.653-0.773
1,3-Butadiene	4.70	7.57	0.621 ok	0.621	0.561-0.681
Benzene	8.89	9.21	0.965 ok	0.966	0.906-1.026
Bromodichloromethane	9.81	9.21	1.065 ok	1.065	1.005-1.125
Bromoform	14.09	13.38	1.053 ok	1.053	0.993-1.113
Bromomethane	4.88	7.57	0.645 ok	0.645	0.585-0.705
Bromoethene	5.20	7.57	0.687 ok	0.687	0.627-0.747
n-Butane	4.72	7.57	0.624 ok	0.623	0.563-0.683
Benzyl Chloride	16.68	13.38	1.247 ok	1.247	1.187-1.307
n-Butylbenzene	17.50	13.38	1.308 ok	1.309	1.249-1.369
sec-Butylbenzene	16.80	13.38	1.256 ok	1.256	1.196-1.316
tert-Butylbenzene	16.47	13.38	1.231 ok	1.231	1.171-1.291
Carbon disulfide	6.17	7.57	0.815 ok	0.815	0.755-0.875
Chlorobenzene	13.43	13.38	1.004 ok	1.003	0.943-1.063
Chlorodifluoromethane	4.31	7.57	0.569 ok	0.571	0.511-0.631
Chloroethane	4.97	7.57	0.657 ok	0.657	0.597-0.717
Chloroform	7.66	7.57	1.012 ok	1.012	0.952-1.072
Chloromethane	4.48	7.57	0.592 ok	0.592	0.532-0.652
3-Chloropropene	6.03	7.57	0.797 ok	0.797	0.737-0.857
2-Chlorotoluene	15.70	13.38	1.173 ok	1.173	1.113-1.233
Carbon tetrachloride	9.02	7.57	1.192 ok		1.131-1.251
Cyclohexane	9.06	9.21	0.984 ok	0.984	0.924-1.044
1,1-Dichloroethane	6.76	7.57	0.893 ok	0.893	0.833-0.953
1,1-Dichloroethylene	5.88	7.57	0.777 ok	0.776	0.716-0.836
1,2-Dibromoethane	12.22	13.38		0.914	0.854-0.974
1,2-Dichloroethane	8.27	7.57	1.092 ok	1.092	1.032-1.152
1,2-Dichloropropane	9.59	9.21		1.041	0.981-1.101
1,4-Dioxane	9.91	9.21	1.076 ok	1.081	1.021-1.141
Dichlorodifluoromethane	4.37	7.57	0.577 ok	0.578	0.518-0.638
Dibromochloromethane	12.01	13.38	0.898 ok	0.898	0.838-0.958
trans-1,2-Dichloroethylene	6.59	7.57	0.871 ok	0.871	0.811-0.931
cis-1,2-Dichloroethylene	7.45	7.57	0.984 ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	10.65	9.21		1.157	1.097-1.217
m-Dichlorobenzene	16.67	13.38	1.246 ok	1.247	1.187-1.307



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC	0.1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC	0.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC	10	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC	5	GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC	0.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC	20	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC	40	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC	0.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC	5	GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC	10	GCMS3W	TO-15	Reporting this level

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
o-Dichlorobenzene	17.19	13.38	1.285 c	k 1.285	1.225-1.345
p-Dichlorobenzene	16.77	13.38		k 1.253	1.193-1.313
trans-1,3-Dichloropropene	11.16	9.21		k 1.212	1.152-1.272
Di-Isopropyl ether	7.51	7.57	0.992 c	k 0.996	0.936-1.056
2,3-Dimethylpentane	9.24	9.21	1.003 c	k 1.003	0.943-1.063
2,4-Dimethylpentane	8.21	7.57	1.085 c	k 1.085	1.025-1.145
Ethanol	5.11	7.57		ok 0.678	0.618-0.738
Ethylbenzene	13.79	13.38	1.031 c	k 1.031	0.971-1.091
Ethyl Acetate	7.59	7.57	1.003 c	k 1.003	0.943-1.063
4-Ethyltoluene	15.89	13.38	1.188 c	k 1.188	1.128-1.248
Freon 113	6.11	7.57	0.807	ok 0.808	0.748-0.868
Freon 114	4.54	7.57	0.600	ok 0.599	0.539-0.659
Freon 123	5.27	7.57	0.696	ok 0.696	0.636-0.756
Freon 123A	5.31	7.57	0.701	ok 0.701	0.641-0.761
Freon 152A	4.28	7.57	0.565	ok 0.566	0.506-0.626
Heptane	10.01	9.21	1.087 c	k 1.087	1.027-1.147
Hexachlorobutadiene	19.77	13.38	1.478 c	k 1.478	1.418-1.538
Hexane	7.49	7.57	0.989 c	ok 0.990	0.930-1.050
2-Hexanone	11.86	13.38	0.886	ok 0.888	0.828-0.948
Iodomethane	5.83	7.57	0.770 c	ok 0.770	0.710-0.830
Isopropylbenzene	15.13	13.38	1.131 c	k 1.131	1.071-1.191
Isopropyl Alcohol	5.56	7.57	0.734 c	ok 0.737	0.677-0.797
p-Isopropyltoluene	16.99	13.38		k 1.270	1.210-1.330
Methylene chloride	5.97	7.57		ok 0.789	0.729-0.849
Methyl ethyl ketone	7.07	7.57	0.934 c	ok 0.938	0.878-0.998
Methyl Isobutyl Ketone	10.67	9.21		k 1.162	1.102-1.222
Methyl Tert Butyl Ether	6.79	7.57		ok 0.900	0.840-0.960
Methylmethacrylate	10.04	9.21	1.090 c	k 1.092	1.032-1.152
Nonane	14.67	13.38	1.096 c	k 1.096	1.036-1.156
Octane	12.48	13.38	0.933 c	ok 0.933	0.873-0.993
Pentane	5.64	7.57		ok 0.745	0.685-0.805
n-Propylbenzene	15.72	13.38		ok 1.175	1.115-1.235
Propylene	4.33	7.57		ok 0.572	0.512-0.632
Styrene	14.39	13.38	1.075 c	k 1.075	1.015-1.135



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By L	evel	Inst ID	Method	
V3W821-IC821	3W20778.D	02/15/11 18:24	YXC 0.	.5	GCMS3W	TO-15	
V3W821-IC821	3W20779.D	02/15/11 21:02	YXC 20	0	GCMS3W	TO-15	
V3W821-IC821	3W20780.D	02/15/11 22:21	YXC 0.	. 1	GCMS3W	TO-15	
V3W821-IC821	3W20781.D	02/15/11 23:00	YXC 0.	.04	GCMS3W	TO-15	
V3W821-IC821	3W20782.D	02/16/11 00:20	YXC 10	0	GCMS3W	TO-15	
V3W821-IC821	3W20783.D	02/16/11 01:00	YXC 5		GCMS3W	TO-15	
V3W821-IC821	3W20784.D	02/16/11 01:44	YXC 40	0	GCMS3W	TO-15	
V3W821-IC821	3W20785.D	02/16/11 02:23	YXC 0.	.5	GCMS3W	TO-15	
V3W821-IC821	3W20786.D	02/16/11 03:02	YXC 0.	.2	GCMS3W	TO-15	
V3W821-IC821	3W20787.D	02/16/11 04:22	YXC 20	0	GCMS3W	TO-15	
V3W821-IC821	3W20788.D	02/16/11 05:06	YXC 40	0	GCMS3W	TO-15	
V3W821-IC821	3W20789.D	02/16/11 07:02	YXC 0.	.2	GCMS3W	TO-15	
V3W821-IC821	3W20790.D	02/16/11 10:32	YXC 5		GCMS3W	TO-15	
V3W821-ICC821	3W20791.D	02/16/11 11:55	YXC 10	0	GCMS3W	TO-15	Reporting this level

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1, 1, 1-Trichloroethane	8.47	7.57	1.119 ok	1.120	1.060-1.180	
1,1,1,2-Tetrachloroethane	13.40	13.38	1.001 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.51	13.38	1.084 ok	1.085	1.025-1.145	
1,1,2-Trichloroethane	11.32	9.21	1.229 ok	1.229	1.169-1.289	
1,2,4-Trichlorobenzene	19.22	13.38	1.436 ok	1.437	1.377-1.497	
1,2,3-Trichloropropane	14.64	13.38	1.094 ok	1.094	1.034-1.154	
1,2,4-Trimethylbenzene	16.48	13.38	1.232 ok	1.232	1.172-1.292	
1,3,5-Trimethylbenzene	15.99	13.38	1.195 ok	1.195	1.135-1.255	
2,2,4-Trimethylpentane	9.75	9.21	1.059 ok	1.059	0.999-1.119	
Tertiary Butyl Alcohol	5.96	7.57	0.787 ok	0.794	0.734-0.854	
Tetrachloroethylene	12.70	13.38	0.949 ok	0.949	0.889-1.009	
Tetrahydrofuran	8.01	7.57	1.058 ok	1.064	1.004-1.124	
Toluene	11.57	9.21	1.256 ok	1.257	1.197-1.317	
Trichloroethylene	9.82	9.21	1.066 ok	1.067	1.007-1.127	
Trichlorofluoromethane	5.45	7.57	0.720 ok	0.720	0.660 - 0.780	
Vinyl chloride	4.62	7.57	0.610 ok	0.610	0.550-0.670	
Vinyl Acetate	6.87	7.57	0.908 ok	0.909	0.849-0.969	
m,p-Xylene	13.97	13.38	1.044 ok	1.045	0.985-1.105	
o-Xylene	14.48	13.38	1.082 ok	1.083	1.023-1.143	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)		Mean Area	Area Range (+ /- 40 %)
THICH HAI STANUALU	(111111.)	KT(IIIII.)	(+ /- 0.33)	Alta	Alta	(T / • 40 /0)
Bromochloromethane	7.57 ok	7.56	7.23-7.89	121224	ok 126098	75659-176537
1,4-Difluorobenzene	9.21 ok	9.20	8.87-9.53	620189	ok 621202	372721-869683
Chlorobenzene-D5	13.38 ok	13.37	13.04-13.7	283614	ok 267439	160463-374415



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	GCMSW	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.33	8.82	0.718		0.718	0.658-0.778
Acrolein	6.22	8.82	0.705	ok	0.706	0.646-0.766
1,3-Butadiene	5.51	8.82	0.625		0.623	0.563-0.683
Benzene	10.21	10.50	0.972	ok	0.972	0.912-1.032
Bromodichloromethane	11.13	10.50	1.060	ok	1.061	1.001-1.121
Bromoform	15.47	14.73	1.050	ok	1.050	0.990-1.110
Bromomethane	5.73	8.82	0.650		0.649	0.589-0.709
Bromoethene	6.14	8.82	0.696		0.695	0.635-0.755
n-Butane	5.55	8.82	0.629	ok	0.627	0.567-0.687
Benzyl Chloride	17.94	14.73	1.218		1.218	1.158-1.278
n-Butylbenzene	18.73	14.73	1.272		1.272	1.212-1.332
sec-Butylbenzene	18.08	14.73	1.227		1.227	1.167-1.287
tert-Butylbenzene	17.77	14.73	1.206	ok	1.206	1.146-1.266
Carbon disulfide	7.33	8.82	0.831	ok	0.830	0.770-0.890
Chlorobenzene	14.78	14.73	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.98	8.82	0.565	ok	0.563	0.503-0.623
Chloroethane	5.86	8.82	0.664	ok	0.663	0.603-0.723
Chloroform	8.92	8.82	1.011	ok	1.012	0.952-1.072
Chloromethane	5.22	8.82	0.592	ok	0.590	0.530-0.650
3-Chloropropene	7.14	8.82	0.810	ok	0.809	0.749-0.869
2-Chlorotoluene	17.04	14.73	1.157	ok	1.157	1.097-1.217
Carbon tetrachloride	10.34	8.82	1.172	ok	1.174	1.114-1.234
Cyclohexane	10.45	10.50	0.995		0.996	0.936-1.056
1,1-Dichloroethane	7.97	8.82	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	6.96	8.82	0.789	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.61	14.73	0.924		0.924	0.864-0.984
1,2-Dichloroethane	9.57	8.82	1.085	ok	1.086	1.026-1.146
1,2-Dichloropropane	10.95	10.50	1.043	ok	1.043	0.983-1.103
1,4-Dioxane	11.19	10.50	1.066	ok	1.071	1.011-1.131
Dichlorodifluoromethane	5.07	8.82	0.575	ok	0.573	0.513-0.633
Dibromochloromethane	13.37	14.73	0.908	ok	0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.80	8.82	0.884	ok	0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.66	8.82	0.982	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.97	10.50	1.140	ok	1.141	1.081-1.201
m-Dichlorobenzene	17.96	14.73	1.219	ok	1.219	1.159-1.279
o-Dichlorobenzene	18.42	14.73	1.251		1.251	1.191-1.311
p-Dichlorobenzene	18.03	14.73	1.224	ok	1.224	1.164-1.284
trans-1,3-Dichloropropene	12.47	10.50	1.188	ok	1.189	1.129-1.249
Di-Isopropyl ether	8.80	8.82	0.998	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.64	10.50	1.013	ok	1.013	0.953-1.073

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	GCMSW	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	9.58	8.82	1.086		1.088	1.028-1.148
Ethanol	5.97	8.82	0.677	ok	0.677	0.617-0.737
Ethylbenzene	15.17	14.73	1.030	ok	1.029	0.969-1.089
Ethyl Acetate	8.83	8.82	1.001	ok	1.002	0.942-1.062
4-Ethyltoluene	17.23	14.73	1.170	ok	1.170	1.110-1.230
Freon 113	7.24	8.82	0.821	ok	0.821	0.761-0.881
Freon 114	5.29	8.82	0.600		0.598	0.538-0.658
Freon 123	6.23	8.82	0.706		0.705	0.645-0.765
Freon 123A	6.27	8.82	0.711	ok	0.710	0.650-0.770
Freon 152A	4.94	8.82	0.560		0.560	0.500-0.620
Heptane	11.41	10.50	1.087	ok	1.087	1.027-1.147
Hexachlorobutadiene	20.87	14.73	1.417		1.417	1.357-1.477
Hexane	8.82	8.82	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.19	14.73	0.895	ok	0.896	0.836-0.956
Iodomethane	6.92	8.82	0.785	ok	0.783	0.723-0.843
Isopropylbenzene	16.51	14.73	1.121	ok	1.121	1.061-1.181
Isopropyl Alcohol	6.52	8.82	0.739	ok	0.743	0.683-0.803
p-Isopropyltoluene	18.26	14.73	1.240		1.239	1.179-1.299
Methylene chloride	7.05	8.82	0.799	ok	0.799	0.739-0.859
Methyl ethyl ketone	8.29	8.82	0.940	ok	0.942	0.882-1.002
Methyl Isobutyl Ketone	12.00	10.50	1.143	ok	1.146	1.086-1.206
Methyl Tert Butyl Ether	8.00	8.82	0.907	ok	0.909	0.849-0.969
Methylmethacrylate	11.33	10.50	1.079		1.080	1.020-1.140
Nonane	16.07	14.73	1.091	ok	1.091	1.031-1.151
Octane	13.88	14.73	0.942	ok	0.942	0.882-1.002
Pentane	6.72	8.82	0.762		0.762	0.702-0.822
n-Propylbenzene	17.07	14.73	1.159	ok	1.159	1.099-1.219
Propylene	5.01	8.82	0.568	ok	0.567	0.507-0.627
Styrene	15.75	14.73	1.069	ok	1.069	1.009-1.129
1,1,1-Trichloroethane	9.79	8.82	1.110	ok	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.76	14.73	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.87	14.73	1.077	ok	1.077	1.017-1.137
1,1,2-Trichloroethane	12.66	10.50	1.206	ok	1.207	1.147-1.267
1,2,4-Trichlorobenzene	20.36	14.73	1.382	ok	1.382	1.322-1.442
1,2,3-Trichloropropane	16.01	14.73	1.087	ok	1.087	1.027-1.147
1,2,4-Trimethylbenzene	17.78	14.73	1.207	ok	1.207	1.147-1.267
1,3,5-Trimethylbenzene	17.32	14.73	1.176	ok	1.176	1.116-1.236
2,2,4-Trimethylpentane	11.17	10.50	1.064		1.065	1.005-1.125
Tertiary Butyl Alcohol	6.99	8.82	0.793		0.798	0.738-0.858
Tetrachloroethylene	14.07	14.73	0.955	ok	0.955	0.895-1.015



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Tetrahydrofuran	9.28	8.82	1.052 ok	1.057	0.997-1.117	
Toluene	12.93	10.50	1.231 ok	1.233	1.173-1.293	
Trichloroethylene	11.16	10.50	1.063 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.46	8.82		0.732	0.672-0.792	
Vinyl chloride	5.40	8.82	0.612 ok	0.611	0.551-0.671	
Vinyl Acetate	8.06	8.82	0.914 ok	0.915	0.855-0.975	
m,p-Xylene	15.36	14.73	1.043 ok	1.042	0.982-1.102	
o-Xylene	15.87	14.73	1.077 ok	1.077	1.077 1.017-1.137	
TVHC As Equiv Pentane	6.72	8.82	0.762 ok	0.762	0.702 - 0.822	
TVHC As Equiv Heptane	11.41	10.50	1.087 ok	1.087	1.027-1.147	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ / <b>- 40 %</b> )
Duomo chloromothoro	0.00 .1	9.70	9 46 0 12	96606	als 70106	46964 100249
Bromochloromethane		8.79	8.46-9.12	86606	ok 78106	46864-109348
1,4-Difluorobenzene		10.48	10.15-10.81		ok 377650	226590-528710
Chlorobenzene-D5	14.73 ok	14.73	14.40-15.06	248549	ok 202605	121563-283647



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acatana	6.29	0 05	0.721	a1.	0.719	0.650.0.770
Acetone Acrolein	6.38 6.29	8.85 8.85			0.718	0.658-0.778
1,3-Butadiene	5.57	8.85			0.706 0.623	0.646-0.766 0.563-0.683
Benzene	10.24	10.53			0.023	0.912-1.032
Bromodichloromethane	10.24	10.53			1.061	1.001-1.121
Bromoform	15.49	10.33			1.051	
Bromomethane	5.79	8.85			0.649	0.990-1.110
Bromoethene	5. 79 6. 19	8.85			0.649	0.589-0.709
n-Butane	5.60	8.85			0.693	0.635-0.755 0.567-0.687
	3.00 17.95	6.63 14.75			1.218	1.158-1.278
Benzyl Chloride					1.272	
n-Butylbenzene	18.74	14.75			1.272	1.212-1.332
sec-Butylbenzene	18.09	14.75				1.167-1.287
tert-Butylbenzene	17.78	14.75			1.206	1.146-1.266
Carbon disulfide	7.37	8.85			0.830	0.770-0.890
Chlorobenzene	14.80	14.75			1.003	0.943-1.063
Chlorodifluoromethane	5.04	8.85			0.563	0.503-0.623
Chloroethane	5.91	8.85			0.663	0.603-0.723
Chloroform	8.96	8.85			1.012	0.952-1.072
Chloromethane	5.27	8.85			0.590	0.530-0.650
3-Chloropropene	7.19	8.85			0.809	0.749-0.869
2-Chlorotoluene	17.06	14.75			1.157	1.097-1.217
Carbon tetrachloride	10.37	8.85			1.174	1.114-1.234
Cyclohexane	10.48	10.53			0.996	0.936-1.056
1,1-Dichloroethane	8.02	8.85			0.904	0.844-0.964
1,1-Dichloroethylene	7.00	8.85			0.788	0.728-0.848
1,2-Dibromoethane	13.64	14.75			0.924	0.864-0.984
1,2-Dichloroethane	9.60	8.85			1.086	1.026-1.146
1,2-Dichloropropane	10.98	10.53			1.043	0.983-1.103
1,4-Dioxane	11.22	10.53	1.066	ok	1.071	1.011-1.131
Dichlorodifluoromethane	5.13	8.85			0.573	0.513-0.633
Dibromochloromethane	13.39	14.75	0.908	ok	0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.84	8.85	0.886	ok	0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.71	8.85	0.984	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	12.00	10.53	1.140	ok	1.141	1.081-1.201
m-Dichlorobenzene	17.97	14.75	1.218	ok	1.219	1.159-1.279
o-Dichlorobenzene	18.44	14.75	1.250	ok	1.251	1.191-1.311
p-Dichlorobenzene	18.05	14.75	1.224	ok	1.224	1.164-1.284
trans-1,3-Dichloropropene	12.50	10.53	1.187	ok	1.189	1.129-1.249
Di-Isopropyl ether	8.85	8.85	1.000	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.67	10.53			1.013	0.953-1.073

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	GCMSW	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	9.62	8.85	1.087	ok	1.088	1.028-1.148
Ethanol	6.03	8.85	0.681		0.677	0.617-0.737
Ethylbenzene	15.18	14.75	1.029		1.029	0.969-1.089
Ethyl Acetate	8.87	8.85	1.002		1.002	0.942-1.062
4-Ethyltoluene	17.25	14.75	1.169		1.170	1.110-1.230
Freon 113	7.29	8.85	0.824		0.821	0.761-0.881
Freon 114	5.35	8.85	0.605	ok	0.598	0.538-0.658
Freon 123	6.29	8.85	0.711		0.705	0.645-0.765
Freon 123A	6.33	8.85	0.715		0.710	0.650-0.770
Freon 152A	5.01	8.85	0.566		0.560	0.500-0.620
Heptane	11.43	10.53	1.085	ok	1.087	1.027-1.147
Hexachlorobutadiene	20.87	14.75	1.415	ok	1.417	1.357-1.477
Hexane	8.85	8.85	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.22	14.75	0.896	ok	0.896	0.836-0.956
Iodomethane	6.97	8.85	0.788	ok	0.783	0.723-0.843
Isopropylbenzene	16.52	14.75	1.120	ok	1.121	1.061-1.181
Isopropyl Alcohol	6.60	8.85	0.746	ok	0.743	0.683-0.803
p-Isopropyltoluene	18.26	14.75	1.238	ok	1.239	1.179-1.299
Methylene chloride	7.10	8.85	0.802	ok	0.799	0.739-0.859
Methyl ethyl ketone	8.34	8.85	0.942	ok	0.942	0.882-1.002
Methyl Isobutyl Ketone	12.04	10.53	1.143	ok	1.146	1.086-1.206
Methyl Tert Butyl Ether	8.05	8.85	0.910	ok	0.909	0.849-0.969
Methylmethacrylate	11.36	10.53	1.079	ok	1.080	1.020-1.140
Nonane	16.09	14.75	1.091	ok	1.091	1.031-1.151
Octane	13.90	14.75	0.942	ok	0.942	0.882-1.002
Pentane	6.77	8.85	0.765	ok	0.762	0.702-0.822
n-Propylbenzene	17.09	14.75	1.159		1.159	1.099-1.219
Propylene	5.07	8.85	0.573	ok	0.567	0.507-0.627
Styrene	15.77	14.75	1.069	ok	1.069	1.009-1.129
1,1,1-Trichloroethane	9.83	8.85	1.111	ok	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.78	14.75	1.002		1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.89	14.75	1.077		1.077	1.017-1.137
1,1,2-Trichloroethane	12.69	10.53	1.205		1.207	1.147-1.267
1,2,4-Trichlorobenzene	20.37	14.75	1.381		1.382	1.322-1.442
1,2,3-Trichloropropane	16.03	14.75	1.087	ok	1.087	1.027-1.147
1,2,4-Trimethylbenzene	17.79	14.75	1.206	ok	1.207	1.147-1.267
1,3,5-Trimethylbenzene	17.33	14.75	1.175	ok	1.176	1.116-1.236
2,2,4-Trimethylpentane	11.20	10.53	1.064		1.065	1.005-1.125
Tertiary Butyl Alcohol	7.07	8.85	0.799		0.798	0.738-0.858
Tetrachloroethylene	14.09	14.75	0.955	ok	0.955	0.895-1.015



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: **RAVIV TRC** 

Sample Number VW1222-ICC1222	Lab File ID	Injected	By Level		Method	
VW1222-ICC1222 VW1222-IC1222	W29766.D W29770.D	01/19/11 17:47 01/19/11 21:46	YMH 10 YMH 20	GCMSW GCMSW	TO-15 TO-15	Reporting this level
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	Reporting tins lever
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	GCMSW	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Tetrahydrofuran	9.33	8.85	1.054 ok	1.057	0.997-1.117	
Toluene	12.95	10.53	1.230 ok	1.233	1.173-1.293	
Trichloroethylene	11.19	10.53	1.063 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.51	8.85	0.736 ok	0.732	0.672-0.792	
Vinyl chloride	5.46	8.85	0.617 ok	0.611	0.551-0.671	
Vinyl Acetate	8.10	8.85	0.915 ok	0.915	0.855-0.975	
m,p-Xylene	15.38	14.75	1.043 ok	1.042	0.982-1.102	
o-Xylene	15.89	14.75	1.077 ok	1.077	1.017-1.137	
TVHC As Equiv Pentane	6.77	8.85	0.765 ok	0.762	0.702 - 0.822	
TVHC As Equiv Heptane	11.43	10.53	1.085 ok	1.087	1.027-1.147	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ /- 40 %)
Bromochloromethane	8.85 ok	8.79	8.46-9.12	79833	ok 78106	46864-109348
1,4-Difluorobenzene	10.53 ok	10.48	10.15-10.81	396802	ok 377650	226590-528710
Chlorobenzene-D5	14.75 ok	14.73	14.40-15.06	244631	ok 202605	121563-283647



Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.25	8.75	0.714	ok 0.718	0.658-0.778
Acrolein	6.15	8.75	0.703	ok 0.706	0.646-0.766
1,3-Butadiene	5.42	8.75	0.619	ok 0.623	0.563-0.683
Benzene	10.16	10.46	0.971	ok 0.972	0.912-1.032
Bromodichloromethane	11.10	10.46	1.061	ok 1.061	1.001-1.121
Bromoform	15.45	14.72	1.050	ok 1.050	0.990-1.110
Bromomethane	5.65	8.75	0.646	ok 0.649	0.589-0.709
Bromoethene	6.05	8.75	0.691	ok 0.695	0.635-0.755
n-Butane	5.46	8.75	0.624	ok 0.627	0.567-0.687
Benzyl Chloride	17.93	14.72	1.218	ok 1.218	1.158-1.278
n-Butylbenzene	18.73	14.72	1.272	ok 1.272	1.212-1.332
sec-Butylbenzene	18.07	14.72	1.228	ok 1.227	1.167-1.287
tert-Butylbenzene	17.76	14.72	1.207	ok 1.206	1.146-1.266
Carbon disulfide	7.25	8.75	0.829	ok 0.830	0.770-0.890
Chlorobenzene	14.76	14.72	1.003	ok 1.003	0.943-1.063
Chlorodifluoromethane	4.89	8.75	0.559	ok 0.563	0.503-0.623
Chloroethane	5.77	8.75	0.659	ok 0.663	0.603-0.723
Chloroform	8.86	8.75	1.013	ok 1.012	0.952-1.072
Chloromethane	5.12	8.75	0.585	ok 0.590	0.530-0.650
3-Chloropropene	7.07	8.75	0.808	ok 0.809	0.749-0.869
2-Chlorotoluene	17.03	14.72	1.157	ok 1.157	1.097-1.217
Carbon tetrachloride	10.30	8.75	1.177	ok 1.174	1.114-1.234
Cyclohexane	10.41	10.46	0.995	ok 0.996	0.936-1.056
1,1-Dichloroethane	7.90	8.75	0.903	ok 0.904	0.844-0.964
1,1-Dichloroethylene	6.88	8.75	0.786	ok 0.788	0.728-0.848
1,2-Dibromoethane	13.59	14.72	0.923	ok 0.924	0.864-0.984
1,2-Dichloroethane	9.52	8.75	1.088	ok 1.086	1.026-1.146
1,2-Dichloropropane	10.91	10.46	1.043	ok 1.043	0.983-1.103
1,4-Dioxane	11.15	10.46	1.066	ok 1.071	1.011-1.131
Dichlorodifluoromethane	4.99	8.75	0.570	ok 0.573	0.513-0.633
Dibromochloromethane	13.35	14.72	0.907	ok 0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.73	8.75	0.883	ok 0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.61	8.75	0.984	ok 0.983	0.923-1.043
cis-1,3-Dichloropropene	11.94	10.46	1.141	ok 1.141	1.081-1.201
m-Dichlorobenzene	17.95	14.72	1.219	ok 1.219	1.159-1.279
o-Dichlorobenzene	18.41	14.72	1.251	ok 1.251	1.191-1.311
p-Dichlorobenzene	18.03	14.72	1.225	ok 1.224	1.164-1.284
trans-1,3-Dichloropropene	12.44	10.46	1.189	ok 1.189	1.129-1.249
Di-Isopropyl ether	8.75	8.75	1.000	ok 1.000	0.940-1.060
2,3-Dimethylpentane	10.60	10.46	1.013	ok 1.013	0.953-1.073



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	9.53	8.75	1.089	ok	1.088	1.028-1.148
Ethanol	5.88	8.75			0.677	0.617-0.737
Ethylbenzene	15.15	14.72			1.029	0.969-1.089
Ethyl Acetate	8.77	8.75			1.002	0.942-1.062
4-Ethyltoluene	17.22	14.72			1.170	1.110-1.230
Freon 113	7.17	8.75			0.821	0.761-0.881
Freon 114	5.20	8.75			0.598	0.538-0.658
Freon 123	6.15	8.75			0.705	0.645-0.765
Freon 123A	6.19	8.75			0.710	0.650-0.770
Freon 152A	4.86	8.75			0.560	0.500-0.620
Heptane	11.37	10.46			1.087	1.027-1.147
Hexachlorobutadiene	20.87	14.72			1.417	1.357-1.477
Hexane	8.76	8.75			1.000	0.940-1.060
2-Hexanone	13.16	14.72			0.896	0.836-0.956
Iodomethane	6.83	8.75			0.783	0.723-0.843
Isopropylbenzene	16.50	14.72			1.121	1.061-1.181
Isopropyl Alcohol	6.44	8.75			0.743	0.683-0.803
p-Isopropyltoluene	18.25	14.72			1.239	1.179-1.299
Methylene chloride	6.97	8.75	0.797	ok	0.799	0.739-0.859
Methyl ethyl ketone	8.23	8.75			0.942	0.882-1.002
Methyl Isobutyl Ketone	11.97	10.46			1.146	1.086-1.206
Methyl Tert Butyl Ether	7.94	8.75			0.909	0.849-0.969
Methylmethacrylate	11.29	10.46			1.080	1.020-1.140
Nonane	16.06	14.72	1.091	ok	1.091	1.031-1.151
Octane	13.86	14.72	0.942	ok	0.942	0.882-1.002
Pentane	6.65	8.75	0.760	ok	0.762	0.702-0.822
n-Propylbenzene	17.06	14.72	1.159	ok	1.159	1.099-1.219
Propylene	4.92	8.75	0.562	ok	0.567	0.507-0.627
Styrene	15.73	14.72	1.069	ok	1.069	1.009-1.129
1,1,1-Trichloroethane	9.74	8.75	1.113	ok	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.74	14.72	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.85	14.72	1.077	ok	1.077	1.017-1.137
1,1,2-Trichloroethane	12.63	10.46	1.207	ok	1.207	1.147-1.267
1,2,4-Trichlorobenzene	20.36	14.72	1.383	ok	1.382	1.322-1.442
1,2,3-Trichloropropane	15.99	14.72	1.086	ok	1.087	1.027-1.147
1,2,4-Trimethylbenzene	17.77	14.72	1.207	ok	1.207	1.147-1.267
1,3,5-Trimethylbenzene	17.31	14.72	1.176	ok	1.176	1.116-1.236
2,2,4-Trimethylpentane	11.14	10.46	1.065	ok	1.065	1.005-1.125
Tertiary Butyl Alcohol	6.91	8.75	0.790	ok	0.798	0.738-0.858
Tetrachloroethylene	14.05	14.72	0.954	ok	0.955	0.895-1.015



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Tetrahydrofuran	9.24	8.75	1.056 ok	1.057	0.997-1.117	
Toluene	12.91	10.46	1.234 ok	1.233	1.173-1.293	
Trichloroethylene	11.13	10.46	1.064 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.38	8.75	0.729 ok	0.732	0.672-0.792	
Vinyl chloride	5.31	8.75	0.607 ok	0.611	0.551-0.671	
Vinyl Acetate	7.99	8.75	0.913 ok	0.915	0.855-0.975	
m,p-Xylene	15.34	14.72	1.042 ok	1.042	0.982-1.102	
o-Xylene	15.85	14.72	1.077 ok	1.077	1.017-1.137	
TVHC As Equiv Pentane	6.65	8.75	0.760 ok	0.762	0.702 - 0.822	
TVHC As Equiv Heptane	11.37	10.46	1.087 ok	1.087	1.027-1.147	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	8.75 ok	8.79	8.46-9.12	81658	ok 78106	46864-109348
1,4-Difluorobenzene	10.46 ok	10.48	10.15-10.81	404336	ok 377650	226590-528710
Chlorobenzene-D5	14.72 ok	14.73	14.40-15.06	210213	ok 202605	121563-283647



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Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
2		, ,				,
Acetone	6.36	8.85			0.718	0.658-0.778
Acrolein	6.27	8.85			0.706	0.646-0.766
1,3-Butadiene	5.55	8.85			0.623	0.563-0.683
Benzene	10.24	10.52			0.972	0.912-1.032
Bromodichloromethane	11.16	10.52			1.061	1.001-1.121
Bromoform	15.48	14.75			1.050	0.990-1.110
Bromomethane	5.77	8.85			0.649	0.589-0.709
Bromoethene	6.18	8.85			0.695	0.635-0.755
n-Butane	5.59	8.85			0.627	0.567-0.687
Benzyl Chloride	17.95	14.75			1.218	1.158-1.278
n-Butylbenzene	18.74	14.75			1.272	1.212-1.332
sec-Butylbenzene	18.09	14.75			1.227	1.167-1.287
tert-Butylbenzene	17.78	14.75	1.205	ok	1.206	1.146-1.266
Carbon disulfide	7.36	8.85		ok	0.830	0.770-0.890
Chlorobenzene	14.79	14.75		ok	1.003	0.943-1.063
Chlorodifluoromethane	5.02	8.85	0.567	ok	0.563	0.503-0.623
Chloroethane	5.91	8.85			0.663	0.603-0.723
Chloroform	8.96	8.85	1.012	ok	1.012	0.952-1.072
Chloromethane	5.26	8.85	0.594	ok	0.590	0.530-0.650
3-Chloropropene	7.18	8.85	0.811	ok	0.809	0.749-0.869
2-Chlorotoluene	17.05	14.75	1.156	ok	1.157	1.097-1.217
Carbon tetrachloride	10.36	8.85	1.171	ok	1.174	1.114-1.234
Cyclohexane	10.47	10.52	0.995	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.00	8.85	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.00	8.85	0.791	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.64	14.75	0.925	ok	0.924	0.864-0.984
1,2-Dichloroethane	9.60	8.85	1.085	ok	1.086	1.026-1.146
1,2-Dichloropropane	10.97	10.52	1.043	ok	1.043	0.983-1.103
1,4-Dioxane	11.20	10.52	1.065	ok	1.071	1.011-1.131
Dichlorodifluoromethane	5.11	8.85	0.577	ok	0.573	0.513-0.633
Dibromochloromethane	13.39	14.75	0.908	ok	0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.83	8.85	0.885	ok	0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.69	8.85	0.982	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.99	10.52	1.140	ok	1.141	1.081-1.201
m-Dichlorobenzene	17.97	14.75	1.218	ok	1.219	1.159-1.279
o-Dichlorobenzene	18.43	14.75	1.249	ok	1.251	1.191-1.311
p-Dichlorobenzene	18.05	14.75			1.224	1.164-1.284
trans-1,3-Dichloropropene	12.49	10.52	1.187	ok	1.189	1.129-1.249
Di-Isopropyl ether	8.84	8.85	0.999	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.66	10.52			1.013	0.953-1.073
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Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	9.61	8.85	1.086 ol	1.088	1.028-1.148
Ethanol	6.01	8.85	0.679 ol	0.677	0.617-0.737
Ethylbenzene	15.18	14.75	1.029 ol	1.029	0.969-1.089
Ethyl Acetate	8.86	8.85	1.001 ol	1.002	0.942-1.062
4-Ethyltoluene	17.24	14.75	1.169 ol	1.170	1.110-1.230
Freon 113	7.28	8.85	0.823 ol	0.821	0.761-0.881
Freon 114	5.33	8.85	0.602 ol	0.598	0.538-0.658
Freon 123	6.27	8.85	0.708 ol	0.705	0.645-0.765
Freon 123A	6.32	8.85	0.714 ol	0.710	0.650-0.770
Freon 152A	4.99	8.85	0.564 ol	0.560	0.500-0.620
Heptane	11.42	10.52	1.086 ol	1.087	1.027-1.147
Hexachlorobutadiene	20.87	14.75	1.415 ol	1.417	1.357-1.477
Hexane	8.85	8.85	1.000 ol	1.000	0.940-1.060
2-Hexanone	13.20	14.75	0.895 ol	0.896	0.836-0.956
Iodomethane	6.96	8.85	0.786 ol	0.783	0.723-0.843
Isopropylbenzene	16.52	14.75	1.120 ol	1.121	1.061-1.181
Isopropyl Alcohol	6.57	8.85	0.742 ol	0.743	0.683-0.803
p-Isopropyltoluene	18.26	14.75	1.238 ol	1.239	1.179-1.299
Methylene chloride	7.08	8.85	0.800 ol	0.799	0.739-0.859
Methyl ethyl ketone	8.33	8.85	0.941 ol	0.942	0.882-1.002
Methyl Isobutyl Ketone	12.03	10.52	1.144 ol	1.146	1.086-1.206
Methyl Tert Butyl Ether	8.04	8.85	0.908 ol	0.909	0.849-0.969
Methylmethacrylate	11.35	10.52	1.079 ol	1.080	1.020-1.140
Nonane	16.08	14.75	1.090 ol	1.091	1.031-1.151
Octane	13.90	14.75	0.942 ol	0.942	0.882-1.002
Pentane	6.76	8.85	0.764 ol	0.762	0.702-0.822
n-Propylbenzene	17.08	14.75		1.159	1.099-1.219
Propylene	5.05	8.85	0.571 ol	0.567	0.507-0.627
Styrene	15.76	14.75	1.068 ol	1.069	1.009-1.129
1,1,1-Trichloroethane	9.82	8.85	1.110 ol	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.78	14.75	1.002 ol	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.89	14.75	1.077 ol	1.077	1.017-1.137
1,1,2-Trichloroethane	12.68	10.52	1.205 ol	1.207	1.147-1.267
1,2,4-Trichlorobenzene	20.36	14.75	1.380 ol	1.382	1.322-1.442
1,2,3-Trichloropropane	16.03	14.75	1.087 ol	1.087	1.027-1.147
1,2,4-Trimethylbenzene	17.79	14.75	1.206 ol	1.207	1.147-1.267
1,3,5-Trimethylbenzene	17.33	14.75	1.175 ol	1.176	1.116-1.236
2,2,4-Trimethylpentane	11.19	10.52	1.064 ol	1.065	1.005-1.125
Tertiary Butyl Alcohol	7.04	8.85	0.795 ol	0.798	0.738-0.858
Tetrachloroethylene	14.08	14.75	0.955 ol	0.955	0.895-1.015



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	GCMSW	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Towart Commound	RT		Istd RT	Rel		Mean Rel		RT Range	
Target Compound	(min.)		(min.)	RT		RT	(+/	06)	
Tetrahydrofuran	9.32		8.85	1.053	ok	1.057	0.99	97-1.117	
Toluene	12.95		10.52	1.231	ok	1.233	1.17	73-1.293	
Trichloroethylene	11.19		10.52	1.064	ok	1.064	1.00	04-1.124	
Trichlorofluoromethane	6.50		8.85	0.734	ok	0.732	0.6	72-0.792	
Vinyl chloride	5.44		8.85	0.615	ok	0.611	0.55	51-0.671	
Vinyl Acetate	8.10		8.85	0.915	ok	0.915	0.83	55-0.975	
m, p-Xylene	15.37		14.75	1.042	ok	1.042	0.98	32-1.102	
o-Xylene	15.88		14.75	1.077	ok	1.077	1.0	17-1.137	
TVHC As Equiv Pentane	6.76		8.85	0.764	ok	0.762	0.70	02-0.822	
TVHC As Equiv Heptane	11.42		10.52	1.086	ok	1.087	1.02	27-1.147	
	RT		Mean	RT Ra	nge			Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ /- 0.	33)	Area		Area	(+ /- 40 %)
Bromochloromethane	8.85	ok	8.79	8.46-9.	12	75059	ok	78106	46864-109348
1,4-Difluorobenzene	10.52	ok	10.48	10.15-1	10.81	350825	ok	377650	226590-528710
Chlorobenzene-D5	14.75	ok	14.73	14.40-1	15.06	254841	ok	202605	121563-283647



Job Number: JA68565 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.29	8.77	0.717 ol	0.718	0.658-0.778
Acrolein	6.17	8.77	0.704 ol	0.706	0.646-0.766
1,3-Butadiene	5.44	8.77	0.620 ol	0.623	0.563-0.683
Benzene	10.17	10.46	0.972 ol	0.972	0.912-1.032
Bromodichloromethane	11.10	10.46	1.061 ol	1.061	1.001-1.121
Bromoform	15.45	14.72	1.050 ol	1.050	0.990-1.110
Bromomethane	5.66	8.77	0.645 ol	0.649	0.589-0.709
Bromoethene	6.07	8.77	0.692 ol	0.695	0.635-0.755
n-Butane	5.47	8.77	0.624 ol	0.627	0.567-0.687
Benzyl Chloride	17.93	14.72	1.218 ol	1.218	1.158-1.278
n-Butylbenzene	18.72	14.72	1.272 ol	1.272	1.212-1.332
sec-Butylbenzene	18.07	14.72	1.228 ol	1.227	1.167-1.287
tert-Butylbenzene	17.76	14.72	1.207 ol	1.206	1.146-1.266
Carbon disulfide	7.27	8.77	0.829 ol	0.830	0.770-0.890
Chlorobenzene	14.77	14.72	1.003 ol	1.003	0.943-1.063
Chlorodifluoromethane	4.91	8.77	0.560 ol	0.563	0.503-0.623
Chloroethane	5.79	8.77	0.660 ol	0.663	0.603-0.723
Chloroform	8.86	8.77	1.010 ol	1.012	0.952-1.072
Chloromethane	5.15	8.77	0.587 ol	0.590	0.530-0.650
3-Chloropropene	7.08	8.77	0.807 ol	0.809	0.749-0.869
2-Chlorotoluene	17.03	14.72	1.157 ol	1.157	1.097-1.217
Carbon tetrachloride	10.30	8.77	1.174 ol	1.174	1.114-1.234
Cyclohexane	10.41	10.46	0.995 ol	0.996	0.936-1.056
1,1-Dichloroethane	7.91	8.77	0.902 ol	0.904	0.844-0.964
1,1-Dichloroethylene	6.90	8.77	0.787 ol	0.788	0.728-0.848
1,2-Dibromoethane	13.59	14.72	0.923 ol	0.924	0.864-0.984
1,2-Dichloroethane	9.52	8.77	1.086 ol	1.086	1.026-1.146
1,2-Dichloropropane	10.92	10.46	1.044 ol	1.043	0.983-1.103
1,4-Dioxane	11.27	10.46	1.077 ol	1.071	1.011-1.131
Dichlorodifluoromethane	5.00	8.77	0.570 ol	0.573	0.513-0.633
Dibromochloromethane	13.35	14.72	0.907 ol	0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.74	8.77	0.883 ol	0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.61	8.77	0.982 ol	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.94	10.46	1.141 ol	1.141	1.081-1.201
m-Dichlorobenzene	17.95	14.72	1.219 ol	1.219	1.159-1.279
o-Dichlorobenzene	18.42	14.72	1.251 ol	1.251	1.191-1.311
p-Dichlorobenzene	18.03	14.72	1.225 ol	1.224	1.164-1.284
trans-1,3-Dichloropropene	12.45	10.46	1.190 ol	1.189	1.129-1.249
Di-Isopropyl ether	8.77	8.77	1.000 ol	1.000	0.940-1.060
2,3-Dimethylpentane	10.60	10.46	1.013 ol	1.013	0.953-1.073

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	GCMSW	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	9.54	8.77	1.088	ok	1.088	1.028-1.148
Ethanol	5.93	8.77	0.676	ok	0.677	0.617-0.737
Ethylbenzene	15.16	14.72	1.030	ok	1.029	0.969-1.089
Ethyl Acetate	8.78	8.77	1.001	ok	1.002	0.942-1.062
4-Ethyltoluene	17.22	14.72	1.170	ok	1.170	1.110-1.230
Freon 113	7.18	8.77	0.819	ok	0.821	0.761-0.881
Freon 114	5.22	8.77			0.598	0.538-0.658
Freon 123	6.16	8.77			0.705	0.645-0.765
Freon 123A	6.21	8.77		ok	0.710	0.650-0.770
Freon 152A	4.88	8.77			0.560	0.500-0.620
Heptane	11.38	10.46	1.088	ok	1.087	1.027-1.147
Hexachlorobutadiene	20.87	14.72	1.418	ok	1.417	1.357-1.477
Hexane	8.77	8.77	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.20	14.72	0.897	ok	0.896	0.836-0.956
Iodomethane	6.85	8.77	0.781	ok	0.783	0.723-0.843
Isopropylbenzene	16.50	14.72	1.121	ok	1.121	1.061-1.181
Isopropyl Alcohol	6.52	8.77	0.743	ok	0.743	0.683-0.803
p-Isopropyltoluene	18.25	14.72			1.239	1.179-1.299
Methylene chloride	6.99	8.77	0.797	ok	0.799	0.739-0.859
Methyl ethyl ketone	8.26	8.77	0.942	ok	0.942	0.882-1.002
Methyl Isobutyl Ketone	12.01	10.46	1.148	ok	1.146	1.086-1.206
Methyl Tert Butyl Ether	7.97	8.77	0.909	ok	0.909	0.849-0.969
Methylmethacrylate	11.31	10.46			1.080	1.020-1.140
Nonane	16.06	14.72	1.091	ok	1.091	1.031-1.151
Octane	13.86	14.72		ok	0.942	0.882-1.002
Pentane	6.66	8.77	0.759	ok	0.762	0.702-0.822
n-Propylbenzene	17.06	14.72			1.159	1.099-1.219
Propylene	4.94	8.77	0.563	ok	0.567	0.507-0.627
Styrene	15.73	14.72	1.069	ok	1.069	1.009-1.129
1,1,1-Trichloroethane	9.75	8.77	1.112	ok	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.75	14.72	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.86	14.72		ok	1.077	1.017-1.137
1,1,2-Trichloroethane	12.64	10.46	1.208	ok	1.207	1.147-1.267
1,2,4-Trichlorobenzene	20.36	14.72	1.383	ok	1.382	1.322-1.442
1,2,3-Trichloropropane	16.00	14.72	1.087	ok	1.087	1.027-1.147
1,2,4-Trimethylbenzene	17.77	14.72	1.207	ok	1.207	1.147-1.267
1,3,5-Trimethylbenzene	17.31	14.72	1.176	ok	1.176	1.116-1.236
2,2,4-Trimethylpentane	11.14	10.46			1.065	1.005-1.125
Tertiary Butyl Alcohol	7.01	8.77			0.798	0.738-0.858
Tetrachloroethylene	14.06	14.72	0.955	ok	0.955	0.895-1.015



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	<b>GCMSW</b>	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Tetrahydrofuran	9.30	8.77		1.057	0.997-1.117	
Toluene	12.91	10.46	1.234 ok	1.233	1.173-1.293	
Trichloroethylene	11.13	10.46	1.064 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.40	8.77	0.730 ok	0.732	0.672 - 0.792	
Vinyl chloride	5.33	8.77	0.608 ok	0.611	0.551-0.671	
Vinyl Acetate	8.01	8.77	0.913 ok	0.915	0.855-0.975	
m,p-Xylene	15.34	14.72	1.042 ok	1.042	0.982-1.102	
o-Xylene	15.85	14.72	1.077 ok	1.077	1.017-1.137	
TVHC As Equiv Pentane	6.66	8.77	0.759 ok	0.762	0.702 - 0.822	
TVHC As Equiv Heptane	11.38	10.46	1.088 ok	1.087	1.027-1.147	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ /- 40 %)
Bromochloromethane	8.77 ok	8.79	8.46-9.12	80679	ok 78106	46864-109348
1,4-Difluorobenzene	10.46 ok	10.48	10.15-10.81	367655	ok 377650	226590-528710
Chlorobenzene-D5	14.72 ok	14.73	14.40-15.06	163398	ok 202605	121563-283647



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.30	8.77	0.718	ok	0.718	0.658-0.778
Acrolein	6.19	8.77	0.706	ok	0.706	0.646-0.766
1,3-Butadiene	5.46	8.77	0.623	ok	0.623	0.563-0.683
Benzene	10.18	10.47	0.972	ok	0.972	0.912-1.032
Bromodichloromethane	11.11	10.47	1.061	ok	1.061	1.001-1.121
Bromoform	15.45	14.72	1.050	ok	1.050	0.990-1.110
Bromomethane	5.68	8.77	0.648	ok	0.649	0.589-0.709
Bromoethene	6.09	8.77	0.694	ok	0.695	0.635-0.755
n-Butane	5.49	8.77	0.626	ok	0.627	0.567-0.687
Benzyl Chloride	17.94	14.72	1.219	ok	1.218	1.158-1.278
n-Butylbenzene	18.73	14.72	1.272	ok	1.272	1.212-1.332
sec-Butylbenzene	18.08	14.72	1.228	ok	1.227	1.167-1.287
tert-Butylbenzene	17.77	14.72	1.207	ok	1.206	1.146-1.266
Carbon disulfide	7.27	8.77	0.829	ok	0.830	0.770-0.890
Chlorobenzene	14.77	14.72	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.92	8.77	0.561	ok	0.563	0.503-0.623
Chloroethane	5.81	8.77	0.662	ok	0.663	0.603-0.723
Chloroform	8.88	8.77	1.013	ok	1.012	0.952-1.072
Chloromethane	5.16	8.77	0.588	ok	0.590	0.530-0.650
3-Chloropropene	7.09	8.77	0.808	ok	0.809	0.749-0.869
2-Chlorotoluene	17.04	14.72	1.158	ok	1.157	1.097-1.217
Carbon tetrachloride	10.31	8.77	1.176	ok	1.174	1.114-1.234
Cyclohexane	10.43	10.47	0.996		0.996	0.936-1.056
1,1-Dichloroethane	7.93	8.77	0.904		0.904	0.844-0.964
1,1-Dichloroethylene	6.90	8.77	0.787	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.60	14.72	0.924	ok	0.924	0.864-0.984
1,2-Dichloroethane	9.54	8.77	1.088	ok	1.086	1.026-1.146
1,2-Dichloropropane	10.92	10.47	1.043	ok	1.043	0.983-1.103
1,4-Dioxane	11.39	10.47	1.088	ok		1.011-1.131
Dichlorodifluoromethane	5.02	8.77	0.572		0.573	0.513-0.633
Dibromochloromethane	13.35	14.72	0.907		0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.75	8.77	0.884	ok	0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.63	8.77	0.984	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.96	10.47	1.142	ok	1.141	1.081-1.201
m-Dichlorobenzene	17.95	14.72	1.219	ok	1.219	1.159-1.279
o-Dichlorobenzene	18.42	14.72	1.251	ok	1.251	1.191-1.311
p-Dichlorobenzene	18.03	14.72	1.225	ok	1.224	1.164-1.284
trans-1,3-Dichloropropene	12.46	10.47	1.190	ok		1.129-1.249
Di-Isopropyl ether	8.79	8.77	1.002	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.61	10.47	1.013	ok	1.013	0.953-1.073



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	9.56	8.77	1.090 ok	1.088	1.028-1.148
Ethylbenzene	15.15	14.72	1.029 ok	1.029	0.969-1.089
Ethyl Acetate	8.83	8.77	1.007 ok	1.002	0.942-1.062
4-Ethyltoluene	17.23	14.72	1.171 ok	1.170	1.110-1.230
Freon 113	7.19	8.77	0.820 ok	0.821	0.761-0.881
Freon 114	5.24	8.77	0.597 ok	0.598	0.538-0.658
Freon 123	6.18	8.77	0.705 ok	0.705	0.645-0.765
Freon 123A	6.22	8.77	0.709 ok	0.710	0.650-0.770
Freon 152A	4.90	8.77	0.559 ok	0.560	0.500-0.620
Heptane	11.38	10.47	1.087 ok	1.087	1.027-1.147
Hexachlorobutadiene	20.87	14.72	1.418 ok	1.417	1.357-1.477
Hexane	8.78	8.77	1.001 ok	1.000	0.940-1.060
2-Hexanone	13.26	14.72	0.901 ok	0.896	0.836-0.956
Iodomethane	6.86	8.77	0.782 ok	0.783	0.723-0.843
Isopropylbenzene	16.50	14.72		1.121	1.061-1.181
Isopropyl Alcohol	6.61	8.77		0.743	0.683-0.803
p-Isopropyltoluene	18.25	14.72		1.239	1.179-1.299
Methylene chloride	7.00	8.77	0.798 ok	0.799	0.739-0.859
Methyl ethyl ketone	8.31	8.77		0.942	0.882-1.002
Methyl Isobutyl Ketone	12.08	10.47		1.146	1.086-1.206
Methyl Tert Butyl Ether	7.99	8.77	0.911 ok	0.909	0.849-0.969
Methylmethacrylate	11.33	10.47	1.082 ok	1.080	1.020-1.140
Nonane	16.06	14.72		1.091	1.031-1.151
Octane	13.88	14.72	0.943 ok	0.942	0.882-1.002
Pentane	6.68	8.77	0.762 ok	0.762	0.702-0.822
n-Propylbenzene	17.06	14.72	1.159 ok	1.159	1.099-1.219
Propylene	4.96	8.77	0.566 ok	0.567	0.507-0.627
Styrene	15.74	14.72	1.069 ok	1.069	1.009-1.129
1,1,1-Trichloroethane	9.76	8.77	1.113 ok	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.75	14.72	1.002 ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.88	14.72	1.079 ok	1.077	1.017-1.137
1,1,2-Trichloroethane	12.64	10.47		1.207	1.147-1.267
1,2,4-Trichlorobenzene	20.36	14.72		1.382	1.322-1.442
1,2,3-Trichloropropane	16.01	14.72	1.088 ok	1.087	1.027-1.147
1,2,4-Trimethylbenzene	17.78	14.72	1.208 ok	1.207	1.147-1.267
1,3,5-Trimethylbenzene	17.31	14.72	1.176 ok	1.176	1.116-1.236
2,2,4-Trimethylpentane	11.15	10.47		1.065	1.005-1.125
Tertiary Butyl Alcohol	7.11	8.77		0.798	0.738-0.858
Tetrachloroethylene	14.06	14.72		0.955	0.895-1.015
Tetrahydrofuran	9.36	8.77	1.067 ok	1.057	0.997-1.117



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	GCMSW	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	<b>Rel RT Range</b> (+ /06)	
Toluene	12.91	10.47	1.233 ok	1.233	1.173-1.293	
Trichloroethylene	11.14	10.47	1.064 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.41	8.77	0.731 ok	0.732	0.672-0.792	
Vinyl chloride	5.34	8.77	0.609 ok	0.611	0.551-0.671	
Vinyl Acetate	8.04	8.77	0.917 ok	0.915	0.855-0.975	
m,p-Xylene	15.35	14.72	1.043 ok	1.042	0.982-1.102	
o-Xylene	15.85	14.72	1.077 ok	1.077	1.017-1.137	
TVHC As Equiv Pentane	6.68	8.77	0.762 ok	0.762	0.702-0.822	
TVHC As Equiv Heptane	11.38	10.47	1.087 ok	1.087	1.027-1.147	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	8.77 ok	8.79	8.46-9.12	69106	ok 78106	46864-109348
1,4-Difluorobenzene	10.47 ok	10.48	10.15-10.8	1 349114	ok 377650	226590-528710
Chlorobenzene-D5	14.72 ok	14.73	14.40-15.0	6 169427	ok 202605	121563-283647



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	GCMSW	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	GCMSW	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	GCMSW	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	GCMSW	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	GCMSW	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.27	8.75	0.717	ok	0.718	0.658-0.778
1,3-Butadiene	5.43	8.75	0.621	ok	0.623	0.563-0.683
Benzene	10.16	10.45	0.972	ok	0.972	0.912-1.032
Bromodichloromethane	11.09	10.45	1.061	ok	1.061	1.001-1.121
Bromoform	15.44	14.71	1.050	ok	1.050	0.990-1.110
Bromomethane	5.65	8.75	0.646	ok	0.649	0.589-0.709
Bromoethene	6.06	8.75	0.693	ok	0.695	0.635-0.755
n-Butane	5.46	8.75	0.624	ok	0.627	0.567-0.687
Carbon disulfide	7.25	8.75	0.829	ok	0.830	0.770-0.890
Chlorobenzene	14.75	14.71	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.90	8.75	0.560	ok	0.563	0.503-0.623
Chloroethane	5.79	8.75	0.662	ok	0.663	0.603-0.723
Chloroform	8.86	8.75	1.013	ok	1.012	0.952-1.072
Chloromethane	5.13	8.75	0.586	ok	0.590	0.530-0.650
3-Chloropropene	7.08	8.75	0.809	ok	0.809	0.749-0.869
2-Chlorotoluene	17.03	14.71	1.158	ok	1.157	1.097-1.217
Carbon tetrachloride	10.29	8.75	1.176	ok	1.174	1.114-1.234
Cyclohexane	10.41	10.45	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	7.90	8.75	0.903	ok	0.904	0.844-0.964
1,1-Dichloroethylene	6.90	8.75	0.789	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.58	14.71	0.923	ok	0.924	0.864-0.984
1,2-Dichloroethane	9.51	8.75	1.087	ok	1.086	1.026-1.146
1,2-Dichloropropane	10.91	10.45	1.044		1.043	0.983-1.103
Dichlorodifluoromethane	4.98	8.75	0.569		0.573	0.513-0.633
Dibromochloromethane	13.33	14.71	0.906	ok	0.907	0.847-0.967
trans-1,2-Dichloroethylene	7.75	8.75	0.886		0.884	0.824-0.944
cis-1,2-Dichloroethylene	8.60	8.75	0.983	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.94	10.45	1.143	ok	1.141	1.081-1.201
trans-1,3-Dichloropropene	12.44	10.45	1.190	ok	1.189	1.129-1.249
Di-Isopropyl ether	8.75	8.75	1.000	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.60	10.45	1.014	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.53	8.75	1.089		1.088	1.028-1.148
Ethylbenzene	15.14	14.71	1.029	ok	1.029	0.969-1.089
4-Ethyltoluene	17.22	14.71	1.171		1.170	1.110-1.230
Freon 113	7.18	8.75	0.821	ok	0.821	0.761-0.881
Freon 114	5.21	8.75	0.595		0.598	0.538-0.658
Freon 123	6.15	8.75	0.703		0.705	0.645-0.765
Freon 123A	6.18	8.75	0.706	ok	0.710	0.650-0.770
Heptane	11.36	10.45	1.087	ok	1.087	1.027-1.147
Hexane	8.75	8.75	1.000	ok	1.000	0.940-1.060



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	GCMSW	TO-15	Reporting this level
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	-

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT		RT Range	
Iodomethane	6.84	8.75	0.782	ok (	0.783	0.72	3-0.843	
Isopropylbenzene	16.50	14.71	1.122	ok 1	1.121	1.06	1-1.181	
Isopropyl Alcohol	6.49	8.75	0.742	ok (	0.743	0.68	3-0.803	
Methyl Isobutyl Ketone	12.01	10.45	1.149	ok 1	1.146	1.08	6-1.206	
Methyl Tert Butyl Ether	7.96	8.75	0.910	ok (	0.909	0.84	9-0.969	
Nonane	16.06	14.71	1.092	ok 1	1.091	1.03	1-1.151	
Octane	13.86	14.71	0.942	ok (	0.942	0.88	2-1.002	
Pentane	6.65	8.75	0.760	ok (	0.762	0.70	2-0.822	
n-Propylbenzene	17.06	14.71	1.160	ok 1	1.159	1.09	9-1.219	
Propylene	4.93	8.75	0.563	ok (	0.567	0.50	7-0.627	
Styrene	15.72	14.71	1.069	ok 1	1.069	1.00	9-1.129	
1,1,1-Trichloroethane	9.73	8.75	1.112	ok 1	1.111	1.05	1-1.171	
1,1,1,2-Tetrachloroethane	14.74	14.71	1.002	ok 1	1.002	0.94	2-1.062	
1,2,3-Trichloropropane	15.99	14.71	1.087	ok 1	1.087	1.02	7-1.147	
1,3,5-Trimethylbenzene	17.30	14.71	1.176	ok 1	1.176	1.11	6-1.236	
2,2,4-Trimethylpentane	11.13	10.45	1.065	ok 1	1.065	1.00	5-1.125	
Tertiary Butyl Alcohol	6.99	8.75	0.799	ok (	0.798	0.73	8-0.858	
Tetrachloroethylene	14.06	14.71	0.956	ok (	0.955	0.89	5-1.015	
Toluene	12.90	10.45	1.234	ok 1	1.233	1.17	3-1.293	
Trichloroethylene	11.13	10.45	1.065	ok 1	1.064	1.00	4-1.124	
Trichlorofluoromethane	6.38	8.75	0.729	ok (	0.732	0.67	2-0.792	
Vinyl chloride	5.32	8.75	0.608	ok (	0.611	0.55	1-0.671	
m,p-Xylene	15.34	14.71	1.043	ok 1	1.042	0.98	2-1.102	
o-Xylene	15.84	14.71	1.077	ok 1	1.077	1.01	7-1.137	
TVHC As Equiv Pentane	6.65	8.75	0.760	ok (	0.762	0.70	2-0.822	
TVHC As Equiv Heptane	11.36	10.45	1.087	ok 1	1.087	1.02	7-1.147	
Internal Standard	RT (min.)	Mean RT(min.)	RT Rans (+ /- 0.3	_	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.75	ok 8.79	8.46-9.1	2	82639	ok	78106	46864-109348
1,4-Difluorobenzene		ok 10.48	10.15-10		381399		377650	226590-528710
Chlorobenzene-D5		ok 14.73	14.40-15		177868		202605	121563-283647



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Lab File ID	Injected	By Level	Inst ID	Method	
W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	Reporting this level
	W29766.D W29770.D W29771.D W29774.D W29775.D W29776.D W29777.D	W29766.D 01/19/11 17:47 W29770.D 01/19/11 21:46 W29771.D 01/19/11 22:26 W29774.D 01/20/11 01:46 W29775.D 01/20/11 06:34 W29776.D 01/20/11 07:15 W29777.D 01/20/11 11:23	W29766.D 01/19/11 17:47 YMH 10 W29770.D 01/19/11 21:46 YMH 20 W29771.D 01/19/11 22:26 YMH 5 W29774.D 01/20/11 01:46 YMH 40 W29775.D 01/20/11 06:34 YMH 0.5 W29776.D 01/20/11 07:15 YMH 0.2 W29777.D 01/20/11 11:23 YMH 0.1	W29766.D       01/19/11 17:47       YMH 10       GCMSW         W29770.D       01/19/11 21:46       YMH 20       GCMSW         W29771.D       01/19/11 22:26       YMH 5       GCMSW         W29774.D       01/20/11 01:46       YMH 40       GCMSW         W29775.D       01/20/11 06:34       YMH 0.5       GCMSW         W29776.D       01/20/11 07:15       YMH 0.2       GCMSW         W29777.D       01/20/11 11:23       YMH 0.1       GCMSW	W29766.D       01/19/11 17:47       YMH 10       GCMSW       TO-15         W29770.D       01/19/11 21:46       YMH 20       GCMSW       TO-15         W29771.D       01/19/11 22:26       YMH 5       GCMSW       TO-15         W29774.D       01/20/11 01:46       YMH 40       GCMSW       TO-15         W29775.D       01/20/11 06:34       YMH 0.5       GCMSW       TO-15         W29776.D       01/20/11 07:15       YMH 0.2       GCMSW       TO-15         W29777.D       01/20/11 11:23       YMH 0.1       GCMSW       TO-15

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
1,3-Butadiene	5.45	8.77	0.621	ok	0.623	0.563-0.683
Benzene	10.18	10.47	0.972	ok	0.972	0.912-1.032
Bromodichloromethane	11.11	10.47	1.061	ok	1.061	1.001-1.121
Bromoform	15.45	14.72	1.050	ok	1.050	0.990-1.110
Bromoethene	6.08	8.77	0.693	ok	0.695	0.635-0.755
Carbon disulfide	7.28	8.77	0.830	ok	0.830	0.770-0.890
Chlorobenzene	14.76	14.72	1.003	ok	1.003	0.943-1.063
Chloroform	8.86	8.77	1.010	ok	1.012	0.952-1.072
Carbon tetrachloride	10.30	8.77	1.174	ok	1.174	1.114-1.234
1,1-Dichloroethane	7.92	8.77	0.903	ok	0.904	0.844-0.964
1,2-Dibromoethane	13.59	14.72	0.923	ok	0.924	0.864-0.984
1,2-Dichloroethane	9.53	8.77	1.087	ok	1.086	1.026-1.146
1,2-Dichloropropane	10.92	10.47	1.043	ok	1.043	0.983-1.103
Dibromochloromethane	13.36	14.72	0.908	ok	0.907	0.847-0.967
cis-1,3-Dichloropropene	11.96	10.47	1.142	ok	1.141	1.081-1.201
trans-1,3-Dichloropropene	12.46	10.47	1.190	ok	1.189	1.129-1.249
Di-Isopropyl ether	8.79	8.77	1.002	ok	1.000	0.940-1.060
2,4-Dimethylpentane	9.55	8.77	1.089	ok	1.088	1.028-1.148
Ethylbenzene	15.16	14.72	1.030	ok	1.029	0.969-1.089
Freon 113	7.19	8.77	0.820	ok	0.821	0.761-0.881
Freon 114	5.23	8.77	0.596	ok	0.598	0.538-0.658
Freon 123	6.18	8.77	0.705	ok	0.705	0.645-0.765
Freon 123A	6.22	8.77	0.709	ok	0.710	0.650-0.770
Heptane	11.38	10.47	1.087	ok	1.087	1.027-1.147
Hexane	8.78	8.77	1.001		1.000	0.940-1.060
Iodomethane	6.86	8.77	0.782	ok	0.783	0.723-0.843
Isopropylbenzene	16.50	14.72	1.121	ok	1.121	1.061-1.181
Nonane	16.07	14.72	1.092	ok	1.091	1.031-1.151
Octane	13.88	14.72	0.943	ok		0.882-1.002
Styrene	15.74	14.72	1.069	ok	1.069	1.009-1.129
1,1,1-Trichloroethane	9.75	8.77	1.112	ok	1.111	1.051-1.171
1,1,1,2-Tetrachloroethane	14.75	14.72	1.002	ok	1.002	0.942-1.062
1,1,2-Trichloroethane	12.65	10.47	1.208	ok	1.207	1.147-1.267
1,2,3-Trichloropropane	16.00	14.72	1.087	ok	1.087	1.027-1.147
2,2,4-Trimethylpentane	11.15	10.47	1.065	ok	1.065	1.005-1.125
Tetrachloroethylene	14.06	14.72	0.955	ok	0.955	0.895-1.015
Toluene	12.92	10.47	1.234	ok	1.233	1.173-1.293
Trichloroethylene	11.13	10.47	1.063	ok	1.064	1.004-1.124
m,p-Xylene	15.34	14.72	1.042	ok	1.042	0.982-1.102
o-Xylene	15.85	14.72	1.077	ok	1.077	1.017-1.137



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA68565 Page 81 of 81

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1222-ICC1222	W29766.D	01/19/11 17:47	YMH 10	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29770.D	01/19/11 21:46	YMH 20	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29771.D	01/19/11 22:26	YMH 5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29774.D	01/20/11 01:46	YMH 40	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29775.D	01/20/11 06:34	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29776.D	01/20/11 07:15	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29777.D	01/20/11 11:23	YMH 0.1	<b>GCMSW</b>	TO-15	
VW1222-IC1222	W29778.D	01/20/11 12:02	YMH 0.04	GCMSW	TO-15	Reporting this level

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.77	ok	8.79	8.46-9.12	69266	ok	78106	46864-109348
1,4-Difluorobenzene	10.47	ok	10.48	10.15-10.81	322539	ok	377650	226590-528710
Chlorobenzene-D5	14.72	ok	14.73	14.40-15.06	151912	ok	202605	121563-283647



### Volatile Surrogate Recovery Summary Job Number: JA68565

Job Number: JA68565 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Method: TO-15 Matrix: AIR

#### Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
JA68565-1	3W21011.D	102.0
JA68565-1	3W21000.D	109.0
JA68565-2	3W21001.D	108.0
JA68565-3	3W20984.D	109.0
JA68565-4	3W21012.D	107.0
JA68565-4	3W20985.D	108.0
JA68565-5	3W21028.D	110.0
JA68565-5	3W20987.D	110.0
JA68565-6	3W21014.D	112.0
JA68565-6	3W20988.D	109.0
JA68565-7	3W20989.D	109.0
JA68565-8	3W20990.D	110.0
JA68565-9	3W20991.D	113.0
JA68565-10	3W21015.D	106.0
JA68565-10	3W20992.D	110.0
JA68565-11	3W20993.D	111.0
JA68565-12	3W21016.D	108.0
JA68565-12	3W20994.D	112.0
JA68565-4DUP	3W20986.D	112.0
JA68864-8DUP	3W21018.D	102.0
V2W1256-SCC	2W29765.D	84.0
V3W828-BS	3W20973.D	101.0
V3W828-BSD	3W20974.D	102.0
V3W828-MB	3W20975.D	84.0
V3W829-BS	3W21004.D	110.0
V3W829-BSD	3W21005.D	109.0
V3W829-MB	3W21006.D	78.0
VW1236-SCC	W30133.D	96.0
V2W1256-BS	2W29759.D	97.0
V2W1256-BSD	2W29760.D	98.0
V2W1256-MB	2W29761.D	89.0
VW1236-BS	W30127.D	101.0
VW1236-BSD	W30128.D	99.0
VW1236-MB	W30129.D	86.0

Surrogate Recovery Compounds Limits

S1 = 4-Bromofluorobenzene 65-128%

0.000 -1.00

**Initial Calibration Summary** Job Number: JA68565

RAVIV TRC

Page 1 of 2 Sample: V2W1240-ICC1240 Lab FileID: 2W29354.D

Lockheed Electronics Co, Watchung, NJ **Project:** 

Response Factor Report MS2W

Method Path : C:\msdchem\1\METHODS\

Method File : M2W1240.M

1) I BROMOCHLOROMETHANE

FREON 115

Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

Last Update : Mon Feb 28 10:02:56 2011 Response Via : Initial Calibration

Calibration Files

0.04=2W29359.D 0.1 = 2W29358.D 0.2 = 2W29353.D 0.5 = 2W29355.D 5.0 = 2W29357.D 10. = 2W29354.D 20. = 2W29356.D

40 =2W29362.D

2)

Account:

0.04 0.1 0.2 0.5 5.0 10. 20. 40 Avg %RSD Compound

-----ISTD-----

3) DICHLORODIFLUO... 7.220 6.524 6.728 5.607 4.365 4.685 4.407 4.139 5.459 FREON 152A 2.204 1.594 1.023 1.089 1.051 0.983 1.324 0.782 0.591 0.423 0.443 0.427 0.398 0.511 5) CHLORODIFLUORO... CHLORODIFLUORO... 0.782 0.591 0.423 0.443 0.427 0.398 0.511 PROPYLENE 2.020 1.960 1.614 1.251 1.371 1.280 1.214 1.530 FREON 114 7.718 7.423 6.928 6.314 5.112 5.470 5.229 4.891 6.136 6) 7) 8) CHLOROMETHANE 0.727 0.599 0.457 0.495 0.463 0.438 0.530 VINYL CHLORIDE 2.387 2.381 2.375 2.190 1.723 1.844 1.782 1.687 2.046 9) 1,3-BUTADIENE 1.669 1.645 1.718 1.534 1.288 1.405 1.361 1.289 1.489 10) 11.78 3.758 3.332 2.580 2.777 2.654 2.453 2.926 11) n-BUTANE 17.41 BROMOMETHANE 1.981 2.192 2.151 2.006 1.612 1.713 1.652 1.574 1.860 12) CHLOROETHANE 1.213 1.168 1.309 1.214 0.962 1.049 1.016 0.965 1.112 13) 11.78 FREON 123 6.160 5.833 5.782 5.336 4.391 4.714 4.549 4.251 5.127 14) 14 47 15) FREON 123A 3.564 3.323 3.307 3.071 2.472 2.655 2.558 2.382 2.917 15.56 16) TRICHLOROFLUOR... 6.936 6.294 6.094 5.583 4.445 4.720 4.522 4.244 5.355 18.86 17) ISOPROPYL ALCOHOL 2.722 2.766 2.663 2.369 2.724 2.913 2.924 2.726 18) ACETONE 0.617 0.815 0.741 0.530 0.695 0.742 0.736 0.697 13.57 2.331 2.494 2.248 1.781 1.886 1.788 1.693 2.032 15.66 19) PENTANE 20) H TVHC as EQUIV ... 1.086 0.841 0.897 1.155 0.982 0.964 0.883 0.839 0.956 E1 12.06 21) 4.581 4.464 5.090 4.812 4.062 4.333 4.244 4.040 4.453 22) 1,1-DICHLOROET... 1.872 1.820 2.099 2.029 1.661 1.807 1.762 1.676 1.841 CARBON DISULFIDE 6.124 5.868 5.910 5.116 4.172 4.513 4.440 4.223 5.046 16.21 23) 24) ETHANOL 0.670 0.797 0.424 0.494 0.537 0.535 0.576 23.41 BROMOETHENE 1.759 1.977 1.909 1.888 1.595 1.712 1.668 1.598 1.763 8.30 25) METHYLENE CHLO... 2.020 1.686 1.324 1.459 1.428 1.380 1.550 16.88 26) 3-CHLOROPROPENE 0.640 0.715 0.763 0.719 0.700 0.795 0.808 0.789 0.741 27) 7 78 3.932 3.740 3.698 3.425 2.872 3.015 2.907 2.705 3.287 28) 29) TRANS-1,2-DICH... 2.076 1.943 1.522 1.500 1.688 1.689 1.664 1.726 30) TERTIARY BUTYL... 2.730 3.612 3.512 3.600 2.964 3.415 3.784 3.677 3.412 31) METHYL TERTIAR... 5.034 5.163 5.378 4.972 5.442 5.475 5.232 5.242 3.78 32) TETRAHYDROFURAN 0.726 0.772 0.450 0.705 0.825 0.852 0.722 3.401 3.481 3.382 3.169 2.599 2.911 2.776 2.635 3.044 33) 0.130 0.253 0.304 0.342 0.398 0.417 0.307 34) VINYL ACETATE 35) 1,1-DICHLOROET... 3.755 3.635 3.876 3.647 3.067 3.402 3.265 3.068 3.464 36) METHYL ETHYL K... 0.404 0.611 0.572 0.645 0.776 0.836 0.641 37) cis-1,2-DICHLO... 1.682 1.543 1.517 1.512 1.554 1.763 1.772 1.743 1.636 0.524 0.371 0.317 0.394 0.469 0.491 0.428 38) ETHYL ACETATE 18.59 3.769 3.673 3.679 4.073 3.444 3.802 3.692 3.509 3.705 39) CHLOROFORM 2,4-DIMETHYLPE... 4.794 4.596 4.745 4.412 3.624 3.910 3.776 3.568 4.178 40) 1,1,1-TRICHLOR... 5.166 4.919 5.104 4.591 3.897 4.156 4.005 3.766 4.450 12.71 41) 42) CARBON TETRACH... 5.204 5.043 5.119 4.822 3.954 4.245 4.061 3.770 4.527 12.83 43) 1,2-DICHLOROET... 1.548 1.775 1.903 1.833 1.816 2.068 2.086 2.018 1.881

44) I 1,4-DIFLUOROBENZENE -----ISTD------ISTD-----



G

Page 2 of 2 **Sample:** V2W1240-ICC1240

Account: RAVIV TRC Sample: V2W1240-ICC12
Lab FileID: 2W29354.D

**Project:** Lockheed Electronics Co, Watchung, NJ

45)	BENZENE	1.216	1.137	1.157	1.096	1.028	1.085	1.086	1.034	1.105	5.71
46)	CYCLOHEXANE	0.849	0.763	0.755	0.685	0.619	0.625	0.619	0.578	0.687	13.66
47)	2,3-DIMETHYLPE	0.391	0.360	0.355	0.339	0.294	0.292	0.292	0.271	0.324	13.14
48)	TRICHLOROETHYLENE	0.585	0.513	0.454	0.424	0.402	0.430	0.446	0.424	0.460	13.14
49)	1,2-DICHLOROPR		0.405	0.344	0.350	0.386	0.405	0.410	0.388	0.384	6.96
50)	BROMODICHLOROM	0.816	0.714	0.688	0.638	0.677	0.728	0.734	0.697	0.712	7.34
51)	2,2,4-TRIMETHY	2.703	2.365	2.325	2.141	1.950	1.932	2.000	1.808	2.153	13.71
52)	1,4-DIOXANE			0.138	0.115	0.120	0.158	0.212	0.221	0.161	28.51
53)	METHYL METHACR			0.323	0.269	0.325	0.360	0.396	0.393	0.344	14.00
54)	HEPTANE	0.730	0.630	0.666	0.634	0.629	0.636	0.627	0.584	0.642	6.52
55) H	TVHC as EQUIV	3.082	2.757	2.594	2.468	2.978	3.039	2.938	2.663	2.815	8.04
56)	METHYL ISOBUTY			0.240	0.250	0.233	0.276	0.312	0.309	0.270	12.83
57)	cis-1,3-DICHLO		0.478	0.396	0.434	0.464	0.525	0.551	0.538	0.484	11.87
58)	TOLUENE	0.709	0.698	0.653	0.594	0.681	0.731	0.750	0.717	0.692	7.15
59)	trans-1,3-DICH			0.229	0.214	0.324	0.384	0.413	0.417	0.330	27.50
60)	1,1,2-TRICHLOR	0.306	0.299	0.306	0.287	0.327	0.354	0.360	0.345	0.323	8.48
61) I	CHLOROBENZENE-D5				IST	D					
62)	2-HEXANONE			0.514	0.574	0.528	0.605	0.694	0.654	0.595	11.90
63)	TETRACHLOROETH	0.995	0.983	0.972	1.028	0.944	0.930	0.857	0.743	0.932	9.84
64)	DIBROMOCHLOROM	1.353	1.415	1.325	1.286	1.430	1.463	1.360	1.182	1.352	6.65
65)	1,2-DIBROMOETHANE	0.781	0.958	0.920	0.906	0.947	1.031	1.002	0.914	0.932	8.07
66)	OCTANE	1.909	1.731	1.663	1.764	1.874	1.832	1.694	1.437	1.738	8.58
67)	1,1,1,2-TETRAC	1.290	1.207	1.298	1.329	1.288	1.198	1.104	0.930	1.206	11.05
68)	CHLOROBENZENE	1.870	1.814	1.583	1.604	1.640	1.717	1.634	1.445	1.664	8.11
69)	ETHYLBENZENE	3.246	3.197	2.826	2.734	3.221	3.217	3.088	2.738	3.033	7.52
70)	m,p-XYLENE	1.126	1.183	1.065	1.029	1.227	1.228	1.177	1.011	1.131	7.67
71)	O-XYLENE	1.109	1.171	1.053	1.030	1.248	1.221	1.153	0.981	1.121	8.43
72)	STYRENE		0.943	1.016	1.021	1.306	1.448	1.479	1.389	1.229	18.58
73)	NONANE	1.154	1.387	1.400	1.376	1.759	1.740	1.614	1.365	1.474	14.24
74)	BROMOFORM		1.029	1.112	0.997	1.127	1.198	1.139	1.023	1.089	6.78
75) S	4-BROMOFLUOROB	0.968	0.994	1.031	1.080	1.095	1.098	1.081	1.030	1.047	4.68
76)	1,1,2,2-TETRAC	1.763	1.656	1.291	1.175	1.571	1.570	1.492	1.281	1.475	13.95
77)	ISOPROPYLBENZENE	3.250	3.336	3.012	2.942	3.782	3.659	3.453	2.945	3.298	9.76
78)	2-CHLOROTOLUENE		0.691	0.578	0.594	0.727	0.742	0.711	0.632	0.668	9.92
79)	n-PROPYLBENZENE		0.678	0.688	0.627	0.825	0.869	0.835	0.739	0.752	12.33
80)	4-ETHYLTOLUENE		1.730	1.775	1.886	2.643	2.891	2.838	2.526	2.327	22.02
81)	1,3,5-TRIMETHY		1.772	1.797	1.880	2.605	2.668	2.538	2.187	2.207	17.99
82)	TERT-BUTYLBENZENE		0.411	0.424	0.434	0.667	0.653	0.603	0.496	0.527	21.20
83)	1,2,4-TRIMETHY		1.304	1.374	1.640	2.163	2.343	2.275	1.920	1.860	22.98
84)	m-DICHLOROBENZENE			0.524	0.599	0.913	0.979	0.993	0.956	0.827	25.25
85)	BENZYL CHLORIDE				0.621						39.07
86)	p-DICHLOROBENZENE				0.680						19.68
87)	SEC-BUTYLBENZENE				0.533						18.13
	p-ISOPROPYLTOL				0.378						31.79
	o-DICHLOROBENZENE				0.594						23.98
90)	n-BUTYLBENZENE				0.221						22.26
91)	HEXACHLOROBUTA									0.386	22.45
92)	1,2,4-TRICHLOR			0.169	0.241	0.216	0.237	0.242	0.224	0.221	12.47
02)	CHLOROBENZENE-D5(	7. )			тот	D					
	NAPHTHALENE	n./								0.722	47.74
	NAPHTHALENE										u/./4

(#) = Out of Range

M2W1240.M Mon Feb 28 10:04:38 2011 BUTT



### **Initial Calibration Verification**

Page 1 of 3 V2W1240-ICV1240 Job Number: JA68565 Sample:

**RAVIV TRC** Account: Lab FileID: 2W29365.D

Lockheed Electronics Co, Watchung, NJ **Project:** 

#### Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\

Data File : 2w29365.d

Acq On : 21 Jan 2011 7:32 pm

Operator : YOUMINH Sample : ICV1240-10

Misc : MS2686, V2W1240,,,,1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 11:03:14 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev Area	% Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0 10	0 0.01
2	FREON 115	0.000	0.000	0.0	0.00
3	DICHLORODIFLUOROMETHANE	5.459	4.249	22.2 9 26.3 9	1 0.00
4	FREON 152A	1.324	0.976	26.3 9	0.00
5	CHLORODIFLUOROMETHANE	0.511	0.398	22.1 9	0.00
6	PROPYLENE	1.530	1.233	19.4 9	0.00
7	FREON 114	6.136	4.884		9 0.00
8	CHLOROMETHANE	0.530	0.443		0.00
9	VINYL CHLORIDE	2.046	1.659	18.9 9	0.00
10	1,3-BUTADIENE	1.489	1.241	16.7 8	8 0.00
11	n-BUTANE	2.926	2.508	14.3 9	0.00
12	BROMOMETHANE	1.860	1.537		0.00
13	CHLOROETHANE	1.112	0.926	16.7 8	8 0.00
14	FREON 123	5.127	4.182	16.7 8 18.4 8 19.6 8	9 0.00
15	FREON 123A	2.917	2.344	19.6 8	8 0.00
16	TRICHLOROFLUOROMETHANE	5.355	4.181	21.9 8	9 0.00
	ISOPROPYL ALCOHOL	2.726	2.230	18.2 8	2 0.00
18	ACETONE	0.697	0.537	23.0 7	7 0.00
19	PENTANE TVHC as EQUIV PENTANE	2.032	1.721	15.3 9	1 0.00
20 H	TVHC as EQUIV PENTANE	9.559	8.585	10.2 8	9 0.00
21	IODOMETHANE	4.453	3.825		8 0.00
22	1,1-DICHLOROETHYLENE	1.841	1.605	12.8 8	9 0.00
23	CARBON DISULFIDE	5.046	3.974	21.2 8	8 0.00
24	ETHANOL	0.576	0.432	25.0 8	8 0.04
25	BROMOETHENE	1.763	1.523	13.6 8	9 0.00
26	METHYLENE CHLORIDE	1.550	1.288	25.0 8 13.6 8 16.9 8	8 0.00
	3-CHLOROPROPENE	0.741	0.681		6 0.00
28	FREON 113	3.287	2.657	19.2 8	8 0.00
29	TRANS-1,2-DICHLOROETHYLENE	1.726	1.460	15.4 8	6 0.00
30	TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ETHER	3.412	2.830	17.1 8	3 0.04
31	METHYL TERTIARY BUTYL ETHER	5.242	4.483	14.5 8	2 0.01
32	TETRAHYDROFURAN		0.544		7 0.04
33	HEXANE	3.044	2.537	16.7 8	7 0.00
34	VINYL ACETATE	0.307	0.300	2.3 8	8 0.02
35	1,1-DICHLOROETHANE	3.464	2.967 0.499	14.3 8	7 0.00
30	MEIRIL EIRIL KEIONE	0.641	0.499	44.4	7 0.00
37	cis-1,2-DICHLOROETHYLENE	1.636	1.516	7.3 8	6 0.00
38	ETHYL ACETATE	0.428			1 0.02



#### **Initial Calibration Verification**

Job Number: JA68565 Sample: V2W1240-ICV1240 **RAVIV TRC** Lab FileID: 2W29365.D Account: Lockheed Electronics Co, Watchung, NJ **Project:**  
 3.705
 3.307
 10.7
 87
 0.00

 4.178
 3.428
 18.0
 88
 0.00

 4.450
 3.636
 18.3
 87
 0.00

 4.527
 3.695
 18.4
 87
 0.00

 1.881
 1.717
 8.7
 83
 0.00
 39 CHLOROFORM 2,4-DIMETHYLPENTANE 40 1,1,1-TRICHLOROETHANE
CARBON TETRACHLORIDE 41 42 43 1,2-DICHLOROETHANE 44 I 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 92 0.00
45 BENZENE 1.105 1.028 7.0 87 0.00
46 CYCLOHEXANE 0.687 0.598 13.0 88 0.00
47 2,3-DIMETHYLPENTANE 0.324 0.281 13.3 88 0.00
48 TRICHLOROETHYLENE 0.460 0.404 12.2 86 0.00
49 1,2-DICHLOROPROPANE 0.384 0.383 0.3 87 0.00
50 BROMODICHLOROMETHANE 0.712 0.723 -1.5 91 0.00
51 2,2,4-TRIMETHYLPENTANE 2.153 1.867 13.3 88 0.00
52 1,4-DIOXANE 0.161 0.157 2.5 91 0.03
53 METHYL METHACRYLATE 0.344 0.314 8.7 80 0.01
54 HEPTANE 0.642 0.606 5.6 87 0.00
55 H TVHC as EQUIV HEPTANE 2.815 2.919 -3.7 88 0.00
56 METHYL ISOBUTYL KETONE 0.270 0.243 10.0 81 0.02
57 cis-1,3-DICHLOROPROPENE 0.484 0.476 1.7 83 0.00
58 TOLUENE 0.692 0.679 1.9 85 0.00
59 trans-1,3-DICHLOROPROPENE 0.330 0.340 -3.0 81 0.00
60 1,1,2-TRICHLOROETHANE 0.323 0.330 -2.2 85 0.00 | Characteristrict | Chicago | Chica 1.000 1.000 0.0 93 0.00 0.722 0.000 100.0# 0# -18.41# 93 CHLOROBENZENE-D5(A) NAPHTHALENE \_\_\_\_\_



## **Initial Calibration Verification**

Page 3 of 3 Job Number: JA68565 Sample: V2W1240-ICV1240 Lab FileID: 2W29365.D

**RAVIV TRC** Account: **Project:** Lockheed Electronics Co, Watchung, NJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0

M2W1240.M Mon Feb 28 11:03:54 2011 BUTT

Page 1 of 2

### **Continuing Calibration Summary**

Job Number: JA68565 V2W1256-CC1240 Sample: **RAVIV TRC** Account: Lab FileID: 2W29758.D

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Data File :  $C:\msdchem\1\DATA\2w\v2w1256\2w29758.D$ Vial: 2

Acq On : 14 Feb 2011 7:33 am Operator: YOUMINH Sample : CC1240-10 Misc : MS8244, V2W1256, 400,,,,1 Inst : MS2W Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\msdchem\1\METHODS\M2W1240.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um Title

Last Update : Mon Feb 28 10:02:56 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.30min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(mi	n)R.T.
1 I 2	BROMOCHLOROMETHANE FREON 115	1.000	1.000	0.0		0.00	7.30
3	DICHLORODIFLUOROMETHANE	5.459	4.424		138		3.83
4	FREON 152A	1.324	1.052	20.5	141	0.00	3.73
5	CHLORODIFLUOROMETHANE	0.511	0.443		146	0.00	3.76
6	PROPYLENE	1.530			146	0.00	3.78
7	FREON 114	6.136	1.366 5.025	18.1	135	0.00	3.99
8	CHLOROMETHANE	0.530	0.466	12.1	138	0.00	3.93
9	VINYL CHLORIDE	2.046			137	0.00	4.06
10	1,3-BUTADIENE	1.489	1.725 1.332	10.5	139	0.00	4.15
11	n-BUTANE	2.926	2.669		141	0.00	4.18
12	BROMOMETHANE	1.860	1.609	13.5	138	0.00	4.32
13	CHLOROETHANE	1.112	0.980	11.9	137	0.00	4.42
14	FREON 123	5.127	4.466	12.9	139	0.00	4.72
15	FREON 123A	2.917	2.488	14.7	137	0.00	4.76
16	TRICHLOROFLUOROMETHANE	5.355	2.488 4.567	14.7	142	-0.01	4.90
17	ISOPROPYL ALCOHOL	2.726	2.578	5.4	139	-0.03	5.08
18	ACETONE	0.697	0.600	13.9	126	-0.02	4.92
19	PENTANE	2.032	1.810	10.9	141	-0.01	5.14
20 H	TVHC as EQUIV PENTANE	9.559	9.429	1.4	143	0.00	5.14
21	IODOMETHANE	4.453	4.038	9.3	136	0.00	5.30
22	1,1-DICHLOROETHYLENE	1.841	1.701		138	-0.01	5.35
23	CARBON DISULFIDE	5.046	4.190	17.0	136	-0.01	5.68
24	ETHANOL	0.576	0.466	19.1	138	0.02	4.63
25	BROMOETHENE	1.763	1.590	9.8	136	0.00	4.64
26	METHYLENE CHLORIDE	1.550	1.340	13.5	134	0.00	5.44
27	3-CHLOROPROPENE	0.741	0.717	3.2	132	-0.01	5.53
28	FREON 113		2.836	13.7	138	-0.01	5.64
29	TRANS-1,2-DICHLOROETHYLEN	1.726	1.490	13.7	129	-0.01	6.21
30	TERTIARY BUTYL ALCOHOL	3.412	3.294	3.5	141	0.01	5.47
31	METHYL TERTIARY BUTYL ETH	5.242	4.965	5.3	134	0.00	6.49
32	TETRAHYDROFURAN	0.722	0.597	17.3	124	0.00	7.96
33	HEXANE	3.044	2.590	14.9			7.36
34	VINYL ACETATE	0.307	0.328		140	0.00	6.57
35	1,1-DICHLOROETHANE	3.464	3.096	10.6	133	0.00	6.39
36	METHYL ETHYL KETONE	0.641	0.543	15.3	123	-0.02	6.90
37	cis-1,2-DICHLOROETHYLENE		1.563	4.5	130	-0.01	7.15
38	ETHYL ACETATE	0.428	0.342	20.1		0.00	7.47
39	CHLOROFORM	3.705	3.508	5.3		0.00	7.42
40	2,4-DIMETHYLPENTANE	4.178	3.572			-0.01	8.20
41	1,1,1-TRICHLOROETHANE	4.450	3.892	12.5	137	-0.01	8.36
42	CARBON TETRACHLORIDE	4.527	3.854	14.9	133	-0.01	8.94



Continuing Calibration Summary Job Number: JA68565

 Job Number:
 JA68565
 Sample:
 V2W1256-CC1240

 Account:
 RAVIV TRC
 Lab FileID:
 2W29758.D

**Project:** Lockheed Electronics Co, Watchung, NJ

Project:	Lockheed Electronics Co, Watch	ing, NJ					
43	1,2-DICHLOROETHANE	1.881	1.885	-0.2	133	-0.01	8.12
44 I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	144		9.15
45	BENZENE	1.105	1.015	8.1	135		8.80
46	CYCLOHEXANE	0.687	0.585	14.8	135		9.06
47	2,3-DIMETHYLPENTANE	0.324	0.269	17.0	132	-0.01	9.31
48	TRICHLOROETHYLENE	0.460	0.385	16.3	129	-0.01	9.81
49	1,2-DICHLOROPROPANE	0.384	0.375	2.3	133	-0.01	9.58
50	BROMODICHLOROMETHANE	0.712	0.695	2.4	137	-0.01	9.76
51	2,2,4-TRIMETHYLPENTANE	2.153	1.816	15.7	135	-0.01	9.87
52	1,4-DIOXANE	0.161	0.166	-3.1	151	0.00	9.96
53	METHYL METHACRYLATE	0.344	0.316	8.1	126	0.00	10.07
54	HEPTANE	0.642	0.614	4.4	139	-0.01	10.13
55 H	TVHC as EQUIV HEPTANE	2.815	2.948	-4.7	140	0.00	10.13
56	METHYL ISOBUTYL KETONE	0.270	0.240	11.1	125	0.00	10.75
57	cis-1,3-DICHLOROPROPENE	0.484	0.473	2.3	130		10.65
58	TOLUENE	0.692	0.705	-1.9			11.59
59	trans-1,3-DICHLOROPROPENE		0.344	-4.2			11.16
60	1,1,2-TRICHLOROETHANE		0.334	-3.4		-0.01	11.31
61 I	CHLOROBENZENE-D5	1.000	1.000	0.0	146	0.00	13.28
62	2-HEXANONE	0.595	0.520	12.6	125	0.00	11.92
63	TETRACHLOROETHYLENE	0.932	0.859	7.8	134		12.66
64	DIBROMOCHLOROMETHANE	1.352	1.348	0.3	134		11.97
65	1,2-DIBROMOETHANE	0.932	0.924	0.9	131		12.20
66	OCTANE	1.738	1.782	-2.5	142	-0.01	12.57
67	1,1,1,2-TETRACHLOROETHANE		1.113		135	-0.01	
68	CHLOROBENZENE	1.664	1.596	4.1	135	-0.01	13.31
69	ETHYLBENZENE	3.033	3.002	1.0			13.69
70	m,p-XYLENE	1.131	1.142		136		13.87
71	O-XYLENE	1.121	1 122	-0.1	134		14.31
72	STYRENE	1.229	1.122 1.302	-5.9	131	0.00	14.21
73	NONANE	1.474	1.614	-9.5	135	-0.01	14.57
74	BROMOFORM	1.089		2.2	130	-0.01	13.90
75 S	4-BROMOFLUOROBENZENE	1.047	1.010	3.5	134	-0.01	14.76
75 B	1,1,2,2-TETRACHLOROETHANE	1.475	1.417	3.9	132	0.00	14.31
70 77	ISOPROPYLBENZENE	3.298	3.303	-0.2	132	0.00	14.91
7 <i>7</i> 78	2-CHLOROTOLUENE	0.668	0.664	0.6	130	-0.01	15.38
78 79	n-PROPYLBENZENE	0.752	0.753	-0.1	126		15.43
80	4-ETHYLTOLUENE	2.327	2.481	-6.6	125	-0.01	15.43
81			2.401	-3.9	125	-0.01	15.66
82	1,3,5-TRIMETHYLBENZENE TERT-BUTYLBENZENE	0.527	0.558	-3.9 -5.9	124	-0.01	16.06
		1.860		-5.9 -6.9			16.00
83	1,2,4-TRIMETHYLBENZENE		1.989		124		
84 of	m-DICHLOROBENZENE	0.827	0.812	1.8	121		16.20
85 06	BENZYL CHLORIDE	0.967	0.978	-1.1	116		16.19
86 97	p-DICHLOROBENZENE	0.832	0.789	5.2	121		16.27
87	SEC-BUTYLBENZENE	0.627	0.632	-0.8	125		16.34
88	p-ISOPROPYLTOLUENE	0.516	0.536	-3.9	117		16.50
89	o-DICHLOROBENZENE	0.795	0.777	2.3	122	0.00	16.61
90	n-BUTYLBENZENE	0.388	0.350	9.8	119		16.91
91	HEXACHLOROBUTADIENE	0.386			116		18.73
92	1,2,4-TRICHLOROBENZENE	0.221	0.167	24.4	103	-0.01	18.29
93	CHLOROBENZENE-D5(A)	1.000	1.000		146		13.28
94	NAPHTHALENE			NA		_	

\_\_\_\_\_

SPCC's out = 0 CCC's out = 0
Wed Mar 02 07:56:01 2011 VOA-CLN-02



<sup>(#) =</sup> Out of Range 2W29354.D M2W1240.M

Sample: V3W821-ICC821

**Lab FileID:** 3W20791.D

Page 1 of 2

# **Initial Calibration Summary**

Job Number: JA68565

**Project:** Lockheed Electronics Co, Watchung, NJ

Response Factor Report MS3W

: C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Method Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

Calibration Files

2) FREON 115

**Account:** RAVIV TRC

0.04=3W20781.D 0.1 =3W20780.D 0.2 =3W20789.D 0.5 =3W20778.D 5 = 3W20790.D 10 = 3W20791.D 20 = 3W20779.D 40 = 3W20784.D

0.04 0.1 0.2 0.5 5 10 20 40 Avg %RSD \_\_\_\_\_\_

1) I BROMOCHLOROMETHANE -----ISTD------

3) FREON 152A 1.262 1.082 0.679 0.648 0.617 0.572 0.810 35.56 4) CHLORODIFLUO 0.317 0.301 0.410 0.363 0.254 0.265 0.235 0.221 0.296 22.23 5) DICHLORODIFL 3.655 2.859 3.254 3.631 2.712 2.783 2.424 2.236 2.944 17.84 6) PROPYLENE 1.798 1.398 0.930 0.949 0.830 0.763 1.111 36.30 7) FREON 114 4.063 3.258 3.709 4.234 3.168 3.285 2.869 2.612 3.400 16.57 8) CHLOROMETHAN 1.294 1.577 1.765 1.233 1.070 0.938 0.888 1.252 25.97 9) VINYL CHLORI 1.195 1.173 1.337 1.550 1.126 1.183 1.053 0.989 1.201 14.55 10) 1,3-BUTADIEN 1.249 1.007 0.997 1.096 0.831 0.883 0.807 0.756 0.953 17.41 11) n-BUTANE 2.241 2.186 2.424 1.765 1.835 1.613 1.496 1.937 18.02 12) BROMOMETHANE 1.541 1.069 1.288 1.467 1.110 1.170 1.064 0.989 1.212 16.57 13) CHLOROETHANE 0.628 0.596 0.513 0.734 0.545 0.539 0.564 0.516 0.579 12.72 14) FREON 123 2.964 2.640 2.168 3.264 2.053 2.281 2.442 2.200 2.501 17.03 15) FREON 123A 1.610 1.605 1.242 1.876 1.186 1.338 1.403 1.279 1.442 16.31 16) TRICHLOROFLU 3.314 2.795 2.873 3.689 2.641 2.835 2.517 2.286 2.869 15.54 17) ISOPROPYL AL
1.428 1.678 1.379 1.787 1.821 1.697 1.632 11.36
18) ACETONE
0.324 0.391 0.454 0.317 0.423 0.439 0.417 0.395 13.77
19) PENTANE
1.570 1.760 1.174 1.261 1.131 1.095 1.332 20.32
20) TVHC as EQUI
0.000 -1.00 21) IODOMETHANE 3.401 2.956 3.126 4.157 3.193 3.283 3.188 2.925 3.278 11.84 22) 1,1-DICHLORO 1.571 1.097 1.198 1.442 1.054 1.123 1.044 0.952 1.185 17.98 23) CARBON DISUL 4.263 3.230 3.969 4.426 3.198 3.323 2.970 2.716 3.512 17.85 24) ETHANOL 0.564 0.314 0.390 0.394 0.374 0.407 22.89 25) BROMOETHENE 1.284 1.013 1.231 1.512 1.136 1.211 1.113 1.036 1.192 13.41 26) METHYLENE CH 1.061 1.265 0.782 0.820 0.872 0.796 0.933 20.61 27) 3-CHLOROPROP 0.372 0.402 0.382 0.567 0.363 0.415 0.462 0.422 0.423 15.63 28) FREON 113 2.027 1.925 1.833 2.585 1.914 2.039 1.895 1.734 1.994 12.95 29) TRANS-1,2-DI 1.423 1.089 0.950 1.323 1.082 1.042 1.096 1.005 1.126 14.40 30) TERTIARY BUT

1.244 1.988 1.616 2.052 2.287 1.985 1.862 19.95
31) METHYL TERTI

1.916 3.115 1.883 2.548 2.687 2.498 2.441 19.37
32) TETRAHYDROFU

0.256 0.410 0.335 0.451 0.485 0.461 0.400 22.00 33) HEXANE 1.984 1.841 1.758 2.295 1.618 1.761 1.607 1.461 1.791 14.45 34) VINYL ACETAT 0.100 0.211 0.146 0.200 0.224 0.213 0.183 26.77 35) 1,1-DICHLORO 2.110 1.862 1.563 2.359 1.482 1.668 1.838 1.655 1.817 16.21 36) METHYL ETHYL 0.248 0.232 0.391 0.329 0.442 0.486 0.460 0.370 27.72 37) cis-1,2-DICH 1.141 1.097 0.926 1.319 0.869 0.994 1.079 0.995 1.053 13.33 38) DIISOPROPYL 2.966 2.440 2.330 3.622 2.298 3.109 3.235 2.969 2.871 16.54 0.165 0.263 0.204 0.280 0.326 0.316 0.259 24.45 39) ETHYL ACETAT 40) CHLOROFORM 2.455 2.045 1.808 2.621 1.680 1.922 2.028 1.847 2.051 15.90 41) 2,4-DIMETHYL 2.355 1.990 1.837 2.643 1.903 1.898 1.956 1.763 2.043 14.67 42) 1,1,1-TRICHL 2.423 1.946 1.834 2.571 1.651 1.878 2.025 1.838 2.021 15.59 43) CARBON TETRA 2.373 1.999 1.997 2.890 2.223 2.176 2.232 2.015 2.238 13.21 44) 1,2-DICHLORO 0.515 1.015 0.906 1.380 0.859 1.066 1.169 1.092 1.000 25.36 45) I 1,4-DIFLUOROBENZENE -----ISTD-----ISTD-----



**Lab FileID:** 3W20791.D

Initial Calibration Summary
Job Number: JA68565
Account: RAVIV TRC

M3W821.M

**Project:** Lockheed Electronics Co, Watchung, NJ

46) BENZENE 0.716 0.617 0.528 0.795 0.436 0.532 0.612 0.547 0.598 19.10 47) CYCLOHEXANE 0.459 0.375 0.387 0.511 0.334 0.358 0.340 0.302 0.383 18.07 48) 2,3-DIMETHYL 0.148 0.133 0.230 0.130 0.135 0.147 0.132 0.151 23.76 49) TRICHLOROETH 0.339 0.259 0.444 0.342 0.216 0.241 0.265 0.240 0.293 26.05 50) 1,2-DICHLORO 0.260 0.186 0.286 0.156 0.203 0.235 0.213 0.220 20.24 51) BROMODICHLOR 0.460 0.398 0.367 0.556 0.328 0.383 0.430 0.383 0.413 16.93 52) 2,2,4-TRIMET 1.222 1.080 0.945 1.348 0.816 0.909 0.988 0.870 1.022 17.93 53) 1,4-DIOXANE 0.061 0.086 0.088 0.119 0.139 0.133 0.104 29.39 54) HEPTANE 0.535 0.454 0.413 0.541 0.323 0.355 0.374 0.335 0.416 20.66 55) TVHC as EQUI 0.000 -1.00 56) METHYL METHA 0.103 0.113 0.184 0.127 0.171 0.209 0.192 0.157 26.70 57) METHYL ISOBU 0.080 0.139 0.099 0.136 0.182 0.168 0.134 29.24 58) cis-1,3-DICH 0.255 0.240 0.211 0.378 0.229 0.292 0.341 0.315 0.283 20.81 59) TOLUENE 0.432 0.364 0.334 0.508 0.278 0.363 0.414 0.376 0.384 17.98 60) trans-1,3-DI 0.170 0.151 0.145 0.251 0.175 0.234 0.281 0.260 0.208 25.85 61) 1,1,2-TRICHL 0.173 0.147 0.134 0.228 0.140 0.181 0.207 0.189 0.175 19.02 -----ISTD-----CHLOROBENZENE-D5 63) 2-HEXANONE 0.229 0.372 0.265 0.361 0.487 0.432 0.358 27.24 64) TETRACHLOROE 0.902 0.797 0.761 0.899 0.530 0.595 0.639 0.553 0.709 21.18 65) DIBROMOCHLOR 0.940 0.898 0.771 1.136 0.666 0.820 0.927 0.810 0.871 16.08 66) 1,2-DIBROMOE 0.719 0.570 0.527 0.786 0.509 0.649 0.744 0.659 0.645 15.85 67) OCTANE 1.389 1.198 1.556 0.836 0.966 1.030 0.858 1.119 24.47 68) 1,1,1,2-TETR 0.581 0.616 0.542 0.825 0.448 0.584 0.648 0.570 0.602 17.89 69) CHLOROBENZEN 1.290 0.953 0.927 1.295 0.744 0.937 1.044 0.915 1.013 18.85 70) ETHYLBENZENE 1.892 1.404 1.401 2.063 1.183 1.550 1.688 1.457 1.580 18.21 76) 4-BROMOFLUOR 0.937 0.926 0.933 0.959 1.217 1.217 1.179 1.137 1.063 12.76 77) 1,1,2,2-TETR 0.538 0.467 0.403 0.572 0.532 0.698 0.784 0.683 0.585 21.84 78) 1,2,3-TRICHL 0.356 0.340 0.370 0.468 0.409 0.538 0.620 0.528 0.454 22.36 79) ISOPROPYLBEN 1.617 1.319 1.297 1.789 1.236 1.605 1.744 1.483 1.511 13.94 80) 2-CHLOROTOLU 0.366 0.324 0.293 0.374 0.290 0.368 0.409 0.355 0.347 11.99 81) n-PROPYLBENZ 0.381 0.281 0.291 0.365 0.302 0.394 0.441 0.382 0.355 16.09 82) 4-ETHYLTOLUE 1.128 0.888 0.922 1.216 0.994 1.320 1.475 1.242 1.148 17.81 83) 1,3,5-TRIMET 0.979 0.858 0.810 1.023 0.836 1.091 1.201 0.990 0.973 13.86 84) tert-BUTYLBE 0.299 0.195 0.187 0.242 0.199 0.266 0.299 0.253 0.243 18.66 85) 1,2,4-TRIMET 0.714 0.665 0.693 0.854 0.749 0.967 1.091 0.912 0.831 18.22 86) m-DICHLOROBE 0.463 0.419 0.400 0.502 0.465 0.603 0.701 0.606 0.520 20.36 87) BENZYL CHLOR 0.398 0.467 0.434 0.601 0.775 0.670 0.557 26.68 88) p-DICHLOROBE 0.553 0.457 0.407 0.502 0.441 0.572 0.663 0.567 0.520 16.17 89) sec-BUTYLBEN 0.206 0.169 0.195 0.264 0.226 0.298 0.335 0.287 0.248 23.21 90) p-ISOPROPYLT 0.183 0.245 0.216 0.283 0.344 0.303 0.262 22.50 0.297 0.390 0.387 0.509 0.598 0.516 0.449 24.48 91) o-DICHLOROBE 92) n-BUTYLBENZE 0.137 0.164 0.150 0.204 0.266 0.240 0.194 26.73 0.107 0.120 0.168 0.207 0.233 0.195 0.172 29.01 93) HEXACHLOROBU 94) 1,2,4-TRICHL 0.092 0.070 0.103 0.142 0.119 0.116 0.107 23.17 95) I CHLOROBENZENE-D5 (a) -----ISTD-----ISTD-----96) NAPHTHALENE 0.406 0.523 0.943 0.581 0.871 0.754 0.680 30.90 \_\_\_\_\_\_ (#) = Out of Range ### Number of calibration levels exceeded format ###

Wed Feb 16 16:19:15 2011 MS3W

# 5.9.5

Page 1 of 3

### **Initial Calibration Verification**

Job Number: JA68565 V3W821-ICV821 Sample: **RAVIV TRC** Lab FileID: 3W20792.D Account:

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 3 Data File : C:\MSDCHEM\1\DATA\3W20792.D Acq On : 16 Feb 2011 12:49 pm Operator: yunxiac Sample : ICV821-10 Misc : MS7827,V3W821,,,,,1 Inst : MS3W Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um Title

Last Update : Wed Feb 16 16:16:09 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(mi	in)R.T.
1 I 2	BROMOCHLOROMETHANE FREON 115	1.000	1.000	0.0 NA	103		7.57
3	FREON 152A	0.810	0.625	22.8	99		4.28
4	CHLORODIFLUOROMETHANE	0.296	0.257	13.2	100	0.00	4.31
5	DICHLORODIFLUOROMETHANE		2.739		101	0.00	4.37
6	PROPYLENE	1.111	0.916		99	0.00	4.32
7	FREON 114	3.400	3.167	6.9		0.00	4.53
8	CHLOROMETHANE	1.252	1.034	17.4		0.00	4.48
9	VINYL CHLORIDE	1.201	1.160		101	0.00	4.61
10	1,3-BUTADIENE	0.953	0.864		101	0.00	4.69
11	n-BUTANE	1.937	1.791		101	0.00	4.71
12	BROMOMETHANE	1.212	1.149		101	0.00	4.87
13	CHLOROETHANE	0.579	0.528	8.8	101	0.00	4.97
14	FREON 123	2.501	2.214	11.5	100	0.00	5.27
15	FREON 123A	1.442	1.281	11.2	99	-0.01	5.30
16	TRICHLOROFLUOROMETHANE	2.869	2.716	5.3	99	0.00	5.45
17	ISOPROPYL ALCOHOL	1.632	1.679	-2.9	97	0.00	5.56
18	ACETONE	0.395	0.401	-1.5		0.00	5.37
19	PENTANE	1.332	1.196	10.2	98	0.00	5.64
20 H	TVHC as EQUIV PENTANE			NA		_	
21	IODOMETHANE	3.278	3.238	1.2	102	0.00	5.83
22	1,1-DICHLOROETHYLENE	1.185	1.099	7.3	101	0.00	5.87
23	CARBON DISULFIDE	3.512	3.203	8.8	99	0.00	6.17
24	ETHANOL	0.407	0.370	9.1	98	0.00	5.11
25	BROMOETHENE	1.192	1.176	1.3	100	0.00	5.19
26	METHYLENE CHLORIDE	0.933	0.798		100	0.00	5.97
27	3-CHLOROPROPENE	0.423	0.405	4.3	101	0.00	6.03
28	FREON 113	1.994	1.999	-0.3	101	0.00	6.11
29	TRANS-1,2-DICHLOROETHYLEN	1.126	1.039	7.7	103	0.00	6.59
30	TERTIARY BUTYL ALCOHOL	1.862	1.943	-4.4	98	-0.04	5.95
31	METHYL TERTIARY BUTYL ETH	2.441	2.409	1.3	97	0.00	6.78
32	TETRAHYDROFURAN	0.400	0.425	-6.2	97	0.00	8.01
33	HEXANE	1.791	1.687	5.8	99	0.00	7.49
34	VINYL ACETATE	0.183	0.198	-8.2	102	0.00	6.87
35	1,1-DICHLOROETHANE	1.817	1.626	10.5	100	0.00	6.76
36	METHYL ETHYL KETONE	0.370	0.425	-14.9	99	0.00	7.07
37	cis-1,2-DICHLOROETHYLENE	1.053	0.967		100	0.00	7.45
38	DIISOPROPYL ETHER	2.871	2.911	-1.4	96	0.00	7.51
39	ETHYL ACETATE	0.259	0.279	-7.7	103	0.00	7.59
40	CHLOROFORM	2.051	1.850		99	0.00	7.66
41	2,4-DIMETHYLPENTANE	2.043	1.834	10.2	100	0.00	8.21
42	1,1,1-TRICHLOROETHANE	2.021	1.823	9.8	100	0.00	8.47



#### **Initial Calibration Verification**

Job Number: JA68565 Sample: V3W821-ICV821 **RAVIV TRC** 3W20792.D Account: Lab FileID: Lockheed Electronics Co, Watchung, NJ **Project:** CARBON TETRACHLORIDE 2.238 2.114 5.5 100 0.00 9.02 1,2-DICHLOROETHANE 1.000 1.032 -3.2 100 0.00 8.26 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 105 0.00 9.20 BENZENE 0.598 0.510 14.7 100 0.00 8.89 CYCLOHEXANE 0.383 0.338 11.7 99 0.00 9.06 2,3-DIMETHYLPENTANE 0.151 0.129 14.6 100 0.00 9.24 TRICHLOROETHYLENE 0.293 0.227 22.5 98 0.00 9.82 1,2-DICHLOROPROPANE 0.220 0.189 14.1 98 0.00 9.59 BROMODICHLOROMETHANE 0.413 0.362 12.3 99 0.00 9.81 2,2,4-TRIMETHYLPENTANE 1.022 0.857 16.1 99 0.00 9.75 1,4-DIOXANE 0.104 0.115 -10.6 101 0.00 9.90 HEPTANE 0.416 0.336 19.2 99 0.00 10.01 45 I TVHC as EQUIV HEPTANE

METHYL METHACRYLATE

METHYL ISOBUTYL KETONE

Cis-1,3-DICHLOROPROPENE

TOLUENE

TOLUENE

1,1,2-TRICHLOROETHANE

O.120

O.157

O.165

O.165

O.165

O.134

O.130

O.165

O.134

O.130

O.100

O.00

O.00

O.00

O.00

O.066

O.00

O.00 55 H CHLOROBENZENE-D5 1.000 1.000 0.0 106 0.00 13.38 2-HEXANONE 0.358 0.346 3.4 101 0.00 11.86 TETRACHLOROETHYLENE 0.709 0.561 20.9 100 0.00 12.70 DIBROMOCHLOROMETHANE 0.871 0.772 11.4 99 0.00 12.01 1,2-DIBROMOETHANE 0.645 0.608 5.7 99 0.00 12.22 OCTANE 1.119 0.888 20.6 97 0.00 12.48 1,1,1,2-TETRACHLOROETHANE 0.602 0.543 9.8 98 0.00 13.40 CHLOROBENZENE 1.013 0.870 14.1 98 0.00 13.43 ETHYLBENZENE 1.580 1.440 8.9 98 0.00 13.79 m,p-XYLENE 0.589 0.542 8.0 98 0.00 13.97 o-XYLENE 0.554 0.519 6.3 98 0.00 14.48 STYRENE 0.650 0.713 -9.7 99 0.00 14.39 NONANE 0.922 0.791 14.2 97 0.00 14.39 NONANE 0.922 0.791 14.2 97 0.00 14.67 BROMOFORM 0.760 0.676 11.1 98 0.00 14.09 4-BROMOFLUOROBENZENE 1.063 1.215 -14.3 105 0.00 15.01 1,1,2,2-TETRACHLOROETHANE 0.585 0.639 -9.2 97 0.00 14.51 1,2,3-TRICHLOROPROPANE 0.454 0.505 -11.2 99 0.00 14.64 62 I m,p-XYLENE 76 S 1,2,3-TRICHLOROPROPANE 0.454 0.505 -11.2 99 0.00 14.64 ISOPROPYLBENZENE 1.511 1.480 2.1 98 0.00 15.13 2-CHLOROTOLUENE 0.347 0.346 0.3 99 0.00 15.70 ISOPROPYLBENZENE 1.511 1.480 2.1 98 0.00 15.13 2-CHLOROTOLUENE 0.347 0.346 0.3 99 0.00 15.70 n-PROPYLBENZENE 0.355 0.364 -2.5 98 0.00 15.72 4-ETHYLTOLUENE 1.148 1.226 -6.8 98 0.00 15.89 1,3,5-TRIMETHYLBENZENE 0.973 1.001 -2.9 97 0.00 15.99 tert-BUTYLBENZENE 0.243 0.242 0.4 96 0.00 16.47 1,2,4-TRIMETHYLBENZENE 0.831 0.892 -7.3 98 0.00 16.48 m-DICHLOROBENZENE 0.520 0.561 -7.9 98 0.00 16.67 BENZYL CHLORIDE 0.557 0.566 -1.6 100 0.00 16.67 p-DICHLOROBENZENE 0.520 0.530 -1.9 98 0.00 16.77 sec-BUTYLBENZENE 0.248 0.268 -8.1 95 0.00 16.80 p-ISOPROPYLTOLUENE 0.262 0.269 -2.7 100 0.00 16.99 0-DICHLOROBENZENE 0.449 0.473 -5.3 98 0.00 17.19 n-BUTYLBENZENE 0.194 0.193 0.5 100 0.00 17.50 HEXACHLOROBUTADIENE 0.172 0.183 -6.4 93 0.00 19.77 1,2,4-TRICHLOROBENZENE 0.107 0.116 -8.4 86 0.00 19.22 1,2,4-TRICHLOROBENZENE 95 I 0.0 106 0.00 13.38 CHLOROBENZENE-D5 (a) 1.000 1.000 NAPHTHALENE ----NA-----



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### **Initial Calibration Verification**

Job Number:JA68565Sample:V3W821-ICV821Account:RAVIV TRCLab FileID:3W20792.D

Project: Lockheed Electronics Co, Watchung, NJ

(#) = Out of Range SPCC's out = 0 CCC's out = 0 3W20791.D M3W821.M Wed Feb 16 16:20:31 2011 MS3W

Page 1 of 3

### **Continuing Calibration Summary**

Job Number: JA68565 V3W828-CC821 Sample: **RAVIV TRC** Account: Lab FileID: 3W20972.D

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W20972.D Acq On : 24 Feb 2011 7:25 am Operator: yunxiac Sample : CC821-10 Misc : MS8082,V3W828,100,,,,1 Inst : MS3W Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um Title

Last Update : Wed Feb 16 16:16:09 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev .	Area%	Dev(mi	n)R.T.
1 I 2	BROMOCHLOROMETHANE FREON 115	1.000	1.000	0.0 NA	137	0.00	7.57
3	FREON 152A	0.810		11.2			4.29
4	CHLORODIFLUOROMETHANE				143		
5	DICHLORODIFLUOROMETHANE	2.944	0.277 2.821	4.2	139	0.00	4.38
6	PROPYLENE	1.111	1.072			0.00	4.34
7	FREON 114	3.400				0.00	4.54
8	CHLOROMETHANE	1.252	3.229 1.361	-8.7	174	0.00	4.49
9	VINYL CHLORIDE	1.201			140	0.00	4.62
10	1,3-BUTADIENE	0.953	0.929	2.5	144	0.00	4.70
11	n-BUTANE	1.937	2.056	-6.1	154	0.00	4.73
12	BROMOMETHANE				134	0.00	4.88
13	CHLOROETHANE	0.579	1.145 0.636	-9.8	162	0.01	4.98
14	FREON 123	2.501	2.537	-1.4	152	0.00	5.27
15	FREON 123A				145	0.00	5.31
16	TRICHLOROFLUOROMETHANE	2.869	1.417 2.799	2.4	135	0.00	5.46
17	ISOPROPYL ALCOHOL		1.569		120	0.00	5.56
18	ACETONE					0.00	5.38
19	PENTANE	1.332	0.346 1.418	-6.5	154	0.00	5.65
20 H	TVHC as EQUIV PENTANE			NA			
21	IODOMETHANE	3.278	3.176	3.1	133	0.00	5.83
22	1,1-DICHLOROETHYLENE	1.185	1.084	8.5	132	0.00	5.88
23	CARBON DISULFIDE	3.512	3.268	6.9	135	0.00	6.17
24	ETHANOL	0.407	0.351	13.8	124	0.00	5.11
25	BROMOETHENE	1.192	1.164	2.3	132	0.00	5.20
26	METHYLENE CHLORIDE	0.933	0.968 0.453	-3.8	162	0.00	5.97
27	3-CHLOROPROPENE	0.423	0.453	-7.1	150	0.00	6.03
28	FREON 113	1.994			127	0.00	6.11
29	TRANS-1,2-DICHLOROETHYLEN TERTIARY BUTYL ALCOHOL	1.126	1.148 1.834	-2.0	151	0.00	6.59
30	TERTIARY BUTYL ALCOHOL	1.862	1.834	1.5	122	-0.04	5.95
31	METHYL TERTIARY BUTYL ETH		1.927			0.00	6.79
32	TETRAHYDROFURAN	0.400	0.339 1.807	15.3	103	0.00	8.01
33	HEXANE				141	0.00	7.49
34	VINYL ACETATE	0.183	0.156		106	0.00	6.87
35	1,1-DICHLOROETHANE	1.817	1.873	-3.1	154	0.00	6.76
36	METHYL ETHYL KETONE		0.345		107	0.00	7.07
37	cis-1,2-DICHLOROETHYLENE	1.053	1.034 2.565	1.8	142	0.00	7.45
38	DIISOPROPYL ETHER	2.871				0.00	7.51
39	ETHYL ACETATE	0.259			112	0.00	7.59
40	CHLOROFORM	2.051	2.095 2.277	-2.1	149	0.00	7.65
41	2,4-DIMETHYLPENTANE					0.00	8.21
42	1,1,1-TRICHLOROETHANE	2.021	2.036	-0.7	149	0.00	8.47



**Continuing Calibration Summary** 

Sample: Job Number: JA68565 V3W828-CC821 **RAVIV TRC** 3W20972.D Account: Lab FileID: Lockheed Electronics Co, Watchung, NJ **Project:** CARBON TETRACHLORIDE 2.238 2.399 -7.2 151 0.00 9.02 1,2-DICHLOROETHANE 1.000 1.151 -15.1 148 0.00 8.26 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 133 0.00 9.20 BENZENE 0.598 0.574 4.0 143 0.00 8.89 CYCLOHEXANE 0.383 0.381 0.5 142 0.00 9.06 2,3-DIMETHYLPENTANE 0.151 0.161 -6.6 159 0.00 9.24 TRICHLOROETHYLENE 0.293 0.263 10.2 145 0.00 9.82 1,2-DICHLOROPROPANE 0.220 0.214 2.7 140 0.00 9.82 BROMODICHLOROMETHANE 0.413 0.412 0.2 143 0.00 9.80 2,2,4-TRIMETHYLPENTANE 1.022 1.036 -1.4 151 0.00 9.75 1,4-DIOXANE 0.104 0.093 10.6 104 0.00 9.91 HEPTANE 0.416 0.454 -9.1 170 0.00 10.00 TYMC as FOULV HEPTANE 45 I 

 HEPTANE
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 11.56
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 11.56
 0.00
 11.15
 1.1,2-TRICHLOROETHANE
 0.175
 0.180
 -2.9
 132
 0.00
 11.31

 55 H 62 I 76 S 1,2,4-TRICHLOROBENZENE CHLOROBENZENE-D5 (a) 1.000 1.000 95 I 0.0 137 0.00 13.37 NAPHTHALENE ----NA-----



Page 3 of 3

Continuing Calibration Summary Job Number: JA68565 Sample: V3W828-CC821 **RAVIV TRC** Lab FileID: 3W20972.D Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

> SPCC's out = 0 CCC's out = 0 (#) = Out of Range 3W20791.D M3W821.M Thu Feb 24 09:15:18 2011

Page 1 of 3

### **Continuing Calibration Summary**

Job Number: JA68565 V3W829-CC821 Sample: **RAVIV TRC** Lab FileID: Account: 3W21003.D

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W21003.D Acq On : 25 Feb 2011 6:55 am Operator: yunxiac Sample : CC821-10 Misc : MS8082,V3W829,100,,,,1 Inst : MS3W Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um Title

Last Update : Wed Feb 16 16:16:09 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(mi	n)R.T.
1 I 2			1.000	0.0	124	0.00	7.57
3	FREON 152A	0.810	0.806		154		4.29
4	CHLORODIFLUOROMETHANE		0.315		147		
5	DICHLORODIFLUOROMETHANE	2.944	3.205	-8.9	143	0.00	4.38
6	PROPYLENE	1.111	3.205 1.217	-9.5	159	0.00	4.33
7	FREON 114	3.400			135	0.00	4.54
8	CHLOROMETHANE	1.252	1.529	-22.1		0.00	4.49
9	VINYL CHLORIDE	1.201	1.341	-22.1 -11.7	140	0.00	4.62
10	1,3-BUTADIENE	0.953	1.026	-7.7	144	0.00	4.70
11	n-BUTANE	1.937	1.026 2.317 1.287	-19.6	156	0.00	4.73
12	BROMOMETHANE	1.212	1.287	-6.2	136	0.00	4.88
13	CHLOROETHANE	0.579	0.722	-24.7	166	0.01	4.98
14	FREON 123	2.501	0.722 2.769	-10.7	150	0.00	5.27
15	FREON 123A	1.442	1.543	-7.0	143	0.00	5.31
16	TRICHLOROFLUOROMETHANE				136	0.00	5.46
17	ISOPROPYL ALCOHOL	1.632	3.124 1.883	-15.4	130	0.02	5.58
18	ACETONE	0.395	0.407	-3.0	119	0.01	5.38
19	PENTANE		1.601		157	0.01	5.65
20 H	TVHC as EQUIV PENTANE			NA		_	
21		3.278	3.589	-9.5	135	0.00	5.84
22	1,1-DICHLOROETHYLENE	1.185	1.203	-1.5			5.88
23	CARBON DISULFIDE	3.512	1.203 3.699	-5.3	138	0.00	6.17
24	ETHANOL	0.407			130	0.02	5.13
25	BROMOETHENE	1.192	1.284 1.084	-7.7	131	0.00	5.20
26	METHYLENE CHLORIDE	0.933	1.084	-16.2	164	0.00	5.97
27	3-CHLOROPROPENE	0.423	0.478	-13.0	142	0.00	6.03
28	FREON 113	1.994	2.145 1.296	-7.6	130	0.00	6.12
29	TRANS-1,2-DICHLOROETHYLEN	1.126	1.296	-15.1	154	0.00	6.60
30	TERTIARY BUTYL ALCOHOL	1.862	2.179	-17.0	132	-0.02	5.97
31	METHYL TERTIARY BUTYL ETH	2.441	2.253	7.7	110	0.00	6.79
32	TETRAHYDROFURAN	0.400	0.391		107	0.00	8.02
33	HEXANE	1.791	2.059	-15.0	145	0.00	7.49
34	VINYL ACETATE	0.183	0.173	5.5	107	0.00	6.88
35	1,1-DICHLOROETHANE	1.817	2.011	-10.7	149	0.00	6.77
36	METHYL ETHYL KETONE	0.370	0.400	-8.1	112	0.00	7.08
37	cis-1,2-DICHLOROETHYLENE	1.053	1.118	-6.2	139	0.00	7.45
38	METHYL ETHYL KETONE cis-1,2-DICHLOROETHYLENE DIISOPROPYL ETHER	2.871			122	0.00	7.52
39	ETHYL ACETATE	0.259	0.269 2.295	-3.9	119	0.00	7.60
40	CHLOROFORM	2.051	2.295	-11.9	148	0.00	7.66
41	2,4-DIMETHYLPENTANE	2.043	2.576	-26.1	168	0.00	8.22
42	1,1,1-TRICHLOROETHANE	2.021	2.213	-9.5	146	0.00	8.48



**Continuing Calibration Summary** 

Sample: Job Number: JA68565 V3W829-CC821 **RAVIV TRC** 3W21003.D Account: Lab FileID: Lockheed Electronics Co, Watchung, NJ **Project:** CARBON TETRACHLORIDE 2.238 2.708 -21.0 154 0.00 9.02 1,2-DICHLOROETHANE 1.000 1.241 -24.1 144 0.00 8.27 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 117 0.00 9.21
BENZENE 0.598 0.630 -5.4 138 0.00 8.89
CYCLOHEXANE 0.383 0.448 -17.0 146 0.00 9.06
2,3-DIMETHYLPENTANE 0.151 0.186 -23.2 161 0.00 9.25
TRICHLOROETHYLENE 0.293 0.298 -1.7 144 0.00 9.82
1,2-DICHLOROPROPANE 0.220 0.241 -9.5 139 0.00 9.59
BROMODICHLOROMETHANE 0.413 0.461 -11.6 140 0.00 9.81
2,2,4-TRIMETHYLPENTANE 1.022 1.174 -14.9 151 0.00 9.76
1,4-DIOXANE 0.104 0.114 -9.6 111 0.01 9.92
HEPTANE 0.416 0.529 -27.2 174 0.00 10.01 45 I TVHC as EQUIV HEPTANE

METHYL METHACRYLATE

METHYL ISOBUTYL KETONE

Cis-1,3-DICHLOROPROPENE

TOLUENE

Trans-1,3-DICHLOROPROPENE

0.384

0.406

0.283

0.344

0.406

0.5.7

0.00

10.04

1.57

1.57

1.65

1.70

1.70

1.70

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1.70

1.71

1.72-TRICHLOROETHANE

0.71

0.72

0.73

0.74

0.75

0.166

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10.0 55 H 62 I 76 S 1,2,4-TRICHLOROBENZENE CHLOROBENZENE-D5 (a) 1.000 1.000 0.0 126 0.00 95 I NAPHTHALENE ----NA-----



Page 3 of 3

Continuing Calibration Summary Job Number: JA68565 Sample: V3W829-CC821 **RAVIV TRC** Lab FileID: 3W21003.D Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

> SPCC's out = 0 CCC's out = 0 (#) = Out of Range 3W20791.D M3W821.M Fri Feb 25 10:00:46 2011

# 5.9.8

**Initial Calibration Summary** 

Page 1 of 2 Job Number: JA68565 VW1222-ICC1222 Sample: RAVIV TRC Account: Lab FileID: W29766.D

Project: Lockheed Electronics Co, Watchung, NJ

Response Factor Report MSW

Response via : Initial Calibration

Calibration Files

1) I BROMOCHLOROMETHANE -----ISTD-----ISTD-----

0.04 0.1 0.2 0.5 5 10 20 40 Avg %RSD Compound

2)	FREON 115									0.000	-1.00
3)	FREON 115 FREON 152A CHLORODIFLUO			0.946	0.690	0.329	0.529	0.511	0.376	0.564	40.15
4)	CHLORODIFLUO		0.480	0.573	0.480	0.437	0.493	0.486	0.408	0.480	10.73
5)	DICHLORODIFL		4.097	5.257	4.432	4.107	4.400	4.133	3.456	4.269	12.67
6)	DICHLORODIFL PROPYLENE		0.640	0.684	0.739	0.541	0.584	0.559	0.416	0.595	17.76
	FREON 114										14.63
8)	CHLOROMETHAN		0.168	0.214	0.277	0.237	0.221	0.217	0.151	0.212	19.74
9)	CHLOROMETHAN VINYL CHLORI		0.805	1.060	1.155	1.011	0.936	0.888	0.658	0.930	17.88
	1,3-BUTADIEN										14.03
11)	n-BUTANE BROMOMETHANE		1.468	1.664	1.678	1.402	1.278	1.257	0.959	1.387	18.15
12)	BROMOMETHANE		1.013	1.282	1.276	1.137	1.050	1.021	0.760	1.077	16.69
13)	CHLOROETHANE		0.448	0.548	0.612	0.587	0.521	0.505	0.370	0.513	16.19
14)	ACROLEIN			0.276	0.335	0.331	0.327	0.324	0.258	0.309	10.67
15)	CHLOROETHANE ACROLEIN FREON 123	3.057	2.453	3.079	2.933	2.715	2.671	2.688	2.150	2.718	11.53
16)	FREON 123A	2.588	1.773	2.439	2.203	2.052	2.025	2.026	1.639	2.093	15.06
17)	TRICHLOROFLU		4.791	5.968	5.247	4.663	4.835	4.766	4.003	4.896	12.24
18)	ISOPROPYL AL		2.040	1.998	2.033	1.712	1.737	1.743	1.355	1.803	13.67
19)	ACETONE		0.503	0.490	0.480	0.424	0.404	0.400	0.300	0.429	16.45
20)	PENTANE		0.221	0.286	0.258	0.258	0.254	0.250	0.192	0.245	12.34
21)	TRICHLOROFLU ISOPROPYL AL ACETONE PENTANE TVHC as EQUI		4.243	6.039	5.498	4.693	4.729	4.729	3.713	4.806	15.97
22)	IODOMETHANE	3.562	2.882	3.770	3.580	3.054	3.230	3.272	2.602	3.244	12.06
	1,1-DICHLORO										13.09
24)	CARBON DISUL	3.775	2.821	3.480	3.345	2.825	2.980	2.996	2.329	3.069	14.70
	ETHANOL						0.296				37.50
26)	BROMOETHENE	1.289	1.041	1.351	1.401	1.184	1.161	1.132	0.877	1.179	14.47
27)	METHYLENE CH 3-CHLOROPROP			1.204	1.127	0.910	0.922	0.935	0.716	0.969	17.95
											11.83
29)	FREON 113	3.360	2.333	2.836	2.600	2.354	2.514	2.551	2.099	2.581	14.82
30)	TRANS-1,2-DI TERTIARY BUT		1.591	1.626	1.285	1.193	1.280	1.268	1.000	1.320	16.68
31)	TERTIARY BUT		2.452	3.612	3.005	2.929	3.233	3.086		3.053	12.48
32)	METHYL TERTI TETRAHYDROFU		3.726	5.053	3.639	3.997	4.502	4.464	3.792	4.168	12.50
33)	TETRAHYDROFU			0.480	0.450	0.522	0.573	0.563	0.460	0.508	10.43
	HEXANE										14.22
35)	VINYL ACETAT			0.341	0.264	0.299	0.327	0.327	0.267	0.304	10.86
	1,1-DICHLORO										14.19
37)	METHYL ETHYL			0.513	0.457	0.497	0.566	0.563	0.459	0.509	9.46
	cis-1,2-DICH										12.42
	DI-ISOPROPYL										14.17
	ETHYL ACETAT										11.36
	CHLOROFORM										16.48
	2,4-DIMETHYL										9.93
	1,1,1-TRICHL										16.55
	CARBON TETRA										15.12
45)	1,2-DICHLORO	2.757	2.092	2.887	2.257	2.270	2.569	2.549	2.281	2.458	11.25



#### **Initial Calibration Summary**

 Job Number:
 JA68565
 Sample:
 VW1222-ICC1222

 Account:
 RAVIV TRC
 Lab FileID:
 W29766.D

**Project:** Lockheed Electronics Co, Watchung, NJ

```
46) I 1,4-DIFLUOROBENZENE -----ISTD-----ISTD-----
47) BENZENE 0.913 0.685 0.807 0.768 0.705 0.739 0.754 0.673 0.756 10.29
48) CYCLOHEXANE 0.430 0.453 0.416 0.338 0.353 0.362 0.322 0.382 13.21 49) 2,3-DIMETHYL 0.149 0.187 0.199 0.162 0.167 0.174 0.156 0.171 10.36
50) TRICHLOROETH 0.474 0.304 0.434 0.395 0.349 0.383 0.407 0.400 0.393 13.04
51) 1,2-DICHLORO 0.238 0.220 0.256 0.216 0.214 0.223 0.229 0.205 0.225 7.08
52) BROMODICHLOR 0.843 0.650 0.800 0.726 0.678 0.733 0.772 0.737 0.742 8.43
53) 2,2,4-TRIMET 1.370 0.980 1.128 1.077 1.044 1.107 1.163 1.110 1.122 10.22
54) 1,4-DIOXANE 0.123 0.159 0.156 0.173 0.183 0.179 0.162 13.52 55) METHYL METHA 0.251 0.220 0.227 0.252 0.268 0.246 0.244 7.20
56) HEPTANE 0.471 0.343 0.405 0.384 0.341 0.361 0.376 0.346 0.378 11.57
57) TVHC as EQUI 1.787 2.435 2.154 1.902 2.036 2.111 1.967 2.056 10.14 58) METHYL ISOBU 0.337 0.455 0.463 0.447 0.502 0.532 0.494 0.462 13.54
59) cis-1,3-DICH 0.516 0.376 0.484 0.428 0.418 0.460 0.473 0.449 0.450 9.62
60) TOLUENE 0.612 0.484 0.597 0.514 0.525 0.575 0.596 0.563 0.558 8.18
61) trans-1,3-DI 0.455 0.354 0.416 0.405 0.396 0.438 0.462 0.441 0.421 8.49
62) 1,1,2-TRICHL
                                         0.233 0.207 0.220 0.239 0.251 0.235 0.231 6.67
65) TETRACHLOROE 1.078 0.774 0.887 0.929 0.739 0.774 0.740 0.612 0.817 17.51
66) DIBROMOCHLOR 1.447 1.127 1.401 1.365 1.208 1.249 1.183 0.965 1.243 12.80
67) 1,2-DIBROMOE 0.889 0.634 0.879 0.967 0.798 0.837 0.799 0.650 0.807 14.30
68) OCTANE 1.073 0.724 0.941 0.948 0.862 0.894 0.840 0.673 0.869 14.69
69) 1,1,1,2-TETR 1.109 0.844 1.087 0.956 0.908 0.923 0.886 0.742 0.932 12.98
70) CHLOROBENZEN 1.754 1.193 1.526 1.517 1.304 1.364 1.304 1.087 1.381 15.30
71) ETHYLBENZENE 2.592 2.025 2.590 2.397 2.296 2.359 2.251 1.831 2.293 11.42
72) m,p-XYLENE 0.986 0.717 0.856 0.873 0.860 0.880 0.858 0.709 0.842 10.72 73) o-XYLENE 0.905 0.654 0.869 0.795 0.827 0.857 0.824 0.691 0.803 10.89 74) STYRENE 1.081 0.865 1.093 1.216 1.206 1.250 1.204 0.998 1.114 11.88
75) 1,2,3-TRICHL 0.917 0.656 0.858 0.803 0.798 0.827 0.791 0.649 0.787 11.78
76) NONANE 0.754 0.572 0.776 0.751 0.811 0.846 0.813 0.665 0.749 12.02
77) BROMOFORM 1.391 1.009 1.252 1.206 1.061 1.117 1.064 0.904 1.126 13.58
78) 4-BROMOFLUOR 1.123 1.135 1.130 1.135 1.252 1.206 1.141 1.040 1.145 5.44
79) 1,1,2,2-TETR 0.785 0.827 0.860 0.900 0.871 0.730 0.829
                                                                                                          7.53
80) ISOPROPYLBEN 2.834 2.044 2.691 2.517 2.701 2.775 2.656 2.200 2.552 11.12 81) 2-CHLOROTOLU 0.413 0.543 0.578 0.553 0.569 0.552 0.464 0.525 11.79 82) n-PROPYLBENZ 0.422 0.597 0.590 0.645 0.673 0.665 0.559 0.593 14.56 83) 4-ETHYLTOLUE 1.367 1.968 2.032 2.297 2.409 2.293 1.931 2.042 17.14 84) 1,3,5-TRIMET 1.326 1.772 1.679 1.914 2.001 1.934 1.618 1.749 13.34 85) TERT-BUTYLBE 0.408 0.382 0.473 0.508 0.503 0.437 0.452 11.39 86) 1,2,4-TRIMET 1.427 1.520 1.777 1.909 1.896 1.651 1.697 11.70 87) m-DICHLOROBE 0.791 1.057 1.044 1.118 1.097 0.960 1.011 11.94 88) BENZYL CHLOR 0.776 1.188 1.277 1.392 1.407 1.234 1.212 19.00 89) p-DICHLOROBE 0.740 1.046 1.002 1.049 1.029 0.881 0.958 12.93 90) SEC-BUTYLBEN 0.464 0.482 0.547 0.582 0.577 0.496 0.525 9.69 91) p-ISOPROPYLT 0.399 0.443 0.521 0.574 0.572 0.502 0.502 13.97 92) o-DICHLOROBE 0.706 0.918 0.909 0.965 0.944 0.805 0.874 11.35 93) n-BUTYLBENZE 0.254 0.283 0.382 0.429 0.426 0.372 0.358 20.51 94) HEXACHLOROBU 0.197 0.302 0.340 0.304 0.258 0.241 0.274 18.82 95) 1,2,4-TRICHL 0.091 0.261 0.136 0.145 0.142 0.138 0.152 37.55
80) ISOPROPYLBEN 2.834 2.044 2.691 2.517 2.701 2.775 2.656 2.200 2.552 11.12
96) I Chlorobenzene-d5(a) -----ISTD-----ISTD-----
                                                                                   0.000 -1.00
97) NAPHTHALENE
_____
(#) = Out of Range ### Number of calibration levels exceeded format ###
               MW1222.M
                                      Fri Jan 28 09:40:04 2011 MSW
```



# 5.9.9

Page 1 of 3

### **Initial Calibration Verification**

Job Number: JA68565 VW1223-ICV1222 Sample: W29783.D

**RAVIV TRC** Account: Lab FileID:

Lockheed Electronics Co, Watchung, NJ **Project:** 

#### Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1223-24\W29783.D Vial: 2

: 20 Jan 2011 9:00 pm Operator: YOUMINH Acq On Sample : ICV1222-10
Misc : MS6862,VW1223,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um Title

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev Are	ea%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	91	-0.04
2	FREON 115	0.000	0.000	0.0		-4.98#
3	FREON 152A	0.564	0.455	19.3	78	-0.06
4	CHLORODIFLUOROMETHANE	0.480	0.439	8.5	81	-0.05
5	DICHLORODIFLUOROMETHANE	4.269		4.7	84	-0.05
6	PROPYLENE	0.595	0.511	14.1	80	-0.06
7	FREON 114	3.835	3.558	7.2	86	-0.06
8	CHLOROMETHANE	0.212	0.211	0.5	87	-0.05
9	VINYL CHLORIDE	0.930	0.920	1.1	90	-0.06
10	1,3-BUTADIENE	0.727	0.697	4.1	90	-0.06
11	n-BUTANE	1.387	1.256	9.4	90	-0.05
12	BROMOMETHANE	1.077 0.513	1.027	4.6	89	-0.05
13	CHLOROETHANE	0.513	0.519	-1.2	91	-0.06
14	ACROLEIN	0.309	0.309	0.0	86	-0.05
15	FREON 123	2.718	2.610	4.0	89	-0.05
16	FREON 123A	2.093	1.966	6.1	89	-0.05
17	TRICHLOROFLUOROMETHANE	4.896	4.646	5.1	88	-0.05
18	ISOPROPYL ALCOHOL	1.803	1.596	11.5	84	-0.04
19	ACETONE		0.380	11.4	86	-0.05
20	PENTANE	0.245	0.248	-1.2	89	-0.05
21 H	TVHC as EQUIV PENTANE	4.806		4.1	89	-0.05
22	IODOMETHANE	3.244		2.9	89	-0.05
23	1,1-DICHLOROETHYLENE	1.134		7.7	87	-0.05
24	CARBON DISULFIDE	3.069	2.861	6.8	88	-0.05
25	ETHANOL	0.340	0.287	15.6	88	-0.05
26	BROMOETHENE	1.179	1.126	4.5	88	-0.05
27	METHYLENE CHLORIDE	0.969		8.7	88	-0.05
28	3-CHLOROPROPENE	0.497		3.0	86	-0.05
29	FREON 113	2.581		8.3	86	-0.05
30	TRANS-1,2-DICHLOROETHYLENE	1.320		7.5	87	-0.04
31	TERTIARY BUTYL ALCOHOL	3.053		7.1	80	-0.04
32	METHYL TERTIARY BUTYL ETHER			5.5	80	-0.04
33	TETRAHYDROFURAN	0.508	0.494	2.8	79	-0.02
34	HEXANE	1.700	1.537	9.6	84	-0.04
35	VINYL ACETATE	0.304	0.300	1.3	84	-0.04
36	1,1-DICHLOROETHANE	2.157		5.4	84	-0.04
37	METHYL ETHYL KETONE	0.509		3.3	79	-0.04
38	cis-1,2-DICHLOROETHYLENE	1.321		5.5	86	-0.04
39	DI-ISOPROPYL ETHER	3.479		8.6	79	-0.04
40	ETHYL ACETATE		0.276	2.8	79	-0.04
41	CHLOROFORM	3.269	3.072	6.0	84	-0.04
42	2,4-DIMETHYLPENTANE	1.994	1.932	3.1	84	-0.03



#### **Initial Calibration Verification**

Job Number: JA68565 Sample: VW1223-ICV1222 **RAVIV TRC** Lab FileID: W29783.D Account: Lockheed Electronics Co, Watchung, NJ **Project:**  

 1,1,1-TRICHLOROETHANE
 4.203
 3.922
 6.7
 84
 -0.03

 CARBON TETRACHLORIDE
 4.729
 4.410
 6.7
 84
 -0.02

 1,2-DICHLOROETHANE
 2.458
 2.309
 6.1
 82
 -0.03

 43 44 45 46 I 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 85 -0.02
47 BENZENE 0.756 0.731 3.3 84 -0.02
48 CYCLOHEXANE 0.382 0.354 7.3 85 -0.02
49 2,3-DIMETHYLPENTANE 0.171 0.164 4.1 83 -0.02
50 TRICHLOROETHYLENE 0.393 0.381 3.1 84 -0.02
51 1,2-DICHLOROPROPANE 0.225 0.218 3.1 83 -0.02
52 BROMODICHLOROMETHANE 0.742 0.719 3.1 83 -0.02
53 2,2,4-TRIMETHYLPENTANE 1.122 1.073 4.4 82 -0.02
54 1,4-DIOXANE 0.162 0.146 9.9 72 0.00
55 METHYL METHACRYLATE 0.244 0.230 5.7 77 -0.02
56 HEPTANE 0.378 0.359 5.0 84 -0.02
57 H TVHC as EQUIV HEPTANE 2.056 2.012 2.1 84 -0.02
58 METHYL ISOBUTYL KETONE 0.462 0.439 5.0 74 0.00
59 Cis-1,3-DICHLOROPROPENE 0.450 0.447 0.7 82 -0.02
60 TOLUENE 0.558 0.559 -0.2 82 -0.01
61 trans-1,3-DICHLOROPROPENE 0.421 0.425 -1.0 82 -0.01
62 1,1,2-TRICHLOROETHANE 0.231 0.232 -0.4 82 -0.01 96 I Chlorobenzene-d5(a) 1.000 1.000 0.0 81 0.00 0.000 0.000 0.0 0# -20.50# NAPHTHALENE



Page 3 of 3

### **Initial Calibration Verification**

VW1223-ICV1222 Sample:

**Job Number:** JA68565 **RAVIV TRC** Lab FileID: W29783.D Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

> SPCC's out = 0 CCC's out = 0 (#) = Out of Range MW1222.M Fri Jan 28 09:40:05 2011 W29766.D

Page 1 of 3

### **Continuing Calibration Summary**

Job Number: JA68565 VW1236-CC1222 Sample: **RAVIV TRC** W30126.D Account: Lab FileID:

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\W30126.D

: 11 Feb 2011 7:13 am Acq On Operator: YOUMINH Sample : CC1222-10 Misc : MS7890,VW1236,,,,,1 Inst : MSW Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um Title

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0 110	-0.06
2	FREON 115	0.000	0.000	0.0	# -4.98#
3	FREON 152A	0.564	0.482	14.5 100	-0.06
4	CHLORODIFLUOROMETHANE	0.480	0.519	-8.1 116	-0.05
5	DICHLORODIFLUOROMETHANE	4.269	4.296	-0.6 107	-0.05
6	PROPYLENE	0.595	0.567	4.7 107	-0.06
7	FREON 114	3.835	3.587	6.5 105	-0.06
8	CHLOROMETHANE	0.212	0.198	6.6 99	-0.06
9	VINYL CHLORIDE	0.930	0.825	11.3 97	-0.07
10	1,3-BUTADIENE	0.727	0.620	14.7 96	-0.07
11	n-BUTANE	1.387	1.206	13.0 104	-0.06
12	BROMOMETHANE	1.077	0.953	11.5 100	-0.06
13	CHLOROETHANE	0.513	0.477	7.0 101	-0.07
14	ACROLEIN	0.309	0.294	4.9 99	-0.05
15	FREON 123	2.718	2.614	3.8 108	-0.06
16	FREON 123A	2.093	2.022	3.4 110	-0.06
17	TRICHLOROFLUOROMETHANE	4.896	4.982	-1.8 113	-0.06
18	ISOPROPYL ALCOHOL	1.803	1.628	9.7 103	-0.04
19	ACETONE	0.429	0.356	17.0 97	-0.05
20	PENTANE	0.245	0.252	-2.9 109	-0.05
21 H	TVHC as EQUIV PENTANE	4.806	5.169	-7.6 120	-0.06
22	IODOMETHANE	3.244	3.446	-6.2 117	-0.07
23	1,1-DICHLOROETHYLENE	1.134	1.047	7.7 105	-0.07
24	CARBON DISULFIDE	3.069	2.564	16.5 95	-0.07
25	ETHANOL	0.340	0.271	20.3 101	-0.04
26	BROMOETHENE	1.179	1.110	5.9 105	-0.06
27	METHYLENE CHLORIDE	0.969	0.829	14.4 99	-0.06
28	3-CHLOROPROPENE	0.497	0.446	10.3 96	-0.05
29	FREON 113	2.581	2.520	2.4 110	-0.06
30	TRANS-1,2-DICHLOROETHYLENE	1.320		16.1 95	
31	TERTIARY BUTYL ALCOHOL	0.000	2.764	9.5 94	-0.04
32	METHYL TERTIARY BUTYL ETHER	4.168	3.832	8.1 94	-0.05
33	TETRAHYDROFURAN	0.508	0.426	16.1 82	-0.04
34	HEXANE	1.700	1.422	16.4 94	
35	VINYL ACETATE	0.304	0.263	13.5 88	
36	1,1-DICHLOROETHANE	2.157	1.933	10.4 97	
37	METHYL ETHYL KETONE	0.509	0.407	20.0 79	
38	cis-1,2-DICHLOROETHYLENE	1.321		16.7 91	-0.05
39	DI-ISOPROPYL ETHER	3.479		12.3 91	
40	ETHYL ACETATE		0.247	13.0 86	
41	CHLOROFORM	3.269	2.960	9.5 98	
42	2,4-DIMETHYLPENTANE	1.994	1.736	12.9 91	-0.05



**Continuing Calibration Summary** 

Job Number: JA68565 Sample: VW1236-CC1222 **RAVIV TRC** Lab FileID: W30126.D Account: Lockheed Electronics Co, Watchung, NJ **Project:**  

 1,1,1-TRICHLOROETHANE
 4.203
 4.031
 4.1
 104
 -0.05

 CARBON TETRACHLORIDE
 4.729
 4.548
 3.8
 105
 -0.05

 1,2-DICHLOROETHANE
 2.458
 2.471
 -0.5
 106
 -0.05

 43 44 45 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 97 -0.04
BENZENE 0.756 0.673 11.0 89 -0.04
CYCLOHEXANE 0.382 0.328 14.1 91 -0.04
2,3-DIMETHYLPENTANE 0.171 0.155 9.4 90 -0.04
TRICHLOROETHYLENE 0.393 0.379 3.6 96 -0.04
1,2-DICHLOROPROPANE 0.225 0.202 10.2 88 -0.04
BROMODICHLOROMETHANE 0.742 0.744 -0.3 99 -0.04
2,2,4-TRIMETHYLPENTANE 1.122 1.026 8.6 90 -0.04
1,4-DIOXANE 0.162 0.121 25.3 69 -0.01
METHYL METHACRYLATE 0.244 0.206 15.6 80 -0.04
HEPTANE 0.378 0.348 7.9 94 -0.04
TVHC as EQUIV HEPTANE 0.378 0.348 7.9 94 -0.04
TVHC as EQUIV HEPTANE 0.462 0.427 7.6 83 -0.02
Cis-1,3-DICHLOROPROPENE 0.450 0.425 5.6 90 -0.04
TOLUENE 0.558 0.524 6.1 89 -0.04
trans-1,3-DICHLOROPROPENE 0.421 0.415 1.4 92 -0.03
1,1,2-TRICHLOROETHANE 0.231 0.214 7.4 87 -0.03 46 I 47 48 49 50 51 52 53 54 55 57 H 58 59 60 61 62 96 I Chlorobenzene-d5(a) 1.000 1.000 0.0 95 -0.03 97 NAPHTHALENE 0.000 0.000 0.0 0# -20.50#



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Continuing Calibration Summary Job Number: JA68565 VW1236-CC1222 Sample: **RAVIV TRC** Lab FileID: W30126.D Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

> SPCC's out = 0 CCC's out = 0 (#) = Out of Range W29766.D MW1222.M Mon Feb 14 10:30:22 2011



GC/MS Vola	tiles
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Raw Data



**Manual Integrations** APPROVED (compounds with "m" flag)

> **Kanya Veerawat** 03/10/11 05:12

#### Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\V3W828\3W21000.D Vial: 2 Acq On : 25 Feb 2011 4:54 am Operator: yunxiac Inst : MS3W Sample : ja68565-1 : MS8536,V3W828,100,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: Feb 25 08:11:32 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc U	nits De	ev(Min)
1) BROMOCHLOROMETHANE	7.57	128	128924	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE						
62) CHLOROBENZENE-D5	13.37	82	291328	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	292149	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE						
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	109.2	0%
Target Compounds					(	Qvalue
5) DICHLORODIFLUOROMETHANE	4.39	85	5588	0.15	PPBV	99
6) PROPYLENE	4.34	41	11988m	0.84	PPBV	
11) n-BUTANE	4.73	43	5588 11988m 258106	10.33	PPBV	89
17) ISOPROPYL ALCOHOL	5.60	45	183771	8.73	PPBV	94
18) ACETONE	5.37		353955			
22) 1,1-DICHLOROETHYLENE	5.88	96	4868	0.32	PPBV	99
23) CARBON DISULFIDE	6.18	76	44005 100129 5664	0.97	PPBV	77
24) ETHANOL	5.13	45	100129	19.07	PPBV	98
30) TERTIARY BUTYL ALCOHOL	6.06	59	5664	0.24	PPBV	81
32) TETRAHYDROFURAN	8.06	72	3396	0.66	PPBV :	# 84
33) HEXANE	7.49		7006			
36) METHYL ETHYL KETONE	7.10	72	10018	2.10	PPBV :	# 67
37) cis-1,2-DICHLOROETHYLENE	7.45	96	574	0.04	PPBV	95
37) cis-1,2-DICHLOROETHYLENE 39) ETHYL ACETATE 40) CHLOROFORM	7.61	61	4305	1.29	PPBV :	# 93
40) CHLOROFORM	7.66	83	11181	0.42	PPBV	94
46) BENZENE	8.89	78	4900	0.13	PPBV	95
49) TRICHLOROETHYLENE					PPBV	95
53) 1,4-DIOXANE	10.06	88	2326m	0.36	PPBV	
54) HEPTANE	9.99	43	6172	0.24	PPBV	88
57) METHYL ISOBUTYL KETONE 59) TOLUENE	10.72	58	3536	0 43	PPBV	92
59) TOLUENE	11.56	92	13790	0.58	PPBV	98
63) 2-HEXANONE	11.92	58	1309	0.13	PPBV	96
64) TETRACHLOROETHYLENE	12.70	164	3248	0.16	PPBV	98
67) OCTANE	12.48	43	5383	0.17	PPBV	95
70) ETHYLBENZENE	13.78	91	4872	0.11	PPBV	97
71) m,p-XYLENE	13.97	106	7104	0.41	PPBV :	# 88
72) O-XYLENE	14.48	106	7104 5352 6293	0.33	PPBV	95
85) 1,2,4-TRIMETHYLBENZENE	16.47	105	6293	0.26	PPBV :	# 27

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21000.D M3W821.M Fri Feb 25 17:08:17 2011 MS3W

88) p-DICHLOROBENZENE 16.76 146 6768 0.45 PPBV



97

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\V3W828\3W21000.D Vial: 2

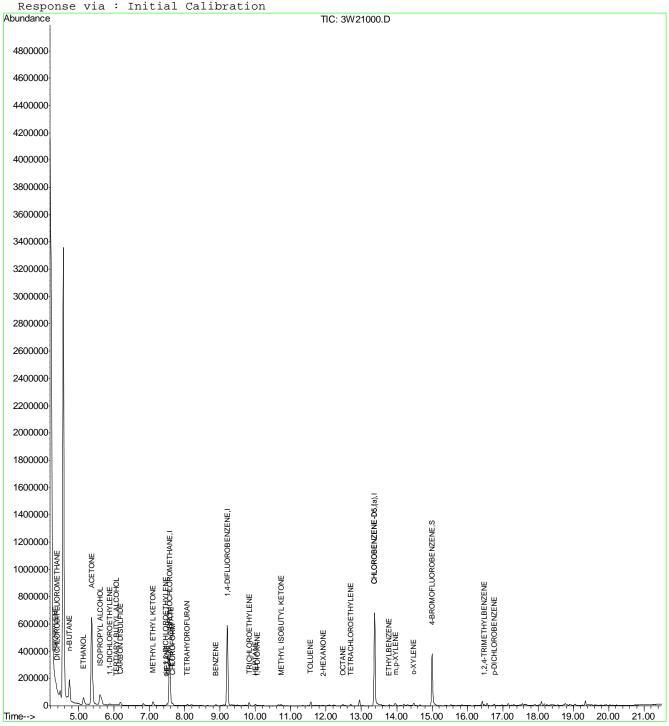
: 25 Feb 2011 4:54 am Operator: yunxiac Acq On Sample : ja68565-1 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 17:07 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : T015 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

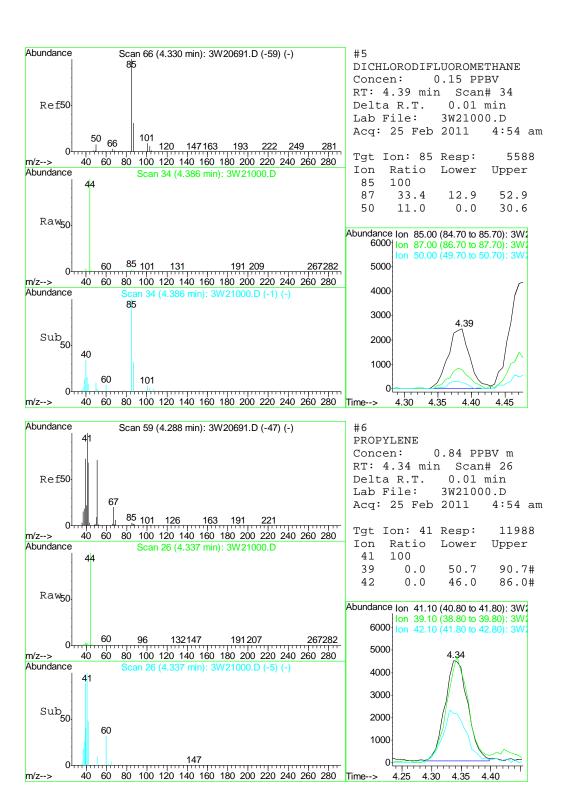
Last Update : Wed Feb 16 16:16:09 2011

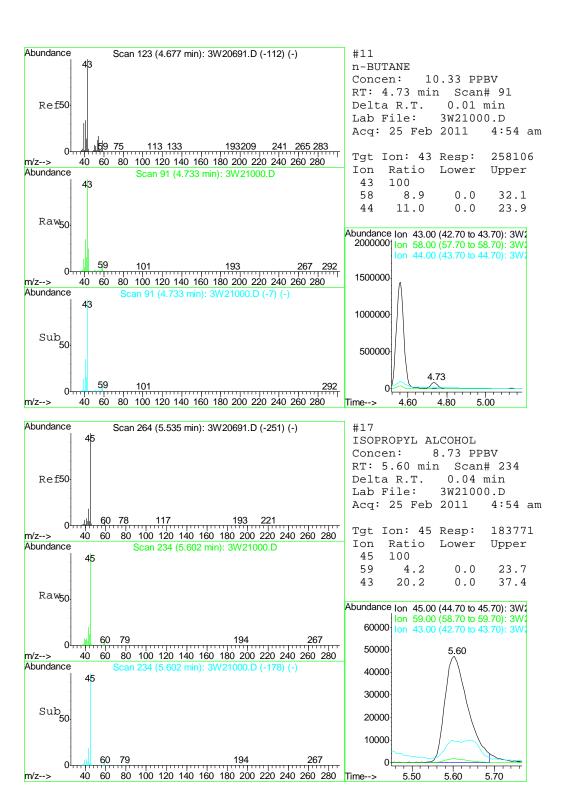


3W21000.D M3W821.M

Fri Feb 25 17:08:17 2011







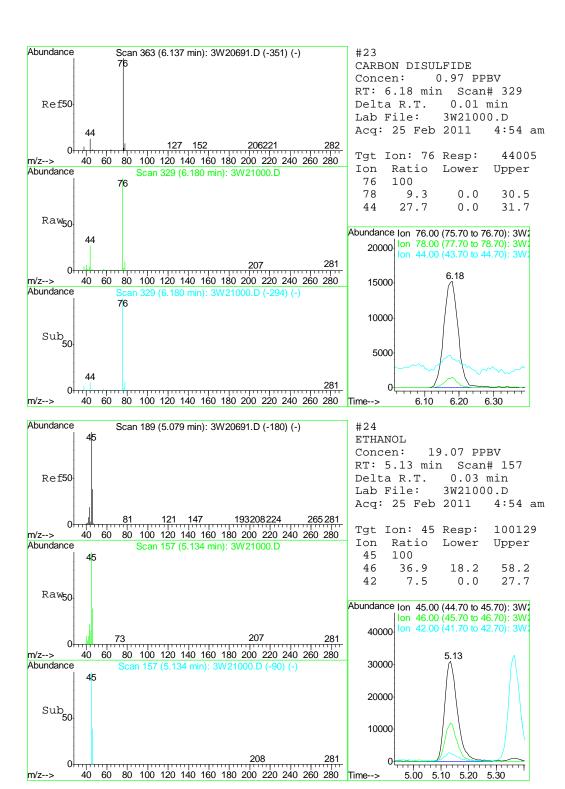
Page 5

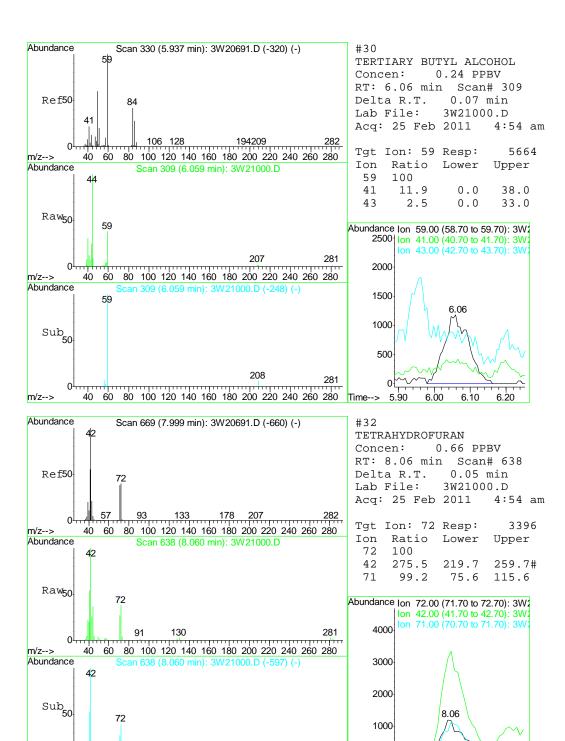
36

m/z-->

60 80 100 120 140 160 180 200 220 240 260 280 Time-->

5.80 5.85 5.90 5.95





Page 7

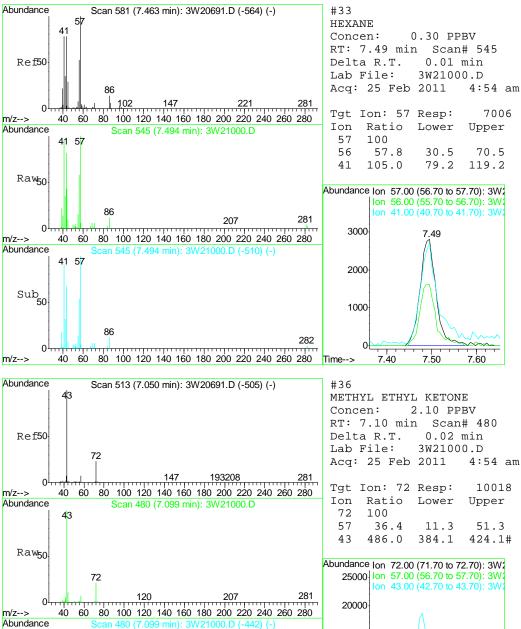
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60 80 100 120 140 160 180 200 220 240 260 280

283

Time-->

8.00 8.05 8.10 8.15



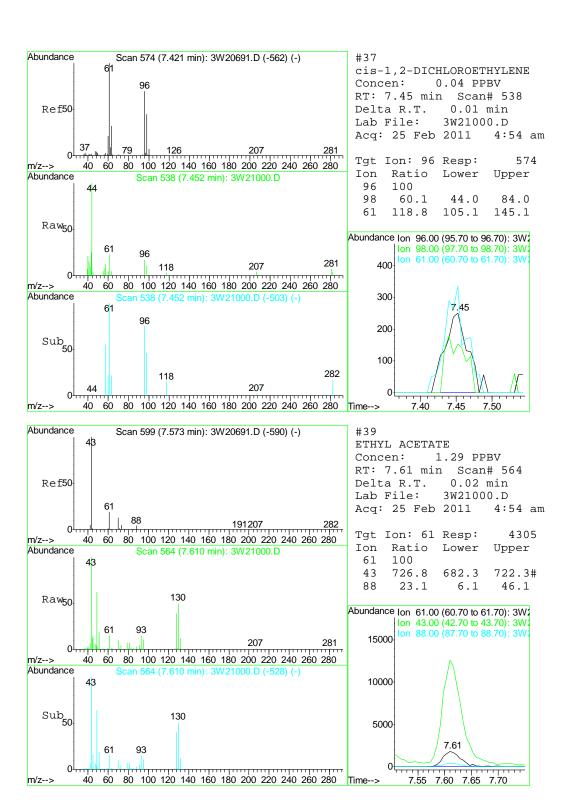
15000 10000 5000 7.10 Time--> 7.00 7.10 7.20

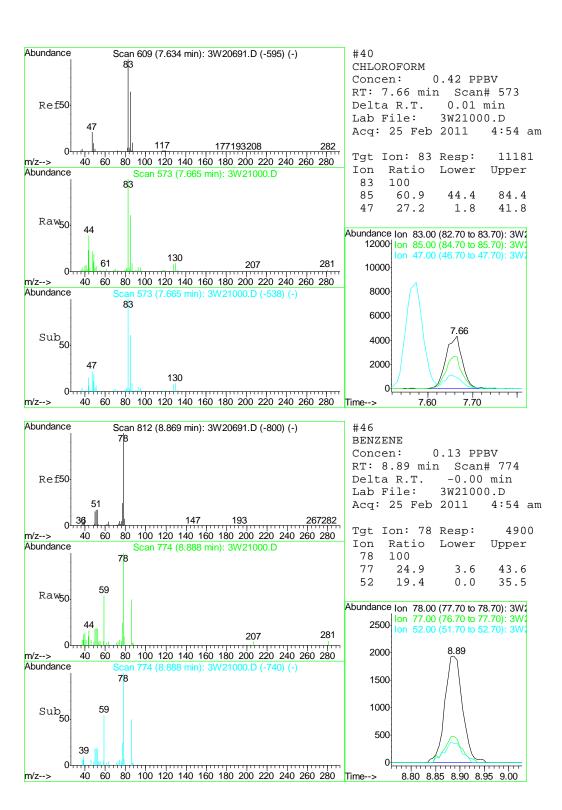
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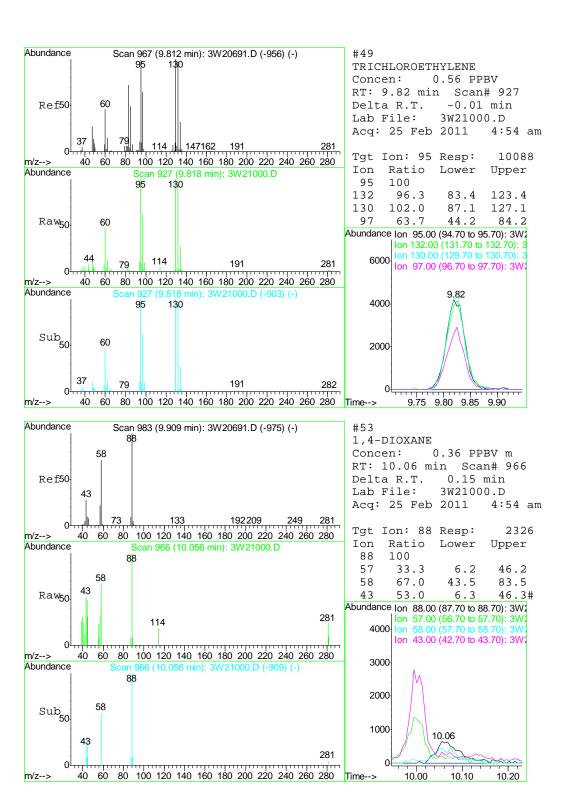
m/z-->

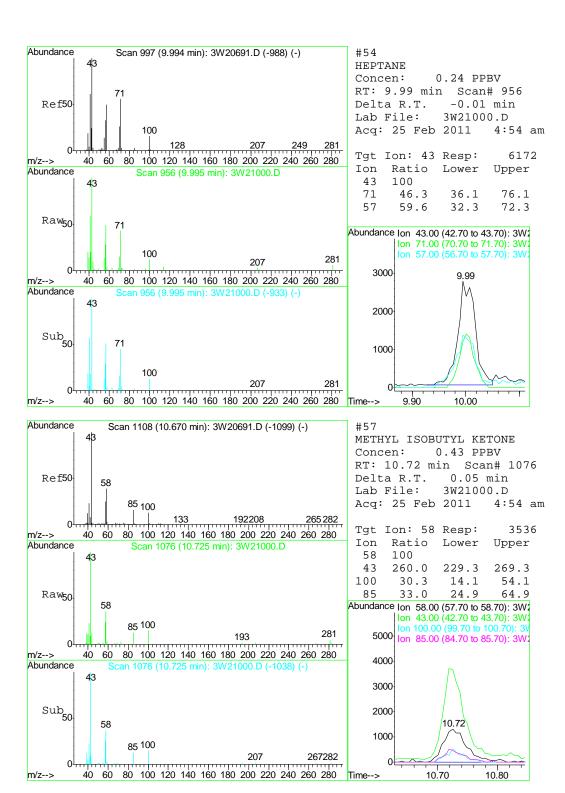
72

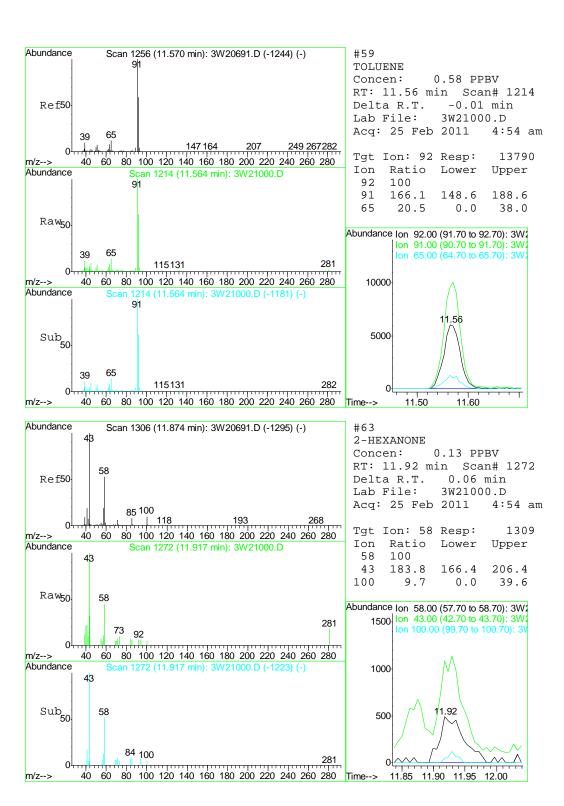
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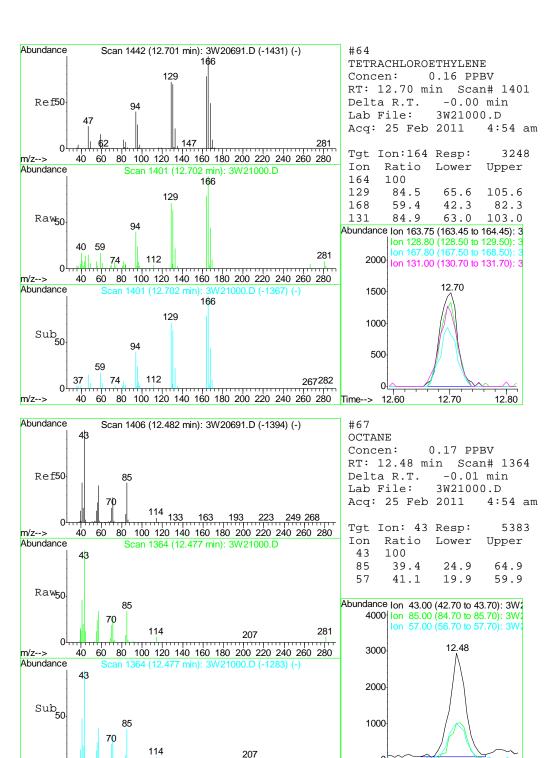












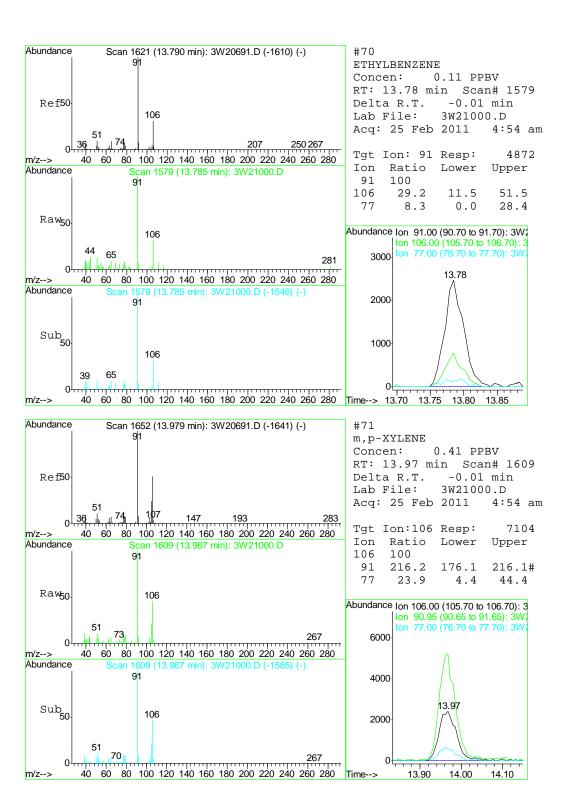
Page 14

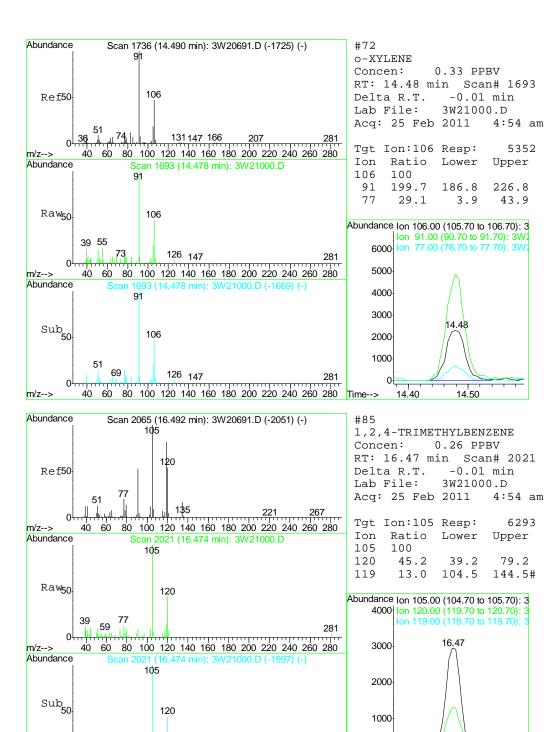
m/z-->

60 80 100 120 140 160 180 200 220 240 260 280 Time-->

12.40

12.50





217 of 840
ACCUTEST
JA68565

Page 16

m/z-->

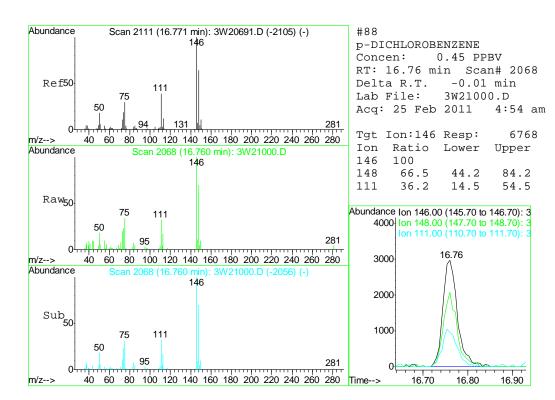
80 100 120 140 160 180 200 220 240 260 280 Time-->

16.40

16.50

51 77

40 60



218 of 840
ACCUTEST.
JA68565

## **Manual Integration Approval Summary**

Sample Number: JA68565-1 Method: TO-15

 Lab FileID:
 3W21000.D
 Analyst approved:
 02/25/11 17:10
 Yunxia Chen

 Injection Time:
 02/25/11 04:54
 Supervisor approved:
 03/10/11 05:12
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propylene	115-07-1		4.34	Missed peak
1,4-Dioxane	123-91-1		10.06	Split peak

Manual Integrations APPROVED (compounds with "m" flag)

> **Kanya Veerawat** 03/10/11 05:12

## Quantitation Report (QT Reviewed)

Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W21011.D Acq On : 25 Feb 2011 2:18 pm Operator: yunxiac Inst : MS3W Sample : JA68565-1 : MS8536,V3W829,30,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: Feb 25 15:40:28 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc U	nits De	ev(Min)
1) BROMOCHLOROMETHANE	7.57	128	165713	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	795827	10.00	PPBV	0.00
62) CHLOROBENZENE-D5	13.38	82	362134	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.38	82	362589	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.00	95	196924	5.12	PPBV	0.00
Spiked Amount 5.000				ry =	102.40	18
Target Compounds					_	value
6) PROPYLENE	4.34	41	6082		PPBV #	
11) n-BUTANE	4.73	43	97475		PPBV #	92
17) ISOPROPYL ALCOHOL	5.66	45	67161m		PPBV	
18) ACETONE	5.38	58	120562		PPBV #	
22) 1,1-DICHLOROETHYLENE	5.87	96	2030		PPBV	97
23) CARBON DISULFIDE	6.17	76	17600		PPBV #	
24) ETHANOL	5.17	45	37799	5.60	PPBV	99
32) TETRAHYDROFURAN	8.14	72	1290		PPBV #	
36) METHYL ETHYL KETONE	7.13	72	3447		PPBV #	
39) ETHYL ACETATE	7.65	61	1359		PPBV #	79
40) CHLOROFORM	7.66	83	3903	0.11	PPBV	94
49) TRICHLOROETHYLENE	9.82	95	3925	0.17	PPBV	95
57) METHYL ISOBUTYL KETONE	10.78	58	1209		PPBV	92
59) TOLUENE	11.57	92	4679	0.15	PPBV	97
64) TETRACHLOROETHYLENE	12.70	164	1160		PPBV	94
71) m,p-XYLENE	13.97	106	2185		PPBV #	
88) p-DICHLOROBENZENE	16.77	146	2241	0.12	PPBV	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21011.D M3W821.M Mon Feb 28 14:57:57 2011 MS3W



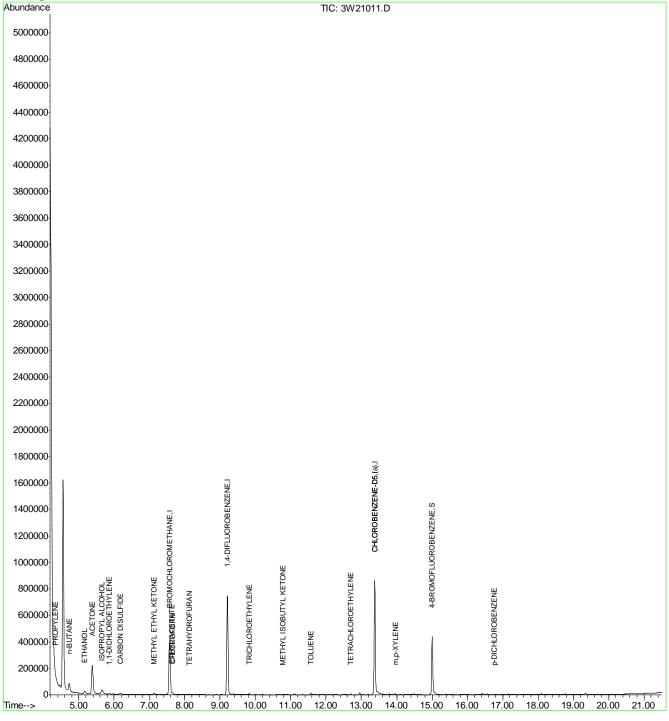
Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W21011.D Vial: 2

MS Integration Params: rteint.p

Quant Time: Feb 28 14:57 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

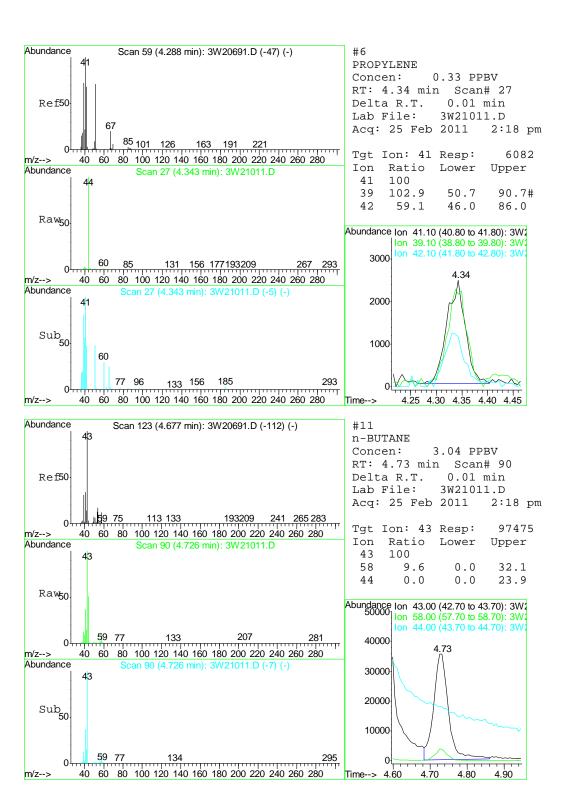


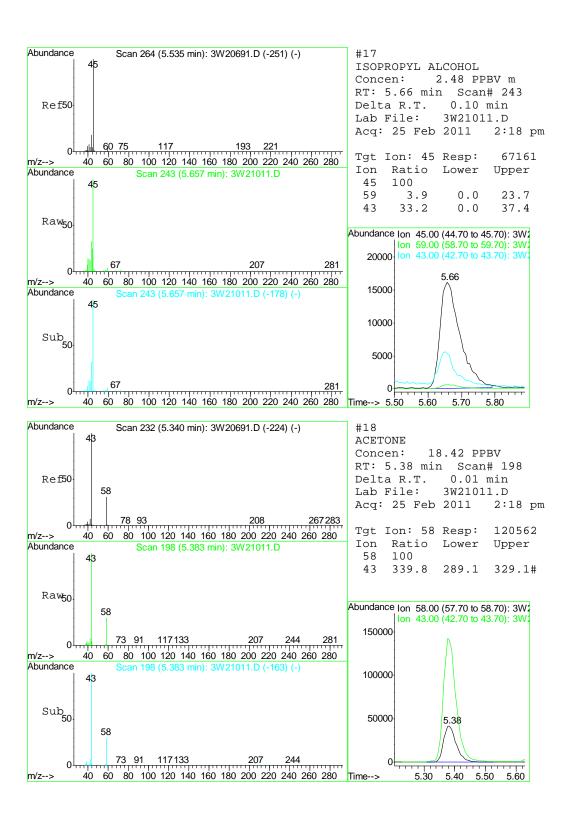
3W21011.D M3W821.M

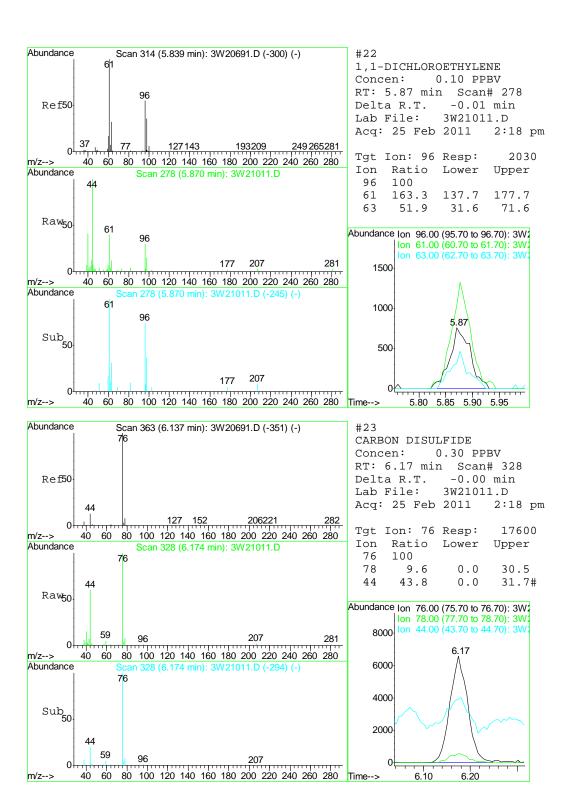
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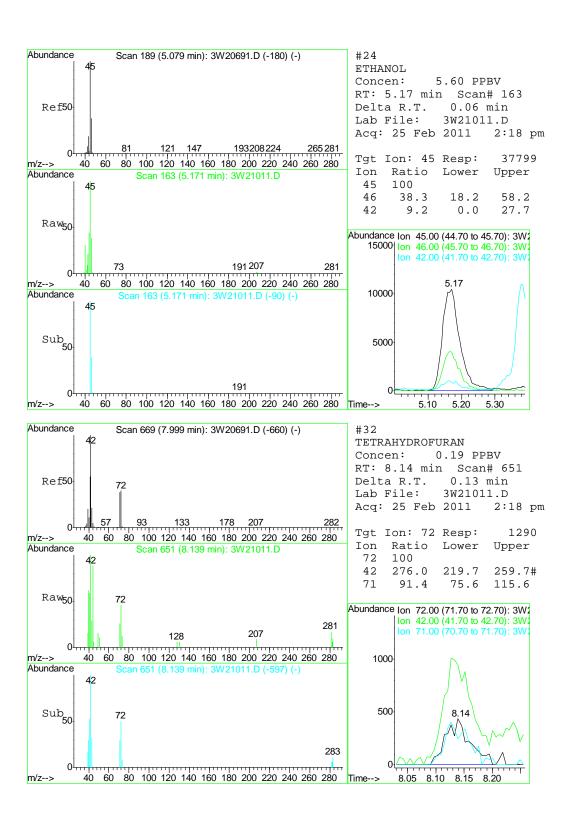
MS3W

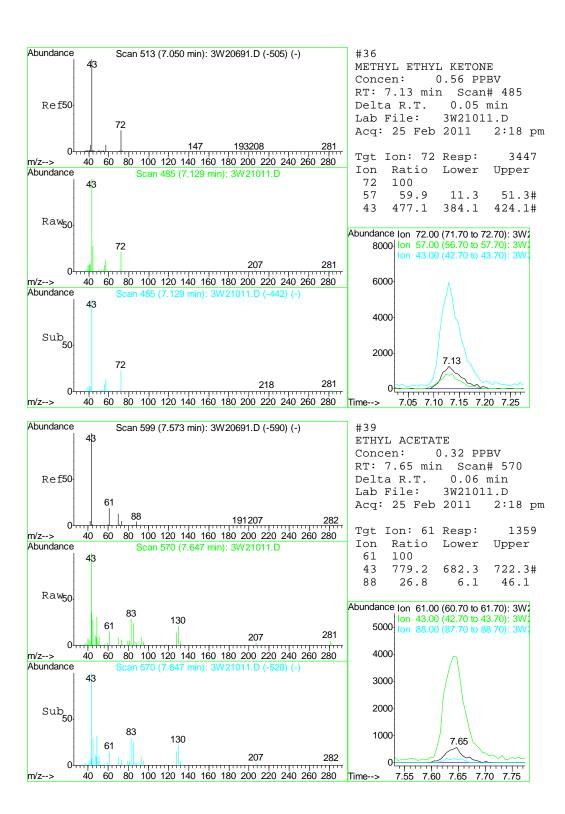


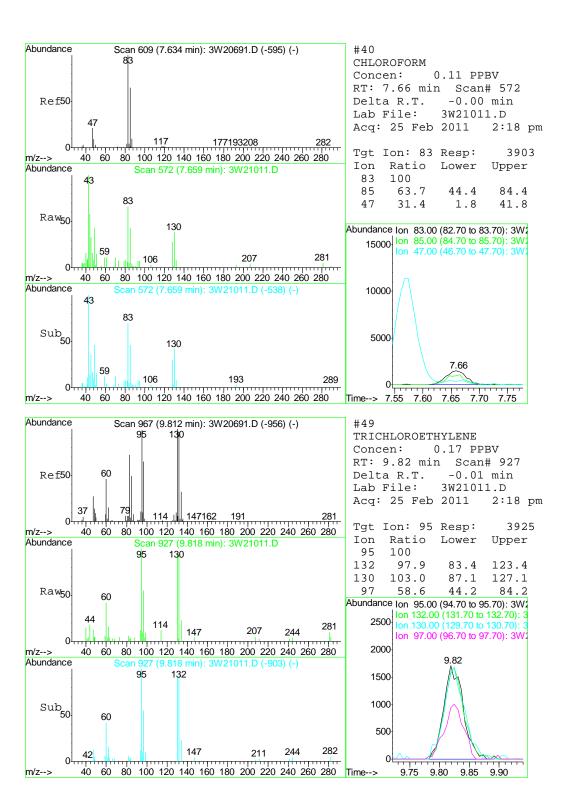


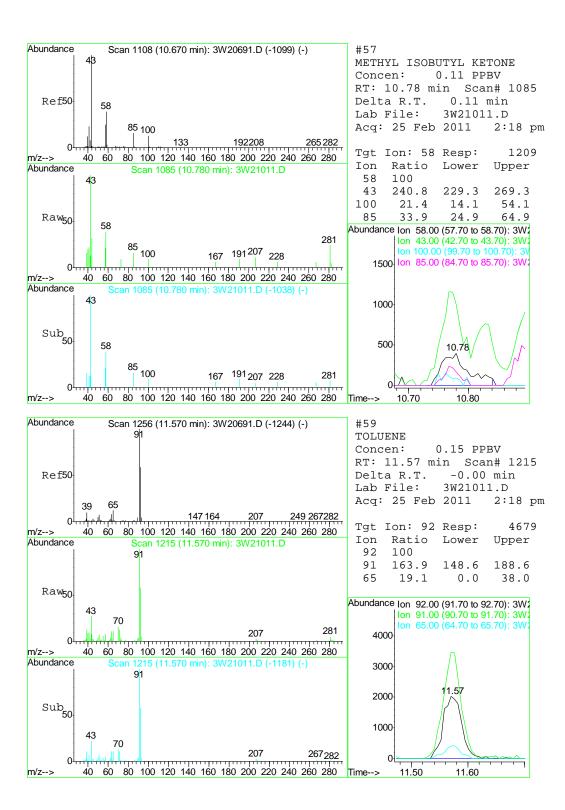


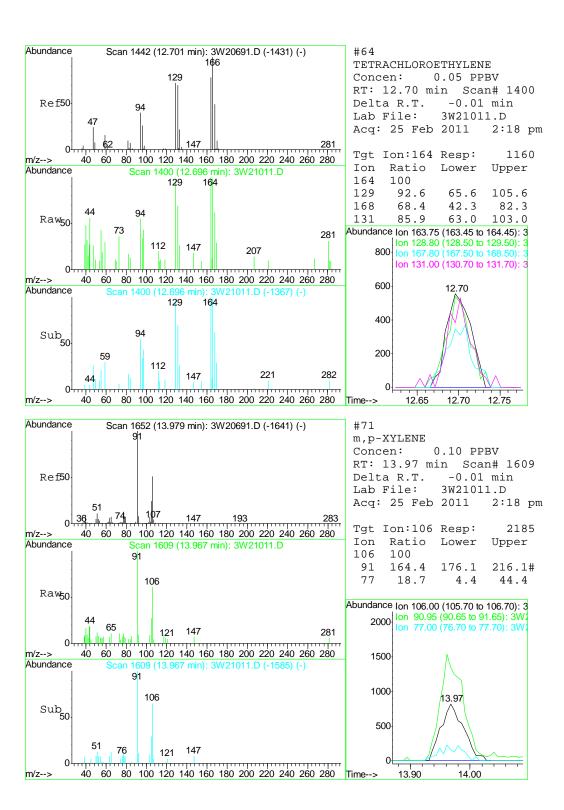


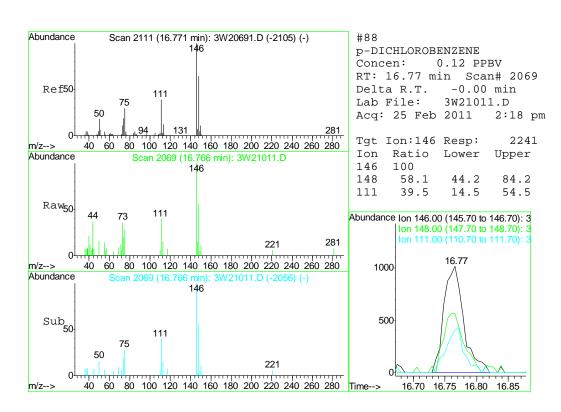












## **Manual Integration Approval Summary**

Sample Number: JA68565-1 Method: TO-15

 Lab FileID:
 3W21011.D
 Analyst approved:
 02/25/11 16:01
 Yunxia Chen

 Injection Time:
 02/25/11 14:18
 Supervisor approved:
 03/10/11 05:12
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.66	Poorly defined baseline

## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:11:35 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
1) BROMOCHLOROMETHANE		128	139906	10.00	PPBV	
45) 1,4-DIFLUOROBENZENE	9.20	114	676966	10.00		-0.01
62) CHLOROBENZENE-D5			311636		PPBV	
95) CHLOROBENZENE-D5 (a)	13.37	82	312572	10.00	PPBV	0.00
System Monitoring Compounds						
	15.00	95	178184		PPBV	-0.01
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	107.6	0%
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE	4.39	85		0.13	PPBV	97
11) n-BUTANE	4.73	43	407156	15.02	PPBV	88
17) ISOPROPYL ALCOHOL	5.61	45	42027 198687	1.84		
18) ACETONE	5.37	58	198687	35.95	PPBV	# 89
19) PENTANE	5.64		13451		PPBV	84
22) 1,1-DICHLOROETHYLENE	5.88		3259	0.20	PPBV	
23) CARBON DISULFIDE	6.18	76	6943 46429	0.14	PPBV	# 55
24) ETHANOL	5.13		46429	8.15	PPBV	99
30) TERTIARY BUTYL ALCOHOL	6.06		4771		PPBV	
33) HEXANE	7.49	57	8092	0.32	PPBV	
36) METHYL ETHYL KETONE	7.10	72	5894 5897	1.14	PPBV :	# 78
39) ETHYL ACETATE	7.61		5897		PPBV :	# 84
40) CHLOROFORM	7.65	83	247611		PPBV	98
46) BENZENE	8.88	78	5008			97
47) CYCLOHEXANE	9.06	56	5243 203711	0.20	PPBV	# 44
49) TRICHLOROETHYLENE	9.82	95	203711	10.26		96
	9.75		8219		PPBV	
54) HEPTANE	10.00		7631		PPBV	
59) TOLUENE	11.56		14212	0.55	PPBV	
63) 2-HEXANONE		58	2416	0.22	PPBV	
64) TETRACHLOROETHYLENE	12.70		7693		PPBV	97
67) OCTANE	12.48		6840		PPBV	
70) ETHYLBENZENE	13.78		6082		PPBV	97
71) m,p-XYLENE	13.96		9374		PPBV	97
72) o-XYLENE	14.48		4871		PPBV	
74) NONANE	14.66		4385		PPBV	
82) 4-ETHYLTOLUENE	15.88	105	3437		PPBV	96
83) 1,3,5-TRIMETHYLBENZENE	15.98	105	3435 10847	0.11	PPBV	
85) 1,2,4-TRIMETHYLBENZENE					PPBV	
88) p-DICHLOROBENZENE	16.76	146	5112	0.32	PPBV	97

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W21001.D M3W821.M Fri Feb 25 10:21:15 2011 MS3W



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W21001.D Vial: 1

 Acq On
 : 25 Feb 2011
 5:33 am
 Operator: yunxiac

 Sample
 : ja68565-2
 Inst
 : MS3W

 Misc
 : MS8536,V3W828,100,,,,1
 Multiplr: 1.00

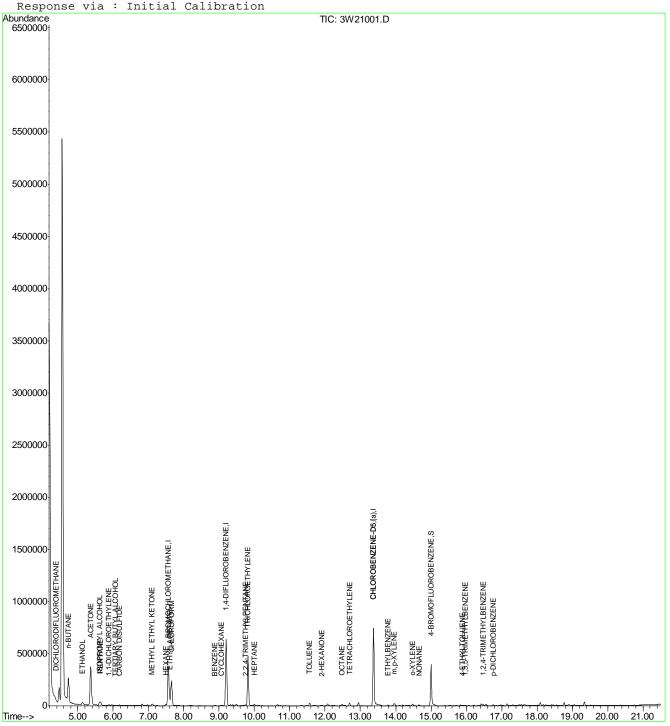
MS Integration Params: rteint.p

Quant Time: Feb 25 10:18 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

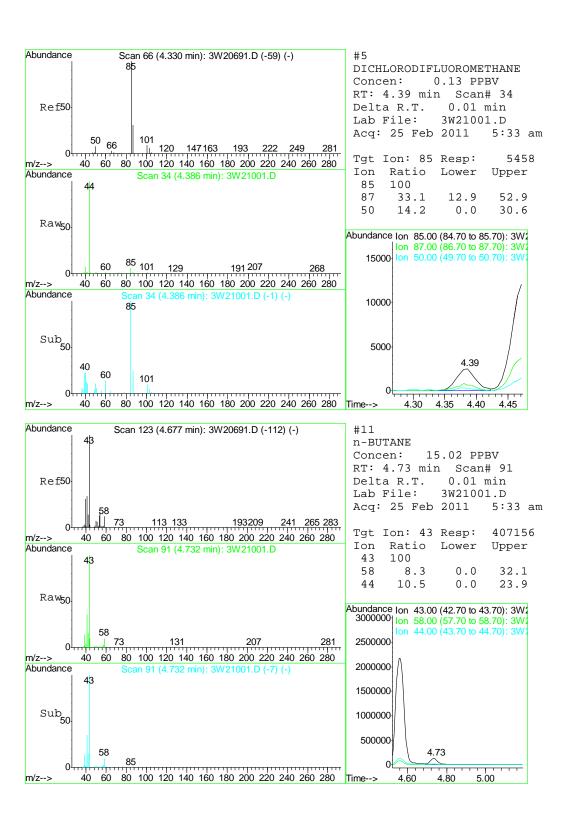


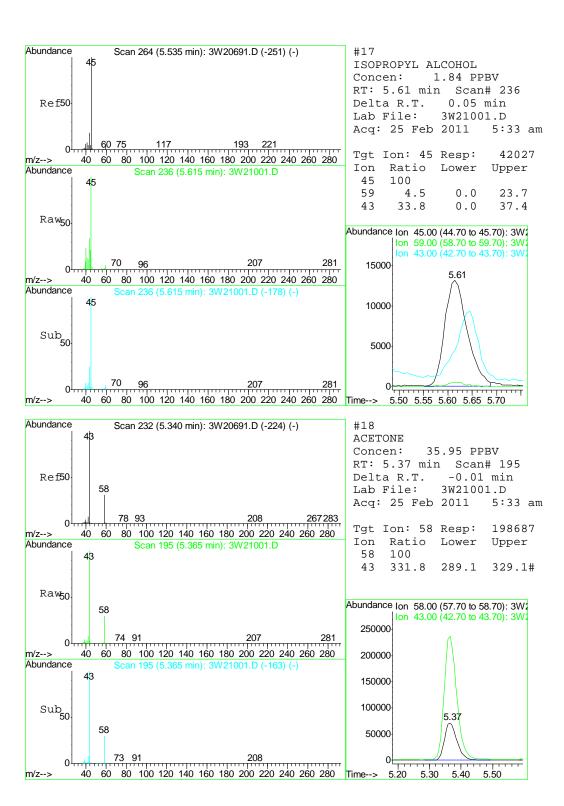
3W21001.D M3W821.M

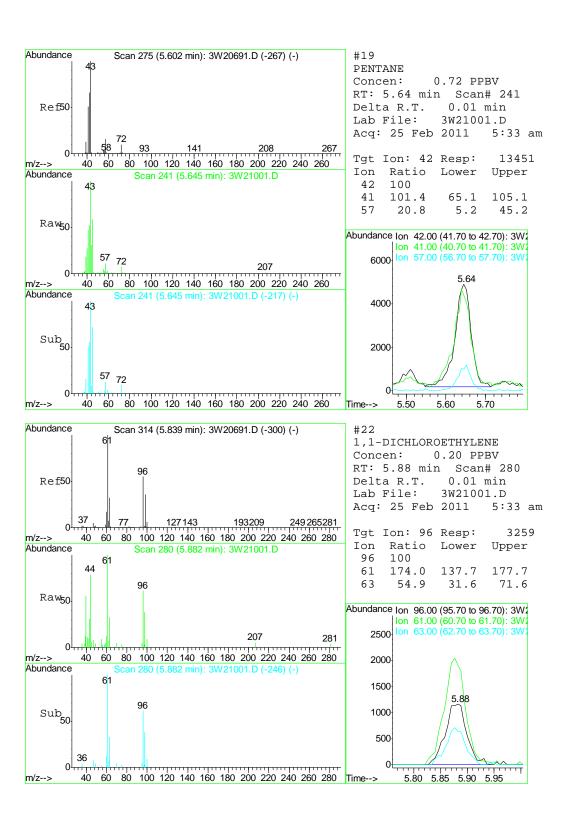
Fri Feb 25 10:21:15 2011

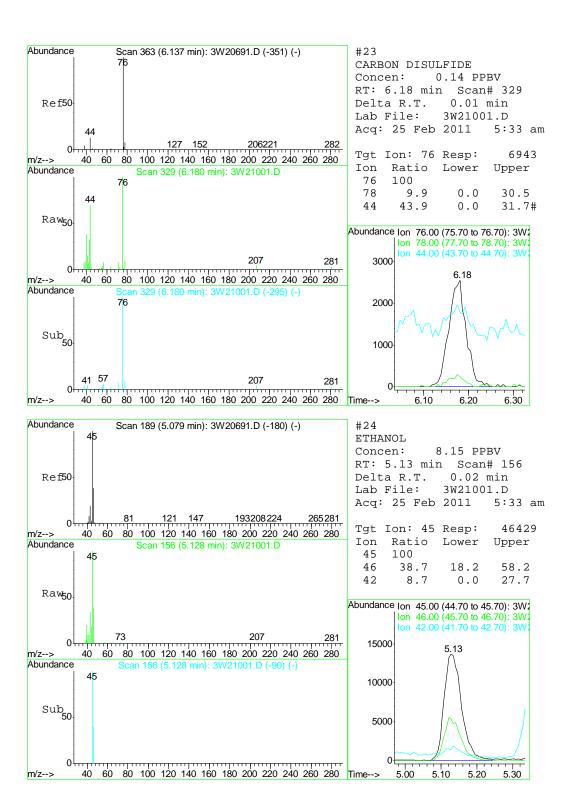
MS3W

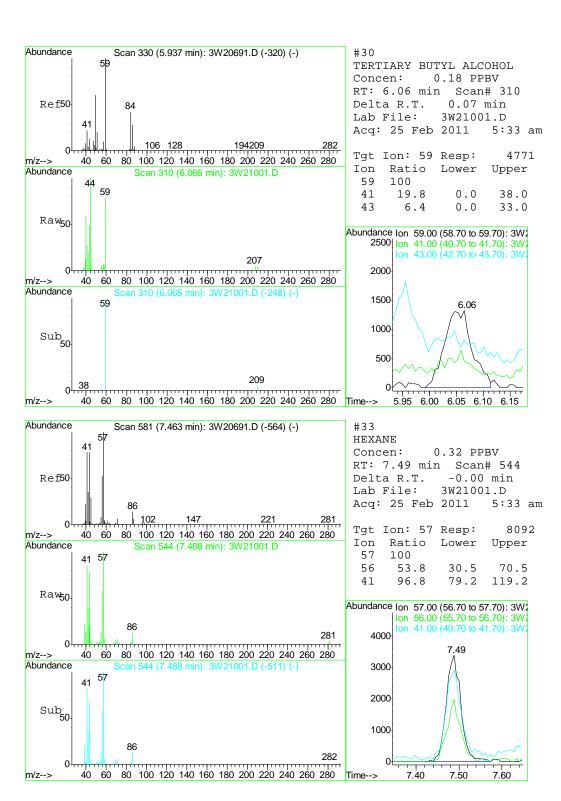


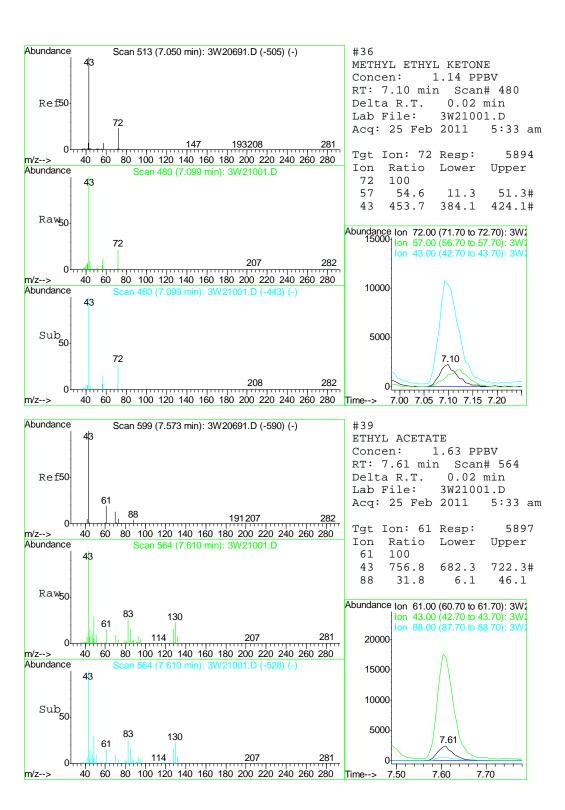


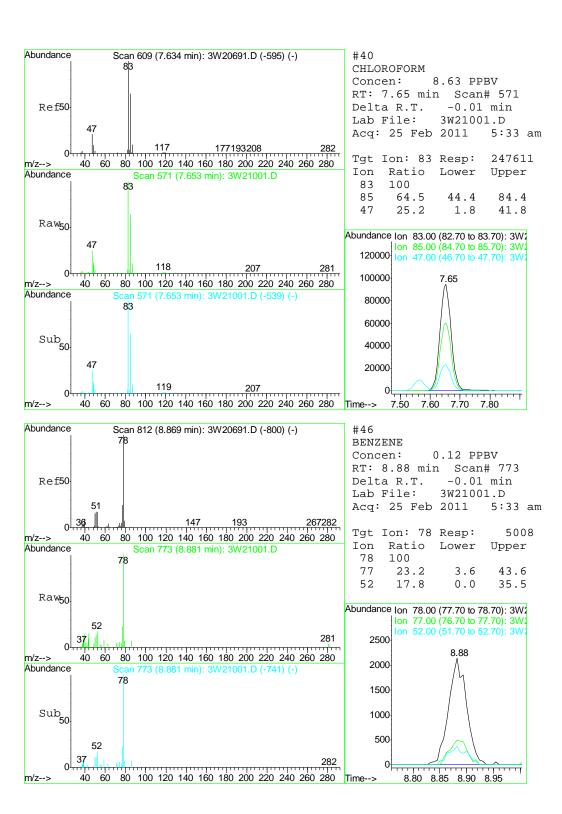


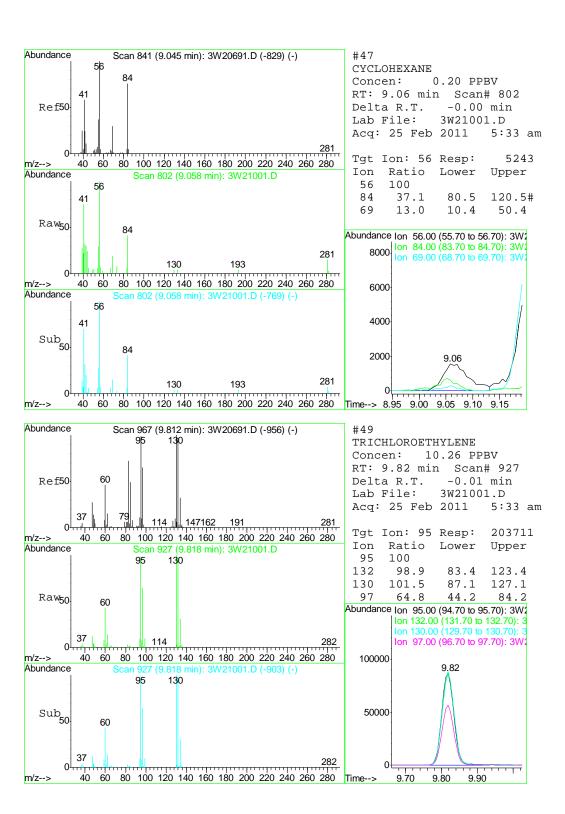






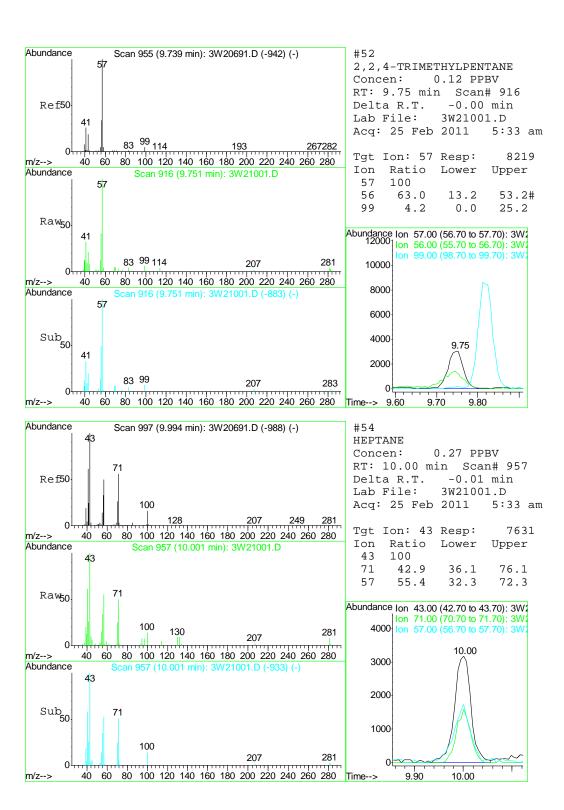


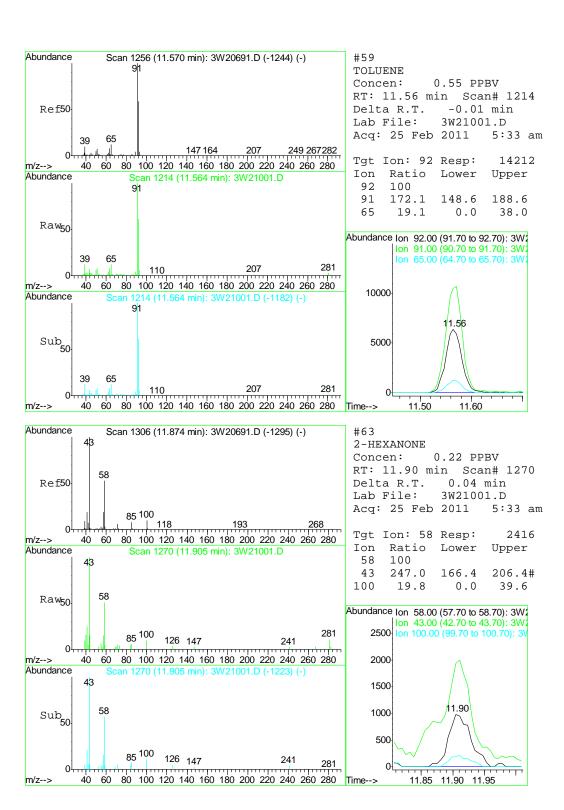


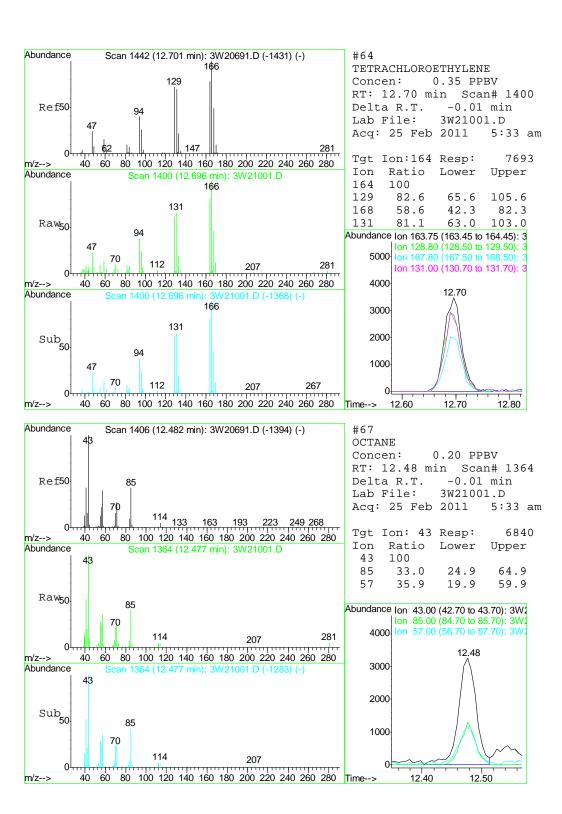


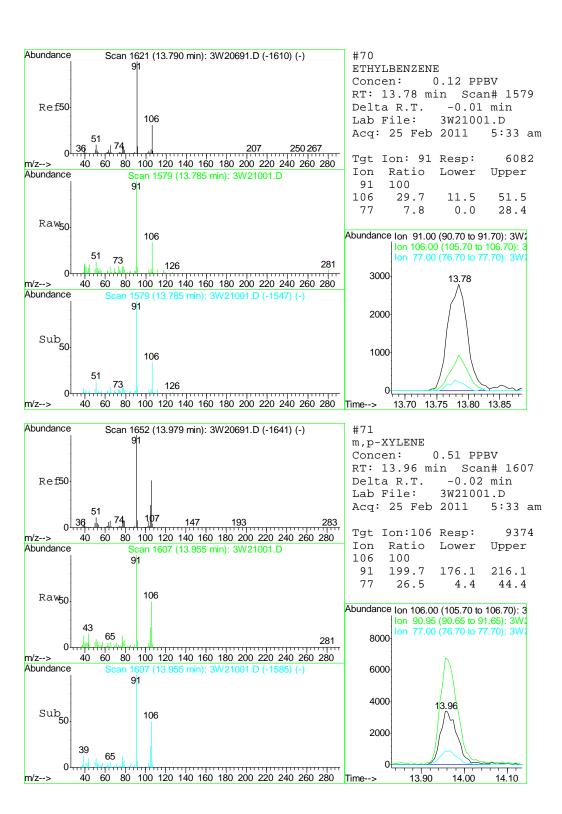
Page 10 241 of 840 ACCUTEST:

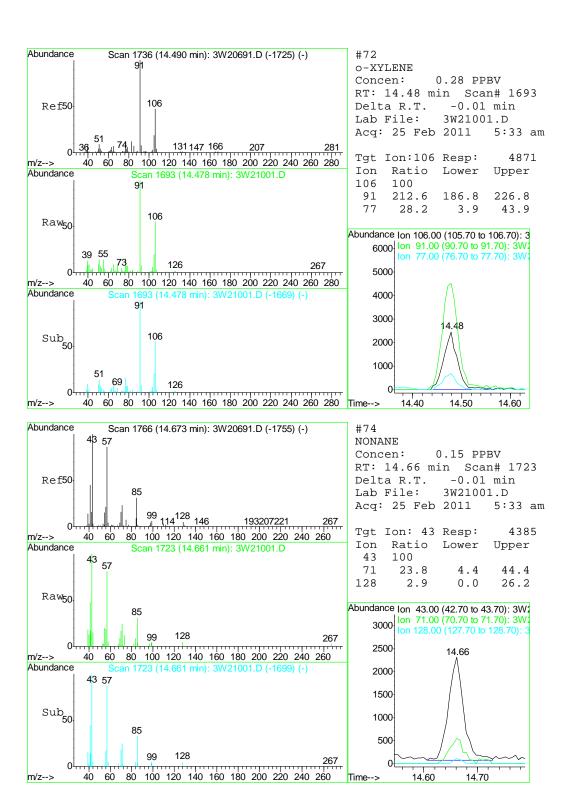
JA68565

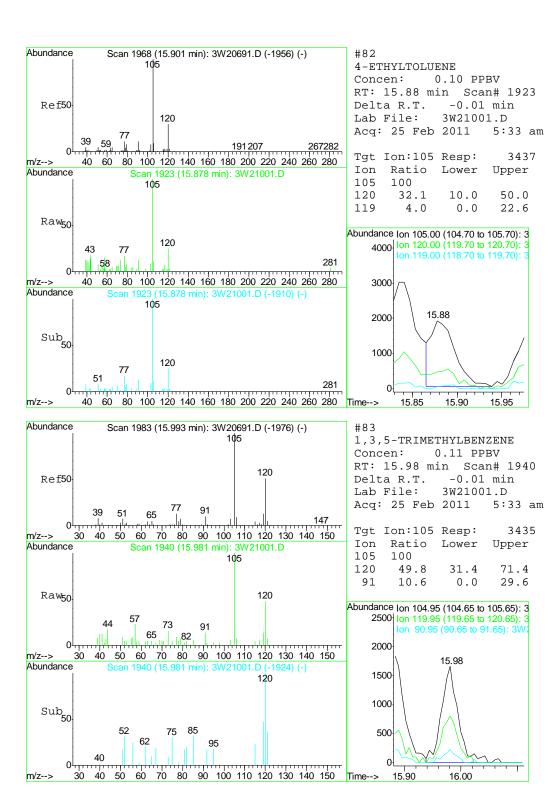


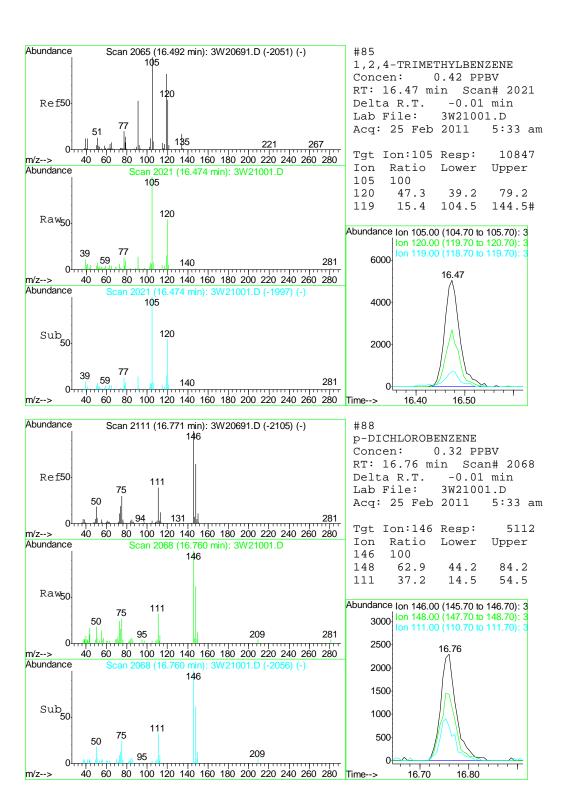












**Manual Integrations** APPROVED (compounds with "m" flag)

> **Kanya Veerawat** 03/10/11 05:28

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20984.D Vial: 1 Acq On : 24 Feb 2011 5:38 pm Operator: yunxiac Inst : MS3W Sample : ja68565-3 : MS8536,V3W828,100,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 08:10:43 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Un	nits D	ev(	Min)
1) BROMOCHLOROMETHANE	7.57	128	154395	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	748240	10.00	PPBV	-	0.01
62) CHLOROBENZENE-D5	13.37	82	345836	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	346279	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	200754	5.46	PPBV		0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	109.2	20%	
Target Compounds						Qva	lue
5) DICHLORODIFLUOROMETHANE	4.38	85	7423	0.16	PPBV		97
6) PROPYLENE	4.34	41	5038	0.29	PPBV	#	84
11) n-BUTANE	4.73	43	11828	0.40	PPBV	#	92
17) ISOPROPYL ALCOHOL	5.65	45	22218m	0.88	PPBV		
18) ACETONE	5.37	58	110419	18.11	PPBV	#	88
19) PENTANE	5.64			0.26			82
24) ETHANOL	5.15		37540		PPBV		97
28) FREON 113	6.11	151	3718	0.12	PPBV		98
30) TERTIARY BUTYL ALCOHOL	6.11		3988m		PPBV		
33) HEXANE	7.49		3430		PPBV		98
36) METHYL ETHYL KETONE			2902		PPBV		
39) ETHYL ACETATE	7.62		3737		PPBV		
49) TRICHLOROETHYLENE	9.81		6289		PPBV		
54) HEPTANE	10.00	43	6336		PPBV		92
59) TOLUENE	11.56	92	11839		PPBV		97
63) 2-HEXANONE			1261		PPBV		89
64) TETRACHLOROETHYLENE			1290	0.05	PPBV		97
67) OCTANE		43		0.19	PPBV		90
71) m,p-XYLENE	13.96				PPBV		94
72) o-XYLENE	14.48	106	4467	0.23	PPBV		95
85) 1,2,4-TRIMETHYLBENZENE					PPBV	#	
88) p-DICHLOROBENZENE	16.75	146	5309	0.30	PPBV		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20984.D M3W821.M Fri Feb 25 10:20:13 2011 MS3W



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20984.D Vial: 1

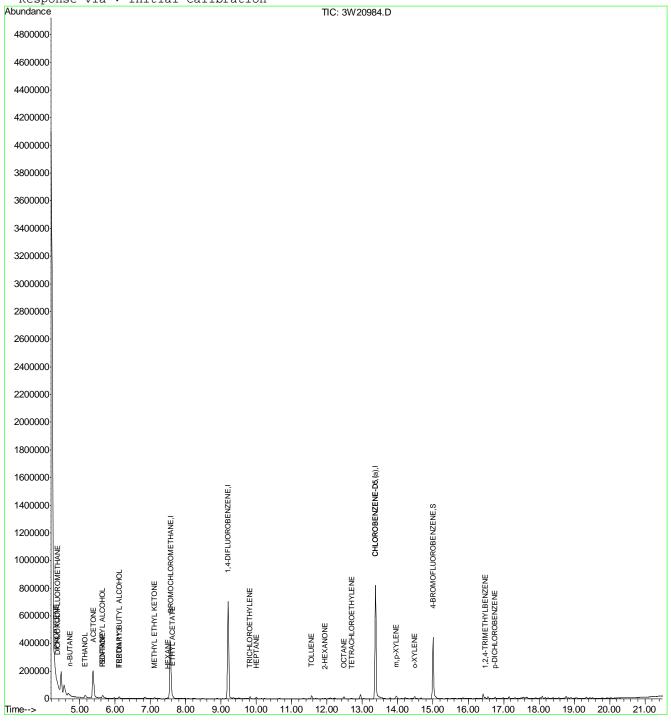
: 24 Feb 2011 5:38 pm Operator: yunxiac Acq On Sample : ja68565-3 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 8:57 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

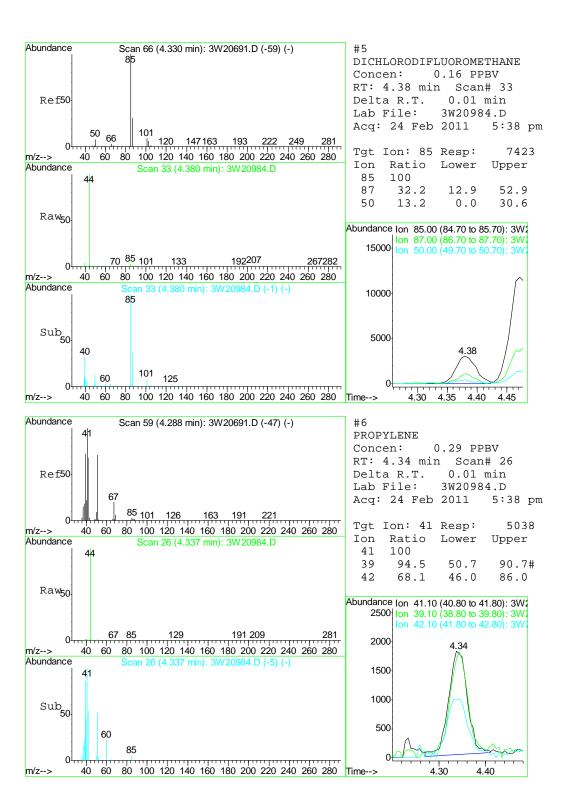
Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

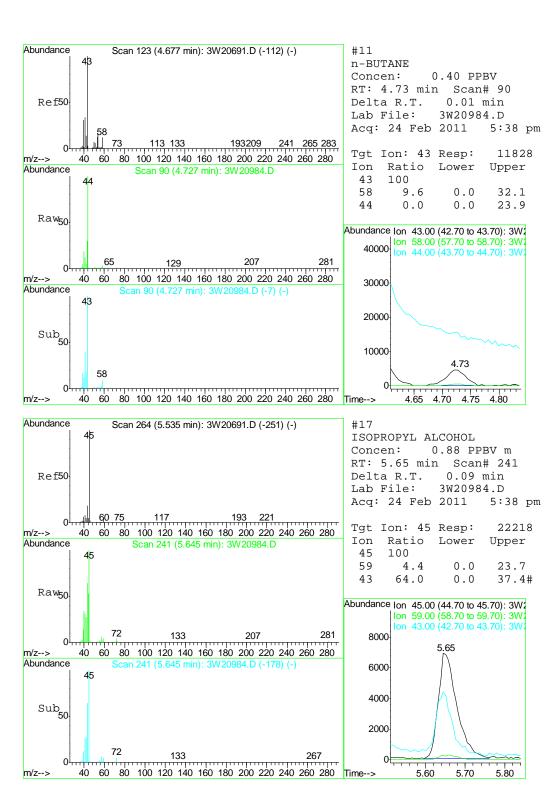


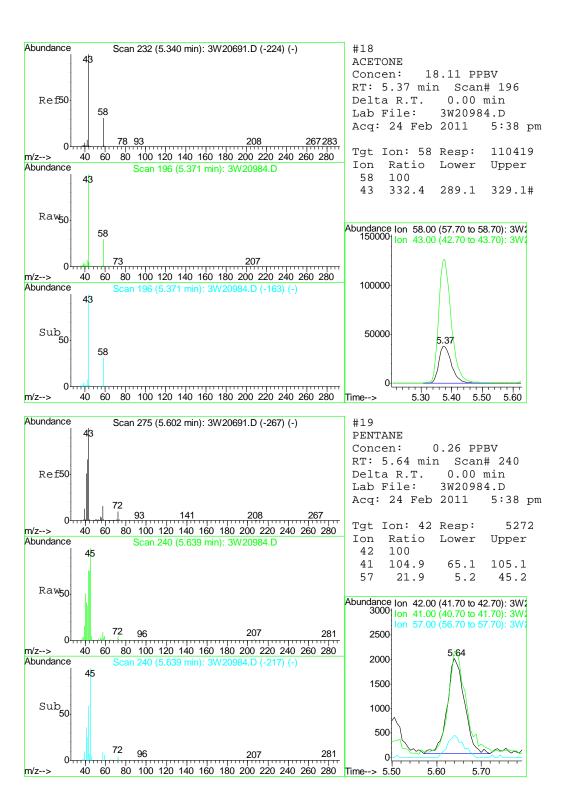
3W20984.D M3W821.M

MS3W









Abundance

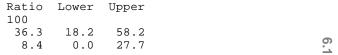
Ref50

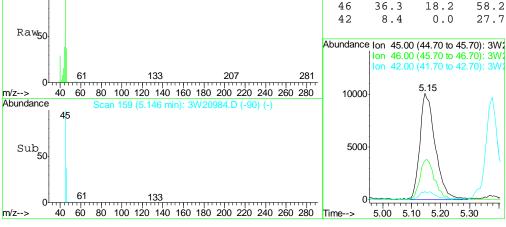
m/z-->

Abundance

45

45





193208224

#24

45

265 281

ETHANOL

Concen:

Delta R.T.

Lab File:

Acq: 24 Feb 2011

Tgt Ion: 45 Resp:

100

5.97 PPBV

0.04 min

5:38 pm

37540

3W20984.D

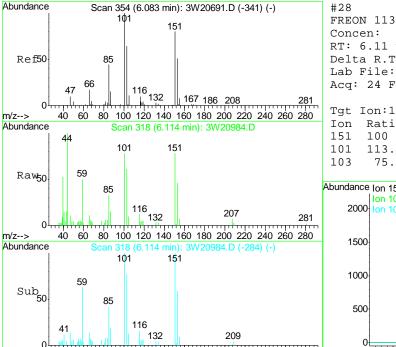
RT: 5.15 min Scan# 159

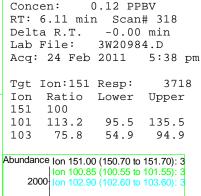
Scan 189 (5.079 min): 3W20691.D (-180) (-)

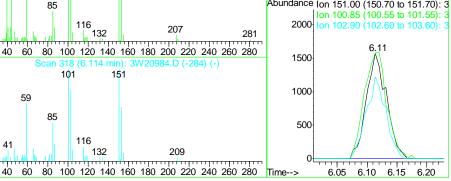
40 60 80 100 120 140 160 180 200 220 240 260 280

Scan 159 (5.146 min): 3W20984.D

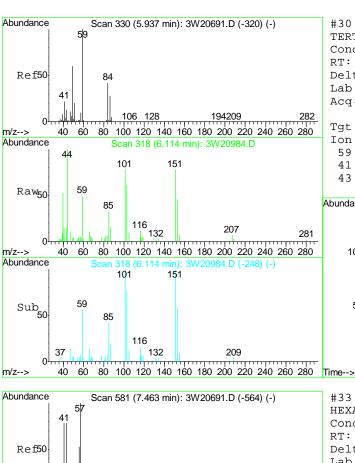
121 147





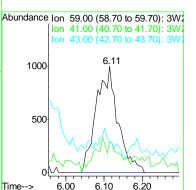


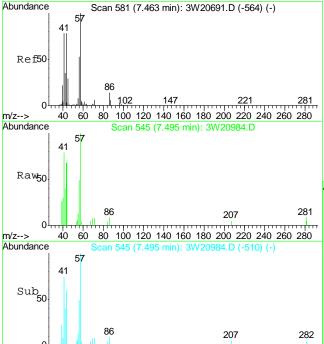
m/z-->



#30 TERTIARY BUTYL ALCOHOL Concen: 0.14 PPBV m RT: 6.11 min Scan# 318 Delta R.T. 0.12 min Lab File: 3W20984.D Acq: 24 Feb 2011 5:38 pm

Tqt Ion: 59 Resp: 3988 Ratio Lower Upper 59 100 41 0.0 38.0 18.0 43 7.0 0.0 33.0

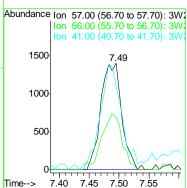




## HEXANE

0.12 PPBV Concen: RT: 7.49 min Scan# 545 0.01 min Delta R.T. Lab File: 3W20984.D Acq: 24 Feb 2011 5:38 pm

Tgt Ion: 57 Resp: 3430 Ion Ratio Lower Upper 57 100 56 51.6 30.5 70.5 41 102.1 79.2 119.2



3W20984.D M3W821.M

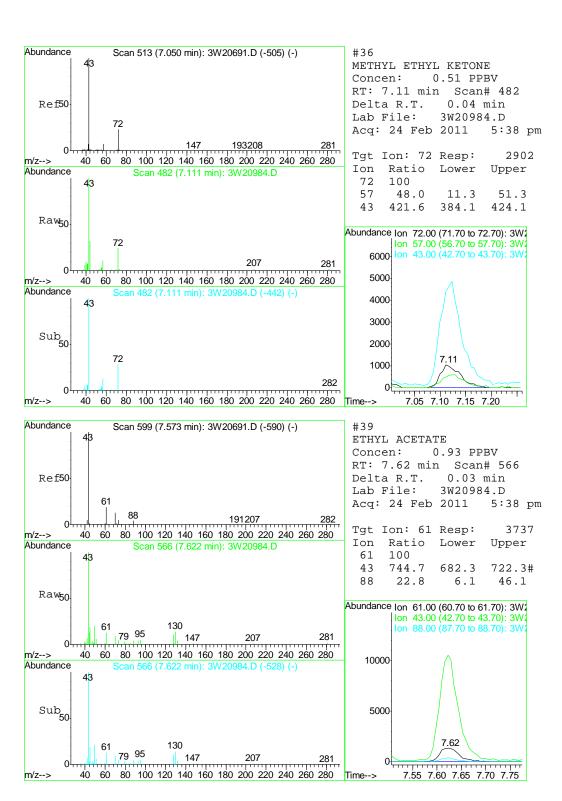
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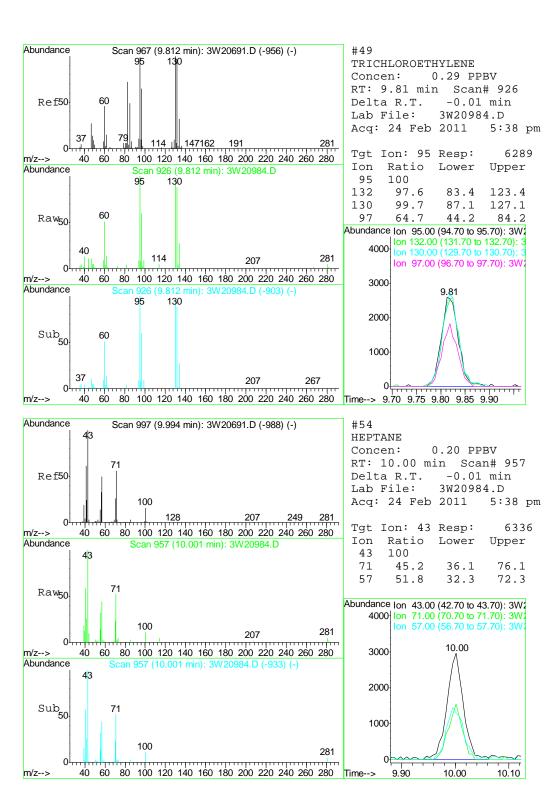
Fri Feb 25 10:20:14 2011

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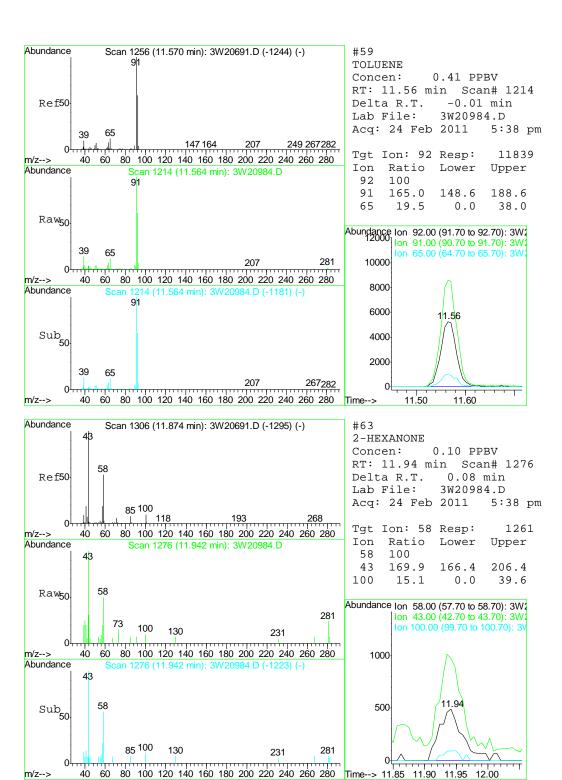
MS3W

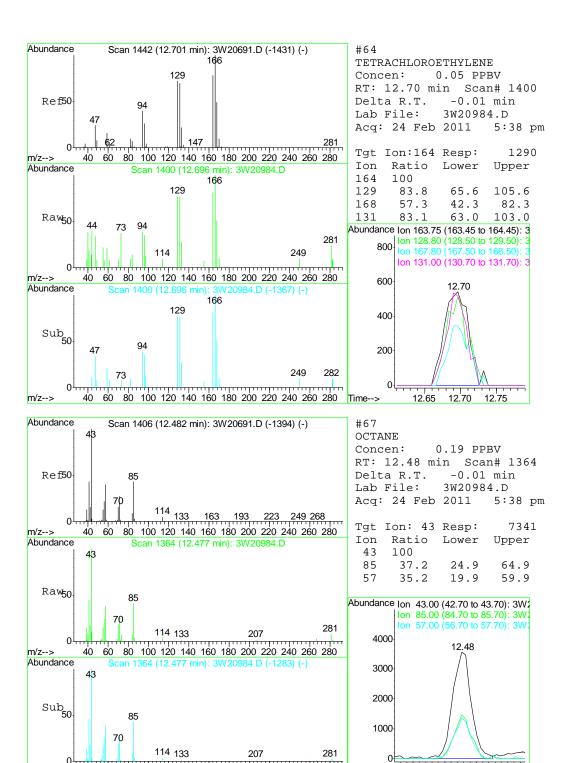






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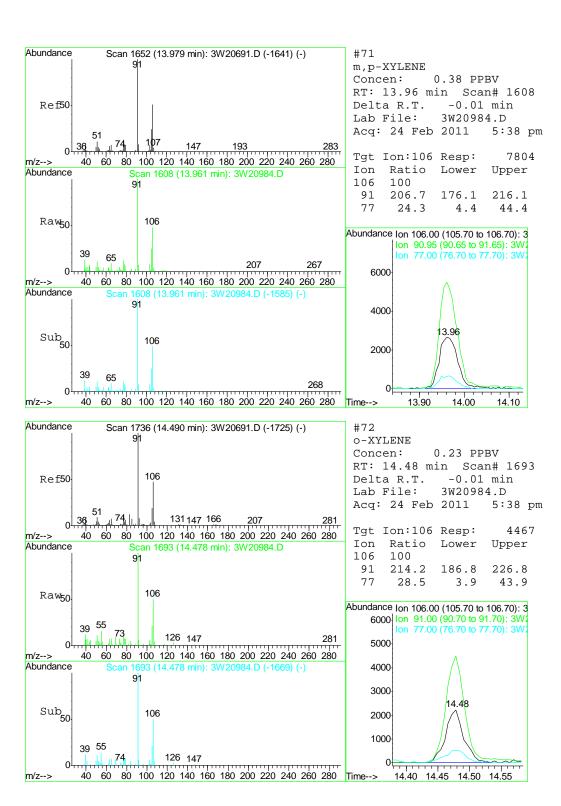
Page 11

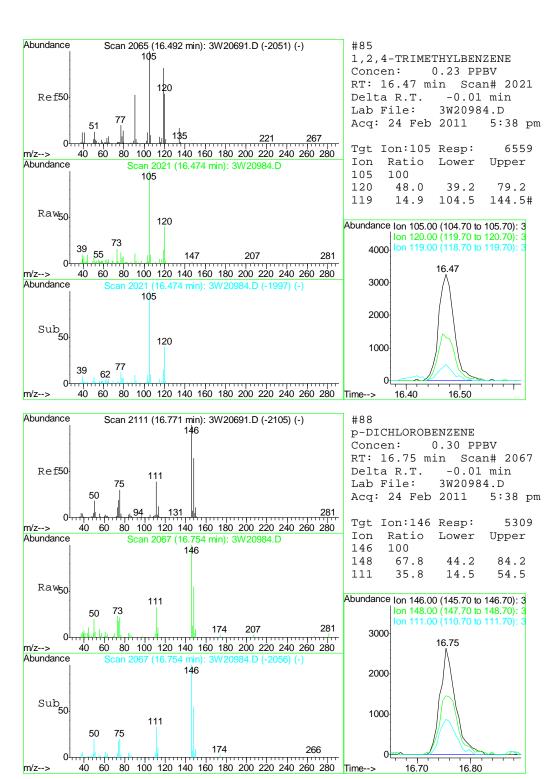
m/z-->

60 80 100 120 140 160 180 200 220 240 260 280

12.40 12.45 12.50 12.55

Time-->





Page 1 of 1

## **Manual Integration Approval Summary**

Sample Number: JA68565-3 Method: TO-15

 Lab FileID:
 3W20984.D
 Analyst approved:
 02/25/11 10:31
 Yunxia Chen

 Injection Time:
 02/24/11 17:38
 Supervisor approved:
 03/10/11 05:28
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.65	Missed peak
Tertiary Butyl Alcohol	75-65-0		6.11	Split peak



## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:10:47 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	7.56	128	141868	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE							
62) CHLOROBENZENE-D5							
95) CHLOROBENZENE-D5 (a)	13.37	82	316843	10.00	PPBV		-0.01
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	181836	5.41	PPBV		-0.01
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	108.	20%	
Target Compounds						Qv	alue
5) DICHLORODIFLUOROMETHANE	4.39	85	20868	0.50	PPBV		99
6) PROPYLENE	4.34	41	9566	0.61	PPBV		89
11) n-BUTANE	4.73	43	9566 13947	0.51	PPBV	#	92
16) TRICHLOROFLUOROMETHANE		101	5011	0.12	PPBV		98
	5.59				PPBV		
	5.35				PPBV	#	89
23) CARBON DISULFIDE			66727		PPBV		
24) ETHANOL	5.12	45	149781	25.92	PPBV		
28) FREON 113	6.11		33150				
30) TERTIARY BUTYL ALCOHOL	6.03	59	6605	0.25	PPBV	,	92
33) HEXANE			3691				72
36) METHYL ETHYL KETONE	7.09	72	5446	1.04	PPBV	#	81
39) ETHYL ACETATE	7.59	61	13104	3.57	PPBV	#	86
46) BENZENE	8.88	78	5219	0.13	PPBV	,	95
49) TRICHLOROETHYLENE					PPBV		96
54) HEPTANE			4093		PPBV		80
59) TOLUENE			15708		PPBV		94
64) TETRACHLOROETHYLENE	12.70	164	3245	0.14	PPBV		96
71) m,p-XYLENE	13.96	106	6737	0.36	PPBV		96
72) o-XYLENE	14.47	106	4001	0.23	PPBV	,	89
85) 1,2,4-TRIMETHYLBENZENE							
88) p-DICHLOROBENZENE	16.75	146	6155	0.37	PPBV		95

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20985.D M3W821.M Fri Feb 25 10:20:16 2011 MS3W



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20985.D Vial: 4

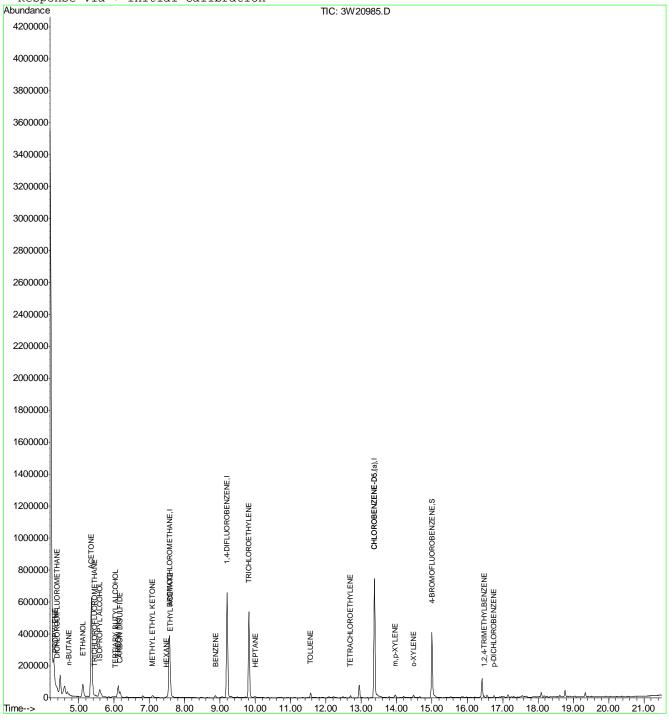
: 24 Feb 2011 6:18 pm Operator: yunxiac Acq On Sample : ja68565-4 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:08 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

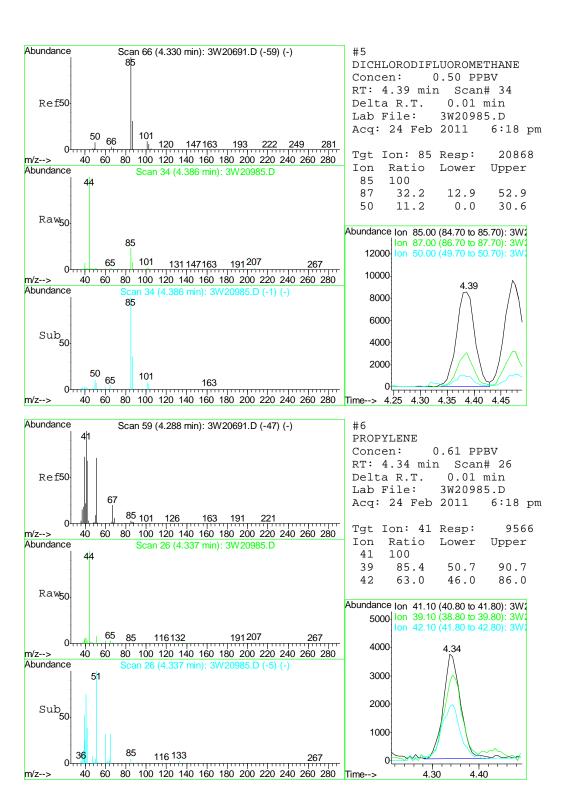


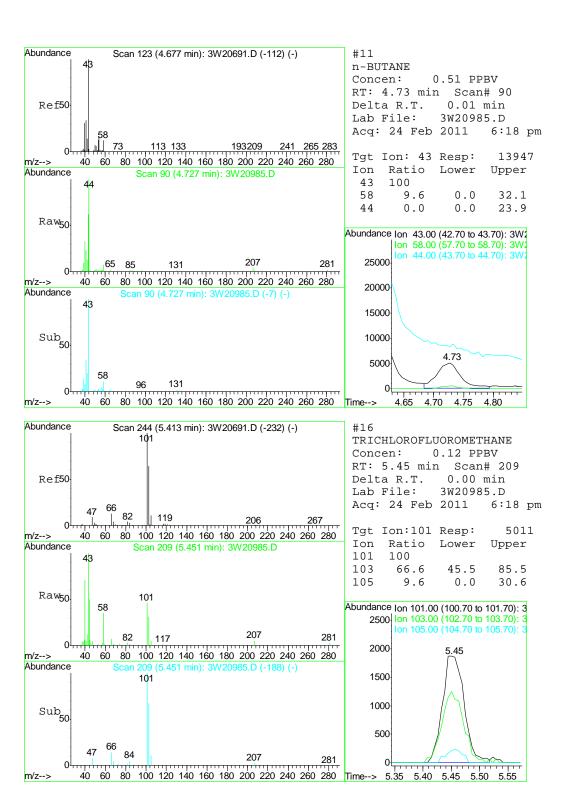
3W20985.D M3W821.M

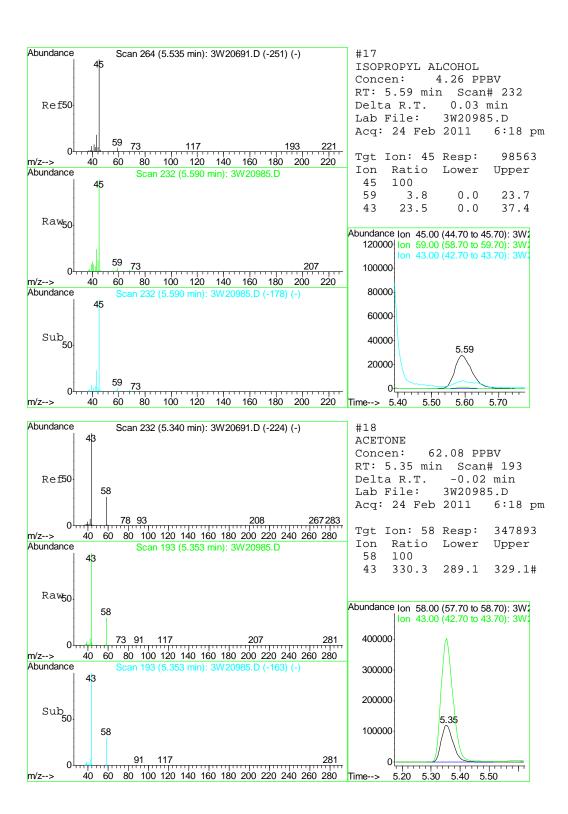
Fri Feb 25 10:20:17 2011

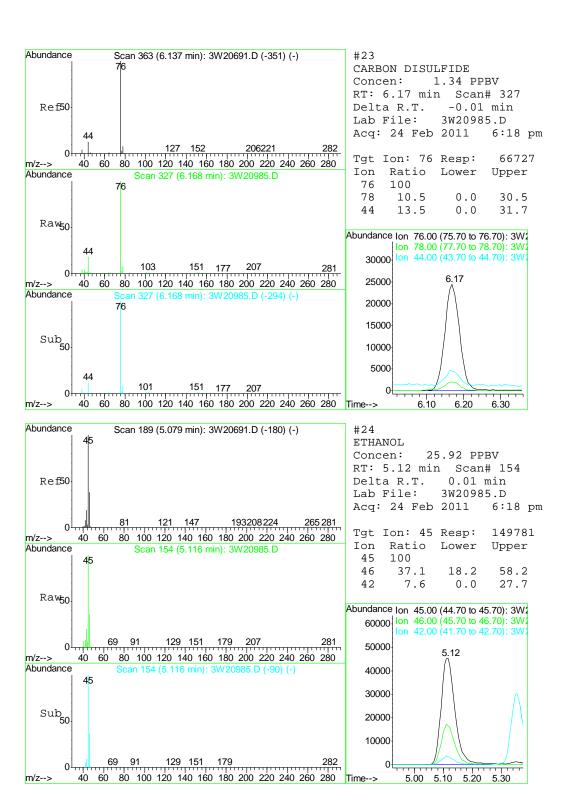
MS3W

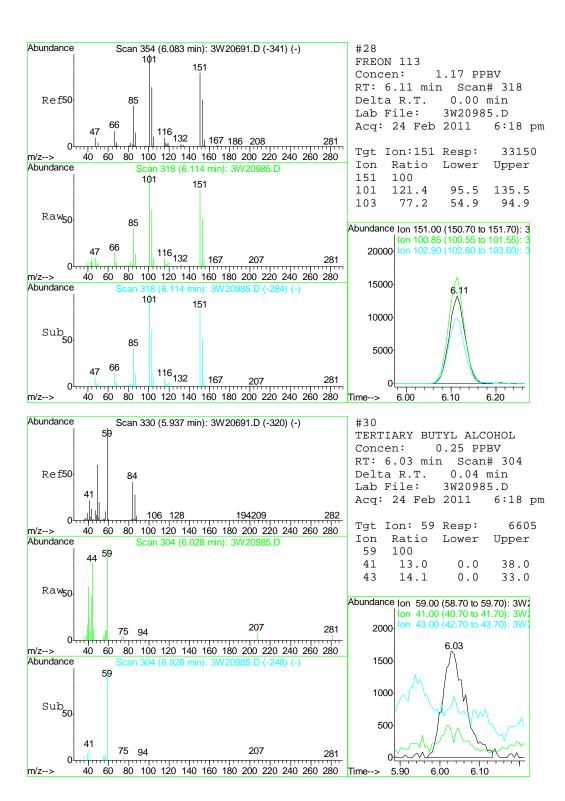


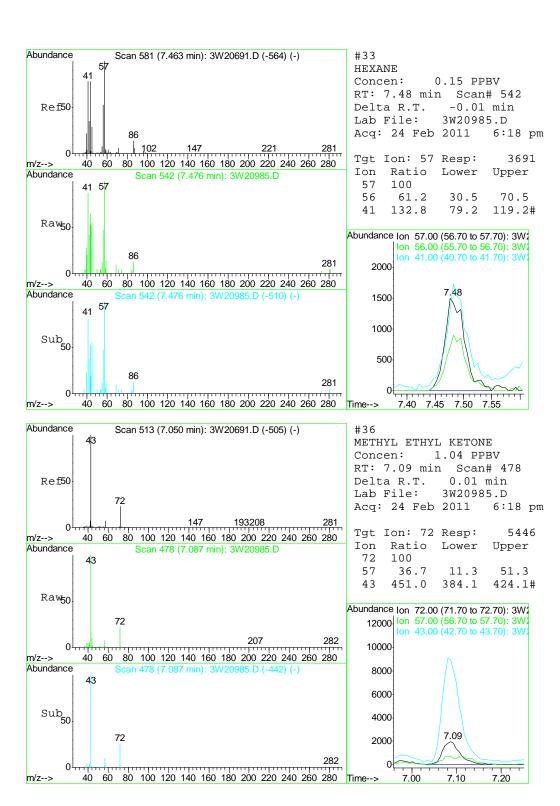


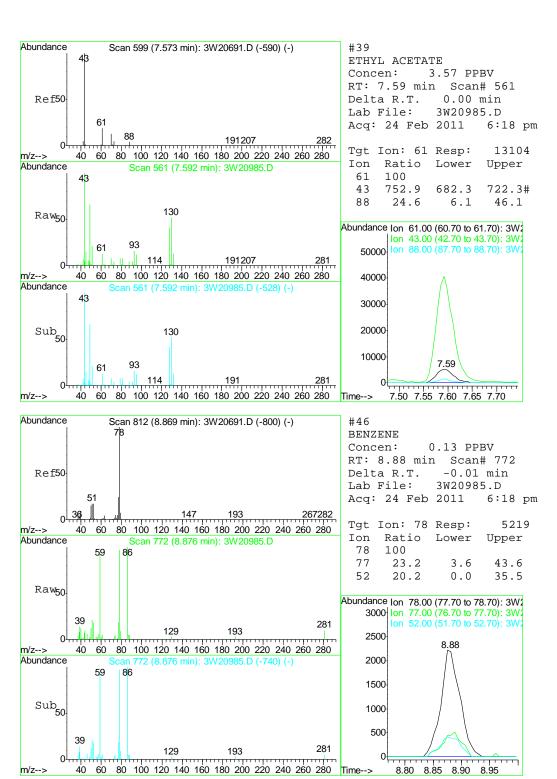


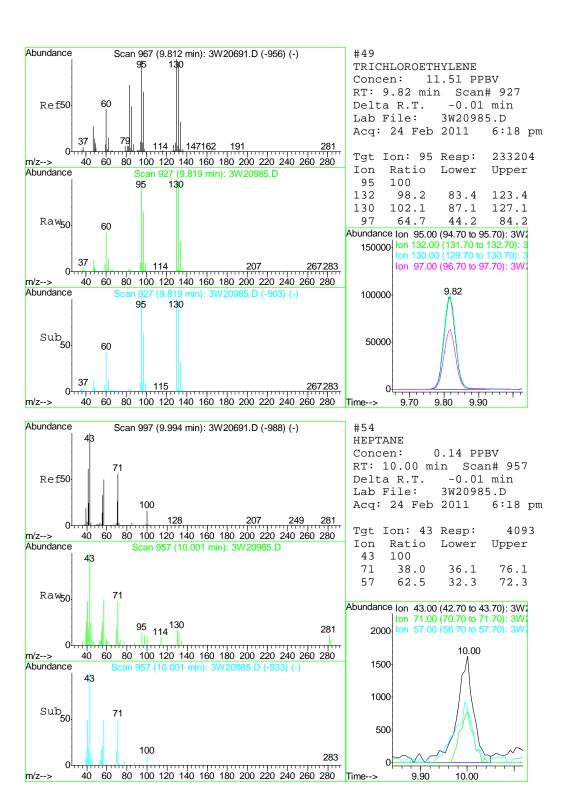


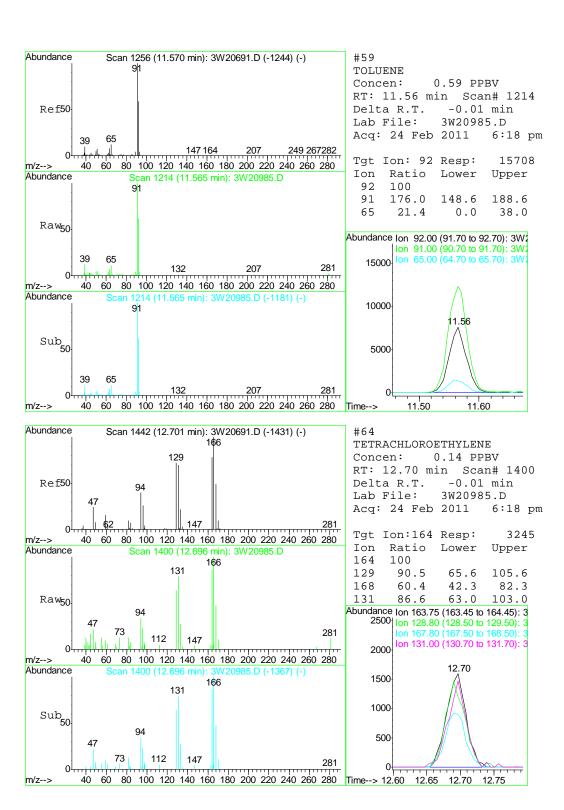


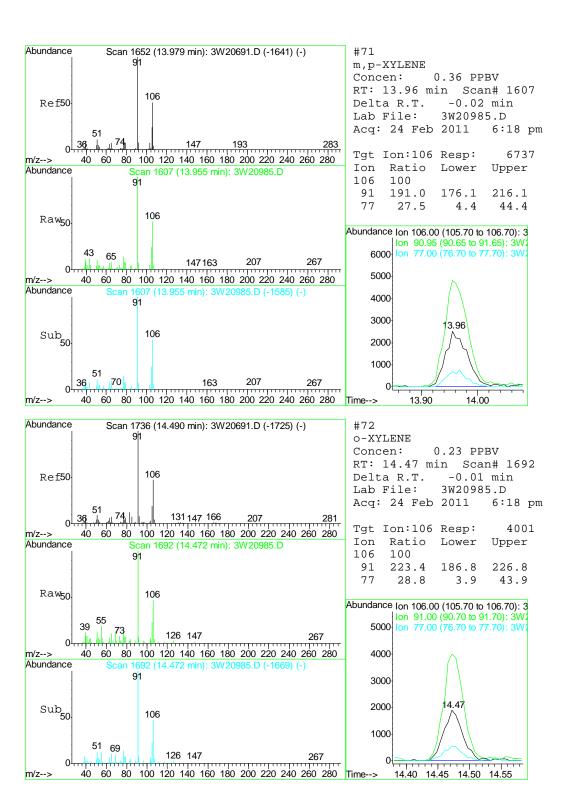


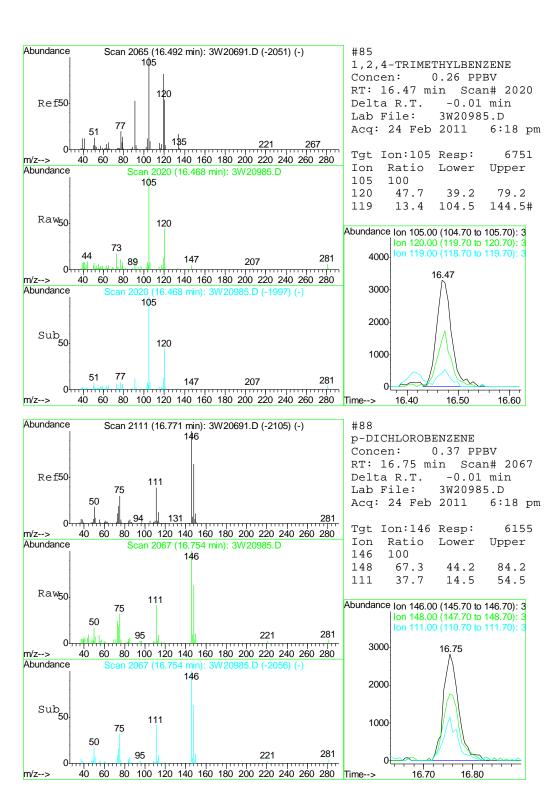












Manual Integrations
APPROVED
(compounds with "m" flag)

Kanya Veerawat 03/02/11 16:37

Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 15:39:59 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc U	nits D	ev(N	(in
1) BROMOCHLOROMETHANE	7.56	128 114	163429 794327				0.00
45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5	9.20 13.37	82	794327 371341	10.00			0.01
95) CHLOROBENZENE-D5 (a)	13.37	82	372822				0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	210889	5.34	PPBV	(	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	106.8	0%	
Target Compounds						Qval	.ue
5) DICHLORODIFLUOROMETHANE	4.38	85	9811	0.20	PPBV		95
6) PROPYLENE	4.33	41	6044	0.33	PPBV		82
11) n-BUTANE	4.72	43	6636		PPBV	#	92
17) ISOPROPYL ALCOHOL	5.63	45	34472m		PPBV		
18) ACETONE	5.37	58	107126	16.59		#	89
23) CARBON DISULFIDE	6.16	76	27194	0.47	PPBV		89
24) ETHANOL	5.13	45	57602		PPBV		100
28) FREON 113	6.11	151	13275		PPBV		92
36) METHYL ETHYL KETONE	7.11	72	1526		PPBV		71
39) ETHYL ACETATE	7.60	61	3777	0.89	PPBV	#	87
49) TRICHLOROETHYLENE	9.82	95	90219	3.87	PPBV		97
59) TOLUENE	11.57		5870	0.19	PPBV		92
64) TETRACHLOROETHYLENE	12.70	164		0.05	PPBV		94
71) m,p-XYLENE	13.96	106	2368	0.11	PPBV		97
88) p-DICHLOROBENZENE	16.75	146	1993	0.10	PPBV		88

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21012.D M3W821.M Fri Feb 25 15:50:38 2011 MS3W



Quantitation Report (QT Reviewed)

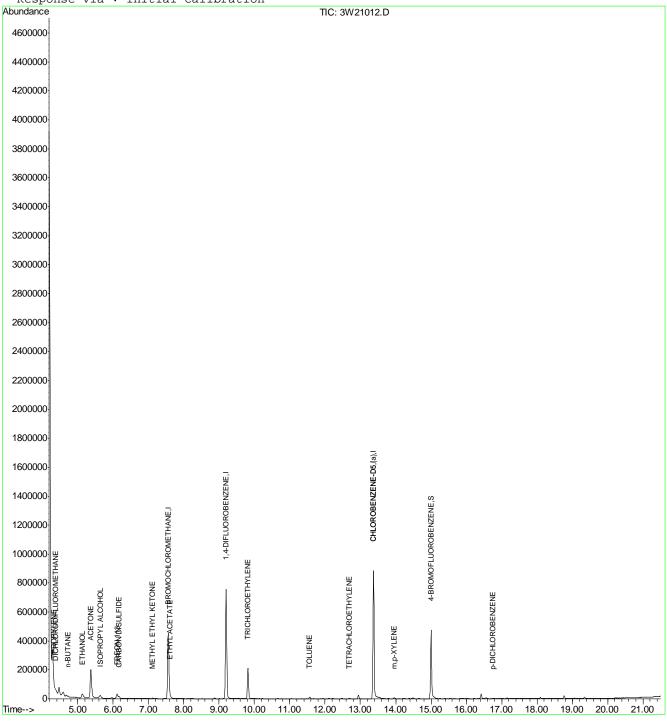
Data File : C:\MSDCHEM\1\DATA\3W21012.D Vial: 4

MS Integration Params: rteint.p

Quant Time: Feb 25 15:49 2011 Quant Results File: M3W821.RES

 $\label{eq:method} \begin{tabular}{ll} Method &: C:\MSDCHEM\label{eq:methods} $M3W821.M$ (RTE Integrator) \\ Title &: TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um \\ \end{tabular}$ 

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

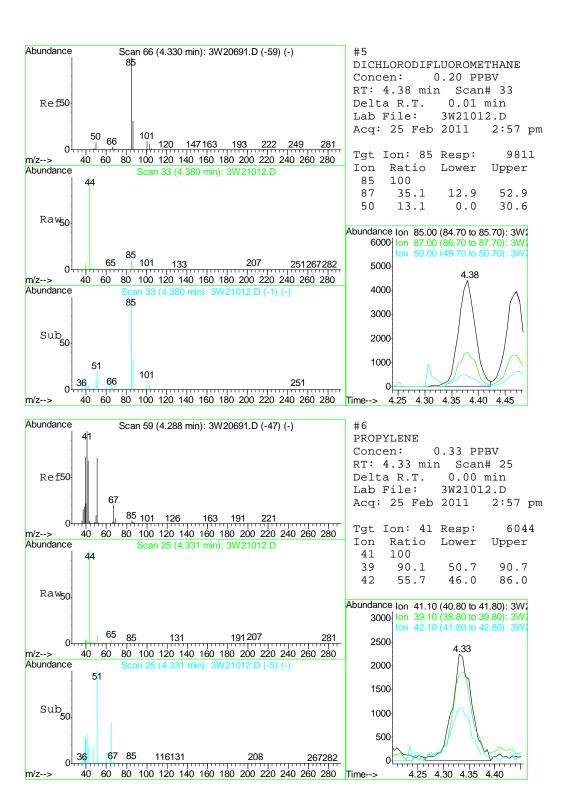


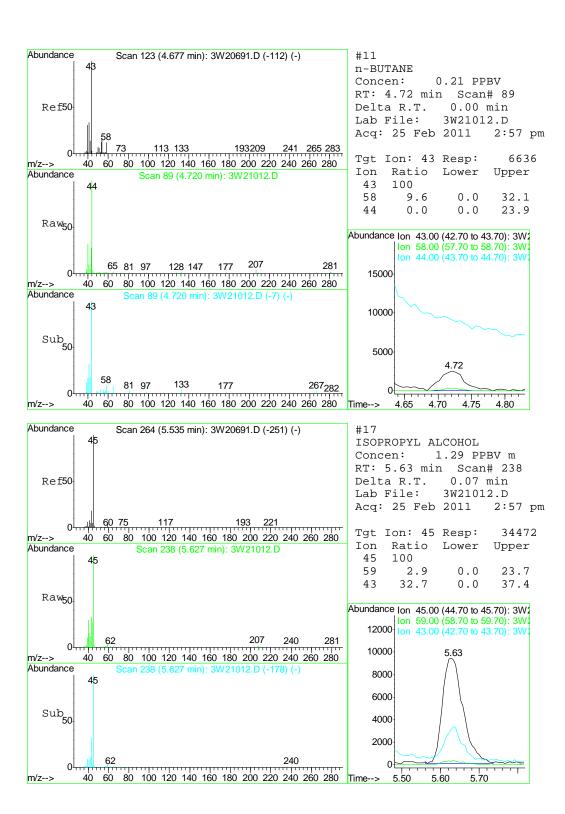
3W21012.D M3W821.M

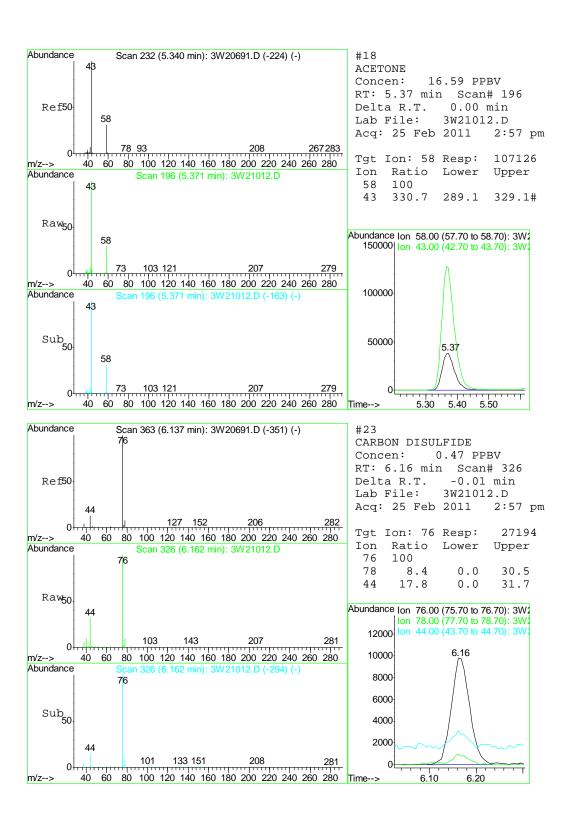
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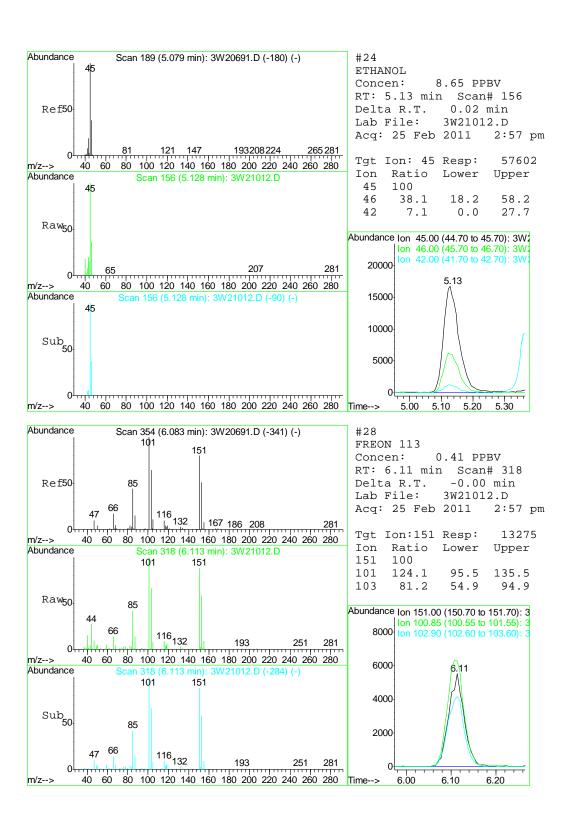
MS3W

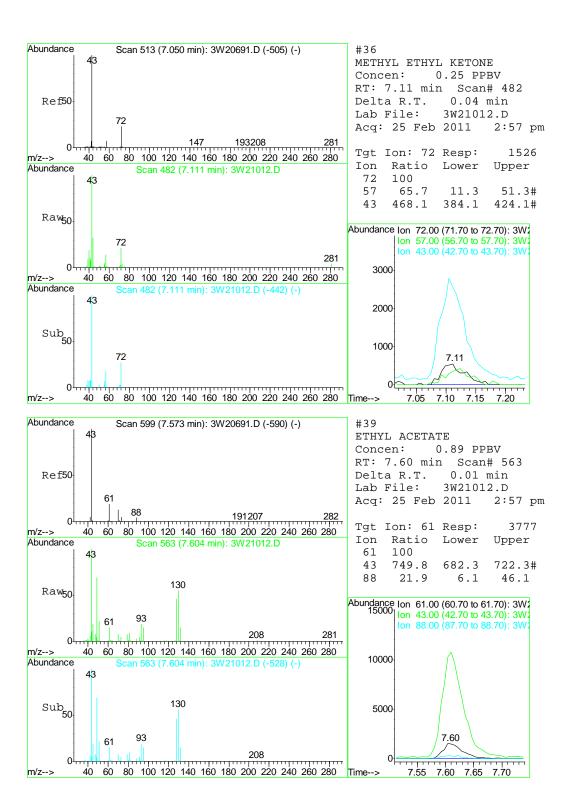


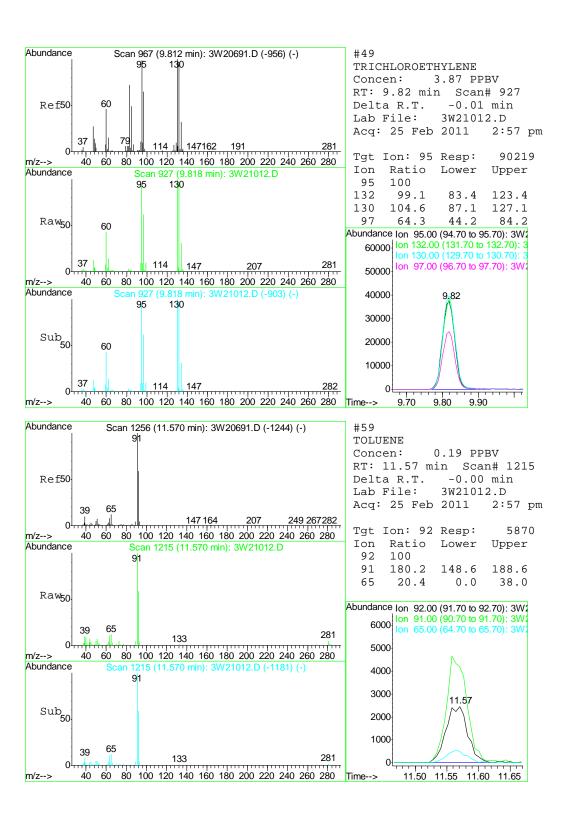


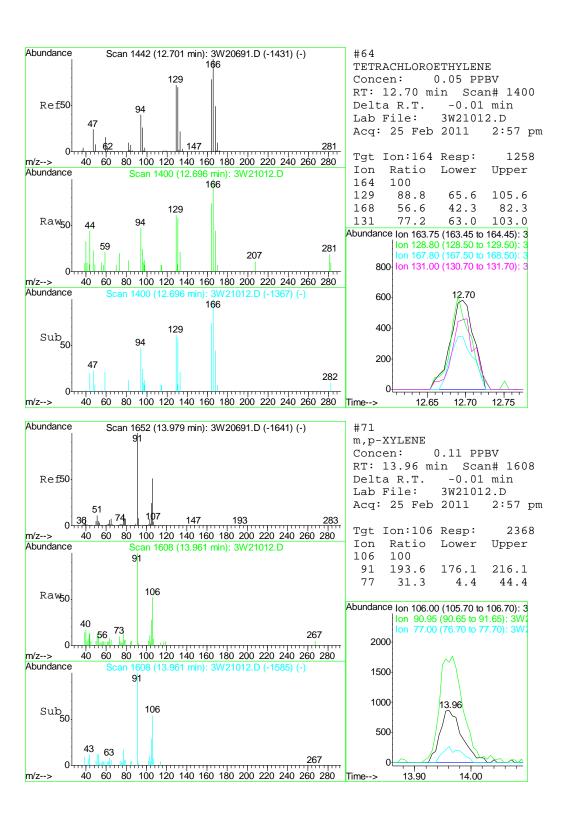


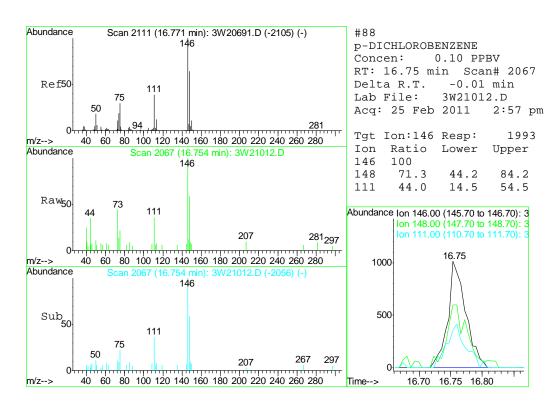












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JA68565

## **Manual Integration Approval Summary**

Sample Number: JA68565-4 Method: TO-15

 Lab FileID:
 3W21012.D
 Analyst approved:
 02/25/11 16:01
 Yunxia Chen

 Injection Time:
 02/25/11 14:57
 Supervisor approved:
 03/02/11 16:37
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.63	Poorly defined baseline

Manual Integrations APPROVED (compounds with "m" flag) Kanya Veerawat 03/10/11 15:21

Data File : C:\MSDCHEM\1\DATA\OLD\_V3W\V3W828\3W20987.D Vial: 6

Acq On : 24 Feb 2011 7:36 pm Operator: yunxiac Sample : ja68565-5 Inst : MS3W Misc : MS8536,V3W828,100,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 08:10:53 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards			Response			
1) BROMOCHLOROMETHANE	7.57	128	 151771	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	721159 353742	10.00	PPBV	0.00
62) CHLOROBENZENE-D5	13.38	82	353742	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.38	82	353742	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.01	95	206786	5.50	PPBV	0.00
Spiked Amount 5.000 R	Range 65	- 128	Recove	ery =	110.0	08
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE			4697	0.11	PPBV	92
6) PROPYLENE	4.34				PPBV	88
10) 1,3-BUTADIENE	4.70	54	67319	1.48 4.65	PPBV	# 56
16) TRICHLOROFLUOROMETHANE	5.46	101	60640 85245	4.65 1.39 3.44 52.15	PPBV	99
17) ISOPROPYL ALCOHOL	5.61	45	85245	3.44	PPBV	8.8
18) ACETONE	5.36	58				
23) CARBON DISULFIDE	6.17	76	51677 188344	0.97	PPBV	90
24) ETHANOL	5.13		188344	30.47	PPBV	99
30) TERTIARY BUTYL ALCOHOL	6.00		22078 63535	0.78	PPBV	76
31) METHYL TERTIARY BUTYL ETH			63535	1.71	PPBV	# 64
33) HEXANE	7.49	57	16586 12996	0.61	PPBV	93
36) METHYL ETHYL KETONE	7.09	72	12996	2.32	PPBV	# 72
39) ETHYL ACETATE	7.61	61	3683 86422	0.94	PPBV	# 87
46) BENZENE	8.89	78 95				
49) TRICHLOROETHYLENE	9.82	95	11354	0.54	PPBA	94
52) 2,2,4-TRIMETHYLPENTANE	9.75	57	86255 33822 232221	0.54 1.17 1.13 24.01	PPBA	82
54) HEPTANE	10.00	43	33822	1.13	PPBA	93
57) METHYL ISOBUTYL KETONE	10.66	58	232221 454053	24.UI	PDD74	91
59) TOLUENE	11.57 11.89	92	6862	10.41	DDD74	99
63) 2-HEXANONE 64) TETRACHLOROETHYLENE		164	0802	1 22	DDD74	# 1 98
67) OCTANE		43	33437	1.33	DDD77	91
67) OCTANE 69) CHLOROBENZENE	13.43			1.43	PPBV	88
70) ETHYLBENZENE	13.43		7035 373755	6.69	FFDV	0.0
71) m,p-XYLENE	13.79		417896	0.09		
72) O-XYLENE	14.48		155867			
73) STYRENE	14.46		128102	5.57		
74) NONANE	14.39		69733		PPBV	
•		105			PPBV	
79) ISOPROPYLBENZENE 81) n-PROPYLBENZENE	15.13				PPBV	
81) N-PROPYLBENZENE 82) 4-ETHYLTOLUENE		105	13525 48444	1 10	PPBV	
83) 1,3,5-TRIMETHYLBENZENE		105	55667	1.19	PPBV	
85) 1,2,4-TRIMETHYLBENZENE	16 40	105	112276	3 02		
88) p-DICHLOROBENZENE	16.46	1/6	112276 5176	0.04	PPBV	# 80
00) D-DICHPOKORENZENE	тю.//	140	21/0	∪.∠8	PPRV	# 80

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20987.D M3W821.M Thu Mar 10 12:30:56 2011 MS3W



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLD\_V3W\V3W828\3W20987.D Vial: 6

 Acq On
 : 24 Feb 2011
 7:36 pm
 Operator: yunxiac

 Sample
 : ja68565-5
 Inst
 : MS3W

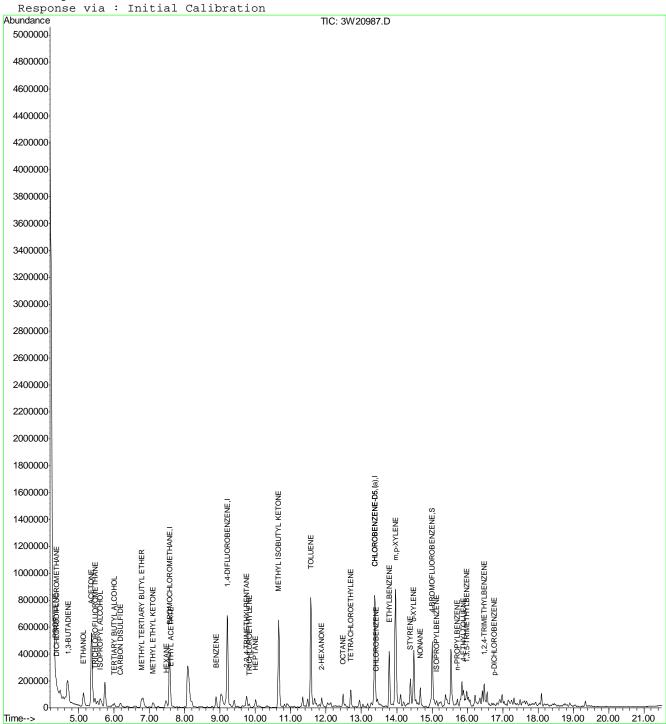
 Misc
 : MS8536,V3W828,100,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Mar 10 12:30 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Thu Mar 10 08:27:02 2011

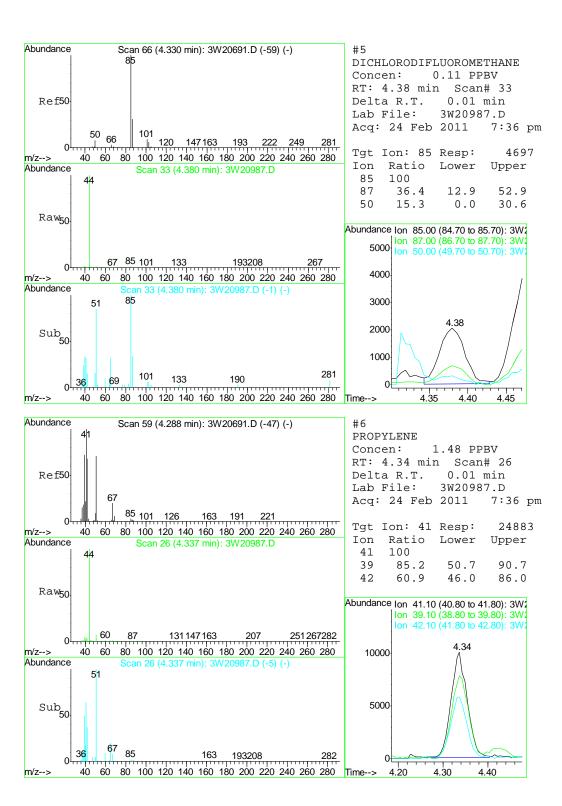


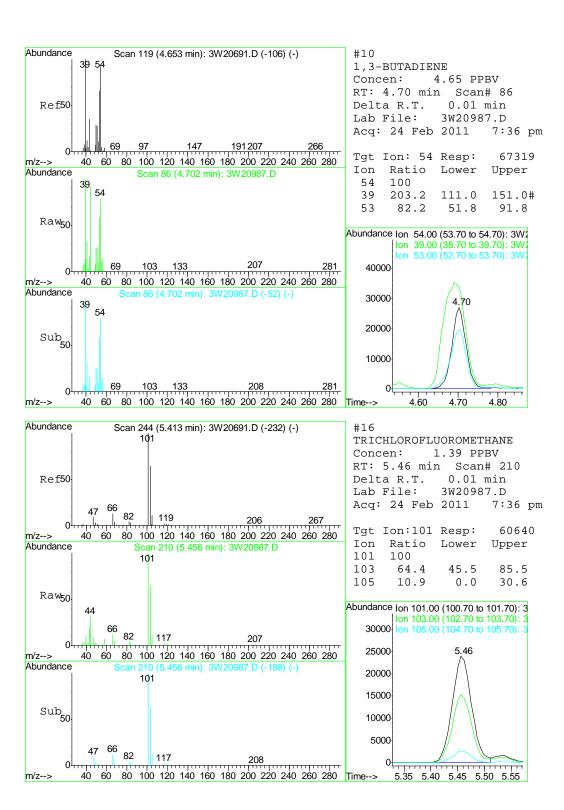
3W20987.D M3W821.M

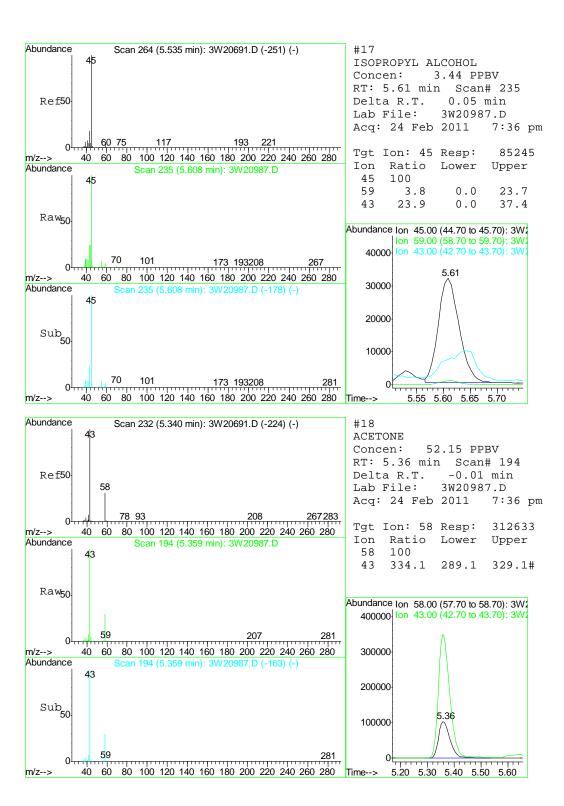
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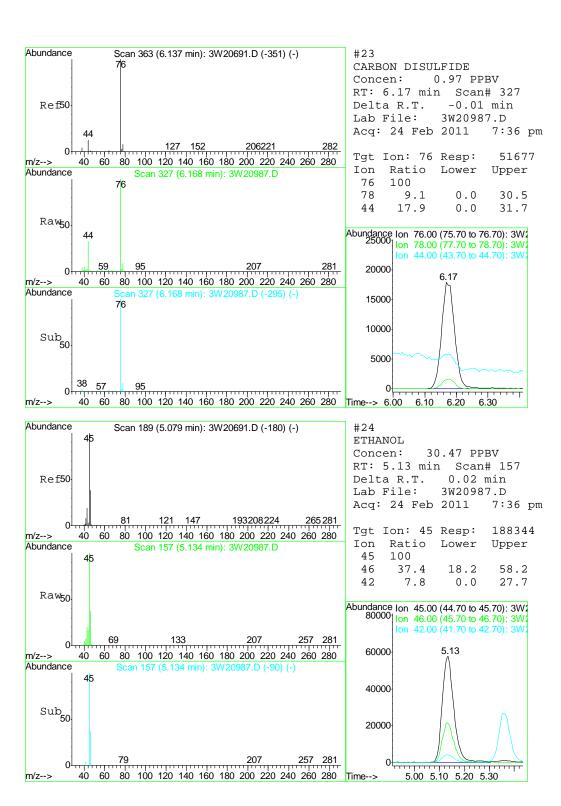
MS3W



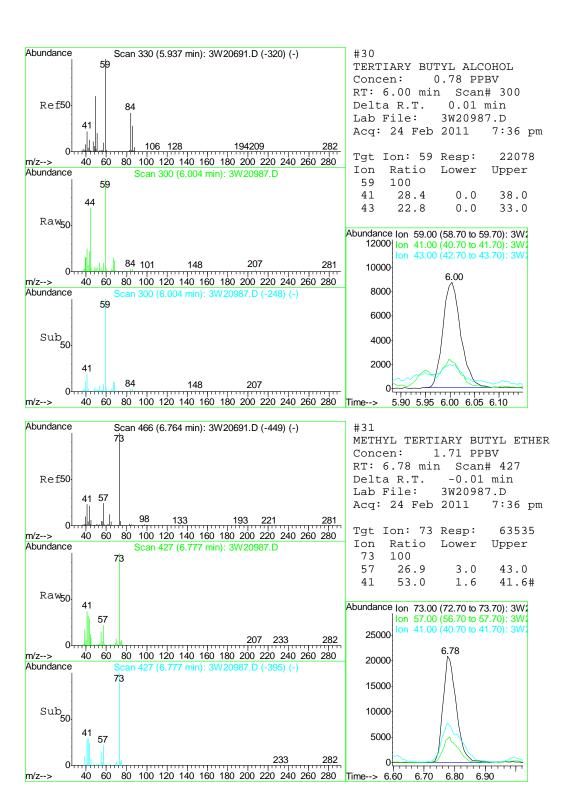


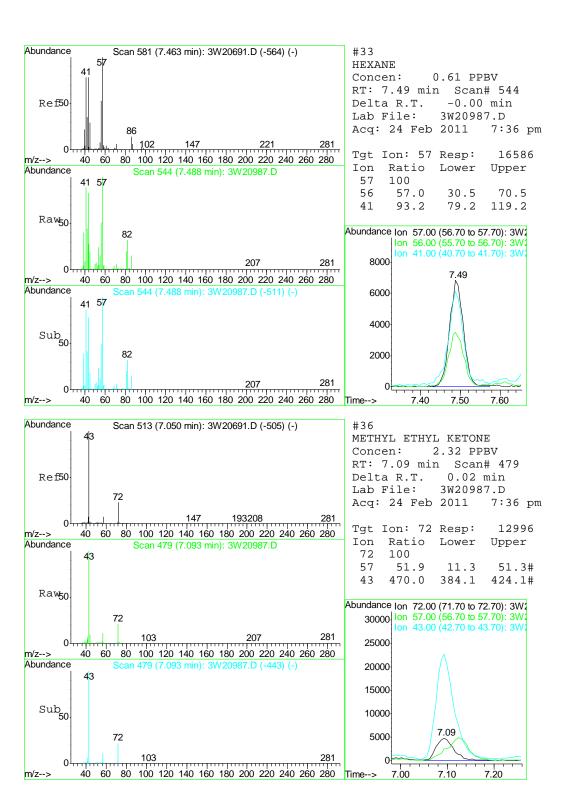


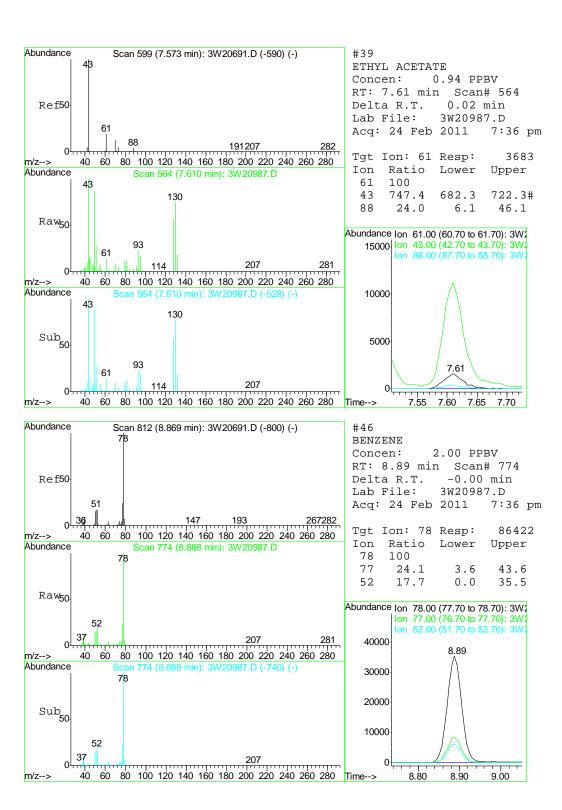


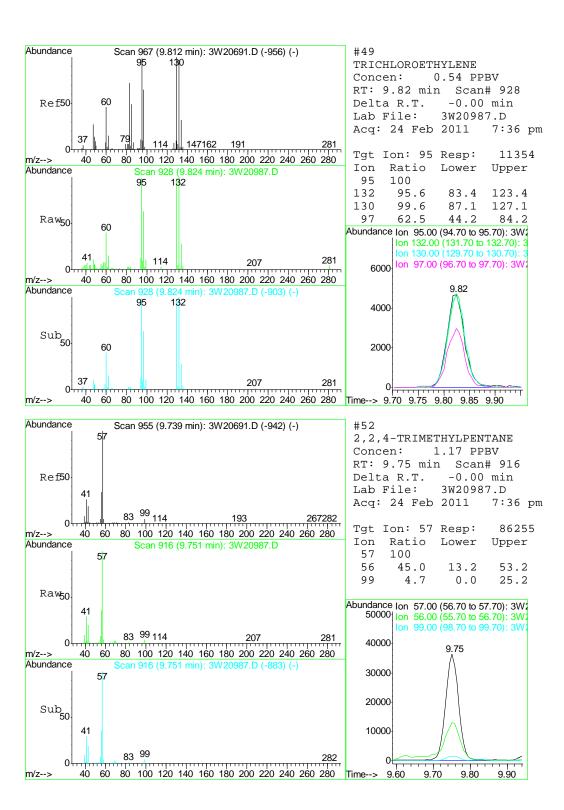


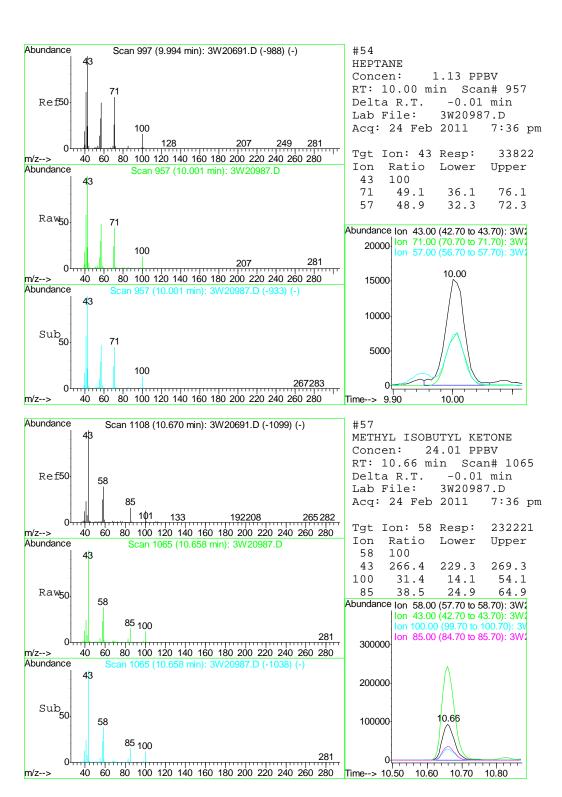
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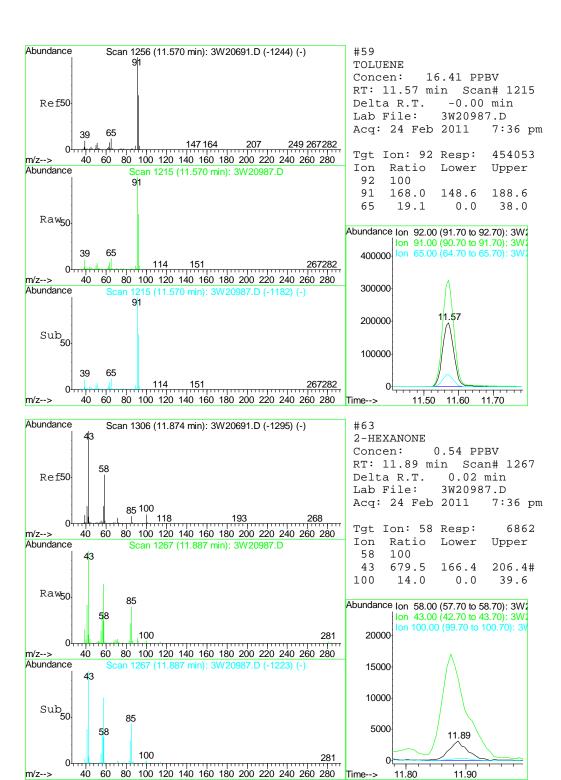


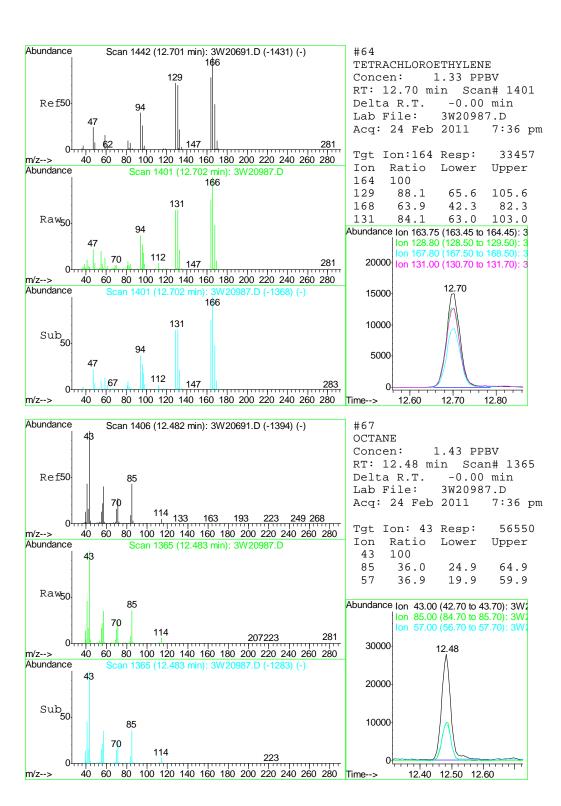




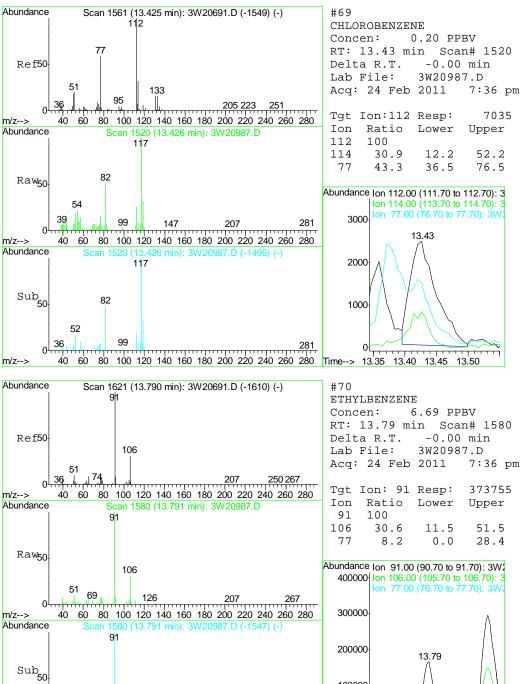








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JA68565

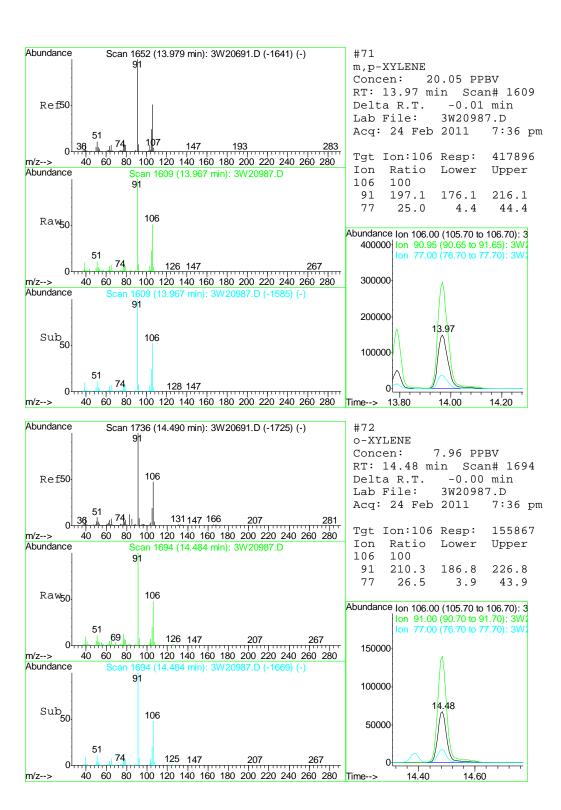


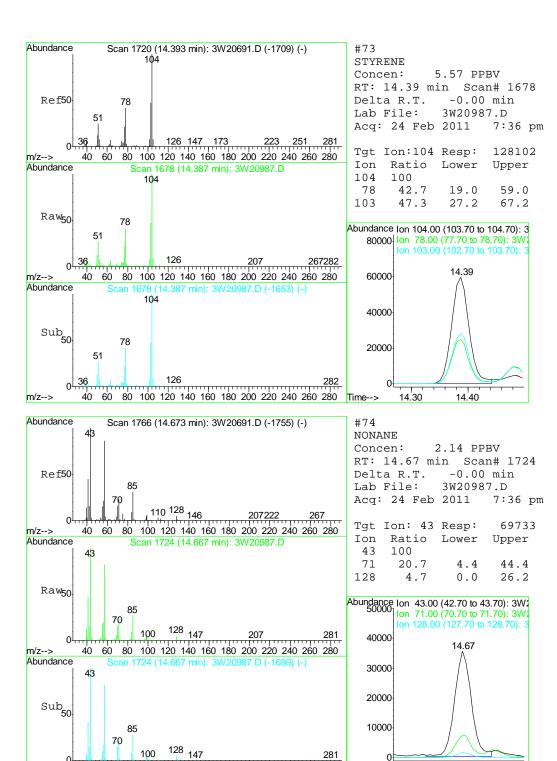
13.79 100000 40 60 80 100 120 140 160 180 200 220 240 260 280 Time--> 13.70 13.80 13.90

m/z-->

106

126





302 of 840 ACCUTEST: JA68565

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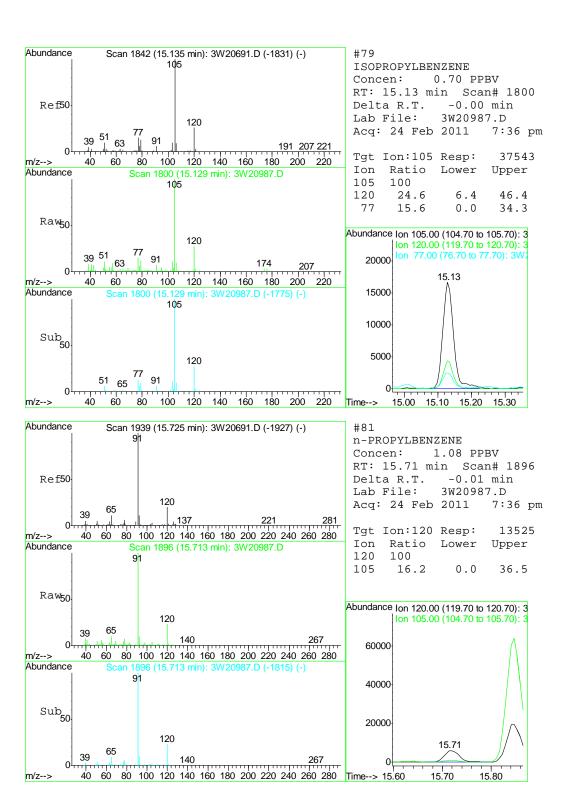
m/z-->

60 80 100 120 140 160 180 200 220 240 260 280 Time-->

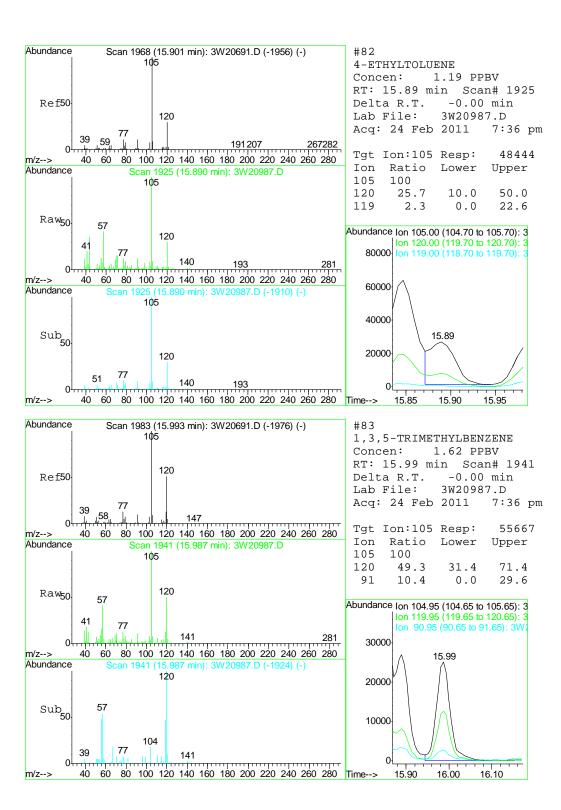
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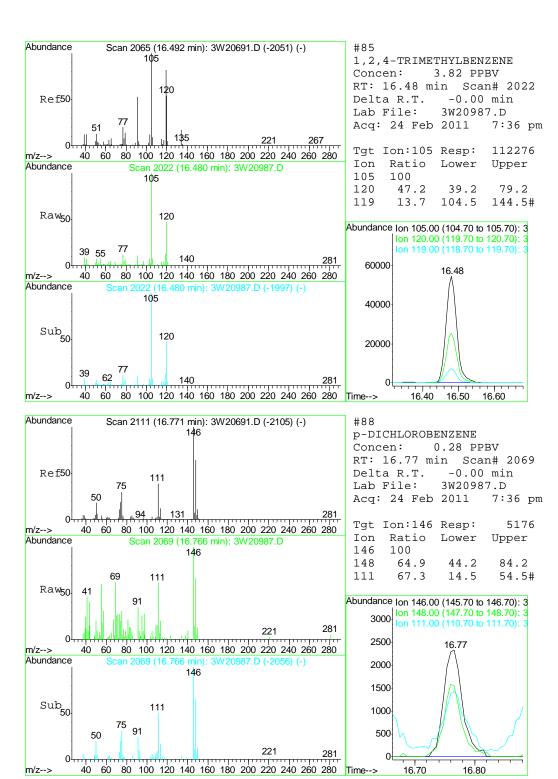
14.70

100



MS3W





## **Manual Integration Approval Summary**

Sample Number: JA68565-5 Method: TO-15

 Lab FileID:
 3W20987.D
 Analyst approved:
 02/25/11 10:31
 Yunxia Chen

 Injection Time:
 02/24/11 19:36
 Supervisor approved:
 03/10/11 15:21
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrahydrofuran	109-99-9		8.08	Split peak

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLD\_V3W\V3W829\3W21028.D Vial: 6

 Acq On
 : 26 Feb 2011
 2:15 am
 Operator: yunxiac

 Sample
 : JA68565-5
 Inst : MS3W

 Misc
 : MS8536,V3W829,40,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 28 08:23:03 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ui	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	7.57	128	132739	10.00	PPRV	7	0.00
			634584				
62) CHLOROBENZENE-D5							
95) CHLOROBENZENE-D5 (a)	13.37	82	305557 306575	10.00	DDRV	7	0.00
55) CHIORODHNIINI D5 (U)	13.37	02	300373	10.00	IIDV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	178019	5.48	PPBV	7	-0.01
	nge 65				109.		
	-5			1			
Target Compounds						Qv	ralue
6) PROPYLENE	4.34	41 54	12094	0.82	PPBV	7	92
10) 1,3-BUTADIENE	4.71	54	28993	2.29	PPBV	#	56
11) n-BUTANE	4.73	43	13076	0.51	PPBV	#	94
16) TRICHLOROFLUOROMETHANE	5.46			0.70	PPBV	7	99
17) ISOPROPYL ALCOHOL	5.46 5.62	45	32496	1.50	PPBV	7	81
18) ACETONE	5.37	58	97396	18.58	PPBV	#	82
23) CARBON DISULFIDE	6.17	58 76 45	22159	0 48	PPBV	7	92
24) ETHANOL	5.13	45	70089	12.96	PPBV	7	98
30) TERTIARY BUTYL ALCOHOL	6.02	59	8357	0.34			81
31) METHYL TERTIARY BUTYL ETHE	6.81	73	8357 18452	0.57	PPBV	#	47
33) HEXANE	7.49	57	6990	0.29			96
36) METHYL ETHYL KETONE	7.11	72	4583	0.93	PPBV	#	74
39) ETHYL ACETATE	7.61	61	4583 1150	0.33	PPBV	#	50
46) BENZENE	8.88				PPBV	7	97
49) TRICHLOROETHYLENE	9.82 9.75	95		0.25	PPBV	7	98
52) 2,2,4-TRIMETHYLPENTANE	9.75	57	4720 34672	0.53	PPBV	7	81
54) HEPTANE	10.00	43	15226	0.58	PPBV	7	89
57) METHYL ISOBUTYL KETONE	10.66	58	76107	8.94	PPBV	#	87
59) TOLUENE	11.56	92		7.40	PPBV	7	100
63) 2-HEXANONE	11.89	58	2400 13966	0.22	PPBV	#	1
64) TETRACHLOROETHYLENE	12.70	164	13966	0.64	PPBV	7	97
67) OCTANE	12.48		23170		PPBV	7	91
70) ETHYLBENZENE	13.78	91	138814 151888	2.88	PPBV	7	97
71) m,p-XYLENE					PPBV	7	97
72) o-XYLENE	14.47	106	56143	3.32			96
73) STYRENE	14.37 14.66	104	43270	2.18	PPBV	7	98
74) NONANE				1.00			94
79) ISOPROPYLBENZENE	15.12	105	12719	0.28			94
81) n-PROPYLBENZENE	15.71	120	4141	0.38			94
82) 4-ETHYLTOLUENE		105		0.41			98
83) 1,3,5-TRIMETHYLBENZENE	15.98	105	17118 34222	0.58			97
85) 1,2,4-TRIMETHYLBENZENE		105	34222	1.35			28
88) p-DICHLOROBENZENE	16.76	146	1728	0.11	PPBV	#	58

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W21028.D M3W821.M Thu Mar 10 12:32:54 2011 MS3W



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLD\_V3W\V3W829\3W21028.D Vial: 6

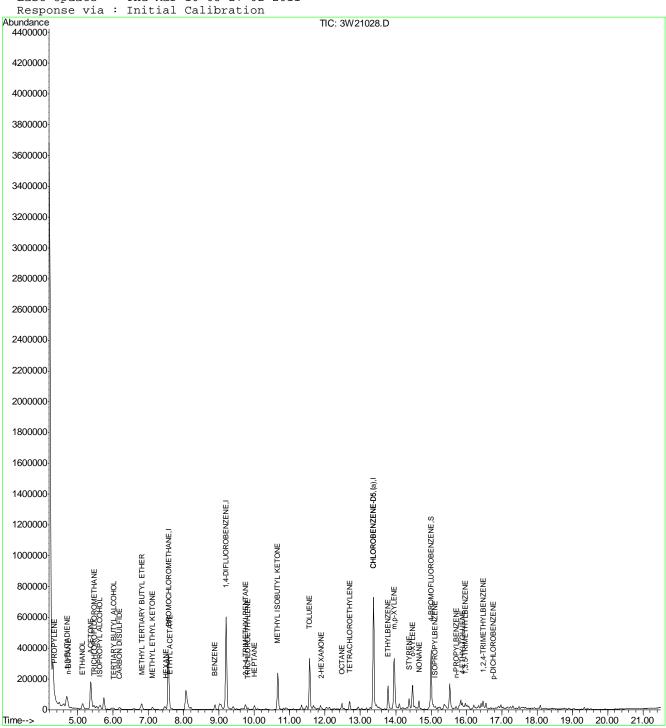
Operator: yunxiac : 26 Feb 2011 2:15 am Acq On Sample : JA68565-5 : MS3W Inst Misc : MS8536, V3W829, 40, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Mar 10 12:32 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

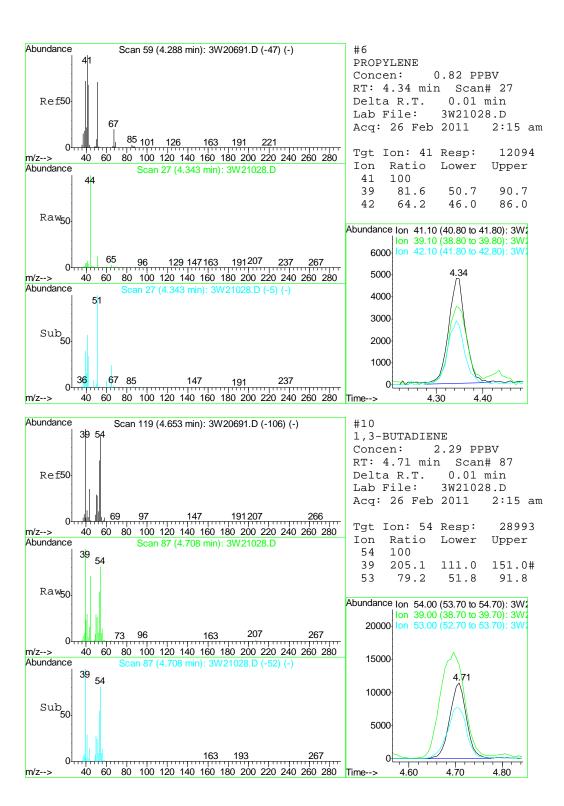
Last Update : Thu Mar 10 08:27:02 2011

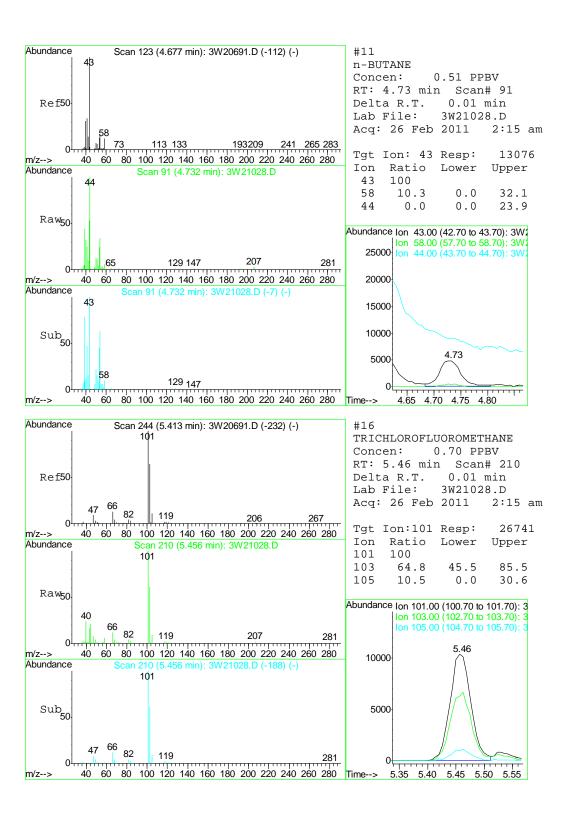


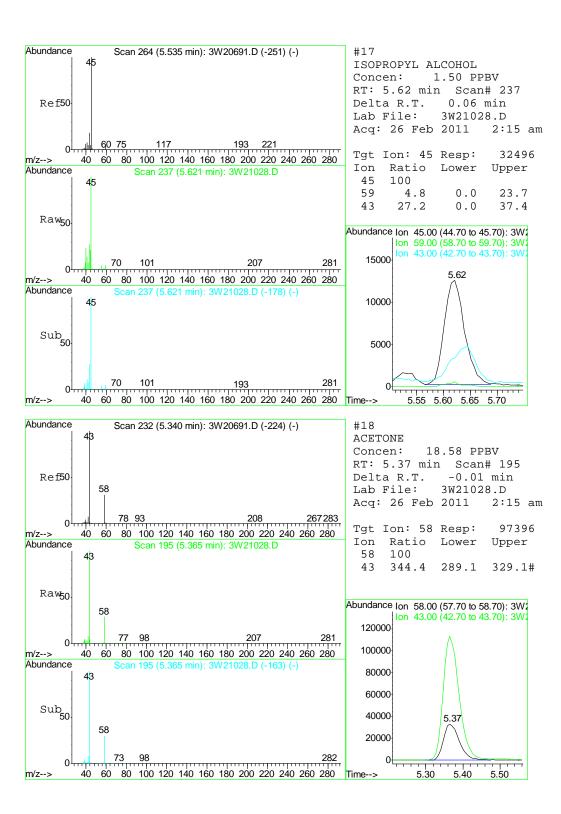
3W21028.D M3W821.M

Thu Mar 10 12:32:54 2011

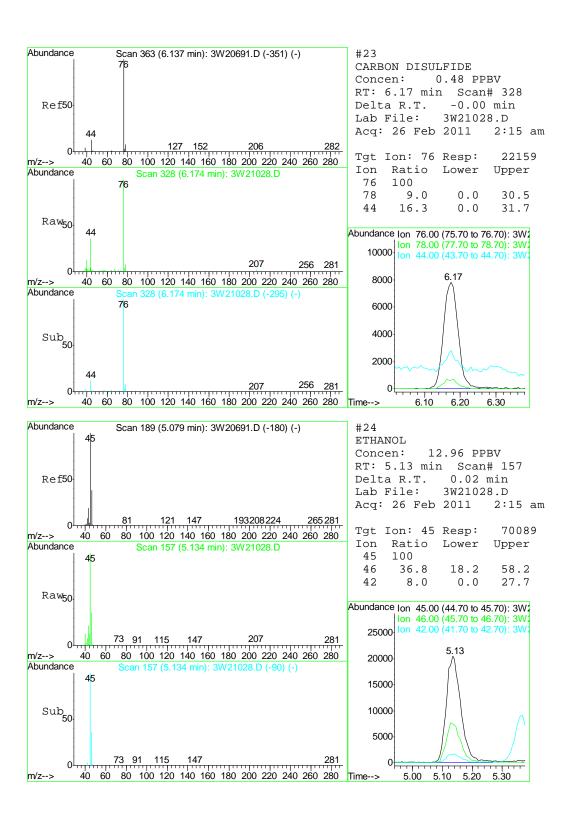


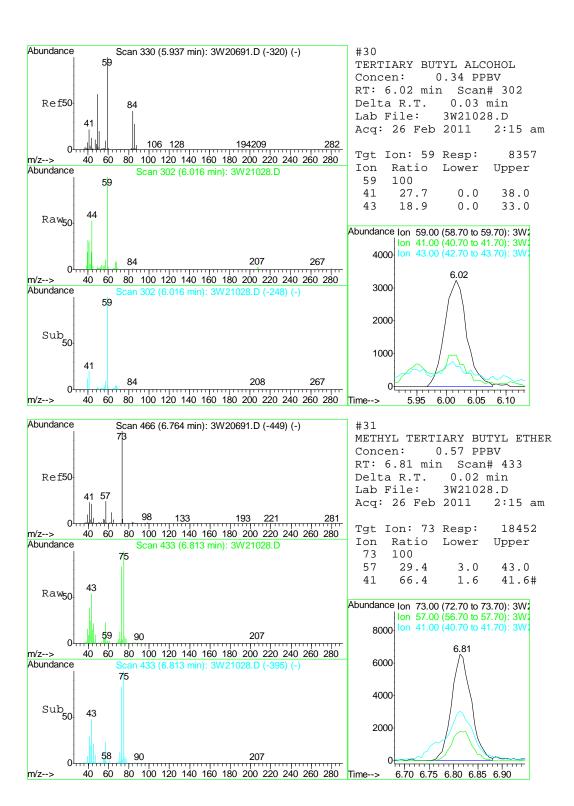






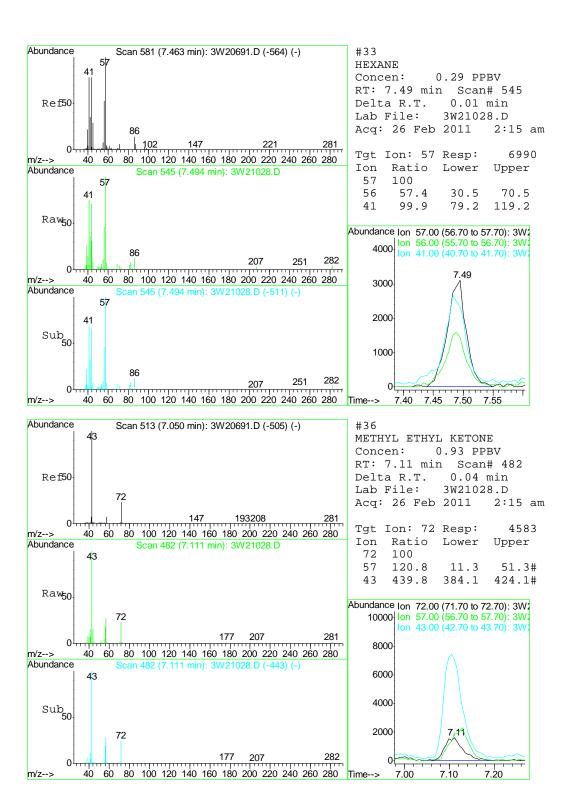
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ACCUTEST
JA68565

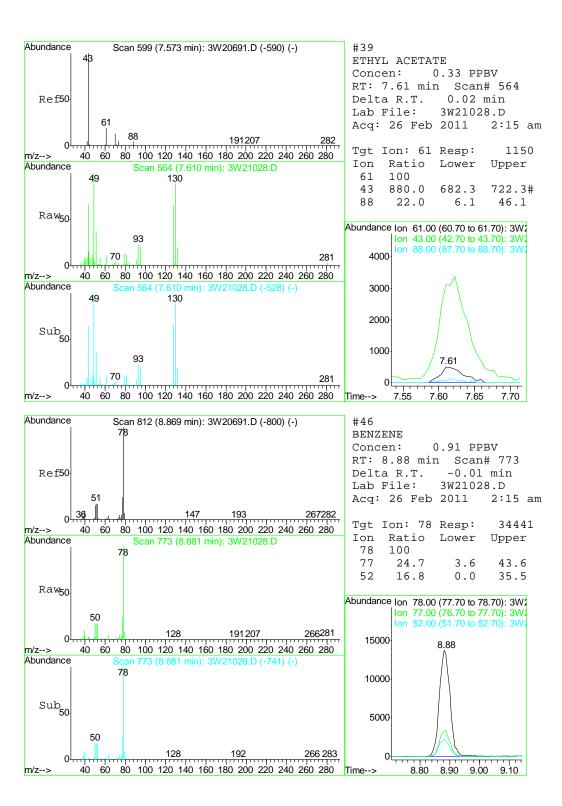




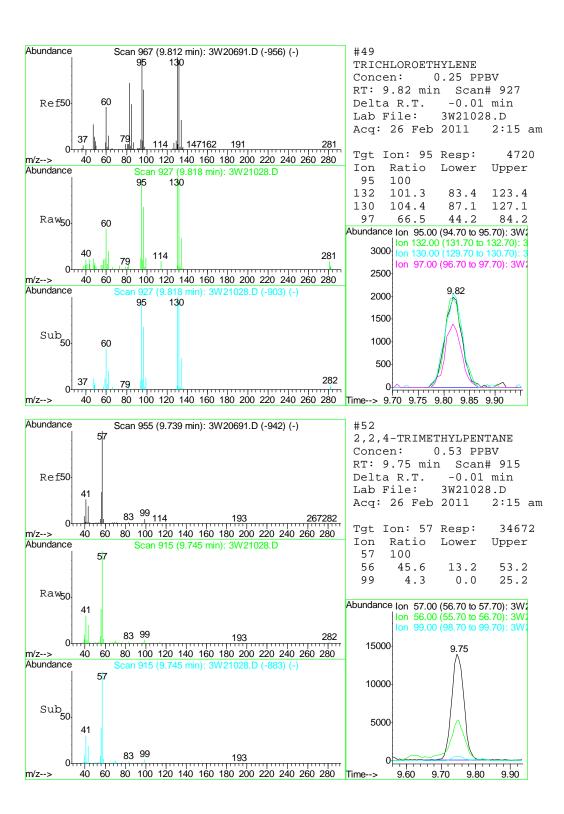
313 of 840
ACCUTEST.

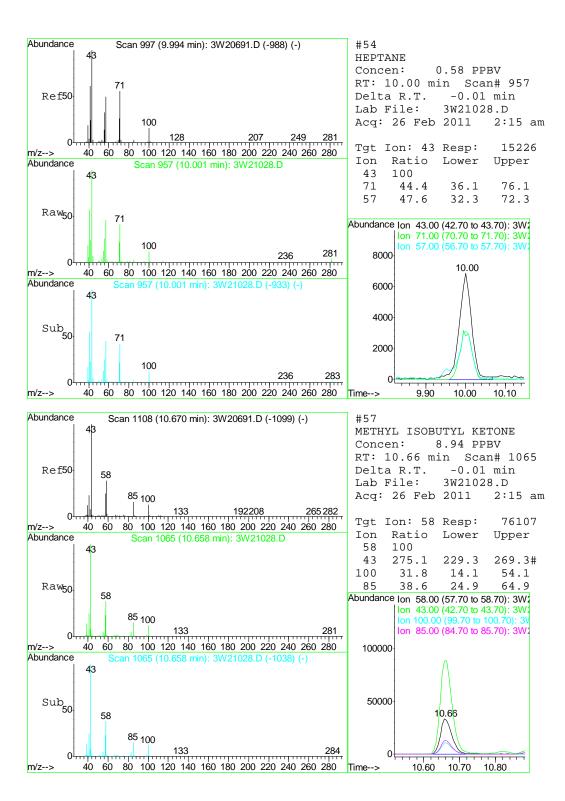
JA68565



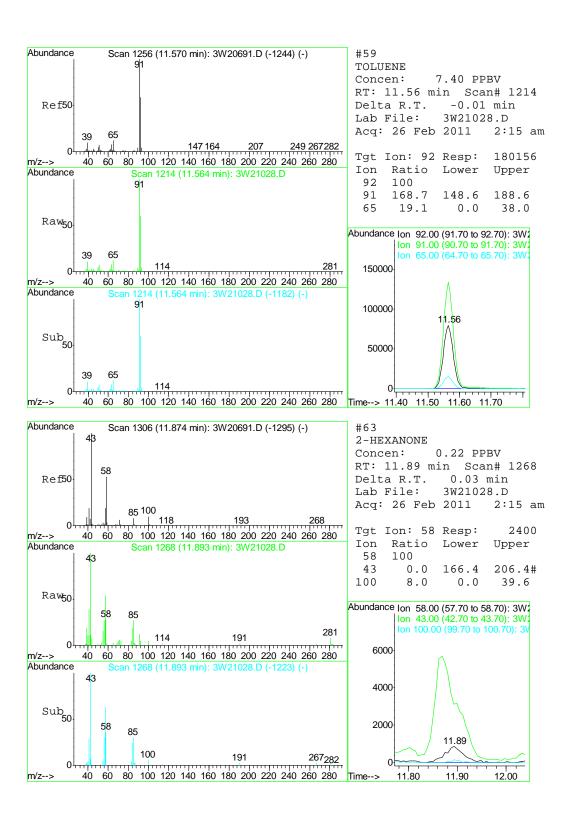


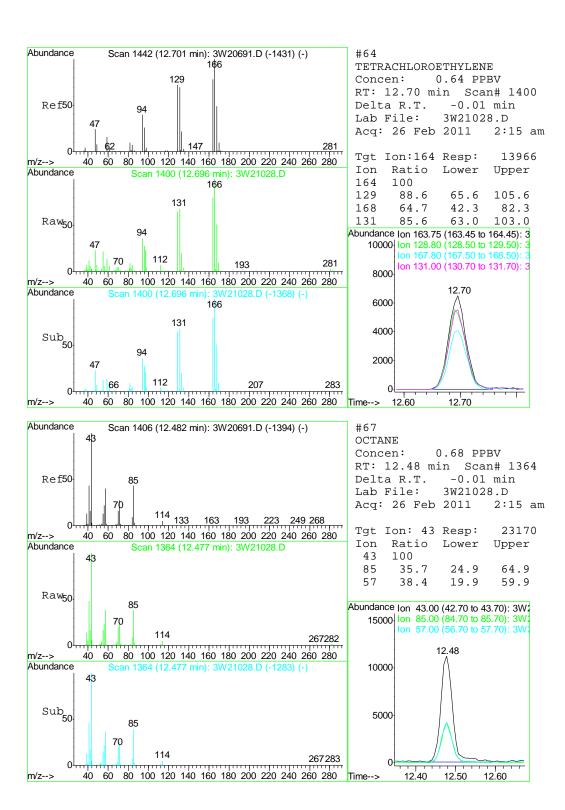
315 of 840
ACCUTEST
JA68565

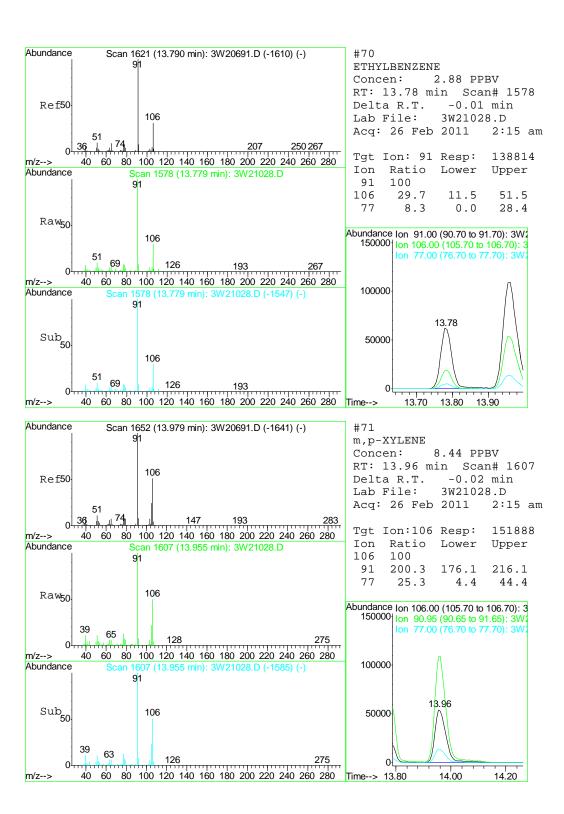


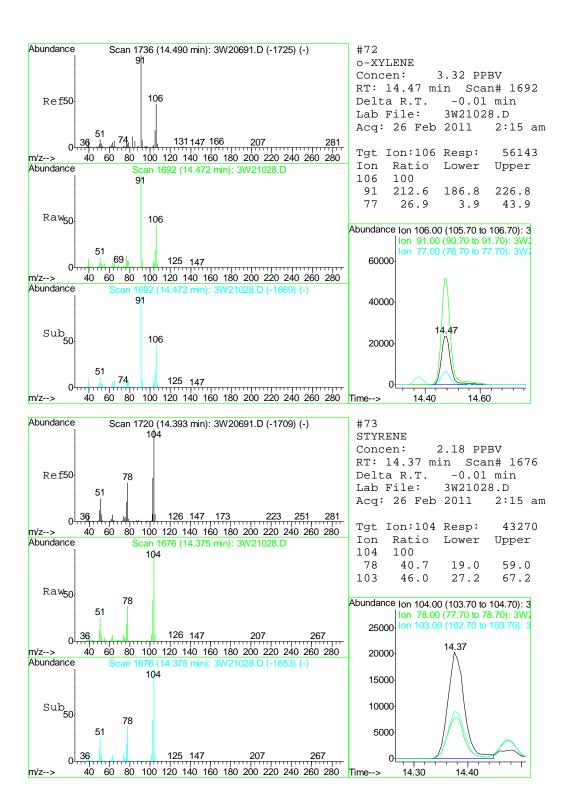


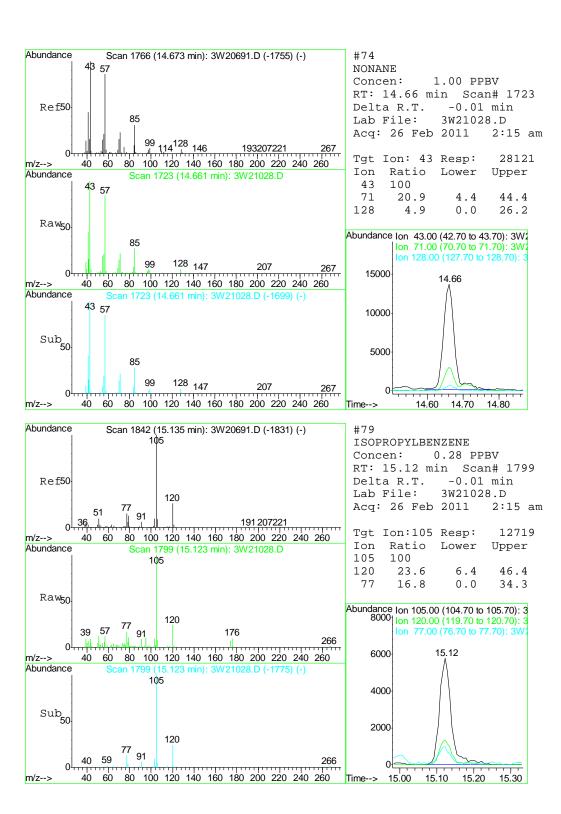
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ACCUTEST
JA68565





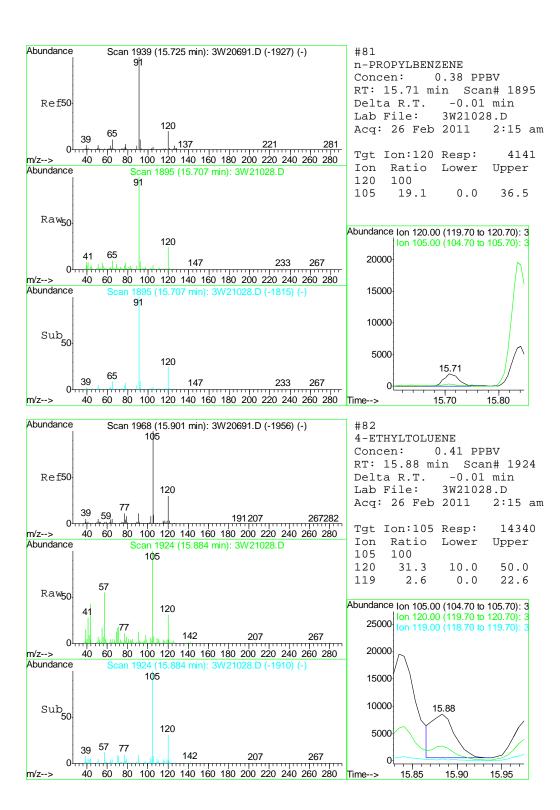


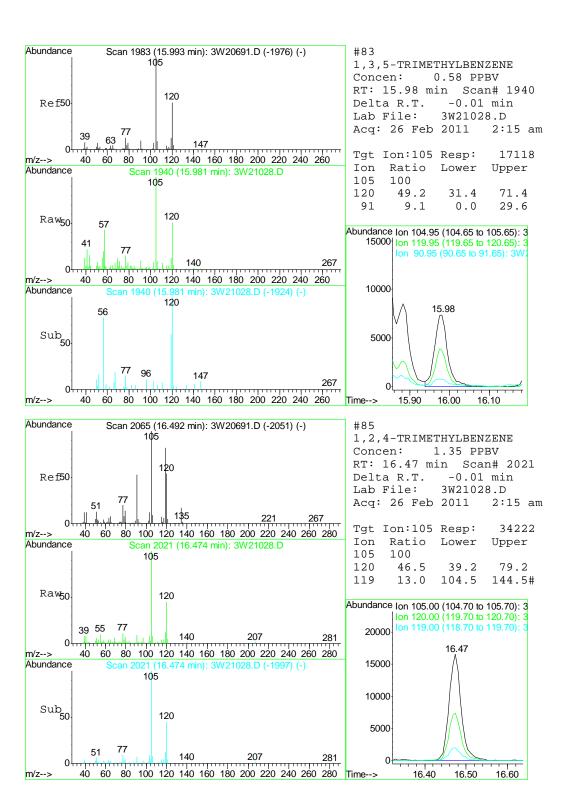


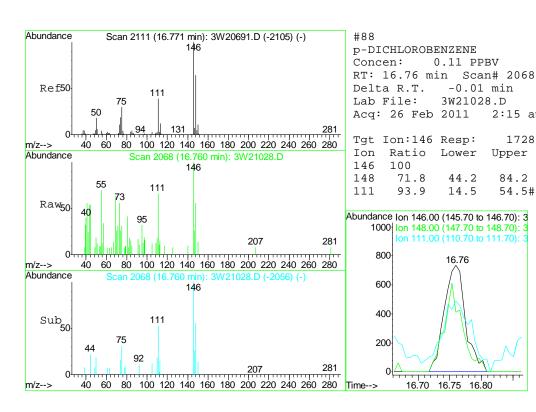


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JA68565







2:15 am

Upper

84.2

54.5#

1728

**Manual Integrations** APPROVED (compounds with "m" flag)

> **Kanya Veerawat** 03/10/11 05:18

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20988.D Vial: 7 Acq On : 24 Feb 2011 8:16 pm Operator: yunxiac Inst : MS3W Sample : ja68565-6 : MS8536,V3W828,100,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: Feb 25 08:10:56 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ui	nits D	ev(Min)	
1) BROMOCHLOROMETHANE	7.57	128	142482	10.00	PPBV	0.00	,
45) 1,4-DIFLUOROBENZENE	9.20	114	689845	10.00	PPBV	-0.01	
62) CHLOROBENZENE-D5	13.37	82	325420	10.00	PPBV	0.00	ļ
95) CHLOROBENZENE-D5 (a)	13.37	82	325827	10.00	PPBV	0.00	1
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE			188983				
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	109.2	0%	
Target Compounds						Qvalue	
5) DICHLORODIFLUOROMETHANE	4.38	85	5078	0.12	PPBV	99	1
6) PROPYLENE	4.34	41	7468	0.47	PPBV	# 80	ļ
11) n-BUTANE	4.72		10265	0.37	PPBV	# 94	
17) ISOPROPYL ALCOHOL	5.60	45	97922	4.21	PPBV	92	,
18) ACETONE	5.37		234906				
23) CARBON DISULFIDE	6.17		19139				
24) ETHANOL	5.12	45	187388	32.29	PPBV	99	1
30) TERTIARY BUTYL ALCOHOL	6.00	59	40178 3887	1.51	PPBV	88	)
33) HEXANE	7.49	57	3887				1
36) METHYL ETHYL KETONE	7.09		6458		PPBV		
39) ETHYL ACETATE	7.60		8258	2.24	PPBV	# 93	,
46) BENZENE	8.88		4502	0.11	PPBV	95	,
49) TRICHLOROETHYLENE	9.81	95	14808	0.73	PPBV	94	:
54) HEPTANE	9.99	4.3	4040	0.14	PPBV	# 83	
57) METHYL ISOBUTYL KETONE	10.71	58	3935		PPBV		
59) TOLUENE	11.56	92	33167	1.25	PPBV	99	1
63) 2-HEXANONE			1116	0.10	PPBV	97	
64) TETRACHLOROETHYLENE	12.70	164	3492	0.15	PPBV	99	1
67) OCTANE	12.48	43 91	7310	0.20	PPBV	90	1
70) ETHYLBENZENE	13.78	91	42932		PPBV		
71) m,p-XYLENE	13.96	106	67621	3.53	PPBV	99	1
72) o-XYLENE	14.47	106	27783	1.54	PPBV	94	
73) STYRENE	14.38	104	25905	1.22	PPBV	98	j
74) NONANE	11 66	12	15002	0.50	PPBV	96	
81) n-PROPYLBENZENE	15.71	120	3796	0.33	PPBV	84	
82) 4-ETHYLTOLUENE	15.88	105	3796 21896m 24918	0.59	PPBV		
83) 1,3,5-TRIMETHYLBENZENE				0.79	PPBV	96	j
85) 1,2,4-TRIMETHYLBENZENE	16.47	105	59314	2.19	PPBV	# 28	

16.76 146 5650 0.33 PPBV 92



Page 1

88) p-DICHLOROBENZENE

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20988.D M3W821.M Fri Feb 25 10:20:29 2011 MS3W

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20988.D Vial: 7

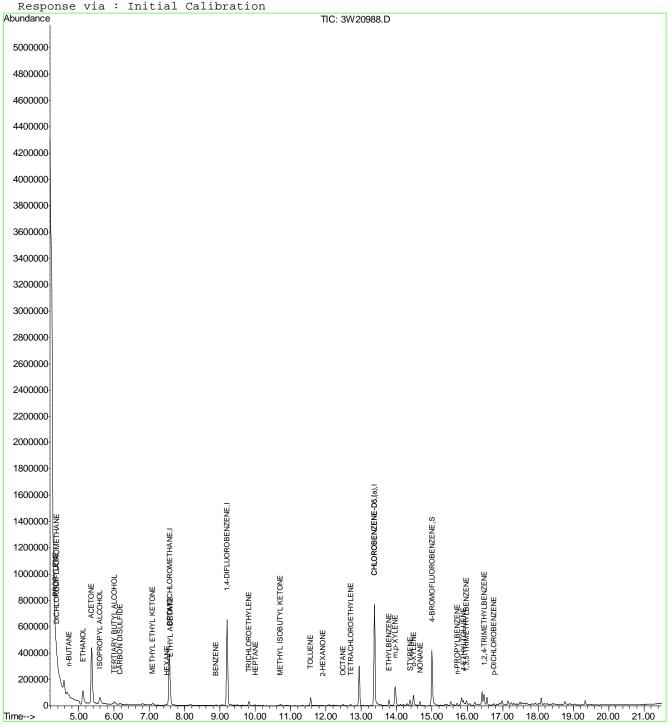
: 24 Feb 2011 8:16 pm Operator: yunxiac Acq On Sample : ja68565-6 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:17 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

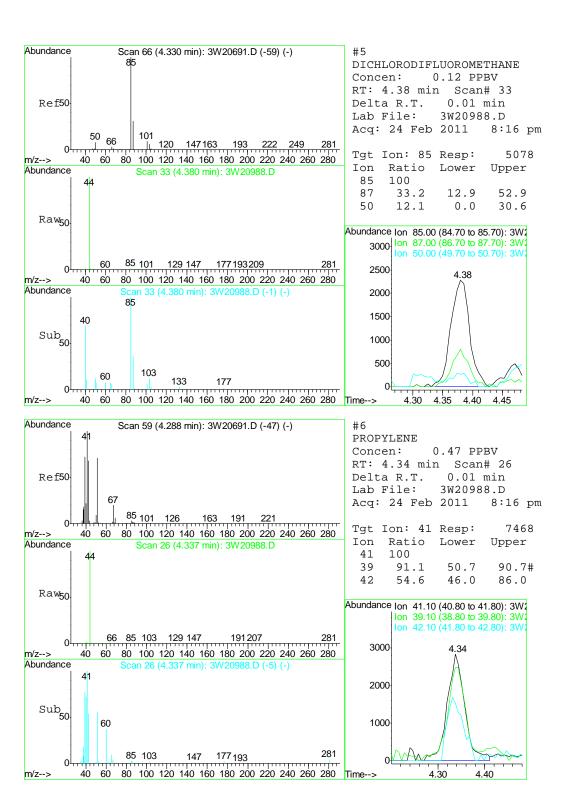
Last Update : Wed Feb 16 16:16:09 2011

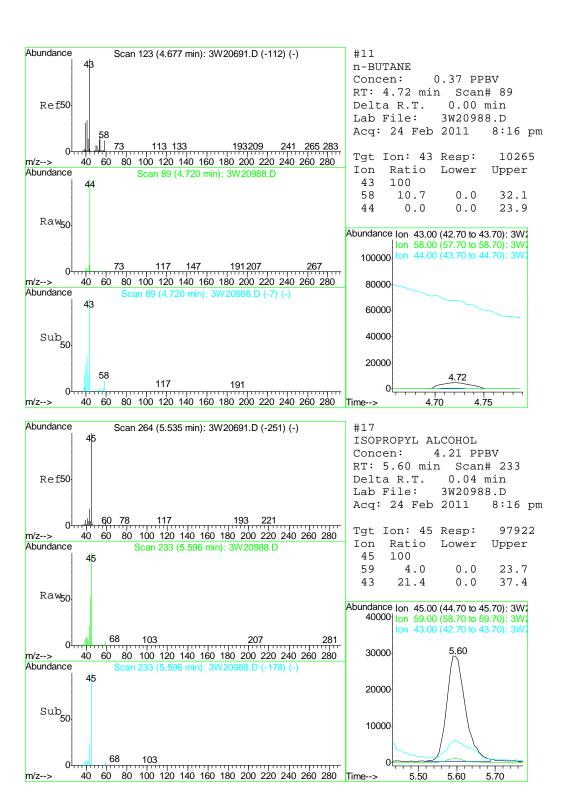


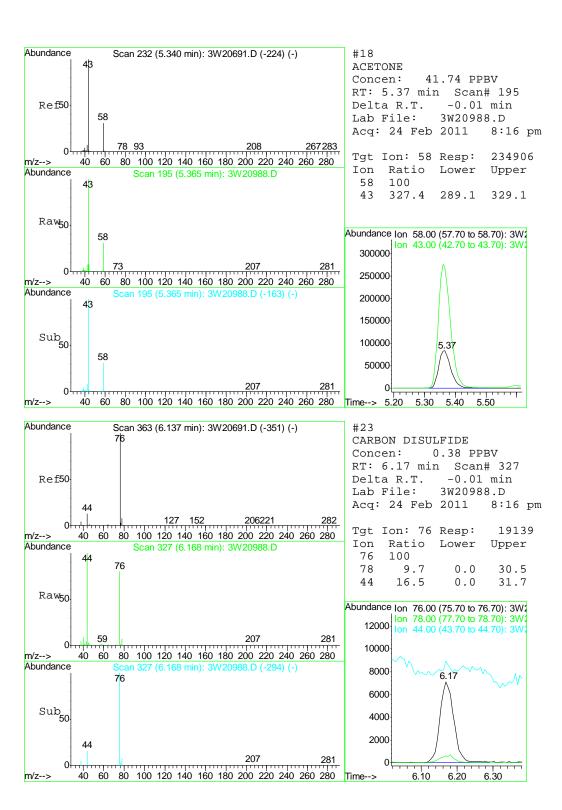
3W20988.D M3W821.M

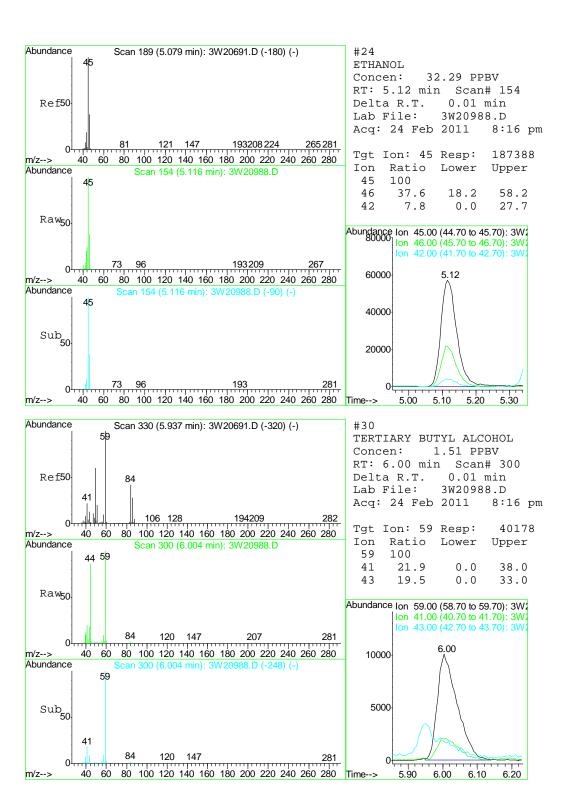
Fri Feb 25 10:20:29 2011

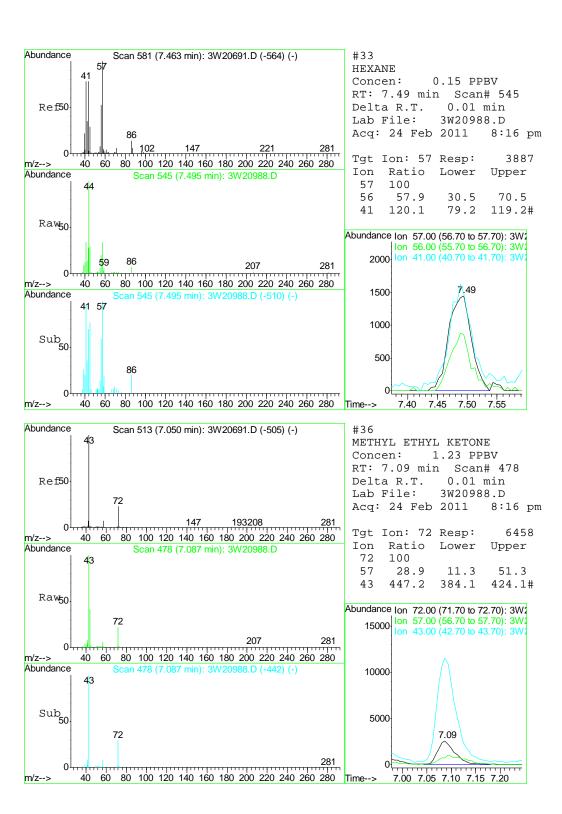


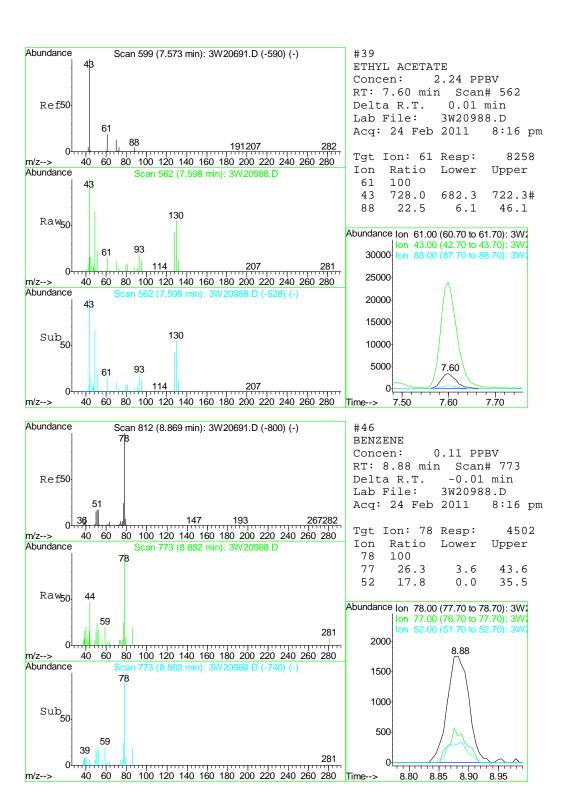




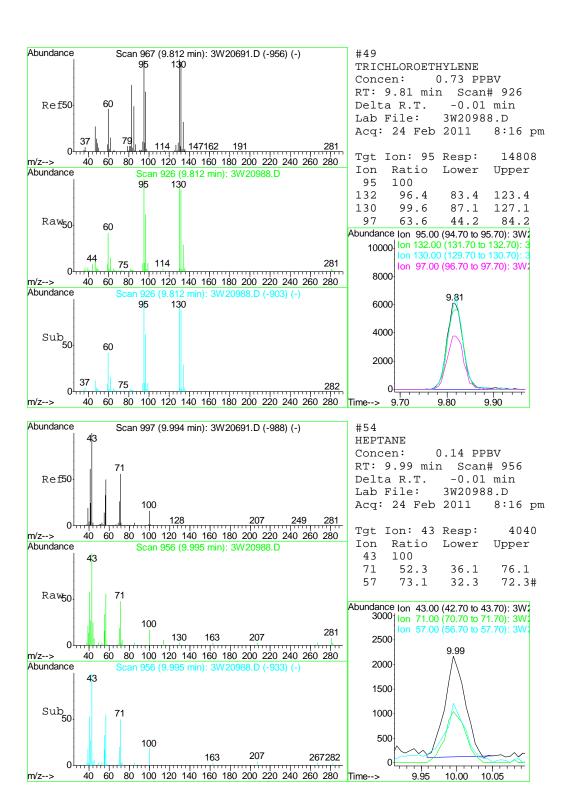










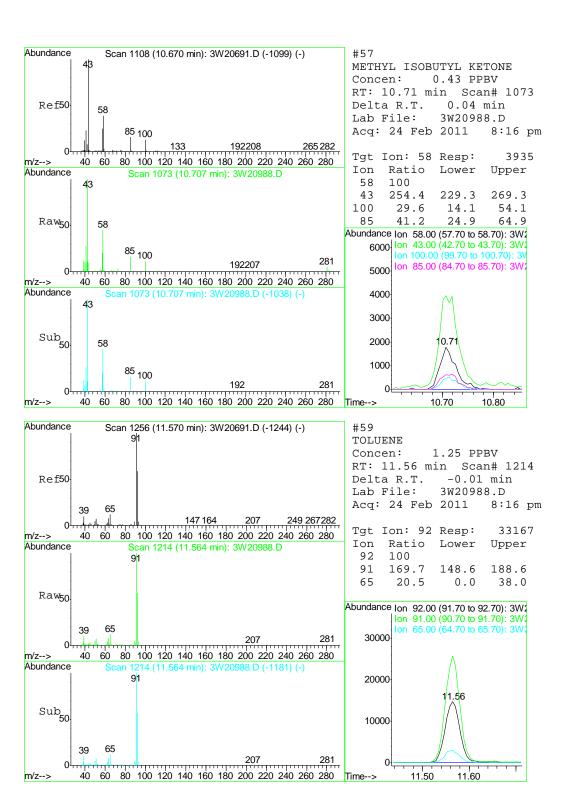


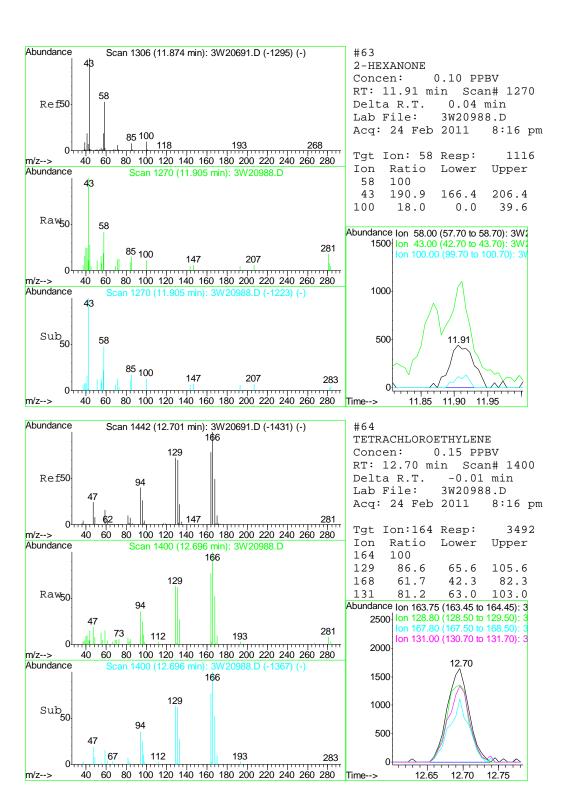
3W20988.D M3W821.M

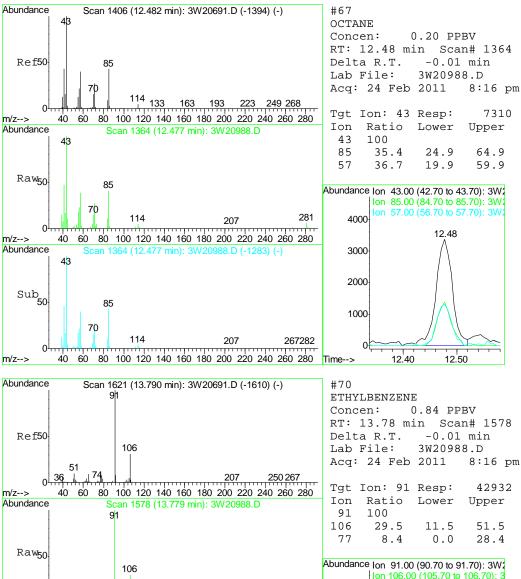
Fri Feb 25 10:20:31 2011

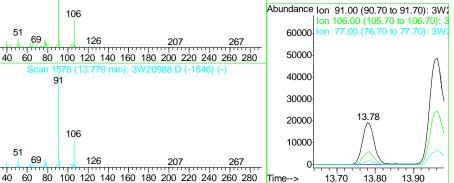
MS3W











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m/z--> Abundance

m/z-->

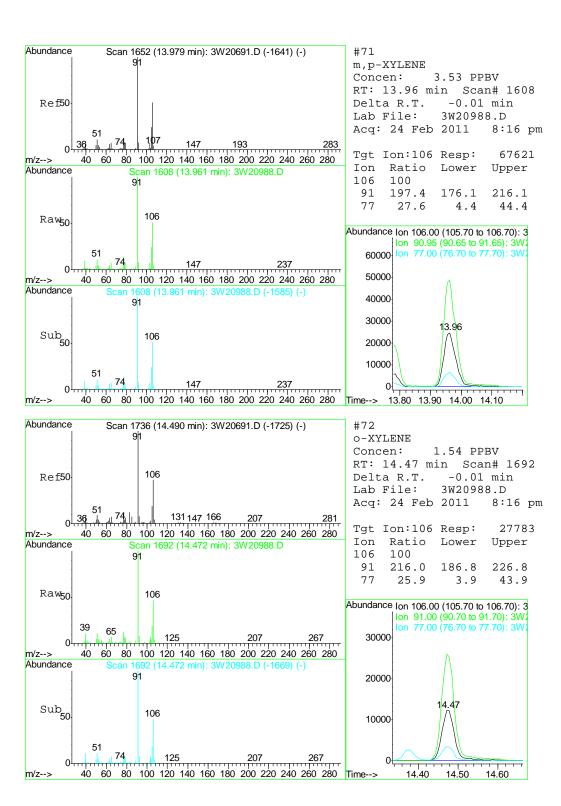
Sub<sub>50</sub>

126

126

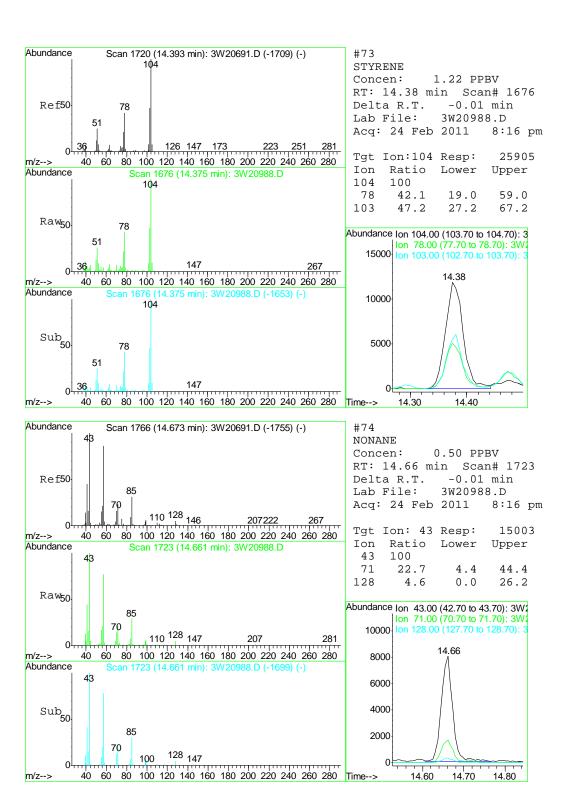
91

106

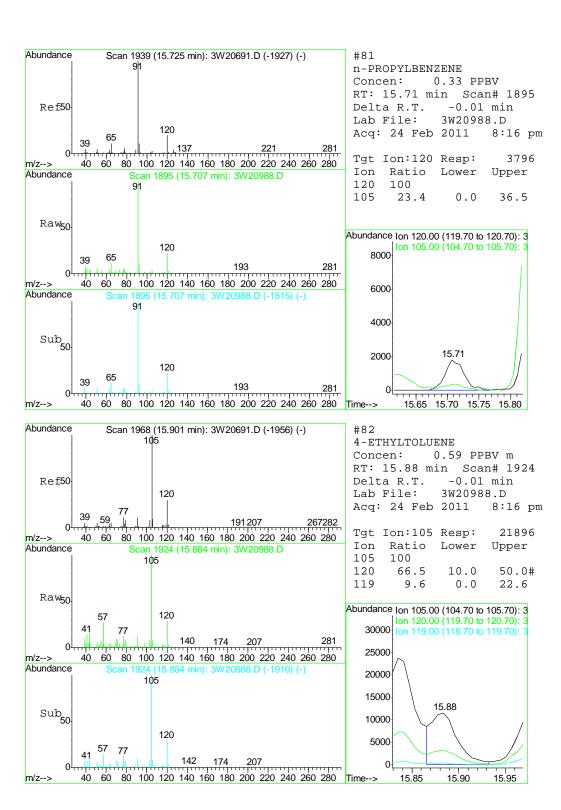


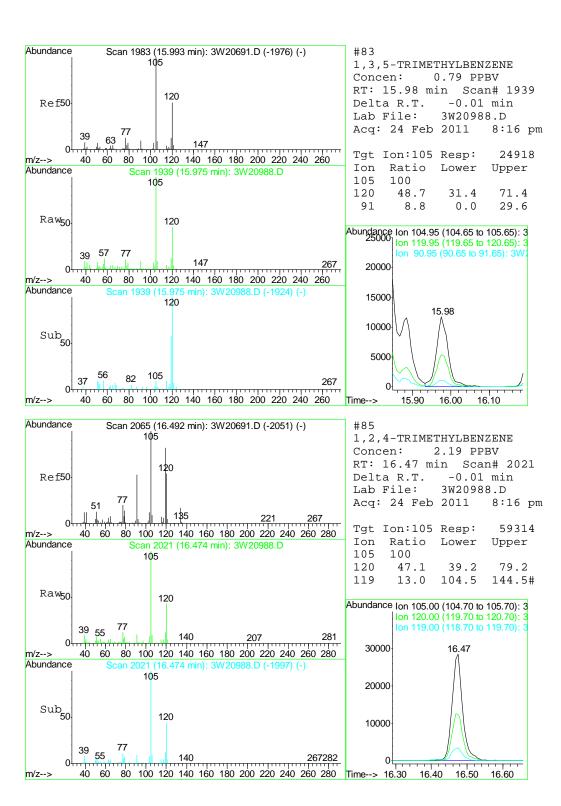
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ACCUTEST.

JA68565

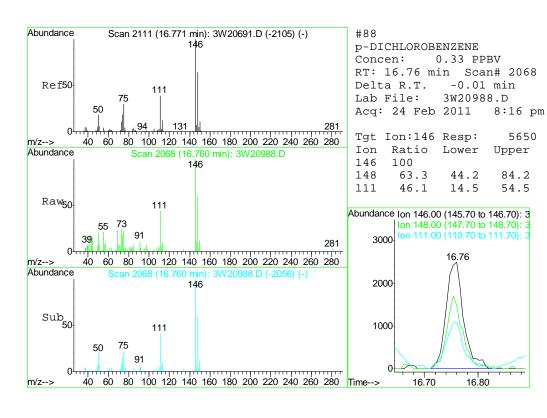


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ACCUTEST.
JA68565





5650



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## **Manual Integration Approval Summary**

Sample Number: JA68565-6 Method: TO-15

 Lab FileID:
 3W20988.D
 Analyst approved:
 02/25/11 10:31
 Yunxia Chen

 Injection Time:
 02/24/11 20:16
 Supervisor approved:
 03/10/11 05:18
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Ethyltoluene	622-96-8		15.88	Overlapping peak

Manual Integrations
APPROVED
(compounds with "m" flag)

Kanya Veerawat 03/10/11 05:18

Quantitation Report (QT Reviewed)

Acq On : 25 Feb 2011 4:19 pm Operator: yunxiac Sample : JA68565-6 Inst : MS3W Misc : MS8536,V3W829,40,,,,1 Multiplr: 1.00 MS Integration Params: rteint.p

Quant Time: Feb 28 08:22:12 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits I	ev	(Min)
1) BROMOCHLOROMETHANE	7.57	128	160849	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE							0.00
62) CHLOROBENZENE-D5	13.38		365311				0.00
95) CHLOROBENZENE-D5 (a)			366761				0.00
System Monitoring Compounds							
	15.00	95	218144	5.62	PPBV		0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	112.4	10%	
Target Compounds						Ov	alue
6) PROPYLENE	4.34	41	4642	0.26	PPBV		74
11) n-BUTANE	4.72	43	6464	0.21	PPBV	#	94
17) ISOPROPYL ALCOHOL	5.65	45	41505m	1.58	PPBV		
18) ACETONE	5.38	58	86641	13.64	PPBV	#	87
23) CARBON DISULFIDE	6.17	76	8747	0.15	PPBV	#	71
24) ETHANOL	5.14	45	77230	11.79	PPBV		98
30) TERTIARY BUTYL ALCOHOL	6.08	59	16892	0.56	PPBV		94
36) METHYL ETHYL KETONE	7.11	72	2333	0.39	PPBV	#	93
39) ETHYL ACETATE	7.62	61	2859	0.69	PPBV	#	90
49) TRICHLOROETHYLENE	9.82	95	6332	0.28	PPBV		94
57) METHYL ISOBUTYL KETONE	10.75	58	1286	0.12	PPBV	#	73
59) TOLUENE	11.57	92	13046	0.44	PPBV		94
64) TETRACHLOROETHYLENE	12.70	164	1634	0.06	PPBV		95
70) ETHYLBENZENE	13.79	91	16881	0.29	PPBV		97
71) m,p-XYLENE	13.97	106	27125	1.26	PPBV		92
72) o-XYLENE	14.48	106	10894	0.54	PPBV		97
73) STYRENE	14.39	104	9654	0.41	PPBV		97
74) NONANE	14.66	43	6340	0.19	PPBV		96
82) 4-ETHYLTOLUENE	15.88	105	7783m	0.19	PPBV		
83) 1,3,5-TRIMETHYLBENZENE	15.98	105	9497	0.27	PPBV		95
85) 1,2,4-TRIMETHYLBENZENE	16.48	105	21400	0.71	PPBV	#	29
88) p-DICHLOROBENZENE	16.76	146	2186	0.12	PPBV		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21014.D M3W821.M Mon Feb 28 15:03:20 2011 MS3W

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ACCUTEST

JA68565
LABORATORIES

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W21014.D Vial: 7

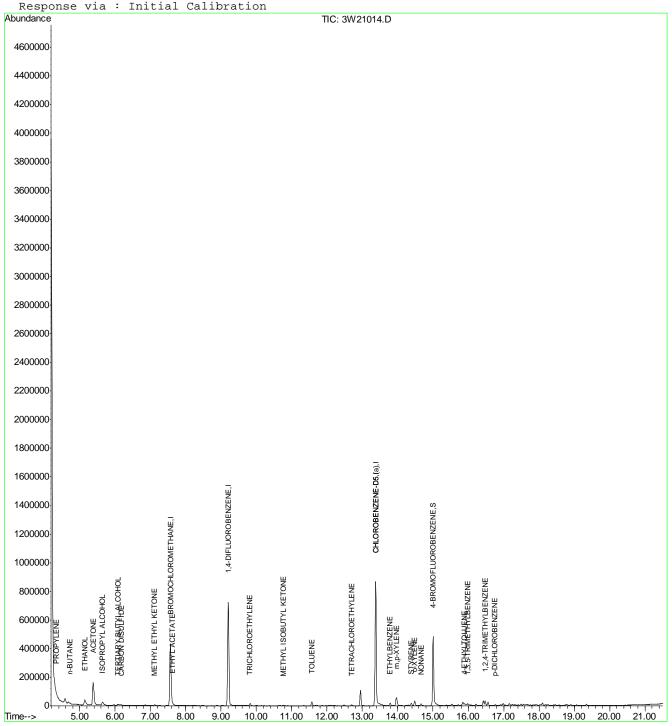
Acq On : 25 Feb 2011 4:19 pm Operator: yunxiac Sample : JA68565-6 Inst : MS3W Misc : MS8536,V3W829,40,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 28 15:03 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

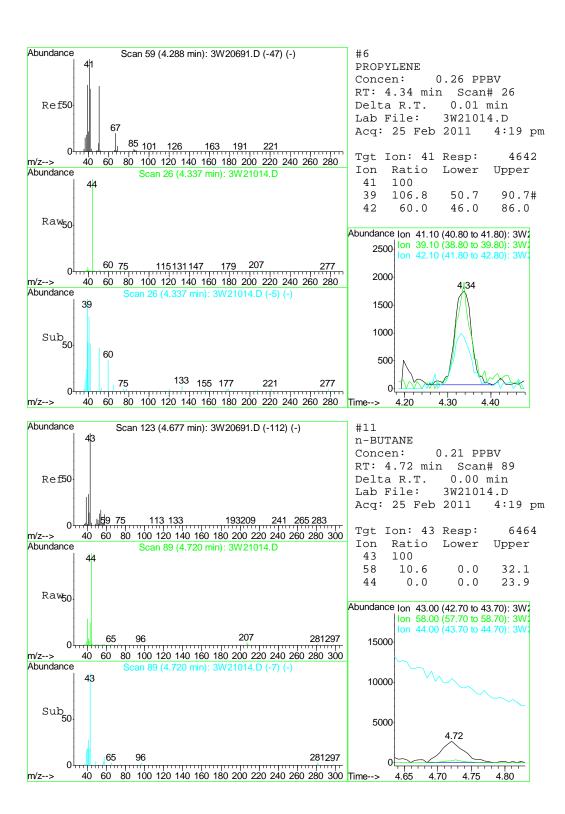


3W21014.D M3W821.M

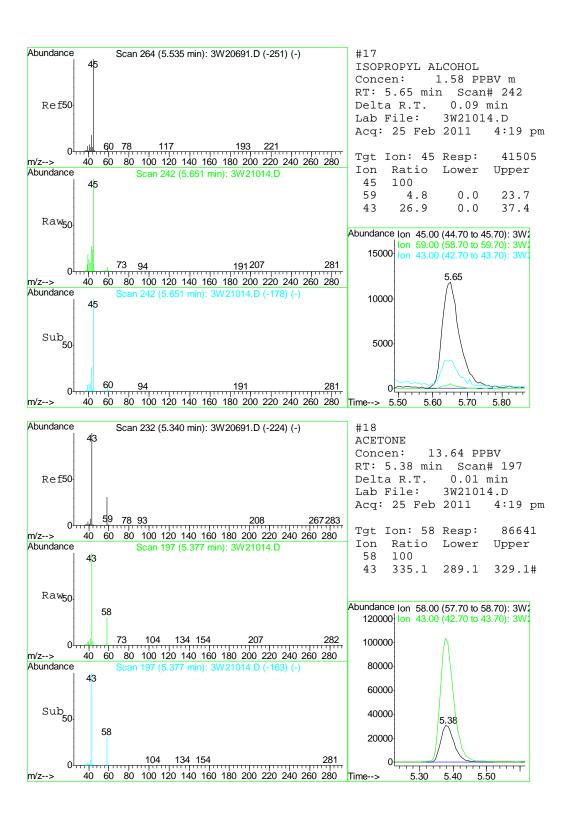
Mon Feb 28 15:03:20 2011

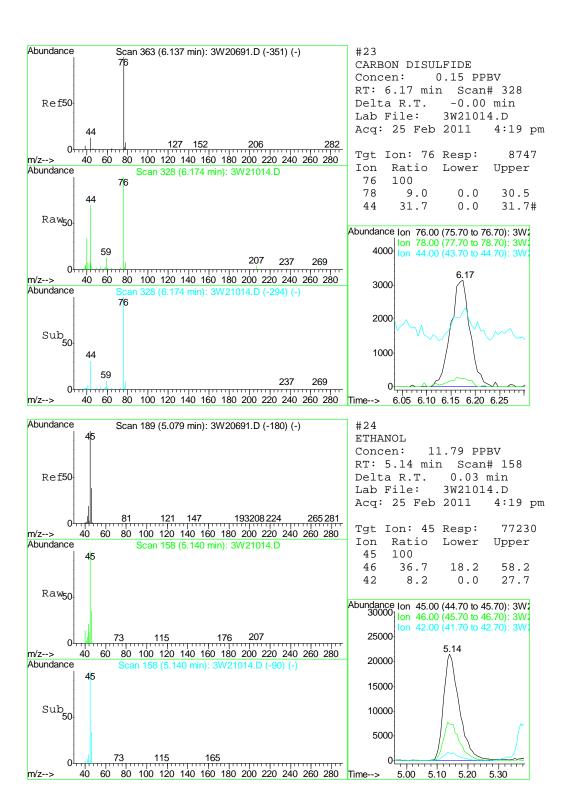
MS3W

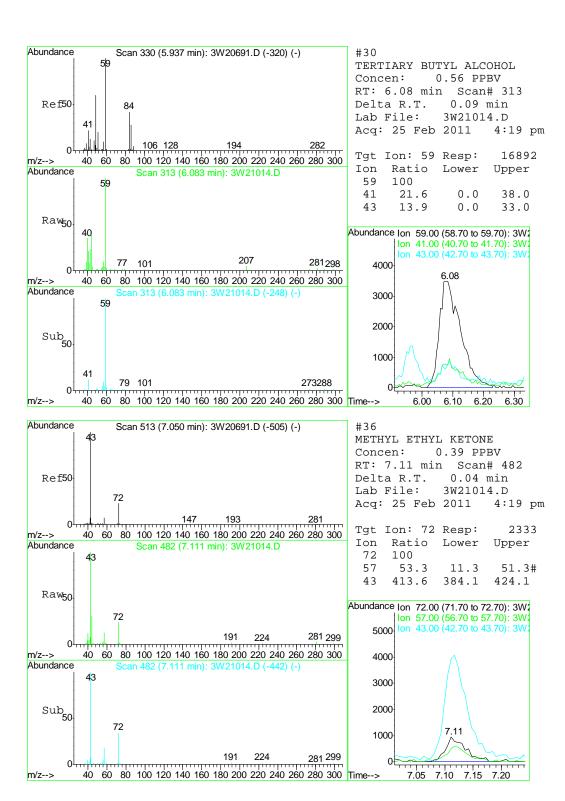


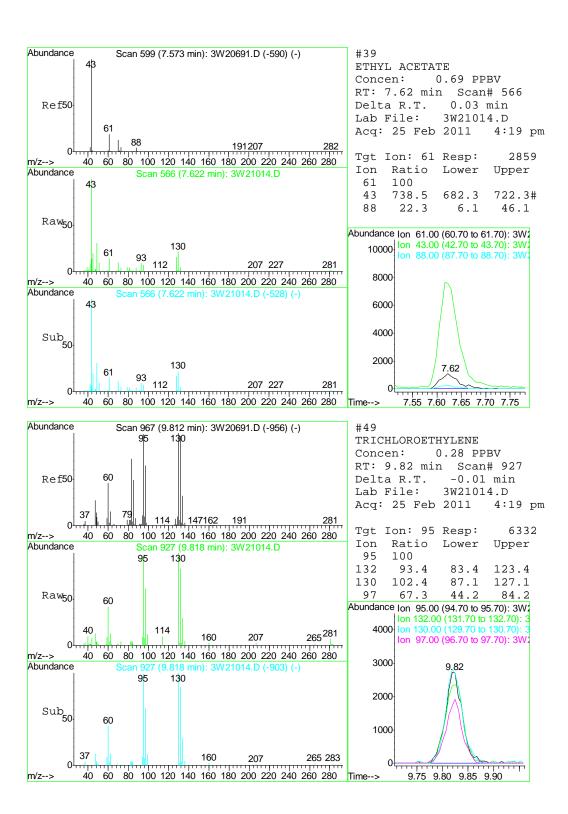


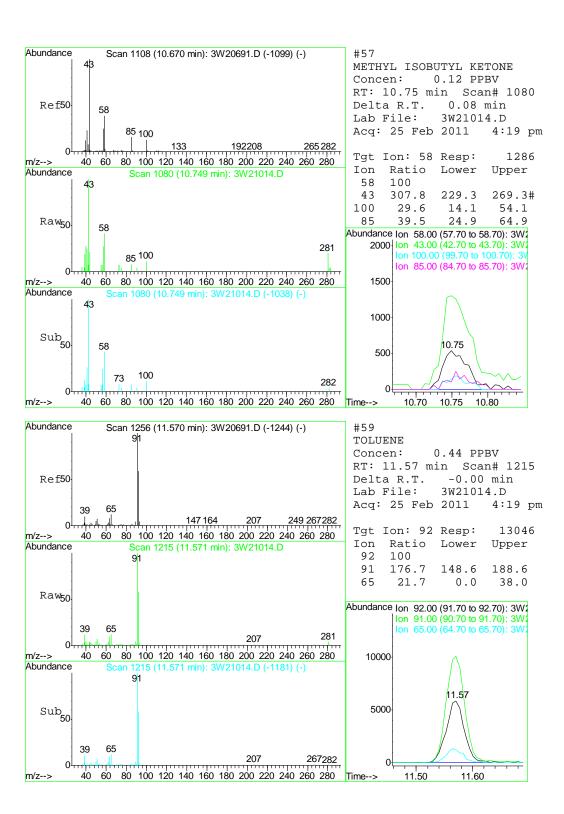
346 of 840 ACCUTEST: JA68565

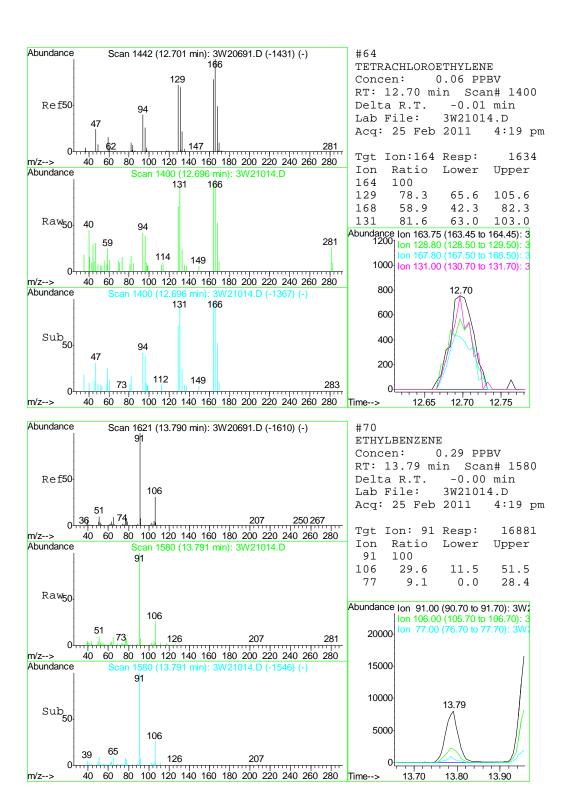


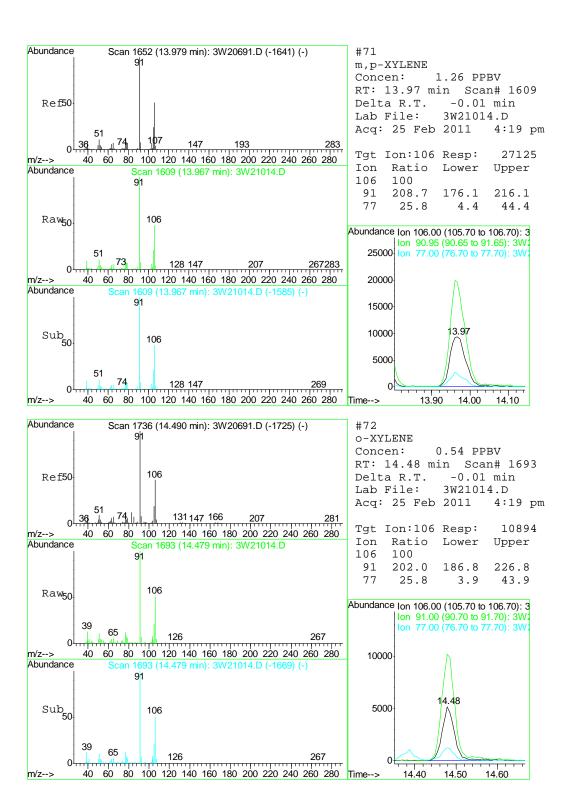


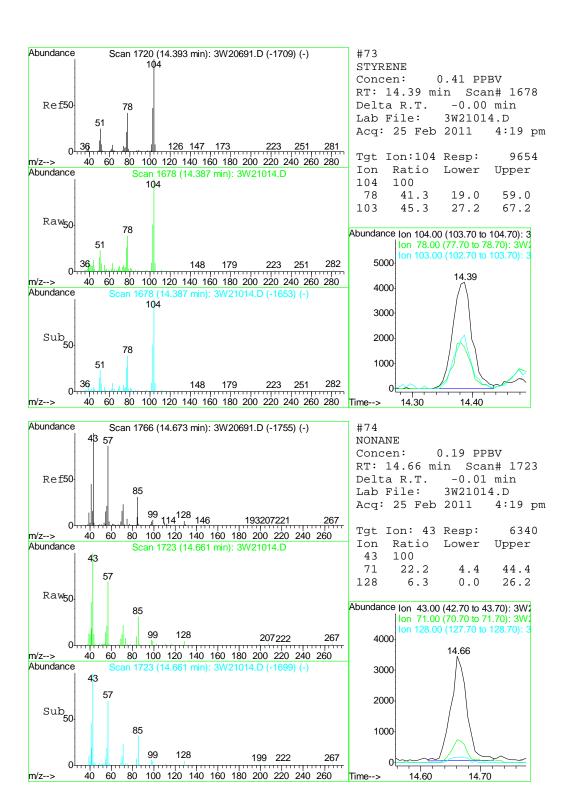


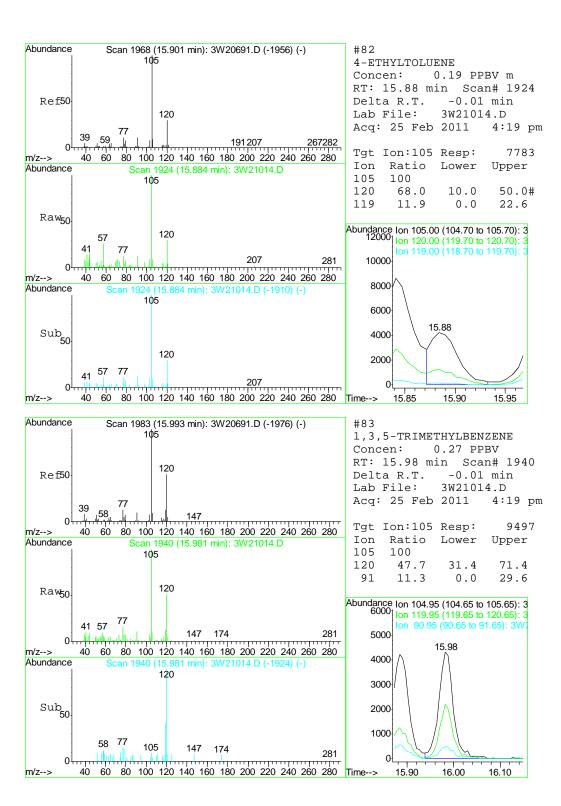


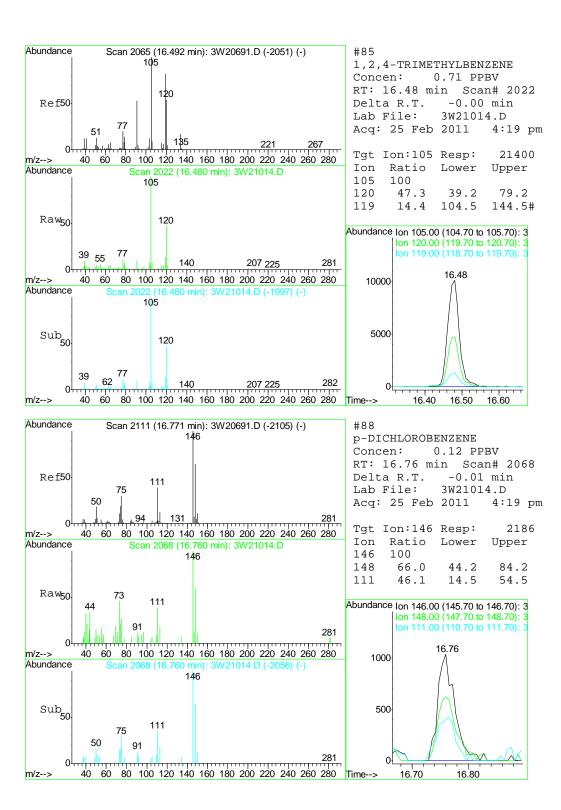












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## **Manual Integration Approval Summary**

Sample Number: JA68565-6 Method: TO-15

 Lab FileID:
 3W21014.D
 Analyst approved:
 02/28/11 15:04
 Yunxia Chen

 Injection Time:
 02/25/11 16:19
 Supervisor approved:
 03/10/11 05:18
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.65	Poorly defined baseline
4-Ethyltoluene	622-96-8		15.88	Overlapping peak



## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:10:59 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits Dev	(Min)
1) BROMOCHLOROMETHANE	7.57	128	171701	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	830112	10.00	PPBV	0.00
62) CHLOROBENZENE-D5					PPBV	0.00
95) CHLOROBENZENE-D5 (a)					PPBV	
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.00	95	220082			0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	109.40%	
Target Compounds					Qva	alue
5) DICHLORODIFLUOROMETHANE	4.38	85	5211	0.10	PPBV	98
6) PROPYLENE	4.34	41	4926	0.26	PPBV	86
17) ISOPROPYL ALCOHOL	5.61	45	96310	3.44	PPBV	94
18) ACETONE	5.37	58	181888	26.82	PPBV #	89
23) CARBON DISULFIDE						
,	5.12					
30) TERTIARY BUTYL ALCOHOL	6.02	59	45452	1.42	PPBV	94
36) METHYL ETHYL KETONE	7.10	72	3070 2633 2487	0.48	PPBV #	53
39) ETHYL ACETATE	7.60	61	2633	0.59	PPBV #	81
49) TRICHLOROETHYLENE	9.82	95	2487	0.10	PPBV	87
57) METHYL ISOBUTYL KETONE	10.73	58	1483	0.13	PPBV #	75
	11.56				PPBV	
64) TETRACHLOROETHYLENE					PPBV	
70) ETHYLBENZENE			23833		PPBV	
71) m,p-XYLENE	13.96				PPBV	
72) o-XYLENE	14.48				PPBV	
73) STYRENE	14.38				PPBV	95
74) NONANE		43			PPBV	99
81) n-PROPYLBENZENE	15.71				PPBV	86
82) 4-ETHYLTOLUENE	15.88		15889		PPBV	98
83) 1,3,5-TRIMETHYLBENZENE			20739		PPBV	
85) 1,2,4-TRIMETHYLBENZENE					PPBV #	
88) p-DICHLOROBENZENE	16.76	146	5558	0.28	PPBV	92

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20989.D M3W821.M Fri Feb 25 10:20:33 2011 MS3W



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20989.D

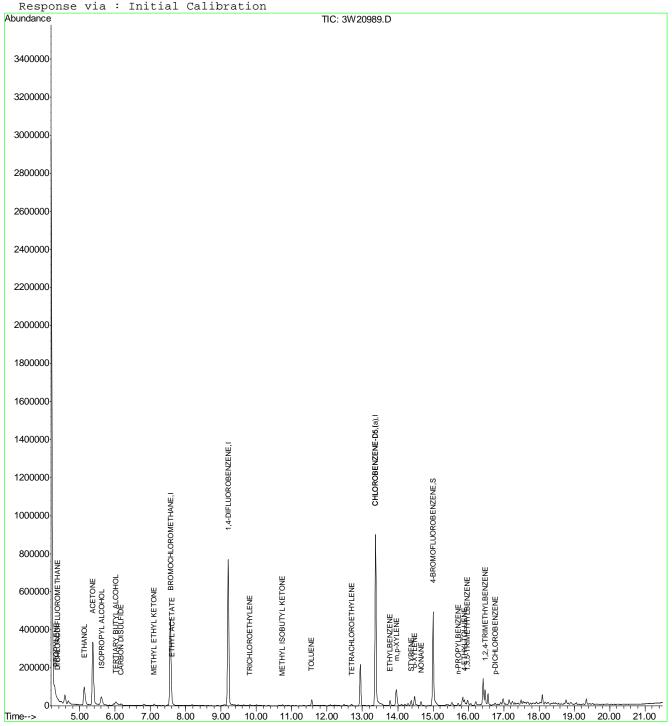
Vial: 8 : 24 Feb 2011 8:55 pm Operator: yunxiac Acq On Sample : ja68565-7 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:19 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

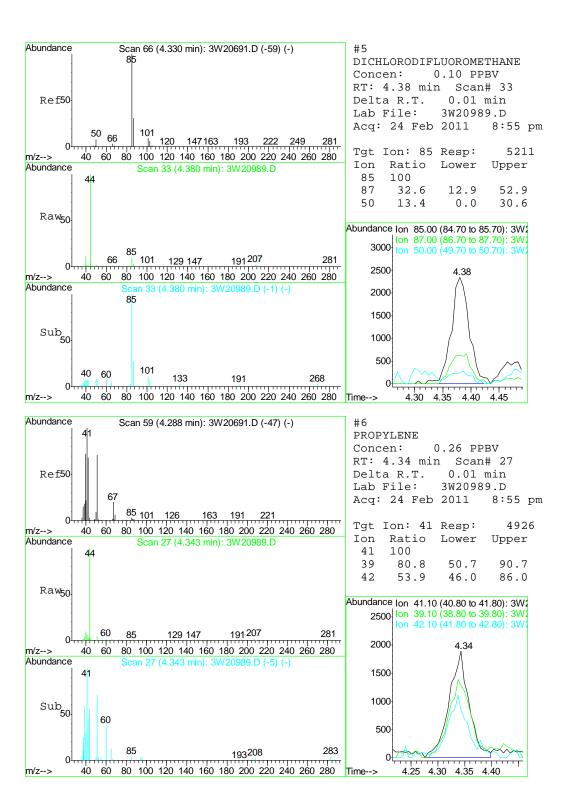


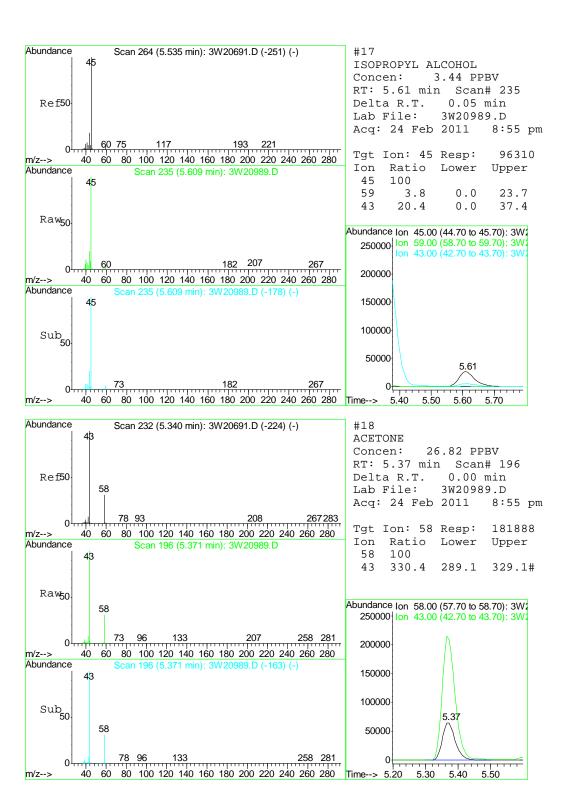
3W20989.D M3W821.M

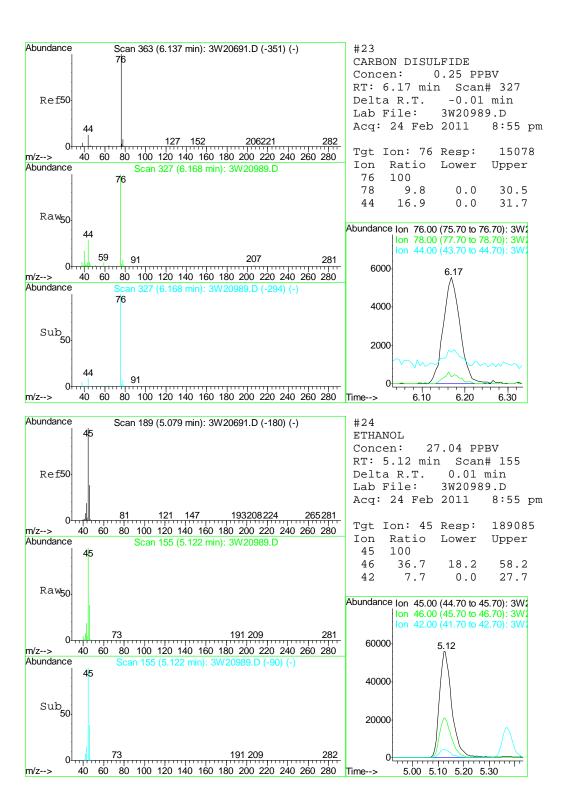
Fri Feb 25 10:20:33 2011

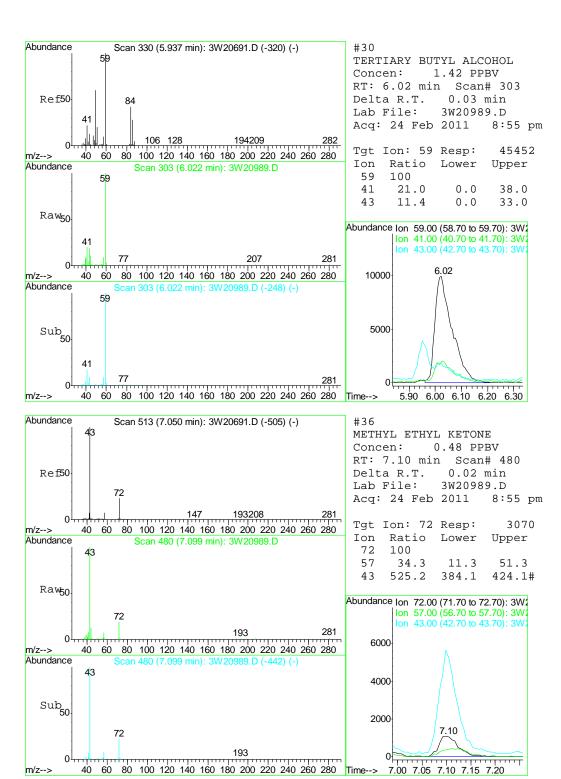
MS3W

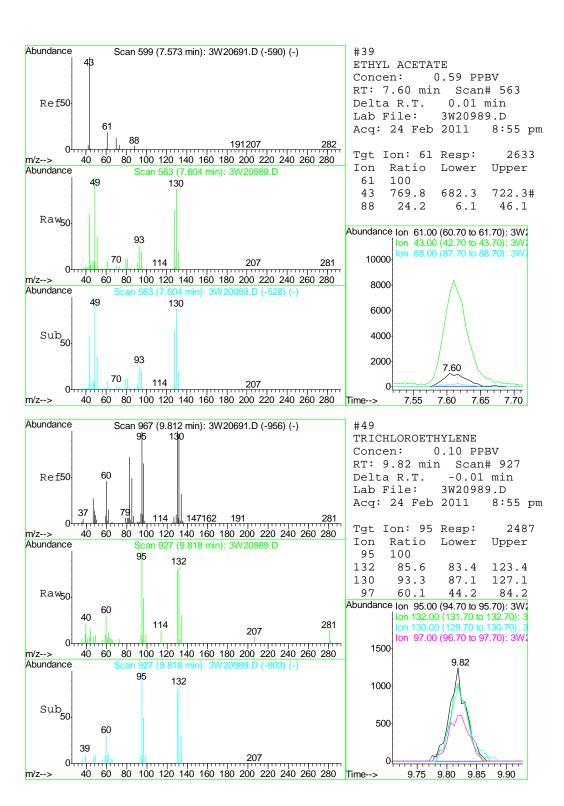


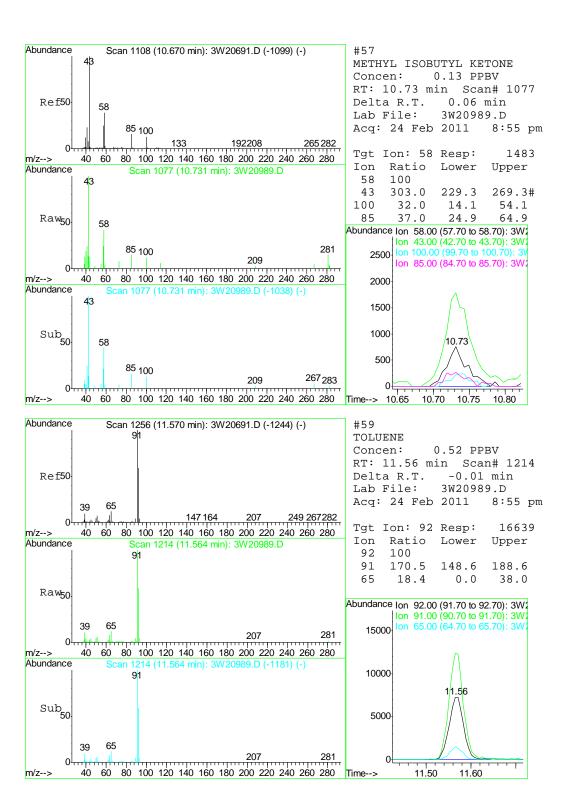


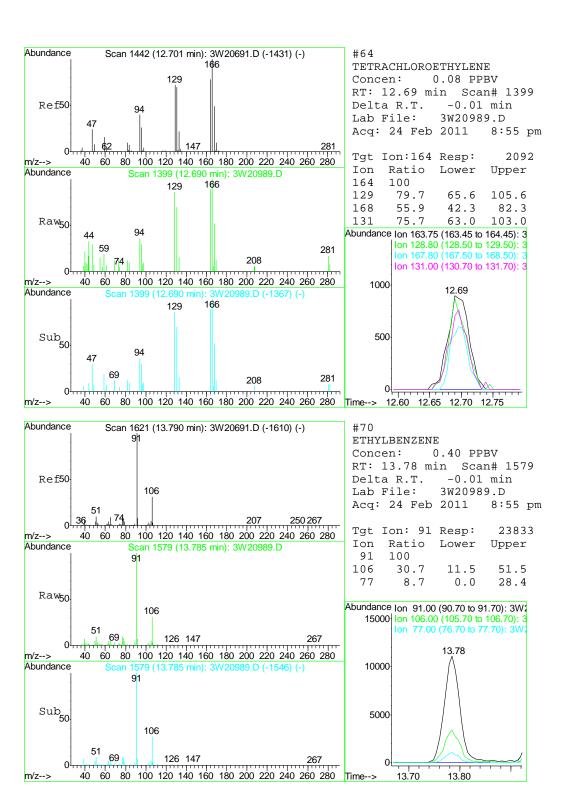


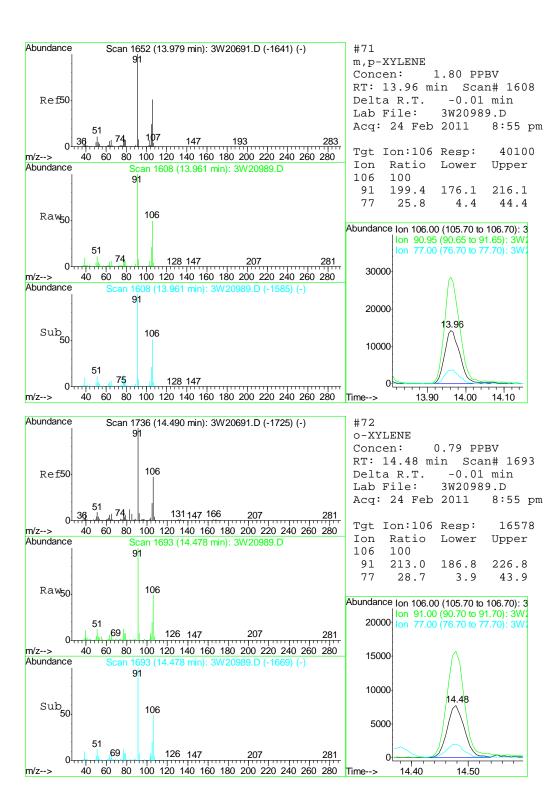


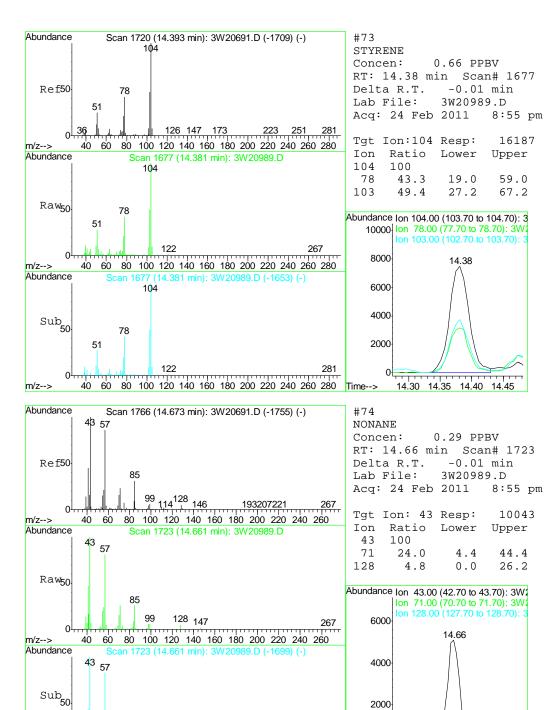












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m/z-->

14.60

14.70

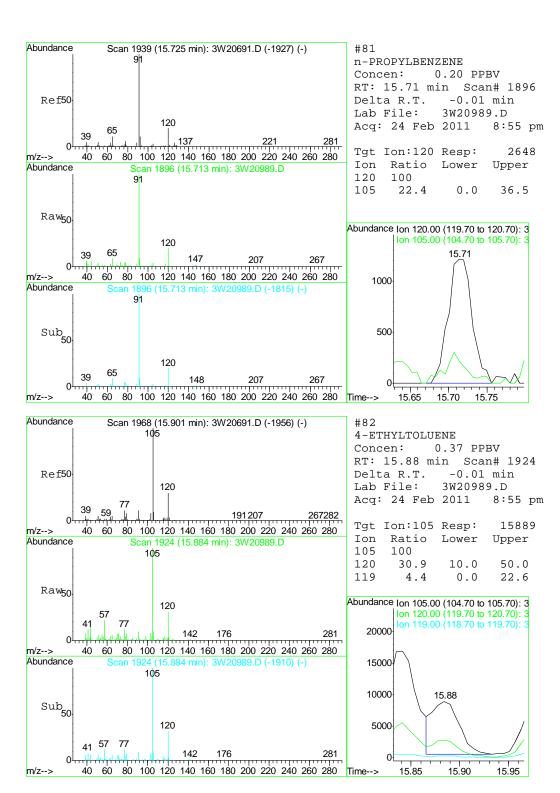
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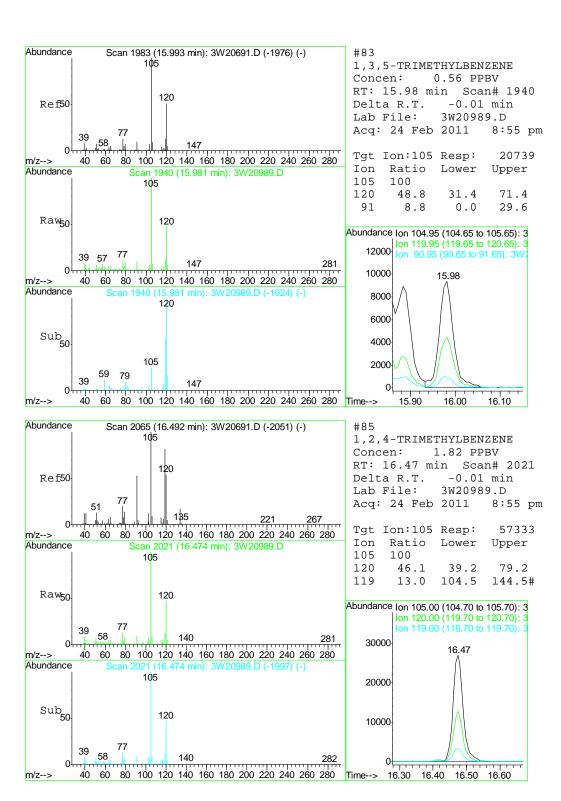
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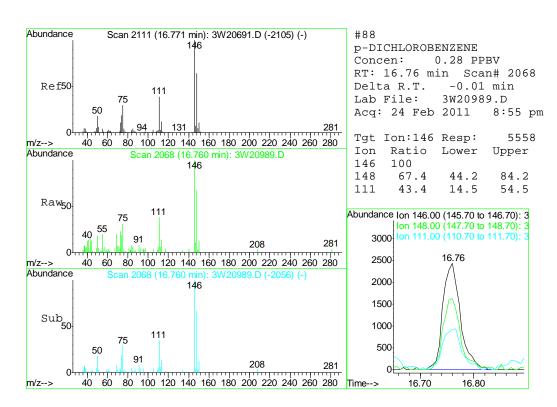
85

128 147

80 100 120 140 160 180 200 220 240 260







**Manual Integrations** APPROVED (compounds with "m" flag)

> **Kanya Veerawat** 03/10/11 05:28

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20990.D Vial: 9 Acq On : 24 Feb 2011 9:35 pm Operator: yunxiac Inst : MS3W Sample : ja68565-8 : MS8536,V3W828,100,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Feb 25 08:11:02 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc U	nits I	Dev	(Min)
1) BROMOCHLOROMETHANE	7.57	128	161395	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	793624	10.00	PPBV		0.00
62) CHLOROBENZENE-D5	13.37	82	364139	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	364663	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE							0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	109.8	80%	
Target Compounds						Qv	alue
5) DICHLORODIFLUOROMETHANE	4.38	85	5382	0.11	PPBV		97
11) n-BUTANE	4.73		23388 80607m	0.75	PPBV	#	94
17) ISOPROPYL ALCOHOL	5.64	45	80607m	3.06	PPBV		
18) ACETONE	5.38		183675				
19) PENTANE	5.64			0.43			
23) CARBON DISULFIDE	6.17	76	27030	0.48	PPBV		76
24) ETHANOL	5.13	45	126260 5844 4996m	19.21	PPBV		98
28) FREON 113	6.12	151	5844	0.18	PPBV		91
30) TERTIARY BUTYL ALCOHOL		59	4996m	0.17			
33) HEXANE	7.49		5347		PPBV		
36) METHYL ETHYL KETONE	7.11		5718		PPBV	#	40
39) ETHYL ACETATE	7.62		1248	0.30	PPBV	#	87
40) CHLOROFORM	7.66	83	10444 5701	0.32	PPBV		97
46) BENZENE	8.89	78	5701	0.12	PPBV		93
49) TRICHLOROETHYLENE	9.82		2492	0.11	PPBV		96
54) HEPTANE	10.00		5859	0.18	PPBV		93
57) METHYL ISOBUTYL KETONE	10.76		971	0.09	PPBV	#	
59) TOLUENE	11.57	92	13016	0.43	PPBV		97
64) TETRACHLOROETHYLENE	12.70	164	2361	0.09	PPBV		98
67) OCTANE	12.48		6020		PPBV		92
70) ETHYLBENZENE		91		0.19	PPBV		96
71) m,p-XYLENE	13.97	106	17807	0.83	PPBV		95
72) o-XYLENE	14.48	106	8978	0.45	PPBV		95
73) STYRENE	14.39	104	5345		PPBV		96
74) NONANE	14.66	43	5697 5256	0.17	PPBV		98
82) 4-ETHYLTOLUENE	15.89	105	5256	0.13	PPBV		94
83) 1,3,5-TRIMETHYLBENZENE	15.98	105	6767	0.19	PPBV		99
85) 1,2,4-TRIMETHYLBENZENE	16.47	105	18762	0.62	PPBV	#	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20990.D M3W821.M Fri Feb 25 10:20:37 2011 MS3W

16.76 146 5838 0.31 PPBV 96



88) p-DICHLOROBENZENE

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20990.D Vial: 9

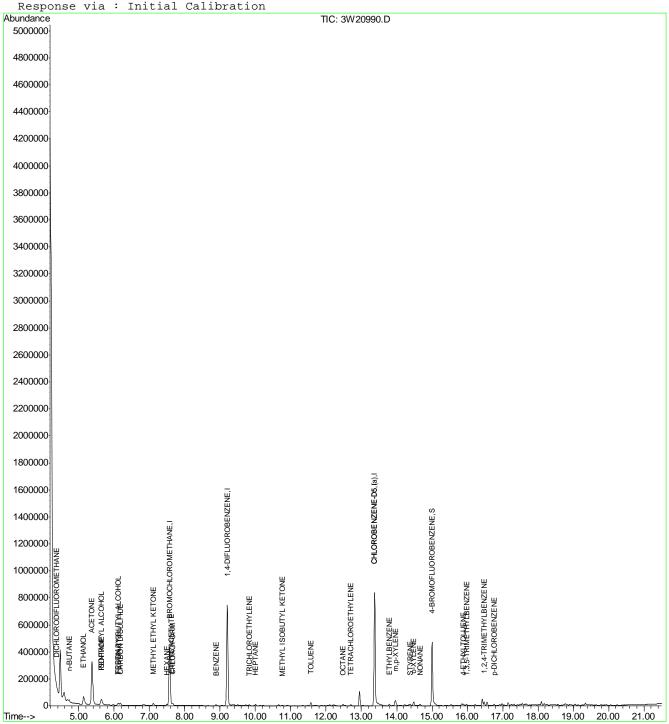
: 24 Feb 2011 9:35 pm Operator: yunxiac Acq On Sample : ja68565-8 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:22 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

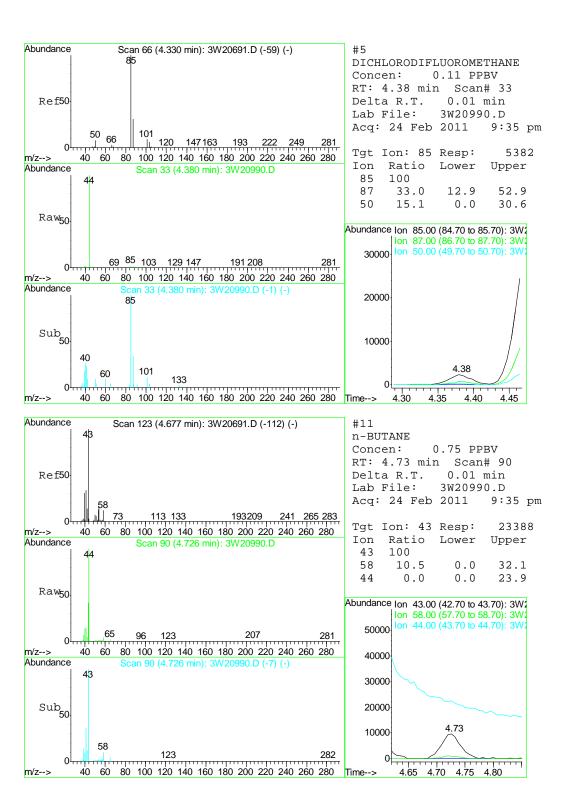


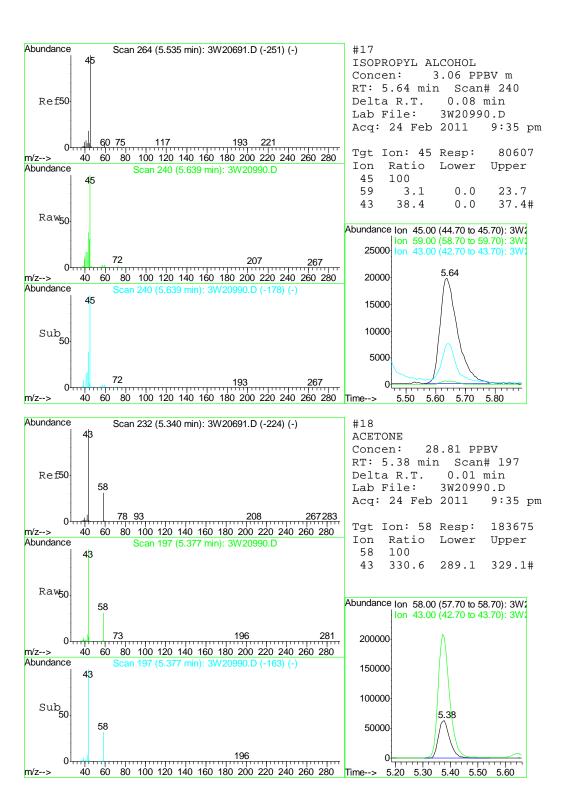
3W20990.D M3W821.M

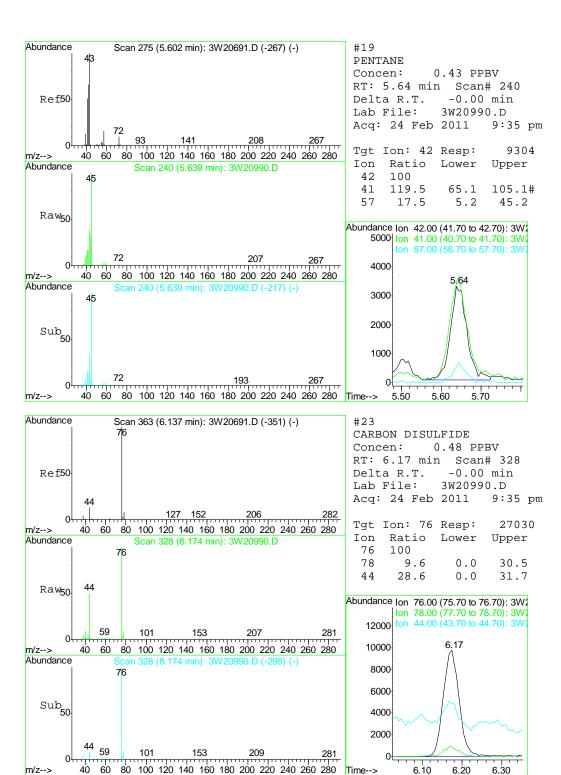
Fri Feb 25 10:20:37 2011

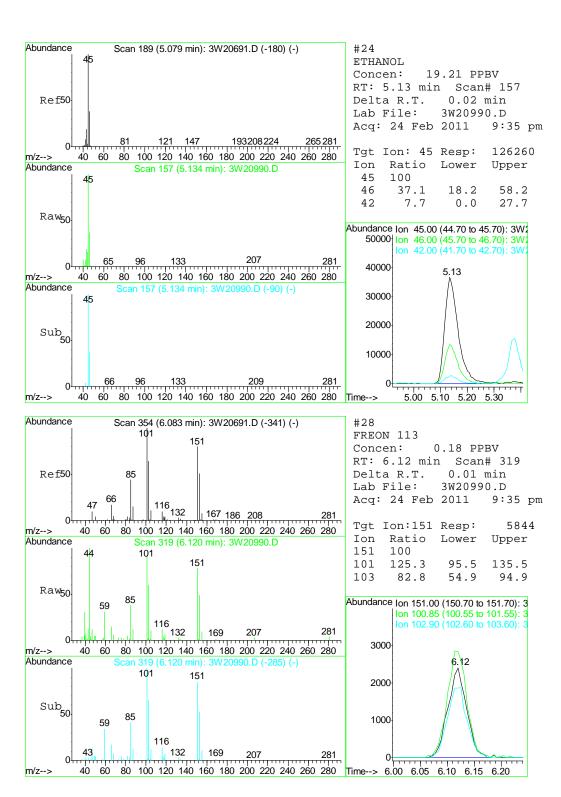
MS3W

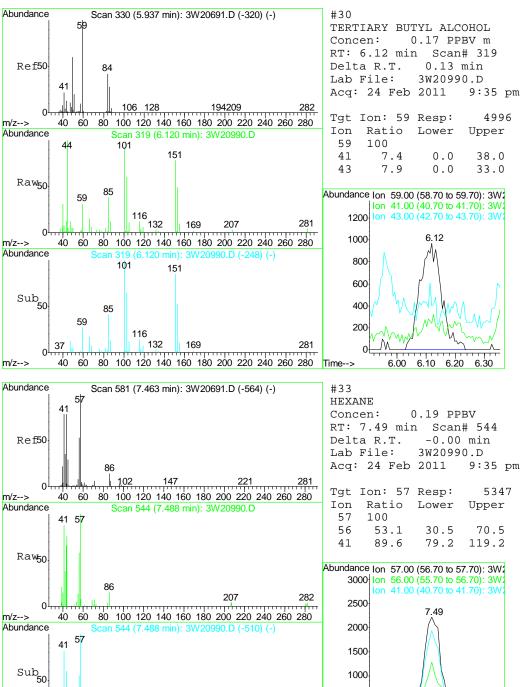


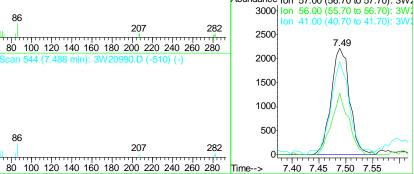












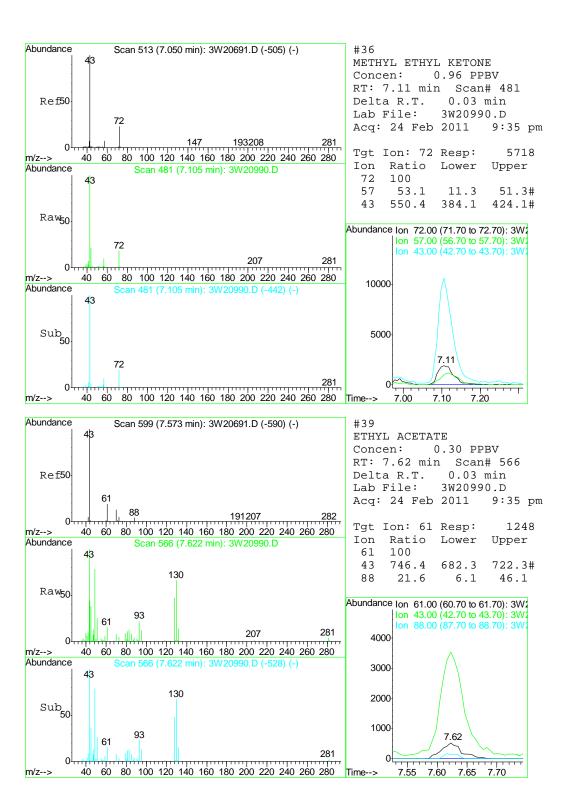
m/z-->

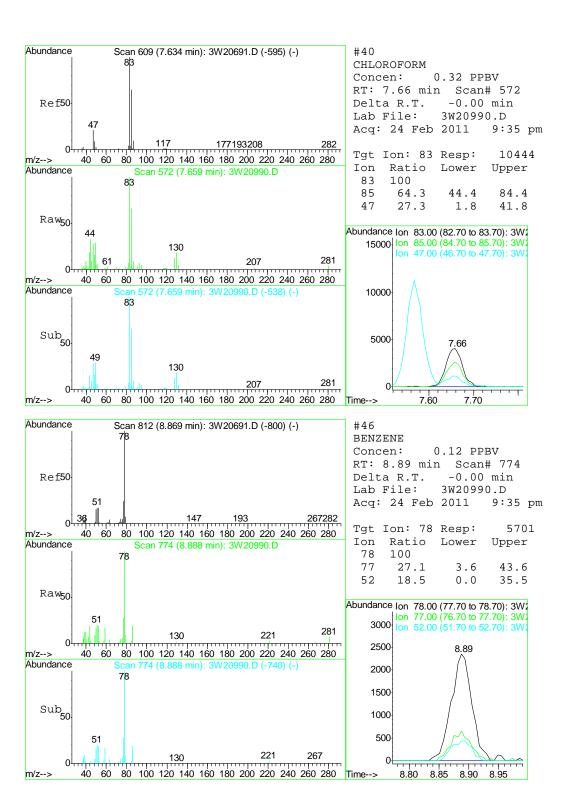
207

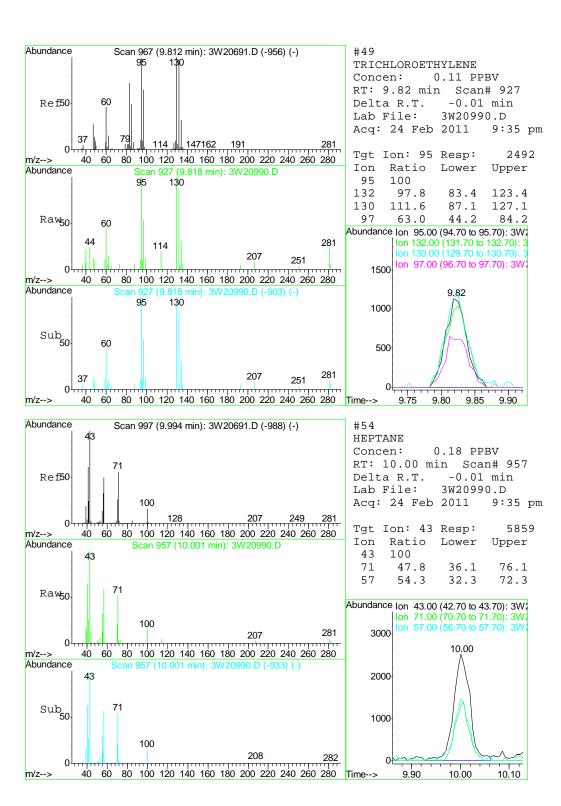
282

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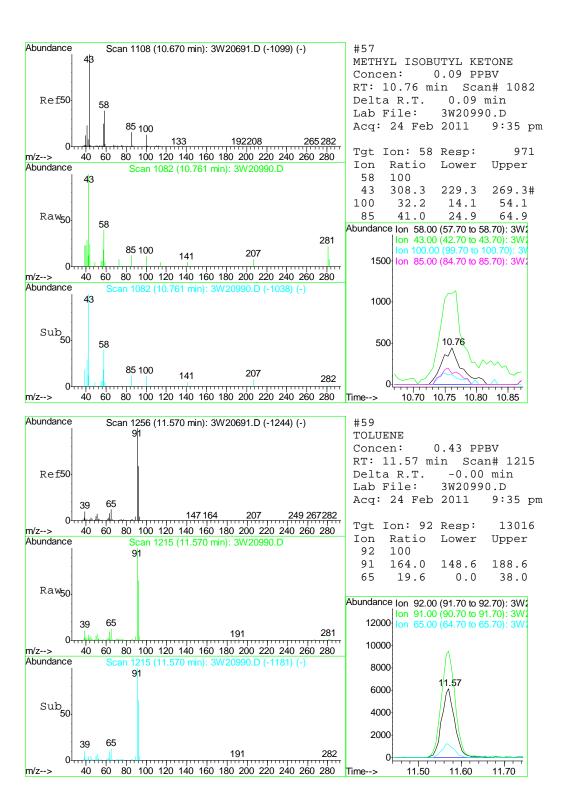
86

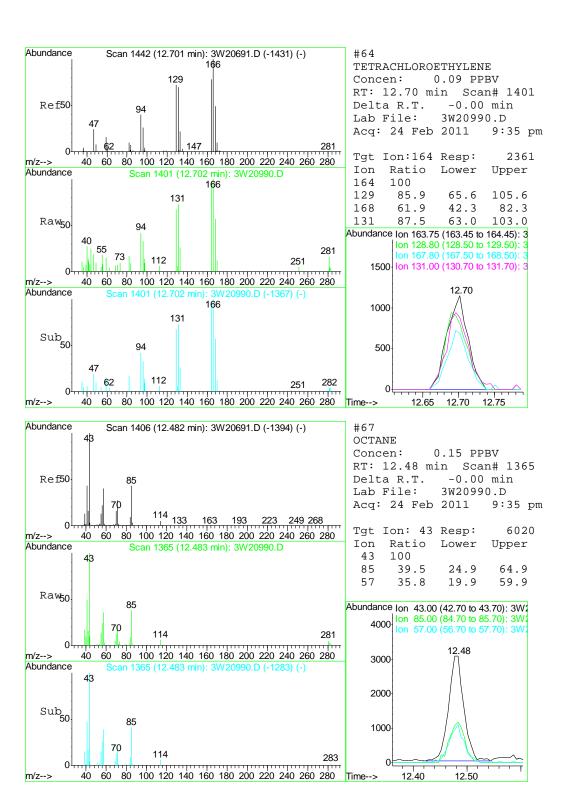


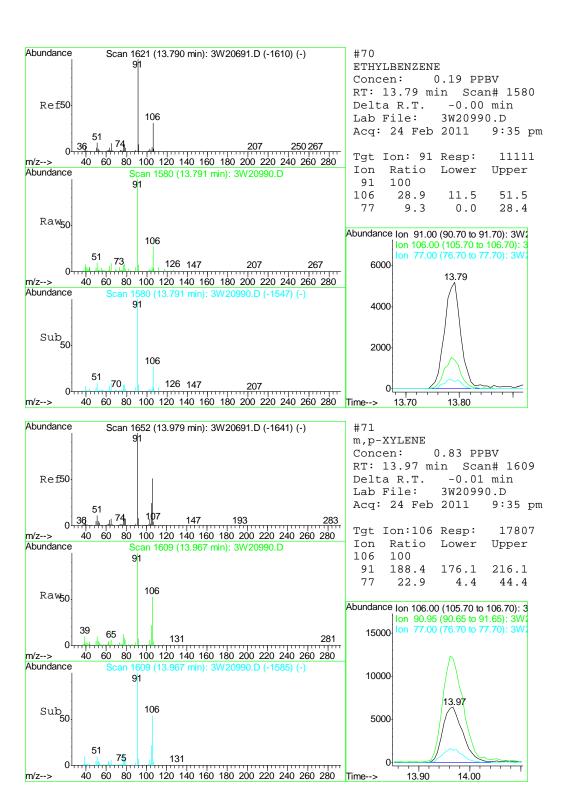


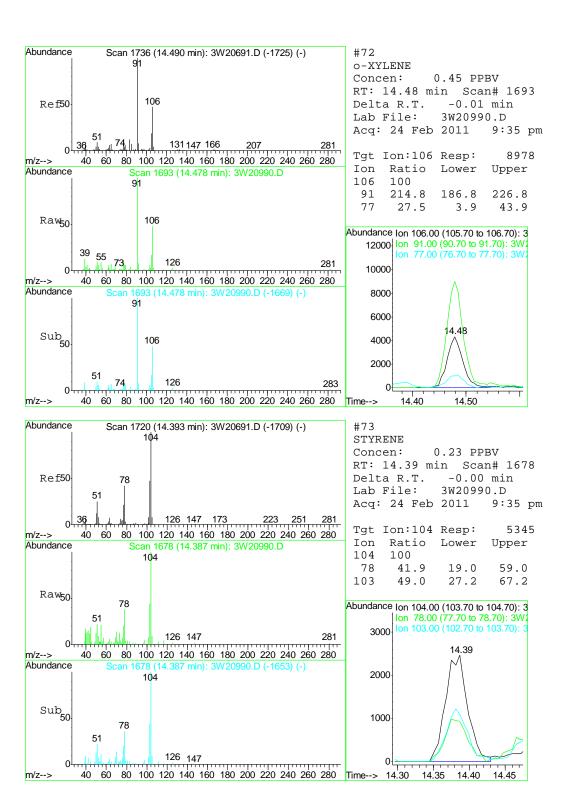


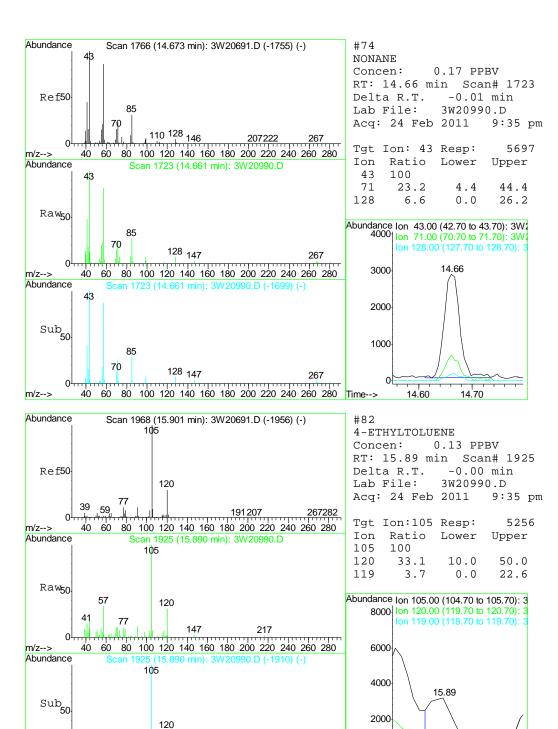
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ACCUTEST.
JA68565











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39

40

m/z-->

217

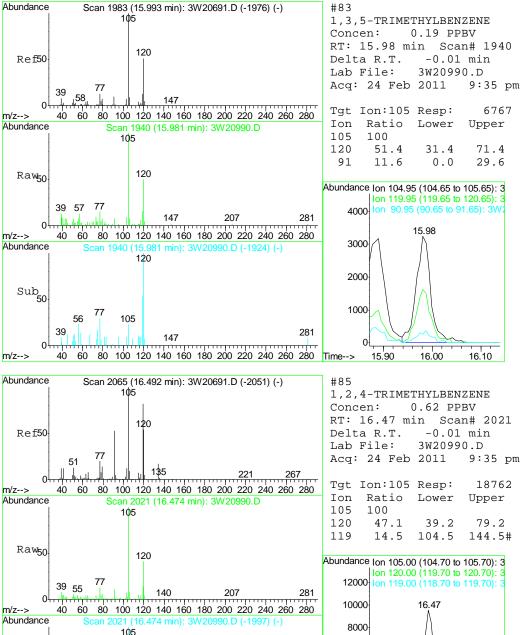
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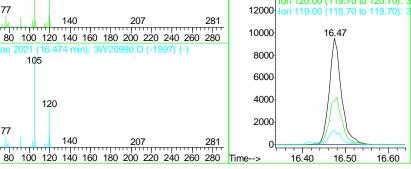
147

15.85

15.90

15.95





Sub 50

m/z-->

39 .57

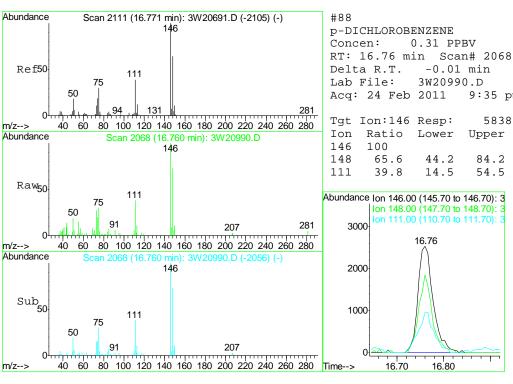
60

120

140

207

16.80



Page 1 of 1

# **Manual Integration Approval Summary**

Sample Number: JA68565-8 Method: TO-15

 Lab FileID:
 3W20990.D
 Analyst approved:
 02/25/11 10:31
 Yunxia Chen

 Injection Time:
 02/24/11 21:35
 Supervisor approved:
 03/10/11 05:28
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.64	Missed peak
Tertiary Butyl Alcohol	75-65-0		6.12	Split peak



Kanya Veerawat 03/10/11 05:28

## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:11:05 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits D	ev	(Min)
1) BROMOCHLOROMETHANE	 7 57	128	148472	10 00	DDRV		0.00
45) 1,4-DIFLUOROBENZENE	9 21	114	707691	10.00			0.00
62) CHLOROBENZENE-D5	13 38	82	339708	10.00			0.00
95) CHLOROBENZENE-D5 (a)	13.38	82	339708	10.00			0.00
JJ CHILORODENZENE DJ (U)	13.30	02	337700	10.00	IIDV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	204005	5.65	PPBV		0.00
Spiked Amount 5.000							
21	5.			1			
Target Compounds						Qv	alue
5) DICHLORODIFLUOROMETHANE	4.39	85	6408	0.15	PPBV		97
6) PROPYLENE	4.35	41	16880	1.02	PPBV	#	68
11) n-BUTANE	4.73	43	61483	2.14	PPBV	#	93
17) ISOPROPYL ALCOHOL	5.66	45	77742m	3.21	PPBV		
18) ACETONE	5.39	58	97440	16.61	PPBV	#	81
19) PENTANE	5.65	42	11258	0.57	PPBV	#	67
23) CARBON DISULFIDE	6.18	76	9110		PPBV		44
24) ETHANOL	5.16		55146	9.12	PPBV		100
28) FREON 113	6.13		21306		PPBV		95
33) HEXANE	7.49		5871		PPBV		
36) METHYL ETHYL KETONE			5157	0.94	PPBV	#	
39) ETHYL ACETATE	7.63		1958	0.51	PPBV		96
46) BENZENE	8.89		5516		PPBV		94
49) TRICHLOROETHYLENE	9.82	95	35765		PPBV		96
54) HEPTANE	10.01	43	5766 15055		PPBV		91
59) TOLUENE	11.57	92	15055		PPBV		99
64) TETRACHLOROETHYLENE	12.70	164	3723 6937		PPBV		97
67) OCTANE	12.48	43	6937		PPBV		82
70) ETHYLBENZENE	13.78	91	7284		PPBV		95
71) m,p-XYLENE		106			PPBV		96
72) O-XYLENE	14.48		4643		PPBV		91
73) STYRENE			2591		PPBV		95
82) 4-ETHYLTOLUENE	15.88		3901m		PPBV		94
83) 1,3,5-TRIMETHYLBENZENE			3910		PPBV	ш	
		105	10320		PPBV	Ħ	29
88) p-DICHLOROBENZENE	16.76	146	2464	0.14	PPBV		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed  $3W20991.D \quad M3W821.M \quad Fri \; Feb \; 25 \; 10:20:41 \; 2011 \quad MS3W$ 



### Quantitation Report (QT Reviewed)

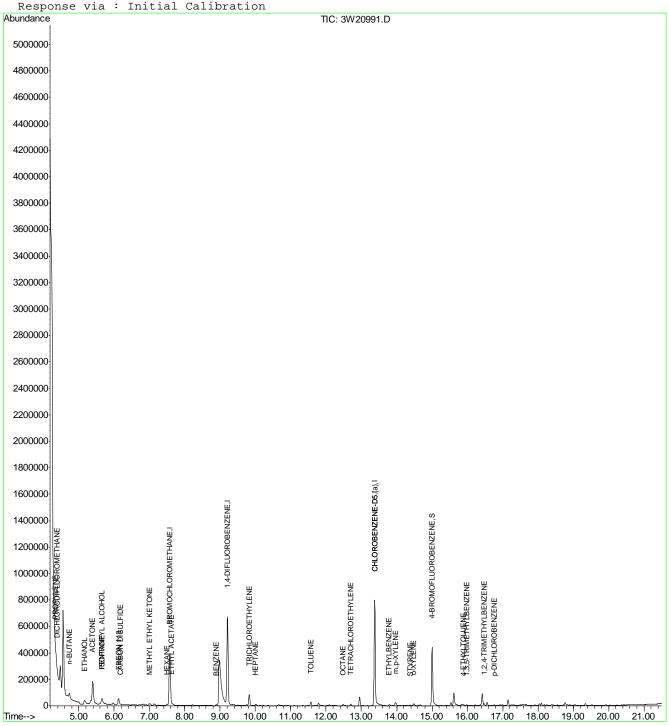
MS Integration Params: rteint.p

Quant Time: Feb 25 9:25 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

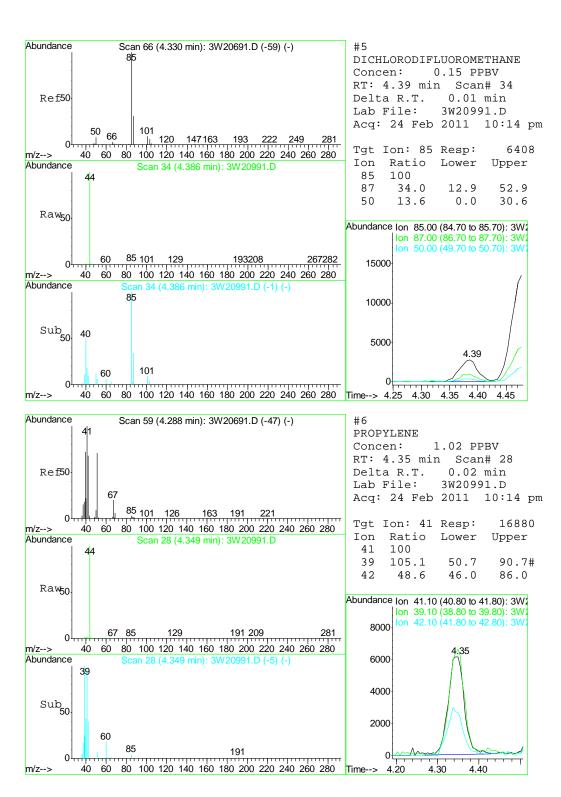


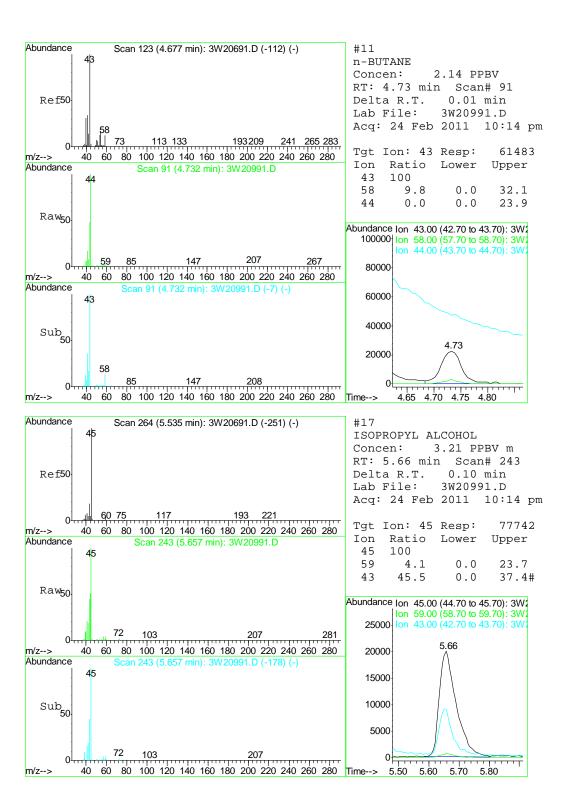
3W20991.D M3W821.M

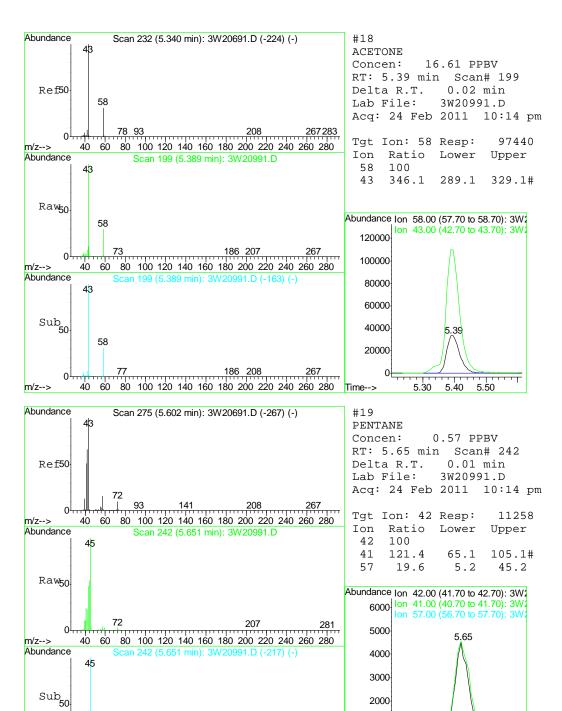
Fri Feb 25 10:20:42 2011

MS3W









Page 5

m/z-->

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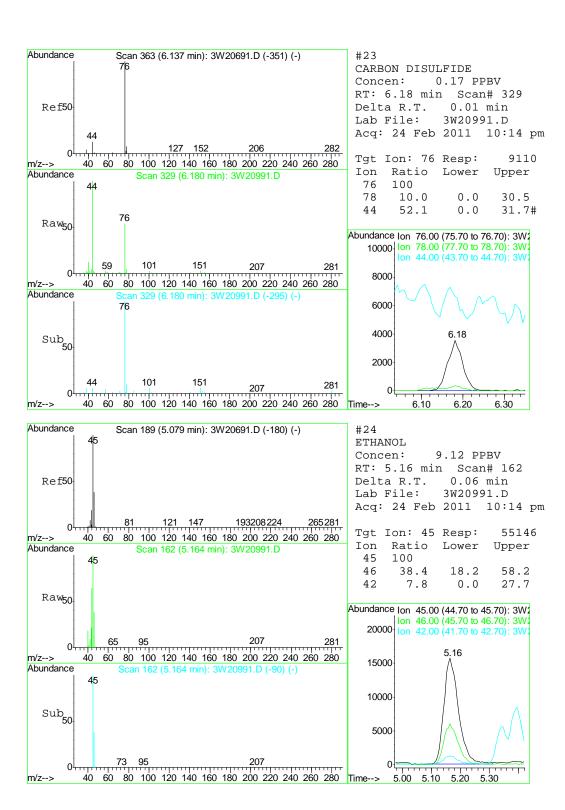
1000

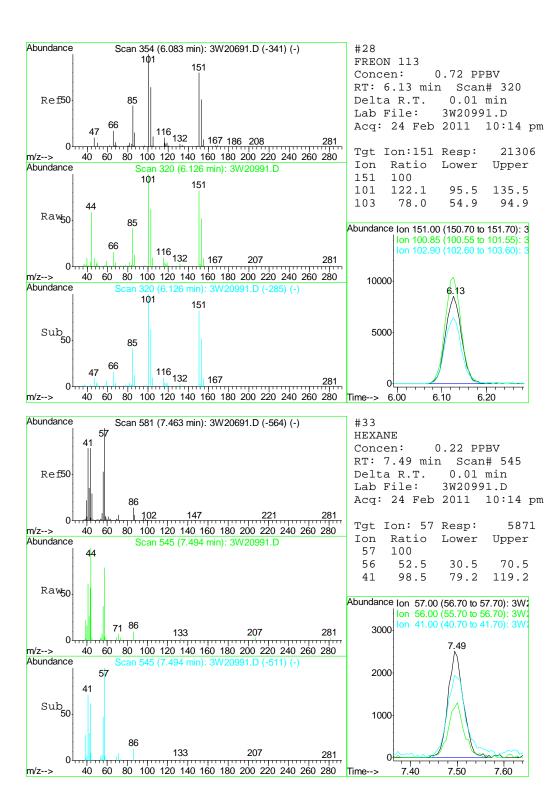
5.50

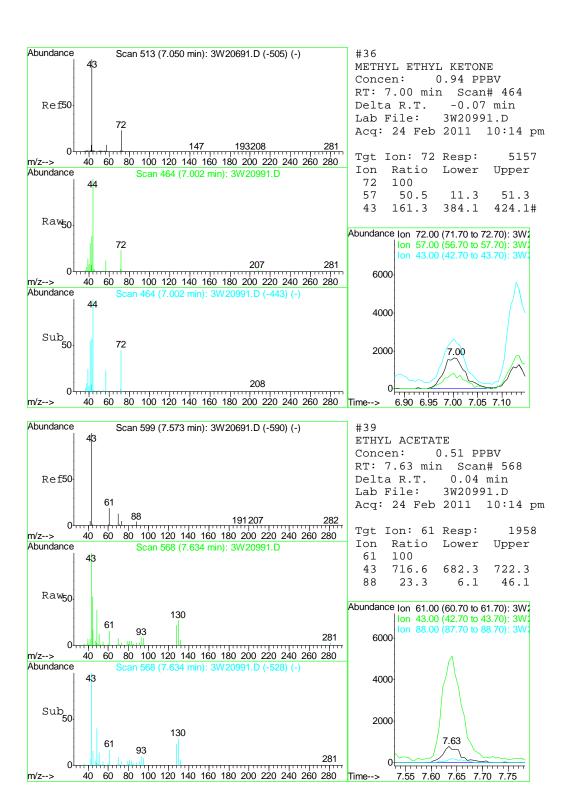
5.60

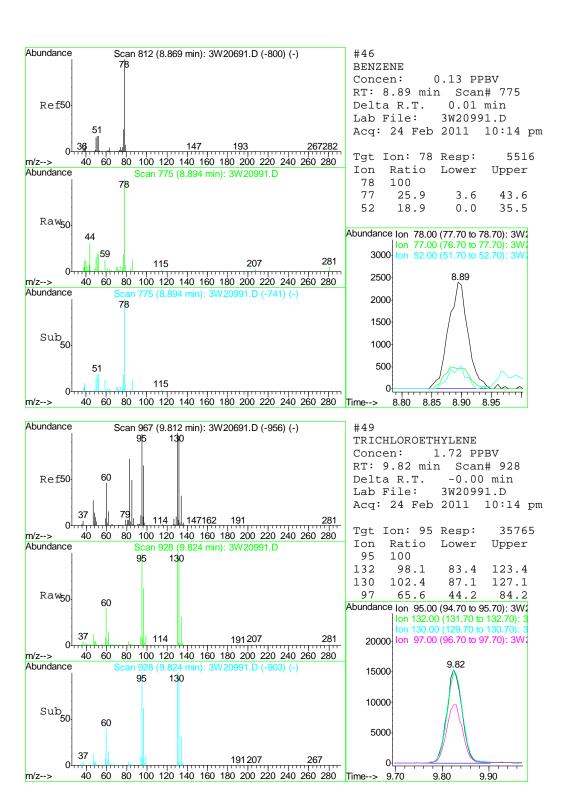
5.70

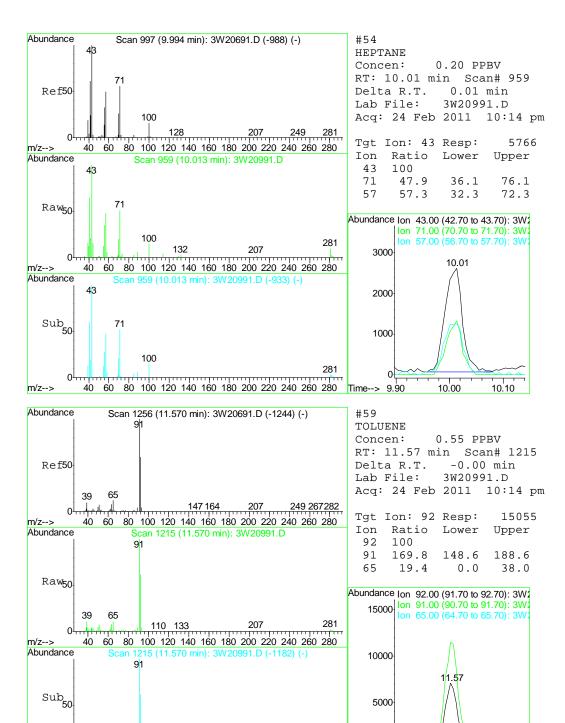
Time-->











399 of 840
ACCUTEST
JA68565

Page 10

39

m/z-->

110 133

207

60 80 100 120 140 160 180 200 220 240 260 280

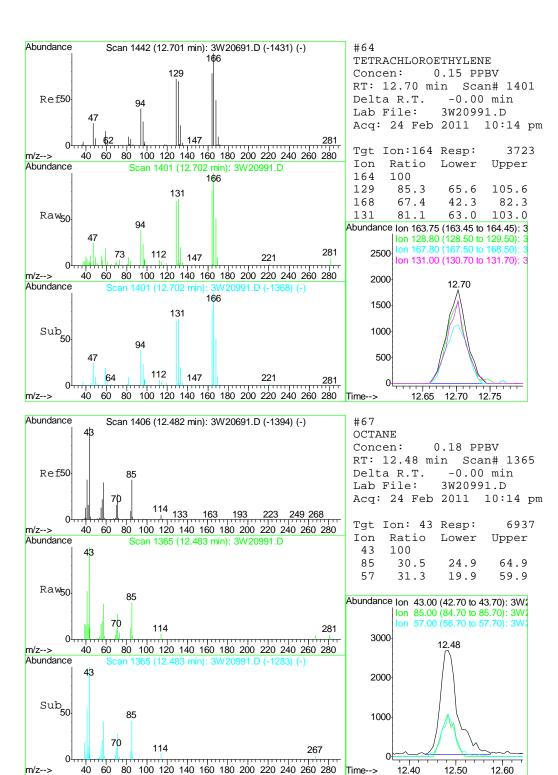
267283

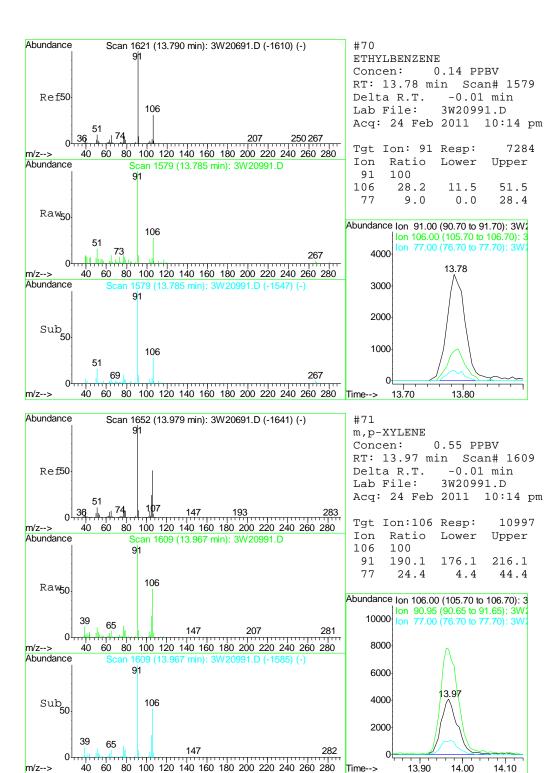
Time-->

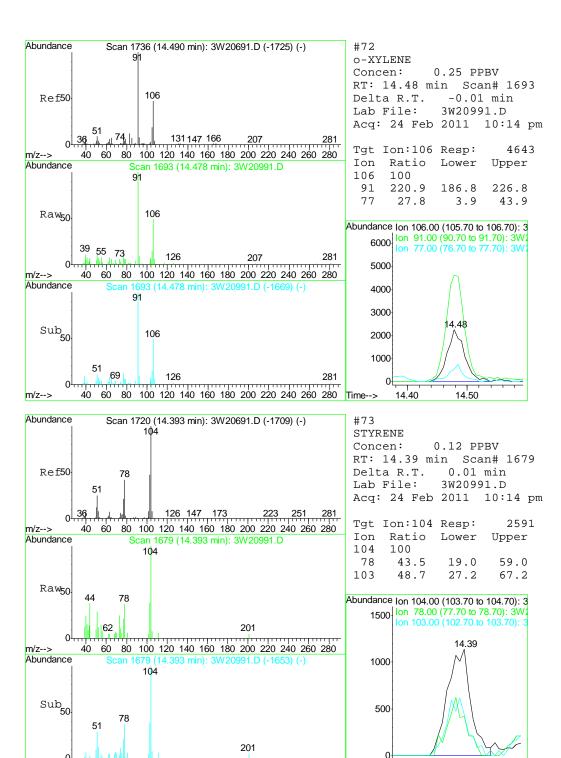
11.50

11.60

11.70







Page 13

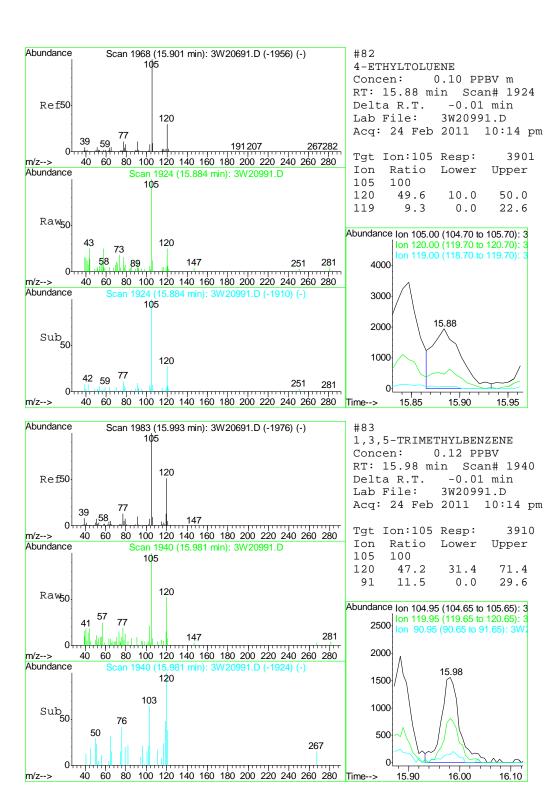
m/z-->

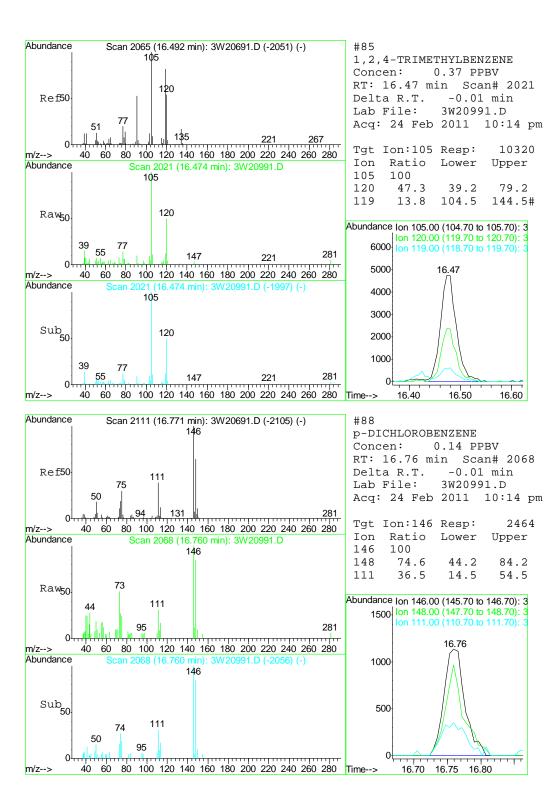
60 80 100 120 140 160 180 200 220 240 260 280 Time--> 14.30

14.35

14.40

14.45





Page 1 of 1

# **Manual Integration Approval Summary**

Sample Number: JA68565-9 Method: TO-15

 Lab FileID:
 3W20991.D
 Analyst approved:
 02/25/11 10:31
 Yunxia Chen

 Injection Time:
 02/24/11 22:14
 Supervisor approved:
 03/10/11 05:28
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.66	Missed peak
4-Ethyltoluene	622-96-8		15.88	Overlapping peak



## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:11:08 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.		Response		nits D	ev(Min)
1) BROMOCHLOROMETHANE		128	149015	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	724097	10.00	PPBV	-0.01
62) CHLOROBENZENE-D5	13.37	82	334923 336468	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	336468	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.00	95	195350	5.49	PPBV	-0.01
Spiked Amount 5.000 F	Range 65	- 128	Recove	ery =	109.8	0%
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE	4.38	85	5356	0.12	PPBV	95
6) PROPYLENE	4.33	41	28394	1.71	PPBV	88
11) n-BUTANE	4.72	43	30278		PPBV	
17) ISOPROPYL ALCOHOL	5.58	45	75122	3.09	PPBV	80
18) ACETONE	5.35	58	463637	78.77	PPBV	91
23) CARBON DISULFIDE	6.17	76	86067	1.64	PPBV	90
24) ETHANOL	5.10	45	150466	24.79	PPBV	99
30) TERTIARY BUTYL ALCOHOL	6.02	59				
31) METHYL TERTIARY BUTYL ETH	HE 6.78	73	7370 8500	0.23	PPBV	# 66
33) HEXANE	7.48	57	7091		PPBV	94
36) METHYL ETHYL KETONE	7.08	72	11274	2.05	PPBV	# 83
39) ETHYL ACETATE	7.59		3062	0.79	PPBV	96
46) BENZENE	8.88	78		0.16	PPBV	96
49) TRICHLOROETHYLENE	9.81	95	4669	0.22	PPBV	95
52) 2,2,4-TRIMETHYLPENTANE	9.73	57	7702		PPBV	
54) HEPTANE	9.99	43	7610	0.25	PPBV	# 80
57) METHYL ISOBUTYL KETONE	10.72	58	1456	0.15	PPBV	94
59) TOLUENE	11.56	92	19104	0.69	PPBV	99
63) 2-HEXANONE	11.90	58	2012	0.17	PPBV	# 1
64) TETRACHLOROETHYLENE	12.70	164	1544	0.06	PPBV	92
67) OCTANE	12.48	43	7914	0.21	PPBV	95
70) ETHYLBENZENE	13.78		12244	0.23	PPBV	96
71) m,p-XYLENE	13.96	106	19379	0.98	PPBV	94
72) o-XYLENE	14.47		0.610		PPBV	95
73) STYRENE	14.38		4803		PPBV	97
74) NONANE	14.65		7054	0.23	PPBV	98
82) 4-ETHYLTOLUENE	15.88		6368		PPBV	96
83) 1,3,5-TRIMETHYLBENZENE	15 98	105	7622	0.23	PPBV	
85) 1,2,4-TRIMETHYLBENZENE	16.47	105	23696	0.85	PPBV	
88) p-DICHLOROBENZENE	16.76		6368		PPBV	95
,				3.57		

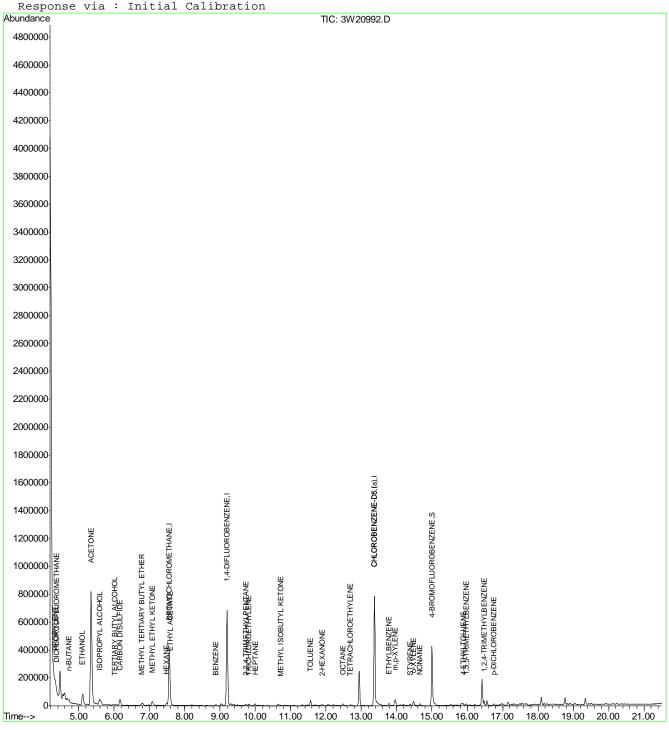
<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20992.D M3W821.M Fri Feb 25 10:20:45 2011 MS3W



MS Integration Params: rteint.p

Quant Time: Feb 25 9:28 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011



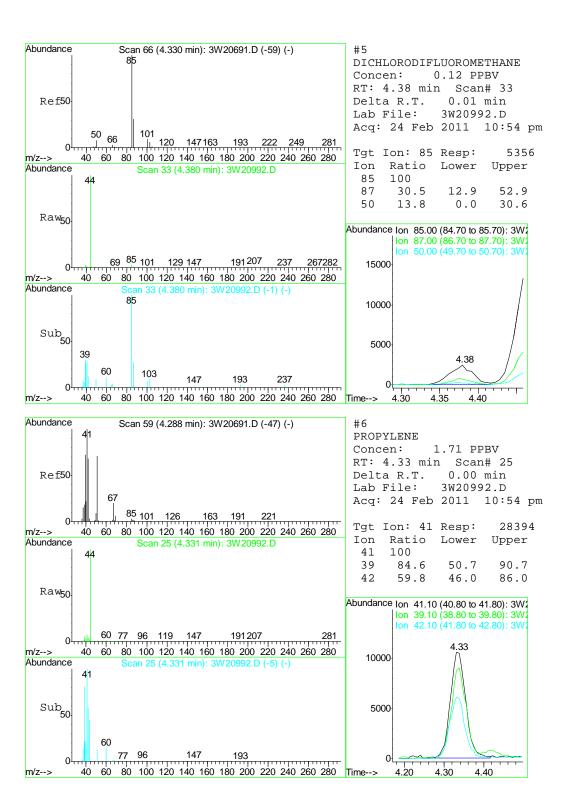
3W20992.D M3W821.M

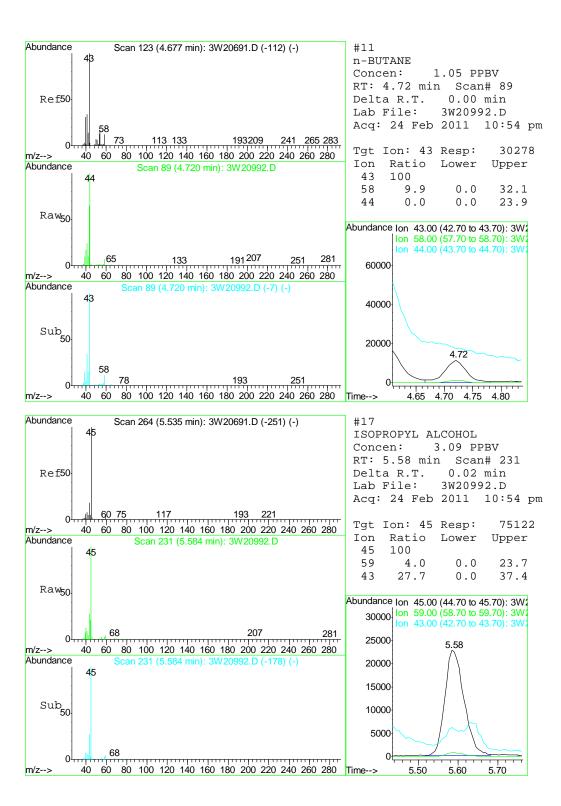
Fri Feb 25 10:20:46 2011

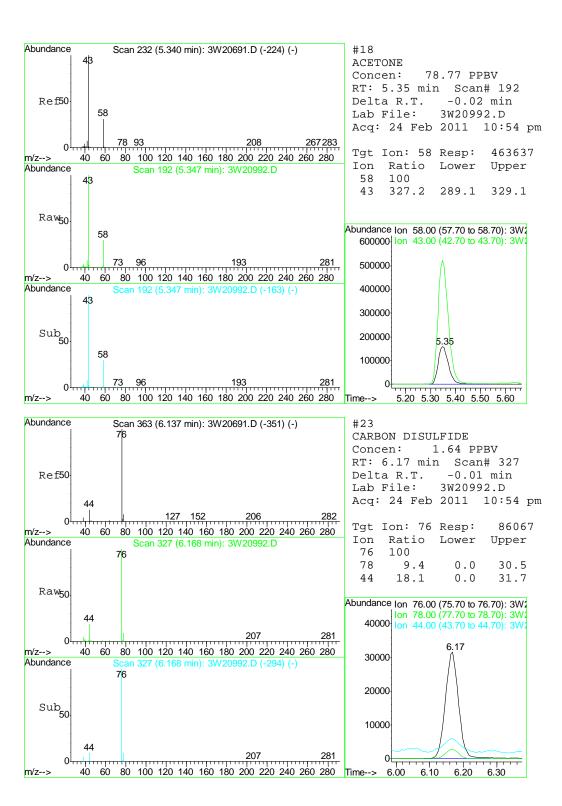
MS3W

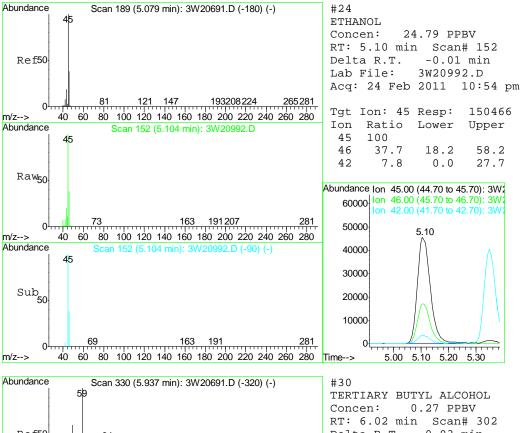
407 of 840
ACCUTEST

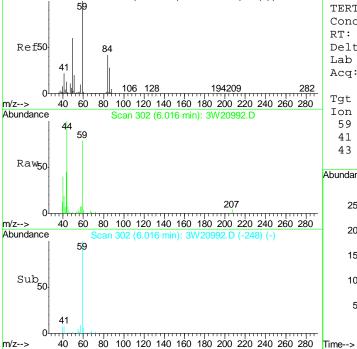
JA68565
LABORATORIES





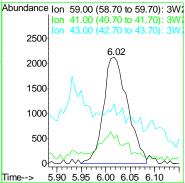


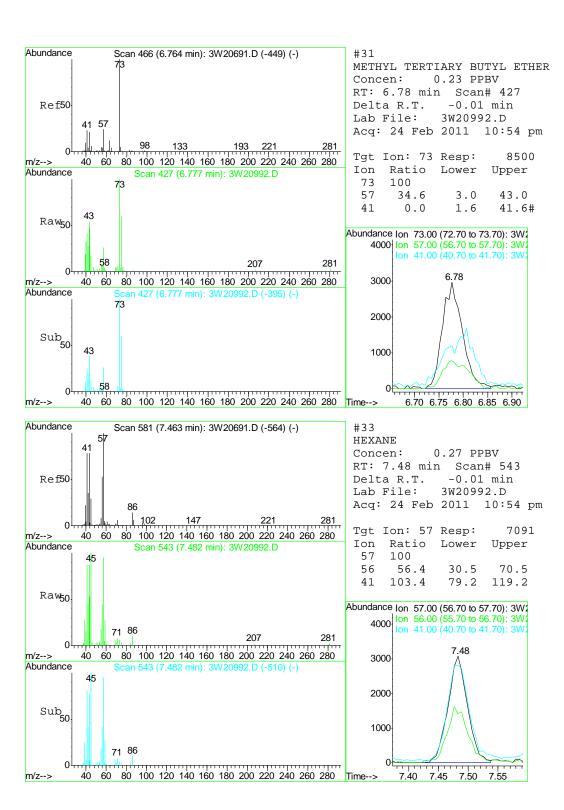


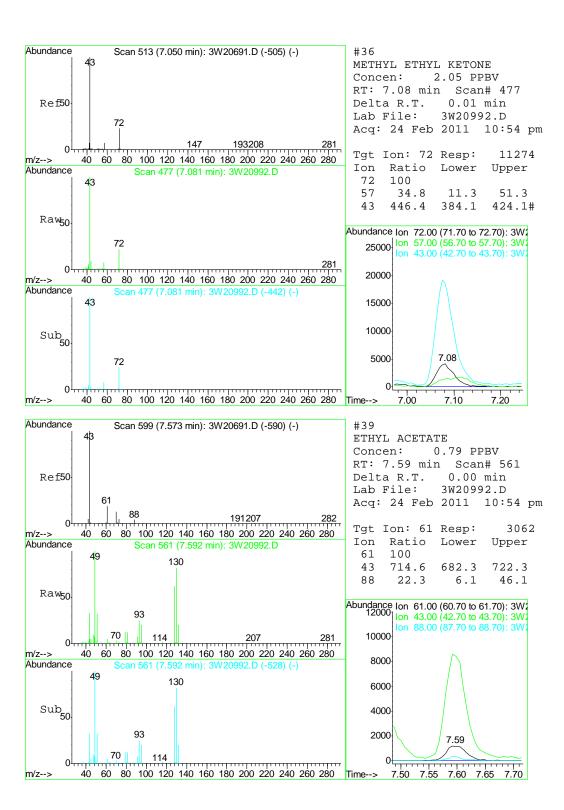


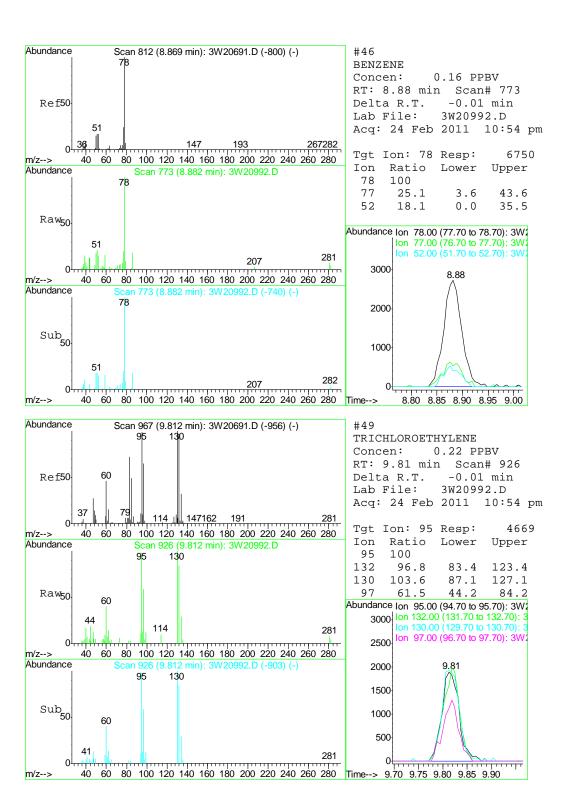
0.03 min Delta R.T. Lab File: 3W20992.D Acq: 24 Feb 2011 10:54 pm

Tgt Ion: 59 Resp: 7370 Ratio Lower Ton Upper 59 100 41 23.0 0.0 38.0 43 23.1 0.0 33.0









Abundance

Ref50

m/z-->

m/z-->

m/z--> Abundance

m/z-->

Sub<sub>50</sub>

43

71

100

Abundance

Sub 50

Abundance

Raw<sub>50</sub>

41

40 60

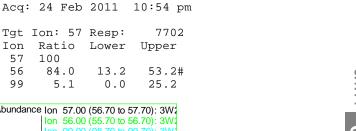
41

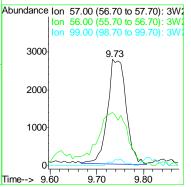
40 60

41

57

83 99 114





2,2,4-TRIMETHYLPENTANE

RT: 9.73 min Scan# 913

0.10 PPBV

-0.02 min 3W20992.D

#52

57

56

99

**HEPTANE** 

Concen:

Delta R.T.

267282

281

Concen:

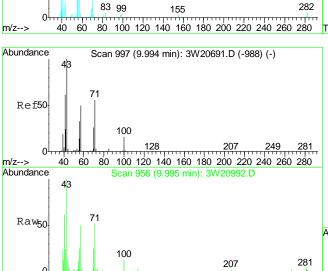
Delta R.T.

Lab File:

100

84.0

5.1



60 80 100 120 140 160 180 200 220 240 260 280

956 (9.995 min): 3W20992.D (-933) (-)

60 80 100 120 140 160 180 200 220 240 260 280

Scan 955 (9.739 min): 3W20691.D (-942) (-)

193

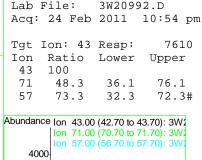
80 100 120 140 160 180 200 220 240 260 280

80 100 120 140 160 180 200 220 240 260 280

can 913 (9.733 min): 3W20992.D (-882) (-)

Scan 913 (9.733 min): 3W20992.D

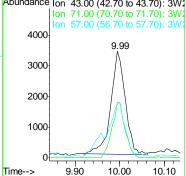
155



RT: 9.99 min Scan# 956

0.25 PPBV

-0.01 min



Fri Feb 25 10:20:47 2011

267283

MS3W



Abundance

Ref50

m/z-->

m/z-->

m/z-->

Abundance

Sub 50

Abundance

Raw<sub>50</sub>.

**4**h

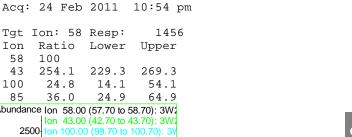
58

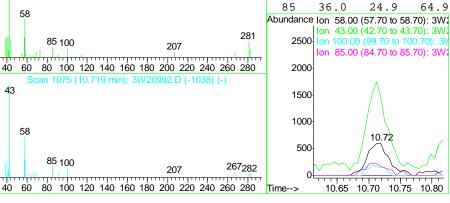
40 60

43

85 100

133





265 282

#57

58

43

100

Concen:

Delta R.T.

Lab File:

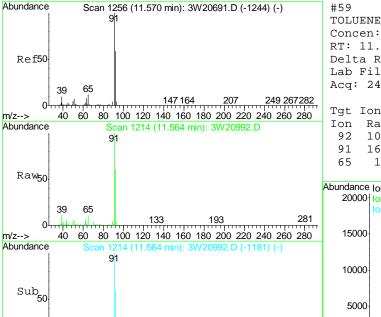
100

METHYL ISOBUTYL KETONE

0.15 PPBV RT: 10.72 min Scan# 1075

0.05 min

3W20992.D



133

193

Scan 1108 (10.670 min): 3W20691.D (-1099) (-)

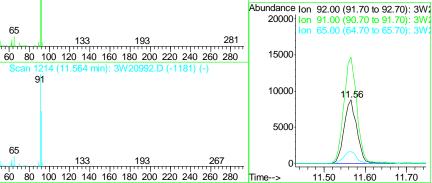
Scan 1075 (10.719 min): 3W20992.D

192208

80 100 120 140 160 180 200 220 240 260 280

0.69 PPBV Concen: RT: 11.56 min Scan# 1214 -0.01 min Delta R.T. Lab File: 3W20992.D Acq: 24 Feb 2011 10:54 pm

Tgt Ion: 92 Resp: 19104 Ratio Lower Upper 100 169.2 148.6 188.6 19.4 0.0 38.0



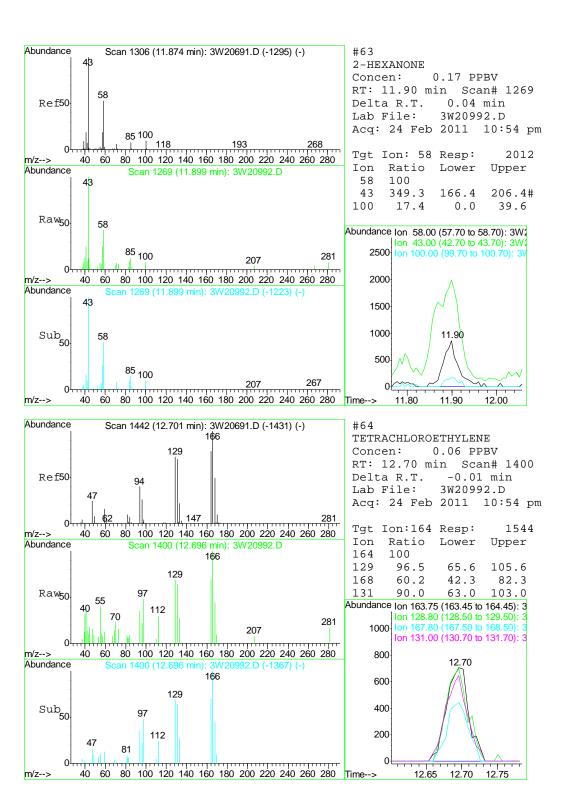
39

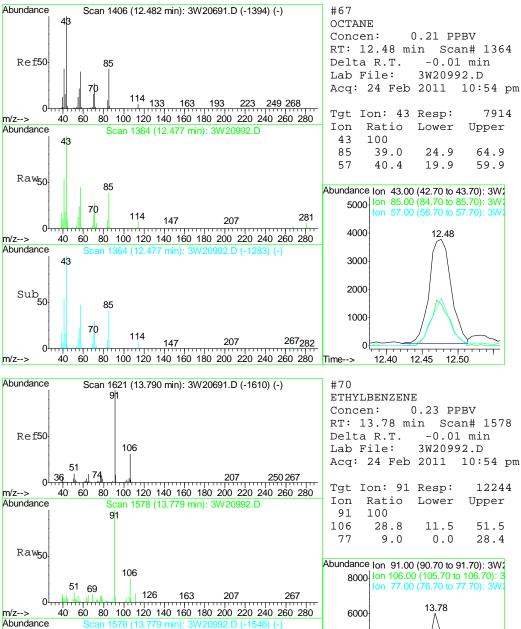
m/z-->

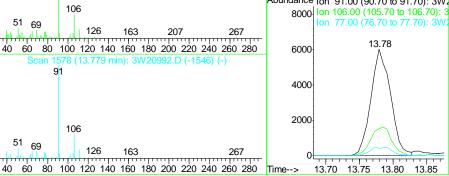
Fri Feb 25 10:20:47 2011

MS3W









Sub<sub>50</sub>

m/z-->

267

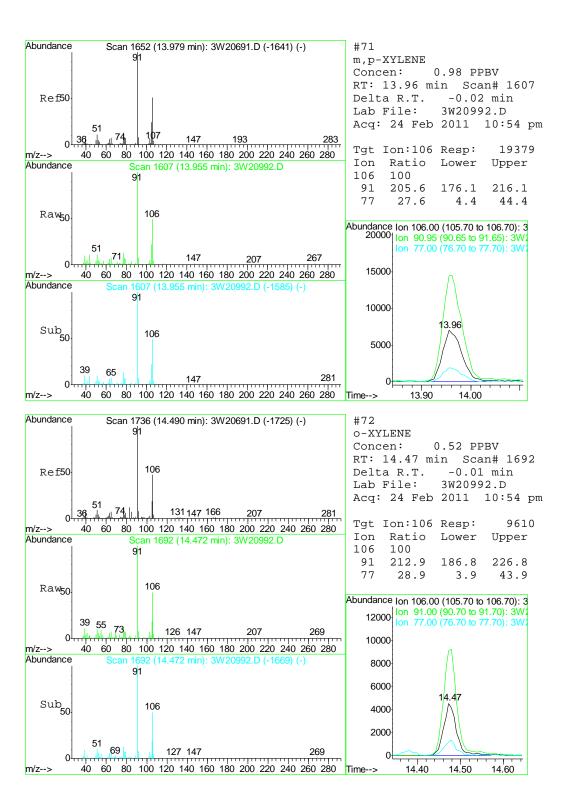
Page 13

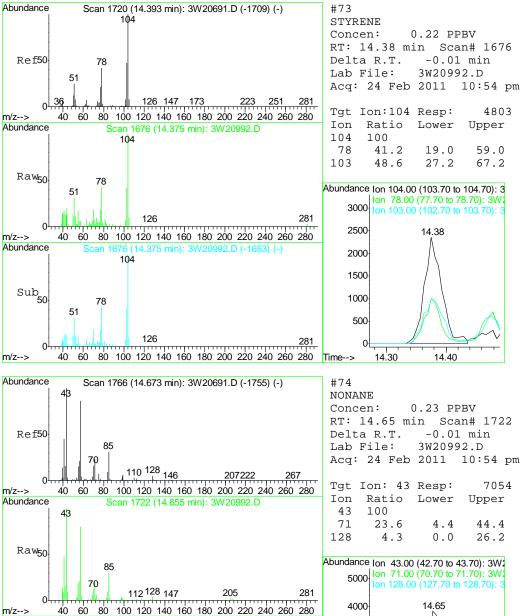
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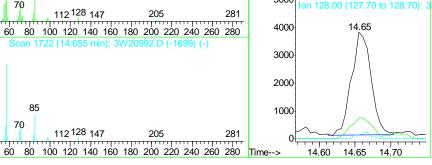
106

126

163







Abundance

Sub<sub>50</sub>

m/z-->

43

85

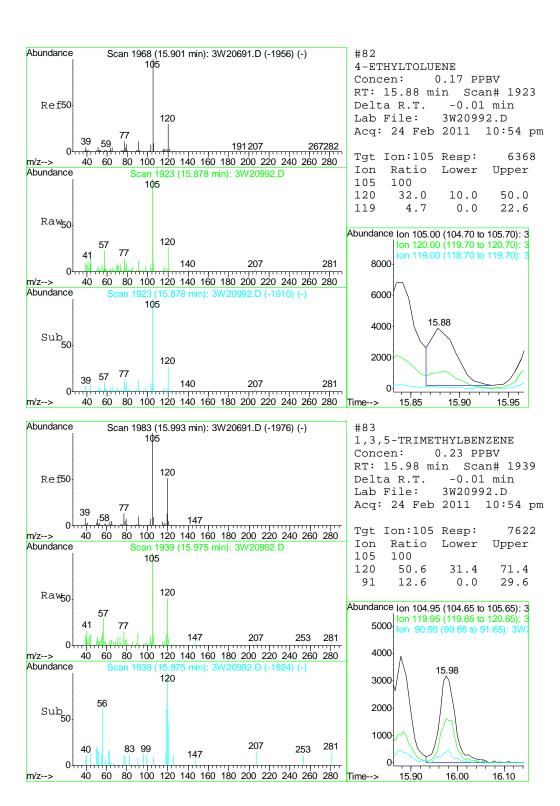
112 128 147

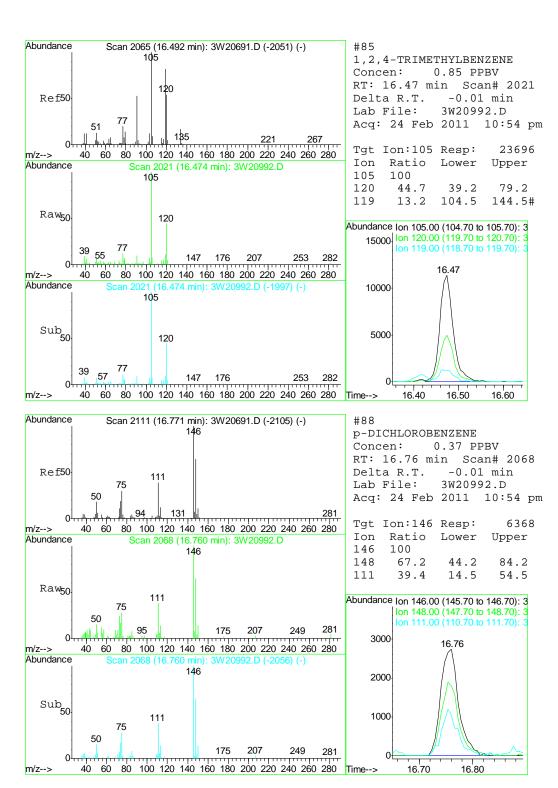
70

205

281

an 1722 (14.655 min): 3W20992.D (-1699) (-)





Vial: 11

Operator: yunxiac Inst : MS3W

Multiplr: 1.00

APPROVED (compounds with "m" flag) **Kanya Veerawat** 

03/10/11 05:20

**Manual Integrations** 

Data File : C:\MSDCHEM\1\DATA\3W21015.D Acq On : 25 Feb 2011 4:57 pm

Sample : JA68565-10 : MS8536, V3W829, 30,,,,1 Misc MS Integration Params: rteint.p

Quant Time: Feb 28 08:22:21 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc U	nits D	ev(	Min)
1) BROMOCHLOROMETHANE	7.57	128	194832	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	928006	10.00	PPBV		0.00
62) CHLOROBENZENE-D5	13.38	82	428446	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.38	82	429527	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	240627	5.28	PPBV		0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	105.6	0%	
Target Compounds						Qva	lue
6) PROPYLENE	4.34	41	12310	0.57	PPBV		88
11) n-BUTANE	4.73	43	11745	0.31	PPBV	#	94
17) ISOPROPYL ALCOHOL	5.68	45	23231m	0.73	PPBV		
18) ACETONE	5.38	58	112129	14.57	PPBV	#	84
23) CARBON DISULFIDE	6.17	76	32294	0.47	PPBV		93
24) ETHANOL	5.16	45	46032	5.80	PPBV		98
36) METHYL ETHYL KETONE	7.12	72	2701	0.37	PPBV	#	90
39) ETHYL ACETATE	7.63	61	880	0.17	PPBV	#	91
49) TRICHLOROETHYLENE	9.82	95	1597	0.06	PPBV		92
59) TOLUENE	11.57	92	5483	0.15	PPBV		94
71) m,p-XYLENE	13.97	106	4923	0.20	PPBV		92
72) o-XYLENE	14.48	106	2331	0.10	PPBV		90
85) 1,2,4-TRIMETHYLBENZENE	16.47	105	5254	0.15	PPBV	#	31

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21015.D M3W821.M Mon Feb 28 12:21:51 2011 MS3W

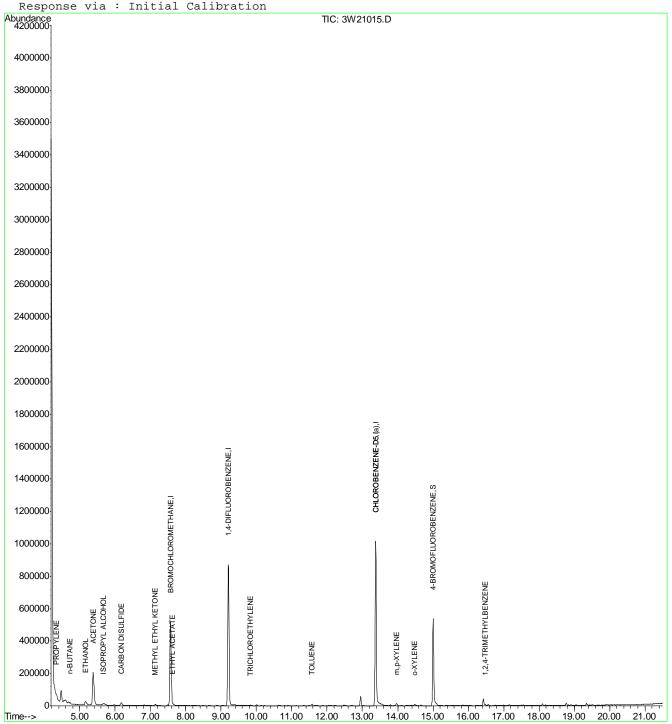


Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 28 11:10 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011
Response via : Initial Calibration

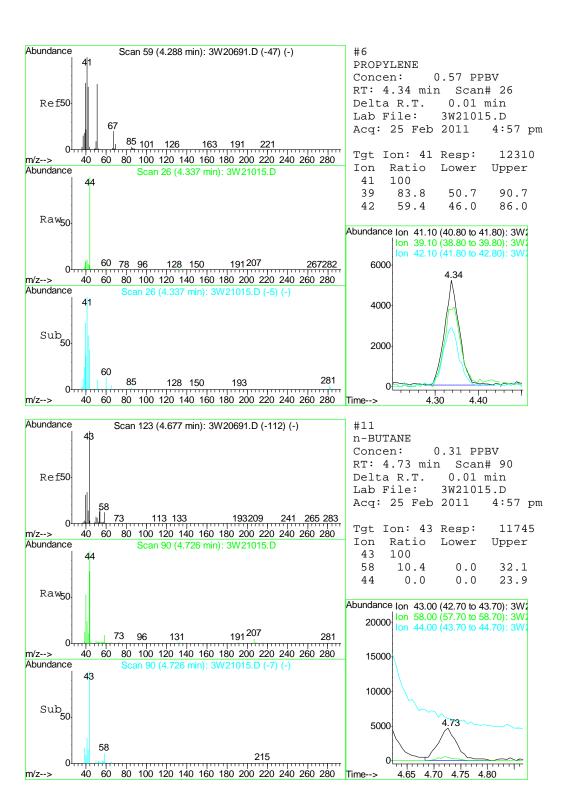


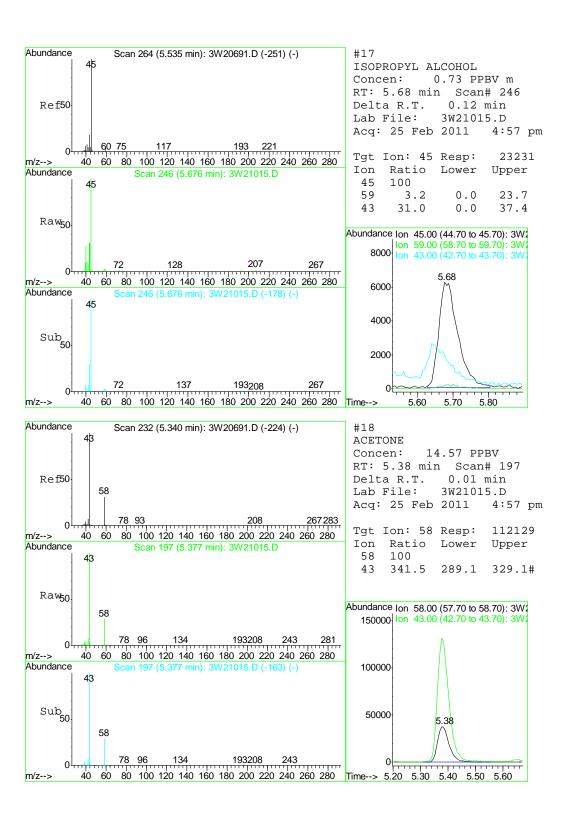
3W21015.D M3W821.M

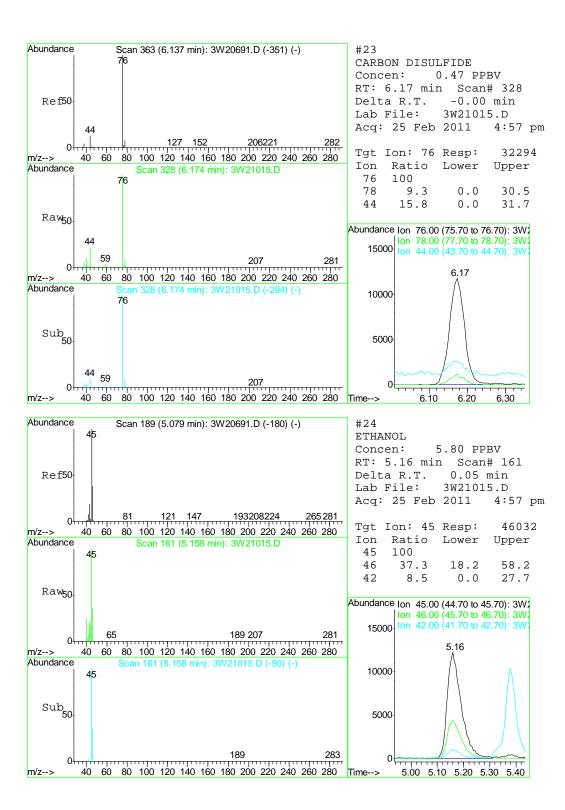
Mon Feb 28 12:21:51 2011

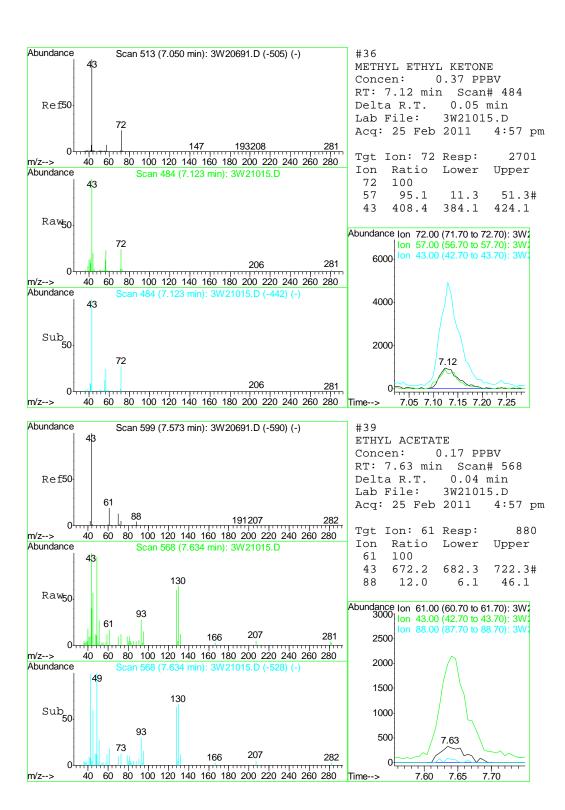
MS3W

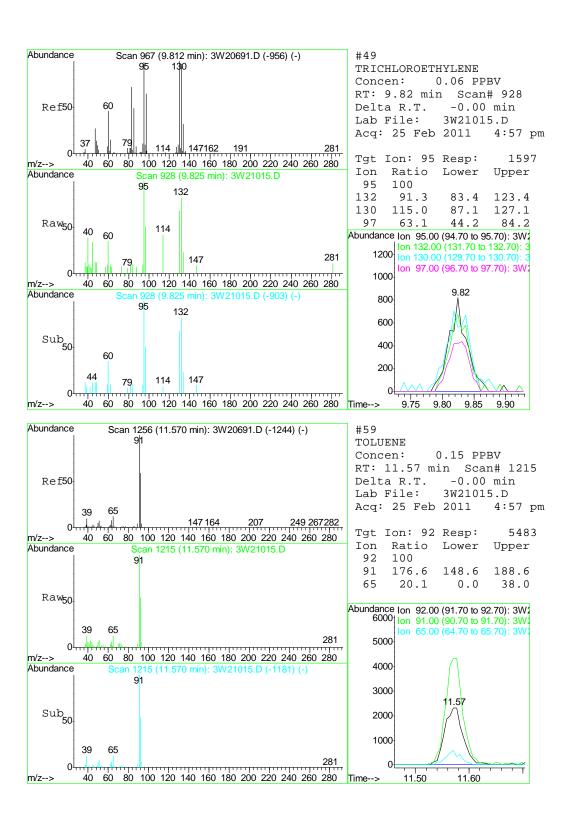


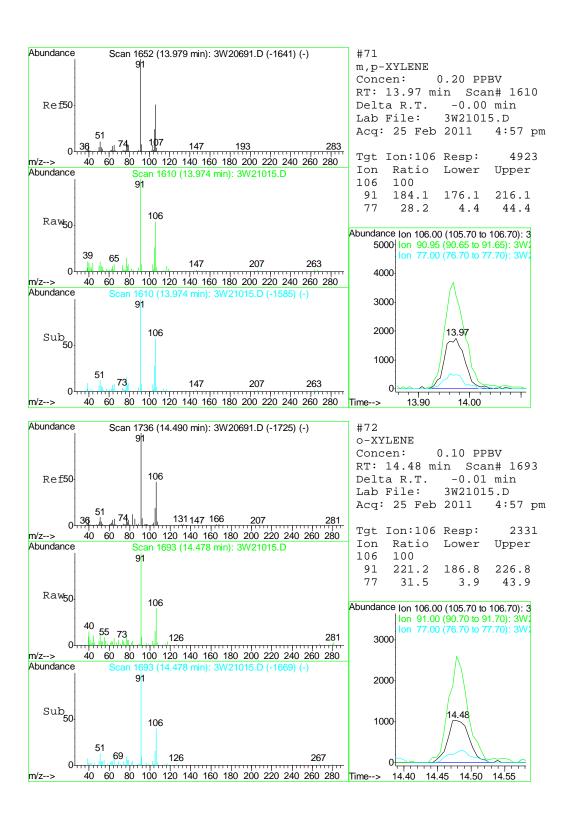


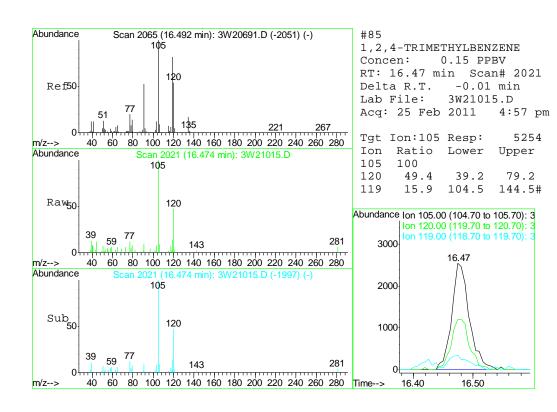












## **Manual Integration Approval Summary**

Sample Number: JA68565-10 Method: TO-15

 Lab FileID:
 3W21015.D
 Analyst approved:
 02/28/11 12:36
 Yunxia Chen

 Injection Time:
 02/25/11 16:57
 Supervisor approved:
 03/10/11 05:20
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.68	Split peak



## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:11:12 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev	(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	13.37	128 114 82 82	138939 668546 312370 312370	10.00 10.00 10.00 10.00	PPBV PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	02	312370	10.00	PPBV		0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 R	15.00 Range 65		184878 Recove		PPBV 111.		-0.01
Target Compounds						Οv	ralue
-	4.37	85	6896	0.17	PPBV	~	97
6) PROPYLENE	4.34	41	16613	1.08	PPBV		74
8) CHLOROMETHANE	4.48	50	3789	0.22	PPBV		80
11) n-BUTANE	4.72	43	63142		PPBV	#	96
17) ISOPROPYL ALCOHOL	5.60	45	47124	2.08	PPBV		89
18) ACETONE	5.37	58	67321 10839	12.27			82
19) PENTANE	5.64	42	10839	0.59	PPBV	#	76
23) CARBON DISULFIDE	6.17	76	9928		PPBV	#	61
24) ETHANOL	5.10	45	176264				100
28) FREON 113	6.12	151	7045		PPBV		99
30) TERTIARY BUTYL ALCOHOL	6.05	59	3316 5760		PPBV		83
31) METHYL TERTIARY BUTYL ETH		73	5760		PPBV		15
33) HEXANE	7.48		6977		PPBV		
36) METHYL ETHYL KETONE	7.09		2360		PPBV		71
39) ETHYL ACETATE	7.60	61	3273		PPBV		83
46) BENZENE	8.88	78	3273 9124 6609		PPBV		98
47) CYCLOHEXANE	9.05	56	6609		PPBV		39
49) TRICHLOROETHYLENE	9.82	95			PPBV		97
52) 2,2,4-TRIMETHYLPENTANE			6828		PPBV		59
54) HEPTANE	10.00	43	6765		PPBV		93
59) TOLUENE	11.56	92	16791		PPBV		95
64) TETRACHLOROETHYLENE		164	1012		PPBV		94
67) OCTANE	12.48		4701		PPBV		91
70) ETHYLBENZENE	13.78		6340		PPBV		95
71) m,p-XYLENE	13.96	106	8358		PPBV		
72) O-XYLENE	14.47		3416		PPBV		85
74) NONANE 83) 1,3,5-TRIMETHYLBENZENE	14.66	43 105	3575 3318		PPBV PPBV		87 95
85) 1,2,4-TRIMETHYLBENZENE			8354		PPBV		29
OD / I,Z,I-IKIMEIHILDENZENE	10.4/	T 0 3	0334	0.34	FFDV	#	49

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20993.D M3W821.M Fri Feb 25 10:20:50 2011 MS3W



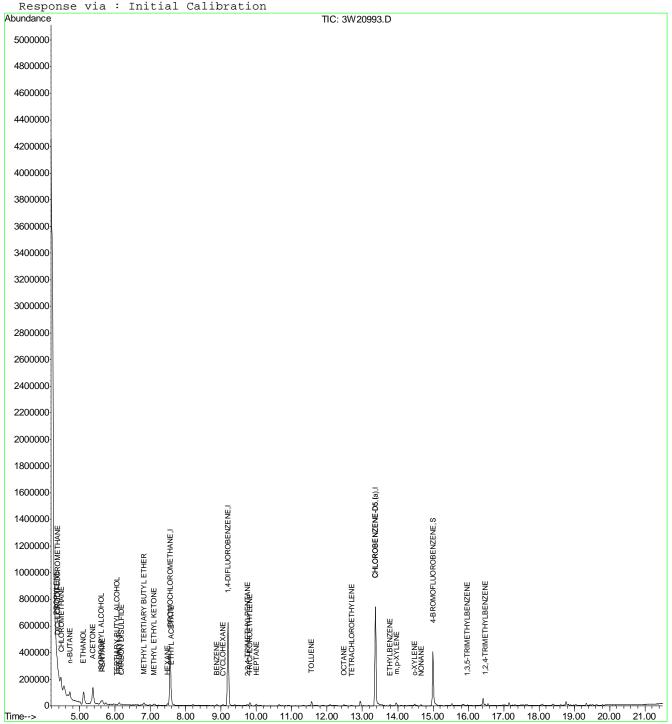
## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 9:31 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

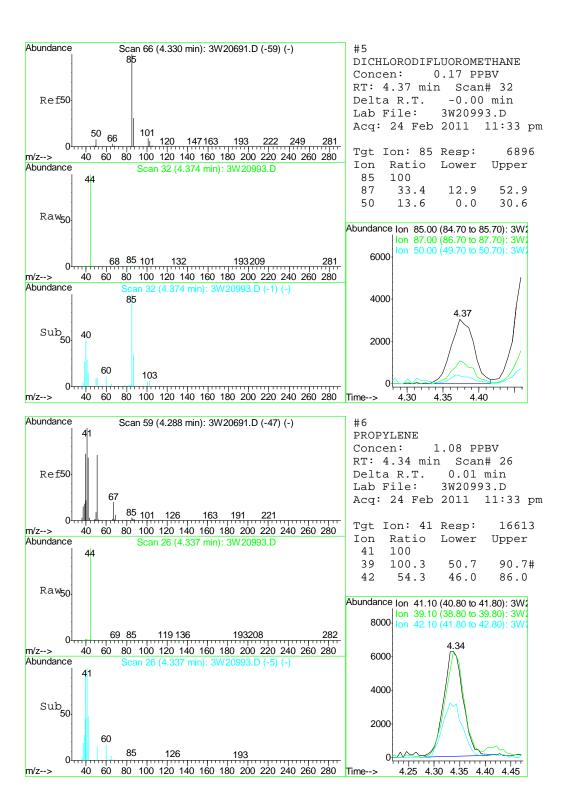


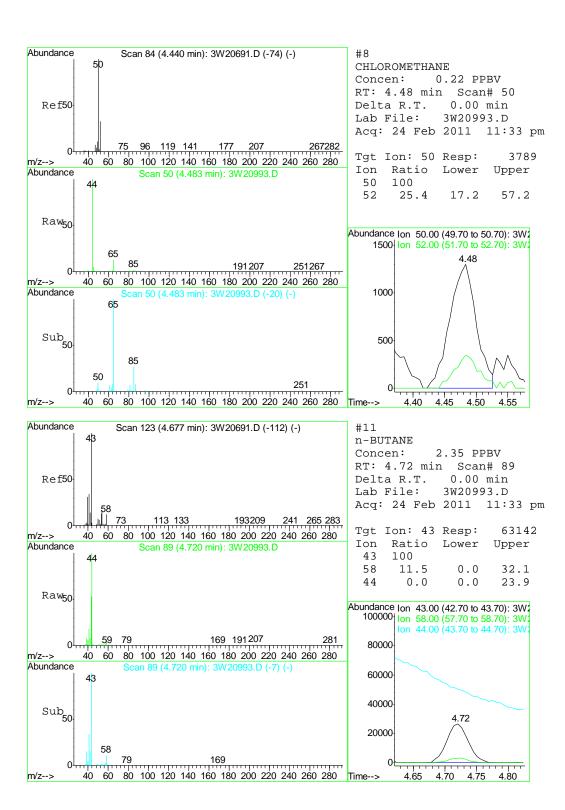
3W20993.D M3W821.M

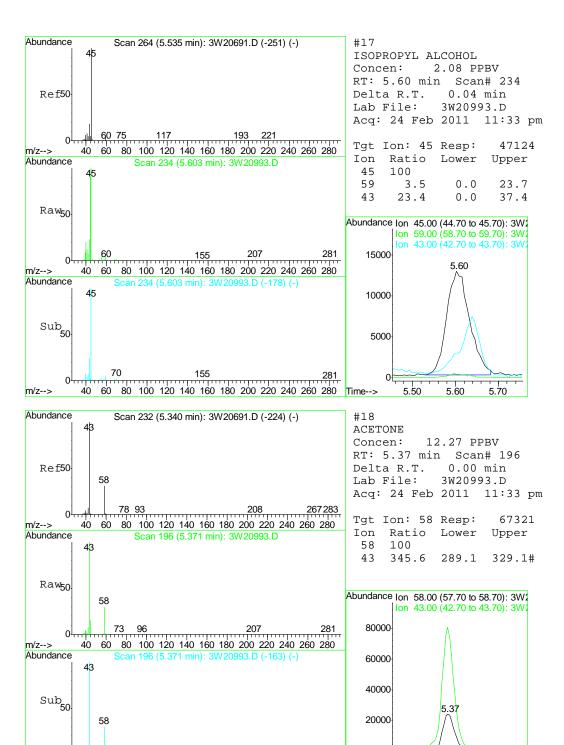
Fri Feb 25 10:20:50 2011

MS3W









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ACCUTEST.
JA68565

Page 5

m/z-->

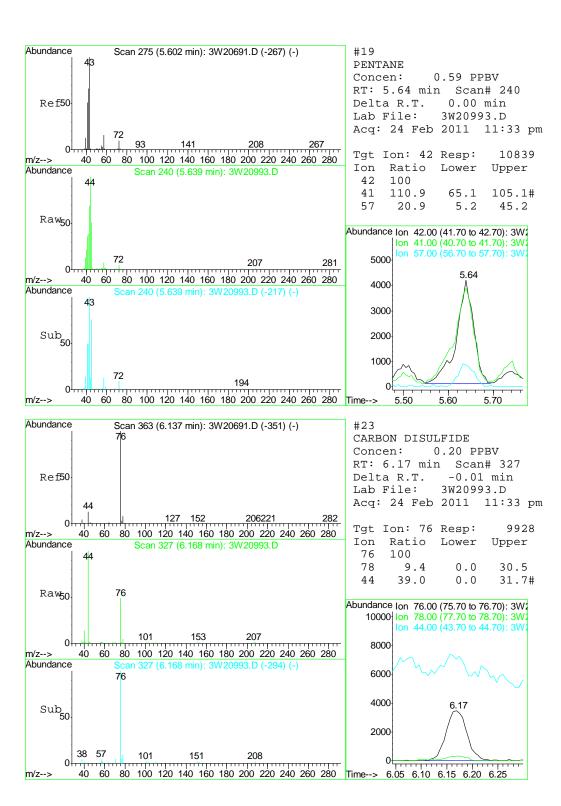
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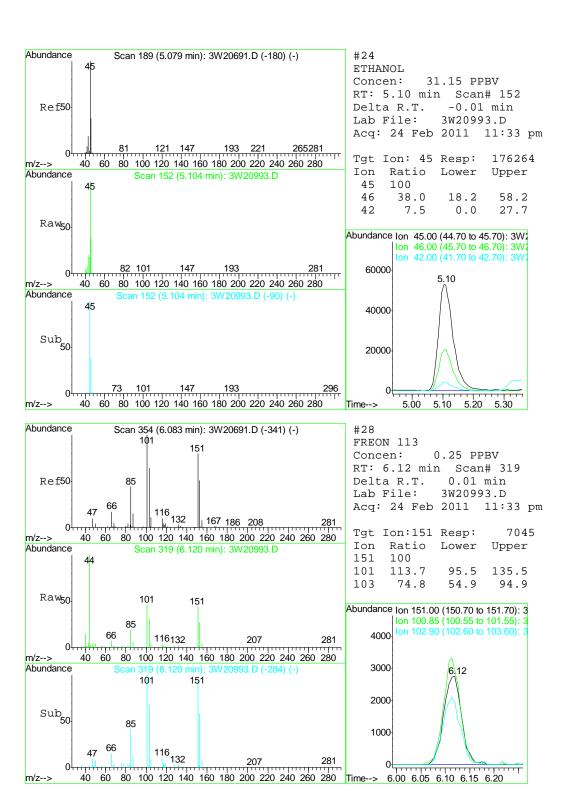
5.30

5.40

5.50

Time--> 5.20





Abundance

Ref50

m/z-->

m/z--> Abundance

m/z-->

Abundance

Raw<sub>50</sub>.

Sub 50

41

41

40 60

59

44

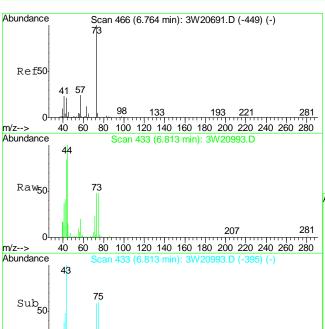
84

106 128

200

Time-->

265



Scan 330 (5.937 min): 3W20691.D (-320) (-)

Scan 307 (6.047 min): 3W20993.D

can 307 (6.047 min): 3W20993.D (-248) (-)

40 60 80 100 120 140 160 180 200 220 240 260 280

194209

186 207

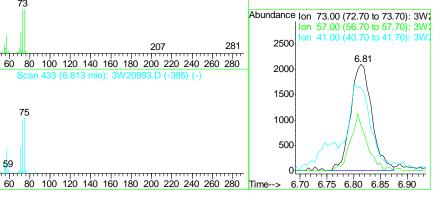
186

METHYL TERTIARY BUTYL ETHER 0.17 PPBV Concen: RT: 6.81 min Scan# 433 0.03 min Delta R.T. Lab File: 3W20993.D Acq: 24 Feb 2011 11:33 pm

6.10

6.00

Tgt Ion: 73 Resp: 5760 Ratio Lower Ton Upper 73 100 57 41.5 3.0 43.0 41 85.3 1.6 41.6#



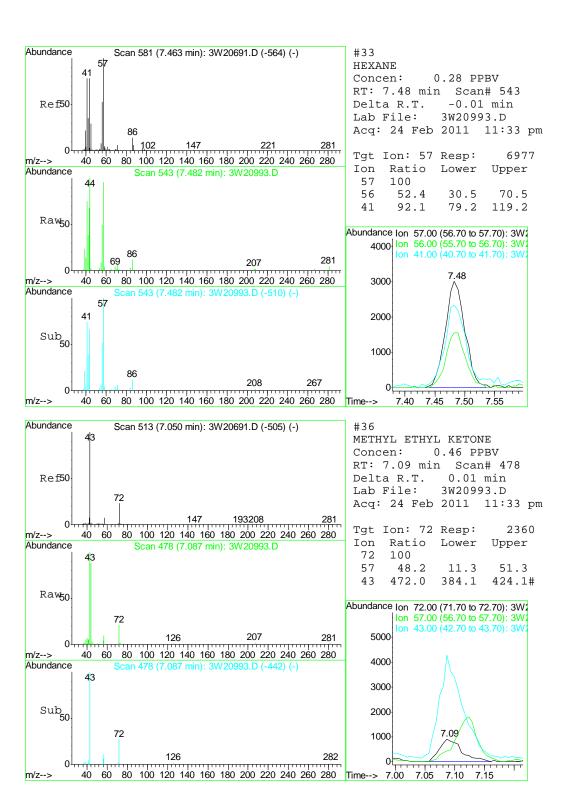
59

Fri Feb 25 10:20:51 2011

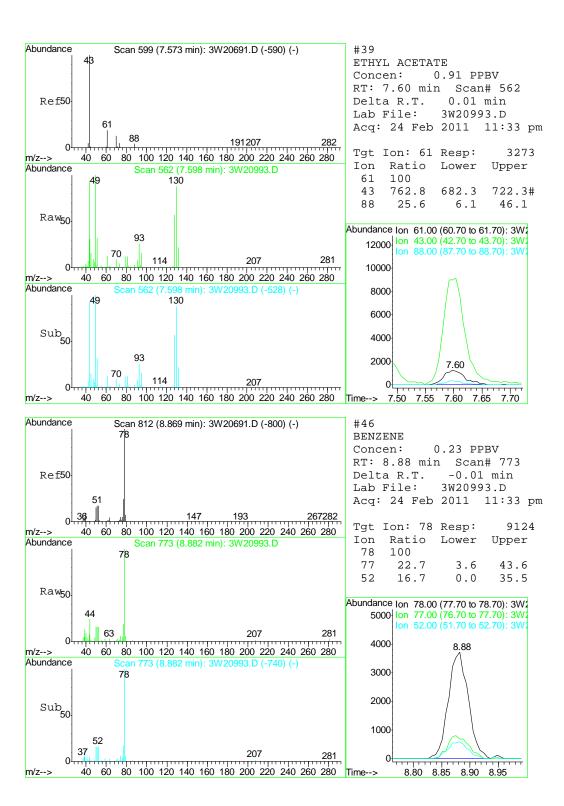
MS3W

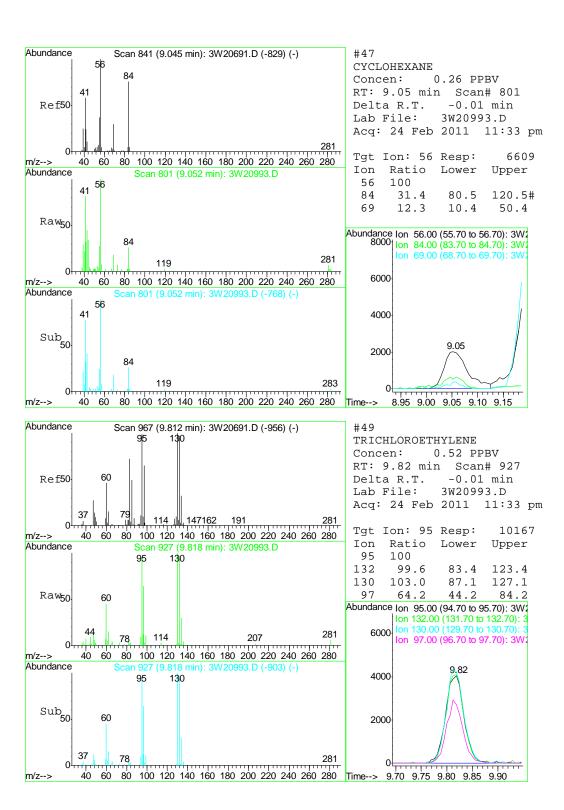


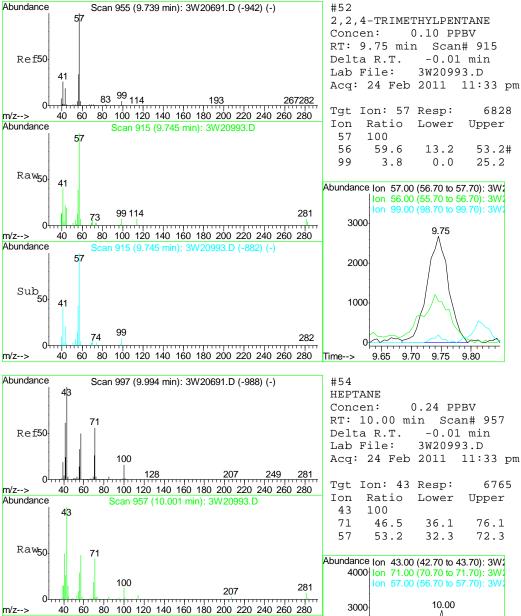
m/z-->

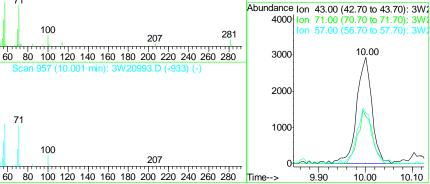


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ACCUTEST.
JA68565









Abundance

Sub<sub>50</sub>

m/z-->

43

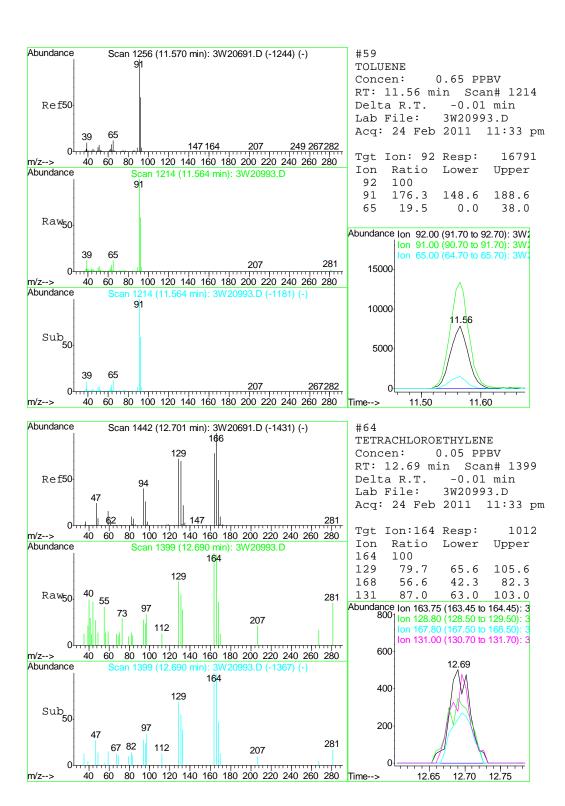
71

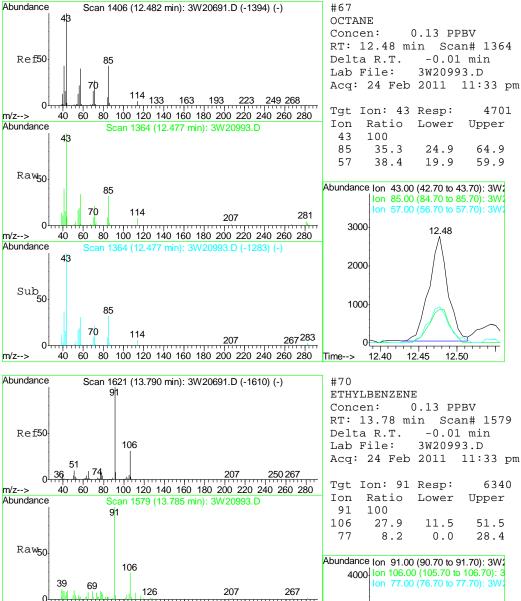
100

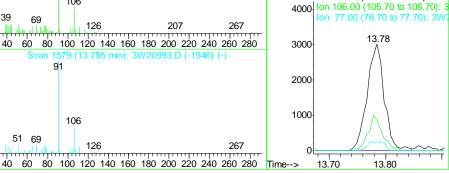
207

Scan 957 (10.001 min): 3W20993.D (-933) (-)









m/z-->

m/z-->

Abundance

Sub 50

267

40 60 80 100 120 140 160 180 200 220 240 260 280

91

106

126

an 1579 (13.785 min): 3W20993.D (-1546) (-)

Abundance

Ref50

m/z-->

m/z-->

m/z-->

Abundance

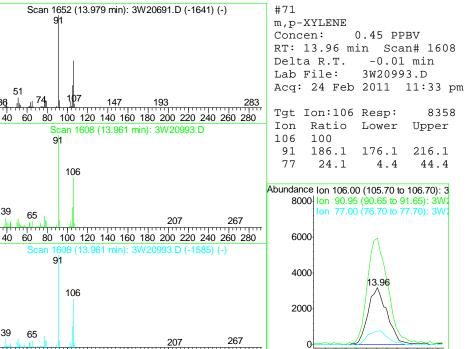
Sub 50

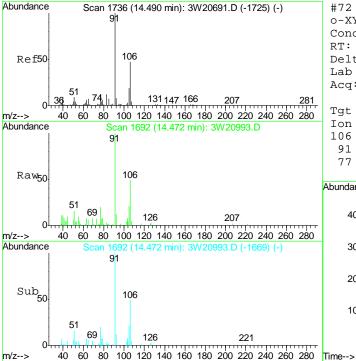
Abundance

Raw<sub>50</sub>

39 65

39





Scan 1652 (13.979 min): 3W20691.D (-1641) (-)

Scan 1608 (13.961 min): 3W20993.D

91

91

106

106

193

207

608 (13.961 min): 3W20993.D (-1585) (-)

40 60 80 100 120 140 160 180 200 220 240 260 280

0.20 PPBV Concen: RT: 14.47 min Scan# 1692 -0.01 min Delta R.T. Lab File: 3W20993.D Acq: 24 Feb 2011 11:33 pm Tgt Ion:106 Resp: 3416 Ion Ratio Lower Upper 106 100 91 230.6 186.8 226.8#

3.9

43.9

31.4

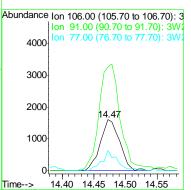
13.90

14.00

Time-->

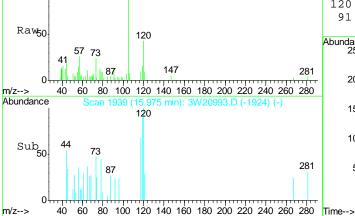
#72 o-XYLENE

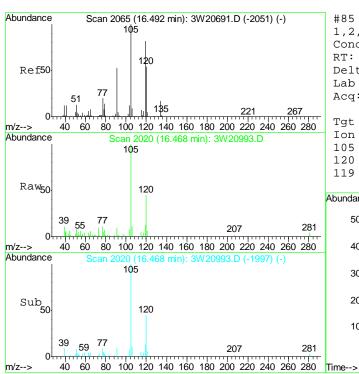
77



Fri Feb 25 10:20:53 2011

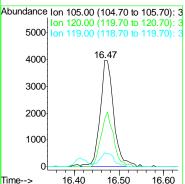
MS3W





#85
1,2,4-TRIMETHYLBENZENE
Concen: 0.32 PPBV
RT: 16.47 min Scan# 2020
Delta R.T. -0.01 min
Lab File: 3W20993.D
Acq: 24 Feb 2011 11:33 pm

Tgt Ion:105 Resp: 8354
Ion Ratio Lower Upper
105 100
120 48.1 39.2 79.2
119 14.3 104.5 144.5#



3W20993.D M3W821.M

Fri Feb 25 10:20:53 2011

MS3W



## Quantitation Report (QT Reviewed)

MS Integration Params: rteint.p

Quant Time: Feb 25 08:11:15 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits De	ev(Min)
1 \ DDOMOCUT ODOMETUANE	7.56	128	134224	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	646783 309724	10.00	PPBV	-0.01
62) CHLOROBENZENE-D5	13.37	82	309724	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	310625	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE				5.58	PPBV	-0.01
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	111.60	) 응
Target Compounds						value
5) DICHLORODIFLUOROMETHANE	4.38	85	5253			
11) n-BUTANE	4.72	43	42787	1.65 0.18	PPBV ‡	89
16) TRICHLOROFLUOROMETHANE	5.45		7030	0.18	PPBV	99
17) ISOPROPYL ALCOHOL	5.57	45	158374		PPBV	
18) ACETONE	5.35	58	340294	64.18	PPBV	91
23) CARBON DISULFIDE	6.17		75645	1.60	PPBV	93
24) ETHANOL	5.10	45	168336	30.79	PPBV	98
28) FREON 113	6.12	151	2650 5799 9914	0.10	PPBV	96
30) TERTIARY BUTYL ALCOHOL		59	5799	0.23	PPBV #	75
33) HEXANE	7.48	57	9914	0.41	PPBV	94
36) METHYL ETHYL KETONE		72	5442	1.10	PPBV #	65
39) ETHYL ACETATE	7.60	61	1850 3062	0.53	PPBV	
40) CHLOROFORM	7.65	83	3062	0.11	PPBV	
46) BENZENE	8.88		6328		PPBV	
47) CYCLOHEXANE	9.04		7698	0.31	PPBV ‡	
49) TRICHLOROETHYLENE	9.82	95	3119	0.16	PPBV	
54) HEPTANE	10.00			0.39	PPBV	
57) METHYL ISOBUTYL KETONE	10.72	58	941 12750 1541	0.11	PPBV #	
59) TOLUENE	11.56	92	12750	0.51	PPBV	95
63) 2-HEXANONE		58	1541	0.14	PPBV #	
64) TETRACHLOROETHYLENE	12.70		3370		PPBV	
67) OCTANE			10178		PPBV	
70) ETHYLBENZENE	13.78				PPBV	96
71) m,p-XYLENE	13.96				PPBV	
72) o-XYLENE	14.47	106	5703		PPBV	94
73) STYRENE	14.37	1 () 4	3263		PPBV	91
74) NONANE			7602		PPBV	96
82) 4-ETHYLTOLUENE	15.88	105	6708		PPBV	
83) 1,3,5-TRIMETHYLBENZENE 85) 1,2,4-TRIMETHYLBENZENE	15.98	105	8380 20453	0.28	PPBV	99
		105	20453	0.79		
88) p-DICHLOROBENZENE	16.75	146	6067	0.38	PPBV	95

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20994.D M3W821.M Fri Feb 25 10:20:55 2011 MS3W



Quantitation Report (QT Reviewed)

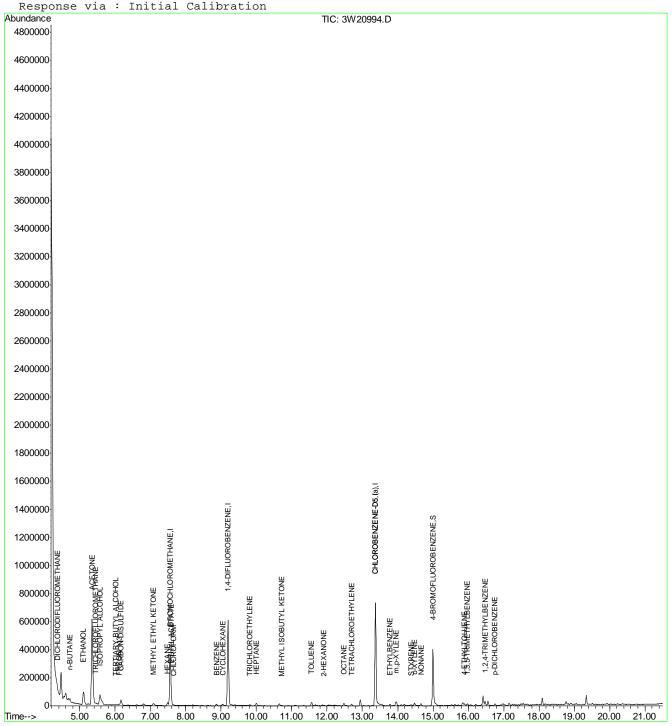
Data File : C:\MSDCHEM\1\DATA\3W20994.D Vial: 13 : 25 Feb 2011 12:13 am Operator: yunxiac Acq On Sample : ja68565-12 : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:45 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

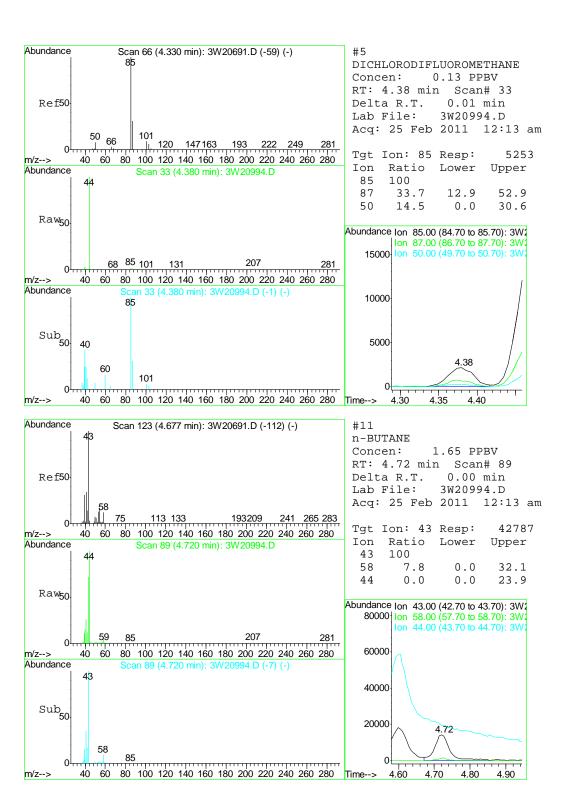


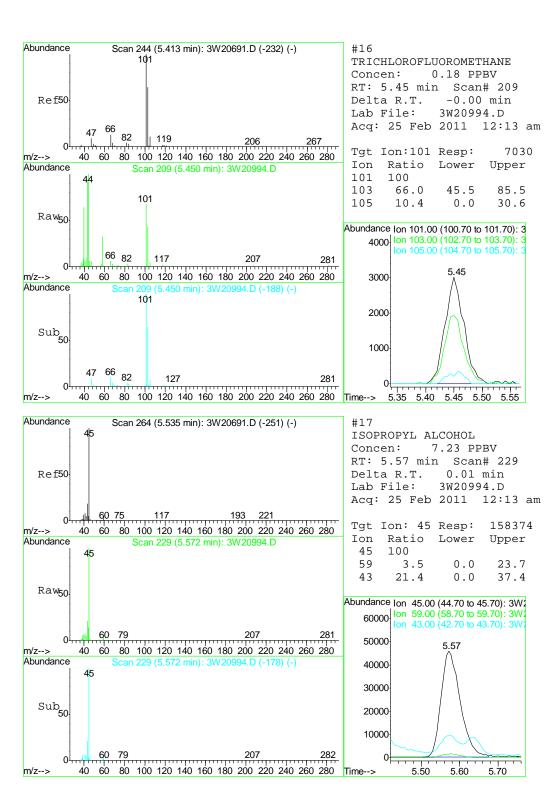
3W20994.D M3W821.M

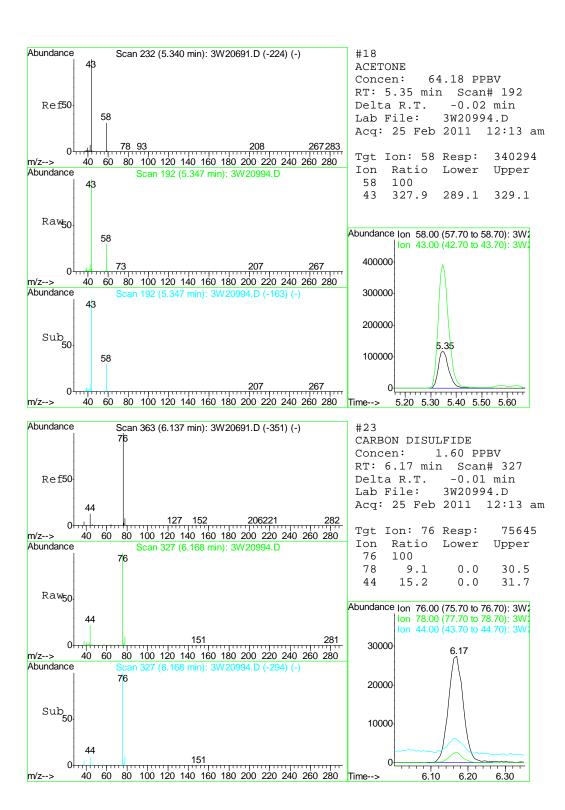
Fri Feb 25 10:20:55 2011

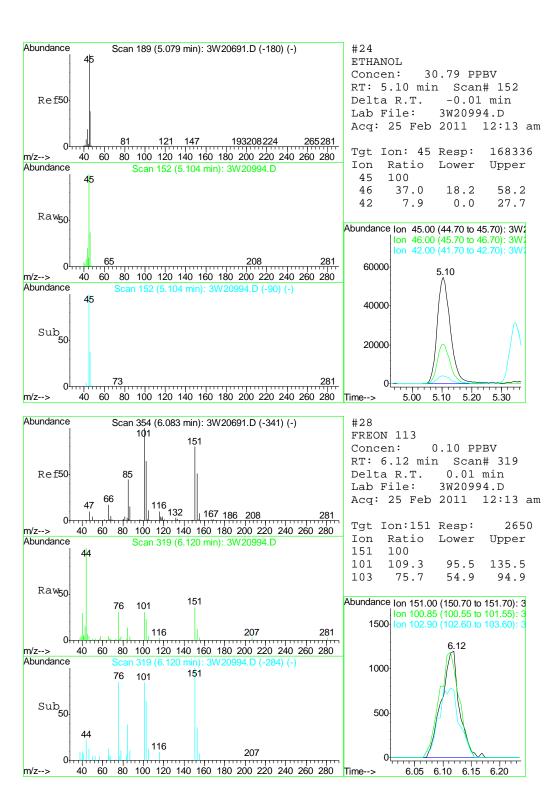
MS3W

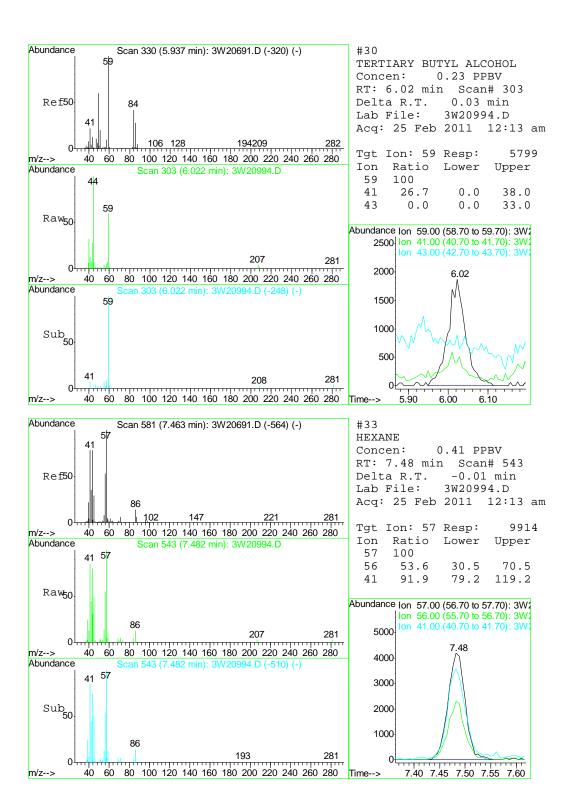


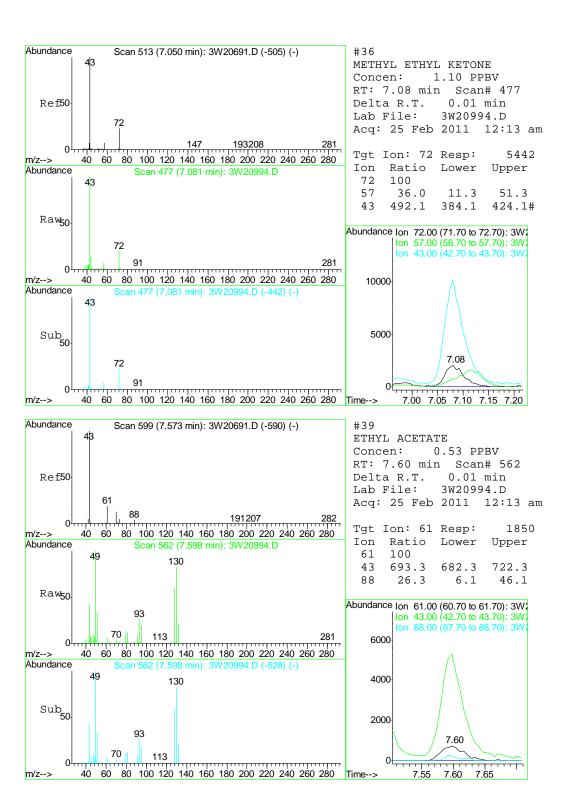


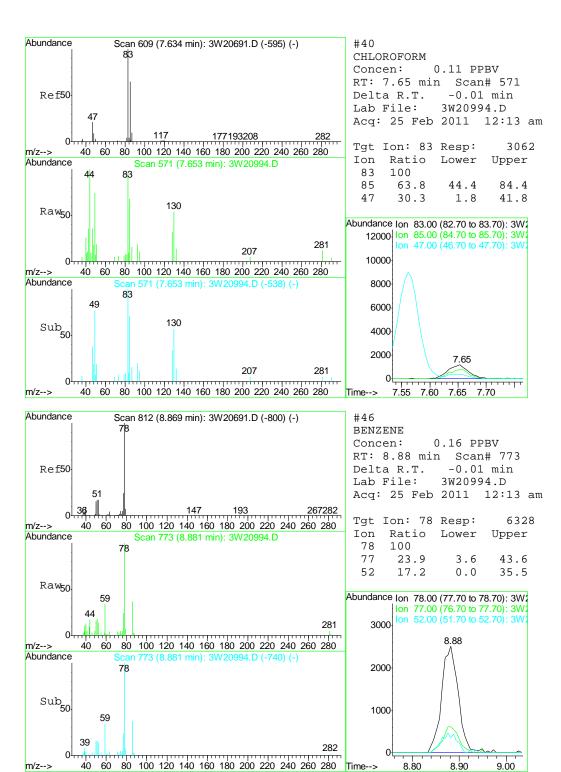


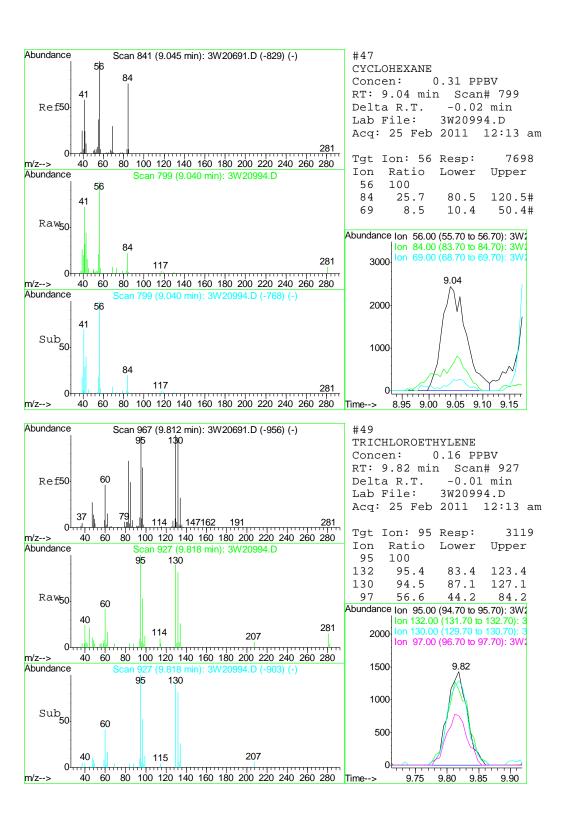


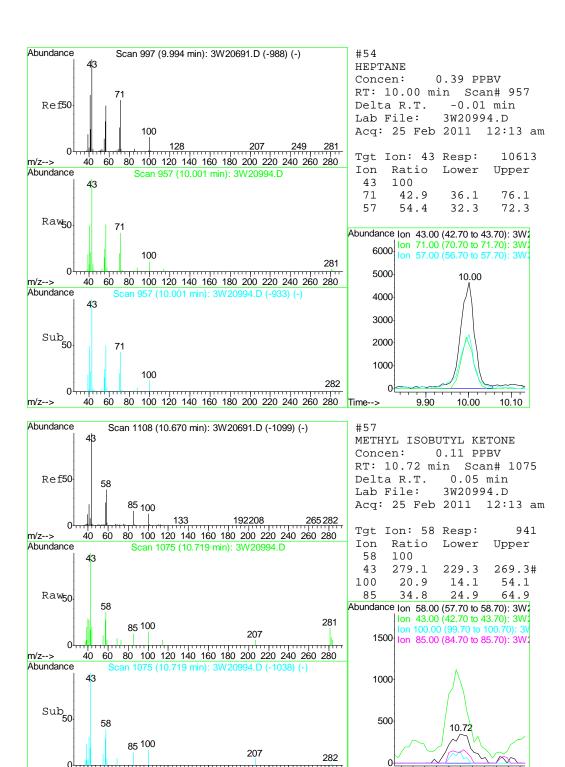












Page 11

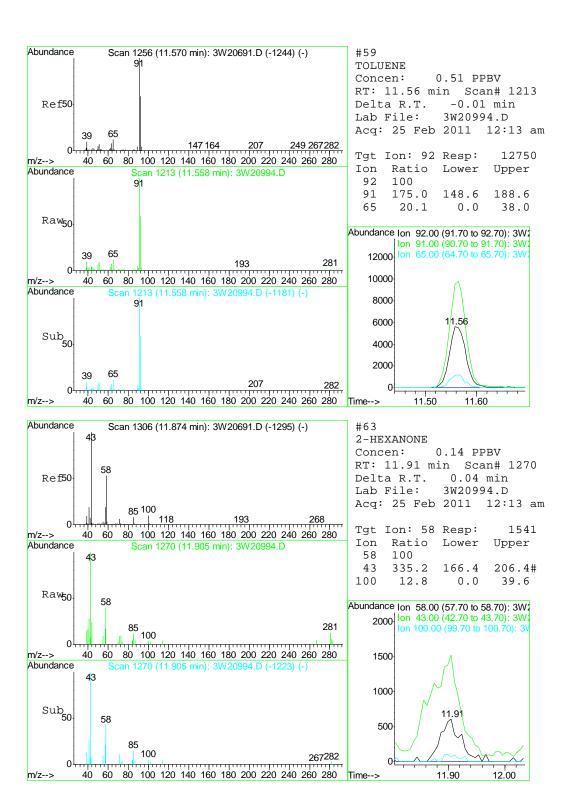
m/z-->

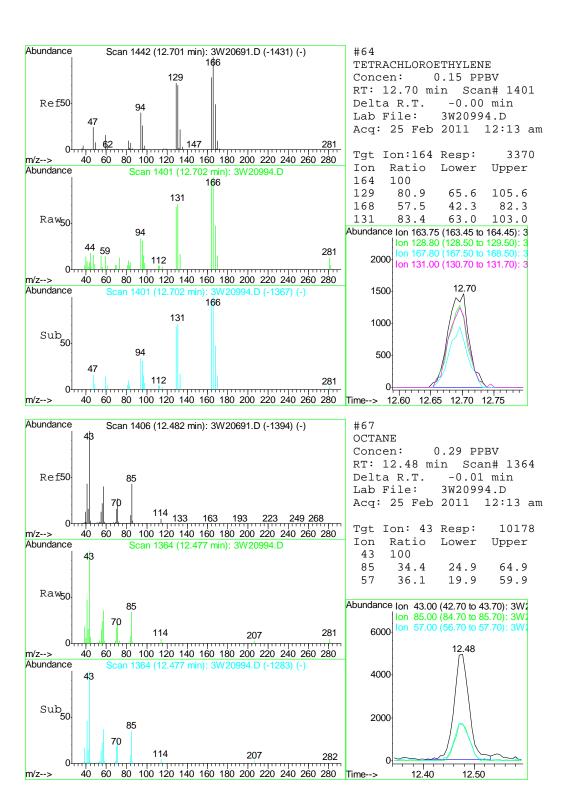
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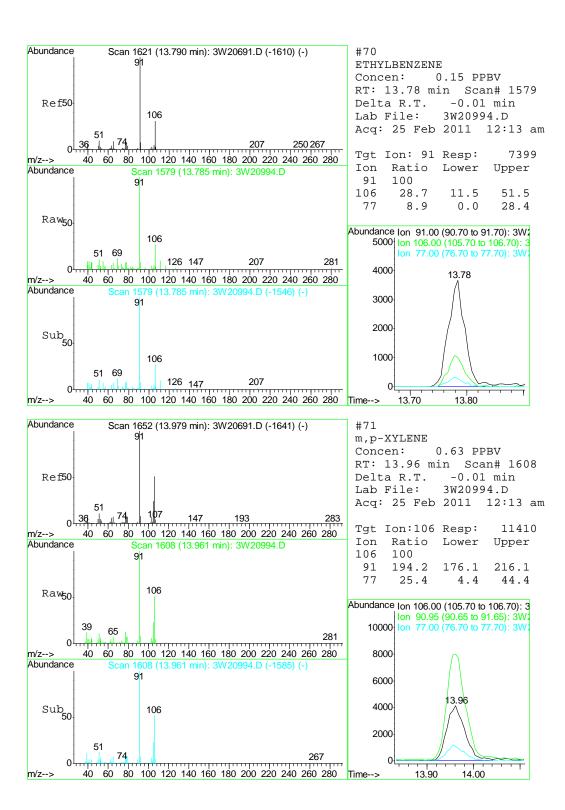
10.70

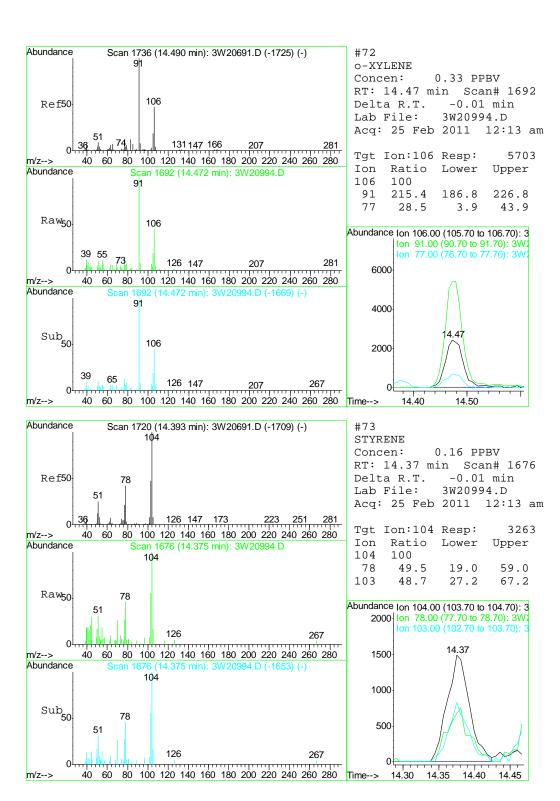
10.80

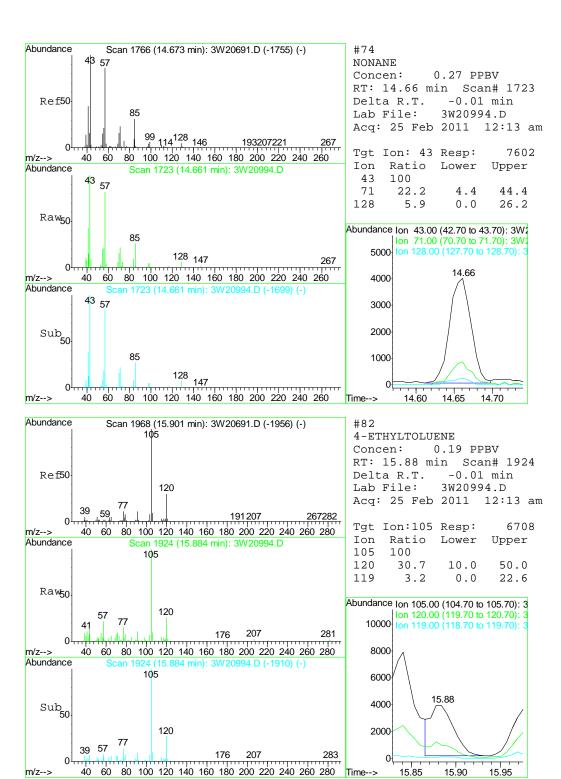
Time-->

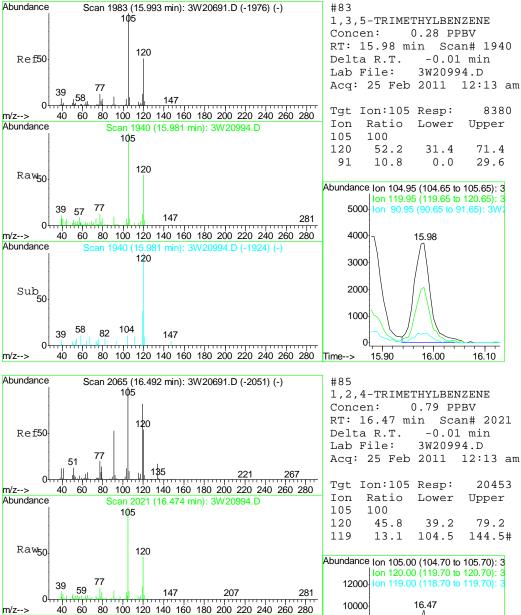


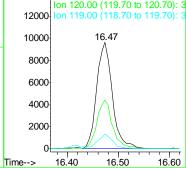












m/z--> Abundance

m/z-->

Sub 50

39 59

60

021 (16.474 min): 3W20994.D (-1997) (-)

207

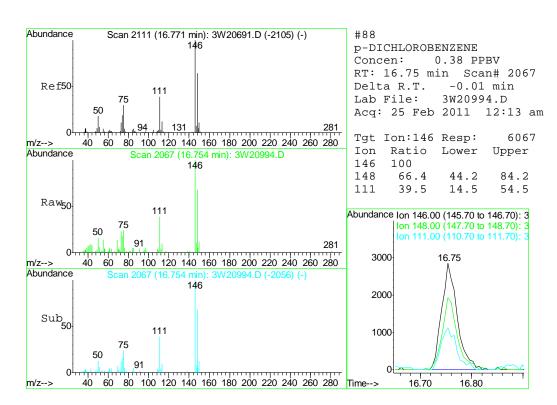
80 100 120 140 160 180 200 220 240 260 280

282

105

120

140



MS Integration Params: rteint.p

Quant Time: Feb 28 11:11:20 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.		Response		nits I	Dev(N	(in
1) BROMOCHLOROMETHANE	7.57	128	137470	10.00	PPBV	(	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	664116	10.00	PPBV	- (	0.01
62) CHLOROBENZENE-D5	13.37	82	306471	10.00	PPBV	(	
95) CHLOROBENZENE-D5 (a)	13.37	82	307377	10.00	PPBV	C	0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	175346	5.38	PPBV	- (	0.01
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	107.6	60%	
Target Compounds						Qval	lue
11) n-BUTANE	4.73	43	17034	0.64	PPBV	#	92
17) ISOPROPYL ALCOHOL	5.60	45	59162	2.64	PPBV		91
18) ACETONE	5.35	58	133601				
23) CARBON DISULFIDE	6.17			0.69			86
24) ETHANOL			64489				98
33) HEXANE	7.48		4095		PPBV		
36) METHYL ETHYL KETONE	7.10		1909		PPBV		
39) ETHYL ACETATE	7.62		575		PPBV		
49) TRICHLOROETHYLENE					PPBV		
54) HEPTANE			4631		PPBV		
59) TOLUENE			5265		PPBV		
64) TETRACHLOROETHYLENE		164			PPBV		97
67) OCTANE		43			PPBV		91
71) m,p-XYLENE			4569		PPBV		
72) o-XYLENE			2331		PPBV		
74) NONANE			3337		PPBV		
83) 1,3,5-TRIMETHYLBENZENE			3240		PPBV		
85) 1,2,4-TRIMETHYLBENZENE			7147		PPBV		29
88) p-DICHLOROBENZENE	16.75	146	2188	0.14	PPBV		94

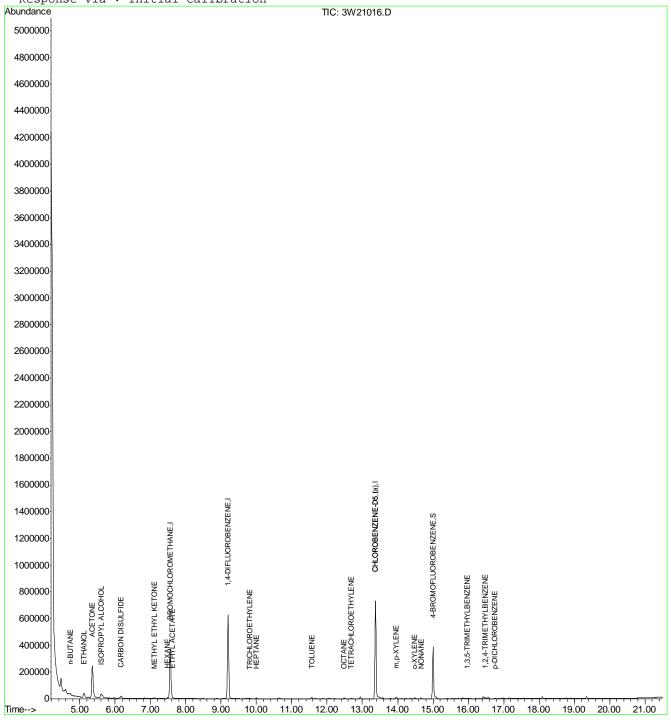
(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21016.D M3W821.M Thu Mar 10 12:33:56 2011 MS3W



MS Integration Params: rteint.p

Quant Time: Mar 10 12:33 2011 Quant Results File: M3W821.RES

Last Update : Thu Mar 10 08:27:02 2011 Response via : Initial Calibration

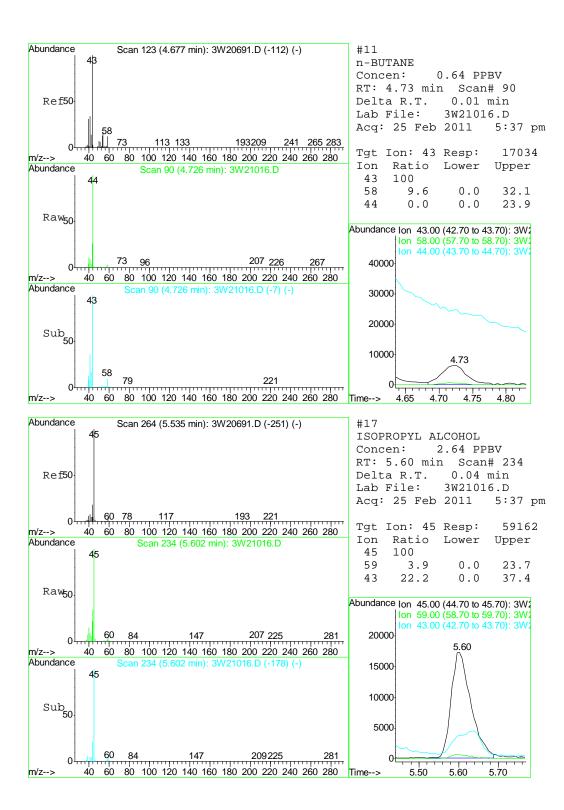


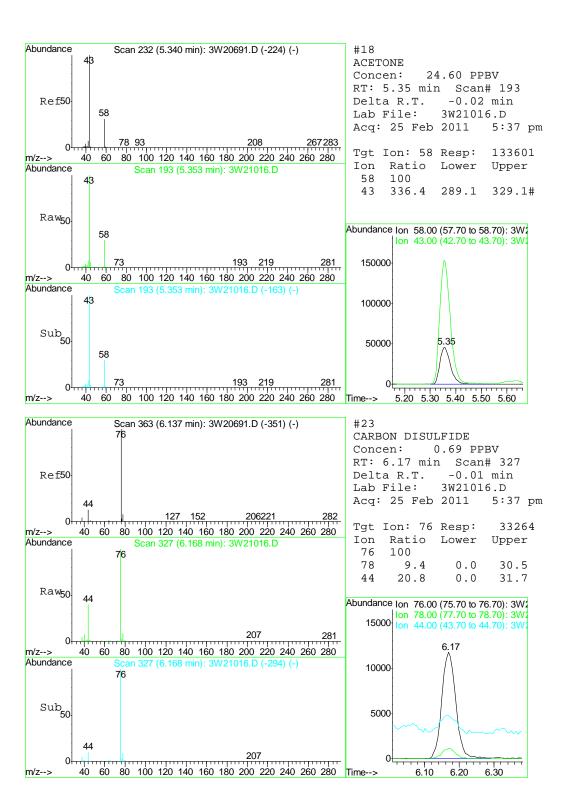
3W21016.D M3W821.M

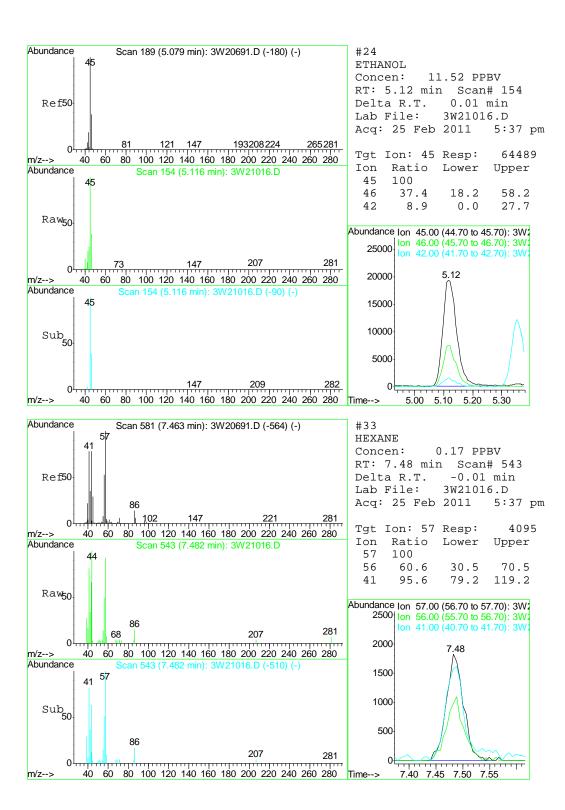
Thu Mar 10 12:33:56 2011

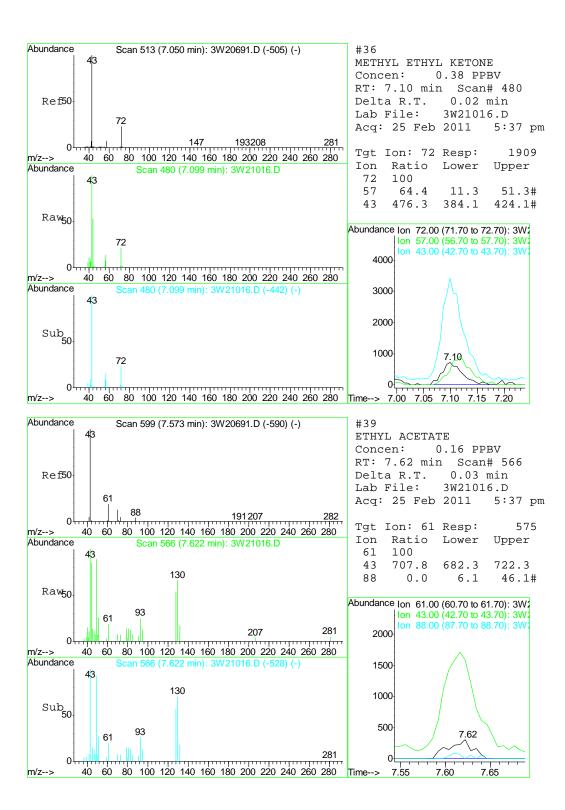
MS3W

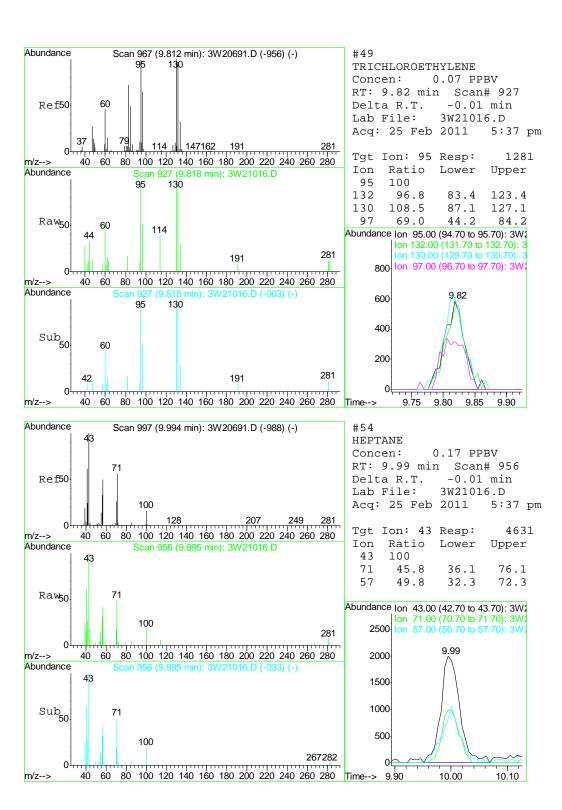


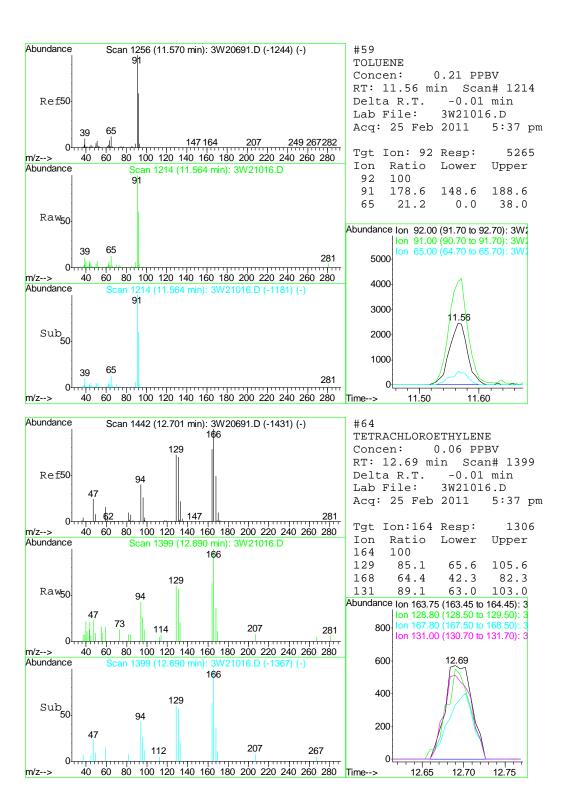


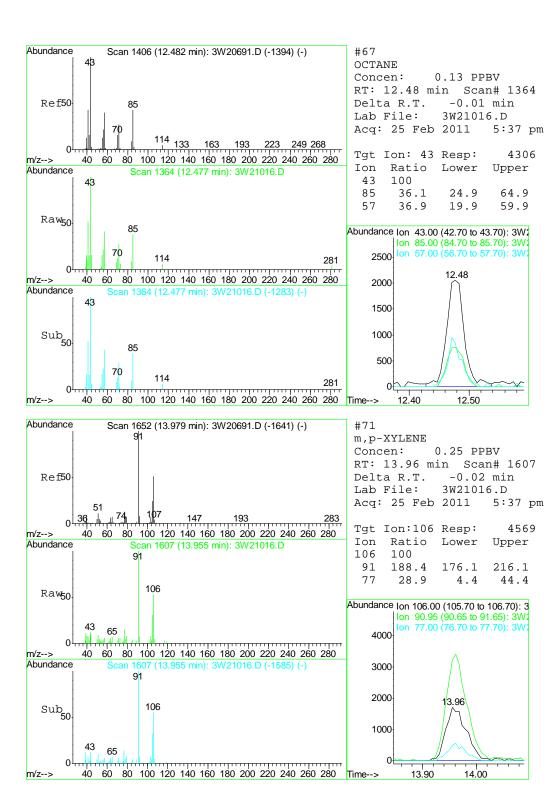


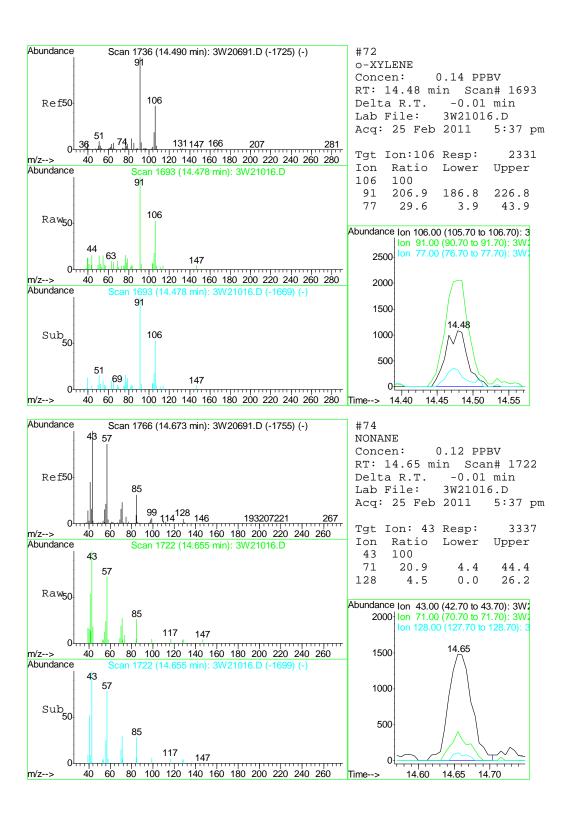


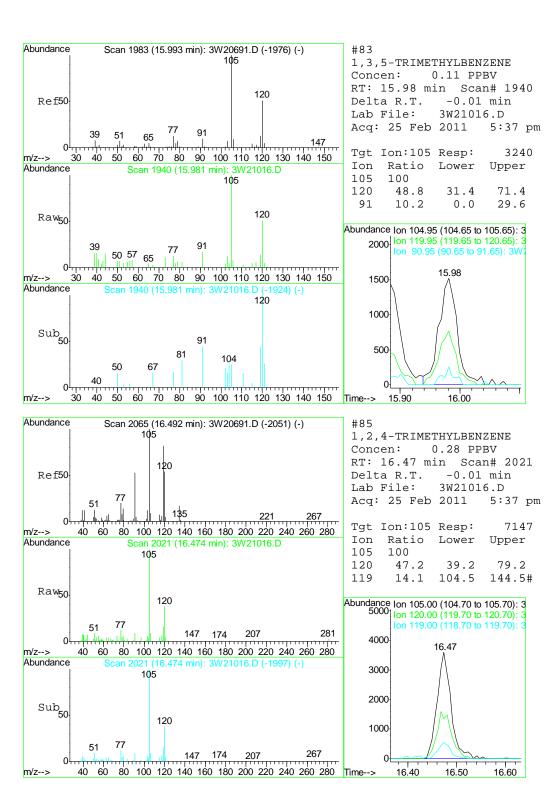




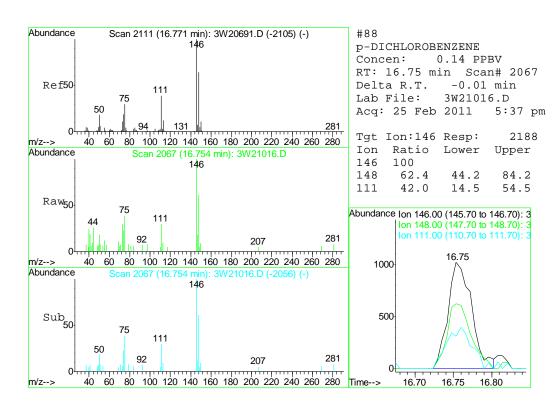








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ACCUTEST.
JA68565



Data File : C:\MSDCHEM\1\DATA\3W20975.D Vial: 5

Acq On : 24 Feb 2011 10:07 am Operator: yunxiac Sample : MB Inst : MS3W Misc : MS8082,V3W828,400,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 24 10:31:37 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	7.57 128	171151	10.00 PPBV 0.00
	9.20 114	838462	10.00 PPBV 0.00
	13.37 82	276863	10.00 PPBV 0.00
	13.37 82	276863	10.00 PPBV 0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 95	123843	4.21 PPBV 0.00
	Range 65 - 128	Recove	ry = 84.20%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20975.D M3W821.M Thu Feb 24 10:32:02 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20975.D Vial: 5

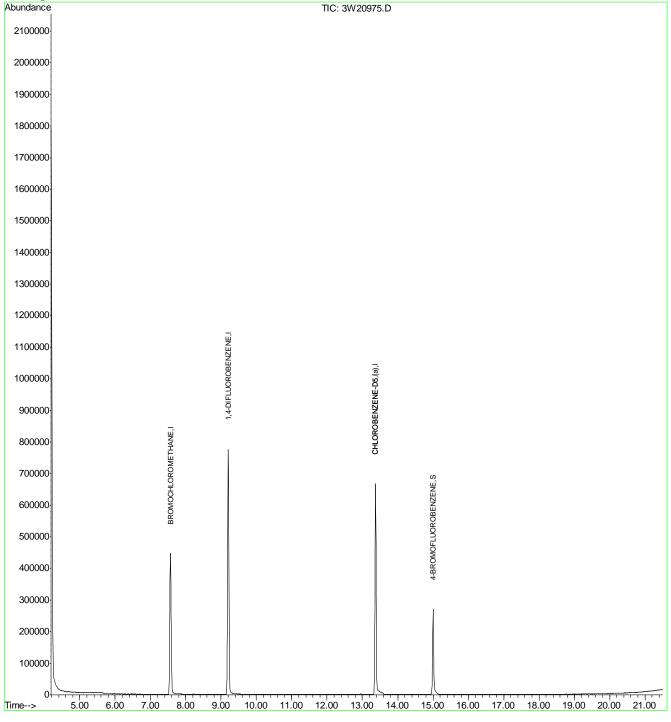
: 24 Feb 2011 10:07 am Operator: yunxiac Acq On Sample : MB Inst : MS3W Misc : MS8082, V3W828, 400, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 24 10:31 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration



3W20975.D M3W821.M

Thu Feb 24 10:32:02 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\3W21006.D Vial: 5

Acq On : 25 Feb 2011 10:55 am Operator: yunxiac Sample : MB Inst : MS3W Misc : MS8082, V3W829, 400,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 11:24:39 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T. Q	lon Res	ponse Conc	Units Dev(Min)
1) BROMOCHLOROMETHANE	7.56	128 19	0104 10.0	00 PPBV -0.01
45) 1,4-DIFLUOROBENZENE	9.20	114 93	1225 10.0	00 PPBV -0.01
62) CHLOROBENZENE-D5	13.37	82 37	9250 10.0	0.00 PPBV
95) CHLOROBENZENE-D5 (a)	13.37	82 38	0402 10.0	0.00 PPBV 0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 Range 65 -		6626 3.8 Recovery =	38 PPBV 0.00 = 77.60%
Target Compounds				Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21006.D M3W821.M Fri Feb 25 11:25:27 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W21006.D Vial: 5

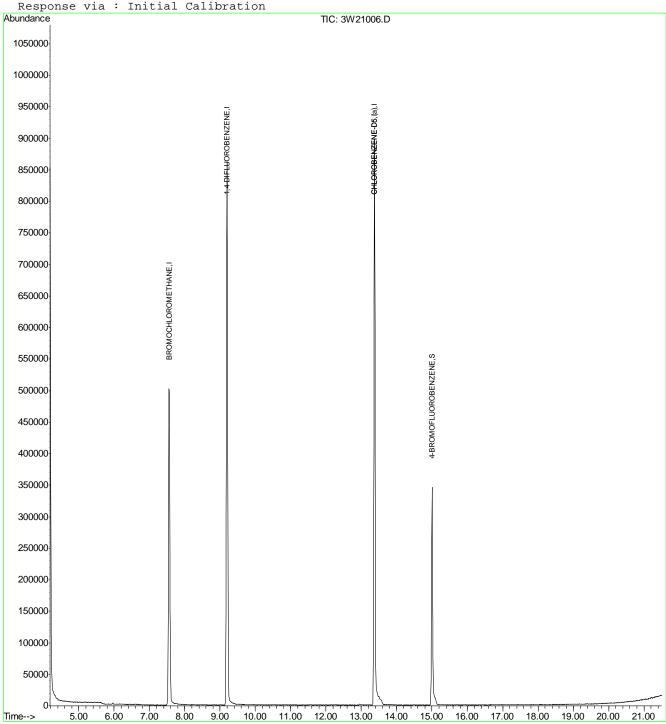
Acq On : 25 Feb 2011 10:55 am Operator: yunxiac Sample : MB Inst : MS3W Misc : MS8082, V3W829, 400,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 11:25 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011
Response via : Initial Calibration



3W21006.D M3W821.M

Fri Feb 25 11:25:28 2011

MS3W



Vial: 5

Quantitation Report (QT Reviewed)

 Acq On
 : 11 Feb 2011 11:53 am
 Operator: YOUMINH

 Sample
 : MB
 Inst : MSW

 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:09 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

Data File : C:\MSDCHEM\1\DATA\W30129.D

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U	nits	Dev(Min)
1) BROMOCHLOROMETHANE	8.77	128	103829	10.00	PPBV	-0.05
46) 1,4-DIFLUOROBENZENE	10.46	114	470203	10.00	PPBV	-0.04
63) CHLOROBENZENE-D5	14.70	82	200738	10.00	PPBV	-0.03
96) Chlorobenzene-d5(a)	14.70	82	197808	10.00	PPBV	-0.03
System Monitoring Compounds 78) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	16.35 Range 65	95 - 128	98505 Recove		PPBV 85.	
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W30129.D MW1222.M Mon Feb 14 10:31:10 2011 MSW



Data File : C:\MSDCHEM\1\DATA\W30129.D Vial: 5

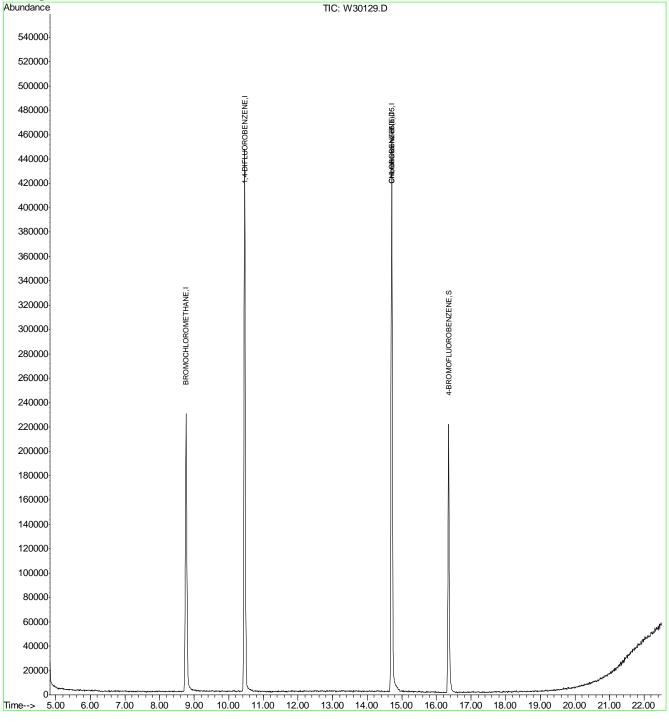
: 11 Feb 2011 11:53 am Operator: YOUMINH Acq On Sample : MB Inst : MSW : MS7890,VW1236,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : T015 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration



W30129.D MW1222.M

Mon Feb 14 10:31:10 2011

MSW



Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29761.D

Acq On : 14 Feb 2011 10:17 am Operator : YOUMINH

Sample : MB
Misc : MS8244,V2W1256,,,,,1 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 10:04:32 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
Internal Standards 1) BROMOCHLOROMETHANE 44) 1,4-DIFLUOROBENZENE 61) CHLOROBENZENE-D5 93) CHLOROBENZENE-D5(A)	7.307 9.154 13.269 13.269		225651 1114710 472276 503443	10.00 10.00 10.00 10.00	PPBV PPBV	# 0.00 -0.01 #-0.01 #-0.01
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Target Compounds	14.763 Range 65		219528 Recove			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Feb 15 10:04:58 2011 VOA-CLN-02



(QT Reviewed)

Quantitation Report

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29761.D

: 14 Feb 2011 10:17 am Acq On

Operator : YOUMINH

: MB Sample

: MS8244, V2W1256, , , , , 1 Misc ALS Vial : 5 Sample Multiplier: 1

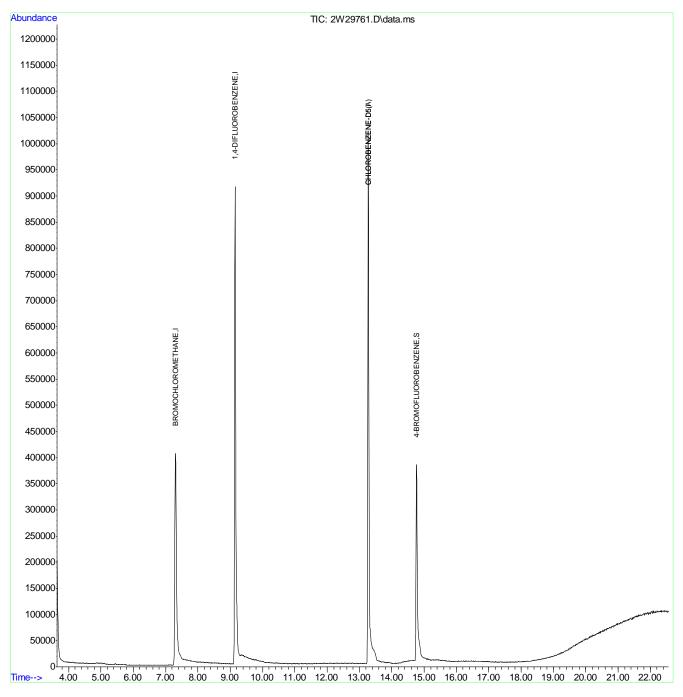
Quant Time: Feb 15 10:04:32 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration



M2W1240.M Tue Feb 15 10:04:59 2011 VOA-CLN-02

487 of 840 ACCUTEST: JA68565

MS Integration Params: rteint.p

Quant Time: Feb 24 09:07:13 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards			Response				
1) BROMOCHLOROMETHANE	7.57	128	167905 833282 407825 407825	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5	9.20	114	833282	10.00	PPBV		0.00
62) CHLOROBENZENE-D5	13.37	82	407825	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	407825	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	219104	5.05	PPBV		0.00
76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Ran	ige 65	- 128	Recove	ery =	101.	00%	
Target Compounds						Ova	alue
3) FREON 152A	4.29	65	121624	8.94	PPBV	~	93
4) CHLORODIFLUOROMETHANE	4.32	67	45827	9.23	PPBV		97
5) DICHLORODIFLUOROMETHANE	4.38	85	45827 468851	9.48	PPBV		99
6) PROPYLENE	4.34	41	176628	9.47	PPBV		99
7) FREON 114	4.54	85	545337	9.55	PPBV		96
8) CHLOROMETHANE	4.49	50	229429	10.91	PPBV		92
9) VINYL CHLORIDE	4.62	62	204829	10.16	PPBV		99
10) 1.3-BUTADIENE	4.70	54	157235	9.82	PPBV		9.5
11) n-BUTANE	4.73	43	346088	10.64	PPBV		96
12) BROMOMETHANE	4.88	94	196185	9.64	PPBV		9.8
13) CHLOROETHANE	4.98	64	109477	11.25	PPBV		90
14) FREON 123	5 27	83	431588	10 28	PPRV		100
15) FREON 123A	5 31	117	240796	9 94	PPRV		80
16) TRICHLOROFLUOROMETHANE	5 46	101	473861	9 84	PPRV		90
17) ISOPROPYL ALCOHOL	5 55	45	268572	9 80	PPRV		90
18) ACETONE	5 38	58	60348	9 10	DDRV	#	80
19) DENTANE	5 65	42	239610	10 71	DDRV	. π	90
21) TODOMETHANE	5 83	142	555333	10.71	DDBW		96
22) 1 1-DICHLOPOFTHYLENE	5 88	96	187452	9 42	DDBW		96
22) CAPRON DIGHT.FIDE	6 17	76	565604	9 59	DDBW		96
24) ETHANOI	5 11	15	61330	9.37	מסממ		9.0
25) DDOMOFTUENE	5 20	106	200085	10.00	DDDW		90
26) METUVIENE CUIODIDE	5 07	2/	161065	10.00	DDDW		9.5
27) 2_CUI ODODDODENE	5.97	76	70235	11 17	DDDW	+	92
20) FDFON 112	6 11	151	79333 225720	9 73	DDDW	. #	02
20) TREON 113	6 50	96	100/72	10 55	DDDW		9.
20) TERMS-1,2-DICHLOROEINILENE	0.39 E 0E	50 E0	212516	10.55	PPDV		0.5
21) METUVI TERTIARI BULLU ALCONOL	6 70	72	313310	0 12	PPDV		95
31) WEIGH TEKHAKI BULIH EIGE	0.76	73	62060	0.13	PPDV	. н	0.5
32) IEIRAHIDROFURAN	7 40	/ Z	02900 212772	9.30	PPDM	. #	100
34) MEANE	7.49	0.0	313772	10.44	PPDV	. ш	100
25 ) 1 1 DICHIODORRUME	6.76	8 B	318U∠ 222277	10.38	LLRA LLRA	. #	20
36) MERUNI ERUNI KERONE	7.06	03	3343U/	10.89	LLR.	ш	01
37) die 1 2 DIGHT ODORGHUNG	7.06	12	59U∠8 102001	9.51 10 41	LLBA.	. #	δŢ
30) DIIGODDODYI EERIED	7.45	9 b	1039UI	10.41	LLR.		94
30) PRINT AGENTAGE	7.51	45	4443/6	9.22	LLB.	. ш	98
40) GHI ODOEODM	7.59	6 T	39786	9.15	LLRRA	#	83
40) CHLOROFORM	7.65	83	36/892	10.68	LLB.		99
41) Z,4-DIMETHYLPENTANE	8.21	57	390275	11.38	LLRA.		98
Target Compounds 3) FREON 152A 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLENE 38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE	8.47	97	360724	10.63	PPB/		98
43) CARBON TETRACHLORIDE	9.02	117	413324 	11.00	PPBV		Τ00

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(#) = qualifier out of range (m) = manual integration  $3W20973.D \quad M3W821.M \quad Thu \; Feb \; 24 \; 10:15:14 \; 2011 \quad MS3W$ 

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ACCUTEST.

JA68565
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\3W20973.D Vial: 3 Acq On : 24 Feb 2011 8:05 am Operator: yunxiac Inst : MS3W Sample : BS
Misc : MS8082,V3W828,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 24 09:07:13 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.26	62	212602	12.66 PPBV	99
,	BENZENE	8.89		524630	10.53 PPBV	98
,	CYCLOHEXANE	9.06		328213	10.28 PPBV	
,	2,3-DIMETHYLPENTANE	9.24		138081	11.00 PPBV	
	TRICHLOROETHYLENE	9.82	95	232512	9.51 PPBV	
50)	1,2-DICHLOROPROPANE	9.58	63	197407	10.78 PPBV	100
	BROMODICHLOROMETHANE	9.80	83	375595	10.91 PPBV	99
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	914225	10.73 PPBV	99
53)	1,4-DIOXANE	9.90	88	914225 81722	9.40 PPBV	92
54)	HEPTANE	10.00	43	383433 121453	11.05 PPBV	94
56)	METHYL METHACRYLATE	10.03	69			# 13
57)	METHYL ISOBUTYL KETONE	10.66		115126 290539	10.30 PPBV	91
58)	cis-1,3-DICHLOROPROPENE	10.65		290539	12.33 PPBV	96
59)	TOLUENE	11.56		341239	10.67 PPBV	98
60)	trans-1,3-DICHLOROPROPENE	11.15	75	230581	13.29 PPBV	93
61)	1,1,2-TRICHLOROETHANE	11.31		175454		
63)	2-HEXANONE	11.85	58	144138	9.88 PPBV	93
64)	TETRACHLOROETHYLENE	12.70		250833	8.67 PPBV	
,	DIBROMOCHLOROMETHANE	12.01		360865		
,	1,2-DIBROMOETHANE	12.22		286402	10.88 PPBV	
,	OCTANE	12.48	43	481049		
	1,1,1,2-TETRACHLOROETHANE	13.40		241562	9.84 PPBV	
,	CHLOROBENZENE	13.42		401818		
	ETHYLBENZENE	13.78		662264	10.28 PPBV	
,	m,p-XYLENE	13.97		480292		
,	O-XYLENE	14.48		232974		
- ,	STYRENE	14.38		323205		
	NONANE	14.66		433360		
	BROMOFORM	14.08		312427		
77)	1,1,2,2-TETRACHLOROETHANE	14.50		289261		
	1,2,3-TRICHLOROPROPANE	14.63		213438	11.54 PPBV	
	ISOPROPYLBENZENE	15.12 15.69		575778	9.34 PPBV 10.26 PPBV	
	2-CHLOROTOLUENE	15.69		145355 134543	9.30 PPBV	
	n-PROPYLBENZENE 4-ETHYLTOLUENE	15.71		442485	9.30 PPBV 9.45 PPBV	
,	1,3,5-TRIMETHYLBENZENE	15.00		365746	9.45 PPBV 9.21 PPBV	
,	tert-BUTYLBENZENE	16.47		82424	8.33 PPBV	
,	1,2,4-TRIMETHYLBENZENE	16.47		321194	9.48 PPBV	
	m-DICHLOROBENZENE	16.67		248953		
,	BENZYL CHLORIDE	16.67		228802	10.07 PPBV	
,	p-DICHLOROBENZENE	16.76		233754		
	sec-BUTYLBENZENE	16.80		96852	9.59 PPBV	
	p-ISOPROPYLTOLUENE	16.98				
,	o-DICHLOROBENZENE	17.19		95994 209515	11.43 PPBV	
,	n-BUTYLBENZENE	17.50		75923	9.61 PPBV	
	HEXACHLOROBUTADIENE	19.77		75923 91570	13.06 PPBV	
,	1,2,4-TRICHLOROBENZENE	19.22	180	44724		
,	• •					

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20973.D M3W821.M Thu Feb 24 10:15:14 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20973.D Vial: 3

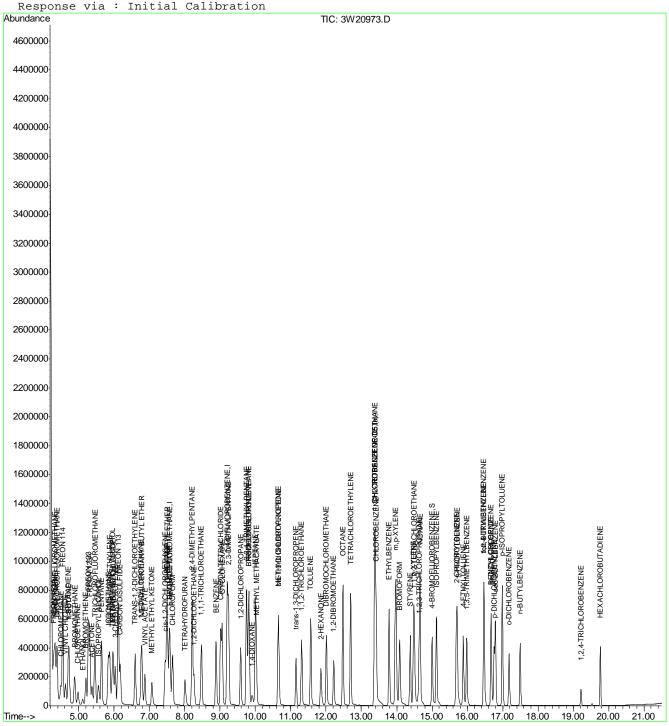
: 24 Feb 2011 8:05 am Operator: yunxiac Acq On Sample : BS : MS3W Misc : MS8082, V3W828, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 24 9:15 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011



3W20973.D M3W821.M

Thu Feb 24 10:15:14 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 24 09:06:58 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Inte	rnal Standards			Response			v(Min)
1 \	BROMOCHLOROMETHANE			171252			0.00
		0.30	111	171352 855433 409072 409072	10.00 1	זממר זממר	0.00
<del>4</del> 3)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	12 27	114	400072	10.00 1	זממר זממר	0.00
02)	CHLOROBENZENE-D5 (a)	13.37	02	409072	10.00 1	זממר זממר	0.00
93)	CHLOROBENZENE-D5 (a)	13.37	02	409072	10.00	PPDV	0.00
	em Monitoring Compounds						
	4-BROMOFLUOROBENZENE	15.00	95	220989	5.08 I	PPBV	0.00
Sp	iked Amount 5.000 I	Range 65	- 128	Recove	ry = 1	101.609	हे
Tarq	et Compounds					07	value
3)	FREON 152A	4.29	65	125921	9.07 I	PPBV	98
4)	CHLORODIFLUOROMETHANE	4.32	67	47362	9.35 I	PBV	99
5)	DICHLORODIFLUOROMETHANE	4.38	85	476233	9.44	PPBV	99
6)	PROPYLENE	4.34	41	179814	9.44	PPBV	99
7)	FREON 114	4.54	85	553202	9.50 I	PPBV	97
8)	CHLOROMETHANE	4.49	50	233273	10.87 E	PPBV	93
9)	VINYL CHLORIDE	4.62	62	209312	10.17 E	PPBV	100
10)	1,3-BUTADIENE	4.70	54	161365	9.88 I	PPBV	96
11)	n-BUTANE	4.73	43	349185	10.52	PPBV	98
12)	BROMOMETHANE	4.88	94	200519	9.65 I	PPBV	99
13)	CHLOROETHANE	4.98	64	111694	11.25 E	PPBV	98
14)	FREON 123	5.27	83	449731	10.49 E	PPBV	99
15)	FREON 123A	5.30	117	251063	10.16 H	PPBV	90
16)	TRICHLOROFLUOROMETHANE	5.46	101	482188	9.81	PPBV	100
17)	ISOPROPYL ALCOHOL	5.55	45	275515	9.85 I	PPBV	99
18)	ACETONE	5.38	58	59497	8.79	PPBV	91
19)	PENTANE	5.64	42	241189	10.57 E	PPBV	98
21)	IODOMETHANE	5.83	142	570246	10.15 E	PPBV	98
22)	1,1-DICHLOROETHYLENE	5.88	96	190783	9.39 I	PPBV	95
23)	CARBON DISULFIDE	6.17	76	570031	9.47 I	PPBV	98
24)	ETHANOL	5.10	45	62200	8.91 I	PPBV	97
25)	BROMOETHENE	5.20	106	205030	10.04 H	PPBV	99
26)	METHYLENE CHLORIDE	5.97	84	170141	10.65 E	PBV	94
27)	3-CHLOROPROPENE	6.03	76	80597	11.12 E	PBV #	80
28)	FREON 113	6.11	151	334812	9.80 I	PPBV	96
29)	TRANS-1,2-DICHLOROETHYLE	NE 6.59	96	206192	10.69 I	PPBV	96
30)	TERTIARY BUTYL ALCOHOL	5.94	59	320051	10.03 E	PPBV	96
31)	METHYL TERTIARY BUTYL ET	HE 6.78	73	338815	8.10	PPBV	97
32)	TETRAHYDROFURAN	8.01	72	61179	8.93 I	PPBV #	86
33)	HEXANE	7.49	57	318059	10.37 E	PPBV	99
34)	VINYL ACETATE	6.87	86	31323	10.02 E	PPBV #	60
35)	1,1-DICHLOROETHANE	6.76	63	340295	10.93 E	PBV	99
36)	METHYL ETHYL KETONE	7.06	72	61224	9.66 I	PPBV #	76
37)	cis-1,2-DICHLOROETHYLENE	7.45	96	188309	10.44 H	PPBV	95
38)	DIISOPROPYL ETHER	7.51	45	452399	9.20 I	PPBV	99
39)	ETHYL ACETATE	7.59	61	41780	9.42 I	PPBV	96
40)	CHLOROFORM	7.65	83	375083	10.67	PPBV	98
41)	2,4-DIMETHYLPENTANE	8.21	57	399139	11.40	PPBV	99
42)	1,1,1-TRICHLOROETHANE	8.47	97	366920	10.60 H	PPBV	99
43)	et Compounds FREON 152A CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLEI TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ETI TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE DIISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE	9.02	117	424739	11.08	PPBV	99

3W20974.D M3W821.M Thu Feb 24 10:15:15 2011 MS3W

491 of 840
ACCUTEST

JA68565
LABORATORIES

<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: Feb 24 09:06:58 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.26	62	213541	12.46 PPBV	99
46)	BENZENE	8.88	78	532360	10.41 PPBV	98
47)	CYCLOHEXANE	9.06	56	333501 142436	10.17 PPBV	97
48)	2,3-DIMETHYLPENTANE	9.24	71	142436	11.05 PPBV	95
49)	TRICHLOROETHYLENE	9.82	95	239102	9.53 PPBV	
50)	1,2-DICHLOROPROPANE	9.58	63	202408	10.76 PPBV	100
,	BROMODICHLOROMETHANE	9.80	83	382769 931656	10.83 PPBV	
,	2,2,4-TRIMETHYLPENTANE	9.75	57	931656	10.65 PPBV	
	1,4-DIOXANE	9.90	88	85346	9.56 PPBV	
,	HEPTANE		43		11.26 PPBV	
	METHYL METHACRYLATE	10.03		124321 117688	9.24 PPBV	
	METHYL ISOBUTYL KETONE	10.66		117688	10.26 PPBV	
	cis-1,3-DICHLOROPROPENE		75		12.20 PPBV	
,	TOLUENE		92	346505	10.56 PPBV	
	trans-1,3-DICHLOROPROPENE		75	232185 173797	13.03 PPBV	
	1,1,2-TRICHLOROETHANE	11.31		173797	11.62 PPBV	
,	2-HEXANONE		58		10.21 PPBV	
	TETRACHLOROETHYLENE	12.70		257665	8.88 PPBV	
	DIBROMOCHLOROMETHANE	12.01	129	357368	10.03 PPBV	
,	1,2-DIBROMOETHANE	12.22	10 /	291503 482889	11.04 PPBV	
,	OCTANE	12.48	43 131	249126	10.55 PPBV 10.12 PPBV	
	1,1,1,2-TETRACHLOROETHANE CHLOROBENZENE	13.40 13.42	112	404723	9.76 PPBV	
	ETHYLBENZENE	13.42		670429	10.37 PPBV	
	m,p-XYLENE	13.76		670429 484557	20.11 PPBV	
	O-XYLENE	14.48	106	222015	10 22 nnarr	0.0
,	STYRENE	14.38	104	327712	10.32 FFBV	99
- ,	NONANE	14.66	43	430917	10.32 PPBV 12.32 PPBV 11.43 PPBV 10.17 PPBV 12.15 PPBV 11.61 PPBV 9.39 PPBV 10.40 PPBV	95
,	BROMOFORM		173	316224	10 17 PPRV	99
			83	290567	12.15 PPBV	100
78)	1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE	14.63	75	215409	11.61 PPBV	99
	ISOPROPYLBENZENE	15.12	105	580242	9.39 PPBV	99
	2-CHLOROTOLUENE	15.69	126	147829	10.40 PPBV	99
	n-PROPYLBENZENE	15.71	120	135684	9.35 PPBV	99
82)	4-ETHYLTOLUENE	15.88	105	450276	9.59 PPBV	98
83)	1,3,5-TRIMETHYLBENZENE	15.98	105	365778	9.19 PPBV	98
84)	tert-BUTYLBENZENE	16.47	1 4 4	84445	X 55 DDRV	uh
85)	1,2,4-TRIMETHYLBENZENE	16.47	105	328038	9.65 PPBV 11.95 PPBV	96
86)	m-DICHLOROBENZENE	16.67	146	254079	11.95 PPBV	99
87)	BENZYL CHLORIDE	16.67		235096 237089	10.31 PPBV	
88)	p-DICHLOROBENZENE	16.76	146	237089	11.14 PPBV	99
89)	sec-BUTYLBENZENE	16.80	134	96943	9.57 PPBV 9.04 PPBV	# 90
	p-ISOPROPYLTOLUENE	16.80	134	97069	9.04 PPBV	
	O-DICHTORORENZENE	17.19	146	212953 78706 94834 47564	11.59 PPBV	
,	n-BUTYLBENZENE	17.50	134	78706	9.94 PPBV	
	HEXACHLOROBUTADIENE	19.77	225	94834	13.49 PPBV	
94)	1,2,4-TRICHLOROBENZENE	19.22	180	47564	10.87 PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20974.D M3W821.M Thu Feb 24 10:15:15 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20974.D Vial: 3

 Acq On
 : 24 Feb 2011 8:45 am
 Operator: yunxiac

 Sample
 : BSD
 Inst : MS3W

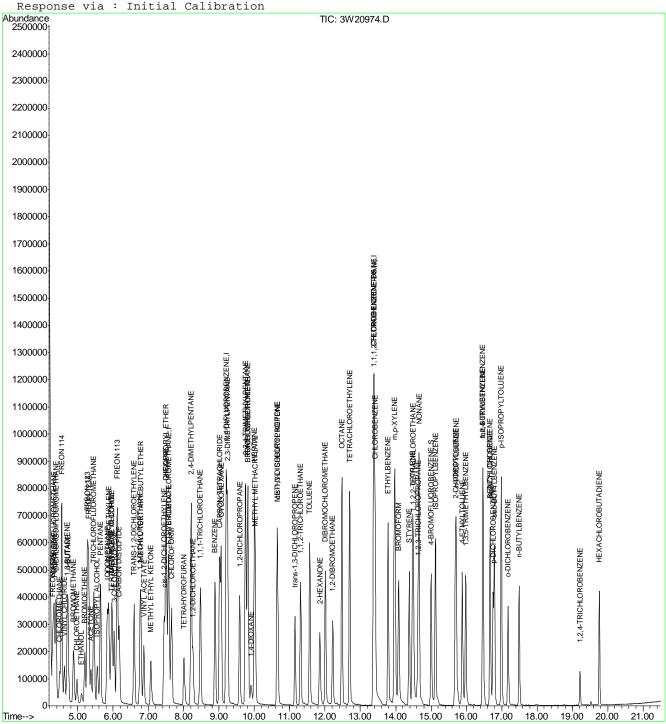
 Misc
 : MS8082,V3W828,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 24 9:15 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration



3W20974.D M3W821.M

Thu Feb 24 10:15:15 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 25 09:57:53 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc U	nits	Dev(Mir
1) BROMOCHLOROMETHANE	7.57	128	166460 827514 402315 402868	10.00	PPBV	0.0
45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5	9.21	114	827514	10.00	PPBV	0.0
62) CHLOROBENZENE-D5	13.38	82	402315	10.00	PPBV	0.0
95) CHLOROBENZENE-D5 (a)	13.38	82	402868	10.00	PPBV	0.0
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.01	95	234329	5.48	PPBV	0.0
76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Rar	ige 65	- 128	Recove	ery =	109.	60%
Target Compounds  3) FREON 152A  4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114  8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLENE 38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE						Qvalue
3) FREON 152A	4.29	65	120885	8.96	PPBV	~ 9
4) CHLORODIFLUOROMETHANE	4.32	67	47601	9.67	PPBV	ç
5) DICHLORODIFLUOROMETHANE	4.38	85	481750	9.83	PPBV	10
6) PROPYLENE	4.33	41	182313	9.86	PPBV	g
7) FREON 114	4.54	85	557122	9.84	PPBV	g
8) CHLOROMETHANE	4.49	50	234544	11.25	PPBV	g
9) VINYL CHLORIDE	4.62	62	211014	10.56	PPBV	ç
10) 1.3-BUTADIENE	4.70	54	161294	10.16	PPBV	ç
11) n-BUTANE	4.73	43	352636	10.94	PPBV	ç
12) BROMOMETHANE	4.88	94	202251	10.02	PPBV	ç
13) CHIOROETHANE	4.98	64	114149	11.84	PPBV	Ć
14) FREON 123	5 27	83	443211	10 64	PPRV	ć
15) FREON 123A	5 31	117	245744	10.01	PPRV	۶
16) TRICHLOROFLUOROMETHANE	5 46	101	487194	10.21	PPRV	10
17) ISOPROPYL ALCOHOL	5 58	45	287103	10.20	PPRV	- 0
18) ACETONE	5 39	58	62546	9 51	DDRV	Ć
19) DENTANE	5 64	42	248290	11 20	DDRV	c
21) TODOMETHANE	5 84	142	570836	10 46	DDBW	c
22) 1 1-DICHLOPOFTHYLENE	5 88	96	190116	9 64	DDBM	c
22) CAPRON DIGHT.FIDE	6 17	76	584894	10 01	DDBM	c
24) ETHANOI	5 12	15	62505	0 30	זמממ	ć
25) DDOMOFTURNE	5 20	106	205562	10 36	DDDM	1 (
26) METUVIENE CUIODIDE	5.20	2/	170735	11 00	DDDM	10
27) 2_CUI ODODDODENE	5.97	76	20627	11.00	DDDM	# 6
20) FDFON 112	6 12	151	336355	10 13	DDDM	# 0
20) FREON 113	6 60	131	200222	10.13	PPDV	2
20) TERMS-1,2-DICHLOROEINILENE	5.00	50 E0	202213	10.93	PPDV	2
21) METHYL TERTIARY DITTYL ETHE	6 70	72	333033 251701	0 66	PPDV	2
22) TETRALY BOLLL EIGE	0.79	73	221/0 <del>1</del>	0.00	PPDV	# 0
32) IEIRAHIDROFURAN	7 40	/ Z	22222	10 02	PPBV	# 0
33) HEXANE	7.49	5 /	322822	10.83	PPDM	ш -
34) VINIL ACEIALE	6 77	63	30419	11 22	PPBV	# /
35) I,I-DICHLOROETHANE	7.00	7.0	339409	11.22	PPDV	ш с
27) at a 1 2 DIGHT ODORROW END	7.09	12	044UL	10.46	LLR.	# 5
30) DIIGODDODYI EEUED	7.45	9 b	19U158	10.85	LLR.	9
30) PHINI AGENATE	7.52	45	4/1821	9.87	LLR.	ш 2
39) ETHYL ACETATE	7.60	θ±	425UL	9.86	LLRA.	# 5
4U) CHLOROFORM	7.66	83	3/4933	10.98	PPBV	9
41) Z,4-DIMETHYLPENTANE	8.22	57	406525	11.95	PPBV	9
42) 1,1,1-TRICHLOROETHANE	8.48	97	368659	10.96	PPBV	9
43) CARBON TETRACHLORIDE	9.02	117	422071 	11.33	PPBV	10

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(#) = qualifier out of range (m) = manual integration 3W21004.D M3W821.M Fri Feb 25 10:00:47 2011 MS3W



R.T. QIon Response Conc Unit Qvalue

MS Integration Params: rteint.p

Quant Time: Feb 25 09:57:53 2011 Quant Results File: M3W821.RES

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Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Compound

44)	1,2-DICHLOROETHANE	8.27	62	211857	12.73 PPB		99
	BENZENE	8.89	78	529038	10.69 PPB		99
	CYCLOHEXANE	9.06	56	339724	10.71 PPB		95
	2,3-DIMETHYLPENTANE	9.25	71	139891	11.22 PPB		
	TRICHLOROETHYLENE	9.82	95	235751	9.71 PPB		96
	1,2-DICHLOROPROPANE	9.59	63	199349	10.96 PPB		
	BROMODICHLOROMETHANE	9.81	83	380130 932178	11.12 PPB		99
,	2,2,4-TRIMETHYLPENTANE	9.76	57	932178	11.02 PPB		
	1,4-DIOXANE	9.92	88	90998 399400	10.54 PPB	V	95
	HEPTANE	10.01	43				
,	METHYL METHACRYLATE	10.04	69	130732 121544	10.05 PPB		
	METHYL ISOBUTYL KETONE	10.68	58	121544	10.95 PPB		
	cis-1,3-DICHLOROPROPENE	10.65	75	290731 340192	12.43 PPB		94
,	TOLUENE	11.58	92	340192	10.72 PPB		99
	trans-1,3-DICHLOROPROPENE		75	226382			93
	1,1,2-TRICHLOROETHANE	11.32	83	175160	12.10 PPB		99
	2-HEXANONE	11.87	58	152721	10.61 PPB	V	
	TETRACHLOROETHYLENE	12.70	164	252676	8.85 PPB 10.31 PPB	V	99
	DIBROMOCHLOROMETHANE	12.02		361479	10.31 PPB	V	
	1,2-DIBROMOETHANE	12.23	107	284607 488692	10.96 PPB		100
	OCTANE	12.48	43	488692	10.86 PPB		92
	1,1,1,2-TETRACHLOROETHANE		131	239774 397164	9.90 PPB	V	97
69)	CHLOROBENZENE	13.43	112	397164	9.74 PPB	V	97
70)	ETHYLBENZENE	13.79	91	647437 464566	10.19 PPB	V	99
71)	m,p-XYLENE	13.98	106	464566	19.60 PPB		98
72)	O-XYLENE	14.49	106	218204	9.79 PPB	V	98
73)	STYRENE	14.39	104	314166	12.01 PPB	V	98
74)	NONANE		43	430849	11.62 PPB		95
	BROMOFORM		173	307480	10.06 PPB		99
	1,1,2,2-TETRACHLOROETHANE		83	287439	12.22 PPB		98
,	1,2,3-TRICHLOROPROPANE		75	208646 589084	11.43 PPB		98
,	ISOPROPYLBENZENE	15.14	105	589084	9.69 PPB	V	99
	2-CHLOROTOLUENE	15.70	126	142204	10.18 PPB	V	100
,	n-PROPYLBENZENE	15.72	120	126919	9.69 PPB 10.18 PPB 8.89 PPB 9.52 PPB	V	99
82)	4-ETHYLTOLUENE	15.90	105	439768	9.52 PPB 9.12 PPB	V	99
,	1,3,5-TRIMETHYLBENZENE	15.99	105	357170	9.12 PPB	V	98
	tert-BUTYLBENZENE	16.47	134	82670	8.47 PPB 9.73 PPB	V	95
85)	1,2,4-TRIMETHYLBENZENE	16.49	105	325222	9.73 PPB		95
86)	m-DICHLOROBENZENE	16.68	146	239916	11.47 PPB		99
	BENZYL CHLORIDE	16.69	91	233197	10.40 PPB		99
88)	p-DICHLOROBENZENE	16.77	146	225539	10.77 PPB		100
,	sec-BUTYLBENZENE	16.80	134	96099 97310	9.65 PPB		93
,	p-ISOPROPYLTOLUENE	17.00	134	97310	9.22 PPB		99
	o-DICHLOROBENZENE	17.19	146	196576 75787	10.87 PPB		99
,	n-BUTYLBENZENE	17.51	134	75787	9.73 PPB		
	HEXACHLOROBUTADIENE	19.77	225	90265 48865	13.05 PPB		98
94)	1,2,4-TRICHLOROBENZENE	19.22	180	48865	11.36 PPB	V	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21004.D M3W821.M Fri Feb 25 10:00:47 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W21004.D Vial: 3

 Acq On
 : 25 Feb 2011
 8:54 am
 Operator: yunxiac

 Sample
 : BS
 Inst : MS3W

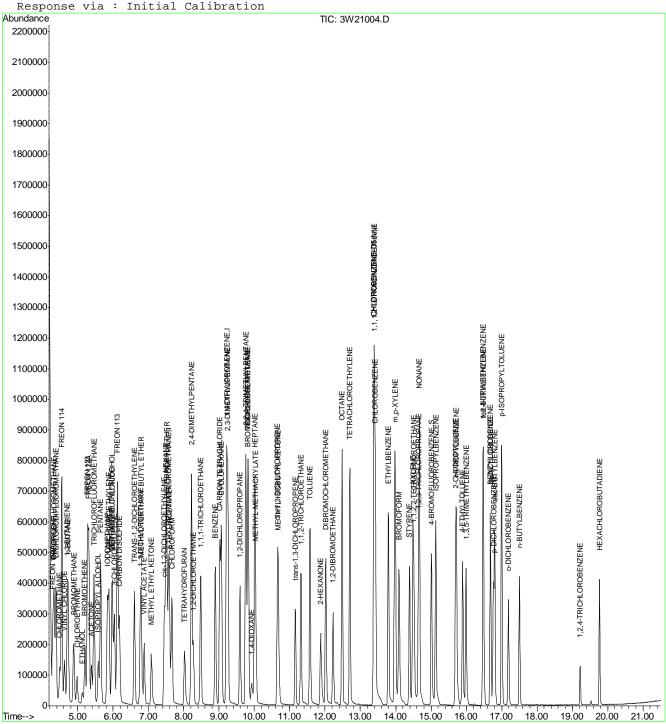
 Misc
 : MS8082,V3W829,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:59 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration



3W21004.D M3W821.M

Fri Feb 25 10:00:47 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\3W21005.D Vial: 3 Acq On : 25 Feb 2011 9:34 am Operator: yunxiac Inst : MS3W Sample : BSD
Misc : MS8082,V3W829,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 09:57:10 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standa				Response				n)
1) BROMOCHLOR	OMETHANE	7.57	128	174989 889273 424973 425518	10.00	PPBV	0.	00
45) 1,4-DIFLUO 62) CHLOROBENZ	ROBENZENE	9.21	114	889273	10.00	PPBV	0.0	00
62) CHLOROBENZ	ENE-D5	13.38	82	424973	10.00	PPBV	0.0	0 0
95) CHLOROBENZ	ENE-D5 (a)	13.38	82	425518	10.00	PPBV	0.0	00
System Monitori:	ng Compounds							
76) 4-BROMOFLU	OROBENZENE	15.01	95	247257	5.47	PPBV	0.0	0 0
76) 4-BROMOFLU Spiked Amount	5.000	Range 65	- 128	Recov	ery =	109.	40%	
Target Compound  3) FREON 152A  4) CHLORODIFL 5) DICHLORODI 6) PROPYLENE 7) FREON 114  8) CHLOROMETH 9) VINYL CHLO 10) 1,3-BUTADI 11) n-BUTANE 12) BROMOMETHA 13) CHLOROETHA 14) FREON 123 15) FREON 123A 16) TRICHLOROF 17) ISOPROPYL 18) ACETONE 19) PENTANE 21) IODOMETHAN 22) 1,1-DICHLO 23) CARBON DIS 24) ETHANOL 25) BROMOETHEN 26) METHYLENE 27) 3-CHLOROPR 28) FREON 113 29) TRANS-1,2-1 30) TERTIARY B 31) METHYL TER 32) TETRAHYDRO 33) HEXANE 34) VINYL ACET 35) 1,1-DICHLO 36) METHYL ETH 37) cis-1,2-DI 38) DIISOPROPY 39) ETHYL ACET 40) CHLOROFORM 41) 2,4-DIMETH 42) 1,1,1-TRIC 43) CARBON TET	S						Qvalue	e
3) FREON 152A		4.29	65	124288	8.77	PPBV	~	99
4) CHLORODIFL	UOROMETHANE	4.31	67	46816	9.05	PPBV	9	97
5) DICHLORODI	FLUOROMETHANE	4.38	85	476717	9.25	PPBV	1	0 (
6) PROPYLENE		4.33	41	181471	9.33	PPBV	9	99
7) FREON 114		4.54	85	554800	9.33	PPBV		96
8) CHLOROMETH	ANE	4.49	50	230204	10.51	PPBV		91
9) VINYL CHLO	RIDE	4.62	62	205283	9.77	PPBV		9 9
10) 1.3-BUTADI	ENE	4.70	54	161602	9.69	PPBV		96
11) n-BUTANE		4.73	43	352552	10.40	PPBV		9 8
12) BROMOMETHA	NE	4.88	94	201147	9.48	PPBV		90
13) CHLOROETHA	NE	4.98	64	112908	11.14	PPBV		90
14) FREON 123		5 27	83	452504	10 34	PPRV	,	90
15) FREON 123A		5 31	117	249711	9 89	PPRV		88
16) TRICHLOROF	LUOROMETHANE	5 46	101	485901	9 68	PPRV	1 (	nr
17) ISOPROPYL	AT.COHOT.	5 58	45	287993	10 08	PPRV		90
18) ACETONE	ILCOHOL	5 38	58	63355	9 17	DDBV		93
19) DENTANE		5 64	42	248666	10 67	DDRV		90
21) TODOMETHAN	F	5.01	142	575250	10.07	DDBM		ar
22) 1 1-DICHLO	L D∪ETHAT'EME	5 88	96	191553	9 24	DDBM		a z
22) CAPRON DIG	HITETDE	6 17	76	580679	9 45	DDBM		a s
23) CARDON DIS	OHFIDE	5 12	15	650075	0 12	LLDA		a
25) DDOMOETUEN	r	5.12	106	206107	9.13	DDDW		as
25) BROMOETHEN	GRI UD LUE.	5.21	2/	167/110	10 26	DDDM		a :
27) 2_CUI ODODD	ODENE	5.97	76	92446	10.20	DDDW	# -	フィ
27) 3-CHLOROPK	JP ENE	6 12	151	226702	9 65	DDDW	#	9
20) TREON 113	DICHIODOETHVIE	0.12 NE 6.60	131	207054	10 55	DDDM		04
29) IRANS-1,2-	UTCHLOROEIHILE. UTVI AICOHOI	NE 0.00	50 E0	207934	10.33	PPDV	-	01
30) IERIIAKI B	UIIL ALCUNUL ET	5.97 UF 6.70	72	333304	10.29	PPBV	-	9 : 0 :
21) MEIUIT IEK	IIAKI DUIIL EI.	0.79	73	5040Z0	0.54	PPDV	ш	ວ. ດເ
32) IEIKAHIDKU	FURAN	7.40	/ Z	222600	10 20	PPBV	# (	00
33) HEAANE	7 mm	7.49	0.0	322000	10.30	PPDV	ш :	2:
34) VINYL ACET.	ATE	6.88	63	34/40 24072E	10.25	PPBV	#	0 4
35) 1,1-DICHLO	KOEIHANE	7.00	7.0	240/33	10.97	PPDV	ш	7
30) METHYL ETH	IL VELONE	7.08	12	101025	10.01	LLRA	Ħ.	0 -
30) DITCORDOR	CHLOKOETHYLENE	7.45	9 b	191935	10.42	LLR.		9 3
30) DIISOPROPY	L ETHEK	7.52	45	483865	9.63	LLR.	ш.	96
39) ETHYL ACET	ATE	7.60	θ±	44310	9.78	LLRA.	# :	9:
40) CHLOROFORM		7.66	83	383272	10.68	PPBV		98
41) 2,4-DIMETH	YLPENTANE	8.22	57	404885	11.32	PPBV		98
42) 1,1,1-TRIC	HLOROETHANE	8.47	9.7	377837	10.69	PPBV		99
43) CARBON TET	RACHLORIDE	9.02	117	426270	10.88	PPBV	:	99

3W21005.D M3W821.M Fri Feb 25 10:00:48 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: Feb 25 09:57:10 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.27	 62	220479	12.60 PPBV	99
	BENZENE	8.89		551461	10.37 PPBV	
,	CYCLOHEXANE	9.06				
48)	2,3-DIMETHYLPENTANE	9.25	71	140585	10.49 PPBV	93
	TRICHLOROETHYLENE	9.83		241618	9.26 PPBV	97
50)	1,2-DICHLOROPROPANE		63	211227	9.26 PPBV 10.80 PPBV	99
51)	BROMODICHLOROMETHANE	9.81	83	392364 958816 90779 403818	10.68 PPBV	
52)	2,2,4-TRIMETHYLPENTANE	9.76	57	958816	10.55 PPBV	99
53)	1,4-DIOXANE	9.92	88	90779	9.79 PPBV	94
54)	HEPTANE	10.01		403818	10.91 PPBV	94
56)	METHYL METHACRYLATE	10.04	69	134156	9.60 PPBV 10.45 PPBV	# 13
,	METHYL ISOBUTYL KETONE	10.68	58	124609	10.45 PPBV	91
,	cis-1,3-DICHLOROPROPENE	10.65 11.58	75	304889 364058	12.13 PPBV	
,	TOLUENE			364058	10.67 PPBV	
60)	trans-1,3-DICHLOROPROPENE	11.16	75	242722 184406	13.11 PPBV	
	1,1,2-TRICHLOROETHANE	11.31		184406	11.86 PPBV	
,	2-HEXANONE	11.87		159877	10.52 PPBV	
	TETRACHLOROETHYLENE	12.70			8.66 PPBV	
	DIBROMOCHLOROMETHANE	12.02			10.24 PPBV	
,	1,2-DIBROMOETHANE	12.23		306911	11.19 PPBV	
	OCTANE	12.48		509701 260991 426316	10.72 PPBV	
	1,1,1,2-TETRACHLOROETHANE			260991	10.20 PPBV	
	CHLOROBENZENE	13.43		420310	9.90 PPBV 10.56 PPBV	
	ETHYLBENZENE	13.79 13.98		708928		
	m,p-XYLENE o-XYLENE	14.49		515406 243681	10.35 PPBV	
,	STYRENE	14.49	104	347218	10.35 PPBV 12.56 PPBV	
- ,	NONANE	14.67	43	747210 75000	12.30 PPBV	
	BROMOFORM	14.10		458980 329730 314402 227916 654442	10.21 PPBV	
	1,1,2,2-TETRACHLOROETHANE		83	314402	12.65 PPBV	
	1,2,3-TRICHLOROPROPANE	14.64	75	227916	11.82 PPBV	
,	ISOPROPYLBENZENE	15.14		654442	10.19 PPBV	
,	2-CHLOROTOLUENE	15.70		152386	10.32 PPBV	
	n-PROPYLBENZENE	15.73			9.40 PPBV	99
	4-ETHYLTOLUENE	15.90	105	481634		
83)	1,3,5-TRIMETHYLBENZENE	15.99	105	387025	9.36 PPBV	98
84)	tert-BUTYLBENZENE	16.47	134	89550	8.68 PPBV	97
85)	1,2,4-TRIMETHYLBENZENE	16.49	105	347431	9.84 PPBV	
86)	m-DICHLOROBENZENE	16.68	146	261943	11.86 PPBV	99
	BENZYL CHLORIDE	16.69	91	247574	10.45 PPBV	98
88)	p-DICHLOROBENZENE	16.77	146	244417	11.05 PPBV	99
89)	sec-BUTYLBENZENE	16.80			9.74 PPBV	
	p-ISOPROPYLTOLUENE	17.00 17.19	134	100492	9.01 PPBV 11.41 PPBV 9.58 PPBV 13.86 PPBV	99
,	o-DICHLOROBENZENE	17.19	146	217841	11.41 PPBV	99
	n-BUTYLBENZENE	17.51	134	78817	9.58 PPBV	# 90
93)	HEXACHLOROBUTADIENE	19.77	225	101237 53168	13.86 PPBV	98
94)	1,2,4-TRICHLOROBENZENE	19.22	180	53168	11.70 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21005.D M3W821.M Fri Feb 25 10:00:48 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W21005.D Vial: 3

 Acq On
 : 25 Feb 2011
 9:34 am
 Operator: yunxiac

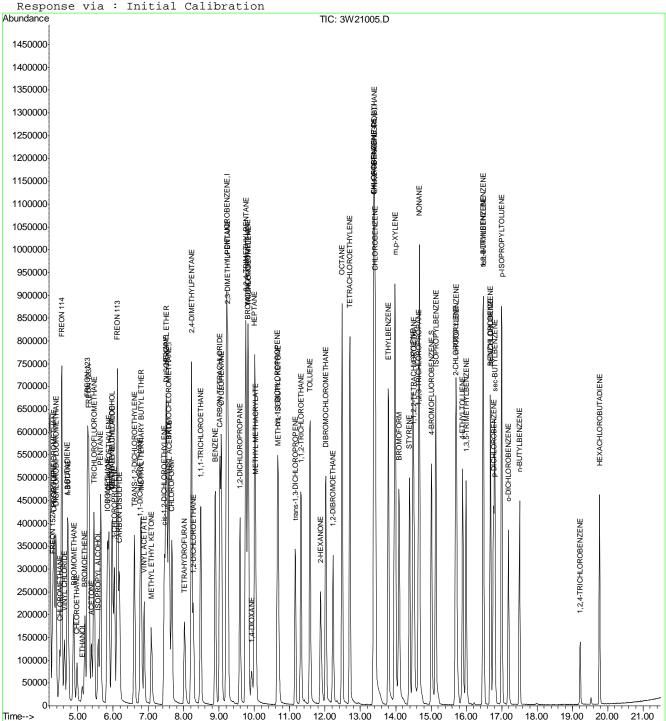
 Sample
 : BSD
 Inst
 : MS3W

 Misc
 : MS8082,V3W829,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:59 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011



3W21005.D M3W821.M

Fri Feb 25 10:00:49 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\W30127.D Vial: 3

 Acq On
 : 11 Feb 2011
 9:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst
 : MSW

 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:00 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

DataAcq Meth : T015W

Internal Standards			Response	Conc Ui	nits D	ev(Min)
1) BROMOCHLOROMETHANE	8.77	128	114937	10.00	PPBV	-0.05
46) 1,4-DIFLUOROBENZENE	10.46	114	537952	10.00	PPBV	-0.04
63) CHLOROBENZENE-D5	14.71	82	277727	10.00	PPBV	-0.02
96) Chlorobenzene-d5(a)	14.71	82	114937 537952 277727 276806	10.00	PPBV	-0.02
System Monitoring Compounds						
78) 4-BROMOFLUOROBENZENE	16.35					
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	101.2	10%
Target Compounds						Qvalue
3) FREON 152A	4.89		55009	8.49	PPBV	89
4) CHLORODIFLUOROMETHANE	4.93		58141	10.55	PPBV	98
5) DICHLORODIFLUOROMETHANE	5.02	85	475106 63802	9.68	PPBV	98
6) PROPYLENE	4.96	41	63802	9.33	PPBV	97
7) FREON 114	5.24	85	412959	9.37	PPBV	99
8) CHLOROMETHANE	5.16	52	23967	9.83	PPBV	# 71
9) VINYL CHLORIDE	5.33	62	99835	9.34	PPBV	99
10) 1,3-BUTADIENE	5.45	54	75727	9.06	PPBV	# 90
11) n-BUTANE	5.49	43	412959 23967 99835 75727 141754	8.89	PPBV	# 99
11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE	5.68	94	119118	9.62	PPBV	98
13) CHLOROETHANE	5.80	64	59084	10.02	PPBV	99
14) ACROLEIN	6.18	56	35824	10.10	PPBV	99
15) FREON 123	6.18	83	320379	10.25	PPBV	# 98
16) FREON 123A	6.22	117	248378	10.32	PPBV	98
17) TRICHLOROFLUOROMETHANE	6.40	101	565799	10.05	PPBV	100
18) ISOPROPYL ALCOHOL	6.52	45	141754 119118 59084 35824 320379 248378 565799 196491 44907 30849 620613m 429776 131760 325969	9.48	PPBV	97
19) ACETONE	6.29	58	44907	9.11	PPBV	# 90
20) PENTANE	6.66	57	30849	10.93	PPBV	# 90
21) TVHC as EQUIV PENTANE	6.66	TIC	620613m	11.23	PPBV	
22) IODOMETHANE	6.86	142	429776	11.53	PPBV	90
23) 1,1-DICHLOROETHYLENE	6.90	96	131760	10.11	PPBV	99
24) CARBON DISULFIDE		76	325969 35771	9.24	PPBV	96
25) ETHANOL	5.96	45	35771	9.16	PPBV	90
26) BROMOETHENE	6.08	106	139645	10.30	PPBV	97
27) METHYLENE CHLORIDE	6.99	84	139645 103627 56300	9.30	PPBV	93
28) 3-CHLOROPROPENE	7.08	76	56300 313264 141066	9.85	PPBV	# 74
29) FREON 113	7.19	151	313264	10.56	PPDM	92
30) TRANS-1,2-DICHLOROETHYLE		96 59	141000	9.30	DDD71	100
31) TERTIARY BUTYL ALCOHOL 32) METHYL TERTIARY BUTYL ET:		73	316251 457432	9.01	DDD71	94 97
	нь 7.96 9.27	73 72				
33) TETRAHYDROFURAN	9.27 8.77		54U8I 174017	9.26	PPBV	96 92
34) HEXANE 35) VINYL ACETATE	8.02	86	174217 33015 239624 51866	0.94	PPBV	# 80
35) VINIL ACEIALE		63	33013	9.45	PPBV	99
36) 1,1-DICHLOROETHANE 37) METHYL ETHYL KETONE	8.26	7.2	239024 E1066	9.07	PPBV	99
38) cis-1,2-DICHLOROETHYLENE	0.40	7.2	140011	0.00	PPBV	90
39) DI-ISOPROPYL ETHER	8.61 8.77	90 45	140011 140011	9.22	DDD11	99
40) ETHYL ACETATE	0.//	45 61	20682 200171	9.4U a na		# 73
41) CHLOROFORM	8.88	δ3 ΩT	140011 368121 29683 350557 214385	9.U9 0.00		# 73 98
41) CHLOROFORM 42) 2,4-DIMETHYLPENTANE	9.54	63 E7	330337 31430E	2.33 0.3 <i>c</i>		99
TA / A TOTHE THILDENTAND	9.54	5 /	Z14303	9.30	rrBV	99

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W30127.D MW1222.M Mon Feb 14 10:30:37 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30127.D Vial: 3

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:00 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,1,1-TRICHLOROETHANE	9.75	97	464320	9.61 PPBV	99
44)	CARBON TETRACHLORIDE	10.30	117	517233	9.52 PPBV	99
45)	1,2-DICHLOROETHANE	9.53	62	284896	10.08 PPBV	99
47)	BENZENE	10.17	78	384088	9.45 PPBV	
48)	CYCLOHEXANE	10.41	84	187095	9.11 PPBV	99
49)	2,3-DIMETHYLPENTANE	10.60	71	88929	9.69 PPBV	
50)	TRICHLOROETHYLENE	11.13	95	206800	9.77 PPBV	94
51)	1,2-DICHLOROPROPANE	10.91	63	114526	9.46 PPBV	
	BROMODICHLOROMETHANE	11.10	83	398765	9.98 PPBV	100
53)	2,2,4-TRIMETHYLPENTANE	11.14	57	583969	9.67 PPBV	
54)	1,4-DIOXANE	11.19	88	72356	8.29 PPBV	# 1
55)	METHYL METHACRYLATE	11.30	69	118492	9.03 PPBV	92
	HEPTANE	11.37	43	194176	9.54 PPBV	98
57)	TVHC as EQUIV HEPTANE	11.37	TIC	1151944m	10.41 PPBV	
58)	METHYL ISOBUTYL KETONE	12.00	43	231551	9.33 PPBV	96
59)	cis-1,3-DICHLOROPROPENE	11.94	75	239214	9.87 PPBV	92
60)	TOLUENE	12.91	92	308260	10.27 PPBV	98
61)	trans-1,3-DICHLOROPROPENE	12.45	75	230573	10.18 PPBV	91
62)	1,1,2-TRICHLOROETHANE	12.64	83	120959	9.73 PPBV	98
64)	2-HEXANONE	13.19	43	211487	9.27 PPBV	94
65)	TETRACHLOROETHYLENE	14.05	164	251949	11.11 PPBV	97
66)	DIBROMOCHLOROMETHANE	13.35	129	370447	10.73 PPBV	100
67)	1,2-DIBROMOETHANE	13.60	107	237080	10.58 PPBV	99
68)	OCTANE	13.86	43	260889	10.80 PPBV	99
69)	1,1,1,2-TETRACHLOROETHANE	14.74	131	287866	11.12 PPBV	# 99
	CHLOROBENZENE	14.76	112	409021	10.66 PPBV	97
71)	ETHYLBENZENE	15.14	91	679365	10.67 PPBV	98
72)	m,p-XYLENE	15.33	106	524133	22.40 PPBV	100
73)	O-XYLENE	15.85	106	243292	10.91 PPBV	99
74)	STYRENE	15.73	104	351625	11.36 PPBV	100
75)	1,2,3-TRICHLOROPROPANE	16.00	75	224600	10.27 PPBV	98
76)	NONANE	16.05	43	257527	12.39 PPBV	97
77)	BROMOFORM	15.45	173	336117	10.75 PPBV	98
79)	1,1,2,2-TETRACHLOROETHANE	15.86	83	235526	10.23 PPBV	99
80)	ISOPROPYLBENZENE	16.49	105	780397	11.01 PPBV	99
81)	2-CHLOROTOLUENE	17.02	126	167022	11.46 PPBV	# 98
82)	n-PROPYLBENZENE	17.06	120	195023	11.84 PPBV	88
83)	4-ETHYLTOLUENE	17.22	105	666295	11.75 PPBV	98
84)	1,3,5-TRIMETHYLBENZENE	17.30	105	582723	12.00 PPBV	99
85)	TERT-BUTYLBENZENE	17.76	134	142002	11.32 PPBV	97
86)	1,2,4-TRIMETHYLBENZENE	17.76	105	548682	11.64 PPBV	97
87)	m-DICHLOROBENZENE	17.94	146	313524	11.16 PPBV	98
88)	BENZYL CHLORIDE	17.92	91	333503	9.90 PPBV	98
89)	p-DICHLOROBENZENE	18.02	146	294125	11.06 PPBV	98
90)	SEC-BUTYLBENZENE	18.06	134	162989	11.19 PPBV	88
91)	p-ISOPROPYLTOLUENE	18.24			11.07 PPBV	99
92)	o-DICHLOROBENZENE	18.41	146	268122 110904	11.04 PPBV	98
	n-BUTYLBENZENE	18.72	134	110904	11.16 PPBV	88
94)	HEXACHLOROBUTADIENE	20.85	225	72003	9.47 PPBV	99

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W30127.D MW1222.M Mon Feb 14 10:30:38 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30127.D Vial: 3

 Acq On
 : 11 Feb 2011
 9:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst
 : MSW

 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:00 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue
----95) 1,2,4-TRICHLOROBENZENE 20.35 180 44840 10.62 PPBV 98

(#) = qualifier out of range (m) = manual integration (+) = signals summed W30127.D MW1222.M Mon Feb 14 10:30:38 2011 MSW

502 of 840
ACCUTEST

JA68565
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\W30127.D Vial: 3

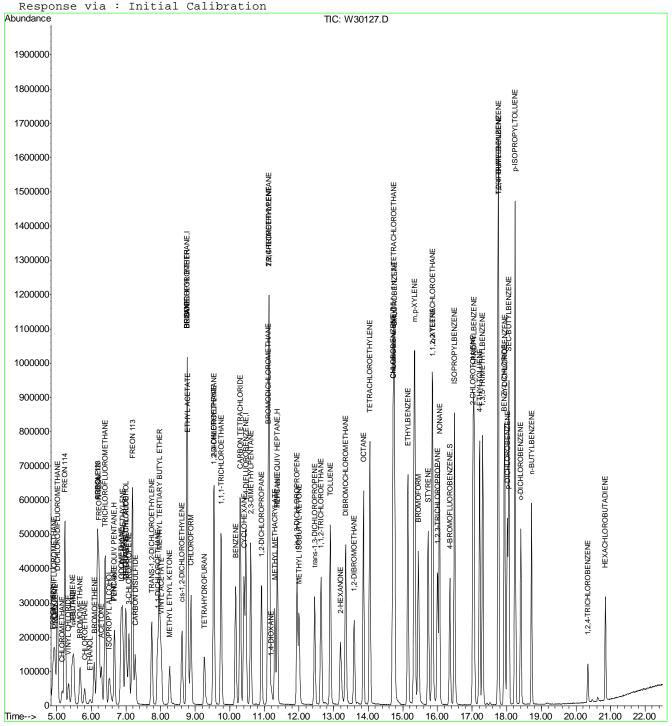
: 11 Feb 2011 9:52 am Operator: YOUMINH Acq On Sample : BS : MSW Misc : MS7890, VW1236, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011



W30127.D MW1222.M Mon Feb 14 10:30:39 2011



### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W30127.D Vial: 3

 Acq On
 : 11 Feb 2011
 9:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst
 : MSW

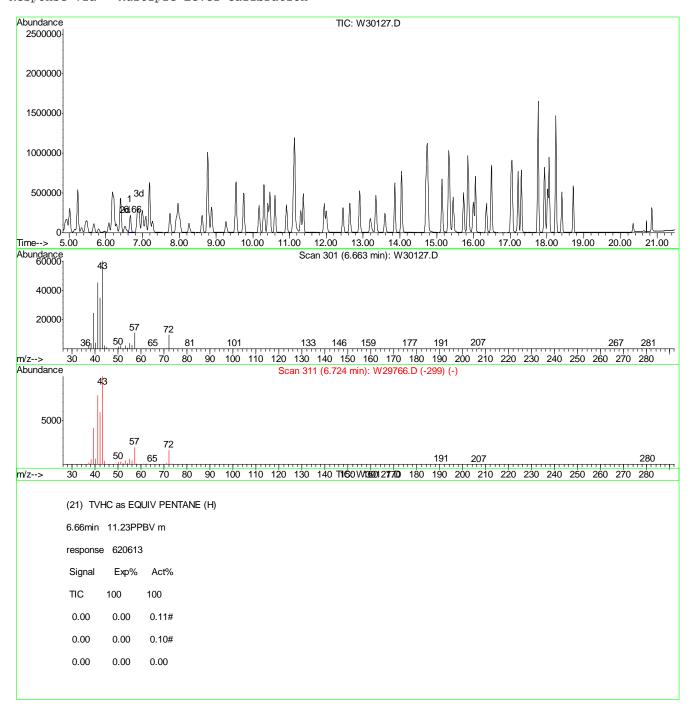
 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration



W30127.D MW1222.M

Mon Feb 14 10:30:46 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W30127.D Vial: 3

 Acq On
 : 11 Feb 2011
 9:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst
 : MSW

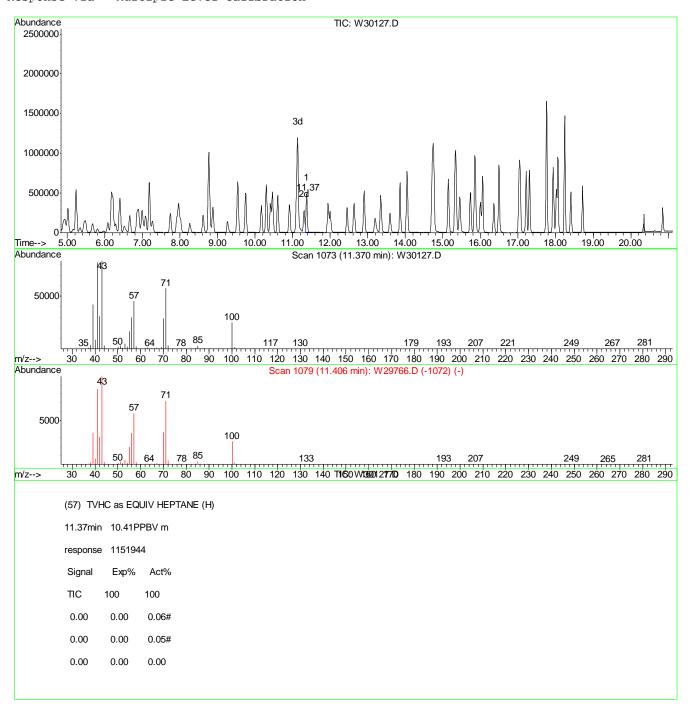
 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration



W30127.D MW1222.M

Mon Feb 14 10:30:49 2011



Data File : C:\MSDCHEM\1\DATA\W30128.D Vial: 3

Acq On : 11 Feb 2011 10:32 am Operator: YOUMINH Sample : BSD Inst : MSW Misc : MS7890,VW1236,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:06 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

5W

DataAcq 1	Meth :	T015
-----------	--------	------

Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	8 77	128	110772	10 00	PPRU	- – – - 7	-0.05
1) BROMOCHLOROMETHANE 46) 1,4-DIFLUOROBENZENE 63) CHLOROBENZENE-D5 96) Chlorobenzene-d5(a)	10.46	114	523327	10.00	PPBV	, 7	-0.04
63) CHLOROBENZENE - D5	14 71	82	277627	10.00	PPRV	, 7	-0.02
96) Chlorobenzene-d5(a)	14 71	82	277528	10.00	PPRV	, 7	-0.02
jo, chiologenzene aj(a)	11.71	02	277320	10.00	IIDV	,	0.02
System Monitoring Compounds 78) 4-BROMOFLUOROBENZENE							
78) 4-BROMOFLUOROBENZENE	16.35	95	157931	4.97	PPBV	7	-0.02
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	99.	. 409	5
Target Compounds						Q۲	<i>r</i> alue
3) FREON 152A	4.89	65	54927	8.80	PPBV	7	90
4) CHLORODIFLUOROMETHANE	4.93	67	58348	10.98	PPBV	7	98
5) DICHLORODIFLUOROMETHANE	5.02	85	487796	10.32	PPBV	7	99
6) PROPYLENE	4.96	41	66837	10.14	PPBV	7	100
7) FREON 114	5.24	85	418730	9.86	PPBV	7	98
8) CHLOROMETHANE	5.16	52	24520	10.44	PPBV	7 #	82
9) VINYL CHLORIDE	5.34	62	99385	9.64	PPBV	7	99
10) 1,3-BUTADIENE	5.45	54	77625	9.64	PPBV	7	91
11) n-BUTANE	5.49	43	145752	9.49	PPBV	7 #	98
12) BROMOMETHANE	5.68	94	121672	10.20	PPBV	7	99
13) CHLOROETHANE	5.80	64	60284	10.61	PPBV	7	98
14) ACROLEIN	6.18	56	35135	10.28	PPBV	7	98
15) FREON 123	6.18	83	324899	10.79	PPBV	7 #	98
16) FREON 123A	6.22	117	250060	10.78	PPBV	7	98
17) TRICHLOROFLUOROMETHANE	6.40	101	572336	10.55	PPBV	7	99
18) ISOPROPYL ALCOHOL	6.51	45	194892	9.76	PPBV	7	98
19) ACETONE	6.29	58	43595	9.18	PPBV	7 #	88
20) PENTANE	6.66	57	31016	11.41	PPBV	7 #	87
21) TVHC as EQUIV PENTANE	6.66	TIC	628721m	11.81	PPBV	7	
22) IODOMETHANE	6.86	142	432896	12.05	PPBV	7	90
23) 1,1-DICHLOROETHYLENE	6.90	96	134287	10.69	PPBV	7	99
24) CARBON DISULFIDE	7.27	76	326635	9.61	PPBV	7	96
25) ETHANOL	5.95	45	32830	8.72	PPBV	7	76
26) BROMOETHENE	6.08	106	139980	10.72	PPBV	7	97
27) METHYLENE CHLORIDE	6.99	84	104907	9.77	PPBV	7	94
28) 3-CHLOROPROPENE	7.08	76	55700	10.11	PPBV	7 #	74
29) FREON 113	7.18	151	310438	10.86	PPBV	7	94
30) TRANS-1,2-DICHLOROETHYLE	NE 7.74	96	140959	9.64	PPBV	7	100
31) TERTIARY BUTYL ALCOHOL	6.98	59	324884	9.61	PPBV	7	97
32) METHYL TERTIARY BUTYL ET	HE 7.96	73	447162	9.69	PPBV	7	97
33) TETRAHYDROFURAN	9.25	72	52338	9.30	PPBV	7	97
34) HEXANE	8.77	57	176905	9.40	PPBV	7	94
35) VINYL ACETATE	8.01	86	32288	9.59	PPBV	7 #	77
36) 1,1-DICHLOROETHANE	7.91	63	236293	9.89	PPBV	7	99
37) METHYL ETHYL KETONE	8.25	72	50350	8.93	PPBV	7	92
38) cis-1,2-DICHLOROETHYLENE	8.61	96	141627	9.68	PPBV	7	99
39) DI-ISOPROPYL ETHER	8.76	45	358373	9.30	PPBV	7	100
40) ETHYL ACETATE	8.79	61	29864	9.49	PPBV	7 #	81
41) CHLOROFORM	8.87	83	355167	9.81	PPBV	7	98
Target Compounds 3) FREON 152A 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) ACROLEIN 15) FREON 123 16) FREON 123 16) FREON 123A 17) TRICHLOROFLUOROMETHANE 18) ISOPROPYL ALCOHOL 19) ACETONE 20) PENTANE 21) TVHC as EQUIV PENTANE 22) IODOMETHANE 23) 1,1-DICHLOROETHYLENE 24) CARBON DISULFIDE 25) ETHANOL 26) BROMOETHENE 27) METHYLENE CHLORIDE 28) 3-CHLOROPROPENE 29) FREON 113 30) TRANS-1,2-DICHLOROETHYLE 31) TERTIARY BUTYL ALCOHOL 32) METHYL TERTIARY BUTYL ET 33) TETRAHYDROFURAN 34) HEXANE 35) VINYL ACETATE 36) 1,1-DICHLOROETHANE 37) METHYL ETHYL KETONE 38) Cis-1,2-DICHLOROETHYLENE 39) DI-ISOPROPYL ETHER 40) ETHYL ACETATE 41) CHLOROFORM 42) 2,4-DIMETHYLPENTANE	9.54	57	213748	9.68	PPBV	I	98



<sup>(#) =</sup> qualifier out of range (m) = manual integration W30128.D MW1222.M Mon Feb 14 10:30:54 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30128.D Vial: 3

Acq On : 11 Feb 2011 10:32 am Operator: YOUMINH : BSD Sample Inst : MSW Misc : MS7890,VW1236,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:06 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,1,1-TRICHLOROETHANE	9.75	97	468176	10.05 PPBV	98
	CARBON TETRACHLORIDE	10.30			10.03 PPBV	
	1,2-DICHLOROETHANE	9.52		289312	10.63 PPBV	
	BENZENE	10.16	78	289312 386969	9.79 PPBV	99
48)	CYCLOHEXANE	10.41	84	191978	9.61 PPBV	
49)	2,3-DIMETHYLPENTANE	10.60	71	191978 89233	9.99 PPBV	99
50)	TRICHLOROETHYLENE	11.13	95	208900	10.15 PPBV	
51)	1,2-DICHLOROPROPANE	10.91	63	113949	9.67 PPBV	93
52)	BROMODICHLOROMETHANE	11.10	83	404324	10.41 PPBV	100
53)	2,2,4-TRIMETHYLPENTANE	11.14	57	591673	10.07 PPBV	99
54)	1,4-DIOXANE	11.19	88	71731	O. TO FEDV	
55)	METHYL METHACRYLATE	11.30		111431	8.72 PPBV	
,	HEPTANE	11.37	43	193797		
	TVHC as EQUIV HEPTANE	11.37				
	METHYL ISOBUTYL KETONE	11.99	43	234068 240257	9.69 PPBV	
59)	cis-1,3-DICHLOROPROPENE	11.94			10.19 PPBV	
,	TOLUENE	12.90	92	301336 228439	10.32 PPBV	
	trans-1,3-DICHLOROPROPENE				10.37 PPBV	
	1,1,2-TRICHLOROETHANE	12.63		121457	10.05 PPBV	98
	2-HEXANONE	13.19			9.11 PPBV	
65)	TETRACHLOROETHYLENE	14.05		255817	11.28 PPBV	96
	DIBROMOCHLOROMETHANE	13.35	129	375021 240269	10.87 PPBV	
	1,2-DIBROMOETHANE	13.59			10.73 PPBV	
,	OCTANE	13.86	43	258473	10.71 PPBV	
	1,1,1,2-TETRACHLOROETHANE			288339		
70)	CHLOROBENZENE	14.75		408222	10.65 PPBV	
,	ETHYLBENZENE	15.14		671079	10.54 PPBV	
	m,p-XYLENE	15.33		517623	22.13 PPBV	
,	O-XYLENE	15.84	106	244329	10.96 PPBV	
	STYRENE	15.73		345965	11.19 PPBV	
,	1,2,3-TRICHLOROPROPANE	16.00		219034	10.02 PPBV	
	NONANE	16.05	43	253820	12.21 PPBV	
	BROMOFORM	15.45		341393	10.93 PPBV	
	1,1,2,2-TETRACHLOROETHANE	15.86		233307	10.14 PPBV	
	ISOPROPYLBENZENE	16.49		760082	10.73 PPBV	
	2-CHLOROTOLUENE	17.03	126 120	166947	11.46 PPBV	
,	n-PROPYLBENZENE	17.05			11.60 PPBV	
	4-ETHYLTOLUENE	17.22	105	653990	11.53 PPBV	
	1,3,5-TRIMETHYLBENZENE	17.30		567419	11.68 PPBV	
	TERT-BUTYLBENZENE	17.75			11.14 PPBV	
	1,2,4-TRIMETHYLBENZENE			544027	11.55 PPBV	
	m-DICHLOROBENZENE			309998	11.04 PPBV	
	BENZYL CHLORIDE	17.92	91	325866 289351	9.68 PPBV	
	p-DICHLOROBENZENE	18.01	146	289351	10.88 PPBV	99
	SEC-BUTYLBENZENE	18.06	134	155481	10.67 PPBV 10.81 PPBV	91
	p-ISOPROPYLTOLUENE	18.24	134	150513	10.81 PPBV	98
	O-DICHLOROBENZENE	10.40	T 4 0	202002	10.62 PPBV	90
	n-BUTYLBENZENE	18.72	134	107696 70669	10.85 PPBV	
94)	HEXACHLOROBUTADIENE	20.86	225	70669	9.30 PPBV	99



<sup>(#) =</sup> qualifier out of range (m) = manual integration W30128.D MW1222.M Mon Feb 14 10:30:55 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30128.D Vial: 3

Acq On : 11 Feb 2011 10:32 am Operator: YOUMINH Sample : BSD
Misc : MS7890,VW1236,,,,,1 : BSD Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:06 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) 1,2,4-TRICHLOROBENZENE	20.34	180	46763	11.08 PPBV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed W30128.D MW1222.M Mon Feb 14 10:30:55 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30128.D Vial: 3

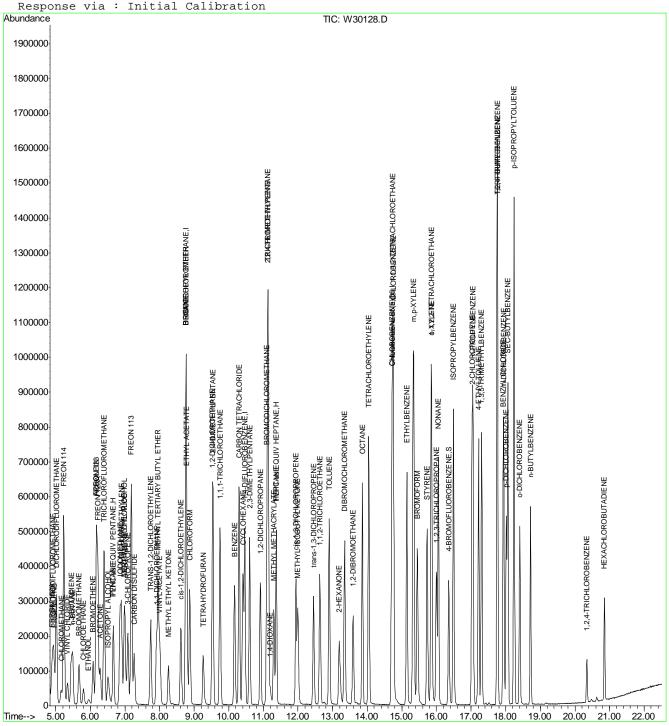
Acq On : 11 Feb 2011 10:32 am Operator: YOUMINH Sample : BSD Inst : MSW Misc : MS7890,VW1236,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: MW1222.RES

Last Update : Fri Jan 28 09:38:45 2011

Response via : Initial Calibration



W30128.D MW1222.M

Mon Feb 14 10:30:56 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W30128.D Vial: 3

 Acq On
 : 11 Feb 2011 10:32 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

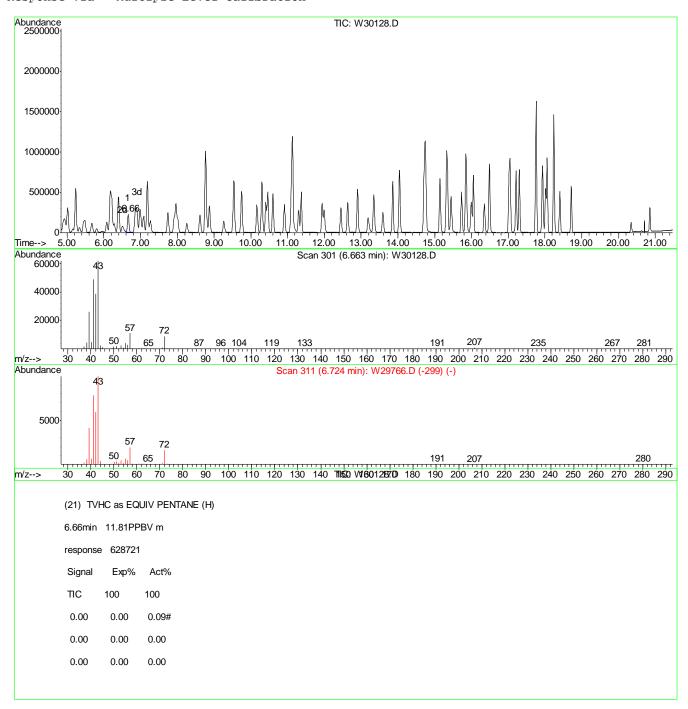
 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration



W30128.D MW1222.M

Mon Feb 14 10:31:01 2011



#### Quantitation Report (Qedit)

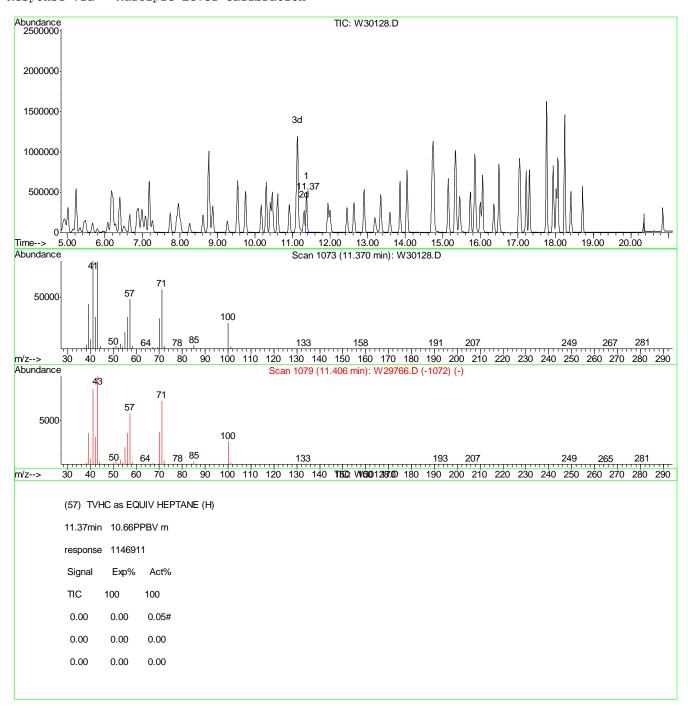
Data File : C:\MSDCHEM\1\DATA\W30128.D Vial: 3

MS Integration Params: rteint.p

Quant Time: Feb 14 10:03 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration



W30128.D MW1222.M

Mon Feb 14 10:31:05 2011



Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File: 2W29759.D
Acq On: 14 Feb 2011 8:18 am
Operator: YOUMINH

Sample : BS
Misc : MS8244, V2W1256, 400, , , , , 1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:47:18 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 R

Response	via	:	Initial	Calibration

	Compound	R.T.	QIon	Response	Conc Ur	nits I	Dev(Min)
Inter	rnal Standards						
	BROMOCHLOROMETHANE	7.301	128	241630	10.00	PPBV	0.0
44)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	9.154	114	1218655	10.00	PPBV	-0.0
61)	CHLOROBENZENE-D5	13.269	82	567859	10.00	PPBV	#-0.0
	CHLOROBENZENE-D5(A)	13.269	82	587909	10.00	PPBV	#-0.0
Syste	em Monitoring Compounds						
75)	4-BROMOFLUOROBENZENE	14.763	95	288526	4.85	PPBV	-0.01
Spi	ked Amount 5.000	Range 65	- 128	Recove	ry =	97.0	)0%
Targe	et Compounds						Ovalue
_	DICHLORODIFLUOROMETHANE	3.832	85	1069068	8.10	PPBV	99
	FREON 152A	3.741	65	256390	8.01	PPBV	92
5)	CHLORODIFLUOROMETHANE	3.765	67	105913		PPBV	99
6)	PROPYLENE	3.783	41	329526	8.91	PPBV	98
7)	FREON 114	3.997	85	1194229	8.06	PPBV	97
8)	CHLOROMETHANE	3.936	52	111529	8.71	PPBV	# 89
9)	VINYL CHLORIDE	4.070	62	414876	8.39	PPBV	100
10)	1,3-BUTADIENE	4.155	54	320287	8.90	PPBV	88
11)	n-BUTANE	4.186	43	627710	8.88	PPBV	# 94
	BROMOMETHANE	4.320	94	384969	8.57	PPBV	100
13)	CHLOROETHANE	4.423	64	230421	8.58	PPBV	97
14)	FREON 123	4.728	83	1013303	8.18	PPBV	# 75
15)	FREON 123A	4.759	117	576702	8.18	PPBV	86
16)	TRICHLOROFLUOROMETHANE	4.911	101	1062143	8.21	PPBV	99
17)	ISOPROPYL ALCOHOL	5.082	45	568659	8.63	PPBV	85
	ACETONE	4.923	58	142955	8.49	PPBV	# 62
19)	PENTANE	5.149	42	419455	8.54	PPBV	90
20)	TVHC as EQUIV PENTANE	5.149	TIC			PPBV	
21)	IODOMETHANE	5.301	142	969409	9.01	PPBV	100
22)	1,1-DICHLOROETHYLENE	5.350	96	406666	9.14	PPBV	88
	CARBON DISULFIDE	5.679	76	1018444	8.35		
	ETHANOL	4.625	45	109793	7.88	PPBV	99
25)	BROMOETHENE	4.643	106	383327	9.00	PPBV	99
		5.435	84	324331	8.66	PPBV	88
27)	METHYLENE CHLORIDE 3-CHLOROPROPENE	5.533	76	173797		PPBV	# 14
	FREON 113	5.649		657740		PPBV	94
	TRANS-1,2-DICHLOROETHY.		96	361476	8.67	PPBV	93
	TERTIARY BUTYL ALCOHOL		59	690688	8.38	PPBV	# 76
	METHYL TERTIARY BUTYL .		73	1137869	8.98		95
	TETRAHYDROFURAN	7.965	72	143974	8.26	PPBV	# 87
,	HEXANE	7.356	57	613446	8.34		90
	VINYL ACETATE	6.563	86	81087	10.92	PPBV	# 32
,	1,1-DICHLOROETHANE	6.393	63	725645	8.67		99
	METHYL ETHYL KETONE	6.899	72			PPBV	
,	cis-1,2-DICHLOROETHYLEN		96	137969 382355	9.67		90
	ETHYL ACETATE	7.459		85720		PPBV	
,	CHLOROFORM	7.423		827161			97
551							
40)	2,4-DIMETHYLPENTANE	8.197	ካ /	829739	8.22	PPRV	96

M2W1240.M Tue Mar 01 17:47:29 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29759.D

Acq On : 14 Feb 2011 8:18 am Operator : YOUMINH

Sample : BS
Misc : MS8244, V2W1256, 400, , , , , 1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:47:18 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc U	nits I	ev	(Min)
42)	CARBON TETRACHLORIDE	8.941	117	908122	8.30	PPBV		100
43)	1,2-DICHLOROETHANE	8.118	62	460019	10.12	PPBV		98
45)	BENZENE	8.801	78	1231842	9.15	PPBV		98
46)	CYCLOHEXANE	9.057	56	698235	8.34	PPBV	#	77
47)	2,3-DIMETHYLPENTANE	9.307	71	321538	8.14	PPBV		91
48)	TRICHLOROETHYLENE	9.813	95	470855	8.41	PPBV		93
49)	1,2-DICHLOROPROPANE	9.581	63	454175	9.70	PPBV		99
50)	BROMODICHLOROMETHANE	9.764	83	836490	9.65	PPBV		96
51)	2,2,4-TRIMETHYLPENTANE	9.867	57	2171752	8.28	PPBV		99
52)	1,4-DIOXANE	9.971	88	196819	10.05	PPBV	#	79
53)	METHYL METHACRYLATE	10.069	69	392104	9.35		#	27
54)	HEPTANE	10.130	43	734067 3552456m	9.38	PPBV		86
	TVHC as EQUIV HEPTANE	10.130	TIC	3552456m				
	METHYL ISOBUTYL KETONE	10.745	58	289236			#	85
	cis-1,3-DICHLOROPROPENE	10.648		583855				97
,	TOLUENE	11.587		842572	10.00			99
	trans-1,3-DICHLOROPROPENE	11.160	75 83	428955	10.67			97
	1,1,2-TRICHLOROETHANE	11.312	83	403152	10.25			97
	2-HEXANONE	11.922		305388	9.04		#	84
	TETRACHLOROETHYLENE	12.660		473213	8.95			99
	DIBROMOCHLOROMETHANE	11.971	129	757251 529515	9.86			99
,	1,2-DIBROMOETHANE	12.202	107					100
,	OCTANE	12.568	43	1007379 624710	10.21			85
	1,1,1,2-TETRACHLOROETHANE	13.300		624710	9.13	PPBV	#	1
	CHLOROBENZENE	13.312		900553 1689900	9.53	PPBV		95
,	ETHYLBENZENE	13.690	91	1689900	9.81	PPBV		98
	m,p-XYLENE	13.867				PPDV		95
	O-XYLENE	14.312	106	625824	9.83			95
	STYRENE	14.214		749301	10.74			97
,	NONANE	14.568		906950	10.83			90
	BROMOFORM	13.903		600456	9.71			99
	1,1,2,2-TETRACHLOROETHANE			806432 1836503	9.63	PPBV		99
	ISOPROPYLBENZENE	14.909		1836503	9.81			98
	2-CHLOROTOLUENE	15.379		374486 425734	9.88	PDD11	#	1 31
,	n-PROPYLBENZENE	15.427 15.580		1405530	10.64	PPDM	Ħ	31 97
,	4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE	15.580	105 105	1405530				97
	TERT-BUTYLBENZENE		134	1263967 310117	10.09			96 87
		16.061			10.37			99
	1,2,4-TRIMETHYLBENZENE m-DICHLOROBENZENE	16.067 16.202		1130607 469769	10.71			99
,	MENZYL CHLORIDE	16.202						99 97
	p-DICHLOROBENZENE	16.269		572655 459833	9.74			99
	SEC-BUTYLBENZENE	16.336	134	252070	0 00			89
	p-ISOPROPYLTOLUENE	16.500	134	308325	10.52			91
	o-DICHLOROBENZENE	16.610	146	458616	10.32			99
	n-BUTYLBENZENE	16.915	134	458616 202107	9.17			84
	HEXACHLOROBUTADIENE	18.732	225	219155	10.00			99
	1,2,4-TRICHLOROBENZENE			100389	7.99			84

M2W1240.M Tue Mar 01 17:47:29 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29759.D

Acq On : 14 Feb 2011 8:18 am Operator : YOUMINH

Sample : BS Misc : MS8244, V2W1256, 400, , , , , 1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:47:18 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Mar 01 17:47:29 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29759.D

Acq On : 14 Feb 2011 8:18 am

Operator : YOUMINH

Sample : BS

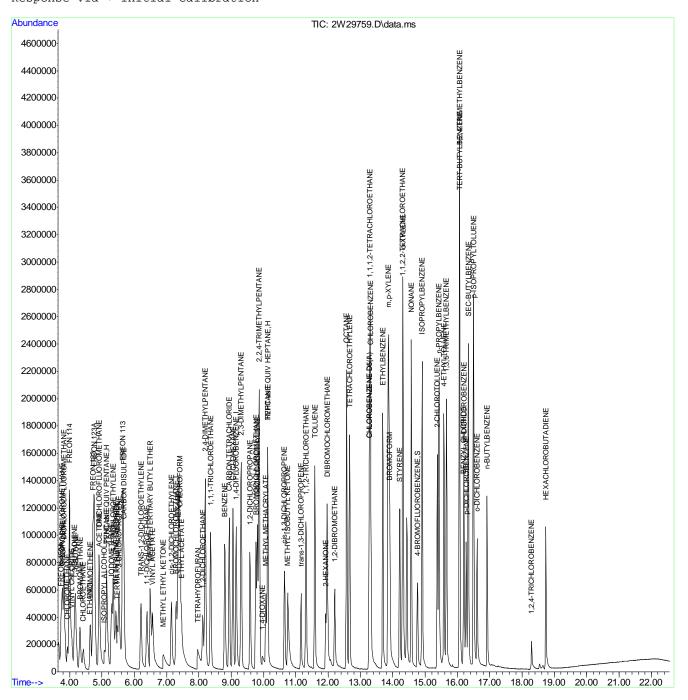
Misc : MS8244, V2W1256, 400, , , , , 1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:47:18 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Mar 01 17:47:30 2011 VOA-CLN-02



### Quantitation Report (Qedit)

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29759.D

Acq On : 14 Feb 2011 8:18 am

Operator : YOUMINH

Sample : BS

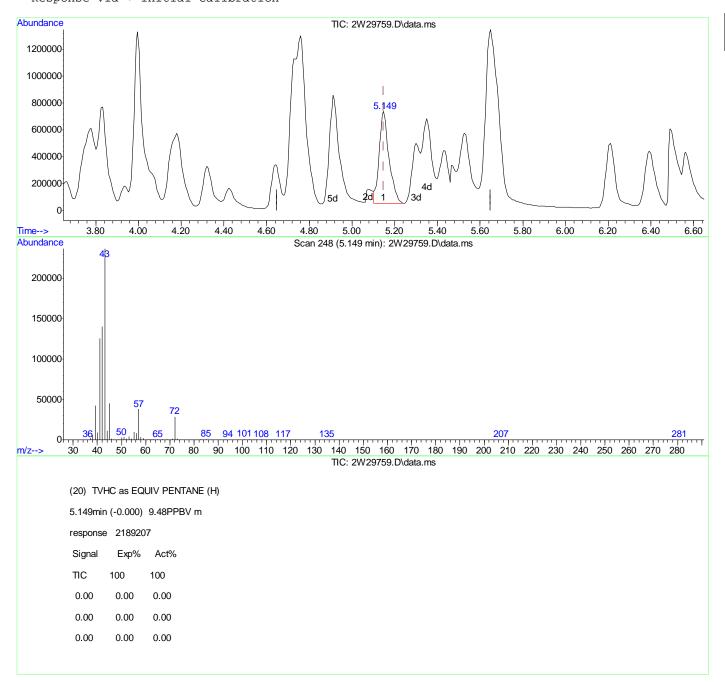
Misc : MS8244,V2W1256,400,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 14:38:36 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Mar 01 17:46:56 2011 VOA-CLN-02



```
Data Path : C:\msdchem\1\DATA\2w\v2w1256\
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Data File : 2W29759.D

Acq On : 14 Feb 2011 8:18 am

Operator : YOUMINH

: BS Sample

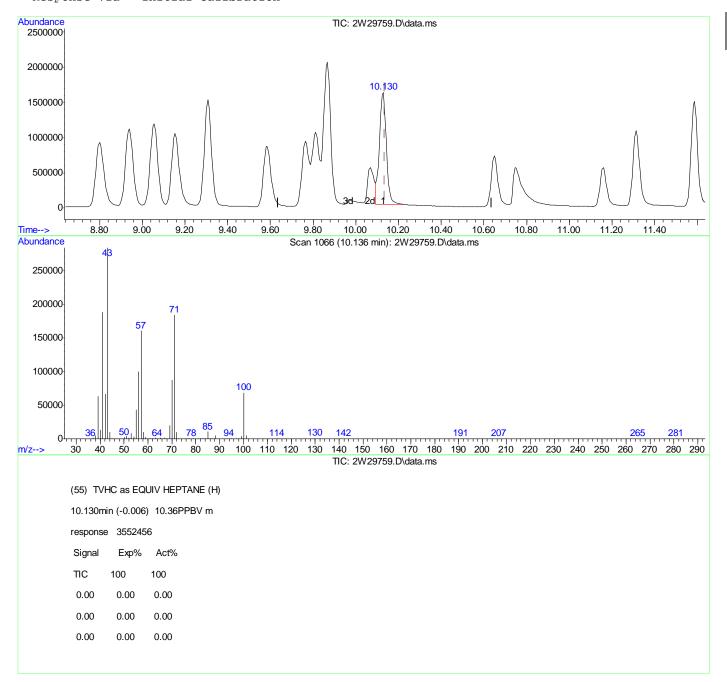
: MS8244, V2W1256, 400, , , , 1 Misc ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 14:38:36 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



517 of 840 ACCUTEST JA68565

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File: 2W29760.D
Acq On: 14 Feb 2011 8:56 am
Operator: YOUMINH

Sample : BSD Misc : MS8244, V2W1256, 400, , , , , 1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:49:03 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits I	ev(Min	ı)
Internal Standards							
1) BROMOCHLOROMETHANE	7.307	128	215667	10.00	PPBV	0.	.00
44) 1,4-DIFLUOROBENZENE	9.160	114	1127500	10.00	PPBV	0.	.00
61) CHLOROBENZENE-D5	13.275	82	532734	10.00	PPBV	# 0.	.00
1) BROMOCHLOROMETHANE 44) 1,4-DIFLUOROBENZENE 61) CHLOROBENZENE-D5 93) CHLOROBENZENE-D5(A)	13.275	82	554088	10.00	PPBV	0. 0. # 0. # 0.	.00
System Monitoring Compounds							
75) 4-BROMOFLUOROBENZENE	14.763	95	273760	4.91	PPBV	-0.0	)1
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	98.2	20%	
Target Compounds						Qvalue	=
3) DICHLORODIFLUOROMETHANE	3.832	85	1004826	8.53	PPBV	9	99
							€2
5) CHLORODIFLUOROMETHANE	3.765	67	98800	8.97	PPBV	9	99
6) PROPYLENE	3.783	41	294440	8.92	PPBV	9	98
7) FREON 114	3.990	85	1138517	8.60	PPBV	9	97
8) CHLOROMETHANE	3.936	52	99796	8.73	PPBV	# 8	39
9) VINYL CHLORIDE	4.070	62	380136	8.61	PPBV	10	0.0
10) 1,3-BUTADIENE	4.155	54	294664	9.18	PPBV	8	39
4) FREON 152A 5) CHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE	4.185	43	580407	9.20	PPBV	# 9	94
12) BROMOMETHANE	4.320	94	364941	9.10	PPBV	9	99
13) CHLOROETHANE	4.423	64	217422	9.07	PPBV	9	98
14) FREON 123	4.728	83	1002904	9.07	PPBV	# 7	75
15) FREON 123A	4.765	117	571093	9.08	PPBV	8	38
16) TRICHLOROFLUOROMETHANE	4.911	101	1030442	8.92	PPBV	9	99
17) ISOPROPYL ALCOHOL	5.100	45	560522	9.53	PPBV	9	€3
18) ACETONE	4.948	58	117993	7.85	PPBV	# 6	51
19) PENTANE	5.149	42	403267	9.20	PPBV	9	92
20) TVHC as EQUIV PENTANE	5.149	TIC	2025481m	9.83	PPBV		
21) IODOMETHANE	5.301	142	936387	9.75	PPBV	9	99
22) 1,1-DICHLOROETHYLENE	5.350	96	385632	9.71	PPBV	8	37
23) CARBON DISULFIDE	5.685	76	938142	8.62	PPBV	9	€2
24) ETHANOL	4.661	45	95349	7.67	PPBV	9	98
25) BROMOETHENE	4.643	106	365370	9.61	PPBV	9	99
26) METHYLENE CHLORIDE	5.435	84	302687	9.06	PPBV	9	90
15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 20) TVHC AS EQUIV PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHY. 30) TERTIARY BUTYL ALCOHOL	5.533	76	158354	9.91	PPBV	#	8
28) FREON 113	5.649	151	654428	9.23	PPBV	9	96
29) TRANS-1,2-DICHLOROETHY.	6.216	96	341240	9.17	PPBV	9	95
30) TERTIARY BUTYL ALCOHOL	5.496	59	708090	9.62	PPBV	# 7	78
31) METHYL TERTIARY BUTYL .	6.502	73	1122375	9.93	PPBV	9	96
32) TETRAHYDROFURAN	7.977	72	132279	8.50	PPBV	9	€3
33) HEXANE	7.362	57	579205	8.82	PPBV	9	91
34) VINYL ACETATE	6.581	86	72055	10.87	PPBV	# 4	18
35) 1,1-DICHLOROETHANE	6.392	63	688850	9.22	PPBV	9	99
36) METHYL ETHYL KETONE	6.917	72	117318	8.49	PPBV	# 5	
37) cis-1,2-DICHLOROETHYLEN	E 7.154	96	353253	10.01	PPBV	. 9	91
38) ETHYL ACETATE	7.471	61	77214	8.37	PPBV	# 8	
39) CHLOROFORM	7.429	83	789918	9.89	PPBV	" 9	
29) TRANS-1,2-DICHLOROETHY. 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL . 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLEN 38) ETHYL ACETATE 39) CHLOROFORM 40) 2,4-DIMETHYLPENTANE 41) 1,1,1-TRICHLOROETHANE	8.197	57	791369	8.78	PPBV	ç	96
41) 1.1.1-TRICHLOROETHANE	8.368	97	881551	9.18	PPBV	c	98
11, 1,1,1 INTERDOCOUTHAND	0.300	<i>J</i> ,	301331	2.10	V		, 0

M2W1240.M Tue Mar 01 17:49:12 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29760.D

Acq On : 14 Feb 2011 8:56 am Operator : YOUMINH

Sample

: BSD : MS8244, V2W1256, 400, , , , 1 Misc ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:49:03 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ui	nits	Dev	(Min)
42) CARBON TETRACHLORIDE	8.941	117	877386	8.99	PPBV	,	100
43) 1,2-DICHLOROETHANE	8.124	62	421757	10.40	PPBV	,	98
45) BENZENE	8.807	78	1176901	9.45	PPBV	,	98
46) CYCLOHEXANE	9.056	56	662613	8.56	PPBV	#	78
47) 2,3-DIMETHYLPENTANE	9.313	71	310183	8.48	PPBV	r	91
48) TRICHLOROETHYLENE	9.819	95	444873	8.58	PPBV	r	94
49) 1,2-DICHLOROPROPANE	9.587	63	427058	9.86	PPBV	r	99
50) BROMODICHLOROMETHANE	9.770	83	846492	10.55	PPBV	r	99
51) 2,2,4-TRIMETHYLPENTANE	9.873	57	2085301	8.59	PPBV	,	99
52) 1,4-DIOXANE	9.995	88	192506	10.63	PPBV	#	87
53) METHYL METHACRYLATE	10.075	69	364135	9.38	PPBV	#	24
54) HEPTANE	10.129	43	700165	9.67	PPBV	,	87
55) TVHC as EQUIV HEPTANE	10.129	TIC	3593540m	11.32	PPBV	,	
56) METHYL ISOBUTYL KETONE	10.763	58	275532	9.05	PPBV	#	87
57) cis-1,3-DICHLOROPROPENE	10.654	75	546655	10.02	PPBV	,	96
58) TOLUENE	11.586	92	820178	10.52	PPBV	,	99
59) trans-1,3-DICHLOROPROPENE	11.166	75	401461	10.79	PPBV	,	95
60) 1,1,2-TRICHLOROETHANE	11.318	83	387781	10.65	PPBV	,	97
62) 2-HEXANONE	11.934	58	276129	8.71	PPBV	,	86
63) TETRACHLOROETHYLENE	12.666	164	480044	9.67	PPBV	,	99
64) DIBROMOCHLOROMETHANE	11.977	129	749707	10.41	PPBV	,	100
65) 1,2-DIBROMOETHANE	12.208	107	510518	10.28	PPBV	,	100
66) OCTANE	12.574	43	950032	10.26	PPBV	,	87
67) 1,1,1,2-TETRACHLOROETHANE	13.300	131	615706	9.59	PPBV	#	1
68) CHLOROBENZENE	13.318	112	887886	10.02	PPBV	,	96
69) ETHYLBENZENE	13.690	91	1658937	10.27	PPBV	,	99
70) m,p-XYLENE	13.873	106	1274554	21.16	PPBV	,	98
71) o-XYLENE	14.318	106	630084	10.55	PPBV	,	97
72) STYRENE	14.214	104	722603	11.04	PPBV	,	98
73) NONANE	14.574	43	880882	11.22	PPBV	,	91
74) BROMOFORM	13.909	173	599463	10.33	PPBV	,	99
76) 1,1,2,2-TETRACHLOROETHANE	14.312	83	790491	10.06	PPBV	r	99
77) ISOPROPYLBENZENE	14.909		1853690	10.55	PPBV	r	98
78) 2-CHLOROTOLUENE	15.378	126	376713	10.59	PPBV	#	1
79) n-PROPYLBENZENE	15.433	120	425232	10.62	PPBV	#	34
80) 4-ETHYLTOLUENE	15.580	105	1399462	11.29			98
81) 1,3,5-TRIMETHYLBENZENE	15.665	105	1286182	10.94	PPBV	,	98
82) TERT-BUTYLBENZENE	16.061	134	316047	11.26	PPBV	,	88
83) 1,2,4-TRIMETHYLBENZENE	16.067	105	1128787	11.39			98
84) m-DICHLOROBENZENE	16.208	146	470915	10.69			99
85) BENZYL CHLORIDE	16.195	91	559358	10.86			97
86) p-DICHLOROBENZENE	16.275		446679	10.08			100
87) SEC-BUTYLBENZENE	16.336		353841	10.59			90
88) p-ISOPROPYLTOLUENE	16.500		297833	10.83			91
89) o-DICHLOROBENZENE	16.610		443441	10.47			99
90) n-BUTYLBENZENE	16.921			9.71			86
91) HEXACHLOROBUTADIENE	18.731		221005	10.75			99
92) 1,2,4-TRICHLOROBENZENE	18.299	180	100935	8.56	PPBV	,	85

M2W1240.M Tue Mar 01 17:49:12 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29760.D

Acq On : 14 Feb 2011 8:56 am Operator : YOUMINH

Sample : BSD Misc : MS8244, V2W1256, 400, , , , , 1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:49:03 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Mar 01 17:49:12 2011 VOA-CLN-02

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29760.D

Acq On : 14 Feb 2011 8:56 am

Operator : YOUMINH

Sample : BSD

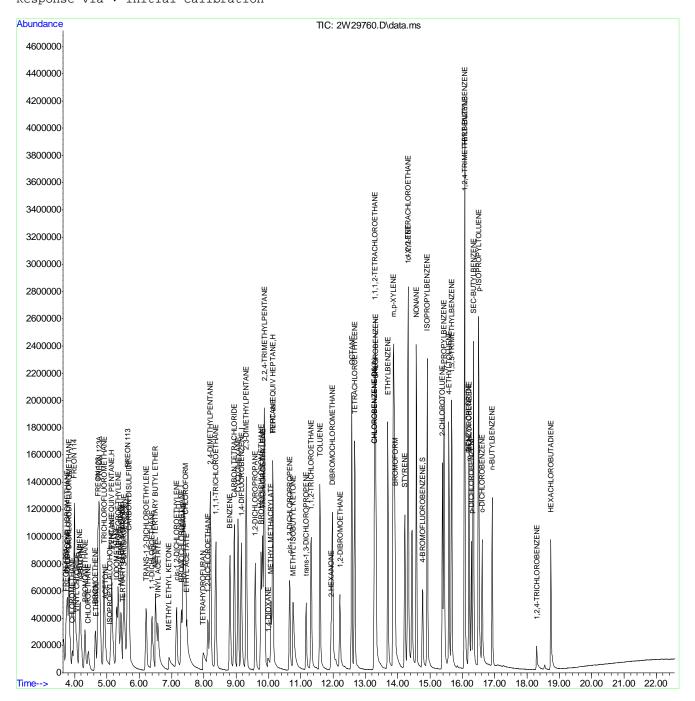
Misc : MS8244, V2W1256, 400, , , , , 1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 17:49:03 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Mar 01 17:49:13 2011 VOA-CLN-02

521 of 840
ACCUTEST

JA68565
LABORATORIES

#### Quantitation Report (Qedit)

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29760.D

Acq On : 14 Feb 2011 8:56 am

Operator : YOUMINH

Sample : BSD

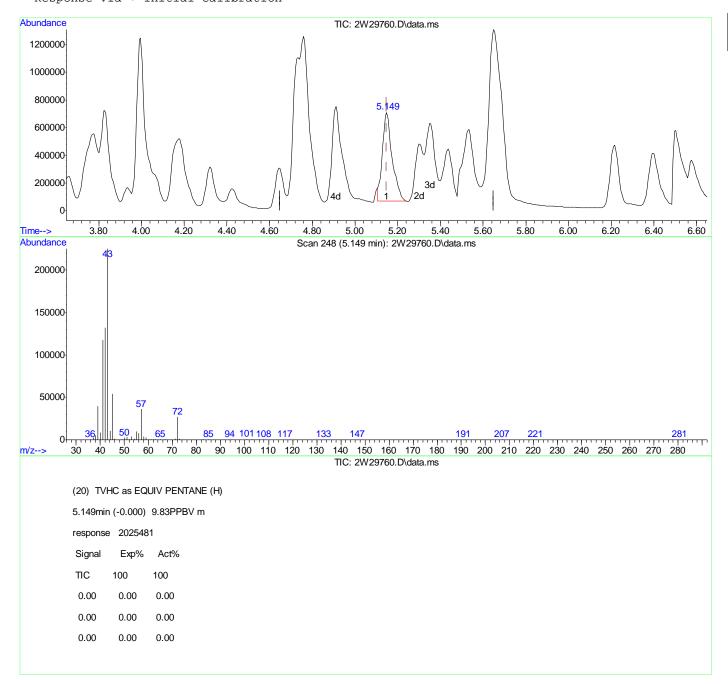
Misc : MS8244,V2W1256,400,,,,1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 14:38:45 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Mar 01 17:48:05 2011 VOA-CLN-02

522 of 840

ACCUTEST

JA68565

LABORATORIES

#### Quantitation Report (Qedit)

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29760.D

Acq On : 14 Feb 2011 8:56 am

Operator : YOUMINH

: BSD Sample

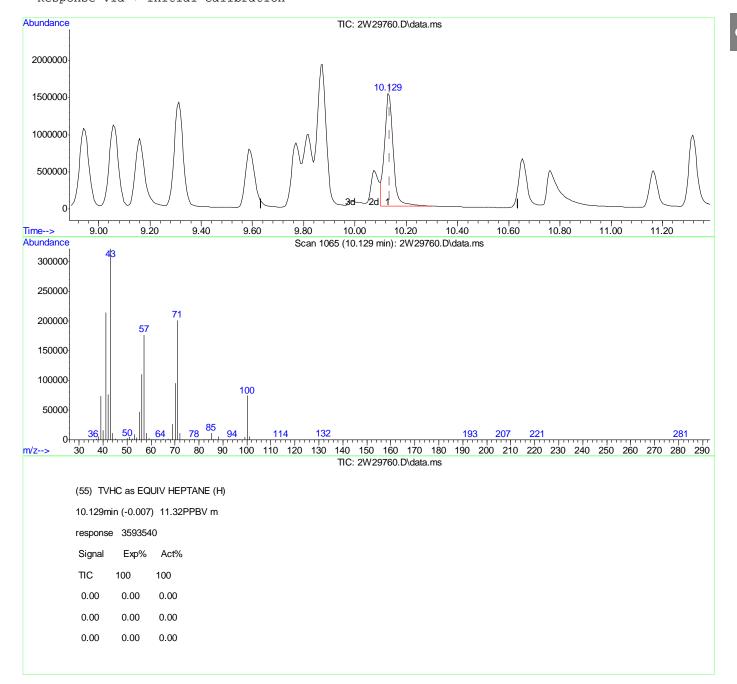
: MS8244, V2W1256, 400, , , , 1 Misc ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 01 14:38:45 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration





MS Integration Params: rteint.p

Quant Time: Feb 25 08:10:50 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits D	ev(Mi	n)
1) BROMOCHLOROMETHANE	7.56	128	151964	10.00	PPBV	0.	00
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE	9.20	114	737257	10.00	PPBV	-0.	01
62) CHLOROBENZENE-D5	13.37	82	344917	10.00	PPBV	-0.	01
95) CHLOROBENZENE-D5 (a)	13.37	82	344917	10.00	PPBV	-0.	01
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	205877	5.61	PPBV	-0.	01
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	112.2	0%	
Target Compounds						Qvalu	.e
5) DICHLORODIFLUOROMETHANE	4.38	85	19584	0.44	PPBV		99
6) PROPYLENE	4.34	41	9242	0.55	PPBV	#	79
11) n-BUTANE	4.73	43	12626	0.43	PPBV	#	92
16) TRICHLOROFLUOROMETHANE			4621	0.11	PPBV		92
	5.58		87639		PPBV		89
	5.35		292920	48.80	PPBV	#	89
23) CARBON DISULFIDE					PPBV		95
24) ETHANOL	5.11		131815				99
28) FREON 113	6.11		30365				95
30) TERTIARY BUTYL ALCOHOL			5564				69
33) HEXANE			3481		PPBV		74
36) METHYL ETHYL KETONE					PPBV		73
39) ETHYL ACETATE			10635		PPBV		89
46) BENZENE	8.88	78	4518		PPBV		94
49) TRICHLOROETHYLENE	9.81				PPBV		96
54) HEPTANE	9.99		3409		PPBV		83
· ·	11.56				PPBV		99
64) TETRACHLOROETHYLENE			3023		PPBV		95
71) m,p-XYLENE	13.96		6105		PPBV		97
72) o-XYLENE	14.47	106	3880	0.20	PPBV		97
85) 1,2,4-TRIMETHYLBENZENE		105	5519	0.19	PPBV	#	29
88) p-DICHLOROBENZENE	16.75	146	5614	0.31	PPBV		98

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20986.D M3W821.M Fri Feb 25 10:20:20:2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20986.D Vial: 4

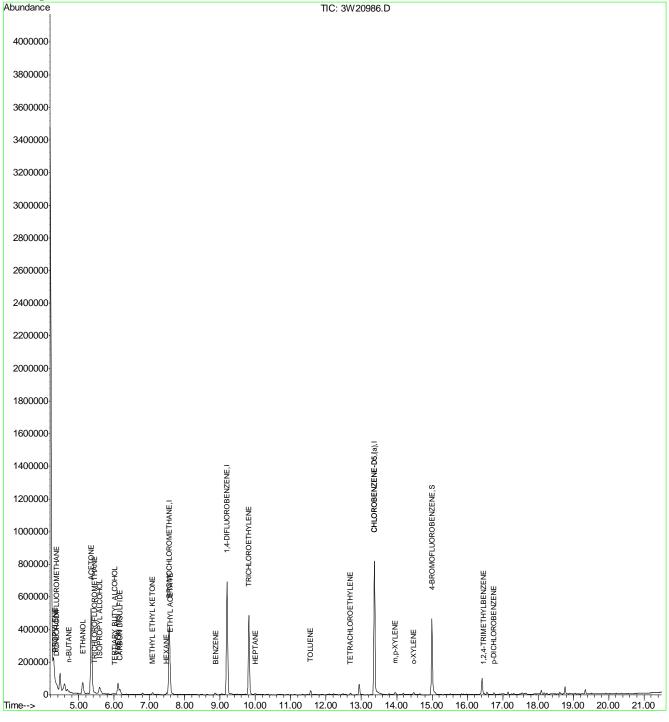
: 24 Feb 2011 Operator: yunxiac Acq On 6:57 pm Sample : ja68565-4dup : MS3W Misc : MS8536, V3W828, 100, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:08 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

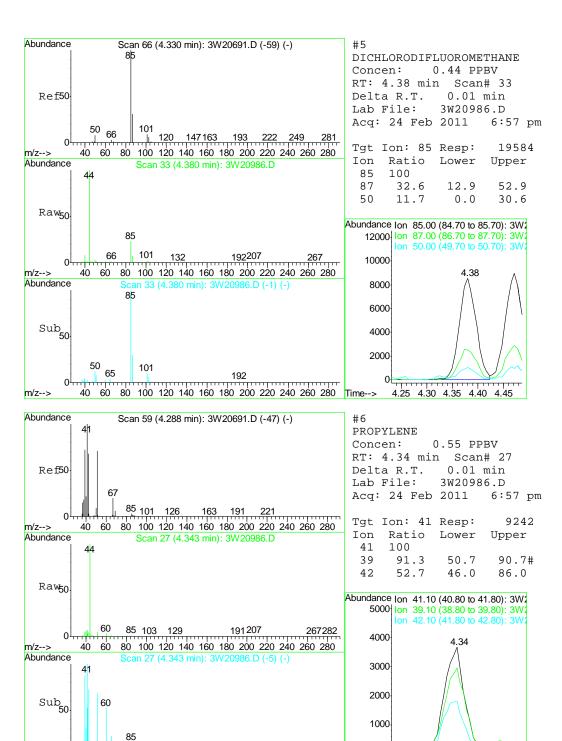


3W20986.D M3W821.M

Fri Feb 25 10:20:20 2011

MS3W





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ACCUTEST

JA68565
LABORATORIES

Page 3

m/z-->

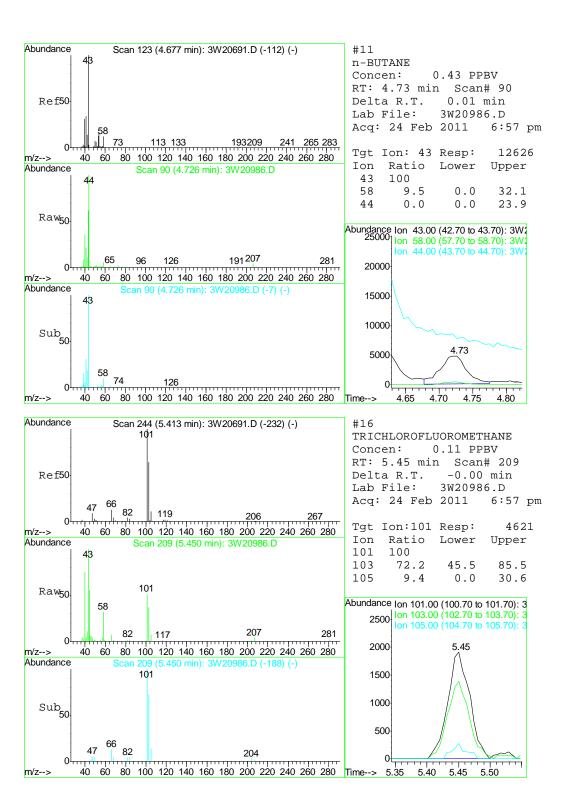
80 100 120 140 160 180 200 220 240 260 280 | Time-->

282

4.25 4.30 4.35 4.40

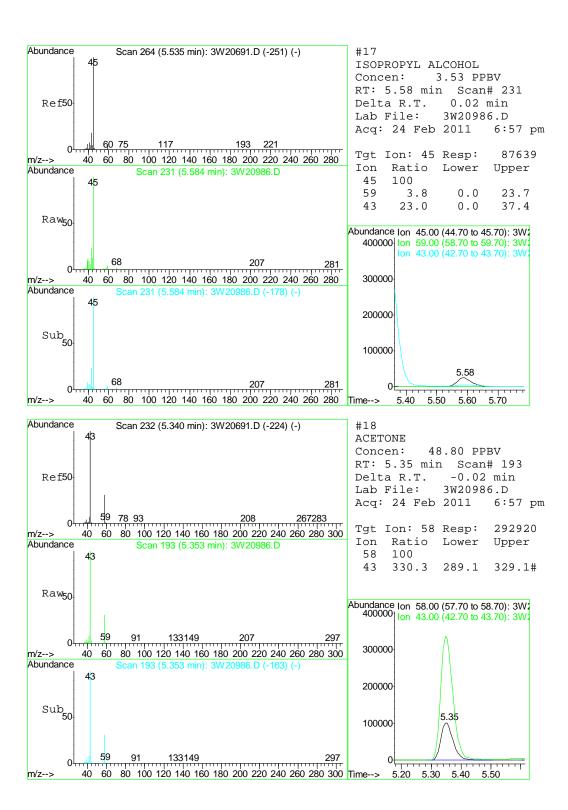
103

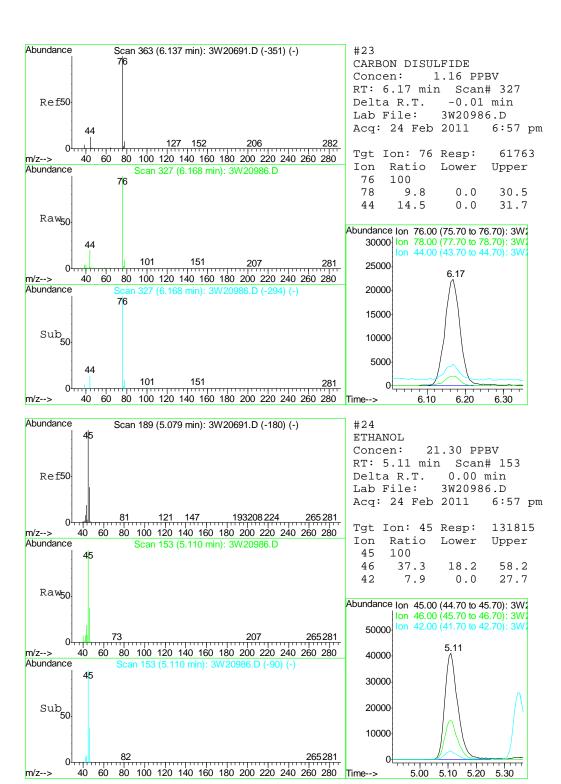
133

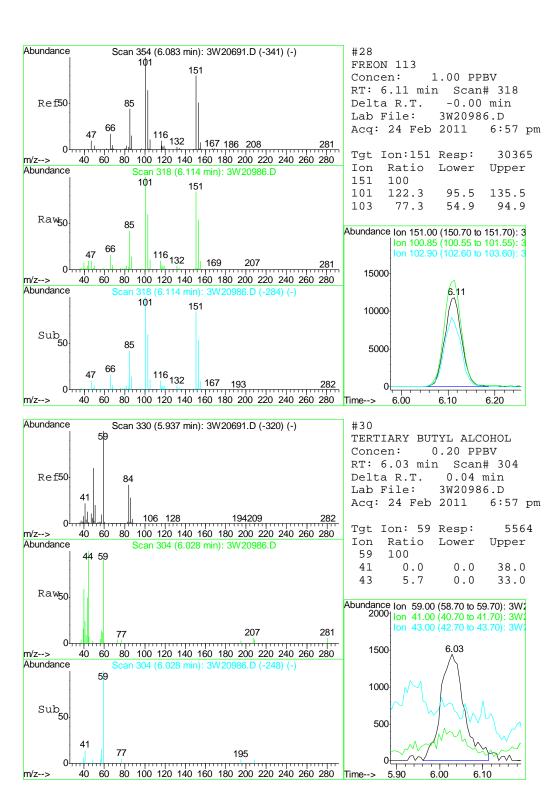


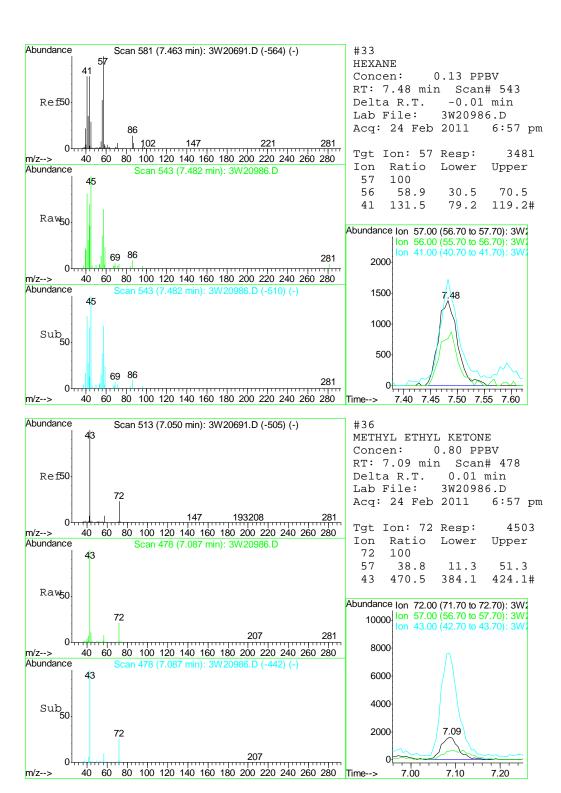
527 of 840
ACCUTEST.

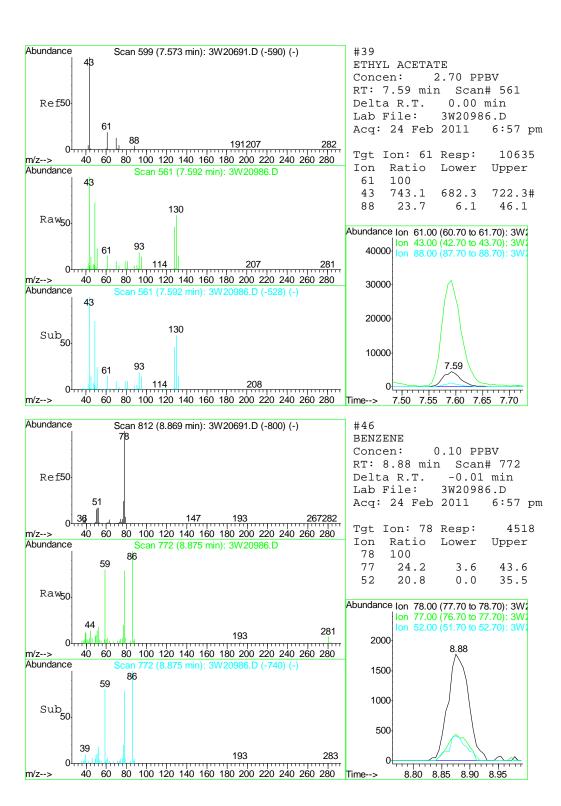
JA68565





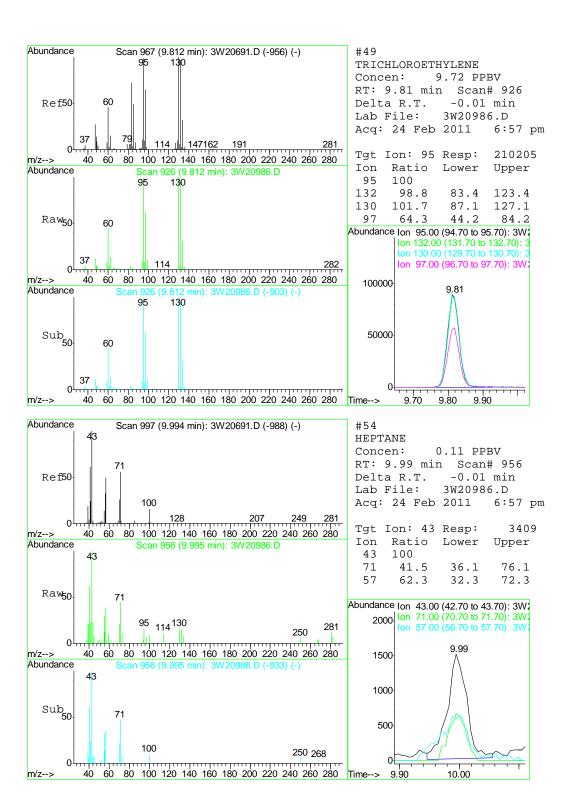


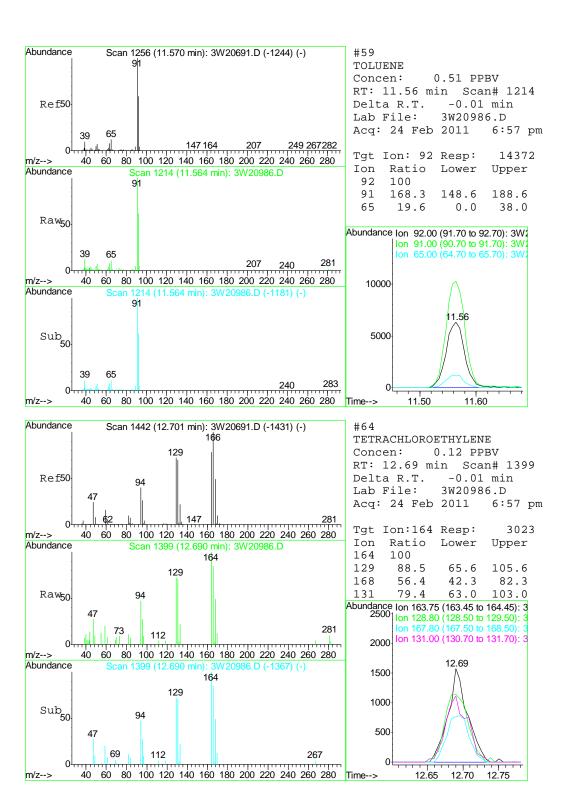




532 of 840
ACCUTEST.

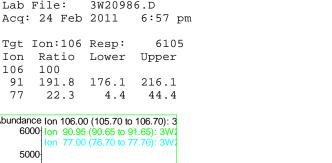
JA68565

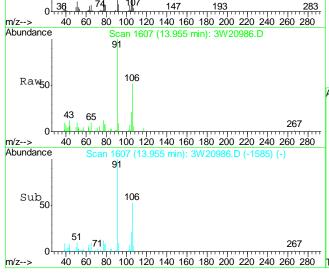




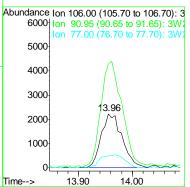
Abundance

Ref50





Scan 1652 (13.979 min): 3W20691.D (-1641) (-)



0.30 PPBV

-0.02 min

RT: 13.96 min Scan# 1607

#71

106

91

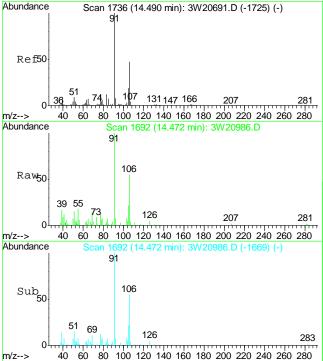
77

o-XYLENE

m,p-XYLENE

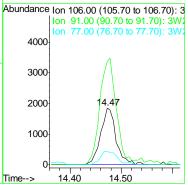
Delta R.T.

Concen:



0.20 PPBV Concen: RT: 14.47 min Scan# 1692 -0.01 min Delta R.T. Lab File: 3W20986.D Acq: 24 Feb 2011 6:57 pm

Tgt Ion:106 Resp: 3880 Ion Ratio Lower Upper 106 100 91 202.8 186.8 226.8 77 26.7 3.9 43.9

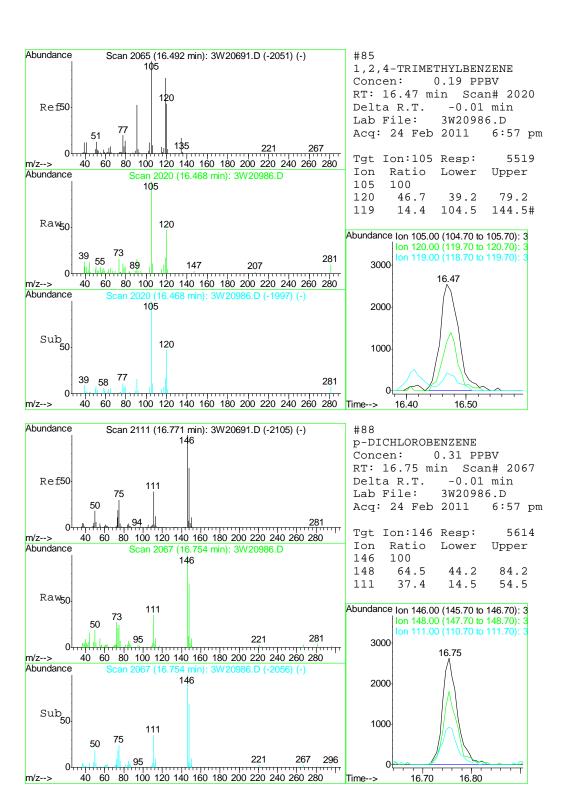


3W20986.D M3W821.M

Fri Feb 25 10:20:22 2011

MS3W





Data File : C:\MSDCHEM\1\DATA\3W21018.D Vial: 1 Acq On : 25 Feb 2011 7:00 pm Operator: yunxiac Inst : MS3W Sample : JA68864-8dup : MS8680, V3W829, 400, , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 28 08:22:31 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc U	nits D	)ev	(Min)
1) BROMOCHLOROMETHANE			138124				0.00
45) 1,4-DIFLUOROBENZENE	9.21	114	663274	10.00	PPBV		0.00
62) CHLOROBENZENE-D5	13.37	82	302375	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	301458	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	163392	5.08	PPBV		0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	101.6	0%	
Target Compounds							alue
5) DICHLORODIFLUOROMETHANE			19145	0.47	PPBV		98
6) PROPYLENE	4.34		14303		PPBV		
8) CHLOROMETHANE	4.49	50	8346		PPBV		
11) n-BUTANE	4.73	43	70015	2.62	PPBV		
16) TRICHLOROFLUOROMETHANE		101	10719	0.27	PPBV		97
17) ISOPROPYL ALCOHOL	5.69	45	18644m	0.83	PPBV		
18) ACETONE	5.40		27034	4.95	PPBV	#	81
19) PENTANE	5.65		40892				
24) ETHANOL	5.16				PPBV		
	5.97		3505		PPBV		
32) TETRAHYDROFURAN	8.13		1710		PPBV		
33) HEXANE	7.49	57	23899	0.97	PPBV		
36) METHYL ETHYL KETONE	7.11	72	4153 55893 25152	0.81	PPBV		
39) ETHYL ACETATE	7.60	61	55893	15.63			86
46) BENZENE	8.89	78	25152				97
47) CYCLOHEXANE	9.06	56	6288		PPBV		84
52) 2,2,4-TRIMETHYLPENTANE	9.76	57	36524		PPBV		79
54) HEPTANE	10.01		10274	0.37	PPBV		
59) TOLUENE	11.57		61357		PPBV		
67) OCTANE	12.48		7409	0.22	PPBV		86
70) ETHYLBENZENE	13.79	91	11112	0.23	PPBV		97
71) m,p-XYLENE	13.97		14348	0.81	PPBV		98
72) o-XYLENE	14.48	106	5144	0.31	PPBV		95
74) NONANE	14.67	4.3	46⊥8	0.17	PPBV	#	87
82) 4-ETHYLTOLUENE	15.89	105	3569m	0.10	PPBV		
83) 1,3,5-TRIMETHYLBENZENE	15.99	105	3744	0.13	PPBV		96
85) 1,2,4-TRIMETHYLBENZENE	16.47	105	10799	0.43	PPBV	#	28

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21018.D M3W821.M Mon Feb 28 12:22:03 2011 MS3W



Vial: 1

Data File : C:\MSDCHEM\1\DATA\3W21018.D

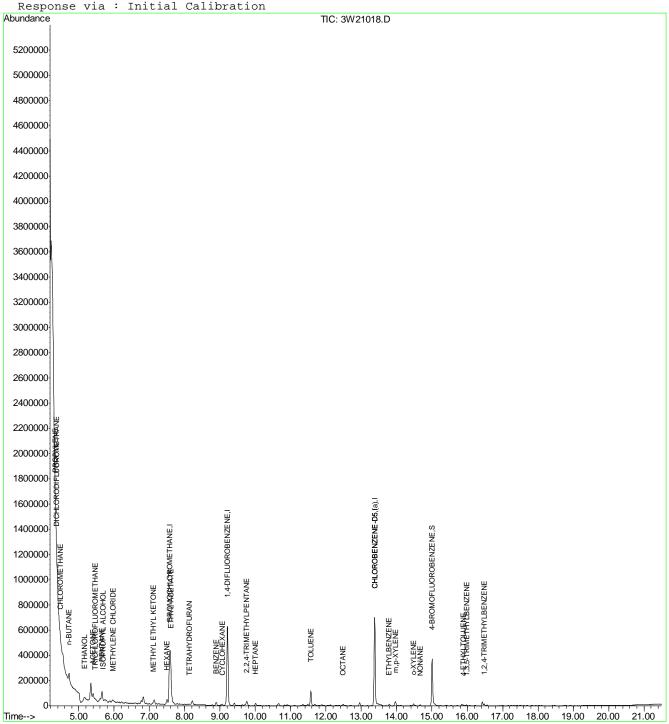
: 25 Feb 2011 Operator: yunxiac Acq On 7:00 pm Sample : JA68864-8dup : MS3W Misc : MS8680, V3W829, 400, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 28 11:27 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

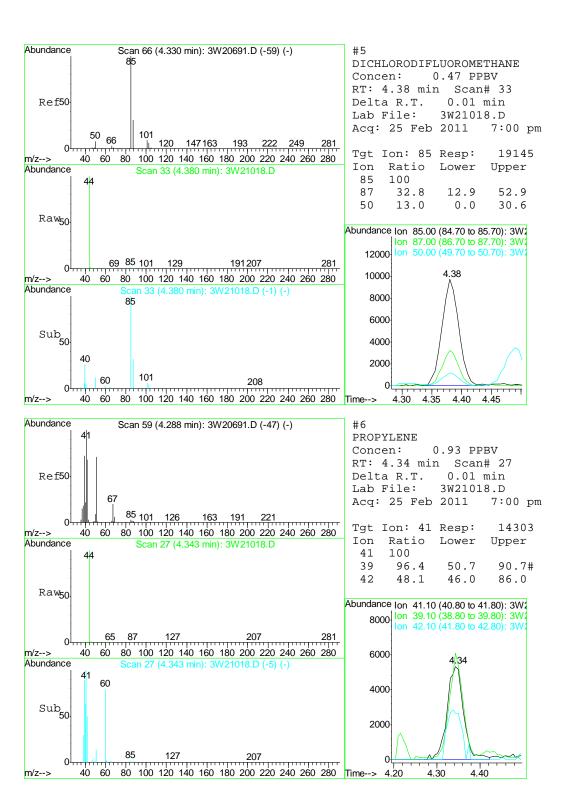
Last Update : Wed Feb 16 16:16:09 2011

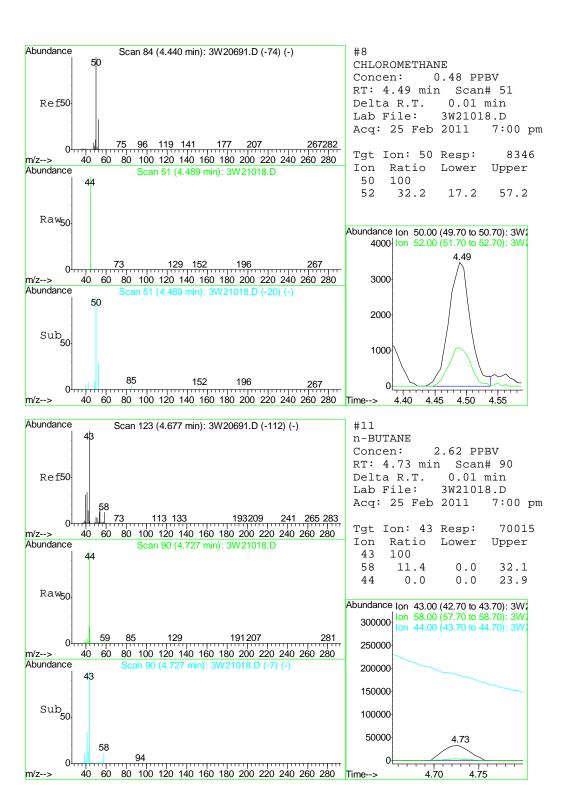


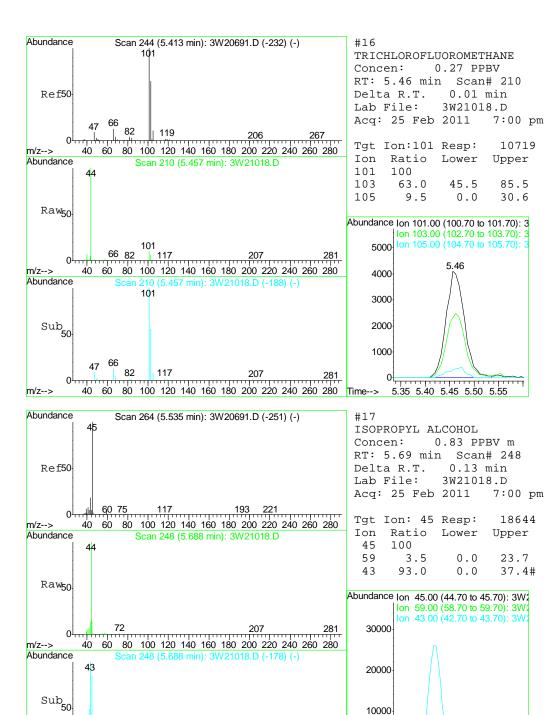
3W21018.D M3W821.M

Mon Feb 28 12:22:03 2011









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m/z-->

207

60 80 100 120 140 160 180 200 220 240 260 280 Time-->

5.60

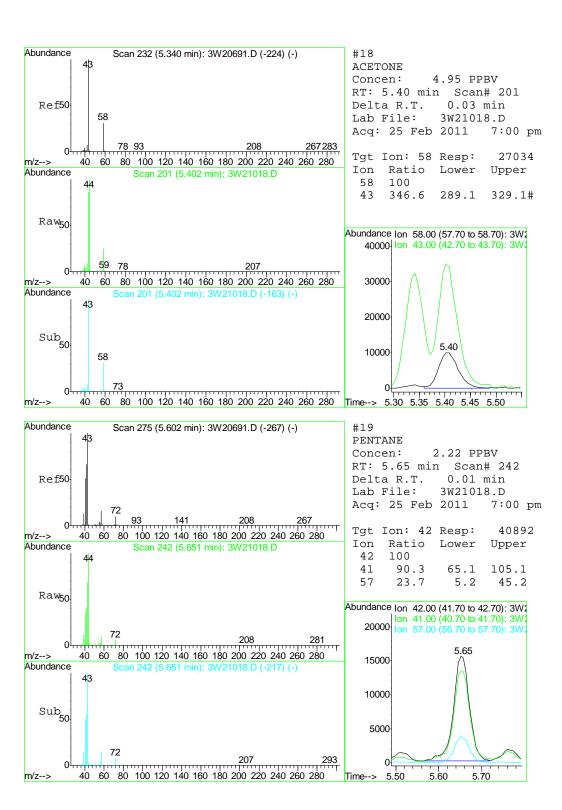
5.69

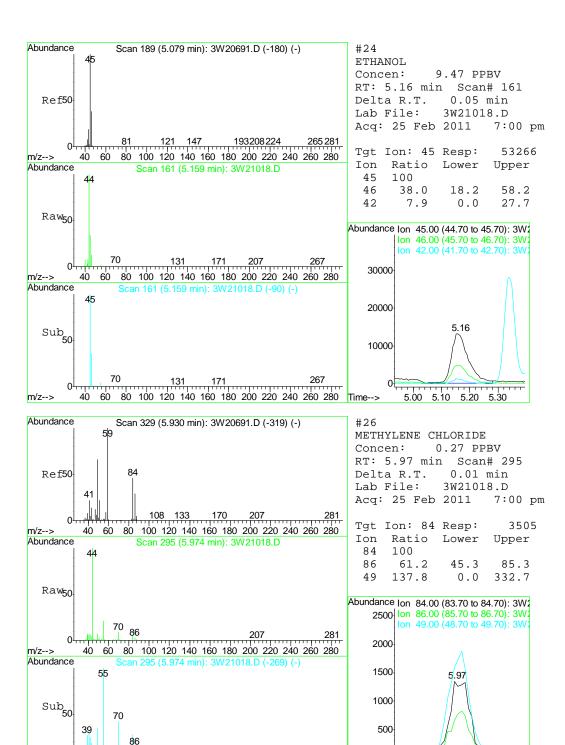
5.70

5.80

10000

72



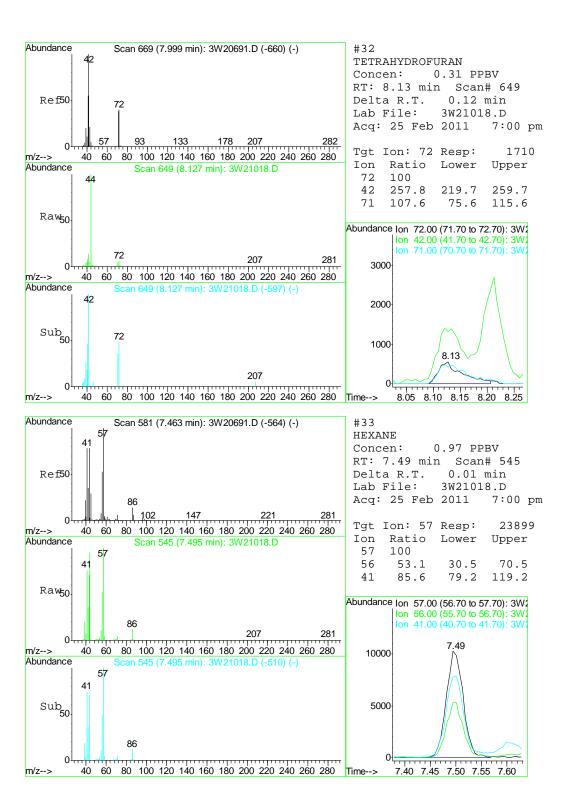


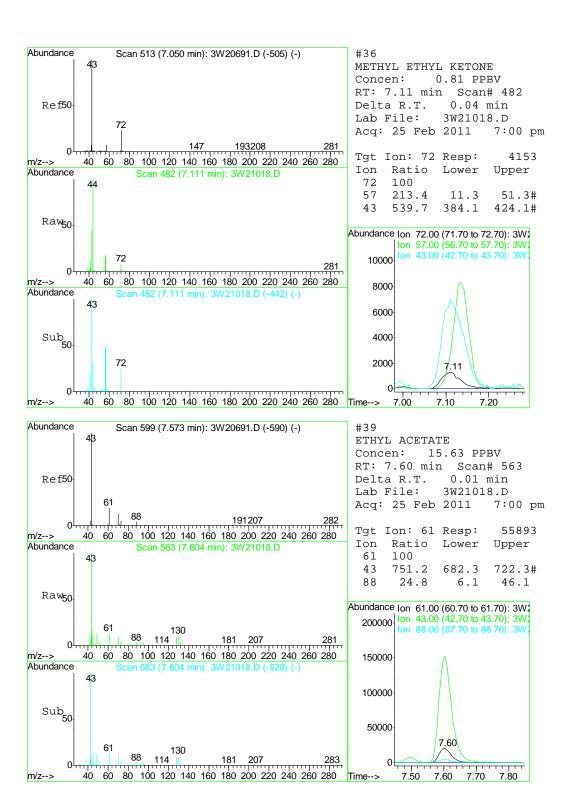
Page 7

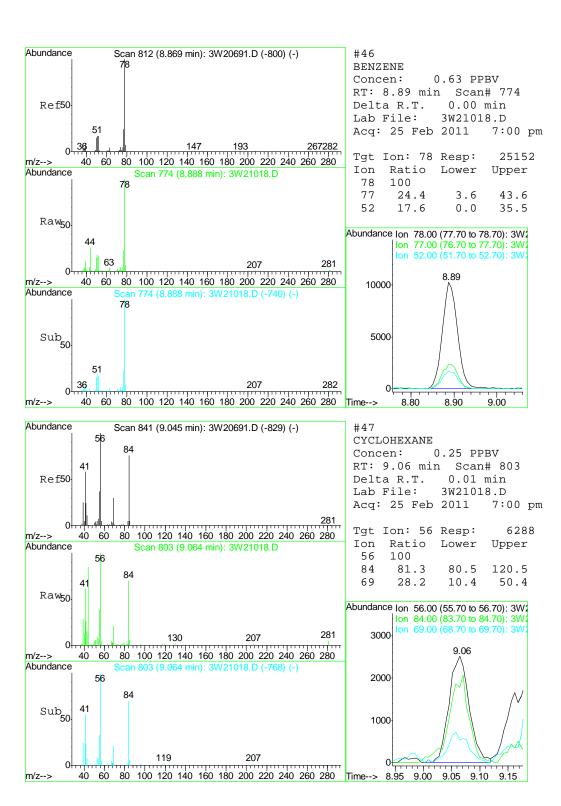
m/z-->

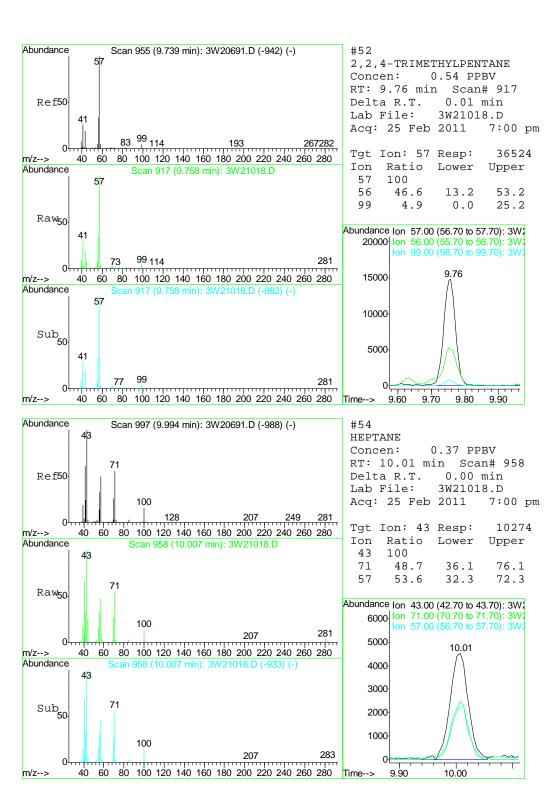
60 80 100 120 140 160 180 200 220 240 260 280 | Time-->

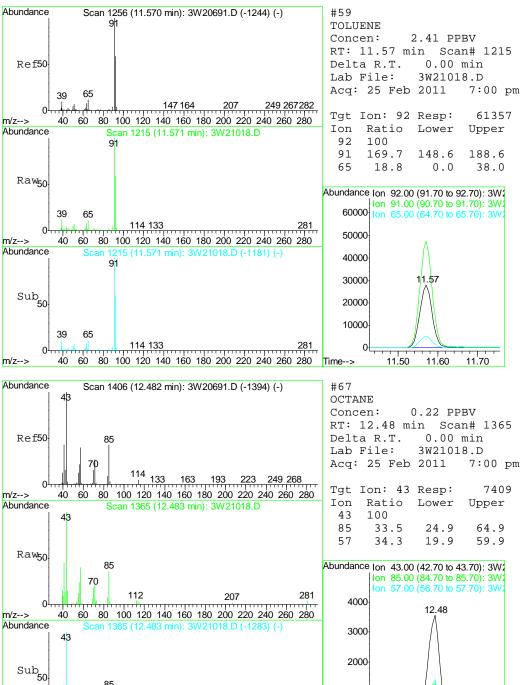
5.90 5.95 6.00 6.05

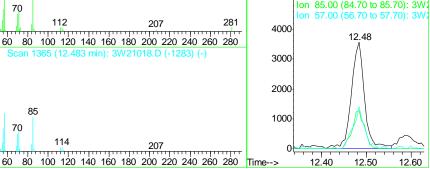












m/z-->

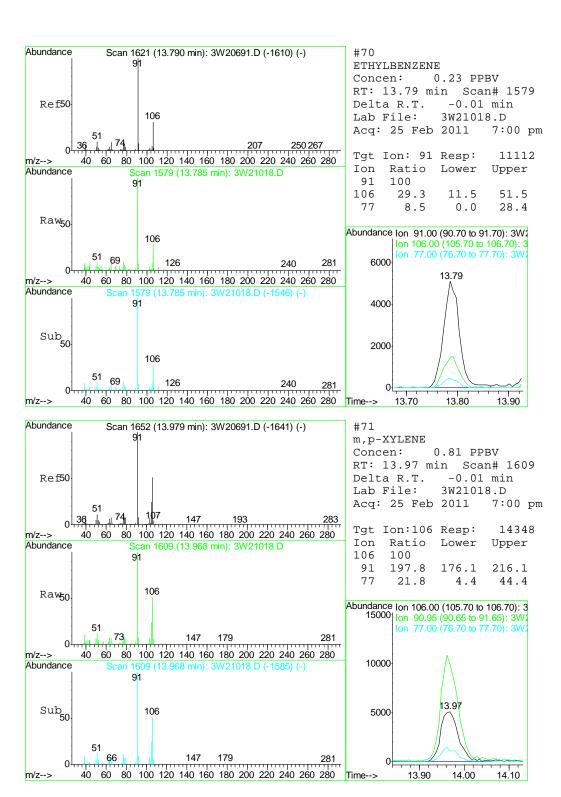
207

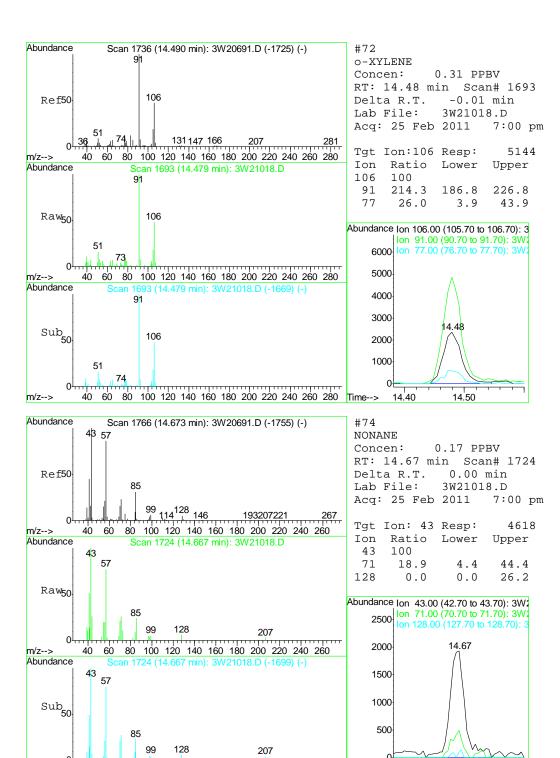
Page 12

85

114

70





Page 14

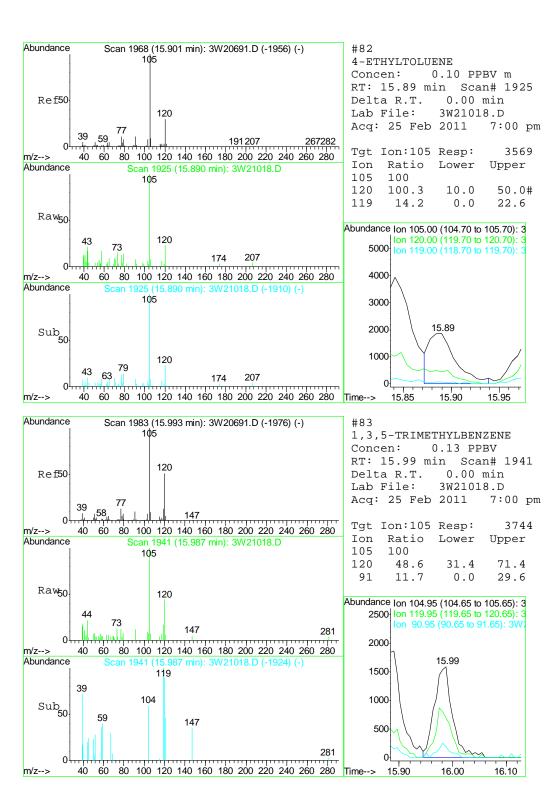
m/z-->

80 100 120 140 160 180 200 220 240 260

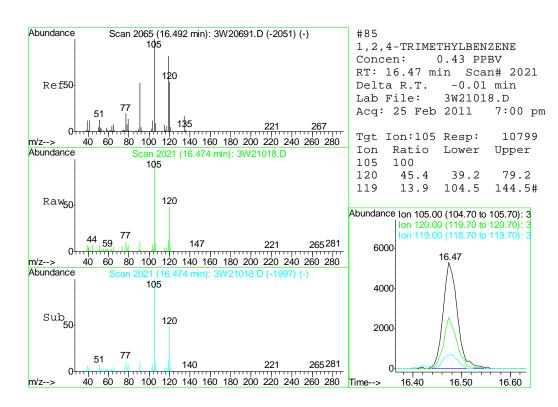
14.60

14.70

Time-->



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## **Manual Integration Approval Summary**

Sample Number: JA68864-8DUP Method: TO-15

 Lab FileID:
 3W21018.D
 Analyst approved:
 02/28/11 12:59
 Yunxia Chen

 Injection Time:
 02/25/11 19:00
 Supervisor approved:
 03/02/11 15:36
 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.69	Missed peak
4-Ethyltoluene	622-96-8		15.89	Overlapping peak



Data File : C:\MSDCHEM\1\DATA\W30133.D Vial: 9

Acq On : 11 Feb 2011 2:38 pm Operator: YOUMINH Sample : SCC(A791)
Misc : MS8082,VW1236,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:18:23 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U	nits D	Dev(Min)
1) BROMOCHLOROMETHANE	8.74	128	112877	10.00	PPBV	-0.07
46) 1,4-DIFLUOROBENZENE	10.44	114	520755	10.00	PPBV	-0.06
63) CHLOROBENZENE-D5	14.69	82	253129	10.00	PPBV	-0.05
96) Chlorobenzene-d5(a)	14.69	82	251012	10.00	PPBV	-0.05
System Monitoring Compounds						
78) 4-BROMOFLUOROBENZENE	16.33	95	138789	4.79	PPBV	-0.04
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	95.8	30%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W30133.D MW1222.M Mon Feb 14 10:28:04 2011 MSW



Data File : C:\MSDCHEM\1\DATA\W30133.D Vial: 9

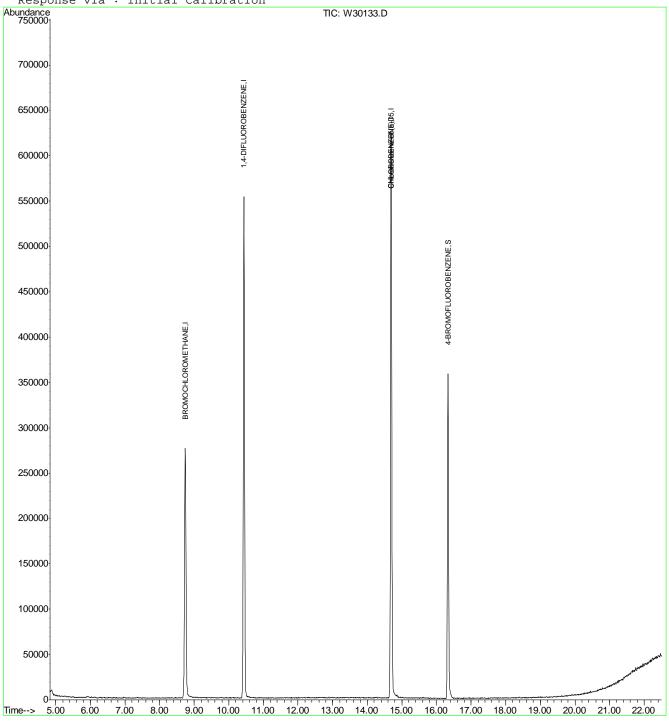
: 11 Feb 2011 Operator: YOUMINH Acq On 2:38 pm Sample : SCC(A791) Inst : MSW : MS8082,VW1236,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:07 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration



W30133.D MW1222.M

Mon Feb 14 10:28:04 2011

MSW



Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29765.D

Acq On : 14 Feb 2011 12:55 pm Operator : YOUMINH

Sample : SCC(A398)
Misc : MS8184, V2W1256,,,,,1 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 15 10:13:56 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound	R.T. QIO	n Response	Conc Un	nits Dev(Min)				
Internal Standards								
1) BROMOCHLOROMETHANE	7.313 12	213110	10.00	PPBV # 0.00				
44) 1,4-DIFLUOROBENZENE	9.154 11	.4 978109	10.00	PPBV -0.01				
61) CHLOROBENZENE-D5	13.275	418851	10.00	PPBV # 0.00				
93) CHLOROBENZENE-D5(A)	13.275	449806	10.00	PPBV # 0.00				
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE 14.763 95 183290 4.18 PPBV -0.01 Spiked Amount 5.000 Range 65 - 128 Recovery = 83.60%								
Target Compounds Qvalue								

(#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Feb 15 11:27:54 2011 VOA-CLN-02



Page: 1

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29765.D

Acq On : 14 Feb 2011 12:55 pm

Operator : YOUMINH
Sample : SCC(A398)

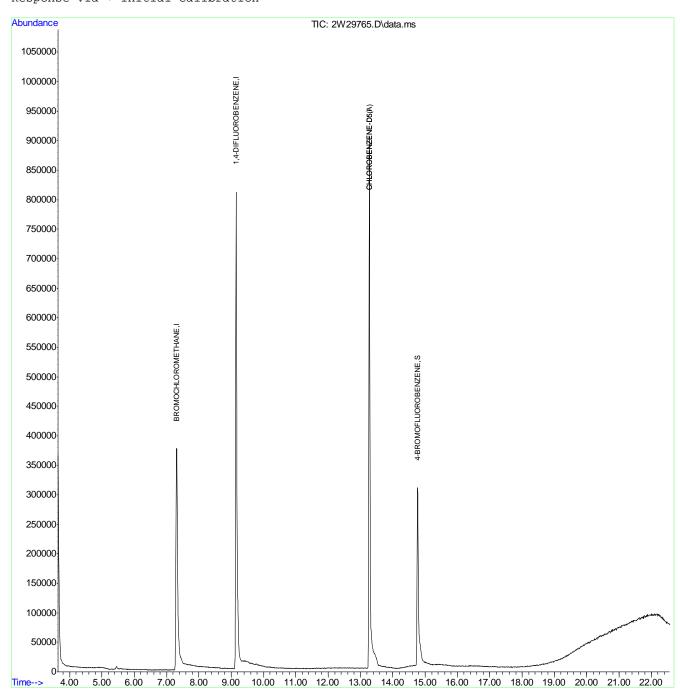
Misc : MS8184,V2W1256,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 15 10:13:56 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Feb 15 11:27:55 2011 VOA-CLN-02

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ACCUTEST

JA68565
LABORATORIES

BFB

 $\label{eq:def:DataFile:C:\msdchemllDATA} Data File: C:\msdchem\label{eq:DataVaw2W29351.D} Vial: 5$ 

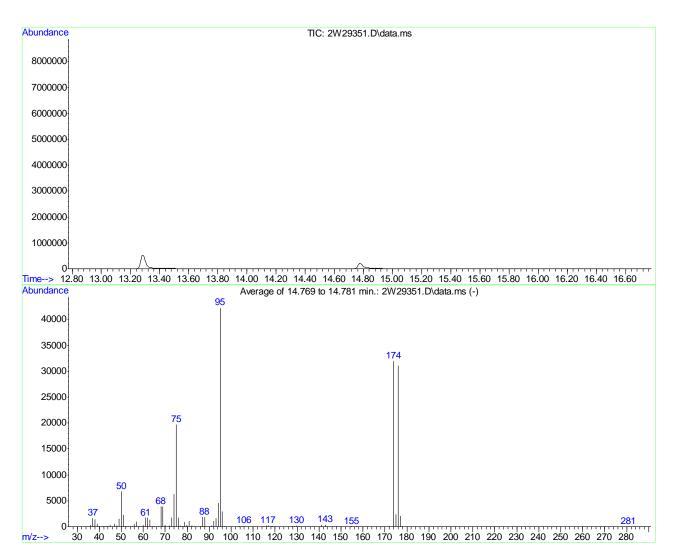
 Acq On
 : 21 Jan 2011 8:52 am
 Operator: YOUMINH

 Sample
 : BFB
 Inst : MS2W

 Misc
 : MS2686, V2W1240,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2W1240.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1826, 1827, 1828; Background Corrected with Scan 1817

	Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result   Pass/Fail
Ī	50	95	8	40	16.1	6816	PASS
İ	75	95	30	66	46.6	19712	PASS
İ	95	95	100	100	100.0	42267	PASS
İ	96	95	5	9	6.9	2906	PASS
İ	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	75.6	31965	PASS
İ	175	174	4	9	7.3	2344	PASS
İ	176	174	93	101	97.3	31101	PASS
İ	177	176	5	9	6.6	2064	PASS
							•

2W29351.D M2W1240.M Tue Jan 25 15:14:52 2011 VOA-CLN-02



2906

112

143

96.05

97.00

103.95

127.95

128.95

129.90

Average of 14.769 to 14.781 min.: 2W29351.D\data.ms Modified:subtracted abund. m/z abund. m/z abund. m/z m/z abund. 36.05 329 47.95 230 60.00 351 73.00 1688 74.05 37.05 1660 49.05 1500 61.00 1688 6243 50.05 75.10 38.10 62.00 19712 1364 6816 1710 51.10 39.05 573 63.05 1271 76.00 2285 1688 52.00 40.00 66 115 64.05 139 77.00 273 41.05 6 53.10 17 65.05 69 78.00 158 42.05 93 54.05 8 67.10 122 78.90 903 43.15 75 55.00 93 68.00 3855 79.95 316 56.00 566 3889 80.95 44.00 113 69.00 1074 277 987 70.00 300 45.00 57.00 82.05 224 552 58.10 2.3 72.00 212 83.10 34 47.05 Average of 14.769 to 14.781 min.: 2W29351.D\data.ms Modified:subtracted m/z abund. abund. abund. abund. m/zm/z m/z104.90 51 171.95 85.95 39 130.95 60 72 105.90 87.00 1865 158 134.90 39 174.00 31965 114.90 36 136.85 38 175.00 88.00 1884 2344 91.00 184 116.00 182 140.95 298 176.00 31101 92.00 1110 117.00 217 142.95 341 177.00 2064 1611 118.00 93.00 150 145.90 37 177.85 65 119.00 143 147.00 17 16 94.05 4550 281.05 95.10 42267 120.00 17 147.85 73

150

67

168

154.80

154.95

156.95

27

72

65



## BFB

Data File : C:\msdchem\1\DATA\2w\v2w1256\2W29757.D Vial: 5

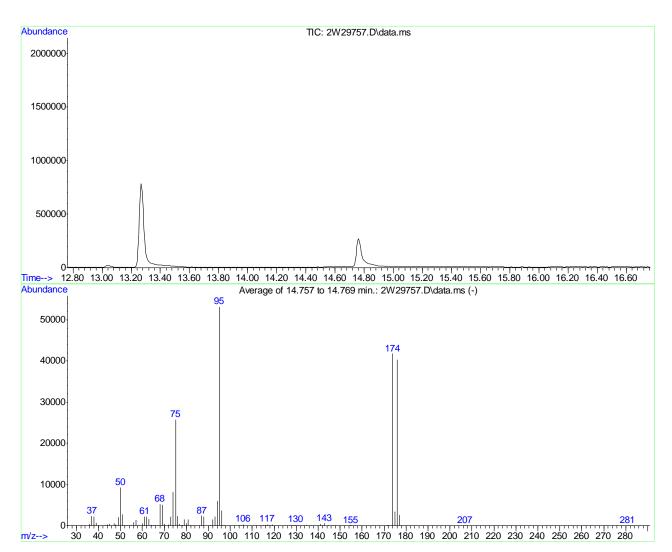
 Acq On
 : 14 Feb 2011 6:55 am
 Operator: YOUMINH

 Sample
 : BFB
 Inst : MS2W

 Misc
 : MS8244, V2W1256, 400, , , , , 1
 Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2W1240.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1824, 1825, 1826; Background Corrected with Scan 1814

50         95         8         40         17.4         9229         PASS           75         95         30         66         48.4         25740         PASS           95         95         100         100.0         53179         PASS           96         95         5         9         6.8         3629         PASS           173         174         0.00         2         0.0         0         PASS           174         95         50         120         78.6         41789         PASS           175         174         4         9         8.1         3378         PASS           176         174         93         101         96.4         40320         PASS		Target Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
95         95         100         100         100.0         53179         PASS           96         95         5         9         6.8         3629         PASS           173         174         0.00         2         0.0         0         PASS           174         95         50         120         78.6         41789         PASS           175         174         4         9         8.1         3378         PASS	Ī	50	   95	8	40	   17.4	9229	PASS
96     95     5     9     6.8     3629     PASS       173     174     0.00     2     0.0     0     PASS       174     95     50     120     78.6     41789     PASS       175     174     4     9     8.1     3378     PASS	j	75	95	30	66	48.4	25740	PASS
173	j	95	95	100	100	100.0	53179	PASS
174	j	96	95	5	9	6.8	3629	PASS
175   174   4   9   8.1   3378   PASS	j	173	174	0.00	2	0.0	0	PASS
i i i i i i	j	174	95	50	120	78.6	41789	PASS
176	j	175	174	4	9	8.1	3378	PASS
1/0   1/4   55   101   90.4   40200   PASS	j	176	174	93	101	96.4	40280	PASS
177   176   5   9   6.6   2655   PASS	j	177	176	5	9	6.6	2655	PASS

2W29757.D M2W1240.M Tue Feb 15 09:57:01 2011 VOA-CLN-02



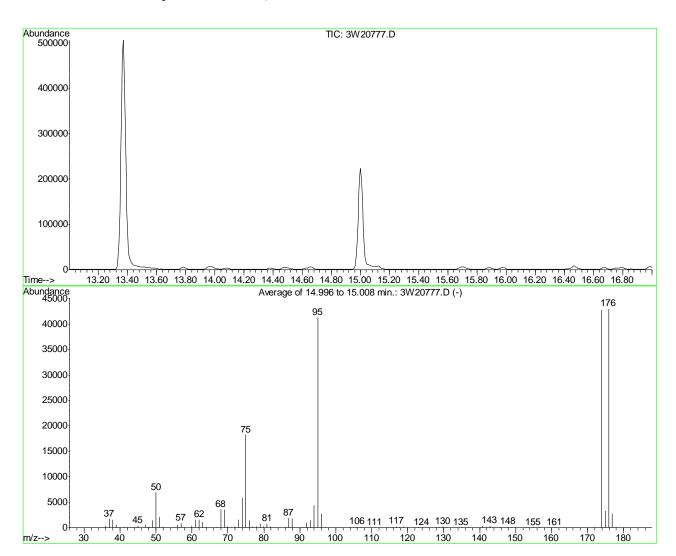
Average of	14.757 to	14.769 mi	n.: 2W2975	7.D\data.	ms		
BFB							
Modified:su							
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	453	49.10	2004	60.05	510	70.00	431
37.05	2337	50.00	9229	61.05	2246	72.00	235
38.05	2137	51.10	2769	62.05	2222	73.00	2136
39.00	711	52.00	188	63.00	1683	74.05	8209
39.95	22	53.15	55	63.95	163	75.10	25740
40.90	29	54.00	34	64.20	83	76.00	2262
43.05	63	54.95	114	64.95	133	76.95	366
44.00	264	56.00	767	66.10	18	78.00	127
45.05	453	57.10	1377	67.05	156	78.20	95
47.05	604	58.25	50	68.00	5181	79.00	1560
48.00	326	58.65	53	69.00	5018	80.00	540
Average of	14.757 to	14.769 mi	n.: 2W2975	7.D\data.	ms		
BFB							
Modified:su	btracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.95	1474	96.05	3629	119.00	212	146.80	18
82.05	155	97.10	115	127.90	185	148.00	66
83.05	56	103.95	202	128.95	84	154.10	18
86.00	69	105.00	73	129.90	188	154.90	100
87.00	2396	106.00	288	131.10	25	155.10	35
88.00	2229	111.80	22	134.75	97	156.95	91
91.00	192	115.10	90	136.90	63	171.75	96
92.00	1509	115.90	62	140.95	439	172.15	109
93.00	2175	116.05	149	141.80	46	174.00	41789
94.05	5947	117.05	299	142.95	507	175.05	3378
95.05	53179	118.05	209	144.70	17	176.00	40280
Average of						_,,,,,	10200
BFB	11.757 60	11.705 1111	2,,2	,, .b (aaca.	iii.D		
Modified:su	htracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.00	2655	ш, д	abana.	, 2	abana.	ш, д	abana.
177.95	59						
206.95	56						
207.80	19						
281.05	60						
201.03	0.0						



Data File : C:\MSDCHEM\1\DATA\3W20777.D Vial: 5

Acq On : 15 Feb 2011 5:04 pm Operator: yunxiac Inst : MS3W Sample : BFB : MS7827, V3W821,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um



AutoFind: Scans 1778, 1779, 1780; Background Corrected with Scan 1768

	Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
Ī	50	95	8	40	   16.7	6895	PASS
j	75	95	30	66	44.2	18240	PASS
j	95	95	100	100	100.0	41264	PASS
j	96	95	5	9	6.7	2754	PASS
j	173	174	0.00	2	0.0	j 0	PASS
İ	174	95	50	120	103.6	42746	PASS
j	175	174	4	9	7.6	3255	PASS
j	176	174	93	101	100.6	42989	PASS
j	177	176	5	9	6.3	2710	PASS
					· 		

Wed Feb 16 16:10:28 2011 MS3W



Average of	14.996 to	15.008 mi	ln.: 3W207	77.D			
BFB Modified:s	.b+maa+ad						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
	321		138		1577		18240
36.00		48.05		62.00		75.00	
37.00	1752	49.00	1442	63.00	1137	76.00	1427
38.00	1572	50.00	6895	64.05	143	76.95	253
39.00	585	51.00	2120	67.00	84	77.95	185
41.05	81	51.90	102	68.00	3585	78.90	738
42.00	22	54.95	63	69.00	3513	79.95	233
43.00	37	55.95	547	69.95	266	80.90	820
43.95	150	57.00	893	71.10	26	81.85	218
45.00	340	57.95	46	71.95	216	83.00	18
47.00	584	59.95	374	72.95	1563	86.00	83
47.80	80	61.00	1513	74.00	5820	86.90	1913
Average of	14.996 to	15.008 mi	ln.: 3W207	77.D			
BFB							
Modified:s	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.90	1750	105.70	30	124.00	22	142.85	372
90.85	134	105.95	145	127.85	137	145.85	71
91.95	1007	106.80	20	128.85	67	146.90	19
93.00	1448	107.10	22	129.85	178	147.90	116
94.00	4392	110.90	18	130.85	68	148.80	24
95.00	41264	114.95	57	133.90	17	149.95	53
96.00	2754	115.95	121	134.85	57	152.80	18
97.00	54	116.85	244	135.10	23	154.95	111
103.85	142	117.85	124	136.75	42	156.80	74
104.80	19	118.85	197	140.85	311	158.90	44
105.05	38	122.90	16	141.75	44	160.80	19
Average of					11	100.00	10
BFB	11.550 00	13.000 1111	3,1207	, ,			
Modified:s	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.90	18	111/ 2	abana.	111/2	abana.	111/2	abana.
173.90	42746						
174.95	3255						
175.90	42989						
	42989 2710						
176.90							
177.90	81						

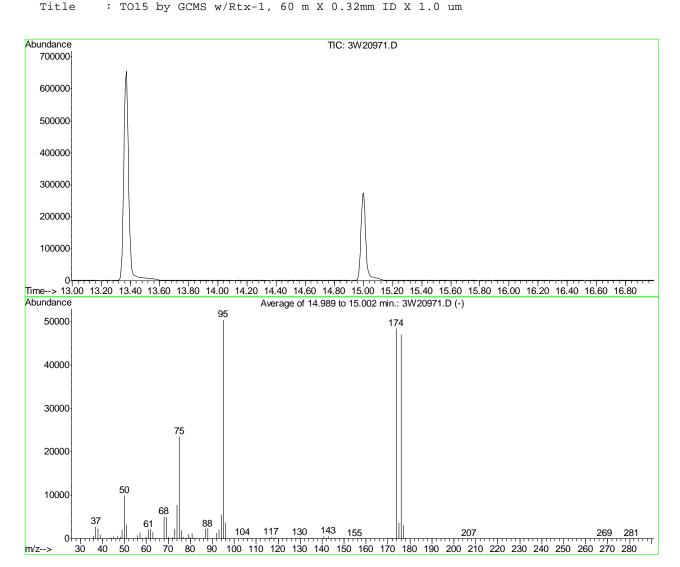


BFB

Data File : C:\MSDCHEM\1\DATA\3W20971.D Vial: 5

Acq On : 24 Feb 2011 6:45 am Operator: yunxiac : BFB Inst : MS3W Sample : MS8082, V3W828, 400, , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)



AutoFind: Scans 1777, 1778, 1779; Background Corrected with Scan 1767

	Target Mass	Rel. to Mass	Lower   Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
Ī	50	95	8	40	19.6	9921	PASS
İ	75	95	30	66	46.7	23568	PASS
İ	95	95	100	100	100.0	50496	PASS
İ	96	95	5	9	7.3	3695	PASS
İ	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	96.0	48472	PASS
İ	175	174	4	9	7.6	3660	PASS
İ	176	174	93	101	97.0	47037	PASS
İ	177	176	5	9	6.6	3119	PASS

Thu Feb 24 09:15:28 2011 MS3W 3W20971.D M3W821.M



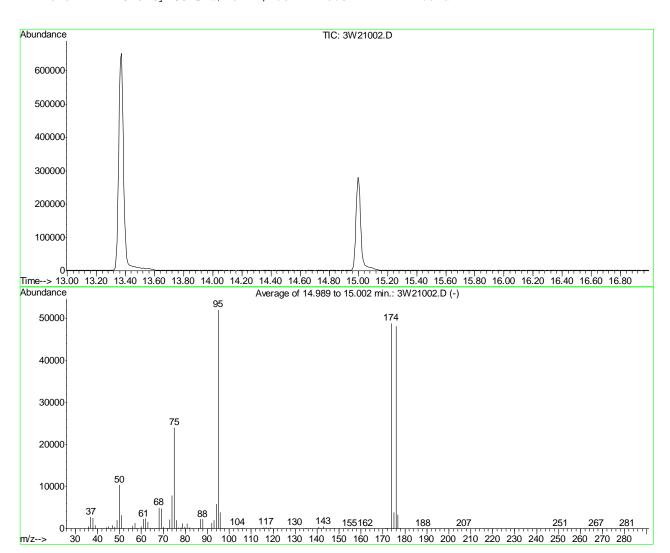
Modified: subtracted	Average of 1 BFB	4.989 to	15.002 mi	n.: 3W2097	71.D			
m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         2137         73.00         2145           37.00         2763         50.00         9921         62.00         2211         74.00         7782           38.00         2329         51.00         3230         63.00         1574         75.00         23568           39.00         953         51.95         127         64.05         197         76.00         1974           41.10         18         55.05         159         64.90         18         76.95         351           43.90         254         57.00         1388         68.00         5046         77.90         100           45.00         475         57.90         34         68.95         4956         78.05         159           45.85         36         58.10         32         70.00         407         78.90         1086           46.95         660         59.05         38         71.00         46         79.85         402           Average of 14.989         to 15.002         min.: 3w20971         3800 <td>Modified:sub</td> <td>tracted</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Modified:sub	tracted						
35.95			m/z	abund.	m/z	abund.	m/z	abund.
37.00 2763 50.00 9921 62.00 2211 74.00 7782 38.00 2329 51.00 3230 63.00 1574 75.00 23568 39.00 953 51.95 127 64.05 197 76.00 1974 41.10 18 55.05 159 64.90 18 76.95 351 43.00 57 55.95 774 66.00 16 77.80 73 43.90 254 57.00 1388 68.00 5046 77.90 100 45.00 475 57.90 34 68.95 4956 78.05 159 45.80 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173 Average of 14.989 to 15.002 min.: 3W20971.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 81.85 296 97.00 138 117.90 223 136.85 64 85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 17 175.90 47 175.90 215 142.10 26 149.80 18 155.90 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 124 142.90 15.80 19 144.90 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 26 142.10 17 142.10 17 142.10 17 142.10 17 142.10 17 142.10 18 129.90 125 142.10 26 142.10 17 142.10 1	35.95							
38.00 2329 51.00 3230 63.00 1574 75.00 23568 39.00 953 51.95 127 64.05 197 76.00 1974 41.10 18 55.05 159 64.90 18 76.95 351 43.00 57 55.95 774 66.00 16 77.80 73 43.90 254 57.00 1388 68.00 5046 77.90 100 45.00 475 57.90 34 68.95 4956 78.05 159 45.85 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173 Average of 14.989 to 15.002 min.: 3W20971.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 81.85 296 97.00 137 116.85 363 135.60 18 82.90 17 103.90 188 117.90 223 136.85 64 86.90 291 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 580.90 15.002 min.: 3W20971.D BFB Modified:subtracted m/z abund. m/z a								
39.00 953 51.95 127 64.05 197 76.00 1974 41.10 18 55.05 159 64.90 18 76.95 351 43.00 57 55.95 174 66.00 16 77.80 73 43.90 254 57.00 1388 68.00 5046 77.90 100 45.00 475 57.90 34 68.95 4956 78.05 159 45.85 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173 Average of 14.989 to 15.002 min.: 3W20971.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 82.90 17 103.90 188 117.90 223 136.85 64 85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.00 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83 Average of 14.989 to 15.002 min.: 3W20971.D BFB BFB Modified:subtracted m/z abund.								
41.10 18 55.05 159 64.90 18 76.95 351 43.00 57 55.95 774 66.00 16 77.80 73 43.90 254 57.00 1388 68.00 5046 77.90 100 45.00 475 57.90 34 68.95 4956 78.05 159 45.85 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173 Average of 14.989 to 15.002 min.: 3W20971.D BFB Modified:subtracted								
43.00 57 55.95 774 66.00 16 77.80 73 43.90 254 57.00 1388 68.00 5046 77.90 100 45.00 475 57.90 34 68.95 4956 78.05 159 45.85 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modiffied:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 81.85 296 97.00 137 116.85 363 135.60 18 82.90 17 103.90 188 117.90 223 136.85 64 85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 15 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  146.90 88 157.00 47 175.90 47037 147.90 143 157.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472								
43.90		57						
45.00 475 57.90 34 68.95 4956 78.05 159 45.85 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 81.85 296 97.00 137 116.85 363 135.60 18 82.90 17 103.90 188 117.90 223 136.85 64 85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48422								
45.85 36 58.10 32 70.00 407 78.90 1086 46.95 660 59.05 38 71.00 16 79.85 402 48.05 350 59.95 412 71.95 300 80.90 1173 Average of 14.989 to 15.002 min.: 3W20971.D BFB Modified:subtracted								
Average of 14.989 to 15.002 min.: 3W20971.D  BFB Modified:subtracted								
Average of 14.989 to 15.002 min.: 3W20971.D BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 81.85 296 97.00 137 116.85 363 135.60 18 82.90 17 103.90 188 117.90 223 136.85 64 85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	46.95	660	59.05	38	71.00	16	79.85	402
BFF Modified:subtracted	48.05	350	59.95	412	71.95	300	80.90	1173
BFF Modified:subtracted	Average of 1	4.989 to	15.002 mi	n.: 3W2097	71.D			
m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         18         135.60         18         18         18         18         19         166         64         64         85.90         15         104.80         22         118.85         272         138.90         16         64         86.90         2191         104.80         22         118.85         272         138.90         16         88.93         16         86.90         29         126.00         18         140.90         27         87.90         2287         105.80         99         126.00         18         140.90         502         90.85         179         106.00         65         127.90         166         141.60         18         91.90         215         142.10         26         94.00         5584         114.10								
81.85	Modified:sub	tracted						
82.90 17 103.90 188 117.90 223 136.85 64 85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83 Average of 14.989 to 15.002 min.: 3W20971.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB Modified:subtracted	81.85	296	97.00	137	116.85	363	135.60	18
85.90 55 104.80 22 118.85 272 138.90 16 86.90 2191 104.95 40 124.00 17 140.00 27 87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB Modified:subtracted	82.90	17	103.90	188	117.90	223	136.85	64
87.90 2287 105.80 99 126.00 18 140.90 502 90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	85.90	55	104.80	22		272	138.90	16
90.85 179 106.00 65 127.90 166 141.60 18 91.95 1279 106.90 47 128.95 111 141.90 48 93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	86.90	2191	104.95	40	124.00	17	140.00	27
91.95	87.90	2287	105.80	99	126.00	18	140.90	502
93.00 2031 112.70 18 129.90 215 142.10 26 94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified: subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	90.85	179	106.00	65	127.90	166	141.60	18
94.00 5584 114.10 21 130.85 46 142.85 524 95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	91.95	1279	106.90	47	128.95	111	141.90	48
95.00 50496 114.90 41 134.85 119 143.60 19 96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  146.90 88 157.00 47 175.90 47037  147.90 143 157.90 17 176.90 3119  148.80 18 158.75 50 178.05 117  149.80 58 159.00 53 206.90 27  150.00 20 160.90 52 207.05 35  151.75 39 170.60 32 268.80 16  152.90 38 170.90 84 281.10 29  154.95 110 171.30 16  155.90 17 172.05 88  156.10 44 173.90 48472	93.00	2031	112.70	18	129.90	215	142.10	26
96.00 3695 115.90 167 135.10 18 145.85 83  Average of 14.989 to 15.002 min.: 3W20971.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	94.00	5584	114.10	21	130.85	46	142.85	524
Average of 14.989 to 15.002 min.: 3W20971.D BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 146.90 88 157.00 47 175.90 47037 147.90 143 157.90 17 176.90 3119 148.80 18 158.75 50 178.05 117 149.80 58 159.00 53 206.90 27 150.00 20 160.90 52 207.05 35 151.75 39 170.60 32 268.80 16 152.90 38 170.90 84 281.10 29 154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	95.00	50496	114.90	41	134.85	119	143.60	19
BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  146.90 88 157.00 47 175.90 47037  147.90 143 157.90 17 176.90 3119  148.80 18 158.75 50 178.05 117  149.80 58 159.00 53 206.90 27  150.00 20 160.90 52 207.05 35  151.75 39 170.60 32 268.80 16  152.90 38 170.90 84 281.10 29  154.95 110 171.30 16  155.90 17 172.05 88  156.10 44 173.90 48472	96.00	3695	115.90	167	135.10	18	145.85	83
Modified:subtracted           m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.           146.90         88         157.00         47         175.90         47037           147.90         143         157.90         17         176.90         3119           148.80         18         158.75         50         178.05         117           149.80         58         159.00         53         206.90         27           150.00         20         160.90         52         207.05         35           151.75         39         170.60         32         268.80         16           152.90         38         170.90         84         281.10         29           154.95         110         171.30         16           155.90         17         172.05         88           156.10         44         173.90         48472	Average of 1	4.989 to	15.002 mi	n.: 3W2097	71.D			
m/z     abund.     m/z     abund.     m/z     abund.     m/z     abund.       146.90     88     157.00     47     175.90     47037       147.90     143     157.90     17     176.90     3119       148.80     18     158.75     50     178.05     117       149.80     58     159.00     53     206.90     27       150.00     20     160.90     52     207.05     35       151.75     39     170.60     32     268.80     16       152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	BFB							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Modified:sub	tracted						
147.90     143     157.90     17     176.90     3119       148.80     18     158.75     50     178.05     117       149.80     58     159.00     53     206.90     27       150.00     20     160.90     52     207.05     35       151.75     39     170.60     32     268.80     16       152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
148.80     18     158.75     50     178.05     117       149.80     58     159.00     53     206.90     27       150.00     20     160.90     52     207.05     35       151.75     39     170.60     32     268.80     16       152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	146.90	88	157.00	47	175.90	47037		
149.80     58     159.00     53     206.90     27       150.00     20     160.90     52     207.05     35       151.75     39     170.60     32     268.80     16       152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	147.90	143	157.90	17	176.90	3119		
150.00     20     160.90     52     207.05     35       151.75     39     170.60     32     268.80     16       152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	148.80	18	158.75	50	178.05	117		
151.75     39     170.60     32     268.80     16       152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	149.80	58	159.00	53	206.90	27		
152.90     38     170.90     84     281.10     29       154.95     110     171.30     16       155.90     17     172.05     88       156.10     44     173.90     48472	150.00	20	160.90	52	207.05	35		
154.95 110 171.30 16 155.90 17 172.05 88 156.10 44 173.90 48472	151.75	39	170.60	32	268.80	16		
155.90 17 172.05 88 156.10 44 173.90 48472	152.90	38	170.90	84	281.10	29		
156.10 44 173.90 48472	154.95	110	171.30	16				
	155.90	17	172.05	88				
156.80 67 174.90 3660		44						
	156.80	67	174.90	3660				



Data File : C:\MSDCHEM\1\DATA\3W21002.D Vial: 5

Acq On : 25 Feb 2011 6:16 am Operator: yunxiac : BFB Inst : MS3W Sample : MS8082, V3W829, 100, , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p  ${\tt Method} \quad : \; {\tt C:\MSDCHEM\1\METHODS\M3W821.M} \; \; ({\tt RTE \; Integrator})$ : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um



AutoFind: Scans 1777, 1778, 1779; Background Corrected with Scan 1768

	Target Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
Ī	50	   95	8	40	19.9	10379	PASS
j	75	95	30	66	46.2	24069	PASS
İ	95	95	100	100	100.0	52072	PASS
İ	96	95	5	9	7.3	3822	PASS
İ	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	93.7	48813	PASS
j	175	174	4	9	7.9	3841	PASS
j	176	174	93	101	98.6	48133	PASS
İ	177	176	5	9	7.0	3356	PASS

Fri Feb 25 10:00:19 2011 MS3W



188.30

22

Average of	14.989 to	15.002 mi	n.: 3W2100	02.D			
BFB Modified:s	uhtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	571	50.00	10379	61.95	2345	74.00	7880
37.00	2801	51.00	3204	62.95	1638	75.00	24069
38.00	2508	51.95	142	63.85	150	76.00	2001
39.00	867	53.90	18	65.00	59	76.95	337
42.90	59	54.95	126	66.95	167	77.95	224
43.95	222	55.95	695	68.00	4956	78.90	1184
45.00	540	57.00	1286	69.00	4789	79.90	390
45.90	24	57.85	75	70.00	424	80.85	1147
46.95	739	58.70	21	71.90	141	81.85	321
48.00	358	59.95	496	72.10	102	83.20	18
49.00	2054	60.95	2318	72.95	2162	85.95	74
Average of					2202	00.70	, -
BFB	11.707 00	13.002 1111	3,7210	,2.5			
Modified:s	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.90	2232	104.85	39	128.90	98	145.90	49
87.90	2248	105.90	133	129.90	175	146.95	46
90.85	176	106.70	39	130.85	81	147.85	99
92.00	1313	112.50	16	134.90	103	149.90	21
92.95	2006	114.90	98	135.30	19	152.85	53
94.00	5859	115.85	210	136.90	86	153.10	22
95.00	52072	116.90	314	140.20	27	154.95	122
96.00	3822	117.95	201	140.85	384	156.85	111
97.00	121	118.90	276	141.60	17	157.90	17
97.90	16	124.70	21	142.90	501	159.00	48
103.85	183	127.85	152	144.85	52	160.95	62
Average of	14.989 to	15.002 mi	n.: 3W2100	02.D			
BFB							
Modified:s	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
162.00	18	206.95	37				
170.80	19	207.90	17				
171.10	22	251.00	19				
171.90	91	254.10	19				
172.10	44	267.40	16				
173.90	48813	281.20	26				
174.90	3841						
175.90	48133						
176.90	3356						
177.90	100						

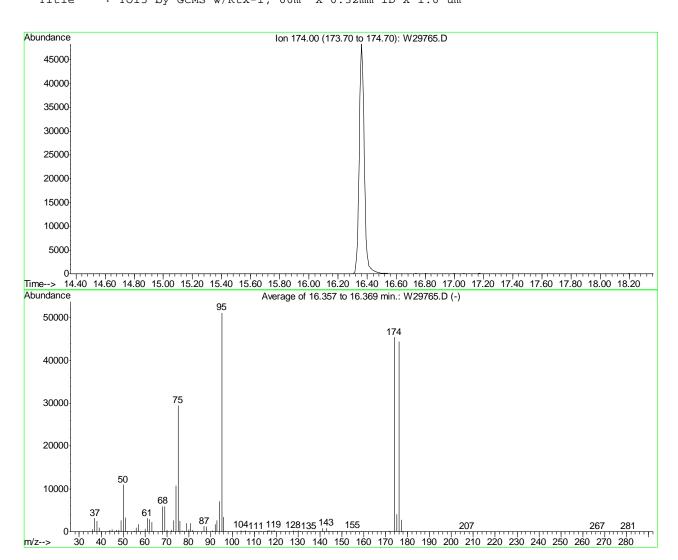


BFB

Data File : C:\MSDCHEM\1\DATA\W29765.D Vial: 3

Acq On : 19 Jan 2011 5:08 pm Operator: YOUMINH : BFB Sample Inst : MSW : MS6862,VW1222,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1891, 1892, 1893; Background Corrected with Scan 1880

	Target Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
Ī	50	   95	8	40	21.5	10988	PASS
j	75	95	30	66	57.6	29461	PASS
j	95	95	100	100	100.0	51162	PASS
j	96	95	5	9	6.6	3398	PASS
j	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	88.8	45442	PASS
j	175	174	4	9	8.9	4033	PASS
j	176	174	93	101	97.8	44442	PASS
j	177	176	5	9	6.1	2730	PASS
	175 176	174 174	4 93	9	8.9 97.8	4033	PASS PASS

Mon Jan 24 09:29:20 2011 MSW W29765.D MW1222.M



175.00

4033

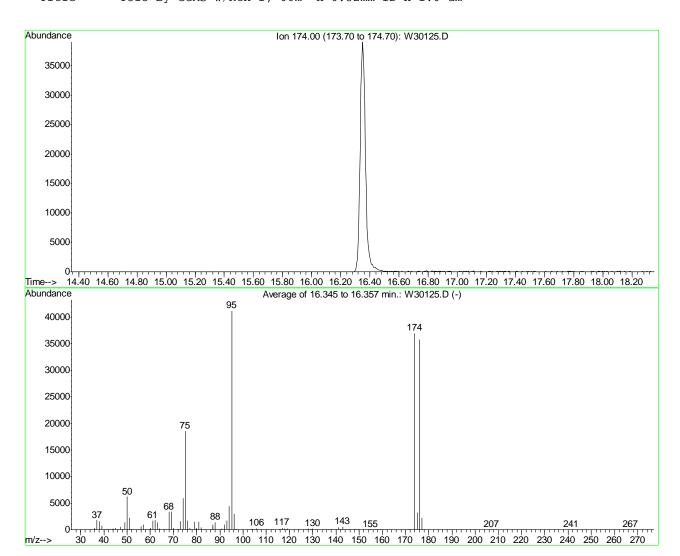
Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 36.05 590 49.05 2650 60.05 671 74.10 10720 37.10 3139 50.10 10988 61.05 3084 75.10 29461 38.10 2541 51.10 3288 62.10 2840 76.05 2551 39.10 920 52.05 152 63.10 2176 77.05 226 40.00 68 55.00 97 64.05 169 77.95 150 42.90 20 55.20 75 67.15 180 78.95 1974 44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 69.05 5894 80.95 2015 46.00 34 58.00 52 70.05 4453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 712 111.80 17 129.90 233 145.85 95 96.05 3398 112.15 40.0 21 130.70 16 146.95 59 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 33 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z								
Modified:subtracted m/z abund.         m/z abund. <td>Average of</td> <td>16.357 to</td> <td>16.369 mi</td> <td>n.: W2976</td> <td>5.D</td> <td></td> <td></td> <td></td>	Average of	16.357 to	16.369 mi	n.: W2976	5.D			
m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.         10720         36.05         590         49.05         2650         60.05         671         74.10         10720         37.10         3139         50.10         10988         61.05         3084         75.10         29461         38.10         2541         51.10         3288         62.10         2840         76.05         2551         39.10         920         52.05         152         63.10         2176         77.05         226         40.00         68         55.00         97         64.05         169         77.95         150         42.90         20         55.20         75         67.15         180         78.95         1974         44.00         386         56.05         981         68.05         5935         80.00         552         45.05         520         57.10         1708         69.05         5894         80.95         2015         417         47.10         343         58.20         16.72.05         396         83.20         19         417         48.05         431         59.20         21         73.05 <t< td=""><td>BFB</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	BFB							
36.05 590 49.05 2650 60.05 671 74.10 10720 37.10 3139 50.10 10988 61.05 3084 75.10 29461 38.10 2541 51.10 3288 62.10 2840 75.05 2551 39.10 920 52.05 152 63.10 2176 77.05 226 40.00 68 55.00 97 64.05 169 77.95 150 42.90 20 55.20 75 67.15 180 78.95 1974 44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 69.05 5894 80.95 2015 46.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted	Modified:su	btracted						
37.10 3139 50.10 10988 61.05 3084 75.10 29461 38.10 2541 51.10 3288 62.10 2840 76.05 2551 39.10 920 52.05 152 63.10 2176 77.05 226 40.00 68 55.00 97 64.05 169 77.95 150 42.90 20 55.20 75 67.15 180 78.95 1974 44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 69.05 5894 80.95 2015 46.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted	m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	36.05	590	49.05	2650	60.05	671	74.10	10720
39.10 920 52.05 152 63.10 2176 77.05 226 40.00 68 55.00 97 64.05 169 77.95 150 42.90 20 55.20 75 67.15 180 78.95 1974 44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 65.05 5935 80.00 558 45.05 520 57.10 1708 65.05 5935 80.95 2015 46.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted	37.10	3139	50.10	10988	61.05	3084	75.10	29461
40.00 68 55.00 97 64.05 169 77.95 150 42.90 20 55.20 75 67.15 180 78.95 1974 44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 69.05 5894 80.95 2015 46.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 222 171.20 18 281.00 35 171.80 42 172.00 31	38.10	2541		3288	62.10	2840	76.05	2551
42.90 20 55.20 75 67.15 180 78.95 1974 44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 69.05 5894 80.95 2015 46.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 33 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 17 129.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 18 160.85 46 267.00 222 171.20 18 281.00 35 107 112.00 18 281.00 35 112.80 128.10 35 112.80 128.10 35 112.80 128.10 138.10 128.50 128.10 139.90 138.10 139.90	39.10	920		152	63.10	2176	77.05	226
44.00 386 56.05 981 68.05 5935 80.00 558 45.05 520 57.10 1708 69.05 5894 80.95 2015 646.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.00 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42 Average of 16.357 to 16.369 min.: W29765.D BFB Modified: subtracted	40.00	68	55.00	97	64.05	169	77.95	150
45.05	42.90	20	55.20	75	67.15		78.95	1974
46.00 34 58.00 52 70.05 453 81.95 417 47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified: subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB Modified: subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	44.00	386	56.05	981	68.05	5935	80.00	558
47.10 343 58.20 16 72.05 396 83.20 19 48.05 431 59.20 21 73.05 2623 85.95 42  Average of 16.357 to 16.369 min.: W29765.D  BFB Modified:subtracted		520	57.10	1708	69.05	5894	80.95	2015
Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  87.00 1274 105.95 269 116.80 386 140.95 779  88.00 1232 107.10 24 118.00 259 141.85 105  90.95 255 109.90 41 118.95 388 142.95 795  92.00 1765 110.70 19 127.90 261 143.90 70  93.00 2574 111.00 32 128.90 94 144.85 36  94.05 7112 111.80 17 129.90 233 145.85 95  95.10 51162 112.00 21 130.70 16 146.95 59  96.05 3398 112.85 49 131.00 53 147.95 165  96.95 93 113.10 20 134.95 113 149.00 23  103.95 307 114.90 76 136.90 104 149.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442  156.95 128 177.00 2730  158.95 91 177.95 107  160.70 23 207.10 18  160.85 46 267.00 22  171.20 18 281.00 35  171.50 21 282.10 16  171.80 42  172.00 31	46.00	34	58.00	52	70.05	453	81.95	417
Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	47.10	343	58.20	16	72.05	396	83.20	19
BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	48.05	431	59.20	21	73.05	2623	85.95	42
Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  87.00 1274 105.95 269 116.80 386 140.95 779  88.00 1232 107.10 24 118.00 259 141.85 105  90.95 255 109.90 41 118.95 388 142.95 795  92.00 1765 110.70 19 127.90 261 143.90 70  93.00 2574 111.00 32 128.90 94 144.85 36  94.05 7112 111.80 17 129.90 233 145.85 95  95.10 51162 112.00 21 130.70 16 146.95 59  96.05 3398 112.85 49 131.00 53 147.95 165  96.95 93 113.10 20 134.95 113 149.00 23  103.95 307 114.90 76 136.90 104 149.90 17  104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442  156.95 128 177.00 2730  158.95 91 177.95 107  160.70 23 207.10 18  160.85 46 267.00 22  171.20 18 281.00 35  171.50 21 282.10 16  171.80 42  172.00 31	Average of	16.357 to	16.369 mi	n.: W2976	5.D			
m/z         abund.         m/z         abund.         m/z         abund.         m/z         abund.           87.00         1274         105.95         269         116.80         386         140.95         779           88.00         1232         107.10         24         118.00         259         141.85         105           90.95         255         109.90         41         118.95         388         142.95         795           92.00         1765         110.70         19         127.90         261         143.90         70           93.00         2574         111.00         32         128.90         94         144.85         36           94.05         7112         111.80         17         129.90         233         145.85         95           95.10         51162         112.00         21         130.70         16         146.95         59           96.05         3398         112.85         49         131.00         53         147.95         165           96.95         93         113.10         20         134.95         113         149.00         23           104.90         89         115.90<	BFB							
87.00 1274 105.95 269 116.80 386 140.95 779 88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	Modified:su	btracted						
88.00 1232 107.10 24 118.00 259 141.85 105 90.95 255 109.90 41 118.95 388 142.95 795 92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.95	87.00	1274	105.95	269	116.80	386	140.95	779
92.00 1765 110.70 19 127.90 261 143.90 70 93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	88.00			24	118.00		141.85	
93.00 2574 111.00 32 128.90 94 144.85 36 94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31				41			142.95	795
94.05 7112 111.80 17 129.90 233 145.85 95 95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted	92.00	1765	110.70	19	127.90		143.90	70
95.10 51162 112.00 21 130.70 16 146.95 59 96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	93.00	2574	111.00	32	128.90	94	144.85	36
96.05 3398 112.85 49 131.00 53 147.95 165 96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	94.05	7112		17	129.90	233	145.85	95
96.95 93 113.10 20 134.95 113 149.00 23 103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35 Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. m/z abund. 154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31		51162		21			146.95	59
103.95 307 114.90 76 136.90 104 149.90 17 104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442  156.95 128 177.00 2730  158.95 91 177.95 107  160.70 23 207.10 18  160.85 46 267.00 22  171.20 18 281.00 35  171.50 21 282.10 16  171.80 42  172.00 31	96.05	3398	112.85	49	131.00	53		165
104.90 89 115.90 263 139.90 38 151.90 35  Average of 16.357 to 16.369 min.: W29765.D  BFB  Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442  156.95 128 177.00 2730  158.95 91 177.95 107  160.70 23 207.10 18  160.85 46 267.00 22  171.20 18 281.00 35  171.50 21 282.10 16  171.80 42  172.00 31				20	134.95	113	149.00	23
Average of 16.357 to 16.369 min.: W29765.D BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund. 154.95 160 176.00 44442 156.95 128 177.00 2730 158.95 91 177.95 107 160.70 23 207.10 18 160.85 46 267.00 22 171.20 18 281.00 35 171.50 21 282.10 16 171.80 42 172.00 31	103.95				136.90	104		17
BFB Modified:subtracted  m/z abund. m/z abund. m/z abund. m/z abund.  154.95 160 176.00 44442  156.95 128 177.00 2730  158.95 91 177.95 107  160.70 23 207.10 18  160.85 46 267.00 22  171.20 18 281.00 35  171.50 21 282.10 16  171.80 42  172.00 31						38	151.90	35
Modified:subtracted           m/z         abund.         m/z <th< td=""><td>Average of</td><td>16.357 to</td><td>16.369 mi</td><td>n.: W2976</td><td>5.D</td><td></td><td></td><td></td></th<>	Average of	16.357 to	16.369 mi	n.: W2976	5.D			
m/z     abund.     m/z     abund.     m/z     abund.     m/z     abund.       154.95     160     176.00     44442       156.95     128     177.00     2730       158.95     91     177.95     107       160.70     23     207.10     18       160.85     46     267.00     22       171.20     18     281.00     35       171.50     21     282.10     16       171.80     42       172.00     31								
154.95     160     176.00     44442       156.95     128     177.00     2730       158.95     91     177.95     107       160.70     23     207.10     18       160.85     46     267.00     22       171.20     18     281.00     35       171.50     21     282.10     16       171.80     42       172.00     31								
156.95					m/z	abund.	m/z	abund.
158.95     91     177.95     107       160.70     23     207.10     18       160.85     46     267.00     22       171.20     18     281.00     35       171.50     21     282.10     16       171.80     42       172.00     31				44442				
160.70     23     207.10     18       160.85     46     267.00     22       171.20     18     281.00     35       171.50     21     282.10     16       171.80     42       172.00     31								
160.85     46     267.00     22       171.20     18     281.00     35       171.50     21     282.10     16       171.80     42       172.00     31								
171.20								
171.50 21 282.10 16 171.80 42 172.00 31								
171.80 42 172.00 31								
172.00 31			282.10	16				
174 00 45442								
175.00 4022	174.00	45442						



Data File : C:\MSDCHEM\1\DATA\W30125.D Vial: 5

Acq On : 11 Feb 2011 6:09 am Operator: YOUMINH : BFB Sample Inst : MSW : MS7890,VW1236,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1889, 1890, 1891; Background Corrected with Scan 1878

	Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result   Pass/Fail
Ī	50	95	8	40	15.1	6206	PASS
İ	75	95	30	66	45.0	18570	PASS
İ	95	95	100	100	100.0	41224	PASS
İ	96	95	5	9	7.1	2942	PASS
İ	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	89.7	36960	PASS
İ	175	174	4	9	8.6	3165	PASS
İ	176	174	93	101	96.8	35760	PASS
İ	177	176	5	9	6.4	2272	PASS

Mon Feb 14 10:29:57 2011 MSW W30125.D MW1222.M



145.90

74

156.80

Average of 16.345 to 16.357 min.: W30125.D Modified:subtracted abund. abund. m/z abund. m/z m/z m/z abund. 340 36.10 318 45.00 56.05 689 66.80 38 37.05 1762 46.10 72 57.00 981 66.95 53 38.05 1626 47.10 581 58.00 51 3363 68.00 721 47.90 18 48.20 21 39.05 58.80 87 69.00 3356 100 95 70.05 40.80 59.80 314 1371 60.05 6206 61.00 347 72.00 0206 61.00 1711 72.20 2171 62.00 1797 73.05 124 63.00 1382 74.05 20 64.00 163 75.05 102 65.40 41.10 21 49.05 132 41.50 17 50.10 66 42.20 27 51.05 1598 28 51.95 104 52.60 5892 42.80 43.80 18570 171 55.05 1666 Average of 16.345 to 16.357 min.: W30125.D Modified:subtracted abund. abund. m/z abund. m/z m/z m/z abund. 77.10 91 117.85 103.70 286 1381 209 88.00 77.70 2.1 88.70 24 104.00 84 118.70 74 30 118.95 90.90 240 104.90 78.95 1523 167 160 91.95 79.80 1003 105.80 237 123.90 24 21 127.10 80.05 311 93.00 1668 107.20 22 80.90 1474 94.00 4484 110.85 52 127.95 176 19 128.90 49 129.10 411 95.10 41224 112.10 22 81.90 96.05 2942 112.95 22 108 106 322 83.00 54 96.90 97.15 115.70 129.50 29 86.20 75 50 86.90 499 62 116.00 129.95 191 25 116.85 87.05 976 103.00 131.10 22 Average of 16.345 to 16.357 min.: W30125.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 147.70 157.10 44 177.00 134.80 102 43 2272 136.85 68 148.10 38 158.20 18 178.00 34 22 148.70 17 158.80 44 206.70 16 138.40 30 149.60 21 159.10 18 207.20 23 140.10 140.95 421 149.80 30 160.20 21 209.20 17 41 18 85 33 52 141.65 152.85 170.50 241.50 16 38 153.80 21 267.00 142.10 171.55 26 142.90 583 154.70 32 171.90 89 56 32 36960 -17 38 143.80 155.00 174.00 145.20 155.95 175.05 3165

32

176.00

35760



(compounds with "m" flag) Jessica Reitan-Chu 01/28/11 14:12

**Manual Integrations** APPROVED

Data Path : C:\msdchem\1\DATA\

Data File : 2w29353.d Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH : IC1240-0.2 Sample

: MS2686, V2W1240,,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 09:59:19 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits D	ev(Mi	.n)
Internal Standards							
1) BROMOCHLOROMETHANE	7.319	128	122688	10.00	PPBV	# 0	0.01
44) 1,4-DIFLUOROBENZENE	9.166	114	653411	10.00	PPBV	0	0.00
61) CHLOROBENZENE-D5	13.287	82	277492	10.00	PPBV	# 0	0.00
93) CHLOROBENZENE-D5(A)	13.287	82	293024	10.00	PPBV	# 0	.00
System Monitoring Compounds							
75) 4-BROMOFLUOROBENZENE	14.775	95	143115	4.92	PPBV	0.	00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	98.4	0%	
Target Compounds						Qvalu	ıe
3) DICHLORODIFLUOROMETHANE	3.838	85	16510	0.24	PPBV		98
4) FREON 152A	3.740	65	5408	0.33	PPBV		88
5) CHLORODIFLUOROMETHANE	3.771		1919	0.30	PPBV	#	42
6) PROPYLENE	3.795		4809	0.25	PPBV		97
7) FREON 114	3.996	85	16999	0.22	PPBV		96
8) CHLOROMETHANE	3.935		1783	0.25	PPBV	#	72
9) VINYL CHLORIDE	4.076	62	5827	0.23	PPBV		97
10) 1,3-BUTADIENE	4.167	54	4216	0.23	PPBV		92
11) n-BUTANE	4.185	43	9222	0.24	PPBV	#	94
12) BROMOMETHANE	4.326	94	5279	0.23	PPBV		89
13) CHLOROETHANE	4.441		3213	0.23	PPBV		95
14) FREON 123	4.734	83	14188	0.22	PPBV	#	73
15) FREON 123A	4.771	117	8115	0.22			83
16) TRICHLOROFLUOROMETHANE	4.917	101	14954				97
17) ISOPROPYL ALCOHOL	5.356	45	6788m	0.20	PPBV		
18) ACETONE	5.258		2001m	0.23	PPBV		
19) PENTANE	5.161	42	6119	0.24	PPBV		96
20) TVHC as EQUIV PENTANE	5.149	TIC	21999m	0.02	PPBV		
21) IODOMETHANE	5.313	142	12489	0.23	PPBV		98
22) 1,1-DICHLOROETHYLENE	5.362	96	12489 5150m 14502	0.23	PPBV		
23) CARBON DISULFIDE	5.703	76	14502	0.23	PPBV		89
24) ETHANOL	4.752	45	1645	0.23	PPBV		94
25) BROMOETHENE	4.655	106	4685	0.21	PPBV	#	91
26) METHYLENE CHLORIDE	5.453		4956	0.26	PPBV		88
27) 3-CHLOROPROPENE	5.551	76	1872	0.20	PPBV	#	70
28) FREON 113	5.661		9073		PPBV		93
29) TRANS-1,2-DICHLOROETHY	6.246	96	4767	0.22	PPBV		95
30) TERTIARY BUTYL ALCOHOL		59	8617m				
31) METHYL TERTIARY BUTYL			12669m	0.19	PPBV		
32) TETRAHYDROFURAN	8.642	72	1781m	0.20	PPBV		
33) HEXANE	7.368	57	8298	0.22	PPBV	#	82
34) VINYL ACETATE	6.734	86	319m	0.05	PPBV		
35) 1,1-DICHLOROETHANE	6.404	63	9511	0.22	PPBV		96
36) METHYL ETHYL KETONE	7.605	72	992m	0.12	PPBV		
37) cis-1,2-DICHLOROETHYLENE			3722	0.18	PPBV	#	78
38) ETHYL ACETATE	7.861		1286m	0.24	PPBV		
39) CHLOROFORM	7.435	83	9027	0.20	PPBV		91
39) CHLOROFORM	, , 100						
40) 2,4-DIMETHYLPENTANE	8.209		11643	0.22	PPBV		96

M2W1240.M Mon Feb 28 10:28:01 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29353.d Acq On : 21 Jan 2011 10:08 am Operator : YOUMINH

Sample : IC1240-0.2
Misc : MS2686, V2W1240,,,,,1 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 09:59:19 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

	Compound			Response	Conc Units Dev(Min)
42)	CARBON TETRACHLORIDE	8.953		12561	0.22 PPBV 98
	1,2-DICHLOROETHANE	8.142	62	4669	0.20 PPBV 99
45)	BENZENE	8.819	78	15120	0.21 PPBV 99
46)	CYCLOHEXANE	8.819 9.069	56	9863	0.22 PPBV # 76
47)	2,3-DIMETHYLPENTANE	9.318 9.824 9.605	71	4634	0.22 PPBV 88
48)	TRICHLOROETHYLENE	9.824	95	5939	0.20 PPBV 94
49)	1,2-DICHLOROPROPANE	9.605	63	4500	0.18 PPBV 96
	BROMODICHLOROMETHANE	9.776 9.879	83	8994 30378	0.19 PPBV 99
51)	2,2,4-TRIMETHYLPENTANE	9.879	57		
52)	1,4-DIOXANE	11.025	88	1807m 4226m	0.20 PPBV
53)	METHYL METHACRYLATE	10.251	69	4226m	0.19 PPBV
54)	HEPTANE	10.142	43	8704	0.21 PPBV 82
	TVHC as EQUIV HEPTANE			33895m	0.04 PPBV
	METHYL ISOBUTYL KETONE	11.032	58	3133m	
57)	cis-1,3-DICHLOROPROPENE	10.684 11.611	75	5169	0.16 PPBV 94
58)	TOLUENE	11.611	92	8530	0.19 PPBV 94
59)	trans-1,3-DICHLOROPROPENE	11.190 11.336	75	2987 4002	0.16 PPBV 85
	1,1,2-TRICHLOROETHANE	11.336	83	4002	0.19 PPBV 97
62)	2-HEXANONE	12.287	58	2851m	0.17 PPBV
63)	TETRACHLOROETHYLENE	12.678			0.21 PPBV 92
	DIBROMOCHLOROMETHANE	11.989		7351	0.20 PPBV 96
	1,2-DIBROMOETHANE	12.226		7351 5104 9227	0.20 PPBV 97
	OCTANE	12.580		7221	0.19 PPBV 90
	1,1,1,2-TETRACHLOROETHANE				0.22 PPBV # 1
	CHLOROBENZENE	13.324	112		0.19 PPBV 87
	ETHYLBENZENE	13.708	91		0.19 PPBV 98
	m,p-XYLENE	13.891	106	11821	0.38 PPBV # 87
	O-XYLENE	14.330		5845 5640	0.19 PPBV 93
	STYRENE	14.232			0.17 PPBV 90
	NONANE	14.586		7768	
	BROMOFORM	13.921		6173	0.20 PPBV 94
	1,1,2,2-TETRACHLOROETHANE	14.318	83	'/16/	0.18 PPBV 99
	ISOPROPYLBENZENE			16718	0.18 PPBV 97
	2-CHLOROTOLUENE	15.403	126	3207	0.18 PPBV # 1
	n-PROPYLBENZENE	15.458	120	3818	0.18 PPBV # 13
	4-ETHYLTOLUENE	15.604		9852	0.15 PPBV 97
	1,3,5-TRIMETHYLBENZENE	15.683		9972	
	TERT-BUTYLBENZENE	16.079		2354	0.16 PPBV 87
		16.092	105	7625	0.15 PPBV 91
	m-DICHLOROBENZENE	16.232		2908	0.14 PPBV 98
	BENZYL CHLORIDE	16.232			0.08 PPBV 84
	p-DICHLOROBENZENE	16.299			
	SEC-BUTYLBENZENE	16.360	134	2589	0.15 PPBV # 95
	p-ISOPROPYLTOLUENE	16.531			0.10 PPBV
	o-DICHLOROBENZENE	16.640			
	n-BUTYLBENZENE	17.274			0.20 PPBV
9T)		18.792			
92)	1,2,4-TRICHLOROBENZENE	T8.609	T80	938m	0.15 PPBV

M2W1240.M Mon Feb 28 10:28:01 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\

Data File : 2w29353.d Acq On : 21 Jan 2011 10:08 am Operator : YOUMINH

Sample : IC1240-0.2 Misc : MS2686, V2W1240,,,,,1 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 09:59:19 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Mon Feb 28 10:28:01 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\

Data File : 2w29353.d

Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

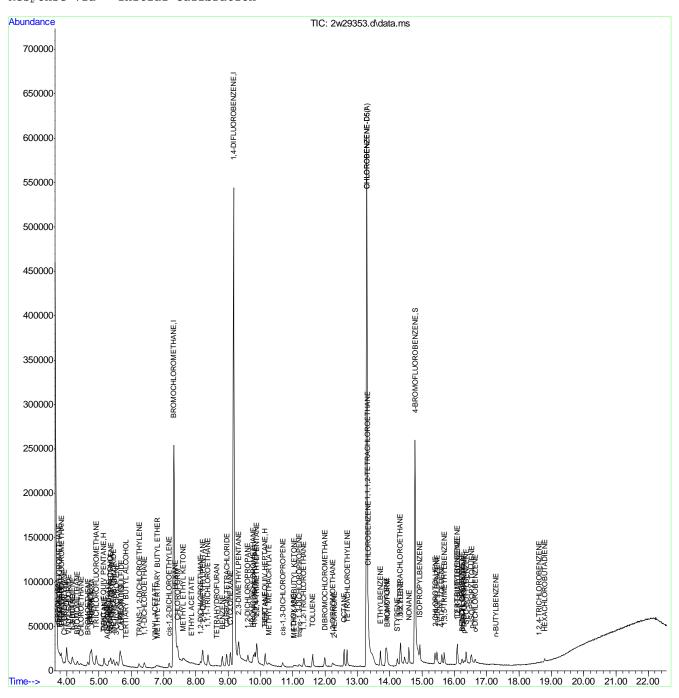
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 09:59:19 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:28:03 2011 VOA-CLN-02

Page 1 of 1

## **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29353.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 10:08 Supervisor approved: 01/28/11 14:12 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetone	67-64-1		5.26	Poor instrument integration
Isopropyl Alcohol	67-63-0		5.36	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0		5.84	Poor instrument integration
Vinyl Acetate	108-05-4		6.73	Missed peak
Methyl Tert Butyl Ether	1634-04-4		6.81	Poor instrument integration
Methyl ethyl ketone	78-93-3		7.61	Poor instrument integration
Ethyl Acetate	141-78-6		7.86	Poor instrument integration
Tetrahydrofuran	109-99-9		8.64	Poor instrument integration
Methylmethacrylate	80-62-6		10.25	Poor instrument integration
Methyl Isobutyl Ketone	108-10-1		11.03	Poor instrument integration
1,4-Dioxane	123-91-1		11.03	Poor instrument integration
2-Hexanone	591-78-6		12.29	Poor instrument integration
p-Dichlorobenzene	106-46-7		16.30	Poor instrument integration
p-Isopropyltoluene	99-87-6		16.53	Poor instrument integration
n-Butylbenzene	104-51-8		17.27	Poor instrument integration
1,2,4-Trichlorobenzene	120-82-1		18.61	Poor instrument integration
Hexachlorobutadiene	87-68-3		18.79	Poor instrument integration



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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D
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Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

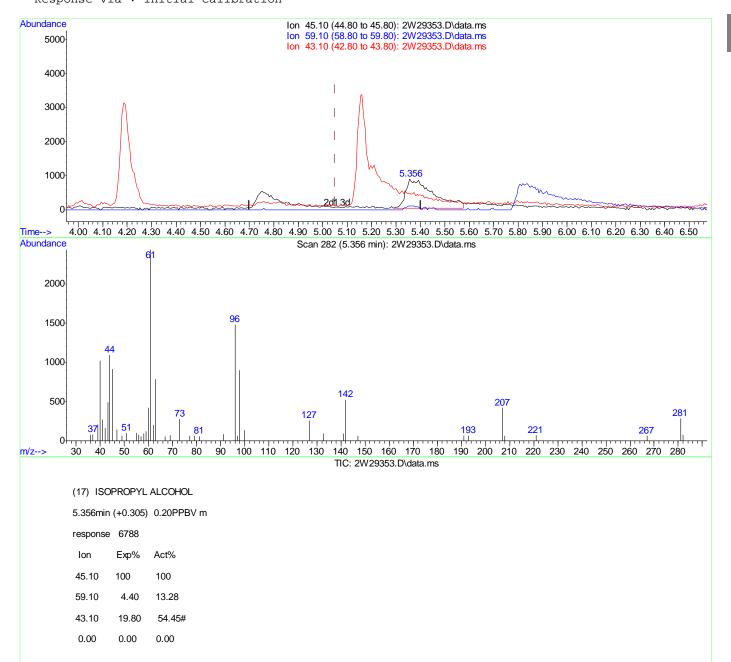
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:28:50 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\2w\
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Data File : 2W29353.D

: 21 Jan 2011 10:08 am Acq On

Operator : YOUMINH : IC1240-0.2 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

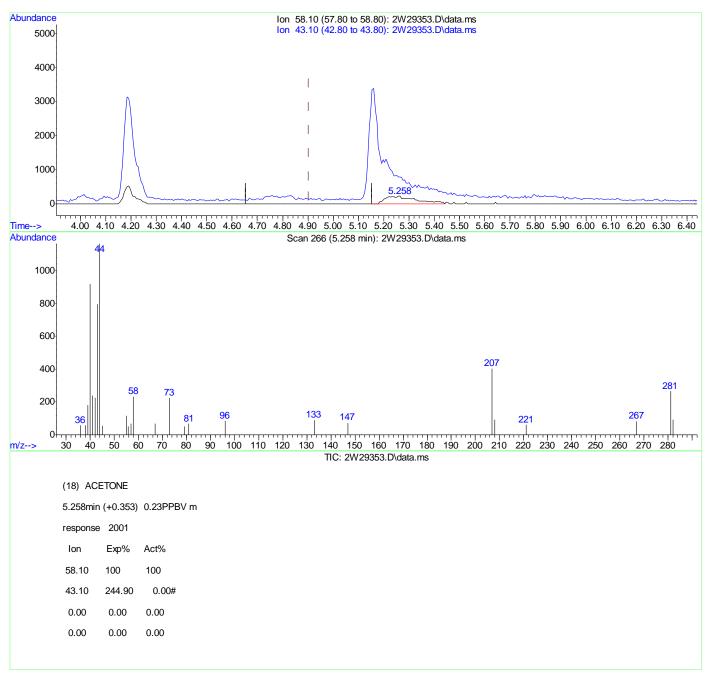
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Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:28:53 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29353.D : 21 Jan 2011 10:08 am Acq On

Operator : YOUMINH

Sample : IC1240-0.2

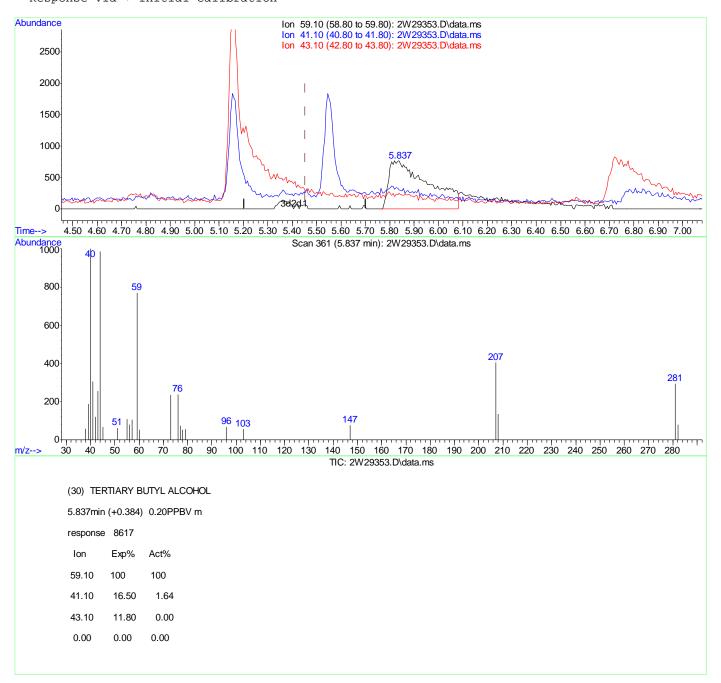
: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



579 of 840 ACCUTEST: JA68565

```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D
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: 21 Jan 2011 10:08 am Acq On

Operator : YOUMINH Sample : IC1240-0.2

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

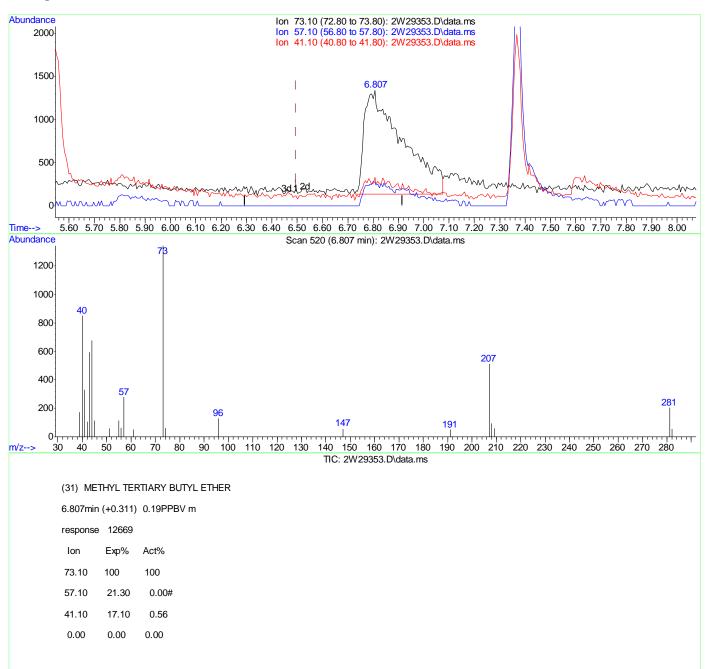
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Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:02 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29353.D : 21 Jan 2011 10:08 am Acq On

: YOUMINH Operator

: IC1240-0.2 Sample

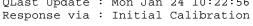
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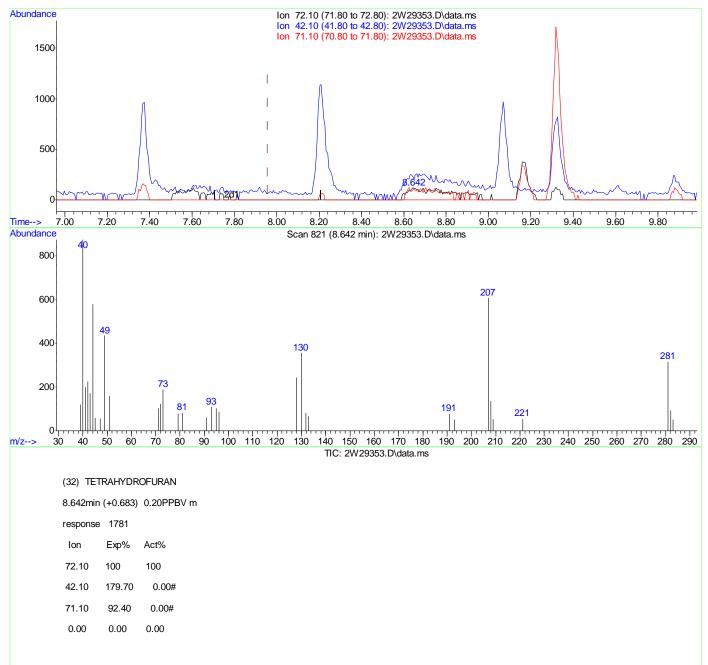
Quant Time: Jan 25 09:23:49 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011





M2W1240.M Tue Jan 25 15:29:07 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D
          : 21 Jan 2011 10:08 am
Acq On
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Operator : YOUMINH Sample : IC1240-0.2

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

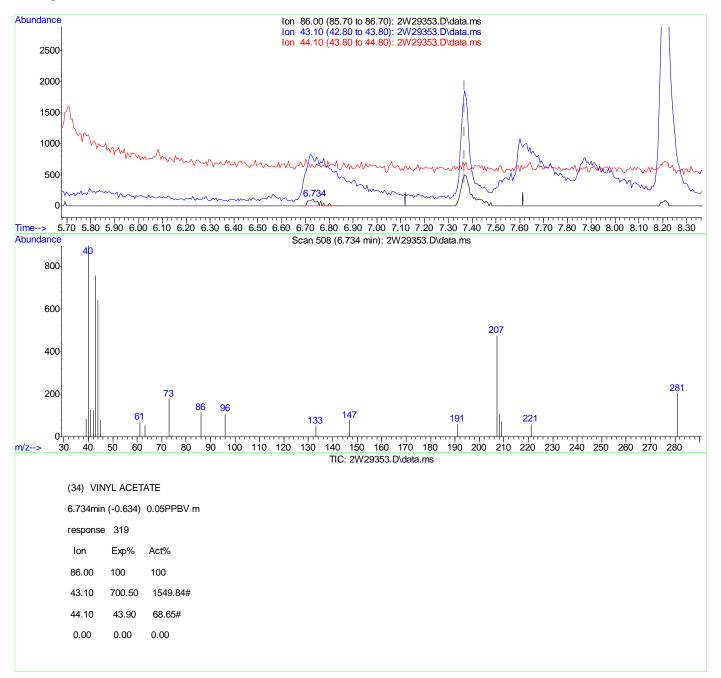
Quant Time: Jan 25 09:23:49 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:13 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D
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: 21 Jan 2011 10:08 am Acq On

: YOUMINH Operator : IC1240-0.2 Sample

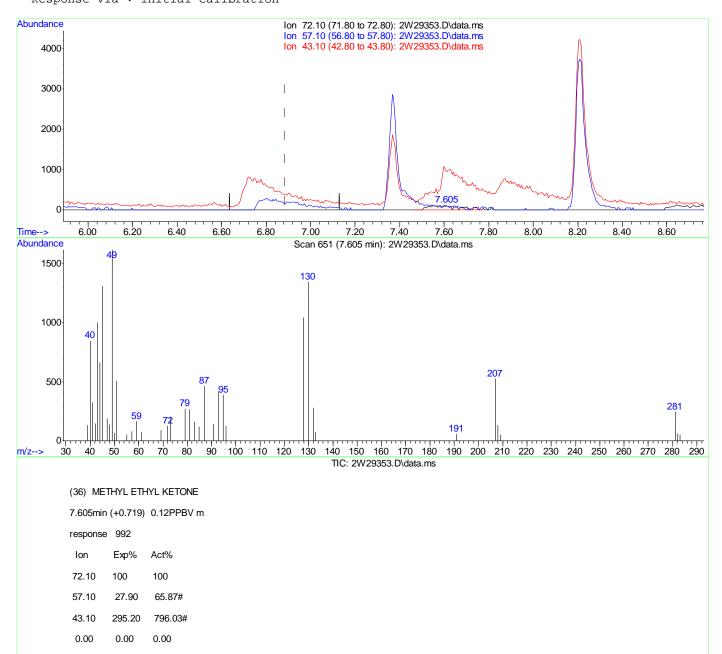
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Quant Time: Jan 25 09:23:49 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:19 2011 VOA-CLN-02

583 of 840 ACCUTEST JA68565

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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D
          : 21 Jan 2011 10:08 am
Acq On
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Operator : YOUMINH

Sample : IC1240-0.2

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

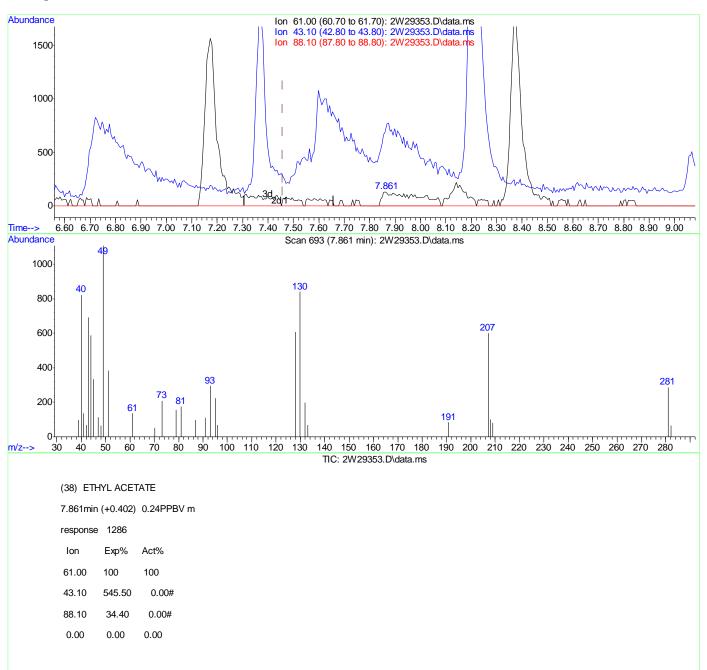
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Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration





Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29353.D

: 21 Jan 2011 10:08 am Acq On

Operator : YOUMINH Sample : IC1240-0.2

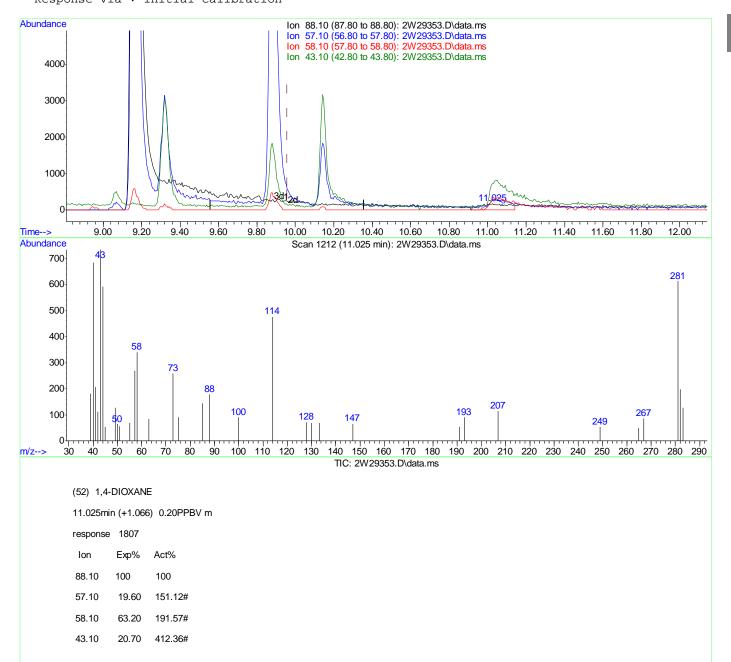
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Quant Time: Jan 25 09:23:49 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:34 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D

Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

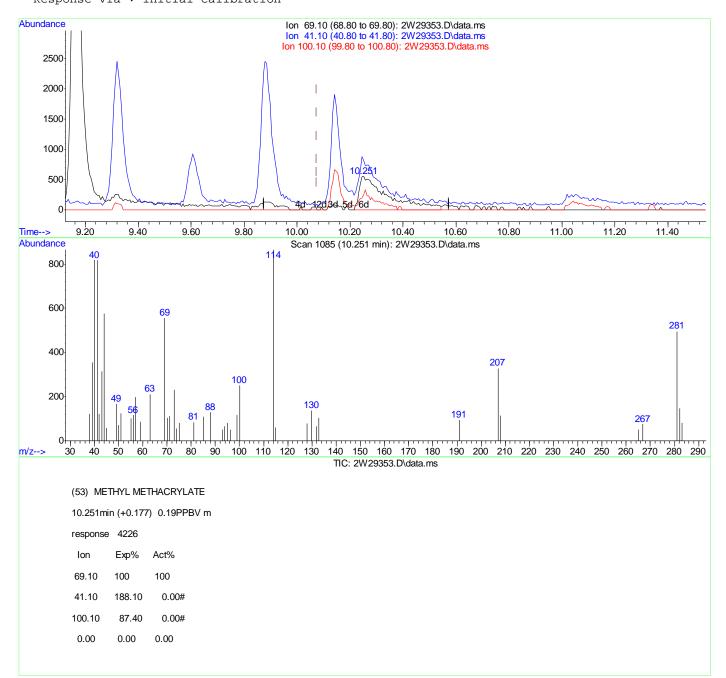
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:40 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D

Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

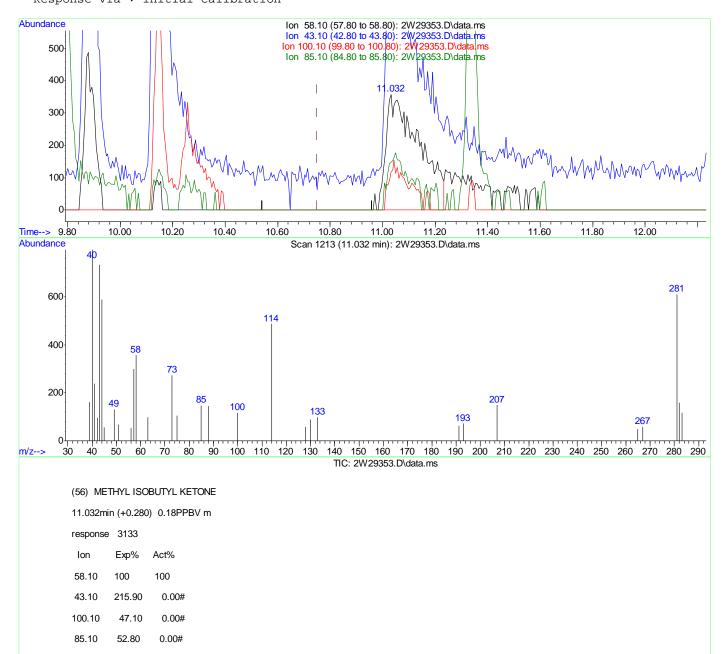
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:46 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D

Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

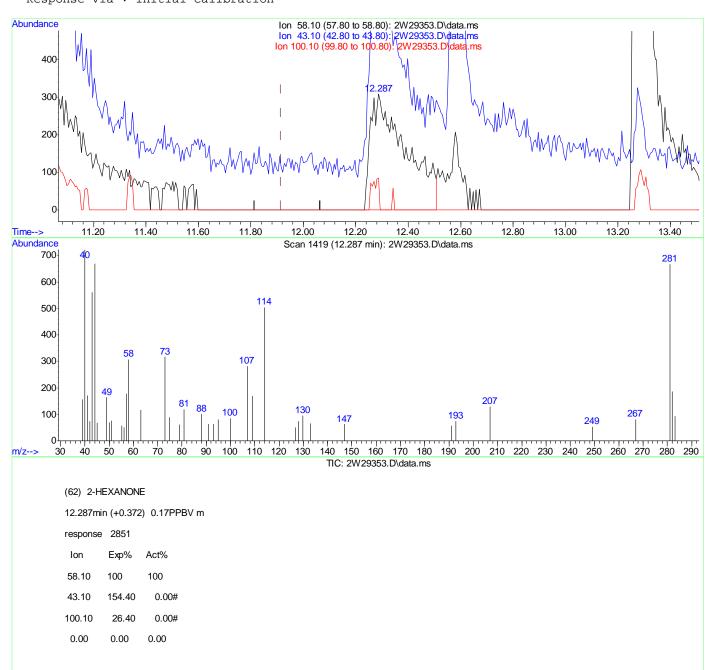
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:52 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29353.D : 21 Jan 2011 10:08 am Acq On

Operator : YOUMINH Sample : IC1240-0.2

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

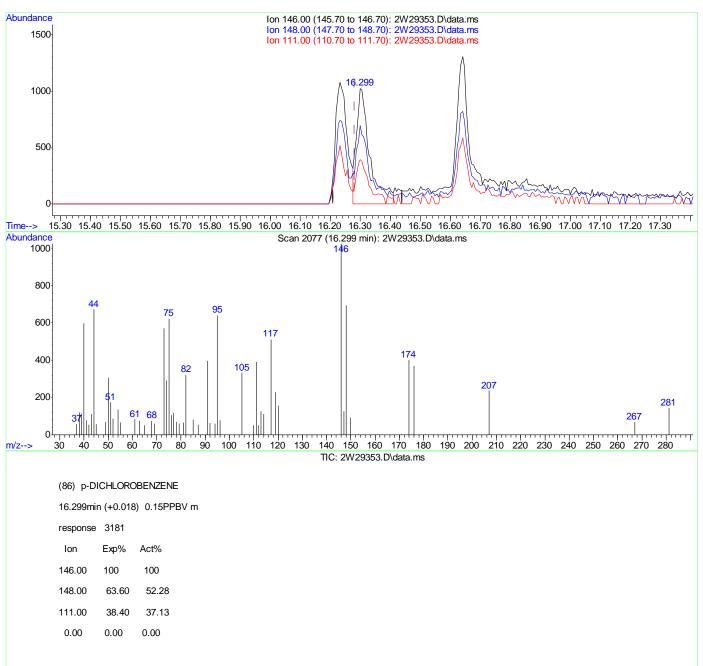
Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:29:57 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D
          : 21 Jan 2011 10:08 am
Acq On
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Operator : YOUMINH

Sample : IC1240-0.2

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

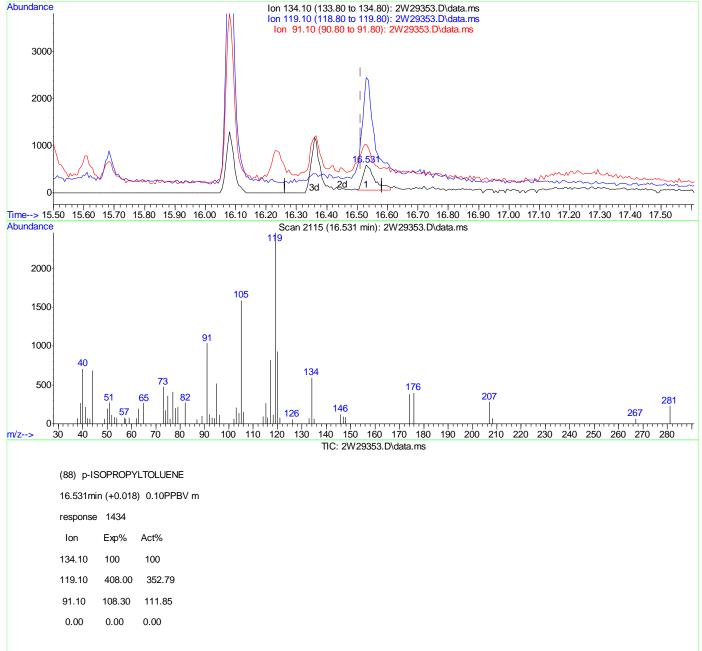
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Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:30:01 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\ Data File: 2W29353.D Acq On : 21 Jan 2011 10:08 am

: YOUMINH Operator : IC1240-0.2 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

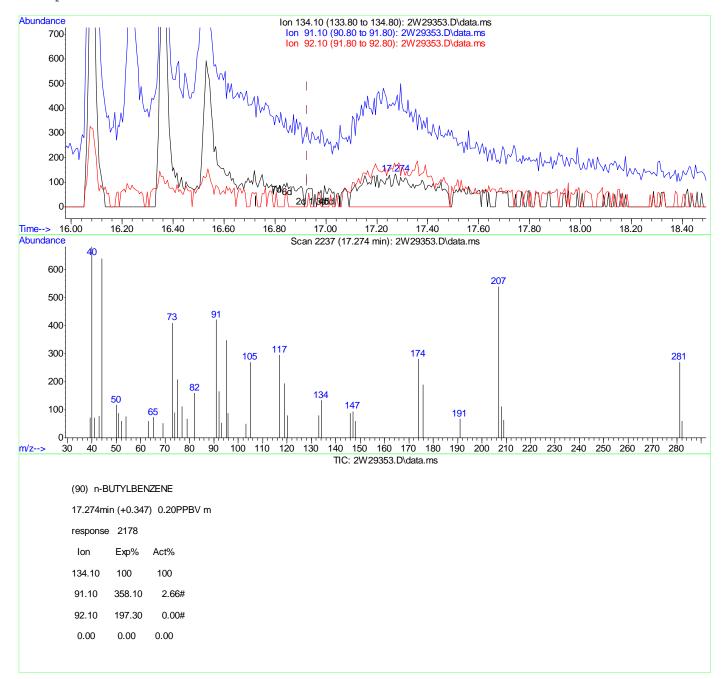
Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:30:08 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\ Data File: 2W29353.D : 21 Jan 2011 10:08 am Acq On

Operator : YOUMINH Sample : IC1240-0.2

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

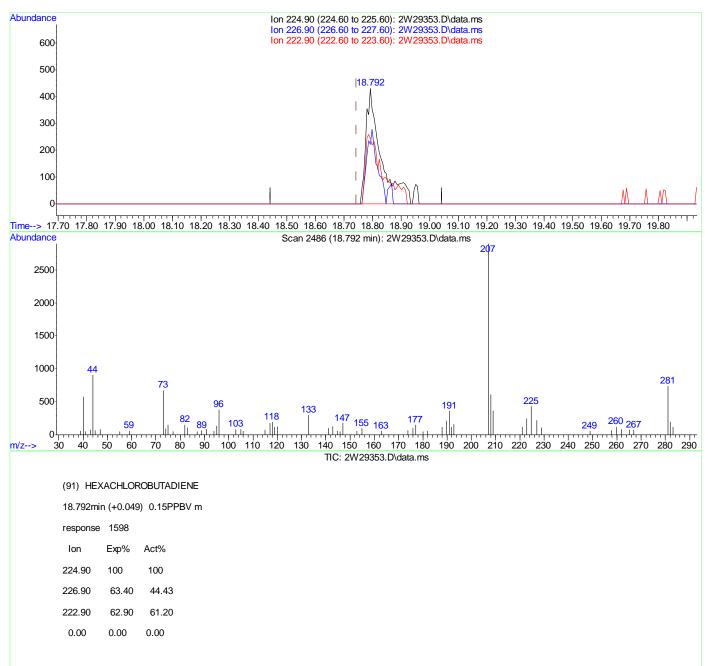
Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:30:11 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29353.D

Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:30:14 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\ Data File: 2W29353.D

Acq On : 21 Jan 2011 10:08 am

: YOUMINH Operator : IC1240-0.2 Sample

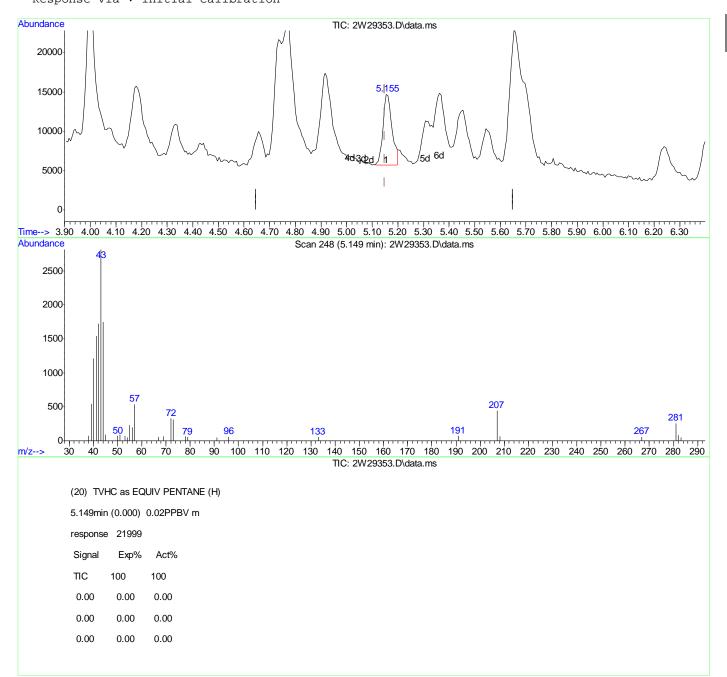
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Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration





Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29353.D Acq On : 21 Jan 2011 10:08 am

Operator : YOUMINH Sample : IC1240-0.2

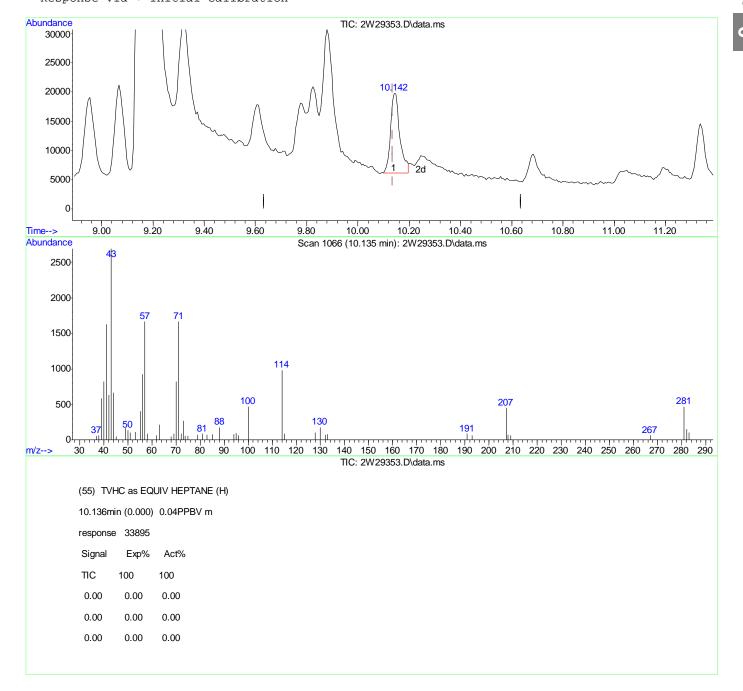
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:23:49 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:09:57 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29353.d

Acq On : 21 Jan 2011 10:08 am

: YOUMINH Operator : IC1240-0.2 Sample

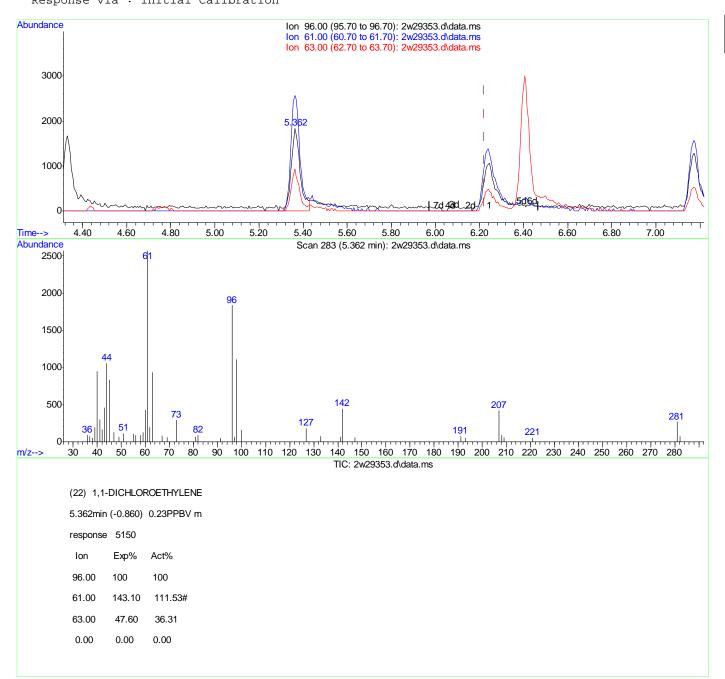
: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 09:59:19 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:11:05 2011 VOA-CLN-02

**Manual Integrations** APPROVED (compounds with "m" flag)

Jessica Reitan-Chu 01/28/11 14:12

Data Path : C:\msdchem\1\DATA\

Data File : 2w29354.d

Acq On : 21 Jan 2011 10:45 am Operator : YOUMINH

: ICC1240-10

Sample : MS2686,V2W1240,,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:22 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

44) 1,4-DIFLUOROBENZENE       9.166       114       809661       10.00 PPBV       0.00         61) CHLOROBENZENE-D5       13.281       82       379609       10.00 PPBV       # 0.00	Compound	R.T.	QIon	Response	Conc U	nits I	Dev(Min)
44) 1,4-DIFLUOROBENZENE 9.166 114 809661 10.00 PPBV 0.00 61) CHLOROBENZENE-D5(A) 13.281 82 379609 10.00 PPBV # 0.00 33) CHLOROBENZENE-D5(A) 13.281 82 3794291 10.00 PPBV # 0.00 82 33) CHLOROBENZENE 14.775 95 208492 5.24 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 104.80%  Target Compounds 7.000 Range 65 - 128 Recovery = 104.80%  Target Compounds 3.000 Range 65 - 128 Recovery = 104.80%  Target Compounds 3.000 Range 65 - 128 Recovery = 104.80%  Target Compounds 3.741 65 169306 8.10 PPBV 99 4) FREON 152A 3.741 65 169306 8.10 PPBV 99 6) PROPYLENE 3.783 41 213071 8.84 PPBV 99 6) PROPYLENE 3.783 41 213071 8.84 PPBV 99 6) PROPYLENE 3.783 41 213071 8.84 PPBV 99 7) FREON 114 3.997 85 850127 8.81 PPBV 99 99 80 PROPYLENE 3.783 41 213071 8.84 PPBV 99 99 90 PROPYLENE 3.783 41 213071 8.84 PPBV 99 90 90 PROPYLENE 3.783 41 213071 8.84 PPBV 99 90 90 PROPYLENE 3.783 41 213071 8.84 PPBV 99 90 PROPYLENE 3.783 41 213071 8.84 PPBV 99 90 PROPYLENE 3.783 41 213071 8.84 PPBV 99 90 PROPYLENE 3.783 41 213071 8.87 PPBV 92 90 PROPYLENE 3.783 41 213071 8.87 PPBV 92 90 PREV 3.000 PPBV 3.000 P	Internal Standards						
61) CHLOROBENZENE-D5	1) BROMOCHLOROMETHANE	7.307	128	155412	10.00	PPBV	# 0.00
System   Monitoring Compounds   Total   System   Monitoring Compounds   Total   System   Monitoring Compounds   Total   Spiked   Amount   Source   Source   Source   Source   Total   System   Source	44) 1,4-DIFLUOROBENZENE	9.166	114	809661	10.00	PPBV	0.00
System   Monitoring Compounds   Target   Compounds   Spiked Amount   5.000   Range   65 - 128   Recovery   = 104.80%	61) CHLOROBENZENE-D5	13.281	82	379609	10.00	PPBV	# 0.00
Target Compounds	93) CHLOROBENZENE-D5(A)			394291	10.00	PPBV	# 0.00
Target Compounds 3) DICHLORODIFLUOROMETHANE 3) BY STANDAY STAN	System Monitoring Compounds						
Target Compounds   3   DICHLORODIFLUOROMETHANE   3   3   3   3   3   5   728035   8   48   PPBV   99   4   FREON   152A   3   741   65   169306   8   10   PPBV   95   5   CHLORODIFLUOROMETHANE   3   765   67   68867   8   54   PPBV   99   99   6   PROPYLENE   3   783   41   213071   8   84   PPBV   99   7   FREON   114   3   997   8   5   850127   8   81   PPBV   99   7   PREON   114   3   997   8   5   850127   8   81   PPBV   97   8   CHLOROMETHANE   3   936   52   76902   8   64   PPBV   97   99   100   1   3   8   BUTANE   4   1070   62   286599   8   90   PPBV   100   100   1   3   8   BUTANE   4   155   54   218309   9   32   PPBV   92   92   11   n   BUTANE   4   186   4   4   3   431569   8   91   PPBV   99   12   BROMOMETHANE   4   4   29   64   162971   9   31   PPBV   98   13   CHLOROETHANE   4   4   29   64   162971   9   31   PPBV   98   14   PPBV   15   PPBV   15   PPBV   15   PPBV   15   PPBV   16   PPBV   16   PPBV   16   PPBV   16   PPBV   17   PPBV   18   PPBV   100   PPBV   PPBV   100   PPBV   P	75) 4-BROMOFLUOROBENZENE	14.775	95	208492	5.24	PPBV	0.00
3) DICHLORODIFLUOROMETHANE 4) FREON 152A 3.741 65 169306 8.10 PPBV 95 5) CHLORODIFLUOROMETHANE 3.765 67 68867 8.54 PPBV 99 6) PROPYLENE 3.768 67 68867 8.54 PPBV 99 7) FREON 114 3.997 85 850127 8.81 PPBV 99 7) FREON 114 3.997 85 850127 8.81 PPBV 97 8) CHLOROMETHANE 3.936 52 76902 8.64 PPBV 92 9) VINYL CHLORIDE 4.070 62 286599 8.90 PPBV 100 10) 1,3-BUTADIENE 4.155 54 218309 9.32 PPBV 92 11) n-BUTANE 4.186 43 431569 8.91 PPBV 95 12) BROMOMETHANE 4.26 94 266252 9.09 PPBV 95 13) CHLOROETHANE 4.429 64 162971 9.31 PPBV 98 14) FREON 123 4.728 83 732558 9.08 PPBV 75 15) FREON 123A 4.765 117 412602 8.99 PPBV 85 16) TRICHLOROFLUOROMETHANE 4.997 45 42 43325 9.74 PPBV 84 18) ACETONE 4.905 58 108076 9.72 PPBV 94 19) PENTANE 5.155 42 293096 9.15 PPBV 98 20) TVHC AS EQUIV PENTANE 5.169 71 149 71C 1497935m 1.30 PPBV 21) 1.DOMETHANE 5.367 142 673441 9.60 PPBV 99 22) 1.1-DICHLOROETHYLENE 5.356 96 280876m 9.94 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 26) METHYLENE CHLORIDE 5.539 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 26) METHYLENE CHLORIDE 5.541 84 226698 9.26 PPBV 88 27) 3-CHLOROPPENE 5.539 76 123603 10.58 PPBV 99 26) METHYLENE CHLORIDE 5.655 151 468592 9.06 PPBV 93 29) TRANS-1,2-DICHLOROETHYL. 6.222 96 262311 9.64 PPBV 93 29) TRANS-1,2-DICHLOROETHY. 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 93 31) METHYL TERTIARY BUTYL 4.6496 73 845728 9.77 PPBV 94 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV 88 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHYLENE 6.569 86 53174m 6.10 PPBV 99 36) METHYL ETHYL KETONE 6.586 72 100249 9.85 PPBV 99 36) METHYL ETHYL KETONE 6.586 72 100249 9.85 PPBV 99 36) METHYL ACETATE 7.459 61 61259 9.14 PPBV 99 37) CHLOROFORM 7.429 83 590836 10.12 PPBV 99 38) CHLOROFORM 7.429 83 590836 10.12 PPBV 99 39 30) CHLOROFORM 7.429 83 590836 10.12 PPBV 99 30) CHLOROFORM 7.429 83 590836 10.12 PPBV 99	Spiked Amount 5.000	Range 65	- 128	Recove	ry =	104.8	30%
Section   Sect	Target Compounds						Ovalue
Section   Sect	J 1	3.832	85	728035	8.48	PPBV	~
S							95
6) PROPYLENE 3.783 41 213071 8.84 PPBV 99 7) FREON 114 3.997 85 850127 8.81 PPBV 97 8) CHLOROMETHANE 3.936 52 76902 8.864 PPBV 97 9) VINYL CHLORIDE 4.070 62 286599 8.90 PPBV 100 10) 1,3-BUTADIENE 4.155 54 218309 9.32 PPBV 92 11) n-BUTANE 4.186 43 431569 8.91 PPBV 99 12) BROMOMETHANE 4.326 94 266252 9.09 PPBV 99 13) CHLOROSTHANE 4.429 64 162971 9.31 PPBV 98 14) FREON 123 4.728 83 732558 9.08 PPBV 85 15) FREON 123A 4.765 117 412602 8.99 PPBV 85 16) TRICHLOROFLUOROMETHANE 4.917 101 733497 8.71 PPBV 100 17) ISOPROPYL ALCOHOL 5.051 45 423325 9.74 PPBV 84 18) ACETONE 4.905 58 108076 9.72 PPBV 94 19) PENTANE 5.155 42 293096 9.15 PPBV 98 20) TVHC as EQUIV PENTANE 5.149 TIC 1497935m 1.30 PPBV 98 21) IODOMETHANE 5.307 142 673441 9.60 PPBV 99 22) 1,1-DICHLOROETHYLENE 5.356 96 280876m 9.94 PPBV 85 23) CARBON DISULFIDE 5.691 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 25) BROMOETHENE 5.549 16 266092 9.58 PPBV 89 26) METHYLENE CHLORIDE 5.441 84 226698 9.26 PPBV 89 27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV 84 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV 87 33) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 93 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 93 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 95 35) 1,1-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 36) METHYL ETHYL KETONE 6.886 72 100249 9.89 PPBV 95 36) METHYL ETHYL KETONE 6.886 72 100249 9.89 PPBV 95 37) CIS-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV 95 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 95 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 95	•						99
The Color   The							
8) CHLOROMETHANE 9) VINTL CHLORIDE 4.070 62 286599 8.90 PPBV 100 10) 1,3-BUTADIENE 4.155 54 218309 8.91 PPBV 92 11) n-BUTANE 4.186 43 431569 8.91 PPBV # 95 12) BROMOMETHANE 4.26 94 266252 9.09 PPBV 99 13) CHLOROETHANE 4.429 64 162971 9.31 PPBV # 95 14) FREON 123 4.728 83 732558 9.08 PPBV # 75 15) FREON 123 4.728 83 732558 9.08 PPBV # 75 16) TRICHLOROFLUOROMETHANE 4.917 101 733497 8.71 PPBV 84 18) ACETONE 4.905 58 108076 9.72 PPBV 94 19) PENTANE 5.155 42 293096 9.15 PPBV 94 19) PENTANE 5.155 42 293096 9.15 PPBV 98 20) TVHC as EQUIV PENTANE 5.149 TIC 1497935m 1.30 PPBV 21) IODOMETHANE 5.366 96 280876m 9.94 PPBV 22) 1,1-DICHLOROETHYLENE 5.366 96 280876m 9.94 PPBV 23) CARBON DISULFIDE 5.659 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 25) BROMOETHENE 4.649 106 266092 9.58 PPBV 99 26) METHYLENE CHLORIDE 5.541 84 226698 9.26 PPBV 88 27) 3-CHLOROPPOPENE 5.539 76 123603 10.58 PPBV 94 29) TRANS-1,2-DICHLOROETHYL. 6.222 96 262311 9.06 PPBV 98 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 99 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV 99 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 95 36) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 37) Cis-1,2-DICHLOROETHYLENE 6.369 86 53174m 6.10 PPBV 95 36) METHYL ACETATE 7.368 57 452429 9.44 PPBV 95 36) METHYL ACETATE 7.368 57 452429 9.44 PPBV 95 37) Cis-1,2-DICHLOROETHYLENE 7.368 57 452429 9.44 PPBV 95 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 95 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 95 39) CHLOROFORM 7.429 83 90 CHLOROFORM 9.924 PPBV # 95	· ·			850127			
9) VINYL CHLORIDE	•						
10	· ·						
11   n-BUTANE	· ·						
12   BROMOMETHANE							# 95
13   CHLOROETHANE							
14) FREON 123							
15   FREON 123A	· ·						
16) TRICHLOROFLUOROMETHANE	· ·						
17	•						
18) ACETONE							
19) PENTANE 5.155 42 293096 9.15 PPBV 98 20) TVHC as EQUIV PENTANE 5.149 TIC 1497935m 1.30 PPBV 21) IODOMETHANE 5.307 142 673441 9.60 PPBV 99 22) 1,1-DICHLOROETHYLENE 5.356 96 280876m 9.94 PPBV 23) CARBON DISULFIDE 5.691 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 25) BROMOETHENE 4.649 106 266092 9.58 PPBV 99 26) METHYLENE CHLORIDE 5.441 84 226698 9.26 PPBV 88 27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV # 46 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 89 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35 31,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.459 61 61259 9.14 PPBV # 90 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							
20) TVHC as EQUIV PENTANE 5.149 TIC 1497935m 1.30 PPBV 21) IODOMETHANE 5.307 142 673441 9.60 PPBV 99 22) 1,1-DICHLOROETHYLENE 5.356 96 280876m 9.94 PPBV 23) CARBON DISULFIDE 5.691 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 25) BROMOETHENE 4.649 106 266092 9.58 PPBV 99 26) METHYLENE CHLORIDE 5.441 84 226698 9.26 PPBV 88 27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV # 46 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 89 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHYLENE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV 99 37) Cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 39 CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	-, -						
21) IODOMETHANE 5.307 142 673441 9.60 PPBV 99 22) 1,1-DICHLOROETHYLENE 5.356 96 280876m 9.94 PPBV 23) CARBON DISULFIDE 5.691 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 25) BROMOETHENE 4.649 106 266092 9.58 PPBV 99 26) METHYLENE CHLORIDE 5.441 84 226698 9.26 PPBV 88 27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV # 46 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 89 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) Cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	•						
22) 1,1-DICHLOROETHYLENE       5.356       96       280876m       9.94       PPBV         23) CARBON DISULFIDE       5.691       76       701418       8.84       PPBV       95         24) ETHANOL       4.606       45       76764       8.45       PPBV       99         25) BROMOETHENE       4.649       106       266092       9.58       PPBV       99         26) METHYLENE CHLORIDE       5.441       84       226698       9.26       PPBV       88         27) 3-CHLOROPROPENE       5.539       76       123603       10.58       PPBV       #       46         28) FREON 113       5.655       151       468592       9.06       PPBV       94         29) TRANS-1,2-DICHLOROETHY       6.222       96       262311       9.64       PPBV       93         30) TERTIARY BUTYL ALCOHOL       5.454       59       530794       9.67       PPBV       89         31) METHYL TERTIARY BUTYL       6.496       73       845728       9.77       PPBV       96         32) TETRAHYDROFURAN       7.959       72       109500       9.47       PPBV       95         34) VINYL ACETATE       6.569       86       53174m       6.							
23) CARBON DISULFIDE 5.691 76 701418 8.84 PPBV 95 24) ETHANOL 4.606 45 76764 8.45 PPBV 99 25) BROMOETHENE 4.649 106 266092 9.58 PPBV 99 26) METHYLENE CHLORIDE 5.441 84 226698 9.26 PPBV 88 27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV # 46 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							
24) ETHANOL       4.606       45       76764       8.45 PPBV       99         25) BROMOETHENE       4.649       106       266092       9.58 PPBV       99         26) METHYLENE CHLORIDE       5.441       84       226698       9.26 PPBV       88         27) 3-CHLOROPROPENE       5.539       76       123603       10.58 PPBV       #       46         28) FREON 113       5.655       151       468592       9.06 PPBV       94         29) TRANS-1,2-DICHLOROETHY       6.222       96       262311       9.64 PPBV       93         30) TERTIARY BUTYL ALCOHOL       5.454       59       530794       9.67 PPBV       89         31) METHYL TERTIARY BUTYL       6.496       73       845728       9.77 PPBV       96         32) TETRAHYDROFURAN       7.959       72       109500       9.47 PPBV       #         33) HEXANE       7.368       57       452429       9.44 PPBV       95         34) VINYL ACETATE       6.569       86       53174m       6.10 PPBV         35) 1,1-DICHLOROETHANE       6.399       63       528730       9.69 PPBV       99         36) METHYL ETHYL KETONE       6.886       72       100249       9.85 PPBV							9.5
25) BROMOETHENE							
26) METHYLENE CHLORIDE 5.441 84 226698 9.26 PPBV 88 27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV # 46 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) Cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	•						
27) 3-CHLOROPROPENE 5.539 76 123603 10.58 PPBV # 46 28) FREON 113 5.655 151 468592 9.06 PPBV 94 29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) Cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	·						
28) FREON 113				1226020	10 50		
29) TRANS-1,2-DICHLOROETHY 6.222 96 262311 9.64 PPBV 93 30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							
30) TERTIARY BUTYL ALCOHOL 5.454 59 530794 9.67 PPBV 89 31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							
31) METHYL TERTIARY BUTYL 6.496 73 845728 9.77 PPBV 96 32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	•						
32) TETRAHYDROFURAN 7.959 72 109500 9.47 PPBV # 87 33) HEXANE 7.368 57 452429 9.44 PPBV 95 34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							
33) HEXANE       7.368       57       452429       9.44 PPBV       95         34) VINYL ACETATE       6.569       86       53174m       6.10 PPBV         35) 1,1-DICHLOROETHANE       6.399       63       528730       9.69 PPBV       99         36) METHYL ETHYL KETONE       6.886       72       100249       9.85 PPBV #       59         37) cis-1,2-DICHLOROETHYLENE       7.161       96       274022       10.63 PPBV       89         38) ETHYL ACETATE       7.459       61       61259       9.14 PPBV #       90         39) CHLOROFORM       7.429       83       590836       10.12 PPBV       98         40) 2,4-DIMETHYLPENTANE       8.209       57       607724       9.24 PPBV       95	•						
34) VINYL ACETATE 6.569 86 53174m 6.10 PPBV 35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	•						
35) 1,1-DICHLOROETHANE 6.399 63 528730 9.69 PPBV 99 36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95	,						95
36) METHYL ETHYL KETONE 6.886 72 100249 9.85 PPBV # 59 37) cis-1,2-DICHLOROETHYLENE 7.161 96 274022 10.63 PPBV 89 38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							0.0
37) cis-1,2-DICHLOROETHYLENE       7.161       96       274022       10.63 PPBV       89         38) ETHYL ACETATE       7.459       61       61259       9.14 PPBV # 90         39) CHLOROFORM       7.429       83       590836       10.12 PPBV       98         40) 2,4-DIMETHYLPENTANE       8.209       57       607724       9.24 PPBV       95							
38) ETHYL ACETATE 7.459 61 61259 9.14 PPBV # 90 39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95				100249	9.85		
39) CHLOROFORM 7.429 83 590836 10.12 PPBV 98 40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95							
40) 2,4-DIMETHYLPENTANE 8.209 57 607724 9.24 PPBV 95				61259	9.14		
		7.429	83				
41) 1,1,1-TRICHLOROETHANE 8.374 97 645821 9.22 PPBV 98							
	41) 1,1,1-TRICHLOROETHANE	8.374	97	645821	9.22	PPBV	98

M2W1240.M Mon Feb 28 10:28:42 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29354.d Acq On : 21 Jan 2011 10:45 am Operator : YOUMINH

Sample : ICC1240-10 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:22 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Un	its	Dev	(Min)
42)	CARBON TETRACHLORIDE	8.953	 117	659733	9.26	PPBV		100
43)	1,2-DICHLOROETHANE	8.130	62	321317	10.84	PPBV		99
45)	BENZENE	8.813	78	878145	9.81	PPBV		98
46)	CYCLOHEXANE	9.069	56	506308		PPBV	#	78
47)	2,3-DIMETHYLPENTANE	9.319	71	236677	9.01	PPBV		91
48)	TRICHLOROETHYLENE	9.825	95	347762	9.34	PPBV		95
49)	1,2-DICHLOROPROPANE	9.593	63	328184	10.55	PPBV		98
50)	BROMODICHLOROMETHANE	9.776	83	589431	10.23	PPBV		96
51)	2,2,4-TRIMETHYLPENTANE	9.880	57	1563864	8.97	PPBV	•	99
52)	1,4-DIOXANE	9.959	88	127676	12.99	PPBV	#	81
53)	METHYL METHACRYLATE	10.075	69	291208	10.54	PPBV	#	27
	HEPTANE	10.142	43	514896	9.90	PPBV		89
55)	TVHC as EQUIV HEPTANE	10.136	TIC	2460324m	2.25	PPBV		
56)	METHYL ISOBUTYL KETONE	10.751	58	223670	10.23	PPBV		89
57)	cis-1,3-DICHLOROPROPENE	10.660	75	424802	10.61	PPBV		91
58)	TOLUENE	11.599	92	592061	10.57	PPBV		98
59)	trans-1,3-DICHLOROPROPENE	11.172	75	310576	13.07	PPBV		91
60)	1,1,2-TRICHLOROETHANE	11.324	83	286288	10.95	PPBV		97
62)	2-HEXANONE	11.916	58	229553	10.30	PPBV		90
63)	TETRACHLOROETHYLENE	12.672	164	353175	9.99	PPBV		99
64)	DIBROMOCHLOROMETHANE	11.983	129	555506	10.82	PPBV		100
65)	1,2-DIBROMOETHANE	12.214	107	391445	11.06	PPBV		100
	OCTANE	12.580	43	695513	10.54	PPBV		89
67)	1,1,1,2-TETRACHLOROETHANE	13.306	131	454872	9.94	PPBV		86
	CHLOROBENZENE	13.324	112	651957	10.32	PPBV		96
69)	ETHYLBENZENE	13.702	91	1221345	10.61	PPBV		98
70)	m,p-XYLENE	13.879	106	932348	21.72	PPBV		95
71)	O-XYLENE	14.324	106	463480	10.89	PPBV	•	94
72)	STYRENE	14.220	104	549582	11.78	PPBV	•	98
73)	NONANE	14.580	43	660385	11.80	PPBV	•	92
	BROMOFORM	13.915	173	454640	10.99	PPBV	•	99
76)	1,1,2,2-TETRACHLOROETHANE	14.312	83	596119	10.65	PPBV		99
77)	ISOPROPYLBENZENE	14.915	105	1389096	11.10	PPBV		98
78)	2-CHLOROTOLUENE	15.391	126	281833	11.40	PPBV	#	1
79)	n-PROPYLBENZENE	15.439	120	329752	11.56	PPBV	#	34
80)	4-ETHYLTOLUENE	15.592	105	1097518	12.42	PPBV		98
	1,3,5-TRIMETHYLBENZENE	15.671		1012891	12.45			97
82)	TERT-BUTYLBENZENE	16.074	134	248065	12.40	PPBV		90
	1,2,4-TRIMETHYLBENZENE	16.080		889496	12.60			99
	m-DICHLOROBENZENE	16.214		371731	12.62			100
	BENZYL CHLORIDE	16.202	91	467466	12.73			98
	p-DICHLOROBENZENE	16.281	146	361905 279696	12.19			100
	SEC-BUTYLBENZENE	16.348			11.74			90
	p-ISOPROPYLTOLUENE	16.512			13.30			94
	o-DICHLOROBENZENE	16.616		353445	12.03			99
	n-BUTYLBENZENE	16.927	134	162398	10.70	PPBV		88
	HEXACHLOROBUTADIENE	18.744		185196	12.65	PPBV		99
92)	1,2,4-TRICHLOROBENZENE	18.305	180	89797	10.64	PPBV		82

M2W1240.M Mon Feb 28 10:28:42 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\

Data File : 2w29354.d Acq On : 21 Jan 2011 10:45 am Operator : YOUMINH

Sample : ICC1240-10 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:22 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Mon Feb 28 10:28:42 2011 VOA-CLN-02

599 of 840 ACCUTEST JA68565

Data Path : C:\msdchem\1\DATA\

Data File : 2w29354.d

Acq On : 21 Jan 2011 10:45 am

Operator : YOUMINH Sample : ICC1240-10

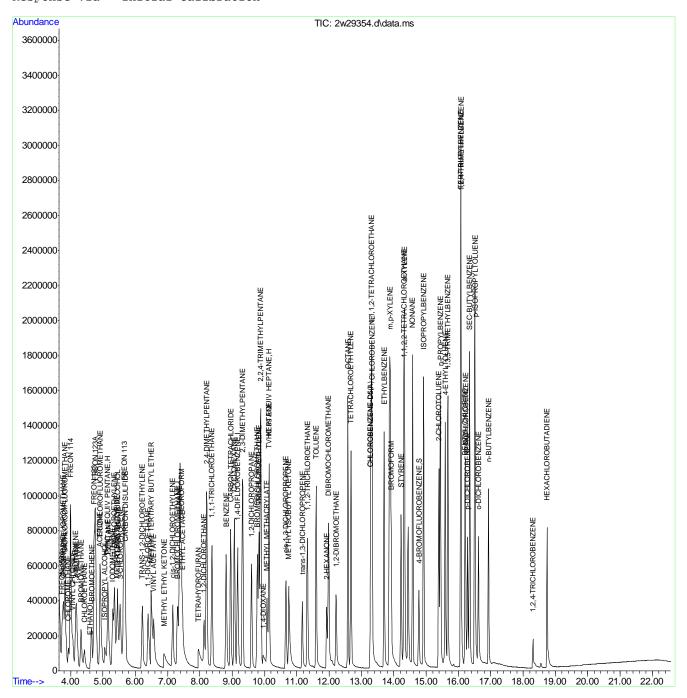
Misc : MS2686, V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:22 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:28:43 2011 VOA-CLN-02

# **Manual Integration Approval Summary**

Sample Number: V2W1240-ICC1240 Method: TO-15

**Lab FileID:** 2W29354.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 10:45 Supervisor approved: 01/28/11 14:12 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.57	Missed peak

```
Data Path : C:\msdchem\1\DATA\2w\
Data File: 2W29354.D
          : 21 Jan 2011 10:45 am
Acq On
```

Operator : YOUMINH

Sample : ICC1240-10

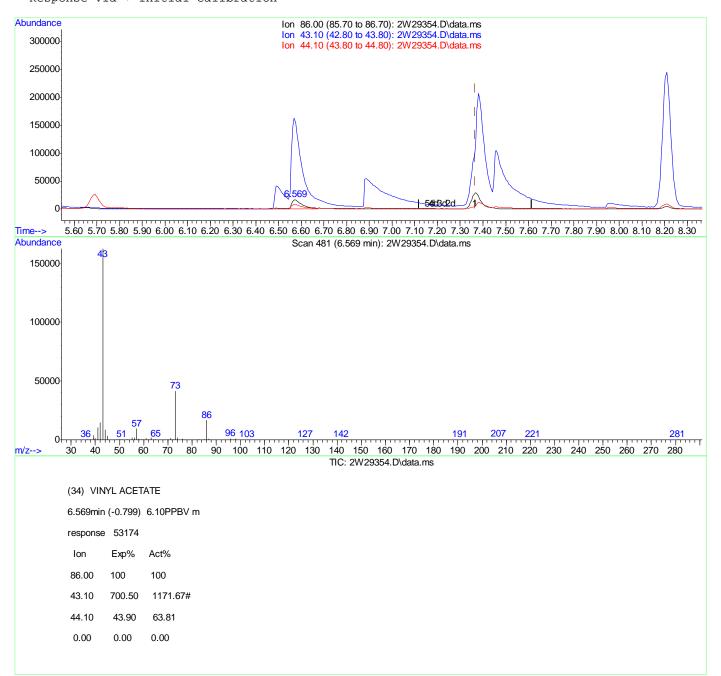
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:24:11 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



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Page: 1

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Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29354.D Acq On : 21 Jan 2011 10:45 am
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Operator : YOUMINH Sample : ICC1240-10

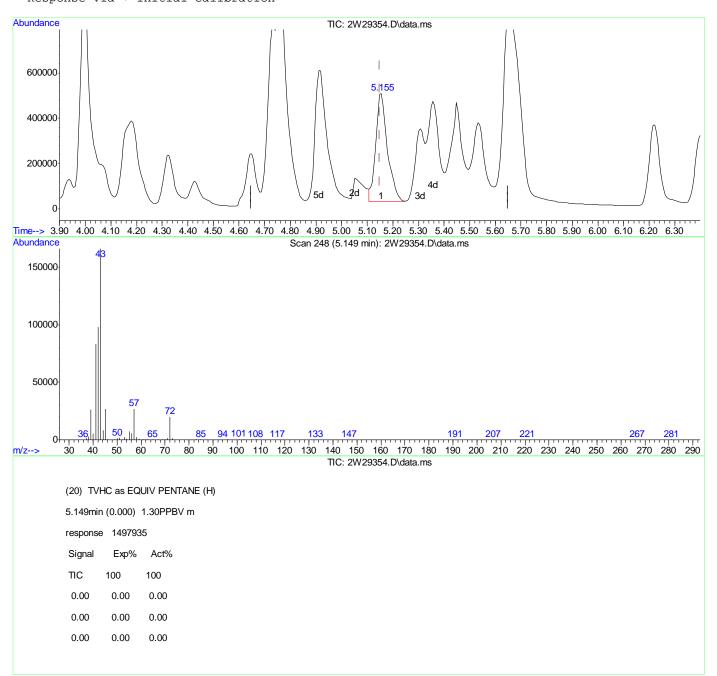
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:24:11 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:10:12 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29354.D Acq On : 21 Jan 2011 10:45 am
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Operator : YOUMINH Sample : ICC1240-10

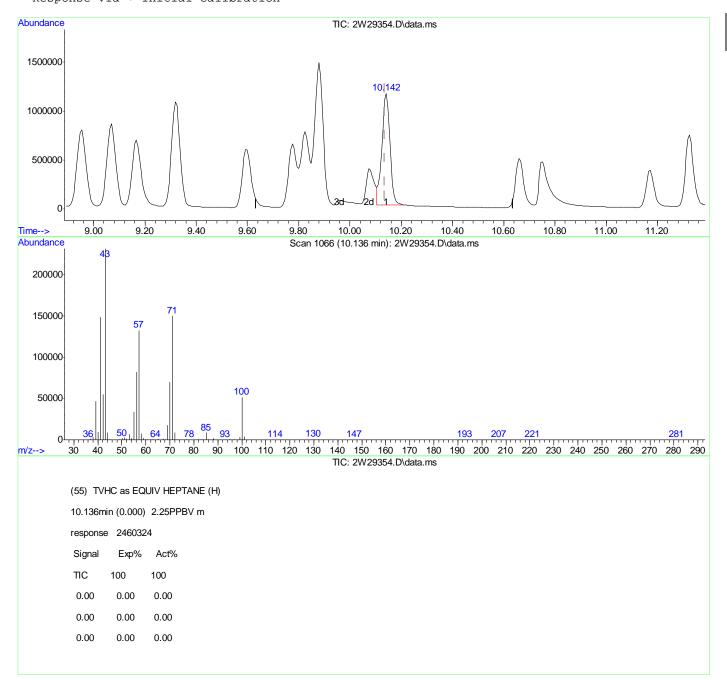
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:24:11 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:10:16 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\
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Data File : 2w29354.d

: 21 Jan 2011 10:45 am Acq On

Operator : YOUMINH : ICC1240-10 Sample

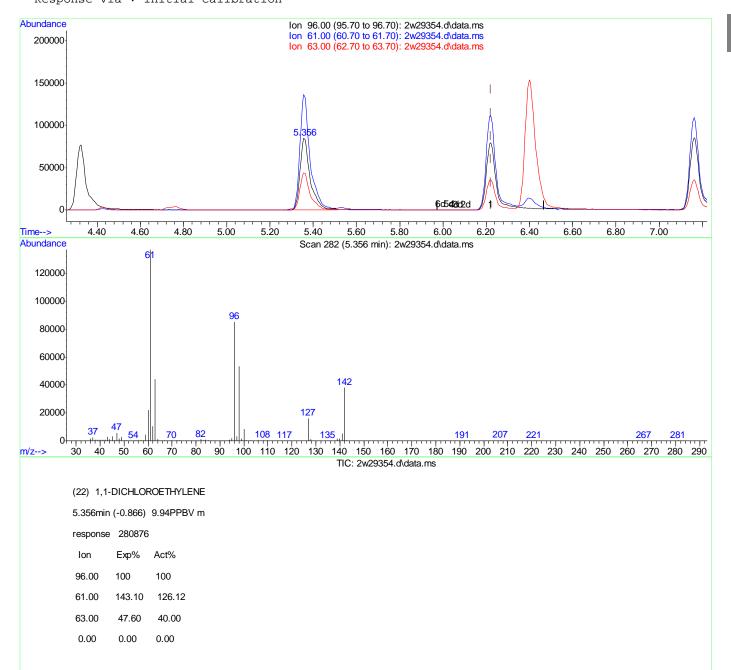
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:22 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:55:02 2011 VOA-CLN-02

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**Manual Integrations** APPROVED (compounds with "m" flag)

> Jessica Reitan-Chu 01/28/11 14:12

# Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\

Data File : 2w29355.d Acq On : 21 Jan 2011 11:23 am Operator : YOUMINH

: IC1240-0.5 Sample : 101240 0.5 : MS2686,V2W1240,,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 08:59:32 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

44   1,4-DIFLUCROBENZENE		Compound	R.T.	QIon	Response	Conc U	nits I	ev(	Min)
44) 1,4-DIFLUOROBENZENE 9.166 114 679964 10.00 PPBV 0.61) CHLOROBENZENE-D5 13.281 82 285777 10.00 PPBV # 0.93) CHLOROBENZENE-D5(A) 13.281 82 289706 10.00 PPBV # 0.93) CHLOROBENZENE 14.775 95 154385 5.16 PPBV 0.00 Range 65 - 128 Recovery = 103.20%    System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE 14.775 95 154385 5.16 PPBV 0.00 Range 65 - 128 Recovery = 103.20%    Target Compounds	Inte	rnal Standards							
61) CHLOROBENZENE-D5   13.281 82 285777 10.00 PPBV # 0.  93) CHLOROBENZENE-D5(A)   13.281 82 299706 10.00 PPBV # 0.  System Monitoring Compounds	1)	BROMOCHLOROMETHANE	7.313	128	128335	10.00	PPBV	#	0.00
System Monitoring Compounds   14.775	44)	1,4-DIFLUOROBENZENE	9.166	114	679964		PPBV		0.00
System Monitoring Compounds   14.775   95   154385   5.16   PPBV   0.0	61)	CHLOROBENZENE-D5	13.281	82	285777	10.00	PPBV	#	0.00
Total	93)	CHLOROBENZENE-D5(A)	13.281	82	299706	10.00	PPBV	#	0.00
Target Compounds 3) DICHLORODIFLUOROMETHANE 3) .832 85 35979 0.51 PPBV 4) FREON 152A 3.740 65 10231 0.59 PPBV 95 1000 1000 1000 1000 1000 1000 1000 1	Syste	em Monitoring Compounds							
Target Compounds  3) DICHLORODIFLUOROMETHANE  3) A STATE OF STATE	75)	4-BROMOFLUOROBENZENE	14.775	95	154385	5.16	PPBV		0.00
3) DICHLORODIFLUOROMETHANE 3, 832 85 35979 0.51 PPBV 5 4) FREON 152A 3.740 65 10231 0.59 PPBV 5 5) CHLORODIFLUOROMETHANE 3.771 67 3791 0.57 PPBV 5 6) PROPYLENE 3.771 67 3791 0.57 PPBV 5 6) PROPYLENE 3.795 41 10356 0.52 PPBV 5 7) FREON 114 3.997 85 40516 0.51 PPBV 5 8) CHLOROMETHANE 3.942 52 3845 0.52 PPBV 4 9) VINYL CHLORIDE 4.082 62 14055 0.53 PPBV 5 9) VINYL CHLORIDE 4.167 54 9841 0.51 PPBV 5 10) 1,3-BUTADIENE 4.167 54 9841 0.51 PPBV 5 11) n-BUTANE 4.185 43 21380 0.53 PPBV 4 12) BROMOMETHANE 4.332 94 12872 0.53 PPBV 5 13) CHLOROGETHANE 4.435 64 7792 0.54 PPBV 5 14) FREON 123 4.734 83 34239 0.51 PPBV 4 15) FREON 123 4.771 117 19709 0.52 PPBV 5 16) TRICHLOROFLUOROMETHANE 4.917 101 35824 0.51 PPBV 5 17) ISOPROPYL ALCOHOL 5.325 45 17086m 0.58 PPBV 5 18) ACETONE 5.185 58 4752m 0.52 PPBV 5 19) PENTANE 5.155 42 14426 0.55 PPBV 5 20) TVHC as EQUIV PENTANE 5.155 42 14426 0.55 PPBV 5 21) IODOMETHANE 5.362 96 13021m 0.56 PPBV 5 22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 5 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 5 24) ETHANOL 4.740 45 5117m 0.68 PPBV 5 25) BROMOETHENE 5.551 76 4611 0.48 PPBV 5 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 5 27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV 5 28) FREON 113 5.655 151 21975 0.51 PPBV 5 29) TRANS-1,2-DICHLOROETHYL 6.715 73 34512m 0.48 PPBV 5 30) TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 5 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 5 32) TERTAHYDROFURAN 8.496 72 4952m 0.52 PPBV 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 5 35) 1,1-DICHLOROETHANE 6.405 86 1623m 0.23 PPBV 5 35) 1,1-DICHLOROETHANE 6.685 86 1623m 0.23 PPBV 5 36) HEXANE 7.368 57 20334 0.51 PPBV 5 37) CIBRITARE 6.685 86 1623m 0.23 PPBV 5 38) ETHYL ACETATE 7.423 72 3919m 0.47 PPBV 5 39) CHLOROFORM 7.429 83 26138 0.554 PPBV 5 39) CHLOROFORM 7.429 83 26138 0.554 PPBV 5	Sp	iked Amount 5.000	Range 65	- 128	Recover	cy =	103.2	१०%	
4) FREON 152A 5) CHLORODIFLUOROMETHANE 3.771 67 3791 0.57 PPBV 5 6) PROPYLENE 3.795 41 10356 0.52 PPBV 5 7) FREON 114 3.997 85 40516 0.51 PPBV 5 8) CHLOROMETHANE 3.997 85 40516 0.51 PPBV 5 8) CHLOROMETHANE 3.942 52 3845 0.52 PPBV 4 9) VINYL CHLORIDE 4.082 62 14055 0.53 PPBV 5 10) 1,3-BUTADIENE 4.167 54 9841 0.51 PPBV 5 11) n-BUTANE 4.185 43 21380 0.53 PPBV 4 12) BROMOMETHANE 4.332 94 12872 0.53 PPBV 4 13) CHLOROETHANE 4.435 64 7792 0.54 PPBV 5 14) FREON 123 4.734 83 34239 0.51 PPBV 5 15) FREON 123A 4.771 117 19709 0.52 PPBV 8 16) TRICHLOROFLUOROMETHANE 4.917 101 35824 0.51 PPBV 5 17) ISOPROPYL ALCOHOL 5.325 45 17086m 0.48 PPBV 5 18) ACETONE 5.185 58 4752m 0.52 PPBV 5 20) TVHC as EQUIV PENTANE 5.149 TIC 74131m 0.08 PPBV 5 21) IODOMETHANE 5.362 96 13021m 0.56 PPBV 5 22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 5 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 5 24) ETHANOL 4.740 45 5117m 0.68 PPBV 6 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 8 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 5 26) TRANS-1,2-DICHLOROETHYL 6.234 96 9767 0.43 PPBV 8 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 9 31) METHYL TERTIARY BUTYL 6.234 96 9767 0.43 PPBV 8 32) TRANS-1,2-DICHLOROETHYLENE 6.685 86 1623m 0.23 PPBV 8 33) HEXANE 7.368 57 20334 0.51 PPBV 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 8 35) 1,1-DICHLOROETHYLENE 7.368 57 20334 0.51 PPBV 8 36) METHYL ERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 8 31) METHYL TERTIARY BUTYL 6.725 47 3919m 0.47 PPBV 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 8 35) 1,1-DICHLOROETHYLENE 7.368 57 20334 0.51 PPBV 8 36) METHYL ERTYL KETONE 7.423 72 3919m 0.47 PPBV 8 37) CIS-1,2-DICHLOROETHYLENE 7.782 31 919m 0.47 PPBV 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 8 39) CHLOROFORM 7.429 83 26138 0.554 PPBV 8	Targe	et Compounds						Qva	lue
4) FREON 152A 5) CHLORODIFLUOROMETHANE 3.771 67 3791 0.57 PPBV 50 6) PROPYLENE 3.795 41 10356 0.52 PPBV 51 7) FREON 114 3.997 85 40516 0.51 PPBV 52 8) CHLOROMETHANE 3.942 52 3845 0.52 PPBV 59 VINYL CHLORIDE 4.082 62 14055 0.53 PPBV 59 VINYL CHLORIDE 4.167 54 9841 0.51 PPBV 59 VINYL CHLORIDE 4.167 54 9841 0.51 PPBV 59 VINYL CHLORIDE 4.185 4.3 21380 0.53 PPBV 59 VINYL CHLORIDE 4.185 4.3 21380 0.53 PPBV 59 VINYL CHLORIDE 4.185 4.332 94 12872 0.53 PPBV 59 VINYL CHLORIDE 4.185 4.332 94 12872 0.53 PPBV 59 VINYL CHLOROFHANE 4.332 94 12872 0.54 PPBV 59 VINYL CHLOROFHANE 4.435 64 7792 0.54 PPBV 59 VINYL CHLOROFHANE 4.917 101 35824 0.51 PPBV 50 VINYL CHLOROFHANE 5.325 45 17086m 0.48 PPBV 18) ACETONE 5.185 58 4752m 0.52 PPBV 19) PENTANE 5.185 58 4752m 0.52 PPBV 50 VINYL CHLOROFHUENE 5.362 96 13021m 0.68 PPBV 51 VINC as EQUIV PENTANE 5.313 142 30875 0.53 PPBV 50 VINYL CHLOROFHENE 5.362 96 13021m 0.68 PPBV 51 VINC AS EQUIV PENTANE 5.313 142 30875 0.53 PPBV 52 VINC AS EQUIV PENTANE 5.363 0.50 PPBV 52 VINC AS EQUIV PENTANE 5.369 76 32826 0.50 PPBV 52 VINC AS EQUIV PENTANE 5.369 76 32826 0.50 PPBV 52 VINC AS EQUIV PENTANE 5.369 76 32826 0.50 PPBV 50 VINC AS PPBV 50 VINC AS PPBV 51 VINC AS PPBV 52 VINC AS PPBV 53 VINC AS PPBV 54 VINC AS PPBV 55 VINC AS PPBV 56 VINC AS PPBV 57 VINC AS PPBV 58 VINC AS PPBV 59 VINC AS PPBV 59 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS PPBV 50 VINC AS VINC A	3)	DICHLORODIFLUOROMETHANE	3.832	85	35979	0.51	PPBV		98
S	4)	FREON 152A	3.740	65		0.59	PPBV		96
7) FREON 114 3.997 85 40516 0.51 PPBV 8 8) CHLOROMETHANE 3.942 52 3845 0.52 PPBV # 9 9) VINYL CHLORIDE 4.082 62 14055 0.53 PPBV 9 10) 1,3-BUTADIENE 4.167 54 9841 0.51 PPBV 9 11) n-BUTANE 4.185 43 21380 0.53 PPBV # 9 12) BROMOMETHANE 4.185 43 21380 0.53 PPBV # 9 13) CHLOROETHANE 4.435 64 7792 0.54 PPBV 9 14) FREON 123 4.734 83 34239 0.51 PPBV # 7 15) FREON 123 4.771 117 19709 0.52 PPBV 8 16) TRICHLOROFLUOROMETHANE 4.917 101 35824 0.51 PPBV 9 17) ISOPROPYL ALCOHOL 5.325 45 17086m 0.48 PPBV 18) ACETONE 19) PENTANE 5.185 58 4752m 0.52 PPBV 9 19) PENTANE 5.149 TIC 20) TVHC as EQUIV PENTANE 5.149 TIC 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 23) CARBON DISULFIDE 5.362 96 13021m 0.56 PPBV 24) ETHANOL 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 9 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 9 27) 3-CHLOROPEOPENE 5.551 76 4611 0.53 PPBV 8 29) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 9 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TERRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV 8 34) VINYL ACETATE 6.685 86 1623m 0.48 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.782 61 2378m 0.43 PPBV 38) ETHYL ACETATE 6.685 86 1623m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	5)	CHLORODIFLUOROMETHANE			3791	0.57	PPBV		94
8) CHLOROMETHANE 9) VINYL CHLORIDE 4.082 62 14055 0.53 PPBV 9 10) 1,3-BUTADIENE 4.167 54 9841 0.51 PPBV 9 11) n-BUTANE 4.185 43 21380 0.53 PPBV # 9 12) BROMOMETHANE 4.332 94 12872 0.53 PPBV # 9 13) CHLOROETHANE 4.435 64 7792 0.54 PPBV # 9 14) FREON 123 4.734 83 34239 0.51 PPBV # 9 15) FREON 123A 4.771 117 19709 0.52 PPBV # 9 16) TRICHLOROFLUOROMETHANE 4.917 101 35824 0.51 PPBV 9 17) ISOPROPYL ALCOHOL 5.325 45 17086m 0.48 PPBV 18) ACETONE 5.185 58 4752m 0.52 PPBV 9 19) PENTANE 5.185 58 4752m 0.52 PPBV 9 20) TVHC as EQUIV PENTANE 5.149 TIC 74131m 0.08 PPBV 9 21) IODOMETHANE 5.313 142 30875 0.53 PPBV 9 22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 9 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 9 24) ETHANOL 4.740 45 5117m 0.68 PPBV 9 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 9 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 9 27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV 9 27) 3-CHLOROPROPENE 5.555 151 21975 0.51 PPBV 9 28) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 9 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 48 31) METHYL TERTIARY BUTYL 6.735 73 34512m 0.48 PPBV 13 31) METHYL TERTIARY BUTYL 6.735 73 34512m 0.48 PPBV 13 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 13 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 15 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 15 37) Cis-1,2-DICHLOROETHYLENE 7.782 61 2378m 0.43 PPBV 18 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 18 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 18 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 18 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 18 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 18	6)	PROPYLENE	3.795	41	10356	0.52	PPBV		98
8) CHLOROMETHANE	7)	FREON 114	3.997	85	40516	0.51	PPBV		98
10) 1,3-BUTADIENE	8)	CHLOROMETHANE	3.942		3845	0.52	PPBV	#	90
11) n-BUTANE	9)	VINYL CHLORIDE	4.082	62	14055	0.53	PPBV		98
11) n-BUTANE	10)	1,3-BUTADIENE	4.167	54	9841	0.51	PPBV		90
13   CHLOROETHANE	11)	n-BUTANE	4.185	43	21380	0.53	PPBV	#	93
13   CHLOROETHANE	12)	BROMOMETHANE	4.332	94	12872	0.53	PPBV		97
15) FREON 123A	13)	CHLOROETHANE	4.435		7792	0.54	PPBV		98
16) TRICHLOROFLUOROMETHANE	14)	FREON 123	4.734	83	34239			#	75
17) ISOPROPYL ALCOHOL 5.325 45 17086m 0.48 PPBV 18) ACETONE 5.185 58 4752m 0.52 PPBV 19) PENTANE 5.155 42 14426 0.55 PPBV 9.0 TVHC as EQUIV PENTANE 5.149 TIC 74131m 0.08 PPBV 21) IODOMETHANE 5.313 142 30875 0.53 PPBV 9.0 S.3 CARBON DISULFIDE 5.362 96 13021m 0.56 PPBV 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 9.0 S.3 CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 9.0 S.4 ETHANOL 4.740 45 5117m 0.68 PPBV 9.0 S.5 BROMOETHENE 4.655 106 12116 0.53 PPBV 9.0 S.5 BROMOETHENE 4.655 106 12116 0.53 PPBV 9.0 S.5 BROMOETHENE 5.447 84 10819 0.54 PPBV 9.0 S.5 FREON 113 5.655 151 21975 0.51 PPBV 9.0 S.5 FREON 113 5.0 S.5 FREON 113 5.0 S.5 FREON 113 5.0 S.5 FREON 113 5.0 S.5 FREON 113 5.0 S.5 FREON 113 5.0 S.5 FREON 113 5.0 S.5 FREON	15)	FREON 123A	4.771	117	19709	0.52	PPBV		87
17) ISOPROPYL ALCOHOL 18) ACETONE 18) ACETONE 19) PENTANE 19) PENTANE 20) TVHC as EQUIV PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPERDE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYL. 29) TETRAHYDROFURAN 30) TERTIARY BUTYL ALCOHOL 57,368 57 20,14-DICHLOROETHANE 5.362 46 5117m 5.685 5117m 5.697 76 5.697 76 5.697 76 5.697 76 5.698 6.697 76 5.698 6.697 76 5.698 6.698 6.699BV 6.698 6.699BV 6.698 6.699BV 6.69BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699BV 6.699B	16)	TRICHLOROFLUOROMETHANE	4.917	101	35824	0.51	PPBV		99
18) ACETONE			5.325	45	17086m	0.48	PPBV		
20) TVHC as EQUIV PENTANE 5.149 TIC 74131m 0.08 PPBV 21) IODOMETHANE 5.313 142 30875 0.53 PPBV 9 22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 9 24) ETHANOL 4.740 45 5117m 0.68 PPBV 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 8 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 9 2 2 3 3 - CHLOROPROPENE 5.551 76 4611 0.48 PPBV 4 7 2 3 - CHLOROPROPENE 5.555 151 21975 0.51 PPBV 9 2 3 3 3 3 1 ETTARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV 4 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 39	18)	ACETONE	5.185		4752m	0.52	PPBV		
20) TVHC as EQUIV PENTANE 5.149 TIC 74131m 0.08 PPBV 21) IODOMETHANE 5.313 142 30875 0.53 PPBV 9 22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 9 24) ETHANOL 4.740 45 5117m 0.68 PPBV 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 8 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 9 2 2 3 3 - CHLOROPROPENE 5.551 76 4611 0.48 PPBV 4 7 2 3 - CHLOROPROPENE 5.555 151 21975 0.51 PPBV 9 2 3 3 3 3 1 ETTARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV 4 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 39	19)	PENTANE	5.155	42	14426	0.55	PPBV		97
22) 1,1-DICHLOROETHYLENE 5.362 96 13021m 0.56 PPBV 23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 24) ETHANOL 4.740 45 5117m 0.68 PPBV 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 26 METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 72 28) FREON 113 5.655 151 21975 0.51 PPBV 29) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 29) TRATIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 30) TETTRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV 48 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 83 26138 0.54 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	20)	TVHC as EQUIV PENTANE	5.149	TIC					
23) CARBON DISULFIDE 5.697 76 32826 0.50 PPBV 24) ETHANOL 4.740 45 5117m 0.68 PPBV 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 26 METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 28) FREON 113 5.655 151 21975 0.51 PPBV 29) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 29) TRATIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 30) TETTAHYDROFURAN 8.496 72 4952m 0.52 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 834) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 838) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	21)	IODOMETHANE	5.313	142	30875	0.53	PPBV		99
24) ETHANOL 4.740 45 5117m 0.68 PPBV 25) BROMOETHENE 4.655 106 12116 0.53 PPBV 8 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 9 27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 7 28) FREON 113 5.655 151 21975 0.51 PPBV 9 29) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 8 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	22)	1,1-DICHLOROETHYLENE	5.362	96	13021m	0.56	PPBV		
25) BROMOETHENE 4.655 106 12116 0.53 PPBV 8 26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 9 2 2 3 3 - CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 2 2 3 9 FREON 113 5.655 151 21975 0.51 PPBV 9 2 3 0 3 0 TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 8 3 4) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 59	23)	CARBON DISULFIDE	5.697	76	32826	0.50	PPBV		91
26) METHYLENE CHLORIDE 5.447 84 10819 0.54 PPBV 27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 28) FREON 113 5.655 151 21975 0.51 PPBV 29) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 830) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 834) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) Cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 838) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 59	24)	ETHANOL	4.740	45	5117m	0.68	PPBV		
27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 72	25)	BROMOETHENE	4.655	106	12116	0.53	PPBV		87
27) 3-CHLOROPROPENE 5.551 76 4611 0.48 PPBV # 72	26)	METHYLENE CHLORIDE	5.447	84	10819	0.54	PPBV		96
29) TRANS-1,2-DICHLOROETHY 6.234 96 9767 0.43 PPBV 8 30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV			5.551	76	4611	0.48	PPBV	#	70
30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	28)	FREON 113	5.655	151	21975	0.51	PPBV		92
30) TERTIARY BUTYL ALCOHOL 5.734 59 23098m 0.51 PPBV 31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	29)	TRANS-1,2-DICHLOROETHY.	6.234	96	9767	0.43	PPBV		89
31) METHYL TERTIARY BUTYL 6.715 73 34512m 0.48 PPBV 32) TETRAHYDROFURAN 8.496 72 4952m 0.52 PPBV 33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 9 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV	30)	TERTIARY BUTYL ALCOHOL	5.734	59	23098m	0.51	PPBV		
33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 9 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	31)	METHYL TERTIARY BUTYL .			34512m	0.48	PPBV		
33) HEXANE 7.368 57 20334 0.51 PPBV # 8 34) VINYL ACETATE 6.685 86 1623m 0.23 PPBV 35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 9 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	32)	TETRAHYDROFURAN	8.496	72	4952m	0.52	PPBV		
35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 9 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 9 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 9 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	33)	HEXANE	7.368	57				#	84
35) 1,1-DICHLOROETHANE 6.405 63 23404 0.52 PPBV 9 36) METHYL ETHYL KETONE 7.423 72 3919m 0.47 PPBV 9 37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 9 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	34)	VINYL ACETATE			1623m	0.23	PPBV		
37) cis-1,2-DICHLOROETHYLENE 7.173 96 9703 0.46 PPBV # 8 38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	35)	1,1-DICHLOROETHANE	6.405						98
38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	36)	METHYL ETHYL KETONE	7.423	72	3919m	0.47	PPBV		
38) ETHYL ACETATE 7.782 61 2378m 0.43 PPBV 39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9	37)	cis-1,2-DICHLOROETHYLEN	E 7.173	96	9703	0.46	PPBV	#	84
39) CHLOROFORM 7.429 83 26138 0.54 PPBV 9			7.782		2378m	0.43	PPBV		
			7.429	83	26138	0.54	PPBV		98
	40)	2,4-DIMETHYLPENTANE	8.209	57	28309				97
	41)	1,1,1-TRICHLOROETHANE			29457	0.51	PPBV		98

M2W1240.M Mon Feb 28 10:32:57 2011 VOA-CLN-02



Page: 1

Data Path : C:\msdchem\1\DATA\

Data File : 2w29355.d Acq On : 21 Jan 2011 11:23 am Operator : YOUMINH

Sample : IC1240-0.5 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 08:59:32 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

42) CARBON TETRACHLORIDE		Compound	R.T.	QIon	Response	Conc Units Dev(Min)
45) BENZENE 8.813 78 37276 0.50 PDBV 97 46) CYCLOHEXANE 9.069 56 23300 0.50 PDBV # 78 47) 2,3-DIMETHYLPENTANE 9.319 71 11538 0.52 PDBV 98 48) TRICHLOROETHYLENE 9.825 95 14423 0.46 PDBV 95 48) TRICHLOROETHYLENE 9.825 95 14423 0.46 PDBV 95 50) BROMODICHLOROMETHANE 9.605 63 11912 0.46 PDBV 98 50) BROMODICHLOROMETHANE 9.776 83 21687 0.45 PDBV 86 51) 2,2,4-TRIMETHYLPENTANE 9.880 57 72797 0.50 PDBV 99 52) 1,4-DIOXANE 10.733 88 3926m 0.48 PDBV 95 53) METHYL METHACRYLATE 10.215 69 9160m 0.39 PDBV 54 54) HEPTANE 10.422 43 21542 0.49 PDBV 88 55) TVHC as EQUIV HEPTANE 10.136 TIC 83904m 0.09 PDBV 56) METHYL ISOBUTYL KETONE 10.572 75 14770 0.44 PDBV 90 58) TOLUENE 11.605 92 20188 0.43 PDBV 91 58) TOLUENE 11.605 92 20188 0.43 PDBV 91 59) trans-1,3-DICHLOROPROPENE 11.605 92 20188 0.43 PDBV 97 60) 1,1,2-TRICHLOROFTHANE 11.330 83 9764 0.44 PDBV 97 61) Z-HEXANONE 12.166 58 8206m 0.49 PDBV 86 60) 1,1,2-TRICHLOROETHANE 11.330 83 9764 0.44 PDBV 97 62) 2-HEXANONE 12.678 164 14686 0.55 PDBV 97 64) DIBROMOCHLOROMETHANE 11.983 129 18378 0.48 PDBV 99 65) 1,2-DIBROMOETHANE 12.678 164 14686 0.55 PDBV 99 66) OCTANE 12.580 43 25209 0.51 PDBV 99 66) OCTANE 12.580 43 25209 0.51 PDBV 91 67) 1,1,2-TETRACHLOROETHANE 13.306 131 18995 0.55 PDBV # 75 69) ETHYLBENZENE 13.805 106 14711 0.46 PDBV 98 71) 0-XYLENE 13.885 106 29412 0.91 PDBV 98 72) STYRENE 13.885 106 29412 0.91 PDBV 98 73) NONANE 14.586 43 19665 0.47 PDBV 98 74) BROMOFORM 13.915 173 14244 0.46 PDBV 98 75) 1,2,2-TETRACHLOROETHANE 15.397 165 8488 0.44 PDBV 99 76) 1,1,2,2-TETRACHLOROETHANE 15.397 166 8483 0.49 PDBV 98 71) 0-XYLENE 13.885 106 29412 0.91 PDBV 98 72) STYRENE 13.885 106 29412 0.91 PDBV 98 73) NONANE 14.586 43 19665 0.42 PDBV # 75 74) BROMOFORM 13.915 173 14244 0.46 PDBV 98 75) 1,2,2-TETRACHLOROETHANE 15.597 105 26868 0.44 PDBV 98 76) 1,2,2-TETRACHLOROETHANE 15.598 105 26948 0.41 PDBV 98 78) 2-CHLOROTOLUENE 15.597 105 26868 0.44 PDBV 98 79) 1-FEORYLBENZENE 16.079 105 23429 0.44 PDBV 98 81) 1,3,5-TETRACHLOROETHANE 16.220 146 8566 0.39 PDBV 98 85) BENZYL CHLORIDE 16.220 146 8566 0	42)	CARBON TETRACHLORIDE	8.953	117	30944	0.53 PPBV 99
SOI   BROMODICHLOROMETHANE   9.776   83   21687   0.45 ppbv   99	43)	1,2-DICHLOROETHANE	8.142	62	11760	0.48 PPBV 100
SOI   BROMODICHLOROMETHANE   9.776   83   21687   0.45 ppbv   99	45)	BENZENE	8.813	78	37276	0.50 PPBV 97
SOI   BROMODICHLOROMETHANE   9.776   83   21687   0.45 ppbv   99	46)	CYCLOHEXANE		56	23300	0.50 PPBV # 78
SOI   BROMODICHLOROMETHANE   9.776   83   21687   0.45 ppbv   99	47)	2,3-DIMETHYLPENTANE	9.319	71	11538	0.52 PPBV 98
SOI   BROMODICHLOROMETHANE   9.776   83   21687   0.45 ppbv   99				95	14423	0.46 PPBV 95
SOI   BROMODICHLOROMETHANE   9.776   83   21687   0.45 ppbv   99	49)	1,2-DICHLOROPROPANE	9.605	63	11912	0.46 PPBV 98
S2  1,4-DIOXANE	50)	BROMODICHLOROMETHANE	9.776		21687	0.45 PPBV 86
S4   HEPTANE						
S4   HEPTANE				88	3926m	0.48 PPBV
55   METHYL ISOBUTYL KETONE	53)	METHYL METHACRYLATE		69	9160m	0.39 PPBV
55   METHYL ISOBUTYL KETONE				43	21542	0.49 PPBV 88
S7   Cis-1,3-DICHLOROPROPENE						
59   trans-1,3-DICHLOROPROPENE			10.952	58	8506m	
59   trans-1,3-DICHLOROPROPENE			10.672	75	14770	
62) 2-HEXANONE 12.166 58 8206m 0.49 PPBV 63) TETRACHLOROETHYLENE 12.678 164 14686 0.55 PPBV 97 64) DIBROMOCHLOROMETHANE 11.983 129 18378 0.48 PPBV 99 65) 1,2-DIBROMOCHANE 12.227 107 12951 0.49 PPBV 99 66) OCTANE 12.580 43 25209 0.51 PPBV 91 67) 1,1,1,2-TETRACHLOROETHANE 13.306 131 18995 0.55 PPBV # 1 68) CHLOROBENZENE 13.303 112 22919 0.48 PPBV # 75 69) ETHYLBENZENE 13.702 91 39070 0.45 PPBV 98 70) m,p-XYLENE 13.885 106 29412 0.91 PPBV 98 71) o-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.226 104 14585 0.42 PPBV 98 73) NONANE 14.586 43 19665 0.47 PPBV 98 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV 98 11 79) n-PROPYLBENZENE 15.455 120 8952 0.42 PPBV 98 11 12 13,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 98 11 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 98 11 1,3,5-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 11 11 11 11 11 11 11 11 11 11 11 11			11.605	92	20188	0.43 PPBV 91
62) 2-HEXANONE 12.166 58 8206m 0.49 PPBV 63) TETRACHLOROETHYLENE 12.678 164 14686 0.55 PPBV 97 64) DIBROMOCHLOROMETHANE 11.983 129 18378 0.48 PPBV 99 65) 1,2-DIBROMOCHANE 12.227 107 12951 0.49 PPBV 99 66) OCTANE 12.580 43 25209 0.51 PPBV 91 67) 1,1,1,2-TETRACHLOROETHANE 13.306 131 18995 0.55 PPBV # 1 68) CHLOROBENZENE 13.303 112 22919 0.48 PPBV # 75 69) ETHYLBENZENE 13.702 91 39070 0.45 PPBV 98 70) m,p-XYLENE 13.885 106 29412 0.91 PPBV 98 71) o-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.226 104 14585 0.42 PPBV 98 73) NONANE 14.586 43 19665 0.47 PPBV 98 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV 98 11 79) n-PROPYLBENZENE 15.455 120 8952 0.42 PPBV 98 11 12 13,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 98 11 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 98 11 1,3,5-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 11 11 11 11 11 11 11 11 11 11 11 11 11			11.184	75	7264	0.36 PPBV 86
64) DIBROMOCHLOROMETHANE 11.983 129 18378 0.48 PPBV 99 65) 1,2-DIBROMOETHANE 12.227 107 12951 0.49 PPBV 99 66) OCTANE 12.580 43 25209 0.51 PPBV 91 67) 1,1,1,2-TETRACHLOROETHANE 13.306 131 18995 0.55 PPBV 1 68) CHLOROBENZENE 13.330 112 22919 0.48 PPBV # 75 69) ETHYLBENZENE 13.702 91 39070 0.45 PPBV 98 70) m,p-XYLENE 13.885 106 29412 0.91 PPBV 98 71) o-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.330 106 14711 0.46 PPBV 98 73) NONANE 14.586 43 19665 0.47 PPBV 94 73) NONANE 14.586 43 19665 0.47 PPBV 93 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 94 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 96 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 98 87) SEC-BUTYLBENZENE 16.287 146 9716m 0.43 PPBV 98 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.698 134 3156m 0.28 PPBV					9764	0.44 PPBV 97
64) DIBROMOCHLOROMETHANE 11.983 129 18378 0.48 PPBV 99 65) 1,2-DIBROMOETHANE 12.227 107 12951 0.49 PPBV 99 66) OCTANE 12.580 43 25209 0.51 PPBV 91 67) 1,1,1,2-TETRACHLOROETHANE 13.306 131 18995 0.55 PPBV 1 68) CHLOROBENZENE 13.330 112 22919 0.48 PPBV # 75 69) ETHYLBENZENE 13.702 91 39070 0.45 PPBV 98 70) m,p-XYLENE 13.885 106 29412 0.91 PPBV 98 71) o-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.330 106 14711 0.46 PPBV 98 73) NONANE 14.586 43 19665 0.47 PPBV 94 73) NONANE 14.586 43 19665 0.47 PPBV 93 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 94 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 96 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 98 87) SEC-BUTYLBENZENE 16.287 146 9716m 0.43 PPBV 98 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.628 146 8483 0.38 PPBV 97 91) HEXACHLOROBUTADIENE 16.698 134 3156m 0.28 PPBV	,				8206m	0.49 PPBV
65   1,2-DIBROMOETHANE						
12.580						
1,1,1,2-TETRACHLOROETHANE						
68) CHLOROBENZENE 13.330 112 22919 0.48 PPBV # 75 69) ETHYLBENZENE 13.702 91 39070 0.45 PPBV 98 70) m,p-XYLENE 13.885 106 29412 0.91 PPBV 98 71) o-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.226 104 14585 0.42 PPBV 94 73) NONANE 14.586 43 19665 0.47 PPBV 93 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 98 81) 1,2,4-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 96 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.220 91 8876 0.32 PPBV 98 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 87) SEC-BUTYLBENZENE 16.628 146 9716m 0.43 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 89) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV						
69) ETHYLBENZENE       13.702       91       39070       0.45       PPBV       98         70) m,p-XYLENE       13.885       106       29412       0.91       PPBV       98         71) o-XYLENE       14.330       106       14711       0.46       PPBV       98         72) STYRENE       14.226       104       14585       0.42       PPBV       94         73) NONANE       14.586       43       19665       0.47       PPBV       95         74) BROMOFORM       13.915       173       14244       0.46       PPBV       95         76) 1,1,2,2-TETRACHLOROETHANE       14.318       83       16786       0.40       PPBV       94         77) ISOPROPYLBENZENE       14.921       105       42042       0.45       PPBV       98         78) 2-CHLOROTOLUENE       15.397       126       8483       0.46       PPBV       #         79) n-PROPYLBENZENE       15.445       120       8952       0.42       PPBV       #         81) 1,3,5-TRIMETHYLBENZENE       15.598       105       26948       0.41       PPBV       98         81) 1,2,4-TRIMETHYLBENZENE       16.073       134       6207       0.41       PPBV<						
70) m,p-XYLENE 13.885 106 29412 0.91 PPBV 98 71) o-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.226 104 14585 0.42 PPBV 94 73) NONANE 14.586 43 19665 0.47 PPBV 93 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 96 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.220 91 8876 0.32 PPBV 98 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89 90 n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 97 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV						
71) O-XYLENE 14.330 106 14711 0.46 PPBV 98 72) STYRENE 14.226 104 14585 0.42 PPBV 94 73) NONANE 14.586 43 19665 0.47 PPBV 93 74) BROMOFORM 13.915 173 14244 0.46 PPBV 95 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 16.073 134 6207 0.41 PPBV 98 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 86 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 97 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV	,					
74) BROMOFORM       13.915       173       14244       0.46 PPBV       95         76) 1,1,2,2-TETRACHLOROETHANE       14.318       83       16786       0.40 PPBV       94         77) ISOPROPYLBENZENE       14.921       105       42042       0.45 PPBV       98         78) 2-CHLOROTOLUENE       15.397       126       8483       0.46 PPBV #       1         79) n-PROPYLBENZENE       15.445       120       8952       0.42 PPBV #       29         80) 4-ETHYLTOLUENE       15.598       105       26948       0.41 PPBV       98         81) 1,3,5-TRIMETHYLBENZENE       15.677       105       26868       0.44 PPBV       94         82) TERT-BUTYLBENZENE       16.073       134       6207       0.41 PPBV       86         83) 1,2,4-TRIMETHYLBENZENE       16.079       105       23429       0.44 PPBV       96         84) m-DICHLOROBENZENE       16.220       146       8566       0.39 PPBV       98         85) BENZYL CHLORIDE       16.220       91       8876       0.32 PPBV       93         86) p-DICHLOROBENZENE       16.287       146       9716m       0.43 PPBV         87) SEC-BUTYLBENZENE       16.518       134       7616       0.42 PPB		· =			29412	0.91 PPBV 98
74) BROMOFORM       13.915       173       14244       0.46 PPBV       95         76) 1,1,2,2-TETRACHLOROETHANE       14.318       83       16786       0.40 PPBV       94         77) ISOPROPYLBENZENE       14.921       105       42042       0.45 PPBV       98         78) 2-CHLOROTOLUENE       15.397       126       8483       0.46 PPBV #       1         79) n-PROPYLBENZENE       15.445       120       8952       0.42 PPBV #       29         80) 4-ETHYLTOLUENE       15.598       105       26948       0.41 PPBV       98         81) 1,3,5-TRIMETHYLBENZENE       15.677       105       26868       0.44 PPBV       94         82) TERT-BUTYLBENZENE       16.073       134       6207       0.41 PPBV       86         83) 1,2,4-TRIMETHYLBENZENE       16.079       105       23429       0.44 PPBV       96         84) m-DICHLOROBENZENE       16.220       146       8566       0.39 PPBV       98         85) BENZYL CHLORIDE       16.220       91       8876       0.32 PPBV       93         86) p-DICHLOROBENZENE       16.287       146       9716m       0.43 PPBV         87) SEC-BUTYLBENZENE       16.518       134       7616       0.42 PPB				106	14711	0.46 PPBV 98
74) BROMOFORM       13.915       173       14244       0.46 PPBV       95         76) 1,1,2,2-TETRACHLOROETHANE       14.318       83       16786       0.40 PPBV       94         77) ISOPROPYLBENZENE       14.921       105       42042       0.45 PPBV       98         78) 2-CHLOROTOLUENE       15.397       126       8483       0.46 PPBV #       1         79) n-PROPYLBENZENE       15.445       120       8952       0.42 PPBV #       29         80) 4-ETHYLTOLUENE       15.598       105       26948       0.41 PPBV       98         81) 1,3,5-TRIMETHYLBENZENE       15.677       105       26868       0.44 PPBV       94         82) TERT-BUTYLBENZENE       16.073       134       6207       0.41 PPBV       86         83) 1,2,4-TRIMETHYLBENZENE       16.079       105       23429       0.44 PPBV       96         84) m-DICHLOROBENZENE       16.220       146       8566       0.39 PPBV       98         85) BENZYL CHLORIDE       16.220       91       8876       0.32 PPBV       93         86) p-DICHLOROBENZENE       16.287       146       9716m       0.43 PPBV         87) SEC-BUTYLBENZENE       16.518       134       7616       0.42 PPB					14585	0.42 PPBV 94
76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 16786 0.40 PPBV 94 77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 86 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) 0-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV	,				19665	0.47 PPBV 93
77) ISOPROPYLBENZENE 14.921 105 42042 0.45 PPBV 98 78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 86 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV					14244	0.46 PPBV 95
78) 2-CHLOROTOLUENE 15.397 126 8483 0.46 PPBV # 1 79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 86 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 98 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 93 86) p-DICHLOROBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				105	10/80	
79) n-PROPYLBENZENE 15.445 120 8952 0.42 PPBV # 29 80) 4-ETHYLTOLUENE 15.598 105 26948 0.41 PPBV 98 81) 1,3,5-TRIMETHYLBENZENE 15.677 105 26868 0.44 PPBV 94 82) TERT-BUTYLBENZENE 16.073 134 6207 0.41 PPBV 86 83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 93 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89 90) n-BUTYLBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV						
83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				120	8483	0.40 PPBV # 1
83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				105	0954	0.42 PPBV # 29
83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				105	26946	0.41 PPBV 90
83) 1,2,4-TRIMETHYLBENZENE 16.079 105 23429 0.44 PPBV 96 84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				124	20000 6207	0.44 PPDV 94
84) m-DICHLOROBENZENE 16.220 146 8566 0.39 PPBV 98 85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				105	22420	0.41 PPBV 00
85) BENZYL CHLORIDE 16.220 91 8876 0.32 PPBV 93 86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV						
86) p-DICHLOROBENZENE 16.287 146 9716m 0.43 PPBV 87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV						
87) SEC-BUTYLBENZENE 16.354 134 7616 0.42 PPBV # 81 88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV				1/16	0070 0716m	
88) p-ISOPROPYLTOLUENE 16.518 134 5405m 0.38 PPBV 89) o-DICHLOROBENZENE 16.628 146 8483 0.38 PPBV 97 90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV		=				
89) O-DICHLOROBENZENE       16.628       146       8483       0.38 PPBV       97         90) n-BUTYLBENZENE       16.988       134       3156m       0.28 PPBV         91) HEXACHLOROBUTADIENE       18.768       225       4269m       0.39 PPBV						
90) n-BUTYLBENZENE 16.988 134 3156m 0.28 PPBV 91) HEXACHLOROBUTADIENE 18.768 225 4269m 0.39 PPBV		_		146	8483	0.30 FFBV
					3156m	0.30 FEBV 97
			18 768	225	4269m	0 39 PPRV
, -, -, - 1110110110111111111111111111						

M2W1240.M Mon Feb 28 10:32:57 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

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Quant Time: Feb 28 08:59:32 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

Page: 3

 ${\tt Data\ Path\ :\ C:\msdchem\l} {\tt DATA\l}$ 

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Operator : YOUMINH

Sample : IC1240-0.5
Misc : MS2686 V2W12

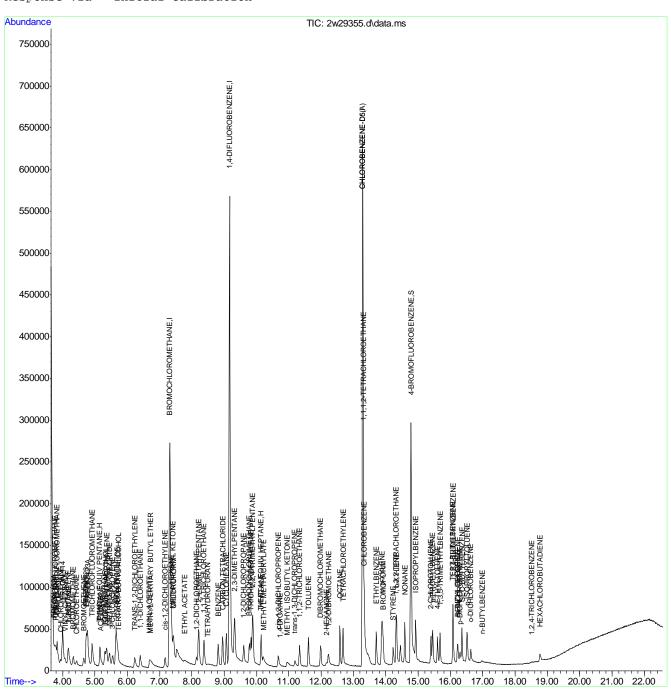
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 28 08:59:32 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:32:59 2011 VOA-CLN-02

Page 1 of 1

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29355.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 11:23 Supervisor approved: 01/28/11 14:12 Jessica Reitan-Chu

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Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

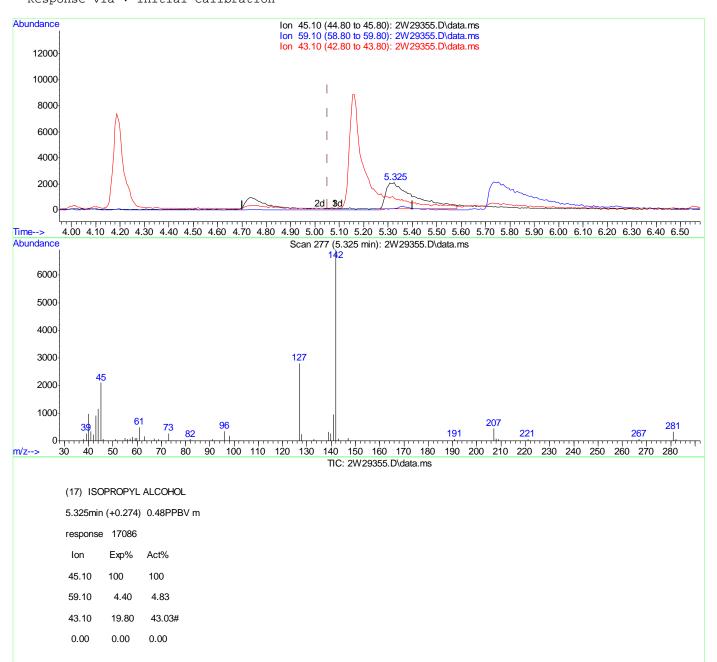
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:14 2011 VOA-CLN-02

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Operator : YOUMINH

Sample : IC1240-0.5

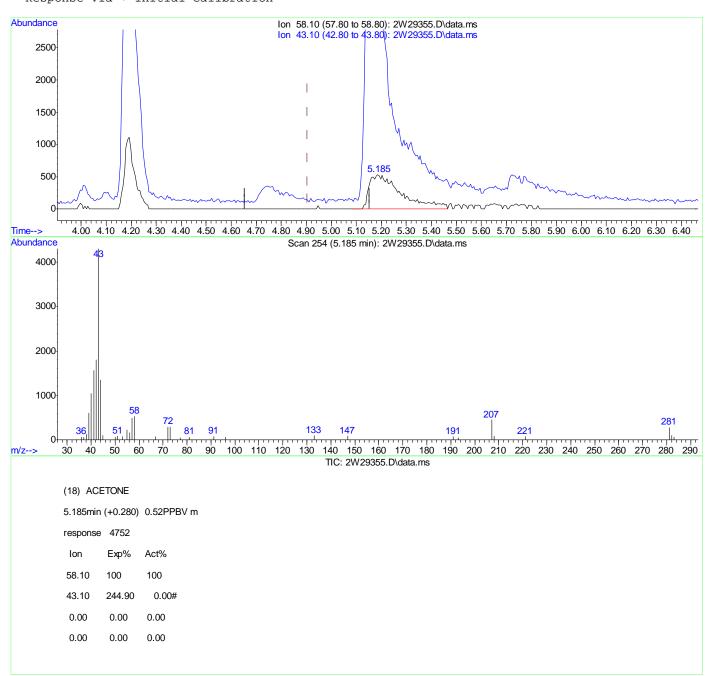
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:17 2011 VOA-CLN-02



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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

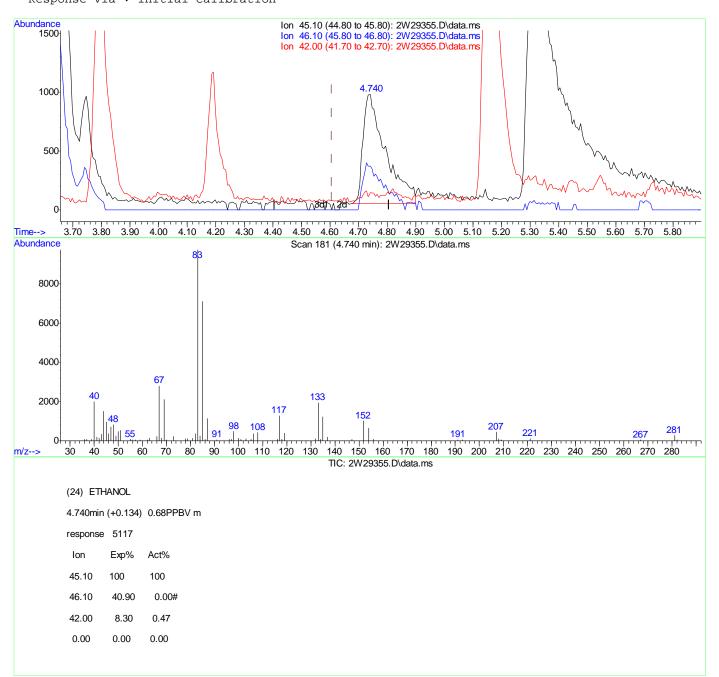
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:24 2011 VOA-CLN-02



```
Data Path : C:\msdchem\1\DATA\2w\
Data File: 2W29355.D
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: 21 Jan 2011 11:23 am Acq On

Operator : YOUMINH : IC1240-0.5 Sample

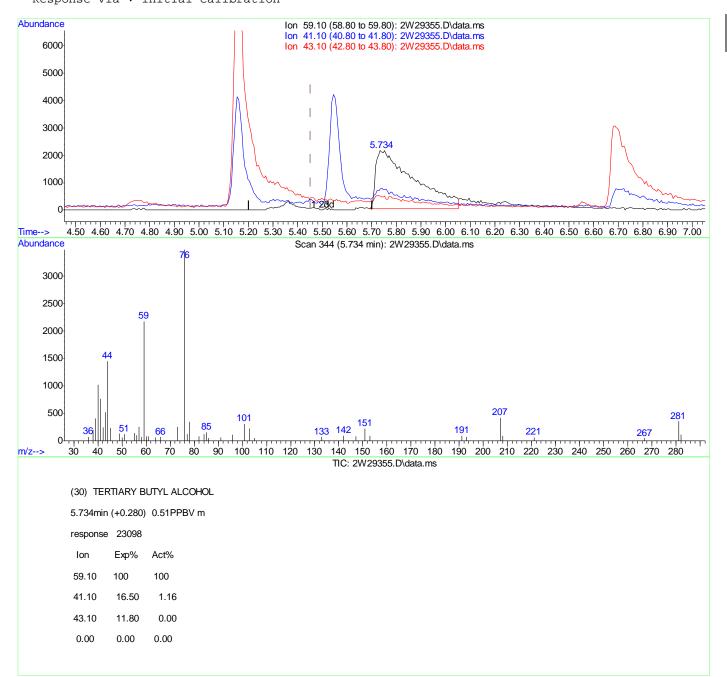
: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:29 2011 VOA-CLN-02

614 of 840 ACCUTEST: JA68565

```
Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

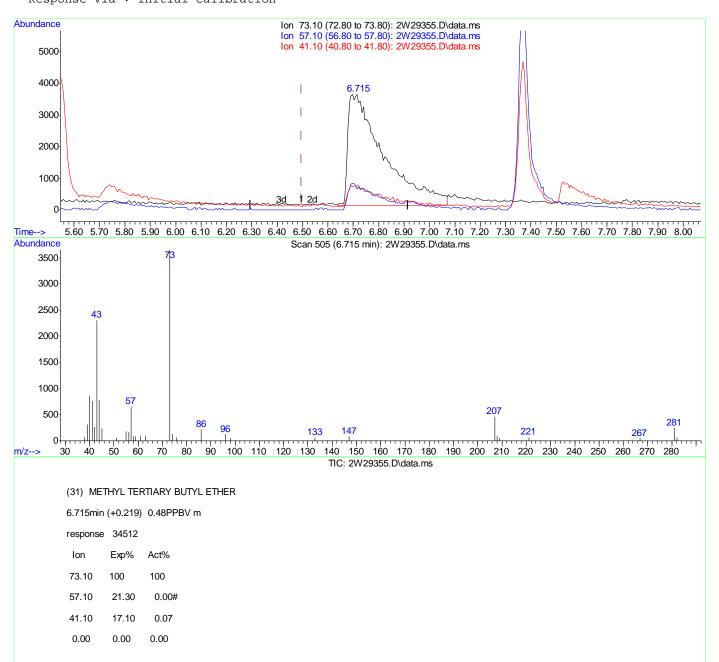
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:31 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D

Acq On : 21 Jan 2011 11:23 am

: YOUMINH Operator : IC1240-0.5 Sample

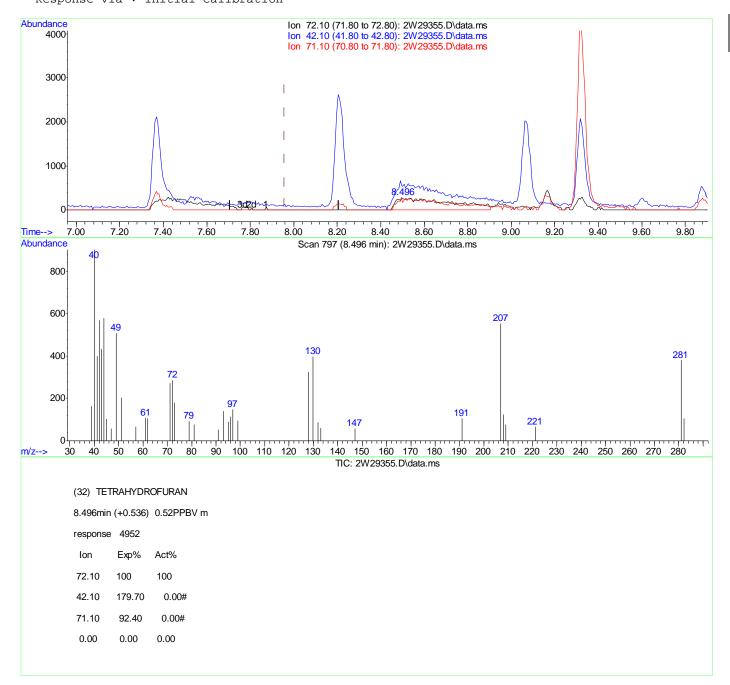
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Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:34 2011 VOA-CLN-02



```
Data Path : C:\msdchem\1\DATA\2w\
Data File: 2W29355.D
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: 21 Jan 2011 11:23 am Acq On

Operator : YOUMINH

Sample : IC1240-0.5

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

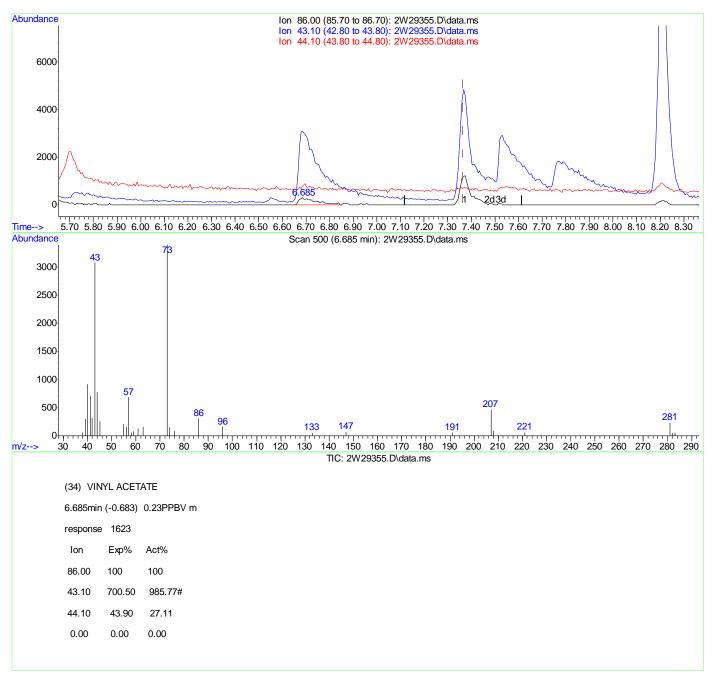
Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:41 2011 VOA-CLN-02



Page: 1

```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

: YOUMINH Operator : IC1240-0.5 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

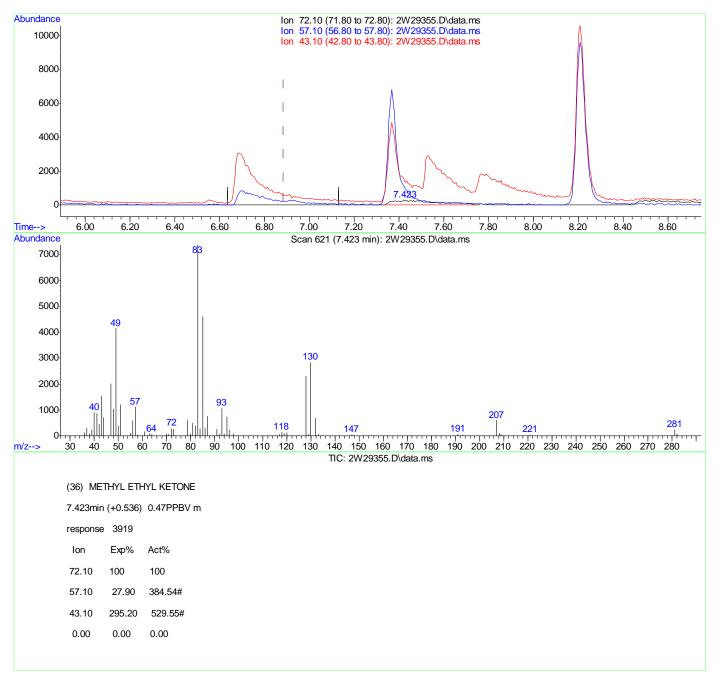
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Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:45 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D

: 21 Jan 2011 11:23 am Acq On

Operator : YOUMINH Sample : IC1240-0.5

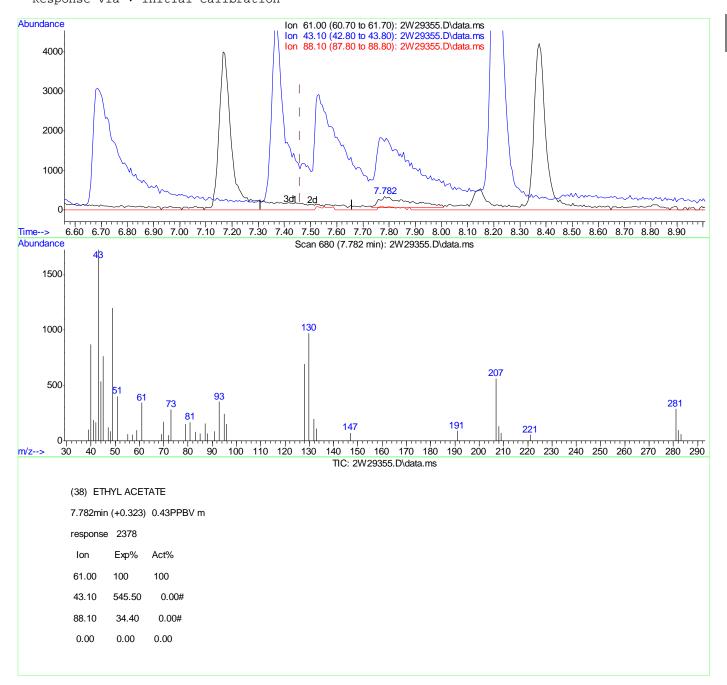
: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:31:48 2011 VOA-CLN-02



```
Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

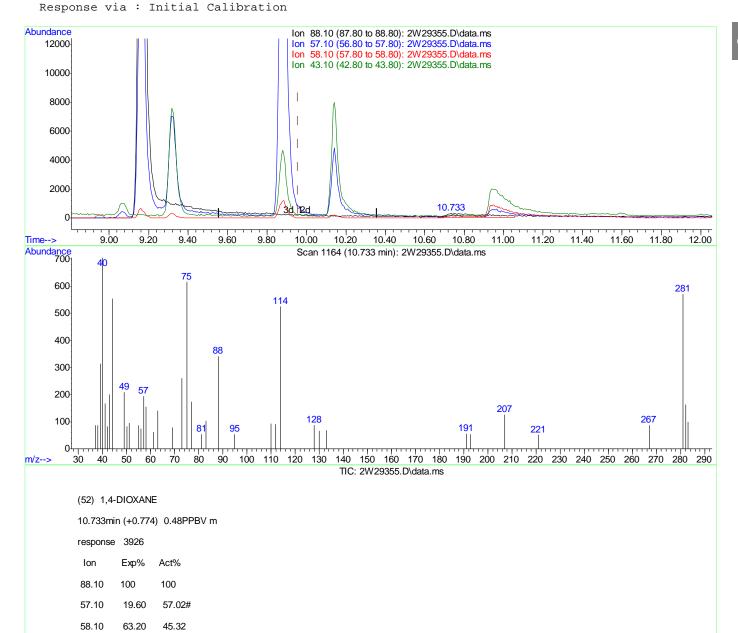
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update: Mon Jan 24 10:22:56 2011



M2W1240.M Tue Jan 25 15:31:57 2011 VOA-CLN-02

58.77#

620 of 840

ACCUTEST

JA68565

LABORATORIES

43.10

20.70

```
Data Path : C:\msdchem\1\DATA\2w\Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

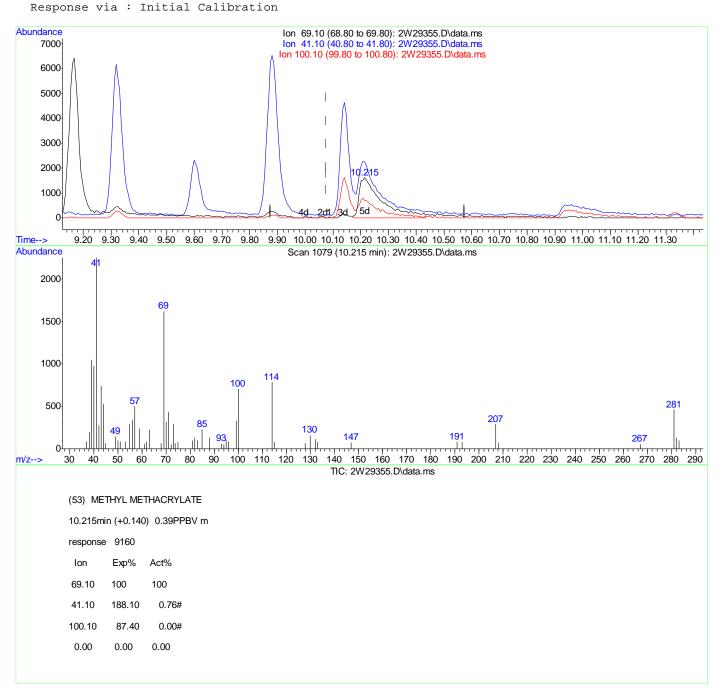
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update: Mon Jan 24 10:22:56 2011



M2W1240.M Tue Jan 25 15:32:02 2011 VOA-CLN-02

**o** 

### Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D
```

Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

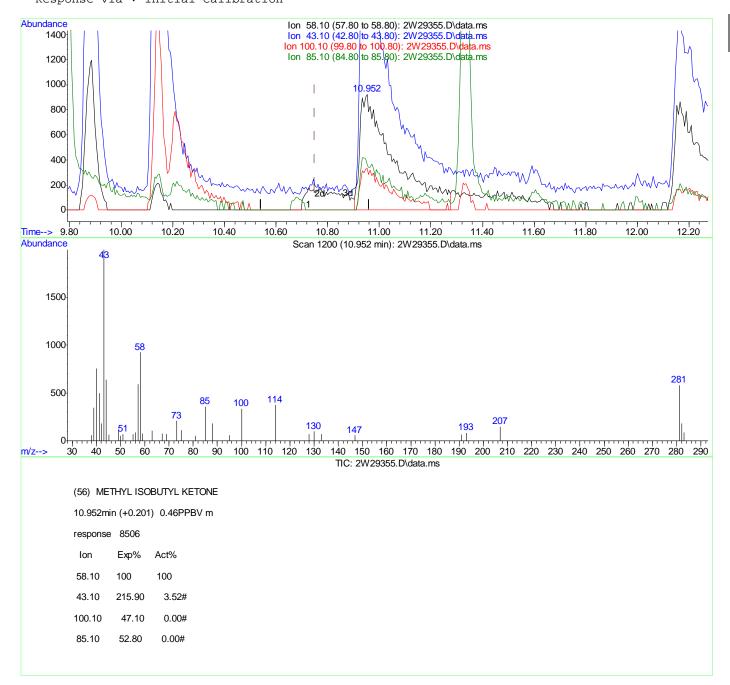
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:32:08 2011 VOA-CLN-02



Abundance

### Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29355.D
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Acq On

: 21 Jan 2011 11:23 am

Operator : YOUMINH : IC1240-0.5 Sample

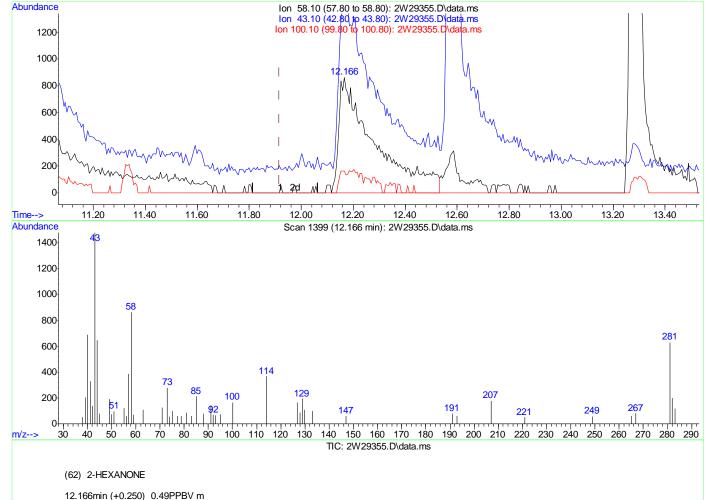
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Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



response 8206

Ion Ехр% Act% 58.10 100 100 43.10 154.40 0.40# 100.10 0.00# 26.40 0.00 0.00 0.00

M2W1240.M Tue Jan 25 15:32:14 2011 VOA-CLN-02



Page: 1

```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29355.D
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: 21 Jan 2011 11:23 am Acq On

Operator : YOUMINH Sample : IC1240-0.5

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

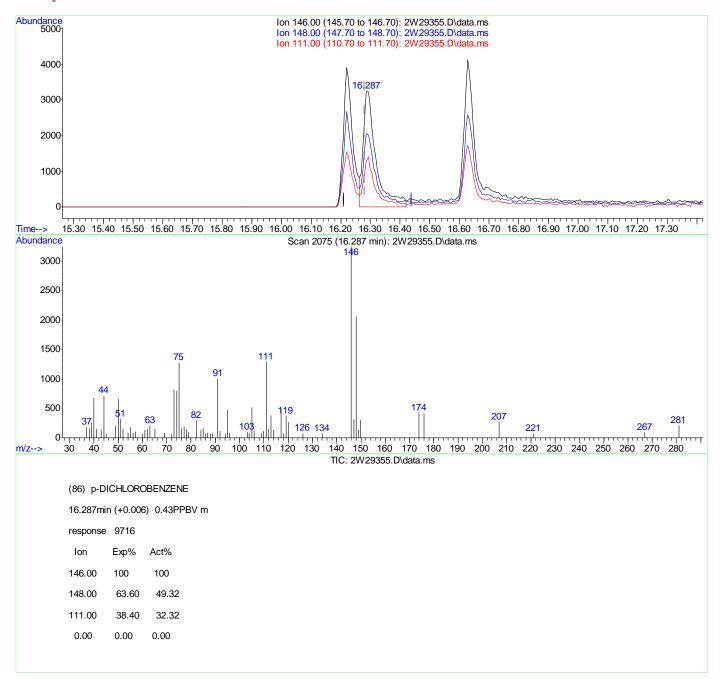
Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:32:20 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

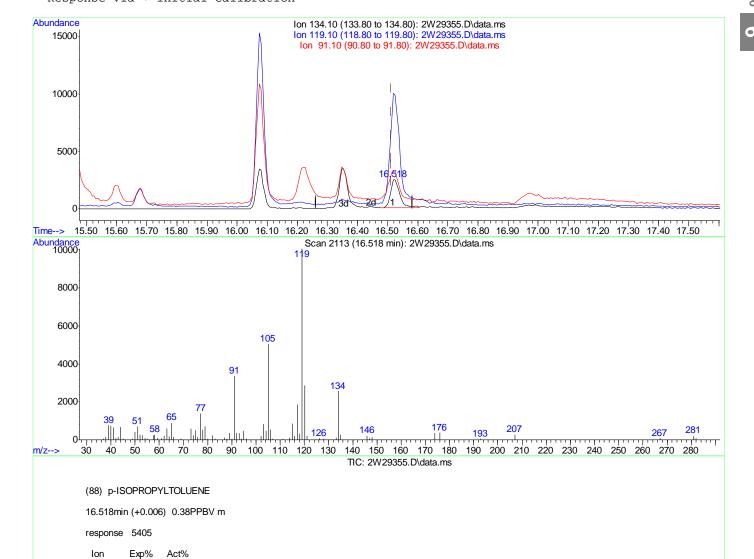
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:32:24 2011 VOA-CLN-02

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ACCUTEST

JA68565

LABORATORIES

134.10

119.10

91.10

0.00

100

408.00

108.30

0.00

100

0.00

372.04 108.84

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Data Path : C:\msdchem\1\DATA\2w\Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

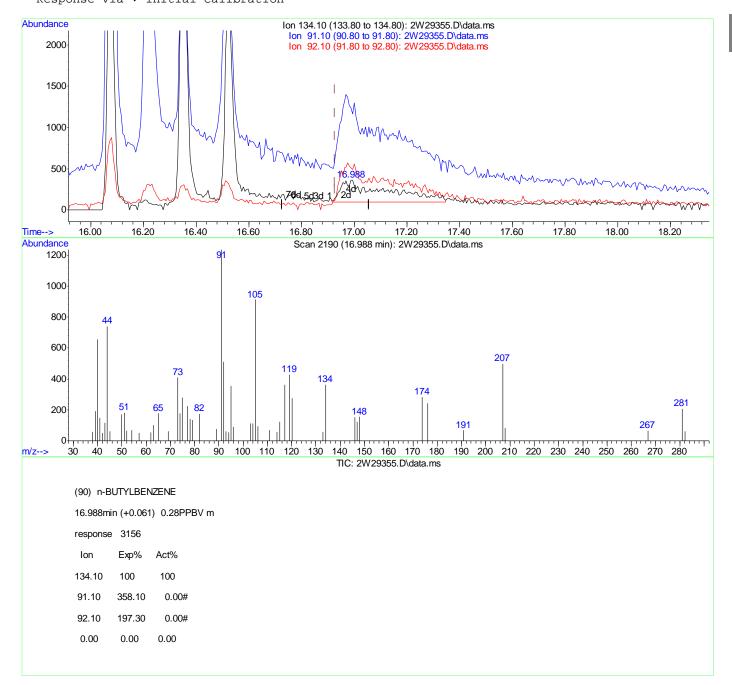
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration





Page: 1

```
Data Path : C:\msdchem\1\DATA\2w\
Data File: 2W29355.D
```

: 21 Jan 2011 11:23 am Acq On

Operator : YOUMINH Sample : IC1240-0.5

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

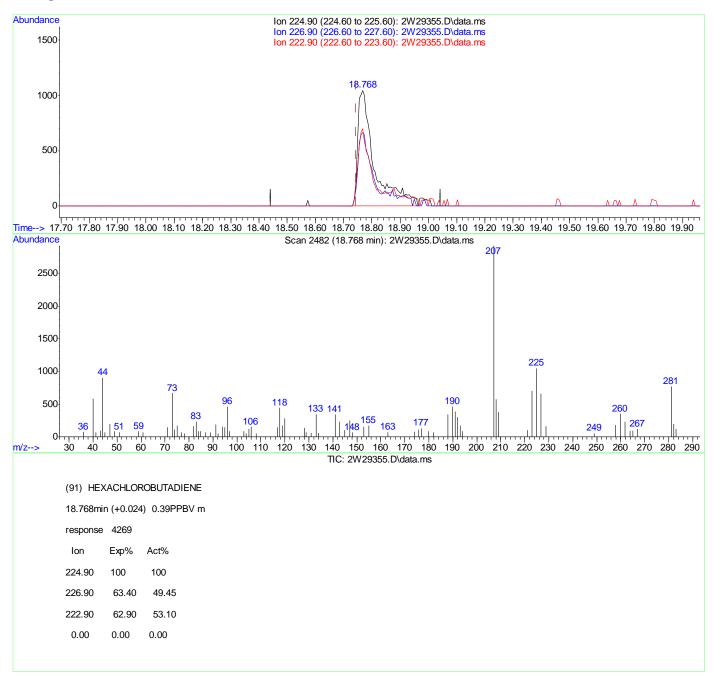
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Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:32:32 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29355.D

Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

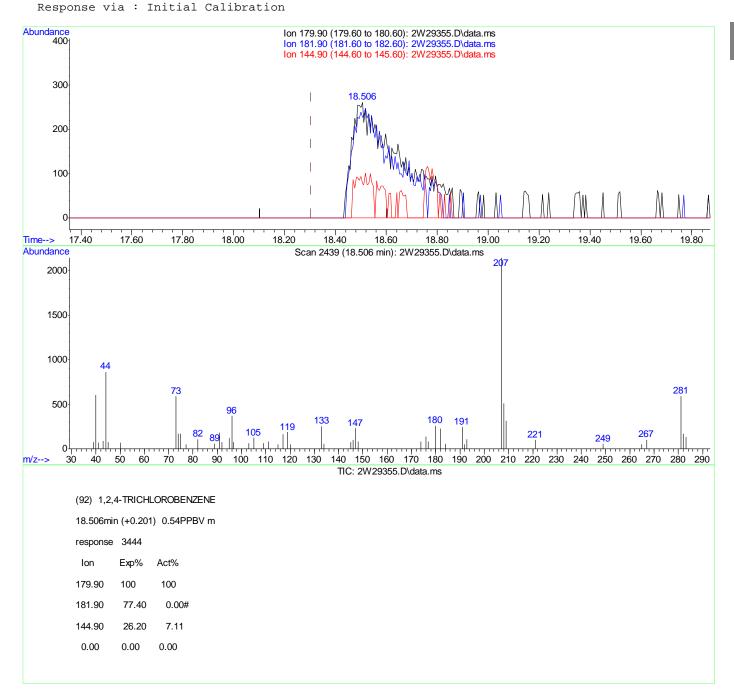
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : T015 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update: Mon Jan 24 10:22:56 2011



M2W1240.M Tue Jan 25 15:32:35 2011 VOA-CLN-02



```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29355.D
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Acq On : 21 Jan 2011 11:23 am

Operator : YOUMINH Sample : IC1240-0.5

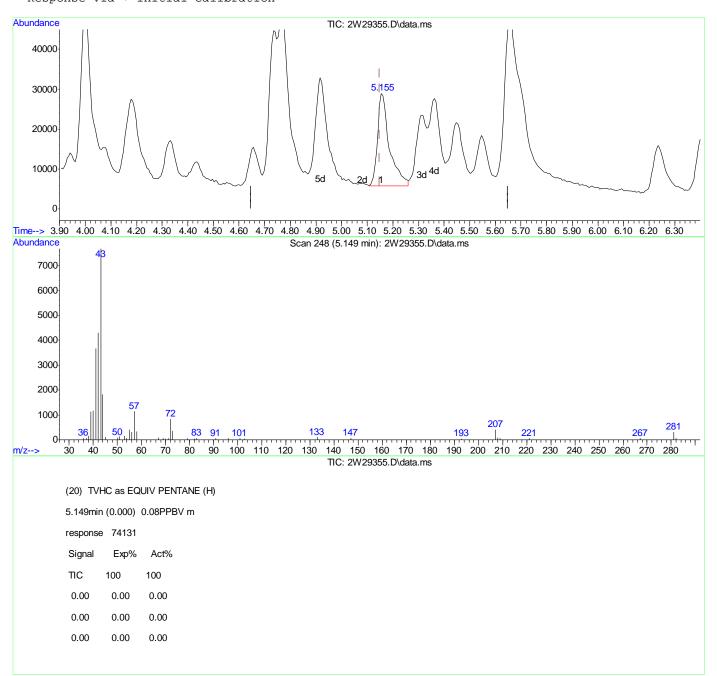
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : T015 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:10:27 2011 VOA-CLN-02

```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29355.D
Acq On : 21 Jan 2011 11:23 am
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Operator : YOUMINH

Sample : IC1240-0.5

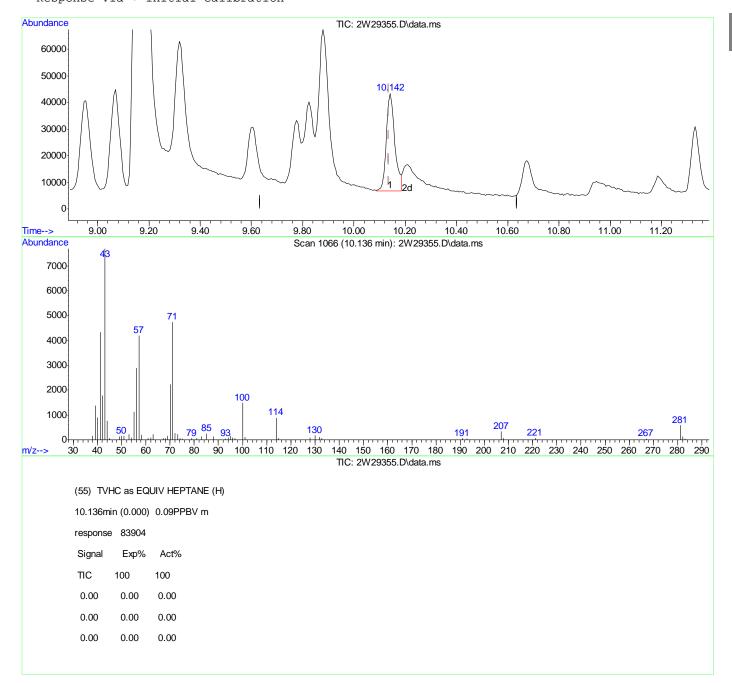
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ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 09:24:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:10:31 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\
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Data File : 2w29355.d

Acq On : 21 Jan 2011 11:23 am

: YOUMINH Operator : IC1240-0.5 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 1 Sample Multiplier: 1

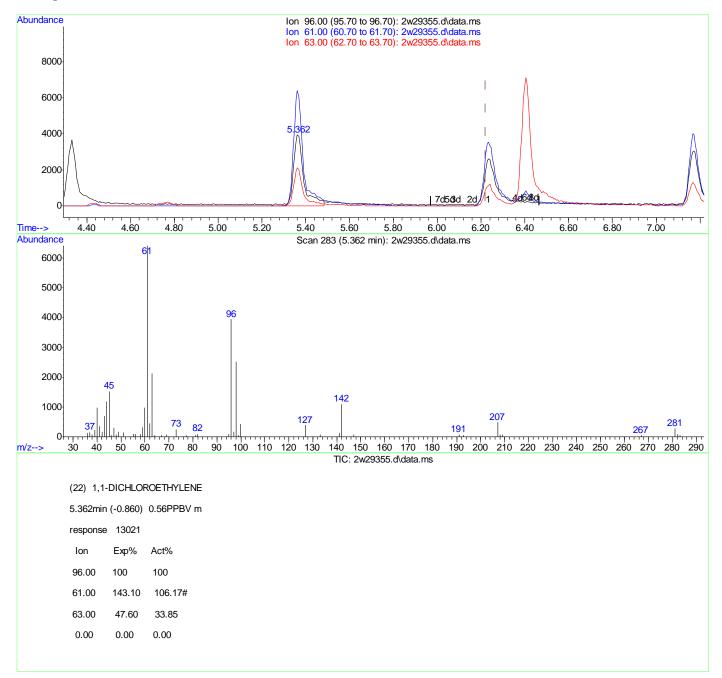
Quant Time: Feb 28 08:59:32 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:55:23 2011 VOA-CLN-02

631 of 840 ACCUTEST: JA68565

**Manual Integrations** APPROVED (compounds with "m" flag) Jessica Reitan-Chu

01/28/11 14:12

Data Path : C:\msdchem\1\DATA\

Data File : 2w29356.d Acq On : 21 Jan 2011 12:03 pm Operator : YOUMINH

: IC1240-20 Sample

: MS2686,V2W1240,,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:43 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Internal Standards  1) BROMOCHLOROMETHANE 7,313 128 161738 10.00 PPBW 44) 1,4-DIFLUOROBENZENE 9,166 114 820410 10.00 PPBW 61) CHLOROBENZENE-D5 13.287 82 417753 10.00 PPBW 93) CHLOROBENZENE-D5(A) 13.287 82 428712 10.00 PPBW System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Range 65 - 128 Recovery = 103.  Target Compounds 3) DICHLORODIFLUOROMETHANE 3,832 85 1425696 15.96 PPBW 4) FREON 152A 3.741 65 339873 15.63 PPBW 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBW 6) PROPYLENE 3.783 41 414135 16.51 PPBW 7) FREON 114 3.997 85 1691474 16.84 PPBW 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBW 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBW 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBW 11) n-BUTANE 4.186 43 858399 17.02 PPBW 12) BROMOMETHANE 4.326 94 534246 17.53 PPBW 13) CHLOROETHANE 4.326 94 534246 17.53 PPBW 13) CHLOROETHANE 4.326 94 534246 17.53 PPBW 13) CHLOROETHANE 4.326 94 534246 17.53 PPBW 13) CHLOROETHANE 4.326 94 534246 17.53 PPBW 13) CHLOROETHANE 4.326 94 534246 17.53 PPBW 13) CHLOROETHANE 4.326 94 534246 17.53 PPBW	7 0.00 7 # 0.00 7 # 0.00 7 0.00 .20% Qvalue 7 99 7 96 7 98 7 100 7 97
44) 1,4-DIFLUOROBENZENE 9.166 114 820410 10.00 PPBN 61) CHLOROBENZENE-D5 13.287 82 417753 10.00 PPBN 93) CHLOROBENZENE-D5(A) 13.287 82 428712 10.00 PPBN 59; 4-BROMOFLUOROBENZENE 14.775 95 225797 5.16 PPBN 59; 4 BROMOFLUOROBENZENE 14.775 95 225797 5.16 PPBN 59; 4 Amount 5.000 Range 65 - 128 Recovery = 103.  Target Compounds 3) DICHLORODIFLUOROMETHANE 3.832 85 1425696 15.96 PPBN 4) FREON 152A 3.741 65 339873 15.63 PPBN 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBN 6) PROPYLENE 3.783 41 414135 16.51 PPBN 7) FREON 114 3.997 85 1691474 16.84 PPBN 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBN 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBN 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBN 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBN 11) n-BUTANE 4.186 43 858399 17.02 PPBN 12) BROMOMETHANE 4.326 94 534246 17.53 PPBN 13) CHLOROETHANE 4.326 94 534246 17.53 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETHANE 1	7 0.00 7 # 0.00 7 # 0.00 7 0.00 .20% Qvalue 7 99 7 96 7 98 7 100 7 97
61) CHLOROBENZENE-D5	7 # 0.00 7 # 0.00 7 0.00 .20% Qvalue 7 99 7 96 7 98 7 100 7 97
93) CHLOROBENZENE-D5(A) 13.287 82 428712 10.00 PPBN System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE 14.775 95 225797 5.16 PPBN Spiked Amount 5.000 Range 65 - 128 Recovery = 103.  Target Compounds 3) DICHLORODIFLUOROMETHANE 3.832 85 1425696 15.96 PPBN 4) FREON 152A 3.741 65 339873 15.63 PPBN 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBN 6) PROPYLENE 3.783 41 414135 16.51 PPBN 7) FREON 114 3.997 85 1691474 16.84 PPBN 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBN 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBN 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBN 11) n-BUTANE 4.186 43 858399 17.02 PPBN 12) BROMOMETHANE 4.326 94 534246 17.53 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN	7 # 0.00 7 0.00 .20%  Qvalue 7 99 7 96 7 98 7 100 7 97
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE 14.775 95 225797 5.16 PPBN Spiked Amount 5.000 Range 65 - 128 Recovery = 103.  Target Compounds 3) DICHLORODIFLUOROMETHANE 3.832 85 1425696 15.96 PPBN 4) FREON 152A 3.741 65 339873 15.63 PPBN 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBN 6) PROPYLENE 3.783 41 414135 16.51 PPBN 7) FREON 114 3.997 85 1691474 16.84 PPBN 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBN 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBN 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBN 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBN 11) n-BUTANE 4.186 43 858399 17.02 PPBN 12) BROMOMETHANE 4.326 94 534246 17.53 PPBN 12) BROMOMETHANE 4.326 94 534246 17.53 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13	7 0.00 .20% Qvalue 7 99 7 96 7 98 7 100 7 97
75) 4-BROMOFLUOROBENZENE 14.775 95 225797 5.16 PPBN Spiked Amount 5.000 Range 65 - 128 Recovery = 103.  Target Compounds  3) DICHLORODIFLUOROMETHANE 3.832 85 1425696 15.96 PPBN 4) FREON 152A 3.741 65 339873 15.63 PPBN 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBN 6) PROPYLENE 3.783 41 414135 16.51 PPBN 7) FREON 114 3.997 85 1691474 16.84 PPBN 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBN 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBN 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBN 11) n-BUTANE 4.186 43 858399 17.02 PPBN 12) BROMOMETHANE 4.326 94 534246 17.53 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13) CHLOROETHANE 4.429 64 328726 18.04 PPBN 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETHANE 13.0 CHLOROETH	Qvalue 7 99 7 96 7 98 7 100 7 97
Spiked Amount       5.000       Range       65 - 128       Recovery       = 103.         Target Compounds         3) DICHLORODIFLUOROMETHANE       3.832       85 1425696       15.96 PPBV         4) FREON 152A       3.741       65 339873       15.63 PPBV         5) CHLORODIFLUOROMETHANE       3.765       67 138087       16.45 PPBV         6) PROPYLENE       3.783       41 414135       16.51 PPBV         7) FREON 114       3.997       85 1691474       16.84 PPBV         8) CHLOROMETHANE       3.936       52 149730       16.16 PPBV         9) VINYL CHLORIDE       4.070       62 576483       17.20 PPBV         10) 1,3-BUTADIENE       4.155       54 440178       18.05 PPBV         11) n-BUTANE       4.186       43 858399       17.02 PPBV         12) BROMOMETHANE       4.326       94 534246       17.53 PPBV         13) CHLOROETHANE       4.429       64 328726       18.04 PPBV	Qvalue 7 99 7 96 7 98 7 100 7 97
Target Compounds  3) DICHLORODIFLUOROMETHANE  4) FREON 152A  5) CHLORODIFLUOROMETHANE  6) PROPYLENE  7) FREON 114  8) CHLOROMETHANE  8) CHLOROMETHANE  9) VINYL CHLORIDE  10) 1,3-BUTADIENE  11) n-BUTANE  4.186  4.326  94  534246  15.96  PPBN  15.63  PPBN  15.63  PPBN  16.45  PPBN  16.45  PPBN  16.51  PPBN  16.84  PPBN  17.20  PPBN  19.00  10.1,3-BUTADIENE  4.155  54  440178  18.05  PPBN  11.0  11.0  12.0  13.0  14.16  15.96  PPBN  14.11  15.96  PPBN  15.96  PPBN  16.45  PPBN  16.45  PPBN  17.20  PPBN  18.05  PPBN  19.0  19.0  10.	Qvalue 7 99 7 96 7 98 7 100 7 97
3) DICHLORODIFLUOROMETHANE 3.832 85 1425696 15.96 PPBV 4) FREON 152A 3.741 65 339873 15.63 PPBV 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBV 6) PROPYLENE 3.783 41 414135 16.51 PPBV 7) FREON 114 3.997 85 1691474 16.84 PPBV 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBV 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBV 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 99 7 96 7 98 7 100 7 97
4) FREON 152A 3.741 65 339873 15.63 PPBV 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBV 6) PROPYLENE 3.783 41 414135 16.51 PPBV 7) FREON 114 3.997 85 1691474 16.84 PPBV 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBV 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBV 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 96 7 98 7 100 7 97
4) FREON 152A 3.741 65 339873 15.63 PPBV 5) CHLORODIFLUOROMETHANE 3.765 67 138087 16.45 PPBV 6) PROPYLENE 3.783 41 414135 16.51 PPBV 7) FREON 114 3.997 85 1691474 16.84 PPBV 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBV 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBV 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 96 7 98 7 100 7 97
5) CHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13.765 67 138087 16.45 PPBV 3.783 41 414135 16.51 PPBV 3.997 85 1691474 16.84 PPBV 4.070 62 576483 17.20 PPBV 4.070 62 576483 17.20 PPBV 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 98 7 100 7 97
7) FREON 114 3.997 85 1691474 16.84 PPBV 8) CHLOROMETHANE 3.936 52 149730 16.16 PPBV 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBV 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 97
8) CHLOROMETHANE 3.936 52 149730 16.16 PPBV 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBV 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	
8) CHLOROMETHANE 3.936 52 149730 16.16 PPBV 9) VINYL CHLORIDE 4.070 62 576483 17.20 PPBV 10) 1,3-BUTADIENE 4.155 54 440178 18.05 PPBV 11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	
11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	<i>7</i> # 89
11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 100
11) n-BUTANE 4.186 43 858399 17.02 PPBV 12) BROMOMETHANE 4.326 94 534246 17.53 PPBV 13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	
13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	<i>7</i> # 95
13) CHLOROETHANE 4.429 64 328726 18.04 PPBV	7 99
,	7 98
14) FREON 123 4.728 83 1471546 17.52 PPBV	<i>1</i> # 75
14) FREON 123     4.728     83     1471546     17.52 PPBV       15) FREON 123A     4.765     117     827592     17.33 PPBV	7 86
16) TRICHLOROFLUOROMETHANE 4.917 101 1462836 16.69 PPBN	7 99
16) TRICHLOROFLUOROMETHANE 4.917 101 1462836 16.69 PPBN 17) ISOPROPYL ALCOHOL 5.015 45 942444 20.85 PPBN	7 94
18) ACETONE 4 862 58 240174 20 76 PPR	7 92
19) PENTANE 5.155 42 578424 17.34 PPBV	7 98
20) TVHC as EQUIV PENTANE 5.149 TIC 2856422m 2.39 PPBV	7
21) IODOMETHANE 5.307 142 1372982 18.81 PPBV	7 99
21) IODOMETHANE 5.307 142 1372982 18.81 PPBV 22) 1,1-DICHLOROETHYLENE 5.356 96 569824m 19.37 PPBV	<i>I</i>
23) CARBON DISULFIDE 5.691 76 1436365 17.39 PPBV	7 95
	7 99
24) ETHANOL       4.576       45       173610       18.36 PPBV         25) BROMOETHENE       4.649       106       539610       18.67 PPBV	7 99
26) METHYLENE CHLORIDE 5.441 84 462040 18.13 PPBV	7 88
26) METHYLENE CHLORIDE       5.441       84       462040       18.13 PPBV         27) 3-CHLOROPROPENE       5.533       76       261310       21.50 PPBV	7 # 56
28) FREON 113 5.655 151 940289 17.46 PPBV	7 95
29) TRANS-1,2-DICHLOROETHY 6.222 96 546452 19.29 PPBV	7 92
	7 96
30) TERTIARY BUTYL ALCOHOL 5.423 59 1223972 21.42 PPBV 31) METHYL TERTIARY BUTYL 6.478 73 1771010 19.65 PPBV 32) TETRAHYDROFURAN 7.892 72 267025 22.20 PPBV	7 96
32) TETRAHYDROFURAN 7.892 72 267025 22.20 PPBN	7 # 87
33) HEXANE 7.368 57 897970 18.01 PPBV	7 94
34) VINYL ACETATE 6.557 86 128788m 14.20 PPBV	
35) 1,1-DICHLOROETHANE 6.405 63 1056211 18.61 PPBV 36) METHYL ETHYL KETONE 6.825 72 250920 23.70 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.161 96 573146 21.36 PPBV	
37) cis-1,2-DICHLOROETHYLENE 7.161 96 573146 21.36 PPBV	
38) ETHYL ACETATE 7.423 61 151554 21.72 PPBV	
38) ETHYL ACETATE       7.423       61       151554       21.72 PPBV         39) CHLOROFORM       7.435       83       1194146       19.66 PPBV         40) 2,4-DIMETHYLPENTANE       8.209       57       1221331       17.84 PPBV	
40) 2,4-DIMETHYLPENTANE 8.209 57 1221331 17.84 PPBV	
41) 1,1,1-TRICHLOROETHANE 8.374 97 1295521 17.77 PPBN	

M2W1240.M Mon Feb 28 10:33:41 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29356.d Acq On : 21 Jan 2011 12:03 pm Operator : YOUMINH

Sample : IC1240-20
Misc : MS2686, V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:43 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	s D	ev	(Min)
42)	CARBON TETRACHLORIDE	8.953	117	1313522	17.71 PPE	3V		100
43)	1,2-DICHLOROETHANE	8.130	62	674811	21.87 PPE	3V		99
45)	BENZENE	8.813	78	1782303	19.66 PPE	3V		98
46)	CYCLOHEXANE	9.069	56	1015589	18.03 PPE	3V	#	78
47)	2,3-DIMETHYLPENTANE	9.325	71	478827	18.00 PPE	3V		92
	TRICHLOROETHYLENE	9.825	95	731278	19.39 PPE	3V		94
49)	1,2-DICHLOROPROPANE	9.599	63	672467	21.33 PPE	3V		98
50)	BROMODICHLOROMETHANE	9.776	83	1204268	20.63 PPE	3V		96
51)	2,2,4-TRIMETHYLPENTANE	9.880	57	3282029	18.58 PPE			97
52)	1,4-DIOXANE	9.892	88	348068	34.95 PPE	3V	#	1
53)	METHYL METHACRYLATE	10.069	69	649219	23.20 PPE	3V	#	34
54)	HEPTANE	10.142	43	1029463	19.54 PPE	3V		90
55)	TVHC as EQUIV HEPTANE	10.136	TIC	4820599m	4.36 PPE	3V		
56)	METHYL ISOBUTYL KETONE	10.733	58	512141	23.11 PPE	3V		89
57)	cis-1,3-DICHLOROPROPENE	10.660	75	904865	22.30 PPE	3V		91
58)	TOLUENE	11.599	92	1230041	21.68 PPE	3V		98
59)	trans-1,3-DICHLOROPROPENE	11.172	75	678280	28.16 PPE	3V		92
60)	1,1,2-TRICHLOROETHANE	11.324	83	590191	22.28 PPE	3V		97
62)	2-HEXANONE	11.904	58	580184	23.66 PPE	3V		90
	TETRACHLOROETHYLENE	12.678	164	715962	18.40 PPE	3V		99
	DIBROMOCHLOROMETHANE	11.983	129	1136690	20.13 PPE			100
	1,2-DIBROMOETHANE	12.214	107	836791	21.49 PPE			100
	OCTANE	12.580	43	1415175	19.49 PPE			90
67)	1,1,1,2-TETRACHLOROETHANE	13.312	131	922051	18.31 PPE		#	56
	CHLOROBENZENE	13.330		1365144	19.64 PPE			96
69)	ETHYLBENZENE	13.702	91	2579630	20.36 PPE			98
	m,p-XYLENE	13.879		1967220	41.64 PPE			95
	O-XYLENE	14.330		963588	20.58 PPE			94
	STYRENE	14.226	104	1235833	24.08 PPE			97
	NONANE	14.580	43	1348187	21.89 PPE			92
	BROMOFORM	13.915		951927	20.92 PPE			99
	1,1,2,2-TETRACHLOROETHANE	14.318	83	1246362	20.23 PPE			99
	ISOPROPYLBENZENE	14.921		2884613	20.94 PPE			98
	2-CHLOROTOLUENE	15.391	126	593858	21.82 PPE			1
	n-PROPYLBENZENE	15.439		697999	22.23 PPE		#	30
	4-ETHYLTOLUENE	15.592	105	2371317	24.39 PPE			98
	1,3,5-TRIMETHYLBENZENE	15.671	105	2120373	23.69 PPE			97
	TERT-BUTYLBENZENE	16.074	134	503414	22.87 PPE			89
	1,2,4-TRIMETHYLBENZENE	16.080		1900649	24.46 PPE			95
	m-DICHLOROBENZENE	16.214		829577	25.60 PPE			99
	BENZYL CHLORIDE	16.202		1051462	26.02 PPE			97
	p-DICHLOROBENZENE	16.281		800726	24.50 PPE			99
	SEC-BUTYLBENZENE	16.348	134	583076	22.25 PPE			92
	p-ISOPROPYLTOLUENE	16.512		553699	26.51 PPE			95
	O-DICHLOROBENZENE	16.622	146	793766	24.55 PPE			99
	n-BUTYLBENZENE	16.927		379376	22.72 PPE			89
	HEXACHLOROBUTADIENE	18.744		358638	22.26 PPE			99
92)	1,2,4-TRICHLOROBENZENE	18.299	180	201923	21.75 PPE	3 V		82

M2W1240.M Mon Feb 28 10:33:41 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29356.d Acq On : 21 Jan 2011 12:03 pm Operator : YOUMINH

Sample : IC1240-20 Misc : MS2686, V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:43 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Mon Feb 28 10:33:41 2011 VOA-CLN-02

634 of 840 ACCUTEST JA68565

Data Path : C:\msdchem\1\DATA\

Data File : 2w29356.d

Acq On : 21 Jan 2011 12:03 pm

Operator : YOUMINH Sample : IC1240-20

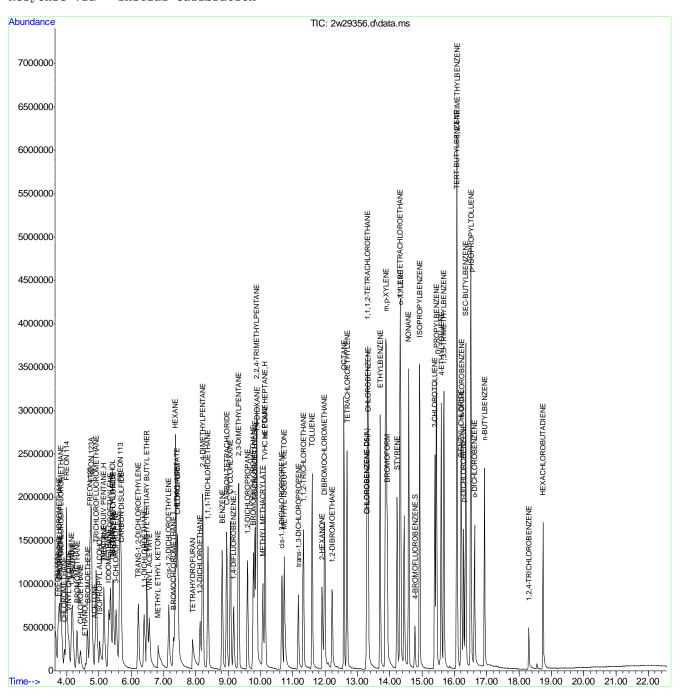
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:43 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:33:43 2011 VOA-CLN-02

635 of 840

ACCUTEST

JA68565

LABORATORIES

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29356.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 12:03 Supervisor approved: 01/28/11 14:12 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.56	Missed peak

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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29356.D
          : 21 Jan 2011 12:03 pm
Acq On
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: YOUMINH Operator

: IC1240-20 Sample

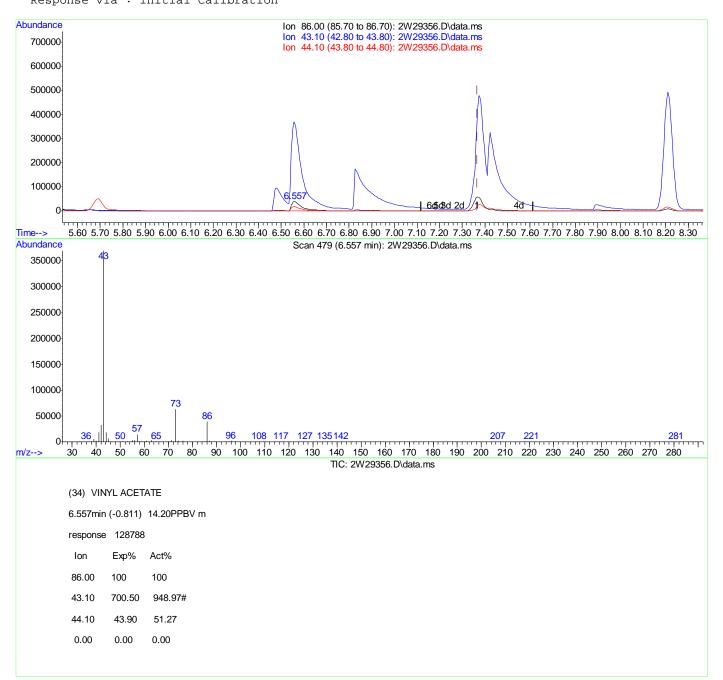
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:25:02 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:18:49 2011 VOA-CLN-02



Page: 1

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Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29356.D Acq On : 21 Jan 2011 12:03 pm
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Operator : YOUMINH

Sample : IC1240-20

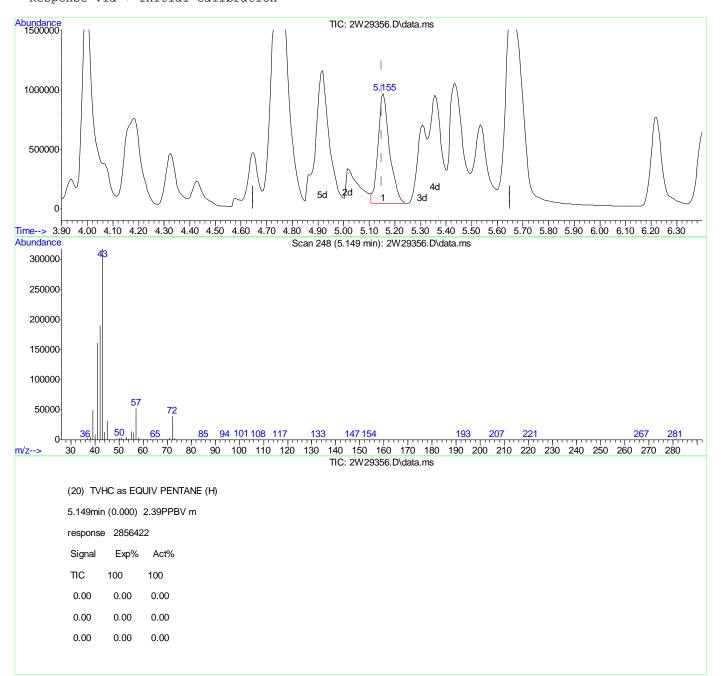
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:25:02 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:10:44 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29356.D
Acq On : 21 Jan 2011 12:03 pm
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Operator : YOUMINH

Sample : IC1240-20

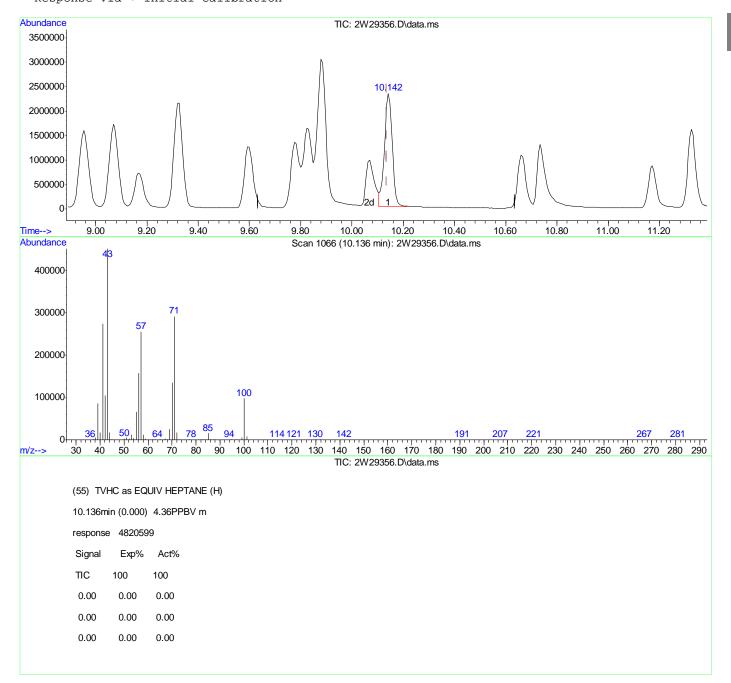
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:25:02 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:10:48 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\
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Data File : 2w29356.d

: 21 Jan 2011 12:03 pm Acq On

: YOUMINH Operator : IC1240-20 Sample

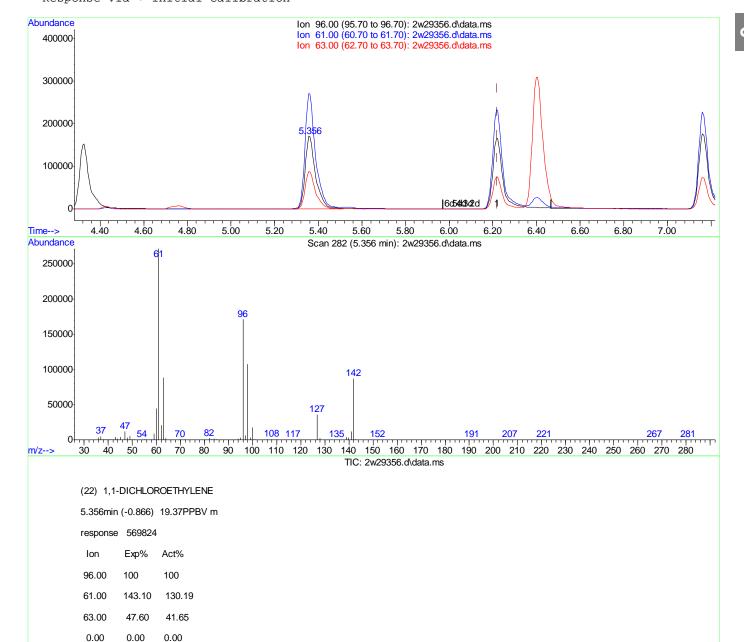
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:43 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:55:49 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29357.d Acq On : 21 Jan 2011 12:41 pm Operator : YOUMINH

: IC1240-5 Sample

: MS2686, V2W1240,,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:56 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011

Response via : Initial Calibration

Internal Standards 1) BROMOCHLOROMETHANE 44) 1,4-DIFLUOROBENZENE 61) CHLOROBENZENE-D5 93) CHLOROBENZENE-D5(A)	7.307 9.166 13.281 13.281	114	162230	10.00	זמממ		
44) 1,4-DIFLUOROBENZENE 61) CHLOROBENZENE-D5	9.166 13.281	114		10.00	זזמממ	_	
61) CHLOROBENZENE-D5	13.281		E010E0		PPDV	U	.00
•		0.0	791070	10.00	PPBV	0	.00
93) CHLOROBENZENE-D5(A)	13.281	82	342822	10.00	PPBV	# 0	.00
			359809	10.00	PPBV	# 0	.00
System Monitoring Compounds							
75) 4-BROMOFLUOROBENZENE	14.769	95	187753	5.23	PPBV	0.	00
	Range 65	- 128	Recover				
Target Compounds						Ovalu	e
3) DICHLORODIFLUOROMETHANE	3.832	85	354052	3.95	PPBV	~	99
4) FREON 152A	3.740		82985		PPBV		94
5) CHLORODIFLUOROMETHANE	3.765		34308		PPBV		97
6) PROPYLENE	3.789		101435		PPBV		0.0
7) FREON 114	3.997		414652	4.11		_	98
8) CHLOROMETHANE	3.936	52	37064		PPBV		88
9) VINYL CHLORIDE	4.070	62	139746	4.16			00
10) 1,3-BUTADIENE	4.155	54	104447	4.27			92
11) n-BUTANE	4.185	43	209316		PPBV		95
12) BROMOMETHANE	4.326	94	130743				00
•	4.320			4.20			98
13) CHLOROETHANE			78052				98 75
14) FREON 123	4.728		356214		PPBV		75 86
15) FREON 123A	4.765		200511	4.18			
16) TRICHLOROFLUOROMETHANE	4.917		360524 192123	4.10	PPB/		99
17) ISOPROPYL ALCOHOL	5.106	45					72
18) ACETONE	4.966	58	43018m	3.76			o 4
19) PENTANE	5.155		144494				94
20) TVHC as EQUIV PENTANE	5.149		796313m	5.12		_	
21) IODOMETHANE	5.307		329526		PPBV	Τ	00
22) 1,1-DICHLOROETHYLENE	5.356	96	134735m				
23) CARBON DISULFIDE	5.691	76	338396	4.08			95
24) ETHANOL	4.643	45	34391	3.63			98
25) BROMOETHENE	4.649			4.46			99
26) METHYLENE CHLORIDE	5.441	84	107434	4.20			99
27) 3-CHLOROPROPENE	5.539	76	56761		PPBV		24
28) FREON 113	5.649		232928	4.31			95
29) TRANS-1,2-DICHLOROETHY		96		4.28			94
30) TERTIARY BUTYL ALCOHOL			240438		PPBV		75
31) METHYL TERTIARY BUTYL			403298	4.67			96
32) TETRAHYDROFURAN	8.051	72	36502	3.08			97
33) HEXANE	7.362	57	210811	4.22	PPBV		97
34) VINYL ACETATE	6.587	86	24692	4.96	PPBV	#	51
35) 1,1-DICHLOROETHANE	6.398		248758	4.37		1	00
36) METHYL ETHYL KETONE	6.984	72	46374m				
37) cis-1,2-DICHLOROETHYLENE	7.161	96	126046	4.68	PPBV		90
38) ETHYL ACETATE	7.508	61	25726m				
39) CHLOROFORM	7.429	83	279332	4.58	PPBV		98
40) 2,4-DIMETHYLPENTANE	8.209		293927	4.28	PPBV		95
41) 1,1,1-TRICHLOROETHANE	8.368	97	316111	4.32	PPBV		99

M2W1240.M Mon Feb 28 10:34:29 2011 VOA-CLN-02



Page: 1

Data Path : C:\msdchem\1\DATA\

Data File : 2w29357.d Acq On : 21 Jan 2011 12:41 pm Operator : YOUMINH

Sample : IC1240-5 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:56 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update: Tue Jan 25 10:32:36 2011

Response via : Initial Calibration

	Compound		QIon	Response	Conc Units Dev(M	lin)
42)	CARBON TETRACHLORIDE	8.953	 117	320727	4.31 PPBV	100
43)	1,2-DICHLOROETHANE	8.130	62	147273	4.76 PPBV	99
45)	BENZENE	8.813	78	406625	4.65 PPBV	98
46)	CYCLOHEXANE	9.069	56	244783	4.51 PPBV #	79
47)	2,3-DIMETHYLPENTANE	9.319	71	116255		92
48)	TRICHLOROETHYLENE	9.825	95	158971	4.37 PPBV	95
49)	1,2-DICHLOROPROPANE	9.593	63	152831	5.03 PPBV	98
50)	BROMODICHLOROMETHANE	9.776	83	267614	4.75 PPBV	94
51)	2,2,4-TRIMETHYLPENTANE	9.880	57	771162	4.53 PPBV	99
52)	1,4-DIOXANE	10.068	88	47304	3.72 PPBV	85
53)	METHYL METHACRYLATE	10.093	69	128484	4.72 PPBV #	15
54)	HEPTANE	10.136		248851	4.90 PPBV	86
	TVHC as EQUIV HEPTANE	10.136			5.29 PPBV	
	METHYL ISOBUTYL KETONE	10.776		92322	4.32 PPBV	89
57)	cis-1,3-DICHLOROPROPENE	10.660	75	183549	4.80 PPBV	91
58)	TOLUENE	11.599		269225	4.92 PPBV	98
59)	trans-1,3-DICHLOROPROPENE	11.172	75	128205	4.91 PPBV	91
	1,1,2-TRICHLOROETHANE	11.324	83	129268	5.06 PPBV	96
62)	2-HEXANONE	11.946		90452m	4.44 PPBV	
63)	TETRACHLOROETHYLENE	12.672		161865	5.07 PPBV	99
	DIBROMOCHLOROMETHANE	11.983		245179	5.29 PPBV	99
	1,2-DIBROMOETHANE	12.214		162288	5.29 PPBV 5.08 PPBV	99
	OCTANE	12.580		321211	5.39 PPBV	89
	1,1,1,2-TETRACHLOROETHANE	13.306		220807		1
	CHLOROBENZENE	13.324		281192	4.93 PPBV	95
	ETHYLBENZENE	13.702		552197	5.31 PPBV	98
	m,p-XYLENE	13.879			10.85 PPBV	95
	O-XYLENE	14.324		213977		94
	STYRENE	14.220		223788	5.31 PPBV	97
	NONANE	14.580		301551	5.97 PPBV 5.17 PPBV	92
	BROMOFORM	13.915				99
	1,1,2,2-TETRACHLOROETHANE			269290	5.33 PPBV	99
	ISOPROPYLBENZENE	14.921		648337		98
	2-CHLOROTOLUENE	15.391		124636	5.44 PPBV #	1
	n-PROPYLBENZENE	15.439		141476		33
	4-ETHYLTOLUENE	15.592		453113	5.68 PPBV	98
	1,3,5-TRIMETHYLBENZENE	15.671		446449		97
	TERT-BUTYLBENZENE	16.073		114294	6.33 PPBV	93
	1,2,4-TRIMETHYLBENZENE	16.073		370843		93
	m-DICHLOROBENZENE	16.214		156415	5.52 PPBV	99
	BENZYL CHLORIDE	16.201		191819		99
	p-DICHLOROBENZENE	16.281		154520	5.42 PPBV	99
	SEC-BUTYLBENZENE	16.348		126158	5.87 PPBV	93
	p-ISOPROPYLTOLUENE	16.512		99640		93
	o-DICHLOROBENZENE	16.616			5.62 PPBV	100
	n-BUTYLBENZENE	16.927		66443	4.99 PPBV	85
9T)	HEXACHLOROBUTADIENE	18.744	225	79809	6.04 PPBV	99
92)	1,2,4-TRICHLOROBENZENE	18.311	T80	37013	4.95 PPBV	89

M2W1240.M Mon Feb 28 10:34:29 2011 VOA-CLN-02

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Data Path : C:\msdchem\1\DATA\

Data File : 2w29357.d Acq On : 21 Jan 2011 12:41 pm Operator : YOUMINH

Sample : IC1240-5 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:56 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Mon Feb 28 10:34:29 2011 VOA-CLN-02

643 of 840 ACCUTEST JA68565

Data Path : C:\msdchem\1\DATA\

Data File : 2w29357.d

: 21 Jan 2011 12:41 pm Acq On

: YOUMINH Operator : IC1240-5 Sample

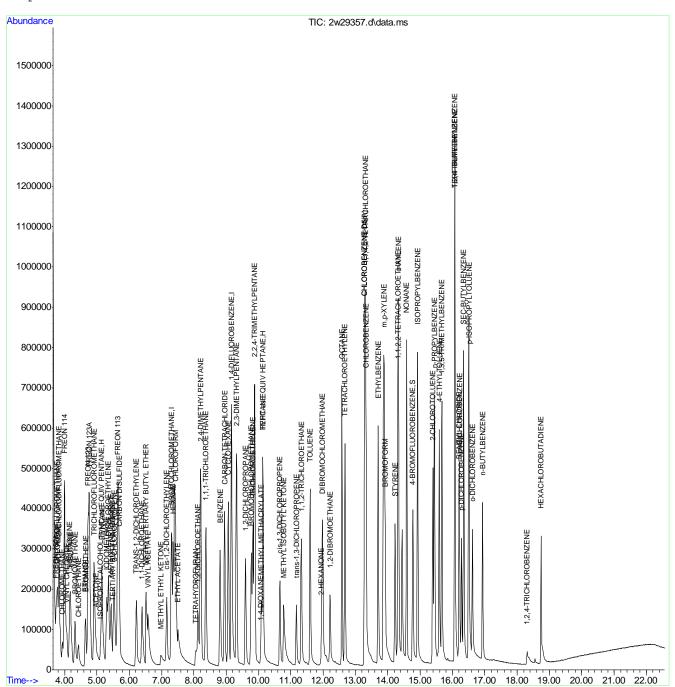
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Quant Time: Feb 28 08:59:56 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:34:31 2011 VOA-CLN-02

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# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29357.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 12:41 Supervisor approved: 01/28/11 14:12 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetone	67-64-1		4.97	Poor instrument integration
Methyl ethyl ketone	78-93-3		6.98	Poor instrument integration
Ethyl Acetate 2-Hexanone	141-78-6 591-78-6		7.51 11.95	Poor instrument integration Poor instrument integration



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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29357.D
          : 21 Jan 2011 12:41 pm
Acq On
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Operator : YOUMINH : IC1240-5 Sample

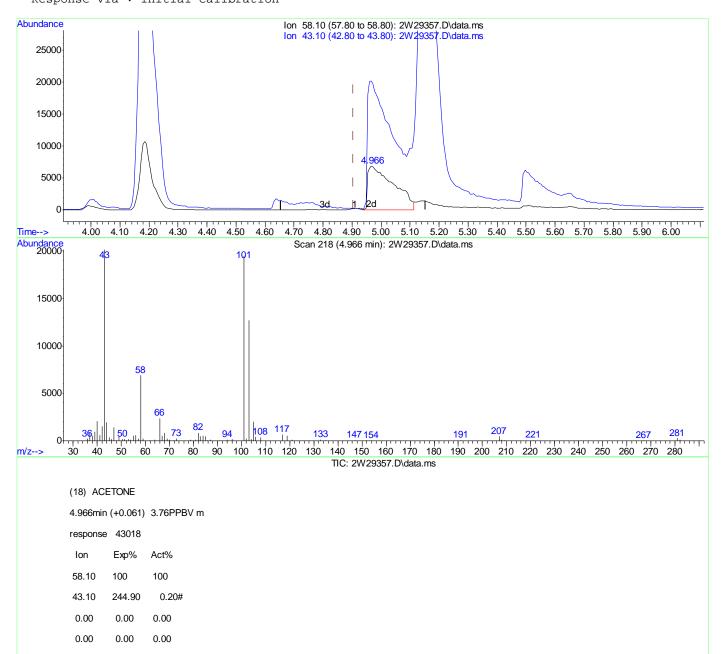
: MS2686, V2W1240,,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 11:18:47 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:19:15 2011 VOA-CLN-02



Page: 1

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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29357.D
Acq On : 21 Jan 2011 12:41 pm
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Operator : YOUMINH Sample : IC1240-5

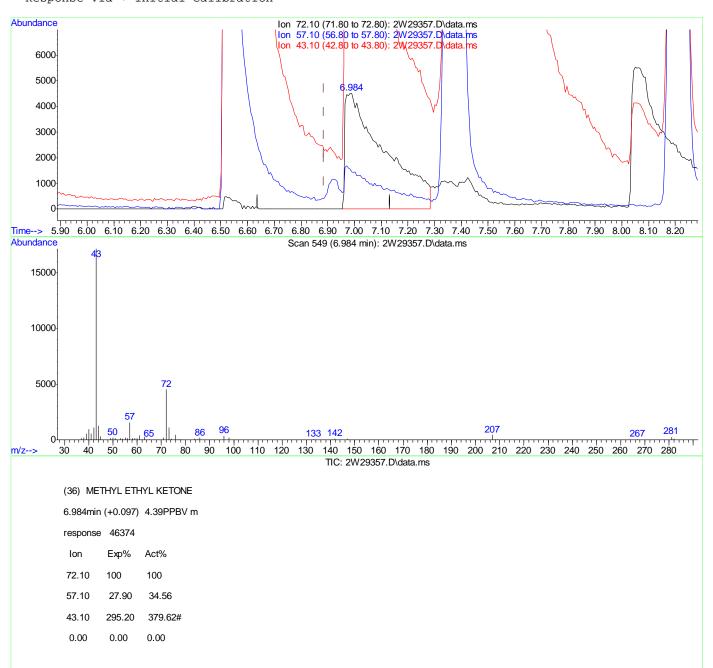
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ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 11:18:47 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:19:17 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29357.D
Acq On : 21 Jan 2011 12:41 pm
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Operator : YOUMINH Sample : IC1240-5

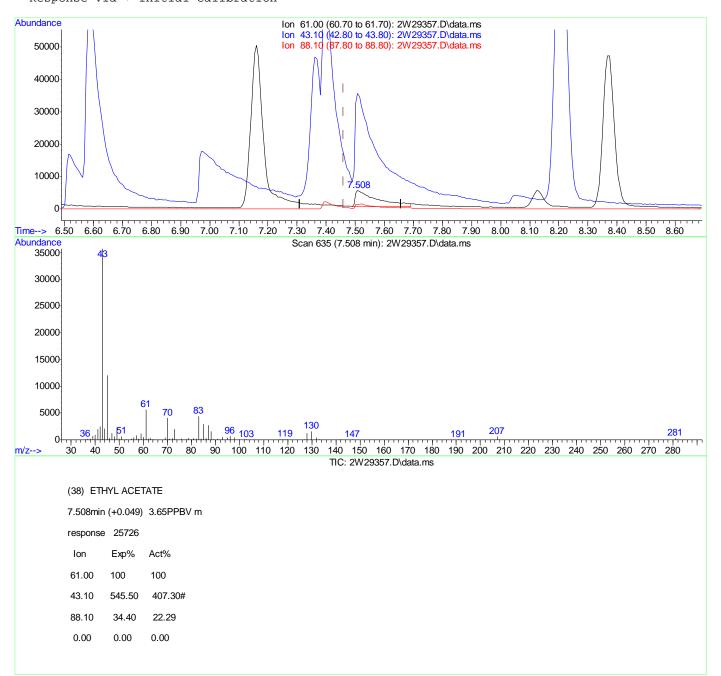
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 11:18:47 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:19:20 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29357.D
          : 21 Jan 2011 12:41 pm
Acq On
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Operator : YOUMINH Sample : IC1240-5

: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

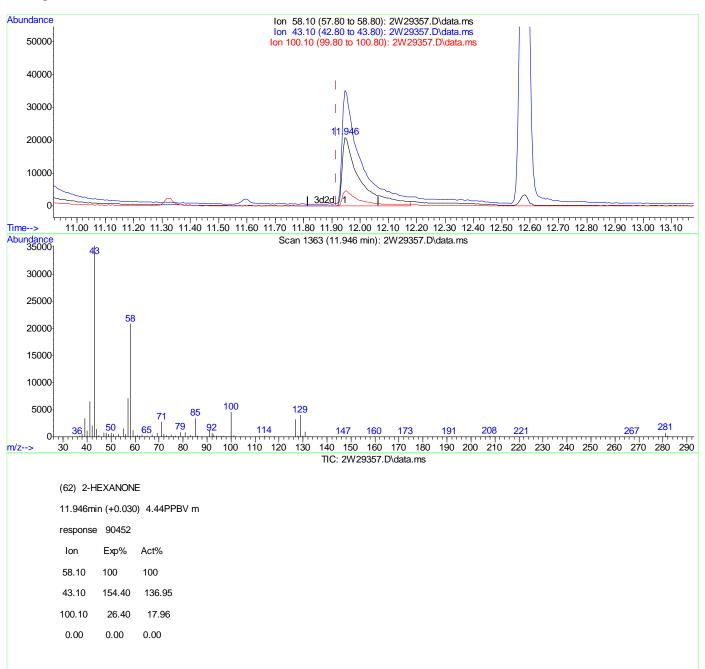
Quant Time: Jan 25 11:18:47 2011

Quant Method: C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:19:25 2011 VOA-CLN-02



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Data File : 2W29357.D
Acq On : 21 Jan 2011 12:41 pm
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Operator : YOUMINH Sample : IC1240-5

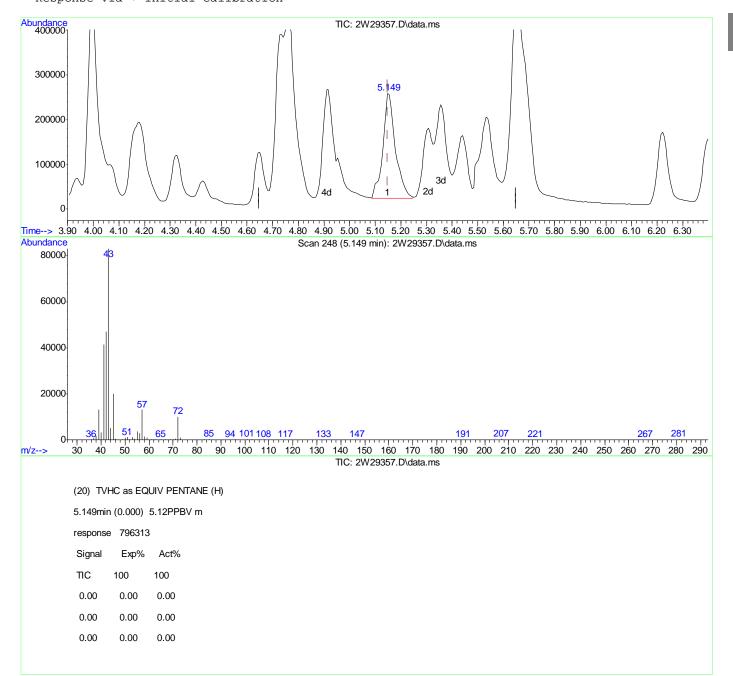
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 11:18:47 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:11:11 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\2w\ Data File : 2W29357.D Acq On : 21 Jan 2011 12:41 pm
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Operator : YOUMINH Sample : IC1240-5

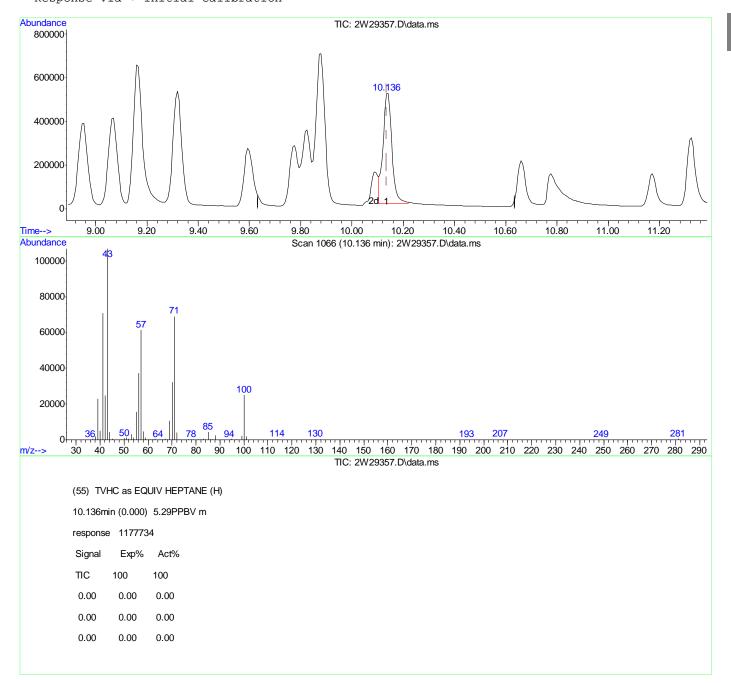
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 11:18:47 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:11:15 2011 VOA-CLN-02

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ACCUTEST

JA68565

LABORATORIES

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Data Path : C:\msdchem\1\DATA\
Data File : 2w29357.d
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: 21 Jan 2011 12:41 pm Acq On

: YOUMINH Operator : IC1240-5 Sample

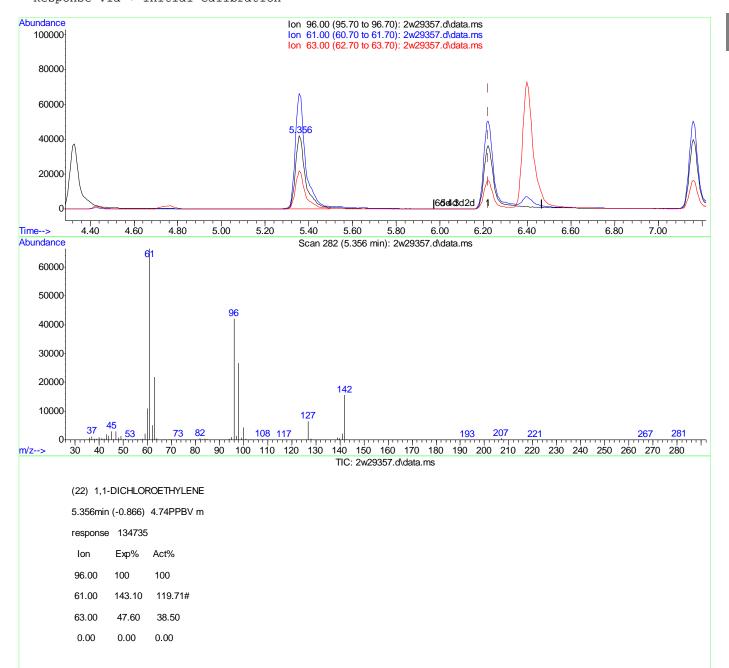
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 08:59:56 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 10:32:36 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:56:02 2011 VOA-CLN-02

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**Manual Integrations** APPROVED (compounds with "m" flag)

> Jessica Reitan-Chu 01/28/11 14:12

2W29358.D

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\

Data File : 2w29358.d Acq On : 21 Jan 2011 1:19 pm Operator : YOUMINH

Sample : IC124U-U.1
Misc : MS2686,V2W1240,,,,,1
Cample Multiplie: ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 09:00:20 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

44) 1,4-DIFLUOROBENZENE 9.166 114 610868 10.00 PPBV # 61) CHLOROBENZENE-D5 13.287 82 253998 10.00 PPBV # 93) CHLOROBENZENE-D5(A) 13.287 82 269041 10.00 PPBV #  System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Range 65 - 128 Recovery = 95.00%  Target Compounds 3) DICHLOROBIFLUOROMETHANE 3.838 85 7811 0.12 PPBV 0 6) PROPYLENE 3.802 41 2418 0.13 PPBV 7) FREON 114 3.997 85 8887 0.12 PPBV 9) VINYL CHLORIDE 4.076 62 2851 0.11 PPBV # 10) 1,3-BUTADIENE 4.167 54 1970 0.11 PPBV # 12) BROMOMETHANE 4.332 94 2624 0.12 PPBV 10) 1,3-BUTADIENE 4.166 54 1970 0.11 PPBV # 12) BROMOMETHANE 4.336 64 1398 0.10 PPBV # 13) CHLOROETHANE 4.436 64 1398 0.10 PPBV # 14) FREON 123 4.740 83 6984 0.11 PPBV # 15) FREON 123 4.770 117 3979 0.11 PPBV # 16) TRICHLOROFLUOROMETHANE 4.917 101 7535 0.12 PPBV 16) RACETONE 5.265 58 739m 0.09 PPBV 17) ISOPROPYL ALCOHOL 5.423 45 3259m 0.10 PPBV 18) ACETONE 5.167 42 2791 0.11 PPBV 21) IODOMETHANE 5.167 42 2791 0.11 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV 420 TRANS-1,2-DICHLOROETHYLENE 5.365 151 4478 0.11 PPBV 420 TRANS-1,2-DICHLOROETHYLENE 5.365 151 4478 0.11 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 420 CARBON DISULFIDE 6.406 6.405 6.405 9.500 9.11 PPBV 420 CARBON TETRACHLOROETHYLENE 7.435 83 4397 0.10 PPBV 420 CARBON TETRACHLOROETHYLENE 7.435 83 4397 0.10 PPBV 420 CARBON TETRACHLOROETHANE 8.344 62 2125 0.09 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZENE 8.819 78 6946 0.11 PPBV 445 DENZEN	in)
System Monitoring Compounds   14.775   95   126285   4.75   PPBV   0   Spiked Amount   5.000   Range   65 - 128   Recovery   = 95.00%	
System Monitoring Compounds   75   4-BROMOFLUGNOBENZENE   14.775   95   126285   4.75   PPBV   0   Spiked Amount   5.000   8   8   85   7811   0.12   PPBV   0   0   1   0   0   0   0   0   0   0	0.01
System Monitoring Compounds   75   4-BROMOFLUGROBENZENE   14.775   95   126285   4.75   PPBV   0   Spiked Amount   5.000   8   8   85   7811   0.12   PPBV   0   3   DICHLORODIFLUGROMETHANE   3.838   85   7811   0.12   PPBV   0   6   PROPYLENE   3.802   41   2418   0.13   PPBV   7   FREON   114   3.997   85   8887   0.12   PPBV   9   VINYL CHLORIDE   4.076   62   2851   0.11   PPBV   10   1,3-BUTADIENE   4.167   54   1970   0.11   PPBV   12   BROMOMETHANE   4.332   94   2624   0.12   PPBV   13   CHLORODETHANE   4.436   64   1398   0.10   PPBV   14   FREON   123   4.740   83   6984   0.11   PPBV   15   FREON   123   4.740   83   6984   0.11   PPBV   15   FREON   123   4.740   83   6984   0.11   PPBV   16   TRICHLOROFLUGROMETHANE   4.917   101   7535   0.12   PPBV   16   TRICHLOROFLUGROMETHANE   4.917   101   7535   0.12   PPBV   18   ACETONE   5.265   58   739m   0.09   PPBV   19   PENTANE   5.167   42   2791   0.11   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.313   142   5345   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362   96   2179m   0.10   PPBV   12   IDDOMETHANE   5.362	0.00
System Monitoring Compounds   75   4-BROMOFLUGROBENZENE   14.775   95   126285   4.75   PPBV   0   Spiked Amount   5.000   Range   65 - 128   Recovery   = 95.00%      Target Compounds   78   7811   0.12   PPBV   0   0   0   0   0   0   0   0   0	0.00
75	0.00
Target Compounds 3) DICHLORODIFLUOROMETHANE 6) PROPYLEME 7) FREON 114 3) 017 CHLORIDE 8) 017 CHLORIDE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 113) CHLOROETHANE 12) BROMOMETHANE 13) CHLOROETHANE 14) 167 6 62 18] CHLOROETHANE 15) FREON 123 16) TRICHLOROFLUOROMETHANE 16) FREON 123 17) FREON 123 18) ACETONE 19) ENTRANE 19) PENTANE 10) I 75 32 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARRON DISUFIDE 24) CHLOROPOPENE 25) BROMOETHENE 26) BROMOETHENE 27) 3 -CHLOROPOPENE 28) FREON 123 29 6 2486 217 PBV 210 TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 21) TRANS-1,2-DICHLOROETHYLENE 22) TRANS-1,2-DICHLOROETHYLENE 23) CARRON DISUFIDE 25) BROMOETHENE 26) TRANS-1,2-DICHLOROETHYLENE 27) TRANS-1,2-DICHLOROETHYLENE 28) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 20) TRANS-1,2-DICHLOROETHYLENE 21) METHYL TERTIARY BUTYL 22) TRANS-1,2-DICHLOROETHYLENE 23) CARRON DISUFFIDE 24) TRANS-1,2-DICHLOROETHYLENE 25) BROMOETHENE 26) TRANS-1,2-DICHLOROETHYLENE 27) TRANS-1,2-DICHLOROETHYLENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 21) TRANS-1,2-DICHLOROETHYLENE 22) TRANS-1,2-DICHLOROETHYLENE 23) CARRON DISUFFIDE 24) TRANS-1,2-DICHLOROETHYLENE 25) BROMOETHENE 26) AGENOMETHANE 27) TRANS-1,2-DICHLOROETHYLENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 20) TRANS-1,2-DICHLOROETHYLENE 21) TRANS-1,2-DICHLOROETHYLENE 22) TRANS-1,2-DICHLOROETHYLENE 23) CARRON DISURFIDE 24) DIPPEV 25) BROMOETHENE 25) BROMOETHENE 26) AGENOMETHANE 27) AGENOMETHANE 28) AGENOMETHANE 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHYLENE 29) TRANS-1,2-DICHLOROETHANE 29) TRANS-1,2-DICHLOROETHANE 29) TRANS-1,2-DICHLOROETHANE 29) TRANS-1,2-DICHLOROETHANE 29) TRANS-1,2-DICHLOROETHANE 29) TRANS-1,2-DICHLOROETHANE 29) TRANS-1,2-DICHLOROETHANE 20) AGENOMETHENE 21) AGENOMETHENE 22) AGENOMETHENE 23) AGENOMETHENE 24) AGENOMETHENE 25) BROMOETHENE 26) AGENOMETHENE 27) AGE	
Target Compounds 3) DICHLORODIFLUOROMETHANE 3.838 85 7811 0.12 PPBV 6) PROPYLENE 3.802 41 2418 0.13 PPBV 7) FREON 114 3.997 85 8887 0.12 PPBV 9) VINYL CHLORIDE 4.076 62 2851 0.11 PPBV 10) 1,3-BUTADIENE 4.167 54 1970 0.11 PPBV # 12) BROMOMETHANE 4.332 94 2624 0.12 PPBV 13) CHLOROETHANE 4.436 64 1398 0.10 PPBV 14) FREON 123 4.740 83 6984 0.11 PPBV # 15) FREON 123 4.771 117 3979 0.11 PPBV # 16) TRICHLOROFLUOROMETHANE 4.917 101 7535 0.12 PPBV 17) ISOPROPYL ALCOHOL 5.423 45 3259m 0.10 PPBV 18) ACETONE 5.265 58 739m 0.09 PPBV 19) PENTANE 5.167 42 2791 0.11 PPBV 21) IODOMETHANE 5.313 142 5345 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV 24) TARBORDETHENE 4.661 106 2367 0.10 PPBV 25) BROMOETHENE 4.661 106 2367 0.11 PPBV # 26) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV # 35) 1,1-DICHLOROETHYLENE 7.173 96 1847 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) CHLOROFORM 7.435 83 4397 0.10 PPBV 34) 1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 35) 1,1-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV # 32) CARBON TERTACHLORETHYLENE 7.173 96 1847 0.09 PPBV # 34) 1,2-DICHLOROETHYLENE 8.374 97 5889 0.11 PPBV # 34) CHLOROFORM 7.435 83 4397 0.10 PPBV # 35) 1,1-DICHLOROETHANE 8.374 97 5889 0.11 PPBV # 34) 1,2-DICHLOROETHANE 8.374 97 5889 0.11 PPBV # 34) 1,2-DICHLOROETHANE 8.348 62 2125 0.09 PPBV # 34) 1,2-DICHLOROETHANE 8.348 62 2125 0.09 PPBV # 34) 1,2-DICHLOROETHANE 8.348 62 2125 0.09 PPBV # 35) BENZENE 8.819 78 6946 0.10 PPBV #	.00
3) DICHLORODIFLUOROMETHANE 3) 888 85 7811 0.12 PPBV 6) PROPYLENE 3, 802 41 2418 0.13 PPBV 7) FREON 114 3.997 85 8887 0.12 PPBV 9) VINYL CHLORIDE 4.076 62 2851 0.11 PPBV 10) 1,3-BUTADIENE 4.167 54 1970 0.11 PPBV # 12) BROMOMETHANE 4.332 94 2624 0.12 PPBV 13) CHLOROETHANE 4.436 64 1398 0.10 PPBV 14) FREON 123 4.740 83 6984 0.11 PPBV # 15) FREON 123 4.771 117 3979 0.11 PPBV # 16) TRICHLOROFLUOROMETHANE 4.917 101 7535 0.12 PPBV 17) ISOPROPYL ALCOHOL 5.423 45 3259m 0.10 PPBV 18) ACETONE 5.265 58 739m 0.09 PPBV 19) PENTANE 5.167 42 2791 0.11 PPBV 12) IODOMETHANE 5.313 142 5345 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 22) 1,1-DICHLOROFTHENE 5.704 76 7026 0.11 PPBV 23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV # 24) BROMOETHENE 4.661 106 2367 0.11 PPBV # 25) BROMOETHENE 5.545 76 856 0.10 PPBV # 28) FREON 113 5.655 151 4478 0.11 PPBV # 28) FREON 113 5.655 151 4478 0.11 PPBV # 29) TRANS-1,2-DICHLOROETHYL 6.246 96 2486 0.10 PPBV # 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV # 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV # 33) HEXANE 7.374 57 4168 0.11 PPBV # 34) CIS-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 35) 1,1-DICHLOROETHANE 8.209 57 5502 0.11 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLENE 8.374 97 5889 0.11 PPBV # 41) 1,1,1-TRICHLOROETHANE 8.209 57 5502 0.11 PPBV # 42) CARBON TETRACHLORDE 8.947 117 6038 0.11 PPBV # 42) CARBON TETRACHLORDE 8.947 117 6038 0.11 PPBV # 43) 1,2-DICHLOROETHANE 8.374 97 5889 0.11 PPBV # 44) 1,1,1-TRICHLOROETHANE 8.394 97 5889 0.11 PPBV # 45) BENZENE 8.819 78 6946 0.10 PPBV # 46) CYCLOHEXANE 9.069 56 64663 0.11 PPBV #	
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7) FREON 114 3.997 85 8887 0.12 PPBV 9) VINYL CHLORIDE 4.076 62 2851 0.11 PPBV 10) 1,3-BUTADIENE 4.167 54 1970 0.11 PPBV # 12) BROMOMETHANE 4.332 94 2624 0.12 PPBV 13) CHLOROETHANE 4.436 64 1398 0.10 PPBV 14) FREON 123 4.740 83 6984 0.11 PPBV # 15) FREON 123A 4.771 117 3979 0.11 PPBV 16) TRICHLOROFLUOROMETHANE 4.917 101 7535 0.12 PPBV 17) ISOPROPYL ALCOHOL 5.423 45 3259m 0.10 PPBV 18) ACETONE 5.265 58 739m 0.09 PPBV 19) PENTANE 5.167 42 2791 0.11 PPBV 21) IODOMETHANE 5.313 142 5345 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV 24) 3-CHLOROPROPENE 5.545 76 856 0.10 PPBV # 27) 3-CHLOROPROPENE 5.545 76 856 0.10 PPBV # 28) FREON 113 5.655 151 4478 0.11 PPBV 29) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 34) CIS-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV 37) CIS-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV 39) CHLOROFORM 7.435 83 4397 0.10 PPBV 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.209 57 5502 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 44) DENZENE 8.819 78 6946 0.10 PPBV	95
10) 1,3-BUTADIENE	95
10) 1,3-BUTADIENE	94
15) FREON 123A	79
15) FREON 123A	88
15) FREON 123A	95
15) FREON 123A	77
16) TRICHLOROFLUOROMETHANE	80
18) ACETONE 5.265 58 739m 0.09 PPBV 19) PENTANE 5.167 42 2791 0.11 PPBV 21) IODOMETHANE 5.313 142 5345 0.10 PPBV 22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV 25) BROMOETHENE 4.661 106 2367 0.11 PPBV 427) 3-CHLOROPROPENE 5.545 76 856 0.10 PPBV 428) FREON 113 5.655 151 4478 0.11 PPBV 429) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV 435) 1,1-DICHLOROETHYLENE 7.374 57 4168 0.11 PPBV 435) 1,1-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV 439) CHLOROFORM 7.435 83 4397 0.10 PPBV 440) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 441) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 442) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 443) 1,2-DICHLOROETHANE 8.374 97 5889 0.11 PPBV 445) BENZENE 8.819 78 6946 0.10 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV 456 CYCLOHEXANE 9.069 56 4663 0.11 PPBV	97
21) IODOMETHANE	
21) IODOMETHANE	
21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 25.704 76 7026 0.11 PPBV 25) BROMOETHENE 26.651 106 2367 0.11 PPBV # 27) 3-CHLOROPROPENE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 30,0 TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL 32) TRANS-1,2-DICHLOROETHY 6.911 73 6027m 0.09 PPBV 33) HEXANE 31) HEXANE 32,0 TOTAL TERTIARY BUTYL 33) Cis-1,2-DICHLOROETHYLENE 35) 1,1-DICHLOROETHANE 36,405 63 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 37) cis-1,2-DICHLOROETHYLENE 38,209 57 5502 0.10 PPBV # 39) CHLOROFORM 40) 2,4-DIMETHYLPENTANE 40) 2,4-DIMETHYLPENTANE 41) 1,1,1-TRICHLOROETHANE 42) CARBON TETRACHLORIDE 43) 1,2-DICHLOROETHANE 44) 1,2-DICHLOROETHANE 45) BENZENE 46) CYCLOHEXANE 47) 6946 0.10 PPBV 46) CYCLOHEXANE	93
22) 1,1-DICHLOROETHYLENE 5.362 96 2179m 0.10 PPBV 23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV 25) BROMOETHENE 4.661 106 2367 0.11 PPBV # 27) 3-CHLOROPROPENE 5.545 76 856 0.10 PPBV # 28) FREON 113 5.655 151 4478 0.11 PPBV 29) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV # 35) 1,1-DICHLOROETHANE 6.405 63 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV	97
23) CARBON DISULFIDE 5.704 76 7026 0.11 PPBV 25) BROMOETHENE 4.661 106 2367 0.11 PPBV # 27) 3-CHLOROPROPENE 5.545 76 856 0.10 PPBV # 28) FREON 113 5.655 151 4478 0.11 PPBV 29) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV # 35) 1,1-DICHLOROETHANE 6.405 63 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.209 57 5502 0.11 PPBV 42) CARBON TETRACHLORIDE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV 46	
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28) FREON 113 29) TRANS-1,2-DICHLOROETHY 6.246 96 2486 0.12 PPBV 30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV # 35) 1,1-DICHLOROETHANE 6.405 63 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV	67
30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV # 35) 1,1-DICHLOROETHANE 6.405 63 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	92
30) TERTIARY BUTYL ALCOHOL 5.935 59 4325m 0.10 PPBV 31) METHYL TERTIARY BUTYL 6.911 73 6027m 0.09 PPBV 33) HEXANE 7.374 57 4168 0.11 PPBV # 35) 1,1-DICHLOROETHANE 6.405 63 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	84
35) 1,1-DICHLOROETHANE 0.405 03 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	
35) 1,1-DICHLOROETHANE 0.405 03 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	
35) 1,1-DICHLOROETHANE 0.405 03 4352 0.10 PPBV 37) cis-1,2-DICHLOROETHYLENE 7.173 96 1847 0.09 PPBV # 39) CHLOROFORM 7.435 83 4397 0.10 PPBV # 40) 2,4-DIMETHYLPENTANE 8.209 57 5502 0.11 PPBV 41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	73
41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	95
41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	83
41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	83
41) 1,1,1-TRICHLOROETHANE 8.374 97 5889 0.11 PPBV 42) CARBON TETRACHLORIDE 8.947 117 6038 0.11 PPBV 43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	97
43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	94
43) 1,2-DICHLOROETHANE 8.148 62 2125 0.09 PPBV 45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	97
45) BENZENE 8.819 78 6946 0.10 PPBV 46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	95
46) CYCLOHEXANE 9.069 56 4663 0.11 PPBV #	96
	78
47) 2,3-DIMETHYLPENTANE 9.319 71 2201 0.11 PPBV #	76
47) 2,3-DIMETHYLPENTANE 9.319 71 2201 0.11 PPBV # 48) TRICHLOROETHYLENE 9.825 95 3133 0.11 PPBV	97
49) 1 2-DICHLORODRODANE 9 611 63 2475 0 11 DDRV	91
50) BROMODICHLOROMETHANE 9.782 83 4363 0.10 PPBV	98
51) 2,2,4-TRIMETHYLPENTANE 9.880 57 14447 0.11 PPBV	98
54) HEPTANE 10.142 43 3849 0.10 PPBV	83
50) BROMODICHLOROMETHANE 9.782 83 4363 0.10 PPBV 51) 2,2,4-TRIMETHYLPENTANE 9.880 57 14447 0.11 PPBV 54) HEPTANE 10.142 43 3849 0.10 PPBV 55) TVHC as EQUIV HEPTANE 10.136 TIC 16841m 0.02 PPBV	

M2W1240.M Mon Feb 28 10:35:14 2011 VOA-CLN-02



Page: 1

Data Path : C:\msdchem\1\DATA\

Data File : 2w29358.d Acq On : 21 Jan 2011 1:19 pm Operator : YOUMINH

Sample : IC1240-0.1 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 09:00:20 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units Dev(	Min)
57)	cis-1,3-DICHLOROPROPENE	10.690	75	2920	0.10 PPBV	84
58)	TOLUENE	11.611	92	4265	0.10 PPBV	97
60)	1,1,2-TRICHLOROETHANE	11.337	83	1825	0.09 PPBV	97
63)	TETRACHLOROETHYLENE	12.672	164	2497	0.11 PPBV	97
64)	DIBROMOCHLOROMETHANE	11.983	129	3594	0.10 PPBV	96
65)	1,2-DIBROMOETHANE	12.239	107	2433	0.10 PPBV #	92
66)	OCTANE	12.586	43	4397	0.10 PPBV	90
67)	1,1,1,2-TETRACHLOROETHANE	13.312	131	3066	0.10 PPBV #	1
68)	CHLOROBENZENE	13.330	112	4608	0.11 PPBV	88
69)	ETHYLBENZENE	13.714	91	8121	0.11 PPBV	94
70)	m,p-XYLENE	13.885	106	6012	0.21 PPBV	96
71)	O-XYLENE	14.336	106	2974	0.10 PPBV #	75
72)	STYRENE	14.232	104	2394	0.08 PPBV	87
73)	NONANE	14.592	43	3523	0.09 PPBV	89
74)	BROMOFORM	13.921	173	2613	0.09 PPBV	99
76)	1,1,2,2-TETRACHLOROETHANE	14.330	83	4206	0.11 PPBV	97
77)	ISOPROPYLBENZENE	14.933	105	8474	0.10 PPBV	94
78)	2-CHLOROTOLUENE	15.403	126	1754	0.11 PPBV #	1
79)	n-PROPYLBENZENE	15.470	120	1721	0.09 PPBV #	15
80)	4-ETHYLTOLUENE	15.616	105	4393	0.07 PPBV	98
81)	1,3,5-TRIMETHYLBENZENE	15.696	105	4500	0.08 PPBV	92
82)	TERT-BUTYLBENZENE	16.092	134	1044	0.08 PPBV #	78
83)	1,2,4-TRIMETHYLBENZENE	16.104	105	3311	0.07 PPBV #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

654 of 840 ACCUTEST JA68565

Data Path : C:\msdchem\1\DATA\

Data File : 2w29358.d

Acq On : 21 Jan 2011 1:19 pm

Operator : YOUMINH

Sample : IC1240-0.1

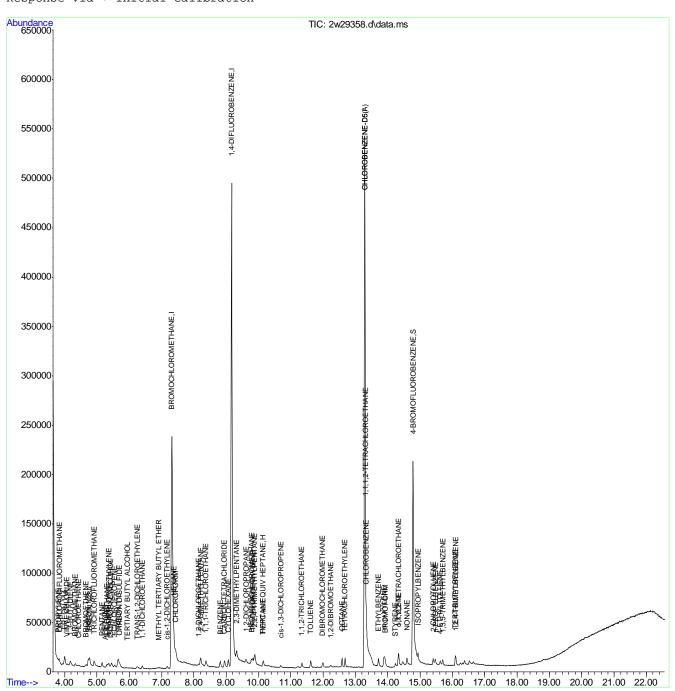
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 09:00:20 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : T015 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:35:15 2011 VOA-CLN-02

655 of 840

ACCUTEST

JA68565

LABORATORIES

Page 1 of 1

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29358.D **Analyst approved:** 01/25/11 15:48 Li Yuan

**Injection Time:** 01/21/11 13:19 **Supervisor approved:** 01/28/11 14:12 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetone	67-64-1		5.26	Poor instrument integration
Isopropyl Alcohol	67-63-0		5.42	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0		5.94	Poor instrument integration
Methyl Tert Butyl Ether	1634-04-4		6.91	Poor instrument integration



```
Data Path : C:\msdchem\1\DATA\2w\
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Data File : 2W29358.D

Acq On : 21 Jan 2011 1:19 pm

: YOUMINH Operator Sample : IC1240-0.1

: MS2686, V2W1240,,,,1 Misc ALS Vial : 4 Sample Multiplier: 1

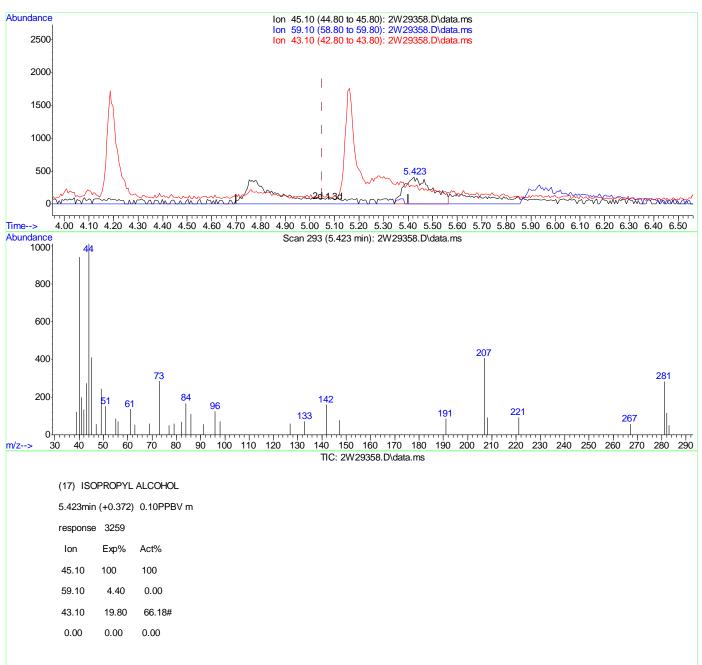
Quant Time: Jan 25 09:26:40 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:33:45 2011 VOA-CLN-02

657 of 840 ACCUTEST: JA68565

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Data Path : C:\msdchem\1\DATA\2w\
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Data File : 2W29358.D

Acq On : 21 Jan 2011 1:19 pm

Operator : YOUMINH Sample : IC1240-0.1

Misc : MS2686,V2W1240,,,,,1
ALS Vial : 4 Sample Multiplier: 1

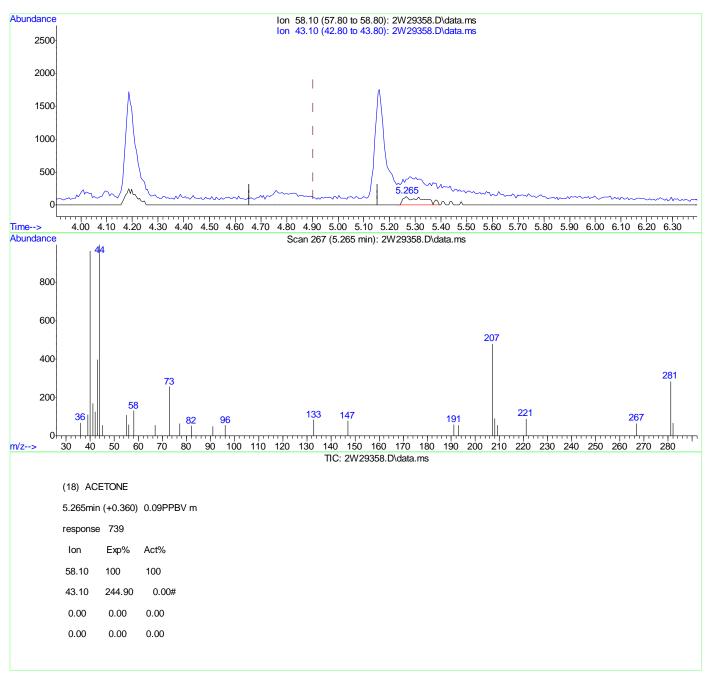
Quant Time: Jan 25 09:26:40 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:33:48 2011 VOA-CLN-02

658 of 840

ACCUTEST

JA68565

LABORATORIES

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Data Path : C:\msdchem\1\DATA\2w\
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Data File : 2W29358.D

Acq On : 21 Jan 2011 1:19 pm

: YOUMINH Operator Sample : IC1240-0.1

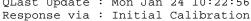
: MS2686, V2W1240,,,,1 Misc ALS Vial : 4 Sample Multiplier: 1

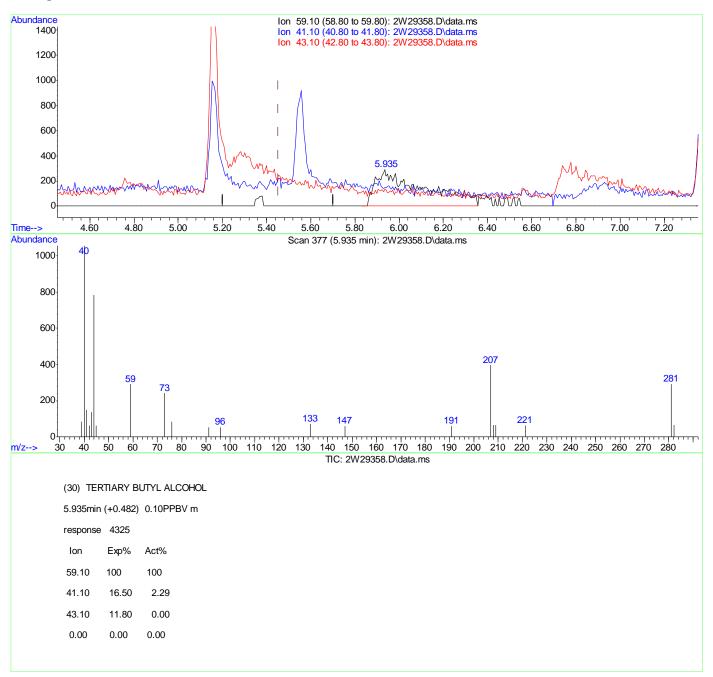
Quant Time: Jan 25 09:26:40 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011





M2W1240.M Tue Jan 25 15:33:52 2011 VOA-CLN-02



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Data Path : C:\msdchem\1\DATA\2w\
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Data File : 2W29358.D

: 21 Jan 2011 1:19 pm Acq On

Operator : YOUMINH Sample : IC1240-0.1

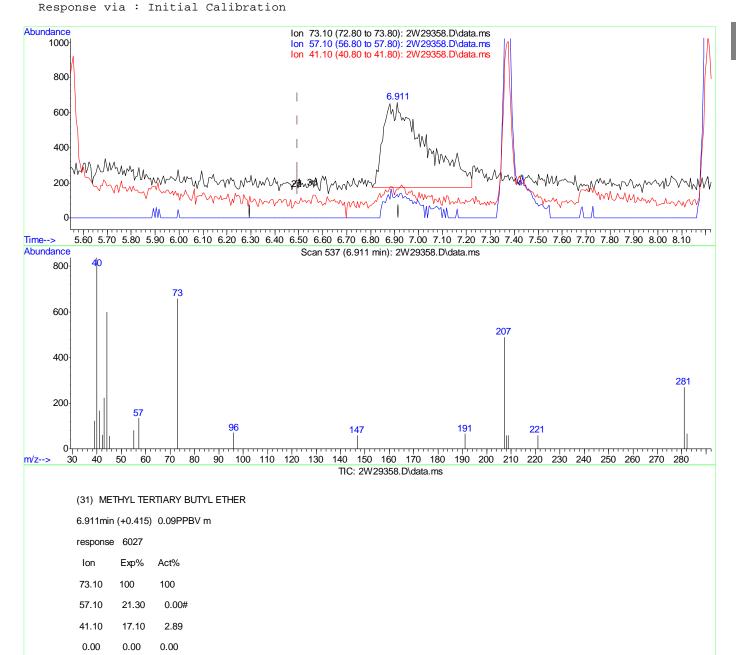
: MS2686, V2W1240,,,,1 Misc ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 25 09:26:40 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011



M2W1240.M Tue Jan 25 15:33:55 2011 VOA-CLN-02

660 of 840 ACCUTEST: JA68565

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29358.D

Acq On : 21 Jan 2011 1:19 pm

Operator : YOUMINH Sample : IC1240-0.1

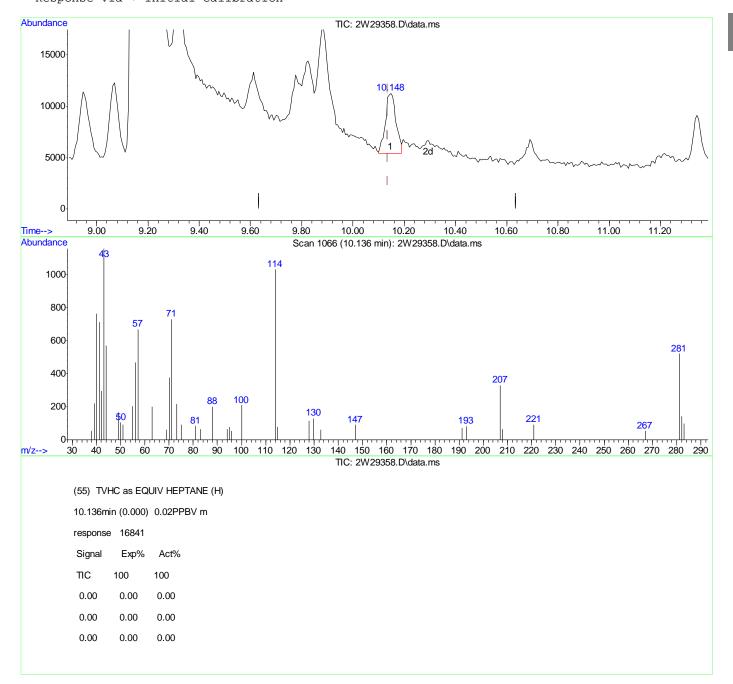
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 25 09:26:40 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:12:18 2011 VOA-CLN-02

661 of 840

ACCUTEST

JA68565

LABORATORIES

Data Path : C:\msdchem\1\DATA\

Data File : 2w29358.d

Acq On : 21 Jan 2011 1:19 pm

: YOUMINH Operator : IC1240-0.1 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 4 Sample Multiplier: 1

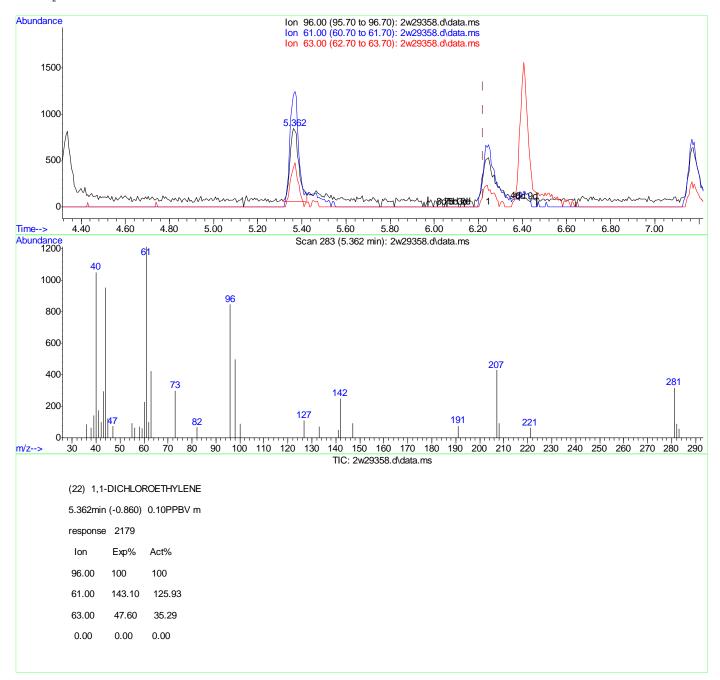
Quant Time: Feb 28 09:00:20 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:56:20 2011 VOA-CLN-02



Jessica Reitan-Chu 01/28/11 14:13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\

Data File : 2w29359.d

Acq On : 21 Jan 2011 1:57 pm Operator : YOUMINH

Operator : YOUMINH
Sample : IC1240-0.04

Misc : MS2686, V2W1240,,,,,1

ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 09:00:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits D	ev(	Min)
Internal Standards							
1) BROMOCHLOROMETHANE	7.319	128	119523	10.00	PPBV	#	0.01
44) 1,4-DIFLUOROBENZENE	9.166		606905	10.00	PPBV		0.00
61) CHLOROBENZENE-D5	13.287	82	249821	10.00	PPBV	#	0.00
93) CHLOROBENZENE-D5(A)	13.287		265488	10.00	PPBV	#	0.00
System Monitoring Compounds							
75) 4-BROMOFLUOROBENZENE	14.775	95	120900	4.62	PPBV		0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	92.4	0%	
Target Compounds						Qva	lue
3) DICHLORODIFLUOROMETHANE	3.838	85	3452	0.05	PPBV	~	98
7) FREON 114	4.003	85	3690	0.05	PPBV		93
9) VINYL CHLORIDE	4.082		1141		PPBV	#	91
10) 1,3-BUTADIENE	4.167	54	798	0.04	PPBV	#	68
12) BROMOMETHANE	4.332	94	947		PPBV		95
13) CHLOROETHANE	4.435		580		PPBV		84
14) FREON 123	4.734		2945		PPBV	#	73
15) FREON 123A	4.777	117	1704		PPBV		69
16) TRICHLOROFLUOROMETHANE	4.917	101	3316	0.05	PPBV		96
19) PENTANE	5.155	42	1346	0.05	PPBV		93
21) IODOMETHANE	5.319	142	2190	0.04	PPBV		94
22) 1,1-DICHLOROETHYLENE	5.362		895m	0.04	PPBV		
23) CARBON DISULFIDE	5.710		2928	0.05	PPBV	#	31
25) BROMOETHENE	4.667	106	841	0.04	PPBV	#	93
27) 3-CHLOROPROPENE	5.545	76	306	0.03	PPBV	#	30
28) FREON 113	5.655	151	1880	0.05	PPBV		90
30) TERTIARY BUTYL ALCOHOL	5.984	59	1305m	0.03	PPBV		
33) HEXANE	7.368	57	1626	0.04	PPBV		99
35) 1,1-DICHLOROETHANE	6.411	63	1795		PPBV		93
37) cis-1,2-DICHLOROETHYLENE	7.173	96	804	0.04	PPBV	#	87
39) CHLOROFORM	7.435	83	1802	0.04	PPBV	#	90
40) 2,4-DIMETHYLPENTANE	8.209	57	2292	0.05	PPBV		94
41) 1,1,1-TRICHLOROETHANE	8.374	97	2470	0.05	PPBV		96
42) CARBON TETRACHLORIDE	8.947	117	2488	0.05	PPBV		95
43) 1,2-DICHLOROETHANE	8.148	62	740	0.03	PPBV	#	86
45) BENZENE	8.819	78	2953	0.04	PPBV		97
46) CYCLOHEXANE	9.063	56	2061	0.05	PPBV	#	75
47) 2,3-DIMETHYLPENTANE	9.319	71	949	0.05	PPBV	#	61
48) TRICHLOROETHYLENE	9.831	95	1420	0.05	PPBV		95
50) BROMODICHLOROMETHANE	9.782	83	1981	0.05	PPBV	#	88
51) 2,2,4-TRIMETHYLPENTANE	9.879	57	6563	0.05	PPBV		94
54) HEPTANE	10.148	43	1772	0.05	PPBV	#	79
58) TOLUENE	11.617	92	1721	0.04	PPBV	#	85
60) 1,1,2-TRICHLOROETHANE	11.343	83	742	0.04	PPBV		87
63) TETRACHLOROETHYLENE	12.678	164	994	0.04	PPBV		97
64) DIBROMOCHLOROMETHANE	11.989	129	1352	0.04	PPBV		98
65) 1,2-DIBROMOETHANE	12.239	107	780	0.03	PPBV	#	92
66) OCTANE	12.586	43	1908	0.04	PPBV	#	82
67) 1,1,1,2-TETRACHLOROETHAN	IE 13.312	131	1289	0.04	PPBV	#	1

M2W1240.M Mon Feb 28 10:35:44 2011 VOA-CLN-02



Page: 1

Data Path : C:\msdchem\1\DATA\

Data File : 2w29359.d Acq On : 21 Jan 2011 1:57 pm Operator : YOUMINH

Sample : IC124U-U.U4
Misc : MS2686,V2W1240,,,,,1 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 09:00:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units D	ev(Min)
68) CHLOROBENZENE	13.330	112	1869	0.04 PPBV	# 46
69) ETHYLBENZENE	13.714	91	3244	0.04 PPBV	91
70) m,p-XYLENE	13.885	106	2250	0.08 PPBV	94
71) o-XYLENE	14.336	106	1108	0.04 PPBV	# 68
73) NONANE	14.598	43	1153	0.03 PPBV	# 50
76) 1,1,2,2-TETRACHLOROETHANE	14.336	83	1762	0.05 PPBV	81
77) ISOPROPYLBENZENE	14.933	105	3248	0.04 PPBV	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\DATA\

Data File : 2w29359.d

Acq On : 21 Jan 2011 1:57 pm

Operator : YOUMINH

Sample : IC1240-0.04

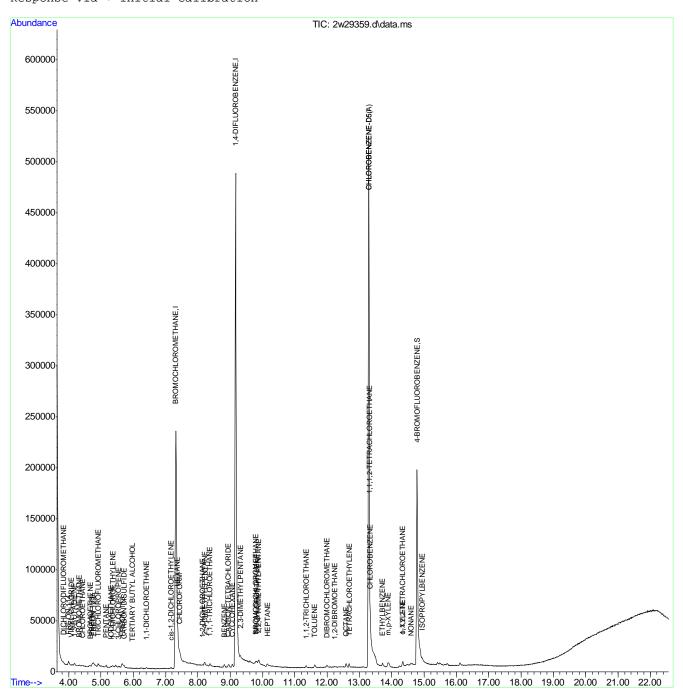
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ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 28 09:00:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:35:45 2011 VOA-CLN-02

665 of 840

ACCUTEST

JA68565

LABORATORIES

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29359.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 13:57 Supervisor approved: 01/28/11 14:13 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tertiary Butyl Alcohol	75-65-0		5.98	Poor instrument integration

Data Path : C:\msdchem\1\DATA\2w\ Data File: 2W29359.D

: 21 Jan 2011 Acq On

: YOUMINH Operator Sample : IC1240-0.04

: MS2686, V2W1240,,,,1 Misc ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 25 09:27:03 2011

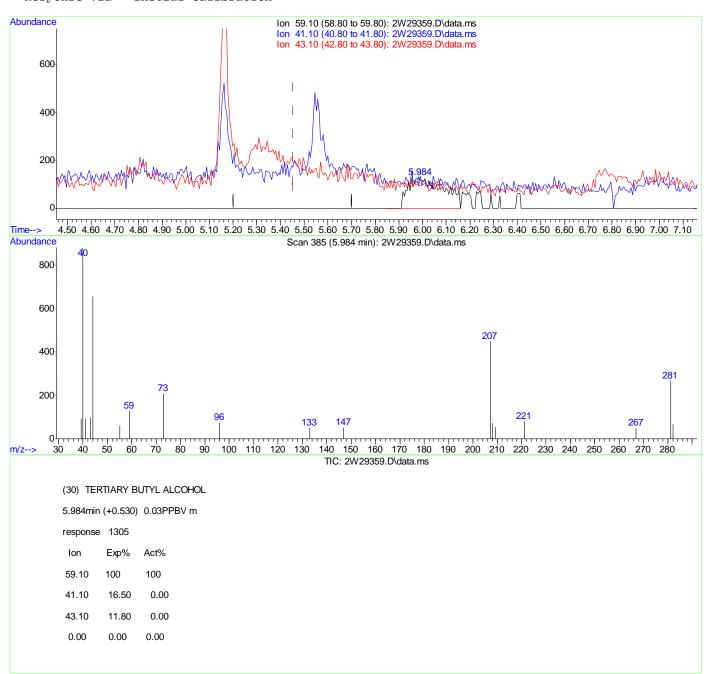
Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

1:57 pm

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration





Page: 1

```
Data Path : C:\msdchem\1\DATA\
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Data File : 2w29359.d

Acq On : 21 Jan 2011 1:57 pm

: YOUMINH Operator : IC1240-0.04 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 4 Sample Multiplier: 1

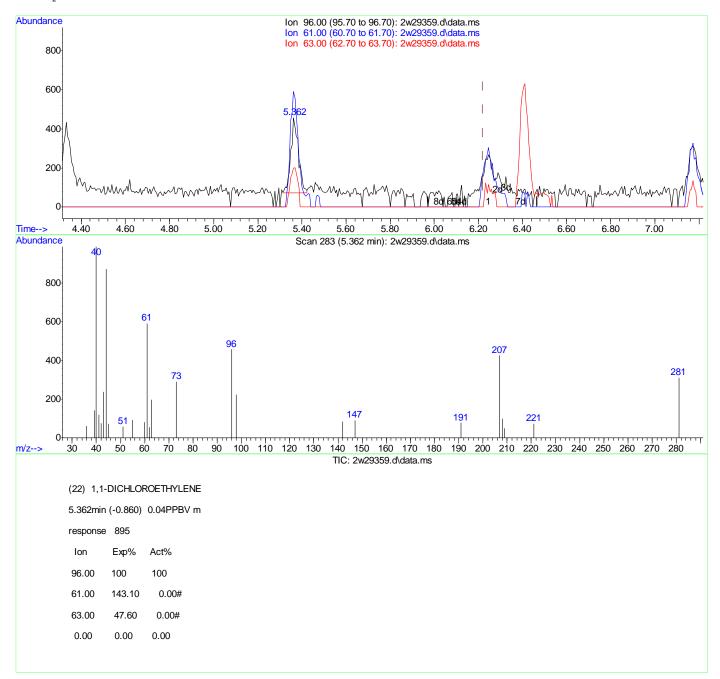
Quant Time: Feb 28 09:00:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:57:10 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\

Data File: 2W29360.D
Acq On: 21 Jan 2011 4:13 pm
Operator: YOUMINH

Sample : IC1240-10 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 11:14:12 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
Internal Standards 1) BROMOCHLOROMETHANE 44) 1,4-DIFLUOROBENZENE 61) CHLOROBENZENE-D5 93) CHLOROBENZENE-D5(A)	7.319 9.166 13.287 13.287	128 114 82 82	112522 636749 259865 275562	10.00 10.00 10.00 10.00	PPBV PPBV	# 0.01 0.00 # 0.00 # 0.00
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	14.775 Range 65				PPBV 107.4	0.00
Target Compounds 94) NAPHTHALENE	18.414	128	160388	8.06	PPBV	Qvalue 87 

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29360.D

Acq On : 21 Jan 2011 4:13 pm

Operator : YOUMINH Sample : IC1240-10

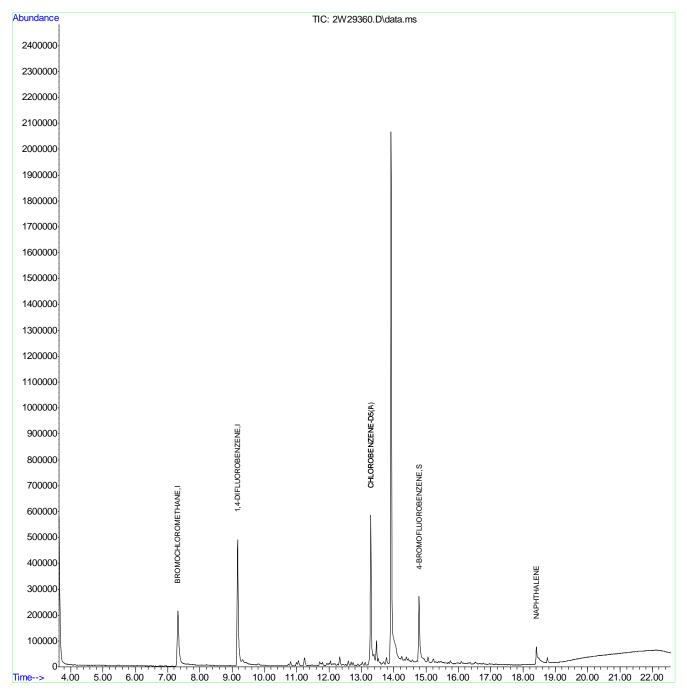
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 11:14:12 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:39:23 2011 VOA-CLN-02

670 of 840

ACCUTEST

JA68565

LABORATORIES

APPROVED (compounds with "m" flag) Jessica Reitan-Chu 01/28/11 14:13

**Manual Integrations** 

Data Path :  $C:\msdchem\1\DATA\2w\$ 

Data File : 2W29361.D

: 21 Jan 2011 Acq On 4:51 pm

Operator : YOUMINH : IC1240-5 Sample

: MS2686, V2W1240,,,,,1 Misc ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 11:15:03 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits D	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.319	128	118678	10.00	PPBV	# 0.01
44) 1,4-DIFLUOROBENZENE	9.166	114	659127	10.00	PPBV	0.00
61) CHLOROBENZENE-D5	13.281	82	283241	10.00	PPBV	# 0.00
93) CHLOROBENZENE-D5(A)	13.281	82	299030	10.00	PPBV	# 0.00
System Monitoring Compounds						
75) 4-BROMOFLUOROBENZENE	14.775				PPBV	
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	101.2	20%
Target Compounds						Qvalue
94) NAPHTHALENE	18.475	128	91110m	4.22	PPBV	
(#)1;6;	()			( . )	! 1 -	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Jan 25 15:39:25 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29361.D

Acq On : 21 Jan 2011 4:51 pm

Operator : YOUMINH Sample : IC1240-5

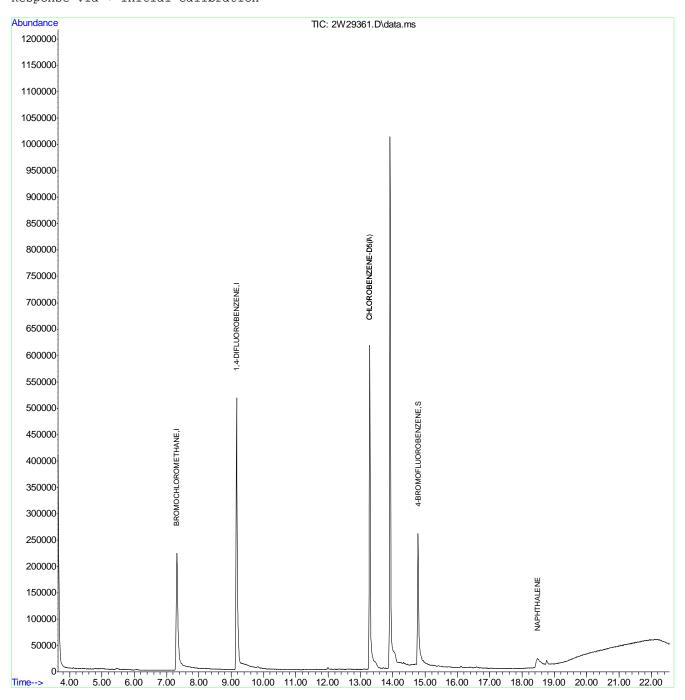
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 11:15:03 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:39:26 2011 VOA-CLN-02

672 of 840
ACCUTEST

JA68565
LABORATORIES

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29361.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 16:51 Supervisor approved: 01/28/11 14:13 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		18.48	Poor instrument integration



Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29361.D

: 21 Jan 2011 Acq On 4:51 pm

Operator : YOUMINH Sample : IC1240-5

: MS2686, V2W1240,,,,1 Misc ALS Vial : 6 Sample Multiplier: 1

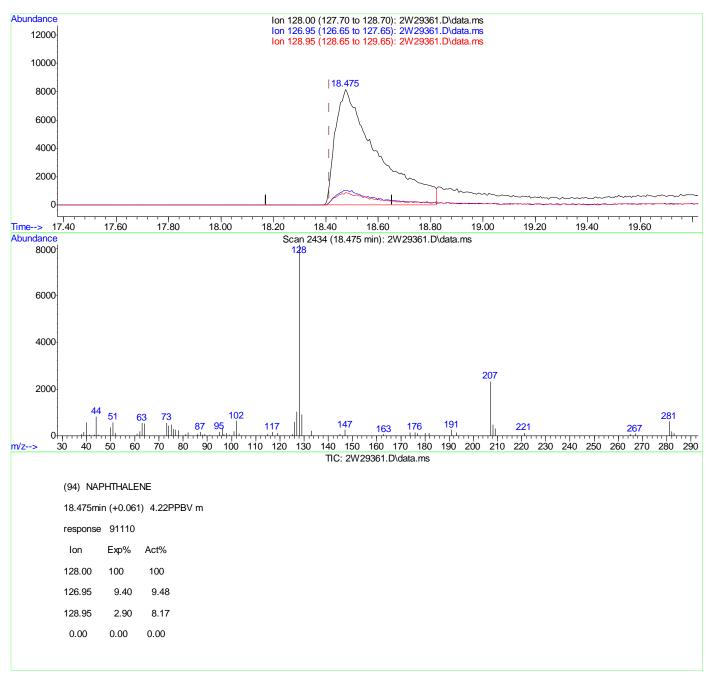
Quant Time: Jan 24 11:15:03 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:20:38 2011 VOA-CLN-02

**Manual Integrations** APPROVED (compounds with "m" flag)

Jessica Reitan-Chu 01/28/11 14:13

Data Path : C:\msdchem\1\DATA\

Data File : 2w29362.d Acq On : 21 Jan 2011 5:33 pm Operator : YOUMINH

Sample : IC124U-4U
Misc : MS2686,V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 09:01:00 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Ur	nits I	Dev	(Min)
Inter	nal Standards							
	BROMOCHLOROMETHANE	7.325		171345		PPBV	:	# 0.0
44)	1,4-DIFLUOROBENZENE	9.179	114	884162 487071	10.00	PPBV		0.0
61)	CHLOROBENZENE-D5	13.294	82	487071	10.00	PPBV	:	# 0.03
93)	CHLOROBENZENE-D5(A)	13.294	82	495015	10.00	PPBV	:	# 0.0
Svste	m Monitoring Compounds							
	4-BROMOFLUOROBENZENE	14.781	95	250824	4.92	PPBV		0.00
		Range 65				98.		
Tarqe	et Compounds						Ova	alue
_	DICHLORODIFLUOROMETHANE	3.832	85	2836774	29.97	PPBV	~ .	100
,	FREON 152A	3.734		673547				97
,	CHLORODIFLUOROMETHANE	3.765	67	272623	30.66			99
	PROPYLENE	3.783	41	832269	31.31			99
	FREON 114	3.997	8.5	3352478	31.50			97
	CHLOROMETHANE	3.936						91
	VINYL CHLORIDE	4.070	62	300520 1156315	32.57			99
	1,3-BUTADIENE	4.155	54	883673 1681420	34.21			93
	n-BUTANE	4.186	4.3	1681420	31.47			95
	BROMOMETHANE		94	1078863	33.42			99
	CHLOROETHANE	4.429	64	1078863 661103 2913251	34.26			98
- ,	FREON 123	4.734	83	2913251	32.75			75
	FREON 123A	4.771	117	1632400	32.26			86
	TRICHLOROFLUOROMETHANE	4 917	101	1632400 2908857 2003779 504151	31.32			99
	ISOPROPYL ALCOHOL	5 021	45	2003779	41.84			98
	ACETONE	4 844	5.8	504151	41.14			92
,	PENTANE	5.155	42	1160591	32.85			98
,	TVHC as EQUIV PENTANE			5749417m				, ,
	IODOMETHANE			2769134				99
	1,1-DICHLOROETHYLENE		96					, ,
	CARBON DISULFIDE			2894309				95
	ETHANOL		45	366906	36 62			99
,	BROMOETHENE		106	1095567	35.78			99
	METHYLENE CHLORIDE	5.448	84	945665	35.02			87
	3-CHLOROPROPENE	5.545	76	540624	41.99			57
,	FREON 113		151	1095567 945665 540624 1853836	32.50			95
	TRANS-1,2-DICHLOROETHY		96	1140646	38.00			93
	TERTIARY BUTYL ALCOHOL		59		41.63			96
	METHYL TERTIARY BUTYL			3586016	37.56			96
	TETRAHYDROFURAN	7.868		3586016 584104 1805805	45.84			
	HEXANE	7.374		1805805	34.19			95
,	VINYL ACETATE	6.563		285652m				, ,
,	1,1-DICHLOROETHANE	6 /11	62	2102060	24 07			100
	METHYL ETHYL KETONE	6 Q10	72	57272 <i>1</i>	51.06			70
	cis-1,2-DICHLOROETHYLENE	0.013 7 170	06	312124 1194196	42.03		#	90
	ETHYL ACETATE	7 172	50 61	336607	45.54		#	51
	CHLOROFORM	7 152	0.5 0.T	33007/ 3404691	37.36			98
	2,4-DIMETHYLPENTANE	/.433 p 221	0 <i>3</i> E 7	572724 1194486 336697 2404681 2445437	37.36			98
	1,1,1-TRICHLOROETHANE	8.221	5 / 07	244343/	33.73			98
41)	I,I,I-IKICHLUKUETHANE	0.386	9 /	2580960	33.41	<b>LLR</b> A		98

M2W1240.M Mon Feb 28 10:36:13 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\

Data File : 2w29362.d Acq On : 21 Jan 2011 5:33 pm Operator : YOUMINH

Sample : IC1240-40 Misc : MS2686,V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 09:01:00 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Un	its	Dev	(Min)
42)	CARBON TETRACHLORIDE	8.965	117	2583563				100
43)	1,2-DICHLOROETHANE	8.142	62	1383061	42.31	PPBV		99
45)	BENZENE	8.825	78	3658561	37.45	PPBV		98
	CYCLOHEXANE	9.081	56	3658561 2044950 958746	33.68	PPBV	#	78
47)	2,3-DIMETHYLPENTANE	9.331	71	958746	33.44	PPBV		93
48)	TRICHLOROETHYLENE	9.837			36.88	PPBV		93
49)	1,2-DICHLOROPROPANE	9.605	63			PPBV		98
50)	BROMODICHLOROMETHANE	9.788	83	2465491	39.19	PPBV		96
51)	2,2,4-TRIMETHYLPENTANE	9.892	57	2465491 6395905	33.60	PPBV		97
52)	1,4-DIOXANE	9.880	88	780480 1388185	72.72	PPBV	#	1
53)	METHYL METHACRYLATE	10.075	69	1388185	46.02			38
54)	HEPTANE	10.154	43	2066525	36.40	PPBV		90
55)	TVHC as EQUIV HEPTANE	10.136	TIC	9417639m				
56)	METHYL ISOBUTYL KETONE	10.739	58	1093928	45.79	PPBV		90
57)	cis-1,3-DICHLOROPROPENE	10.672	75	1901301 2536126	43.49	PPBV		91
58)	TOLUENE	11.605	92	2536126	41.48	PPBV		98
59)	trans-1,3-DICHLOROPROPENE	11.184	75	1473541	56.77 1 42.77	PPBV		91
60)	1,1,2-TRICHLOROETHANE	11.337	83					97
62)	2-HEXANONE	11.904			44.58	PPBV		92
63)	TETRACHLOROETHYLENE	12.684	164	1447705				99
	DIBROMOCHLOROMETHANE	11.995		2302603 1781330	34.97	PPBV		99
65)	1,2-DIBROMOETHANE	12.227	107			PPBV		100
66)	OCTANE	12.592	43	2800209 1811730	33.08			91
67)	1,1,1,2-TETRACHLOROETHANE	13.318	131	1811730				42
68)	CHLOROBENZENE	13.336	112	2815710	34.75	PPBV		95
69)	ETHYLBENZENE	13.708	91	5333941	36.10	PPBV		98
70)	m,p-XYLENE	13.891	106	3940453	71.54	PPBV		93
	O-XYLENE	14.336		1910906	35.01			94
	STYRENE	14.232		2707016	45.23			97
	NONANE	14.592	43	2658968	37.03			93
,	BROMOFORM	13.928		1223407	31.31.			99
	1,1,2,2-TETRACHLOROETHANE			2495709 5738441	34.74			99
	ISOPROPYLBENZENE	14.927	105	5738441	35.73			98
,	2-CHLOROTOLUENE	15.397		1231385 1440272	38.81			1
	n-PROPYLBENZENE	15.452	120					28
,	4-ETHYLTOLUENE	15.598		4921293	43.42			98
	1,3,5-TRIMETHYLBENZENE	15.683						97
	TERT-BUTYLBENZENE	16.080		965506	37.63			90
	1,2,4-TRIMETHYLBENZENE	16.086		3740025	41.29			92
,	m-DICHLOROBENZENE	16.226		1861727	49.28			100
	BENZYL CHLORIDE	16.214		2349223	49.86			98
	p-DICHLOROBENZENE	16.293		1799073				99
	SEC-BUTYLBENZENE	16.354	134	1156959 1071892	37.86	PPBV		94
	p-ISOPROPYLTOLUENE	16.519	134	1071892	44.02	PPBV		96
	O-DICHTOKORENZENE	16.628	146	1733363 870201	45.98	PPBV		99
	n-BUTYLBENZENE	16.933	134	870201	44.70	PPBV		89
91)	HEXACHLOROBUTADIENE	18.744	225	672260 436023	35.78	PPBV		99
92)	1,2,4-TRICHLOROBENZENE	18.305	180	436023	40.28	PPBV		83

M2W1240.M Mon Feb 28 10:36:13 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\

Data File : 2w29362.d Acq On : 21 Jan 2011 5:33 pm Operator : YOUMINH

Sample : IC1240-40 Misc : MS2686, V2W1240,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 28 09:01:00 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed



Data Path : C:\msdchem\1\DATA\

Data File : 2w29362.d

: 21 Jan 2011 Acq On

: YOUMINH Operator : IC1240-40 Sample

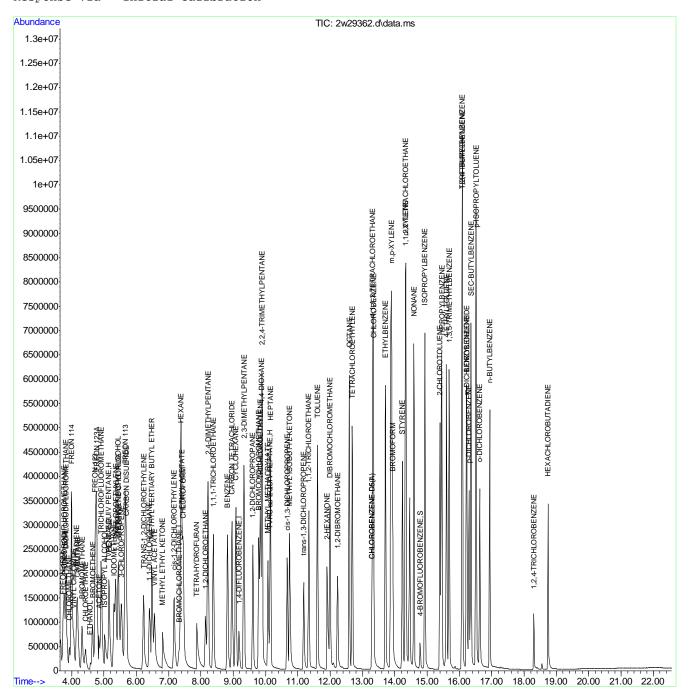
: MS2686, V2W1240,,,,,1 Misc Sample Multiplier: 1 ALS Vial : 2

Quant Time: Feb 28 09:01:00 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:36:15 2011 VOA-CLN-02

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

 Lab FileID:
 2W29362.D
 Analyst approved:
 01/25/11 15:48 Li Yuan

 Injection Time:
 01/21/11 17:33
 Supervisor approved:
 01/28/11 14:13 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.56	Missed peak



### Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\2w\
Data File : 2W29362.D
          : 21 Jan 2011
                           5:33 pm
Acq On
```

Operator : YOUMINH : IC1240-40 Sample

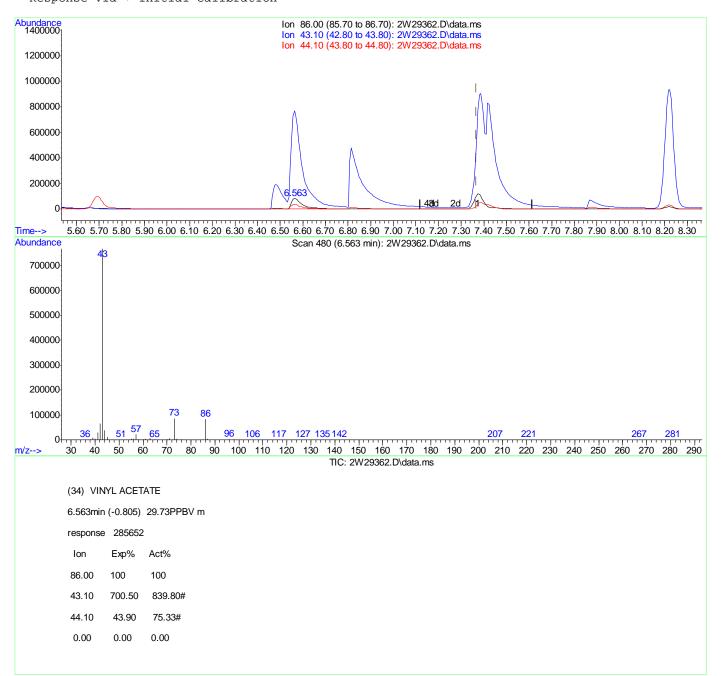
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:27:21 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration





```
Data Path : C:\msdchem\1\DATA\2w\
```

Data File : 2W29362.D

Acq On : 21 Jan 2011 5:33 pm

Operator : YOUMINH Sample : IC1240-40

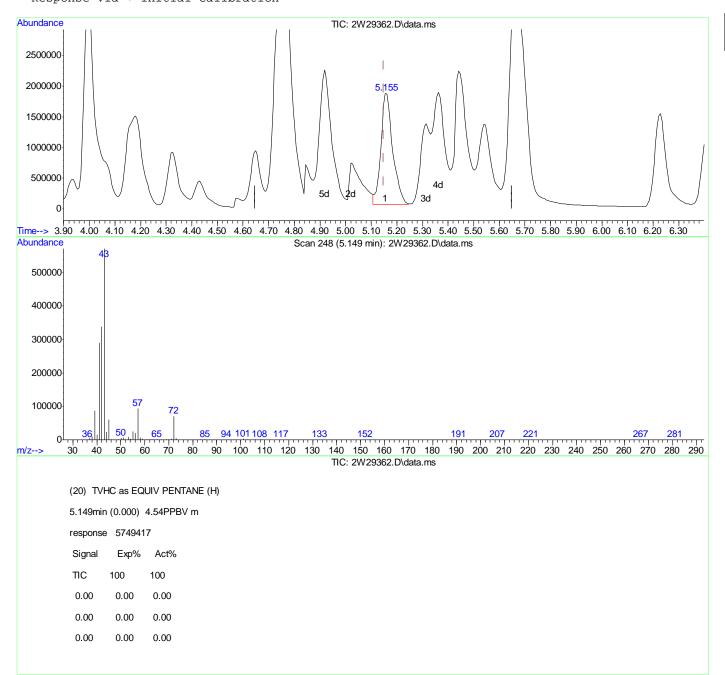
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:27:21 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : T015 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:12:52 2011 VOA-CLN-02

681 of 840

ACCUTEST

JA68565

LABORATORIES

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29362.D

Acq On : 21 Jan 2011 5:33 pm

Operator : YOUMINH : IC1240-40 Sample

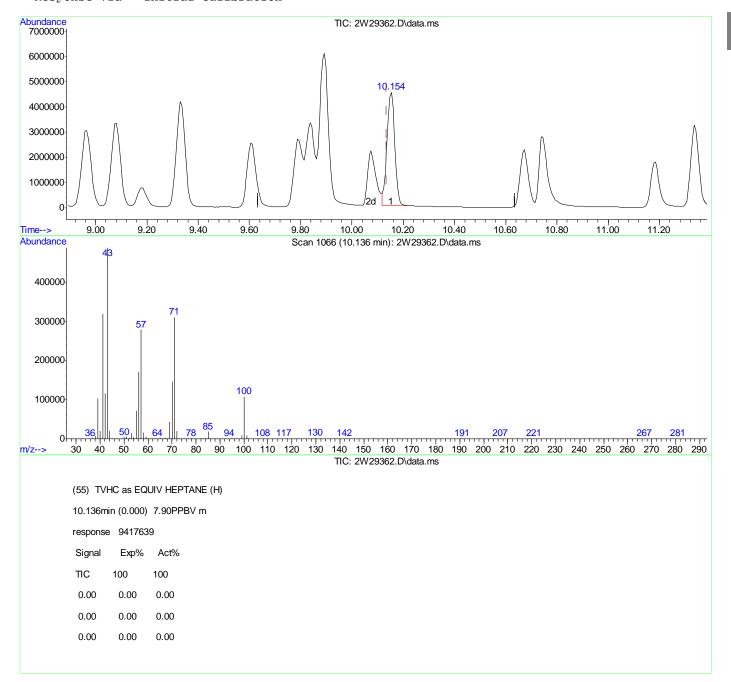
: MS2686, V2W1240,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:27:21 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011 Response via : Initial Calibration



M2W1240.M Fri Jan 28 09:12:56 2011 VOA-CLN-02

### Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
```

Data File : 2w29362.d

: 21 Jan 2011 5:33 pm Acq On

: YOUMINH Operator : IC1240-40 Sample

: MS2686, V2W1240,,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

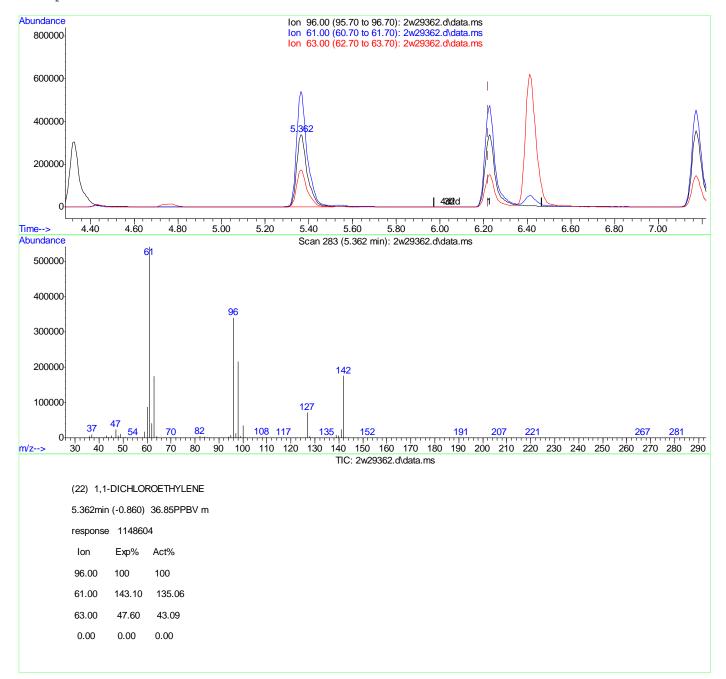
Quant Time: Feb 28 09:01:00 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:22:56 2011

Response via : Initial Calibration



M2W1240.M Mon Feb 28 09:57:27 2011 VOA-CLN-02



Manual Integrations
APPROVED
(compounds with "m" flag)

Jessica Reitan-Chu 01/28/11 14:13

Data File : 2W29363.D

Acq On : 21 Jan 2011 6:13 pm

Operator : YOUMINH Sample : IC1240-0.5

Misc : MS2686, V2W1240,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 24 12:01:29 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits I	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.319	128	110233	10.00	PPBV	# 0.01
44) 1,4-DIFLUOROBENZENE	9.166	114	603711	10.00	PPBV	0.00
61) CHLOROBENZENE-D5	13.287	82	253587	10.00	PPBV	# 0.00
93) CHLOROBENZENE-D5(A)	13.287	82	270906	10.00	PPBV	# 0.00
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	14.775 Range 65		132671 Recove		PPBV 100.0	0.00
Target Compounds 94) NAPHTHALENE	18.689	128	5079m	0.26	PPBV	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Jan 25 15:39:33 2011 VOA-CLN-02



 $\label{eq:def:Data} \mbox{Data Path : C:\msdchem} \mbox{$1\DATA\2w$}$ 

Data File : 2W29363.D

Acq On : 21 Jan 2011 6:13 pm

Operator : YOUMINH

: IC1240-0.5 Sample

: MS2686,V2W1240,,,,,1 Misc ALS Vial : 7 Sample Multiplier: 1

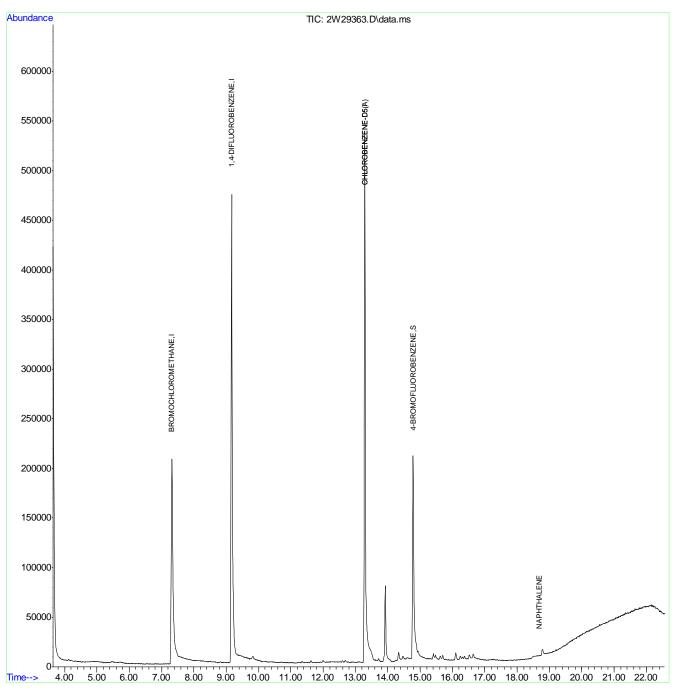
Quant Time: Jan 24 12:01:29 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:39:34 2011 VOA-CLN-02

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29363.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 18:13 Supervisor approved: 01/28/11 14:13 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		18.69	Poor instrument integration



### Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2w\ Data File: 2W29363.D

Acq On : 21 Jan 2011 6:13 pm

: YOUMINH Operator : IC1240-0.5 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 7 Sample Multiplier: 1

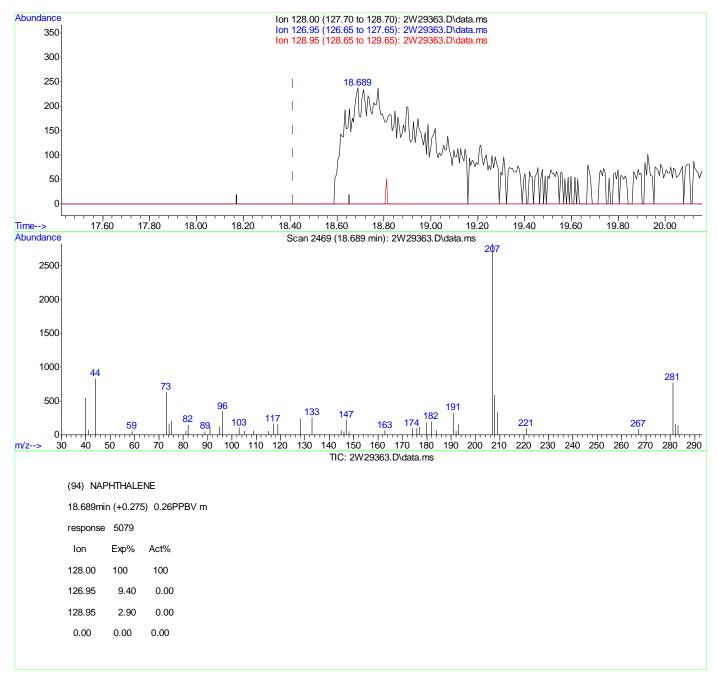
Quant Time: Jan 24 12:01:29 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration





Manual Integrations APPROVED (compounds with "m" flag)

Jessica Reitan-Chu 01/28/11 14:13

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29364.D

Acq On : 21 Jan 2011 6:52 pm Operator : YOUMINH

Operator : YOUMINH
Sample : IC1240-0.2

Misc : MS2686, V2W1240, , , , , , 1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 24 12:02:25 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits D	ev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.325	128	105216	10.00	PPBV	# 0.02
44) 1,4-DIFLUOROBENZENE	9.172	114	556681	10.00	PPBV	0.00
61) CHLOROBENZENE-D5	13.287	82	234371	10.00	PPBV	# 0.00
93) CHLOROBENZENE-D5(A)	13.287	82	250120	10.00	PPBV	# 0.00
System Monitoring Compounds						
75) 4-BROMOFLUOROBENZENE	14.781	95	112608	4.59	PPBV	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	91.8	0%
Target Compounds						Qvalue
94) NAPHTHALENE	18.866	128	2345m	0.13	PPBV	
(#) = qualifier out of range	(m) = man	ual in	tegration	(+) = 9	ianale	gummed

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29364.D

Acq On : 21 Jan 2011 6:52 pm

Operator : YOUMINH : IC1240-0.2 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 7 Sample Multiplier: 1

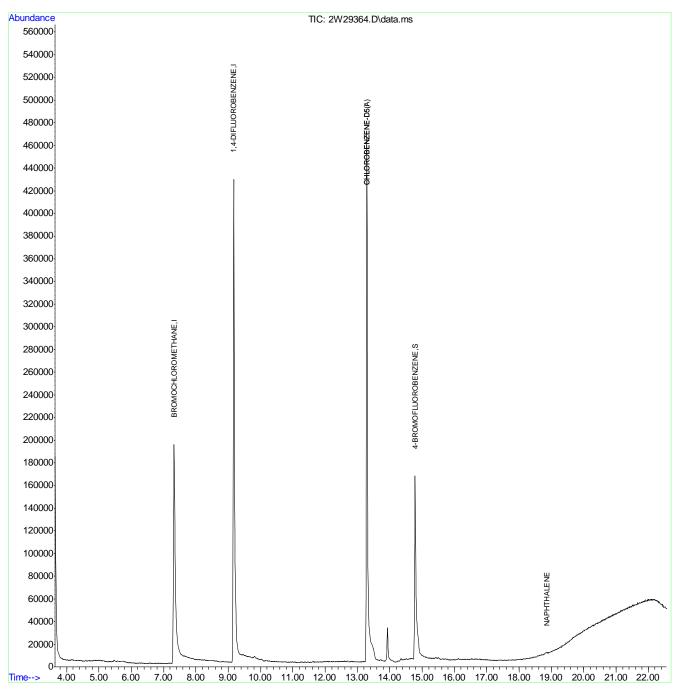
Quant Time: Jan 24 12:02:25 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:39:37 2011 VOA-CLN-02

# **Manual Integration Approval Summary**

Sample Number: V2W1240-IC1240 Method: TO-15

**Lab FileID:** 2W29364.D **Analyst approved:** 01/25/11 15:48 Li Yuan

Injection Time: 01/21/11 18:52 Supervisor approved: 01/28/11 14:13 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		18.87	Poor instrument integration

### Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29364.D

Acq On : 21 Jan 2011 6:52 pm

: YOUMINH Operator : IC1240-0.2 Sample

: MS2686, V2W1240,,,,1 Misc ALS Vial : 7 Sample Multiplier: 1

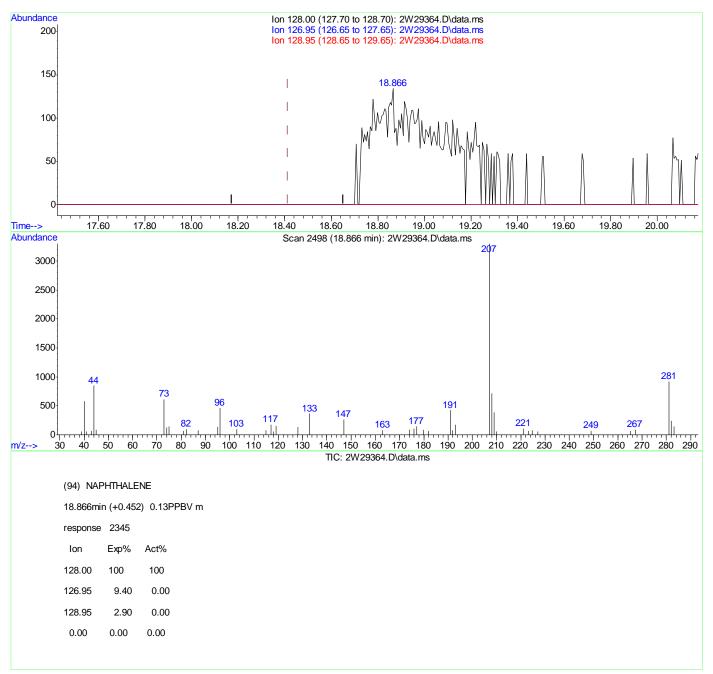
Quant Time: Jan 24 12:02:25 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:22:47 2011 VOA-CLN-02



Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29366.D
Acq On : 21 Jan 2011 8:12 pm
Operator : YOUMINH

Sample : IC124U-ZU
Misc : MS2686,V2W1240,,,,,1 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 12:03:31 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.325	128	111648	10.00	PPBV	# 0.02
44) 1,4-DIFLUOROBENZENE	9.172	114	618706	10.00	PPBV	0.00
61) CHLOROBENZENE-D5	13.287	82	264403	10.00	PPBV	# 0.00
93) CHLOROBENZENE-D5(A)	13.287	82	279807	10.00	PPBV	# 0.00
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	14.781 Range 65			5.45 ery =	PPBV 109.0	0.00
Target Compounds 94) NAPHTHALENE	18.402	128	598784	29.63		Qvalue 87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

 $\label{eq:def:Data} \mbox{Data Path : C:\msdchem} \mbox{$1\DATA\2w$}$ 

Data File : 2W29366.D

Acq On : 21 Jan 2011 8:12 pm

Operator : YOUMINH

Sample : IC1240-20

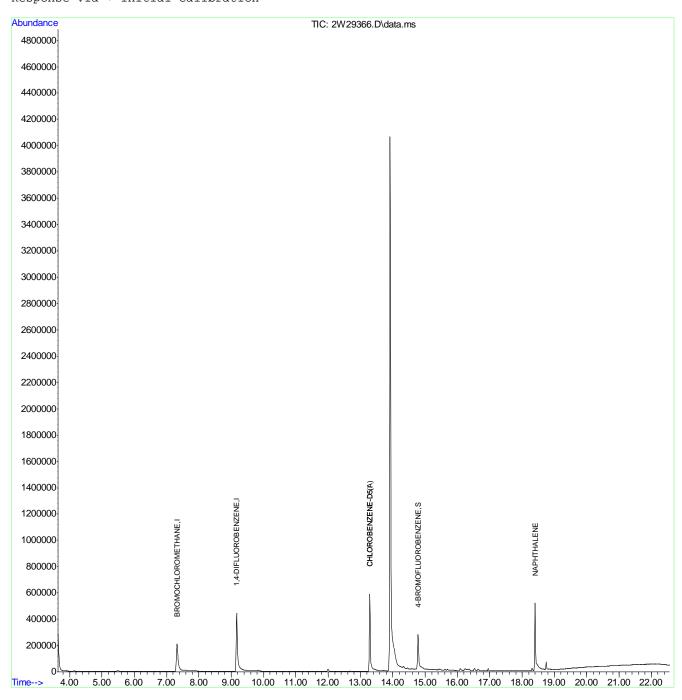
Misc : MS2686,V2W1240,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 12:03:31 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011 Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:39:45 2011 VOA-CLN-02

693 of 840
ACCUTEST

JA68565
LABORATORIES

Data Path : C:\msdchem\1\DATA\2w\

Data File : 2W29367.D
Acq On : 21 Jan 2011 8:54 pm
Operator : YOUMINH

Sample : IC124U-4U
Misc : MS2686,V2W1240,,,,,1 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 24 12:04:14 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits D	ev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.319	128	108580	10.00	PPBV	# 0.01
44) 1,4-DIFLUOROBENZENE	9.166	114	640553	10.00	PPBV	0.00
61) CHLOROBENZENE-D5	13.281	82	273666	10.00	PPBV	# 0.00
93) CHLOROBENZENE-D5(A)	13.281	82	290907	10.00	PPBV	# 0.00
System Monitoring Compounds 75) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	14.775 Range 65		157161 Recove		PPBV 109.6	0.00
Target Compounds						Qvalue
94) NAPHTHALENE	18.396	128	1429602	68.04	PPBV	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Jan 25 15:39:47 2011 VOA-CLN-02



 $\label{eq:def:Data} \mbox{ Data Path } : \mbox{ C:\mbox{$\backslash$ L}} \mbox{$\backslash$ L} \mb$ 

Data File : 2W29367.D

Acq On : 21 Jan 2011 8:54 pm

Operator : YOUMINH

: IC1240-40 Sample Misc

: MS2686,V2W1240,,,,,1 ALS Vial : 6 Sample Multiplier: 1

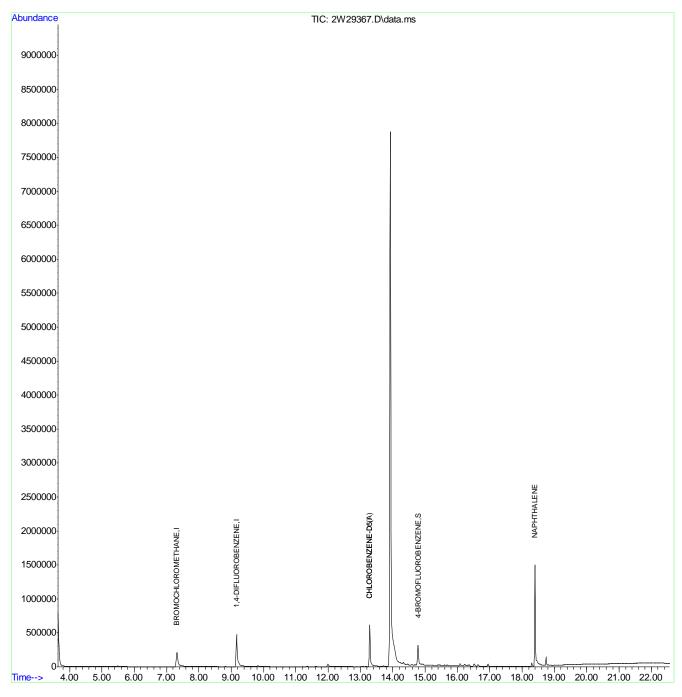
Quant Time: Jan 24 12:04:14 2011

Quant Method : C:\MSDCHEM\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 10:58:27 2011

Response via : Initial Calibration



M2W1240.M Tue Jan 25 15:39:48 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\

Data File : 2w29365.d Acq On : 21 Jan 2011 7:32 pm Operator : YOUMINH

Sample : ICV124U-10
Misc : MS2686,V2W1240,,,,,1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 10:07:02 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits De	ev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.319	128	155343	10.00	PPBV	0.01
44) 1,4-DIFLUOROBENZENE	9.172		740982	10.00	PPBV	0.00
61) CHLOROBENZENE-D5	13.287	82	352649	10.00	PPBV	0.00
93) CHLOROBENZENE-D5(A)	13.287		365397	10.00	PPBV	0.00
System Monitoring Compounds						
75) 4-BROMOFLUOROBENZENE	14.775	95	193024	5.23	PPBV	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	104.60	18
Target Compounds					Ç	value
3) DICHLORODIFLUOROMETHANE	3.832	85	660030	7.78	PPBV	99
4) FREON 152A	3.734	65	151672	7.37	PPBV	93
5) CHLORODIFLUOROMETHANE	3.765	67	61865	7.80	PPBV	100
6) PROPYLENE	3.783	41	191521	8.06	PPBV	99
7) FREON 114	3.996	85	758764	7.96	PPBV	97
8) CHLOROMETHANE	3.929	52	68886	8.37	PPBV ‡	86
9) VINYL CHLORIDE	4.070	62	257743	8.11	PPBV	100
10) 1,3-BUTADIENE	4.155	54	192798	8.34	PPBV	92
11) n-BUTANE	4.185	43	389634	8.57	PPBV #	90
12) BROMOMETHANE	4.326	94	238783	8.26	PPBV	99
13) CHLOROETHANE	4.429		143913	8.33	PPBV	98
14) FREON 123	4.734	83	649578	8.16	PPBV ‡	75
15) FREON 123A	4.771	117	364142	8.04	PPBV	86
16) TRICHLOROFLUOROMETHANE	4.917	101	649524	7.81	PPBV	100
17) ISOPROPYL ALCOHOL	5.106	45	346473	8.18	PPBV	86
18) ACETONE	4.947	58	83362	7.70	PPBV #	77
19) PENTANE	5.155	42	267371	8.47		94
20) TVHC as EQUIV PENTANE	5.149	TIC	1333578m	8.98	PPBV	
21) IODOMETHANE	5.307	142	594204	8.59	PPBV	99
22) 1,1-DICHLOROETHYLENE	5.362	96	249403	8.72	PPBV ‡	85
23) CARBON DISULFIDE	5.691		617370		PPBV	95
24) ETHANOL	4.649		67180			98
25) BROMOETHENE	4.649		236523	8.63	PPBV	99
26) METHYLENE CHLORIDE	5.447		200013		PPBV	89
27) 3-CHLOROPROPENE	5.539		105862		PPBV #	
28) FREON 113	5.655		412749		PPBV	94
29) TRANS-1,2-DICHLOROETHY.			226845		PPBV	93
30) TERTIARY BUTYL ALCOHOL			439681		PPBV #	
31) METHYL TERTIARY BUTYL .			696475		PPBV	96
32) TETRAHYDROFURAN	7.996		84523	7.54		92
33) HEXANE	7.374		394081		PPBV	96
34) VINYL ACETATE	6.587		46600		PPBV #	
35) 1,1-DICHLOROETHANE	6.404		460832		PPBV	99
36) METHYL ETHYL KETONE	6.929		77466		PPBV #	
37) cis-1,2-DICHLOROETHYLEN			235511		PPBV +	89
38) ETHYL ACETATE	7.187		49502		PPBV ‡	
39) CHLOROFORM	7.435		513702	8.93		98
40) 2,4-DIMETHYLPENTANE	8.215		532474		PPBV	96 95
41) 1,1,1-TRICHLOROETHANE	8.380			8.17		95
41) I,I,I-IRICHLORUETHANE	8.380	91	304/00	O.1/	LLR.	98

M2W1240.M Mon Feb 28 10:11:54 2011 VOA-CLN-02

696 of 840 ACCUTEST JA68565

Data Path : C:\msdchem\1\DATA\

Data File : 2w29365.d Acq On : 21 Jan 2011 7:32 pm Operator : YOUMINH

Sample : ICV1240-10
Misc : MS2686, V2W1240,,,,,1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 28 10:07:02 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

43) 1,2-DICHLOROETHANE		Compound	R.T.	QIon	Response	Conc U	nits I	)ev	(Min)
45) BENZENE 8.819 78 761675 9.30 PPBV 9 46) CYCLOHEXANE 9.075 56 443315 8.71 PPBV # 7 47) 2,3-DIMETHYLIPENTANE 9.325 71 208008 8.66 PPBV 9 48) TRICHLOROETHYLENE 9.831 95 299581 8.80 PPBV 9 48) 1,2-DICHLOROPROPANE 9.599 63 283991 9.98 PPBV 9 50) BROMODICHLOROMETHANE 9.782 83 535458 10.16 PPBV 9 51) 2,2,4-TRIMETHYLPENTANE 9.886 57 1383550 8.67 PPBV 9 52) 1,4-DIOXANE 10.001 88 116333 9.77 PPBV # 8 52) 1,4-DIOXANE 10.001 88 116333 9.77 PPBV # 8 53) METHYL METHACRYLATE 10.087 69 232689 9.12 PPBV # 2 54) HEFTANE 10.142 43 448907 9.44 PPBV 8 55) TYHC as EQUIV HEFTANE 10.136 TIC 2162707m 10.37 PPBV # 5 55) TYHC as EQUIV KETONE 10.666 75 352562 9.84 PPBV 9 57) cis-1,3-DICHLOROPROPENE 10.666 75 352562 9.84 PPBV 9 59) trans-1,3-DICHLOROPROPENE 11.599 92 503375 9.82 PPBV 9 59) trans-1,3-DICHLOROPROPENE 11.178 75 252159 10.31 PPBV 9 60) 1,1,2-TRICHLOROETHANE 11.330 83 244414 10.22 PPBV 9 61) 1,2-DIBROMOCHLOROMETHANE 11.989 129 471255 9.89 PPBV 9 63) TETRACHLOROETHANE 11.989 129 471255 9.89 PPBV 10 64) DIBROMOCHLOROMETHANE 12.200 107 323388 9.20 PPBV 9 65) 1,2-DIBROMOETHANE 12.200 107 323388 9.84 PPBV 10 66) OCTANE 12.586 43 604710 9.87 PPBV 9 67) 1,1,1,2-TETRACHLOROETHANE 13.331 13 390474 9.19 PPBV 9 68) CHLOROBENZENE 13.3702 91 1021779 9.55 PPBV 9 70) m,p-XYLENE 13.879 106 774434 19.42 PPBV 9 72) STYRENE 14.330 106 385797 9.76 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 75) ISOPROPYLBENZENE 14.330 105 1856952 9.95 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.380 106 385797 9.76 PPBV 9 77) ISOPROPYLBENZENE 14.330 106 385797 9.76 PPBV 9 78) PPROPYLBENZENE 14.330 106 385797 9.76 PPBV 9 78) PPROPYLBENZENE 14.330 106 385797 9.76 PPBV 9 79) PPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 79) PPROPYLBENZENE 14.931 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.01 PPBV # 79) n-PROPYLBENZENE 15.592 105 884270 10.78 PPBV 9 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9	42)					8.16	PPBV		100
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	43)	1,2-DICHLOROETHANE	8.136	62	266742	9.13	PPBV		99
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	45)	BENZENE	8.819	78	761675	9.30	PPBV		98
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	46)	CYCLOHEXANE	9.075	56	443315	8.71	PPBV	#	79
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	47)	2,3-DIMETHYLPENTANE	9.325	71	208008	8.66	PPBV		91
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	48)	TRICHLOROETHYLENE	9.831	95	299581	8.80	PPBV		94
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	49)	1,2-DICHLOROPROPANE	9.599	63	283991	9.98	PPBV		98
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	50)	BROMODICHLOROMETHANE	9.782	83	535458	10.16	PPBV		99
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	51)	2,2,4-TRIMETHYLPENTANE	9.886	57	1383550	8.67	PPBV		99
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	52)	1,4-DIOXANE	10.001	88	116333	9.77	PPBV	#	83
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	53)	METHYL METHACRYLATE	10.087	69	232689	9.12	PPBV	#	22
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	54)	HEPTANE	10.142	43	448907	9.44	PPBV		89
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	55)	TVHC as EQUIV HEPTANE	10.136	TIC	2162707m	10.37	PPBV		
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	56)	METHYL ISOBUTYL KETONE	10.769	58	180319	9.01	PPBV		89
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	57)	cis-1,3-DICHLOROPROPENE	10.666	75	352562	9.84	PPBV		91
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	58)	TOLUENE	11.599	92	503375	9.82	PPBV		98
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	59)	trans-1,3-DICHLOROPROPENE	11.178	75	252159	10.31	PPBV		91
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	60)	1,1,2-TRICHLOROETHANE	11.330	83	244414	10.22	PPBV		97
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	62)	2-HEXANONE	11.940	58	178259	8.50	PPBV		89
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	63)	TETRACHLOROETHYLENE	12.678	164	302169	9.20	PPBV		99
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	64)	DIBROMOCHLOROMETHANE	11.989	129	471255	9.89	PPBV		100
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	65)	1,2-DIBROMOETHANE	12.220	107	323388	9.84	PPBV		100
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	66)	OCTANE	12.586	43	604710	9.87	PPBV		88
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	67)	1,1,1,2-TETRACHLOROETHANE	13.312	131	390474	9.19	PPBV	#	1
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	68)	CHLOROBENZENE	13.330	112	546950	9.32	PPBV		96
71) O-XYLENE 14.330 106 385797 9.76 PPBV 9 72) STYRENE 14.226 104 443790 10.24 PPBV 9 73) NONANE 14.586 43 564565 10.86 PPBV 9 74) BROMOFORM 13.921 173 381378 9.93 PPBV 9 76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV	69)	ETHYLBENZENE	13.702	91	1021779	9.55	PPBV		98
76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9	70)	m,p-XYLENE	13.879	106	774434	19.42	PPBV		95
76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9	71)	O-XYLENE	14.330	106	385797	9.76	PPBV		95
76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9	72)	STYRENE	14.226	104	443790	10.24	PPBV		97
76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9	73)	NONANE	14.586	43	564565	10.86	PPBV		92
76) 1,1,2,2-TETRACHLOROETHANE 14.318 83 500234 9.62 PPBV 9 77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9	74)	BROMOFORM	13.921	173	381378	9.93	PPBV		99
77) ISOPROPYLBENZENE 14.921 105 1156952 9.95 PPBV 9 78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9 81) 1,3,5-TRIMETHYLBENZENE 15.671 105 831227 10.68 PPBV 9 82) TERT-BUTYLBENZENE 16.073 134 202438 10.90 PPBV 9	76)	1,1,2,2-TETRACHLOROETHANE	14.318	83	500234	9.62	PPBV		99
78) 2-CHLOROTOLUENE 15.391 126 235712 10.01 PPBV # 79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 380) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9 81) 1,3,5-TRIMETHYLBENZENE 15.671 105 831227 10.68 PPBV 9 82) TERT-BUTYLBENZENE 16.073 134 202438 10.90 PPBV 9	77)	ISOPROPYLBENZENE	14.921	105	1156952	9.95	PPBV		98
79) n-PROPYLBENZENE 15.439 120 268335 10.12 PPBV # 3 80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9 81) 1,3,5-TRIMETHYLBENZENE 15.671 105 831227 10.68 PPBV 9 82) TERT-BUTYLBENZENE 16.073 134 202438 10.90 PPBV 9	78)	2-CHLOROTOLUENE	15.391	126	235712	10.01	PPBV	#	1
80) 4-ETHYLTOLUENE 15.592 105 884270 10.78 PPBV 9 81) 1,3,5-TRIMETHYLBENZENE 15.671 105 831227 10.68 PPBV 9 82) TERT-BUTYLBENZENE 16.073 134 202438 10.90 PPBV 9	79)	n-PROPYLBENZENE	15.439	120	268335	10.12	PPBV	#	34
81) 1,3,5-TRIMETHYLBENZENE 15.671 105 831227 10.68 PPBV 9 82) TERT-BUTYLBENZENE 16.073 134 202438 10.90 PPBV 9	80)	4-ETHYLTOLUENE	15.592	105	884270	10.78	PPBV		97
82) TERT-BUTYLBENZENE 16.073 134 202438 10.90 PPBV 9	81)	1,3,5-TRIMETHYLBENZENE	15.671	105	831227	10.68	PPBV		97
	82)	TERT-BUTYLBENZENE	16.073	134	202438	10.90	PPBV		90
83) 1,2,4-TRIMETHYLBENZENE 16.0/9 105 /19400 10.97 PPBV 9	83)	1,2,4-TRIMETHYLBENZENE	16.079	105	719400	10.97	PPBV		98
84) m-DICHLOROBENZENE 16.214 146 303363 10.40 PPBV 10	84)	m-DICHLOROBENZENE	16.214	146	303363	10.40	PPBV		100
85) BENZYL CHLORIDE 16.201 91 373264 10.94 PPBV 9	85)	BENZYL CHLORIDE	16.201	91	373264	10.94	PPBV		97
86) p-DICHLOROBENZENE 16.287 146 300039 10.23 PPBV 9	86)	p-DICHLOROBENZENE	16.287	146	300039	10.23	PPBV		99
87) SEC-BUTYLBENZENE 16.348 134 230437 10.42 PPBV 9	87)	SEC-BUTYLBENZENE	16.348	134	230437	10.42	PPBV		91
88) p-ISOPROPYLTOLUENE 16.512 134 197916 10.88 PPBV 9	88)	p-ISOPROPYLTOLUENE	16.512	134	197916	10.88	PPBV		94
89) o-DICHLOROBENZENE 16.622 146 291183 10.38 PPBV 9	89)	o-DICHLOROBENZENE	16.622	146	291183	10.38	PPBV		99
9U) n-BUTYLBENZENE 16.927 134 130586 9.54 PPBV 8	90)	n-BUTYLBENZENE	16.927	134	130586	9.54	PPBV		85
91) HEXACHLOROBUTADIENE 18.744 225 156353 11.49 PPBV 10	91)	HEXACHLOROBUTADIENE	18.744	225	156353	11.49	PPBV	.,	100
92) 1,2,4-TRICHLOROBENZENE 18.311 180 72257 9.26 PPBV # 7	92)	1,2,4-TRICHLOROBENZENE	18.311	180	72257	9.26	PPBV	#	77
94) NAPHTHALENE 18.463 128 1991 U.U8 PPBV 9	94)	NAPHTHALENE	18.463	 	 T99T	0.08	PPB√ 		93

M2W1240.M Mon Feb 28 10:11:54 2011 VOA-CLN-02

697 of 840 ACCUTEST JA68565

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Quant Time: Feb 28 10:07:02 2011

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Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_

(#) = qualifier out of range (m) = manual integration (+) = signals summed



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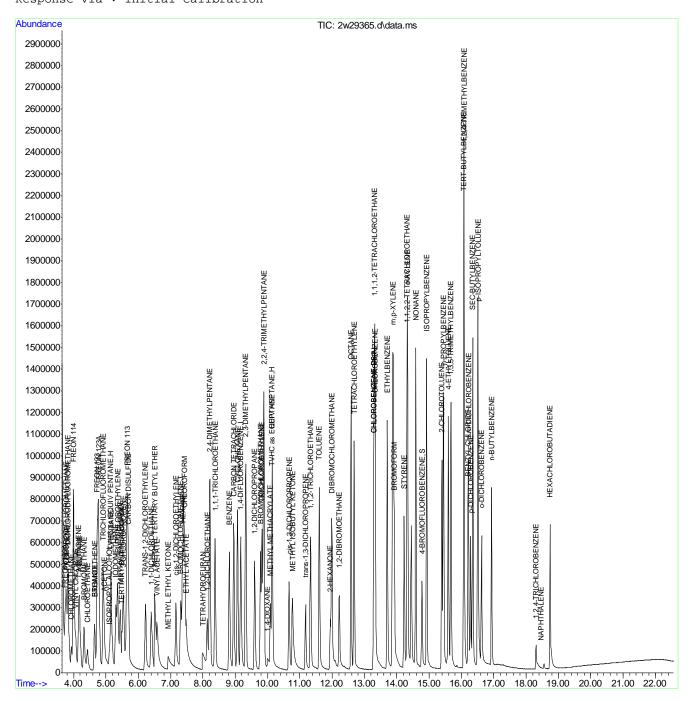
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Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:11:55 2011 VOA-CLN-02

699 of 840
ACCUTEST

JA68565
LABORATORIES

### Quantitation Report (Qedit)

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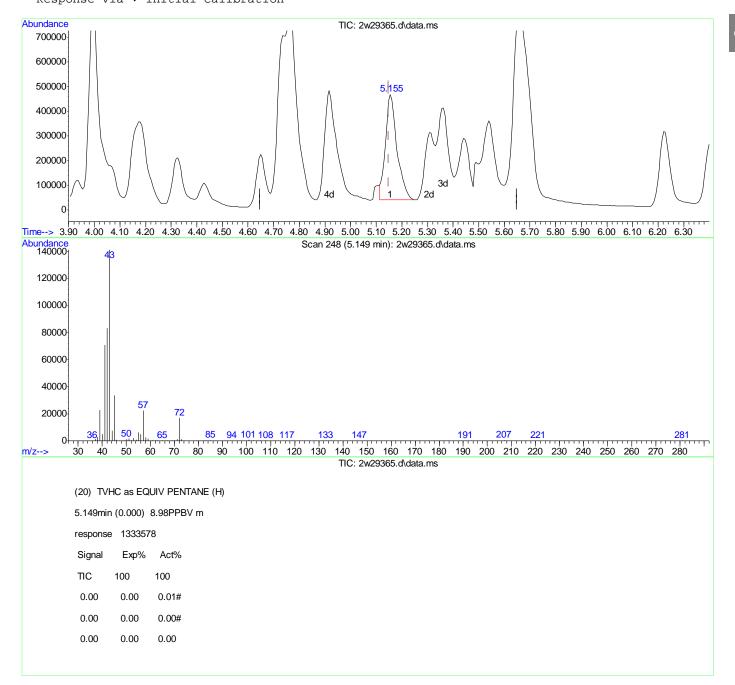
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Quant Time: Feb 28 10:07:02 2011

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Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:11:34 2011 VOA-CLN-02

700 of 840

ACCUTEST

JA68565

LABORATORIES

### Quantitation Report (Qedit)

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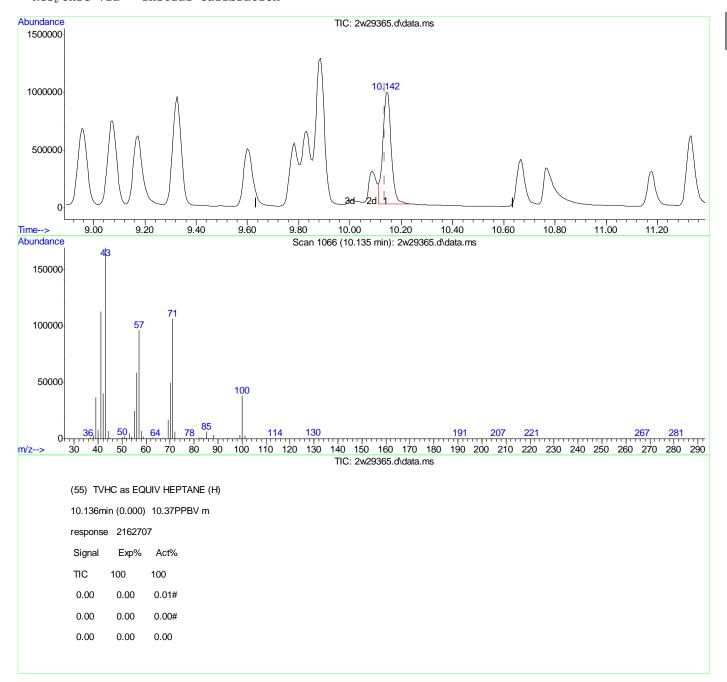
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Quant Time: Feb 28 10:07:02 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Mon Feb 28 10:11:42 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29758.D

Acq On : 14 Feb 2011 7:33 am Operator : YOUMINH

: CC1240-10 Sample

: CC1240-10 : MS8244, V2W1256, 400, , , , , 1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 17:45:23 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits D	ev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	7.301		227535	10.00	PPBV	0.00
44) 1,4-DIFLUOROBENZENE	9.154	114	1165548	10.00	PPBV	-0.01
61) CHLOROBENZENE-D5	13.275	82	553108	10.00	PPBV	0.00
93) CHLOROBENZENE-D5(A)	13.275		575964	10.00	PPBV	0.00
System Monitoring Compounds						
75) 4-BROMOFLUOROBENZENE	14.763	95	279419	4.82	PPBV	-0.01
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	96.4	:0%
Target Compounds						Qvalue
3) DICHLORODIFLUOROMETHANE	3.826	85	1006584	8.10	PPBV	99
4) FREON 152A	3.734	65	239293	7.94	PPBV	92
5) CHLORODIFLUOROMETHANE	3.765	67	100770	8.67	PPBV	98
6) PROPYLENE	3.783	41	310891	8.93	PPBV	98
7) FREON 114	3.990	85	1143440	8.19	PPBV	96
8) CHLOROMETHANE	3.929	52	106079	8.80	PPBV	# 85
9) VINYL CHLORIDE	4.064	62	392400	8.43	PPBV	100
10) 1,3-BUTADIENE	4.149	54	303148	8.95	PPBV	# 86
11) n-BUTANE	4.179	43	607395		PPBV	
12) BROMOMETHANE	4.320	94	366186	8.65	PPBV	99
13) CHLOROETHANE	4.423		222974	8.81	PPBV	98
14) FREON 123	4.722	83	1016280	8.71	PPBV	# 75
15) FREON 123A	4.759	117	566190	8.53	PPBV	84
16) TRICHLOROFLUOROMETHANE	4.905	101	1039117	8.53	PPBV	99
17) ISOPROPYL ALCOHOL	5.076	45	586619	9.46	PPBV	86
18) ACETONE	4.923	58	136617	8.62	PPBV	# 61
19) PENTANE	5.143	42	411817	8.91	PPBV	94
20) TVHC as EQUIV PENTANE	5.143	TIC	2145398m	9.86	PPBV	
21) IODOMETHANE	5.301	142	918694	9.07	PPBV	99
22) 1,1-DICHLOROETHYLENE	5.350	96	387098	9.24	PPBV	# 84
23) CARBON DISULFIDE	5.679	76	953452	8.30	PPBV	92
24) ETHANOL	4.631	45	105983	8.08	PPBV	99
25) BROMOETHENE	4.643	106	361681	9.01	PPBV	99
26) METHYLENE CHLORIDE	5.435	84	304908	8.65	PPBV	86
27) 3-CHLOROPROPENE	5.527	76	163056	9.67	PPBV	# 16
28) FREON 113	5.643	151	645285	8.63	PPBV	94
29) TRANS-1,2-DICHLOROETHY.	6.210	96	339069	8.63	PPBV	93
30) TERTIARY BUTYL ALCOHOL			749431	9.65	PPBV	82
31) METHYL TERTIARY BUTYL	6.490	73	1129752	9.47	PPBV	95
32) TETRAHYDROFURAN	7.959	72	135912	8.28	PPBV	# 88
33) HEXANE	7.356		589374		PPBV	89
34) VINYL ACETATE	6.569	86	74662	10.67	PPBV	# 43
35) 1,1-DICHLOROETHANE	6.392		704339		PPBV	99
36) METHYL ETHYL KETONE	6.904		123588	8.48	PPBV	# 48
37) cis-1,2-DICHLOROETHYLEN			355585		PPBV	90
38) ETHYL ACETATE	7.465		77718		PPBV	# 63
39) CHLOROFORM	7.423		798234			98
40) 2,4-DIMETHYLPENTANE	8.197		812730		PPBV	95
41) 1,1,1-TRICHLOROETHANE	8.362			8.75		98
, _,_,	0.502		3000.0	0.75	,	20

M2W1240.M Tue Mar 01 17:45:35 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29758.D

Acq On : 14 Feb 2011 7:33 am Operator : YOUMINH

Sample : CC1240-10 Misc : MS8244,V2W1256,400,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 17:45:23 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration Compound

	Compound	R.T.	QIon	Response	Conc Ur	nits I	)ev	(Min)
42)	CARBON TETRACHLORIDE	8.941	117	876900	8.51	PPBV		99
	1,2-DICHLOROETHANE	8.118		428839	10.02			98
	BENZENE	8.800	78	1182462		PPBV		98
,	CYCLOHEXANE	9.057	56	681355		PPBV	#	76
	2,3-DIMETHYLPENTANE	9.306	71	313272		PPBV		89
	TRICHLOROETHYLENE	9.812	95	448459	8.37	PPBV		93
49)	1,2-DICHLOROPROPANE	9.581	63	436746	9.75	PPBV		100
50)	BROMODICHLOROMETHANE	9.764	83	809937	9.77	PPBV		96
51)	2,2,4-TRIMETHYLPENTANE	9.867	57	2116187	8.43	PPBV		99
	1,4-DIOXANE	9.965	88	193157	10.32	PPBV	#	76
53)	METHYL METHACRYLATE	10.069	69	368078	9.17	PPBV	#	26
54)	HEPTANE	10.129	43	715345	9.56	PPBV		86
55)	TVHC as EQUIV HEPTANE	10.129	TIC	3435773m	10.47	PPBV		
56)	METHYL ISOBUTYL KETONE	10.751	58	280074	8.89	PPBV	#	86
57)	cis-1,3-DICHLOROPROPENE	10.648	75	551483	9.78	PPBV		96
58)	TOLUENE	11.587	92	821437 401529	10.19	PPBV		99
59)	trans-1,3-DICHLOROPROPENE	11.160	75	401529	10.44	PPBV		96
60)	1,1,2-TRICHLOROETHANE	11.312	83	389409	10.35	PPBV		98
62)	2-HEXANONE	11.922	58	287834	8.75	PPBV	#	84
63)	TETRACHLOROETHYLENE	12.659	164	474898	9.22	PPBV		99
64)	DIBROMOCHLOROMETHANE	11.971	129	745729	9.97	PPBV		100
65)	1,2-DIBROMOETHANE	12.202	107	510883	9.91	PPBV		100
66)	OCTANE	12.568	43	985373 615340	10.25	PPBV	#	86
67)	1,1,1,2-TETRACHLOROETHANE	13.294	131	615340	9.23	PPBV	#	1
68)	CHLOROBENZENE	13.312	112	882887	9 60	PPBV		95
69)	ETHYLBENZENE	13.690	91	1660168	9.89	PPBV		98
70)	m,p-XYLENE	13.867	106			PPBV		95
71)	O-XYLENE	14.312	106	620674	10.01	PPBV		96
72)	STYRENE	14.214		720165	10.60	PPBV		98
73)	NONANE	14.568	43	892472	10.94	PPBV		90
	BROMOFORM	13.903	173	589128	9.78	PPBV		99
76)	1,1,2,2-TETRACHLOROETHANE	14.306	83	783958	9.61	PPBV		99
77)	ISOPROPYLBENZENE	14.909	105	1826790	10.02	PPBV		98
78)	2-CHLOROTOLUENE	15.378	126	367218	9.94	PPBV	#	1
79)	n-PROPYLBENZENE	15.427	120	416333	10.02	PPBV	#	34
80)	4-ETHYLTOLUENE	15.580	105	1372249	10.66	PPBV		98
81)	1,3,5-TRIMETHYLBENZENE	15.659	105	1268614	10.39			98
	TERT-BUTYLBENZENE	16.061	134	308561	10.59	PPBV		86
83)	1,2,4-TRIMETHYLBENZENE	16.067	105	1100169 449360	10.70	PPBV		98
84)	m-DICHLOROBENZENE	16.201		449360	9.82			99
	BENZYL CHLORIDE	16.189	91	540790 436256	10.11			97
	p-DICHLOROBENZENE	16.269				PPBV		99
	SEC-BUTYLBENZENE	16.336		349443	10.07			91
88)	p-ISOPROPYLTOLUENE	16.500	134	296463	10.39	PPBV		90
	o-DICHLOROBENZENE	16.610			9.78			99
	n-BUTYLBENZENE	16.915		193666	9.02			84
	HEXACHLOROBUTADIENE	18.731	225	214462	10.05			98
92)	1,2,4-TRICHLOROBENZENE	18.293	180	92166	7.53	PPBV		84

M2W1240.M Tue Mar 01 17:45:35 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29758.D

Acq On : 14 Feb 2011 7:33 am Operator : YOUMINH

Sample : CC1240-10 Misc : MS8244,V2W1256,400,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 17:45:23 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011

Response via : Initial Calibration

Compound R.T. QIon Response Conc Units Dev(Min) \_\_\_\_\_\_ (#) = qualifier out of range (m) = manual integration (+) = signals summed

M2W1240.M Tue Mar 01 17:45:35 2011 VOA-CLN-02

Data Path : C:\msdchem\1\DATA\2w\v2w1256\

Data File : 2W29758.D

Acq On : 14 Feb 2011 7:33 am

Operator : YOUMINH

Sample : CC1240-10

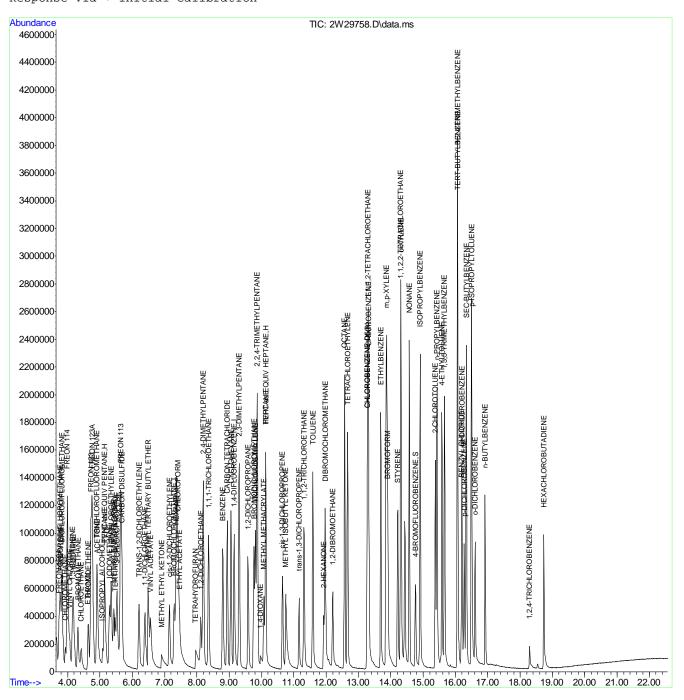
Misc : MS8244,V2W1256,400,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 17:45:23 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Mar 01 17:45:36 2011 VOA-CLN-02

705 of 840
ACCUTEST
JA68565
LABORATORIES

### Quantitation Report (Qedit)

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29758.D

Acq On : 14 Feb 2011 7:33 am

Operator : YOUMINH Sample : CC1240-10

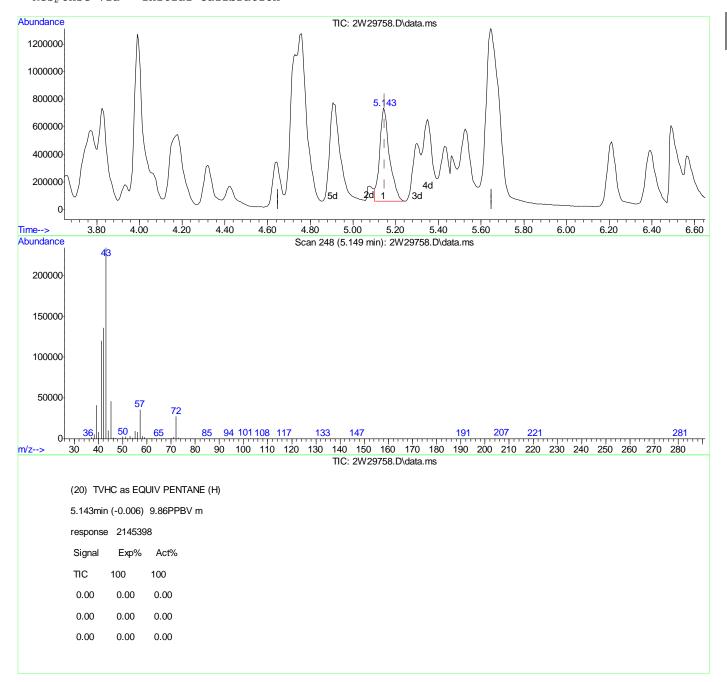
Misc : MS8244,V2W1256,400,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 14:38:30 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title  $\,:\,$  TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration



M2W1240.M Tue Mar 01 17:44:30 2011 VOA-CLN-02

706 of 840
ACCUTEST

JA68565
LABORATORIES

#### Quantitation Report (Qedit)

Data Path :  $C:\msdchem\1\DATA\2w\v2w1256\$ 

Data File : 2W29758.D

Acq On : 14 Feb 2011 7:33 am

Operator : YOUMINH : CC1240-10 Sample

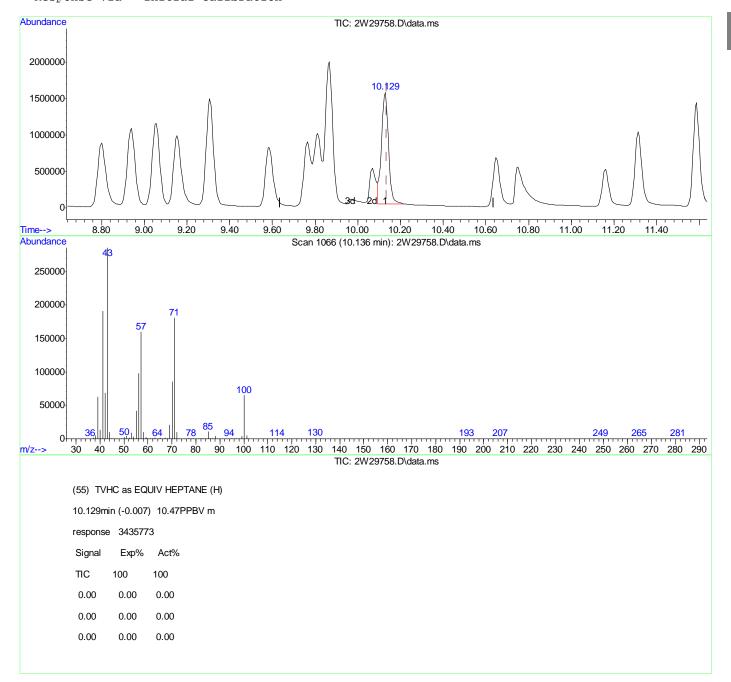
: MS8244, V2W1256, 400, , , , 1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 01 14:38:30 2011

Quant Method : C:\msdchem\1\METHODS\M2W1240.M

Quant Title : TO15 by GCMS w/Rtx-1 60m X 0.32mm ID X 1.0 um

QLast Update : Tue Jan 25 11:19:02 2011 Response via : Initial Calibration





Page: 1

Data File : C:\MSDCHEM\1\DATA\3W20778.D Vial: 1 Acq On : 15 Feb 2011 6:24 pm Operator: yunxiac Inst : MS3W Sample : IC821-0.5 Misc : MS7827, V3W821,,,,,1 : IC821-0.5 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:44:00 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:43:58 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards			Response				
1) BROMOCHLOROMETHANE	7.56	128	117652 573309 238373 238945	10.00	PPBV		0.00
45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5	9.20	114	573309	10.00	PPBV		-0.01
62) CHLOROBENZENE-D5	13.37	82	238373	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	238945	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	114318	3.94	PPBV		0.00
76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Ran	.ge 65	- 128	Recove	ery =	78.	80%	
Target Compounds  3) FREON 152A  4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114  8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLENE 38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE						Ova	alue
3) FREON 152A	4.29	65	6364	0.81	PPBV	. ~	94
4) CHLORODIFLUOROMETHANE	4.32	67	2137	0.70	PPBV		81
5) DICHLORODIFLUOROMETHANE	4.37	85	21357	0.66	PPBV		99
6) PROPYLENE	4.34	41	8222	0.74	PPBV		99
7) FREON 114	4.54	85	24907	0.66	PPBV		99
8) CHLOROMETHANE	4.48	50	10380	0.77	PPBV		98
9) VINYL CHLORIDE	4.61	62	9117	0.67	PPBV		99
10) 1.3-BUTADIENE	4.70	54	6447	0.64	PPBV		95
11) n-BUTANE	4.72	43	14262	0.67	PPBV		98
12) BROMOMETHANE	4.88	94	8627	0.64	PPBV		96
13) CHLOROETHANE	4.98	64	4318	0.68	PPBV		9.8
14) FREON 123	5.27	8.3	19201	0.75	PPBV		97
15) FREON 123A	5.30	117	11034	0.74	PPBV		9.8
16) TRICHLOROFLUOROMETHANE	5.44	101	21698	0.67	PPBV		9.8
17) TSOPROPYL ALCOHOL	5.61	45	9873	0.53	PPBV	#	12
18) ACETONE	5.41	58	2671	0.61	PPBV	. "	99
19) PENTANE	5 64	42	10355	0.72	PPRV		94
21) IODOMETHANE	5 83	142	24455	0.72	PPRV		100
22) 1 1-DICHLOROETHYLENE	5 86	96	8484	0.61	PPRV		98
23) CARBON DISHLETDE	6 17	76	26037	0.68	PPRV		95
24) ETHANOI.	5 13	45	3318	0.00	DDBW		93
25) RDOMOFTHENE	5 20	106	8897	0.64	DDBM		97
26) METHYLENE CHLORIDE	5 96	84	7443	0.01	DDRV		97
27) 3-CHIOROPROPENE	6 02	76	3335	0.73	DDBW	. н	68
28) FPFON 113	6 11	151	15208	0.75	DDBM	. π	90
20) TREON 113 20) TRANG_1 2_DICHLOPOFTHYLENE	6 59	96	7781	0.03	DDBM		97
20) TRANS 1,2 DICHEOROETHILENE	6 02	50	11602	0.02	וזמממ	. #	ر 1
21) METHYL TEPTIARY RITYL ETHE	6 82	73	18327	0.34	DDBM	. #	97
22) TETHE IERITARI BOILL EIHE	Ω ΩΩ	73	2/1/	0.70	DDDM		97
22) UEVAND	7 / 1	7 Z	12502	0.52	DDDM	. #	Ω1
24) VINVI ACETATE	6 00	06	13302	0.00	DDDM	. #	0.1
25) 1 1_DTCUTODOFTUNNE	6 75	63	1291	0.01	מסממ	. #	0.0
36) METHINI ETHINI KETONE	7 11	72	T30//	0.75	PPDV		99
27) at a 1 2 DIGIT ODDERUM ENE	7.11	0.6	2299	0.51	PPDV		95
20) DIICODDODVI ETHED	7.44	9 O	7 7 3 7 7 1 7 0 7	0.71	LLBA		98
30) ETIMI AGETATE	7.53	45 61	∠⊥3U/ 1E4⊓	0.0/	LLR.		99
AO) CHIODOEODM	7.02	0.5 D.T	154/ 15/10	0.54	LLRA LLRA		98
41) 2 4 DIMERINI DENGANE	7.05	83 E7	15419	0.73	LLR.		98
41) 2,4-DIMETHYLPENTANE	δ.∠⊥ ο 4□	5 / 07	15340	0.70	LLR.		100
42) I,I,I-TKICHLUKUETHANE	0.4/	9 / 1 1 7	15122	0.73	FFR/		T00
43) CARBON TETRACHLORIDE	9.01	ΤΤ./	10998	0.66	55RA		T00

3W20778.D M3W821.M Wed Feb 16 16:13:32 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W20778.D Vial: 1

Acq On : 15 Feb 2011 6:24 pm Operator: yunxiac Inst : MS3W Sample : IC821-0.5 Misc : MS7827, V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:44:00 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:43:58 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.26	62	8118	0.72 PPBV	98
	BENZENE	8.88	78	22787	0.82 PPBV	
47)	CYCLOHEXANE	9.06	56 71 95 63	14634	0.74 PPBV	98
48)	2,3-DIMETHYLPENTANE	9.23	71	6599	0.87 PPBV	# 52
49)	TRICHLOROETHYLENE	9.82	95	9796	0.75 PPBV	99
50)	1,2-DICHLOROPROPANE	9.58	63	8212	0.80 PPBV	99
51)	BROMODICHLOROMETHANE	9.79	83	15939 38655	0.78 PPBV	97
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	38655	0.78 PPBV	
	1,4-DIOXANE	10.01	88	2464 15508	0.41 PPBV	
,	HEPTANE	10.00	43	15508	0.80 PPBV	
,	METHYL METHACRYLATE	10.05	69	5286 3995	0.62 PPBV	
,	METHYL ISOBUTYL KETONE	10.71	58	3995	0.59 PPBV	
,	cis-1,3-DICHLOROPROPENE	10.65	75	10838 14559	0.73 PPBV	
	TOLUENE	11.56	92	14559	0.79 PPBV	
60)	trans-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	11.15	75	7190 6539	0.61 PPBV	
			83	6539	0.71 PPBV	
,	2-HEXANONE	11.89	58	4438 10711	0.59 PPBV	
	TETRACHLOROETHYLENE	12.69				
	DIBROMOCHLOROMETHANE	12.01			0.76 PPBV	
,	1,2-DIBROMOETHANE	12.22			0.68 PPBV	
	OCTANE	12.48		18543		
	1,1,1,2-TETRACHLOROETHANE CHLOROBENZENE	13.39	112	9832 15432	0.80 PPBV 0.77 PPBV	
,	ETHYLBENZENE		112 91	24590	0.77 PPBV 0.75 PPBV	
	m,p-XYLENE	13.79		17660		
	O-XYLENE	14.48			0.70 PPBV	
,	STYRENE	14.38				
- ,	NONANE		43		0.71 PPBV	
	BROMOFORM			9496		
	1,1,2,2-TETRACHLOROETHANE	14.50	83	6821	0.47 PPBV	
	1,2,3-TRICHLOROPROPANE	14.63	75	5579	0.49 PPBV	
,	ISOPROPYLBENZENE	15.12			0.63 PPBV	
,	2-CHLOROTOLUENE	15.68		4461		
	n-PROPYLBENZENE	15.71	120	4355	0.52 PPBV	
	4-ETHYLTOLUENE	15.88	105	14492	0.53 PPBV	98
83)	1,3,5-TRIMETHYLBENZENE	15.98		12187	0.53 PPBV	
84)	tert-BUTYLBENZENE	16.46	134	2879	0.52 PPBV	93
85)	1,2,4-TRIMETHYLBENZENE	16.47	105		0.50 PPBV	95
86)	m-DICHLOROBENZENE	16.67	146	5982	0.47 PPBV	96
87)	BENZYL CHLORIDE	16.67	91	5565	0.45 PPBV	
88)	p-DICHLOROBENZENE	16.76	146	5987	0.50 PPBV	99
	sec-BUTYLBENZENE	16.80			0.50 PPBV	
	p-ISOPROPYLTOLUENE	16.98 17.18	134	2925	0.49 PPBV	
,	o-DICHLOROBENZENE	17.18	146	4644	0.43 PPBV	
	n-BUTYLBENZENE	17.50	134	1957		
93)	HEXACHLOROBUTADIENE	17.50 19.77	225	1432	0.32 PPBV	
94)	1,2,4-TRICHLOROBENZENE	19.22	180	835	0.29 PPBV	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20778.D M3W821.M Wed Feb 16 16:13:32 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20778.D Vial: 1

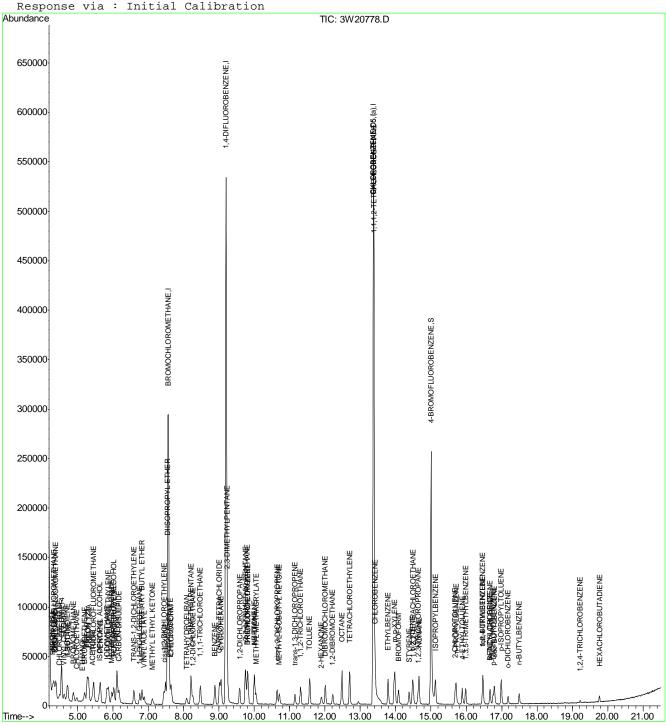
: 15 Feb 2011 6:24 pm Operator: yunxiac Acq On Sample : IC821-0.5 : MS3W : MS7827, V3W821, , , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:44 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011



3W20778.D M3W821.M

Wed Feb 16 16:13:33 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 16 12:44:31 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:44:19 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

			Response			
1) BROMOCHLOROMETHANE	 7 57	128	124090	10 00	PPRV	0 00
45) 1.4-DIFLUOROBENZENE	9.21	114	614086	10.00	PPBV	0.00
62) CHLOROBENZENE-D5	13.38	82	287965	10.00	PPBV	0.00
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	13.38	82	287965	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.01	95	169730	5.21	PPBV	0.00
Spiked Amount 5.000 Ra	ange 65	- 128	Recove	ery =	104.	20%
Target Compounds						Qvalue
3) FREON 152A	4.28	65	153248	15 38	PPRV	99
4) CHLORODIFILIOROMETHANE	4 31	67	153248 58242	15.90	PPRV	98
5) DICHLORODIFILIOROMETHANE	4 37	85	601549	15.94	PPRV	100
6) PROPYLENE	4 33	41	205882	15 19	PPRV	. 99
7) FREON 114	4.53	85	711941	16.11	PPBV	100
8) CHLOROMETHANE	4.48	50	232763	13.83	PPBV	97
9) VINYL CHLORIDE	4.62	62	261384	16.37	PPBV	100
10) 1.3-BUTADIENE	4.69	54	200297	17.23	PPBV	99
11) n-BUTANE	4.71	43	400333	16.07	PPBV	100
12) BROMOMETHANE	4.87	94	264042	17.04	PPBV	99
13) CHLOROETHANE	4.97	64	139869	18.60	PPBV	. 99
14) FREON 123	5.27	83	606029	19.28	PPBV	100
15) FREON 123A	5.30	117	348244	19.13	PPBV	98
16) TRICHLOROFLUOROMETHANE	5.45	101	624718	16.48	PPBV	100
17) ISOPROPYL ALCOHOL	5.54	45	452044	22.56	PPBV	98
18) ACETONE	5.36	58	108834	22.03	PPBV	93
19) PENTANE	5.64	42	280703	16.17	PPBV	99
21) IODOMETHANE	5.83	142	791134	17.99	PPBV	99
22) 1,1-DICHLOROETHYLENE	5.87	96	259092	17.30	PPBV	98
23) CARBON DISULFIDE	6.17	76	736973	16.28	PPBV	100
24) ETHANOL	5.09	45	97831	18.65	PPBV	98
25) BROMOETHENE	5.20	106	276242	17.31	PPBV	99
26) METHYLENE CHLORIDE	5.97	84	216301	18.24	PPBV	99
27) 3-CHLOROPROPENE	6.03	76	114599	20.60	PPBV	97
28) FREON 113	6.11	151	470402	17.39	PPBV	100
29) TRANS-1,2-DICHLOROETHYLEN	E 6.59	96	271916	19.07	PPBV	99
30) TERTIARY BUTYL ALCOHOL	5.93	59	567613	24.27	PPBV	99
31) METHYL TERTIARY BUTYL ETH	E 6.77	73	666831	21.36	PPBV	99
32) TETRAHYDROFURAN	7.99	72	120459	24.35	PPBV	99
33) HEXANE	7.49	57	398750	16.99	PPBV	99
34) VINYL ACETATE	6.87	86	55604	24.10	PPBV	99
35) 1,1-DICHLOROETHANE	6.76	63	456073	20.02	PPBV	99
36) METHYL ETHYL KETONE	7.06	72	120580	25.08	PPBV	94
37) cis-1,2-DICHLOROETHYLENE	7.45	96	267800	20.35	PPBV	100
38) DIISOPROPYL ETHER	7.51	45	802925	21.50	PPBV	99
39) ETHYL ACETATE	7.58	61	80819	26.15	PPBV	# 94
40) CHLOROFORM	7.66	83	503352	19.55	PPBV	99
41) 2,4-DIMETHYLPENTANE	8.21	57	485471	18.21	PPBV	99
42) 1,1,1-TRICHLOROETHANE	8.47	97	502563	19.92	PPBV	100
Target Compounds  3) FREON 152A 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLENE 38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE	9.02	117	553832	18.37	PPBV	100

\_\_\_\_\_\_

(#) = qualifier out of range (m) = manual integration

3W20779.D M3W821.M Wed Feb 16 16:13:33 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20779.D Vial: 2 Acq On : 15 Feb 2011 9:02 pm Operator: yunxiac Inst : MS3W Sample : IC821-20 Misc : MS7827, V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:44:31 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:44:19 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.27	62	290132	21.23 PPBV	99
,	BENZENE	8.89		751376	20.82 PPBV	
,	CYCLOHEXANE	9.06		417333	16.95 PPBV	
,	2,3-DIMETHYLPENTANE	9.24		180529	17.82 PPBV	
	TRICHLOROETHYLENE	9.82	95	325346	19.90 PPBV	99
	1,2-DICHLOROPROPANE	9.59	63	288376	21.85 PPBV	100
	BROMODICHLOROMETHANE	9.81	83	288376 527567	20.33 PPBV	100
52)	2,2,4-TRIMETHYLPENTANE	9.75	57			100
53)	1,4-DIOXANE	9.89	88	1214040 170862		99
54)	HEPTANE	10.01	43	459781 256795	18.42 PPBV	
56)	METHYL METHACRYLATE	10.03	69	256795	26.00 PPBV	
57)	METHYL ISOBUTYL KETONE	10.65	58	224110	29.22 PPBV	99
58)	cis-1,3-DICHLOROPROPENE	10.65		419037	22.77 PPBV	100
	TOLUENE	11.57	92	509025	21.66 PPBV	98
60)	trans-1,3-DICHLOROPROPENE	11.16	75	344548	25.52 PPBV	100
61)	1,1,2-TRICHLOROETHANE	11.32		254005	22.59 PPBV	
63)	2-HEXANONE	11.84		280544		
,	TETRACHLOROETHYLENE	12.70		368163		
,	DIBROMOCHLOROMETHANE	12.01		533722		
,	1,2-DIBROMOETHANE	12.22		428736		
,	OCTANE	12.48	43	592981		
	1,1,1,2-TETRACHLOROETHANE	13.40		373067	20.93 PPBV	
,	CHLOROBENZENE	13.43		601449		
	ETHYLBENZENE	13.79		972280	21.12 PPBV	
,	m,p-XYLENE	13.98		747635		
,	O-XYLENE	14.48		354787	21.64 PPBV	
- ,	STYRENE	14.39		519311	26.43 PPBV	
	NONANE	14.67		528865	20.73 PPBV	
,	BROMOFORM	14.10 14.51		476109 451741		
	1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE	14.51				
	ISOPROPYLBENZENE	15.13		356847 1004496	20.26 PPBV 22.60 PPBV	
	2-CHLOROTOLUENE	15.70		235340		
	n-PROPYLBENZENE	15.70	120	254141	24.94 PPBV	
	4-ETHYLTOLUENE	15.90	105	849783	25.07 PPBV	
,	1,3,5-TRIMETHYLBENZENE	15.99	105	691944		
,	tert-BUTYLBENZENE	16.47	134	172292		
,	1,2,4-TRIMETHYLBENZENE	16.49		628375	25.47 PPBV	
	m-DICHLOROBENZENE	16.68		403803	26.80 PPBV	
,	BENZYL CHLORIDE	16.69		446103	30.94 PPBV	
,	p-DICHLOROBENZENE	16.77		381608		
	sec-BUTYLBENZENE	16.80		192859	25.49 PPBV	
	p-ISOPROPYLTOLUENE	17.00	134	198246		
,	o-DICHLOROBENZENE	17.19	146	344171	27.89 PPBV	100
92)	n-BUTYLBENZENE	17.51	134	152993	30.74 PPBV	
93)	HEXACHLOROBUTADIENE	19.77			28.26 PPBV	99
94)	1,2,4-TRICHLOROBENZENE	19.22	180	68377	22.60 PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20779.D M3W821.M Wed Feb 16 16:13:34 2011 MS3W

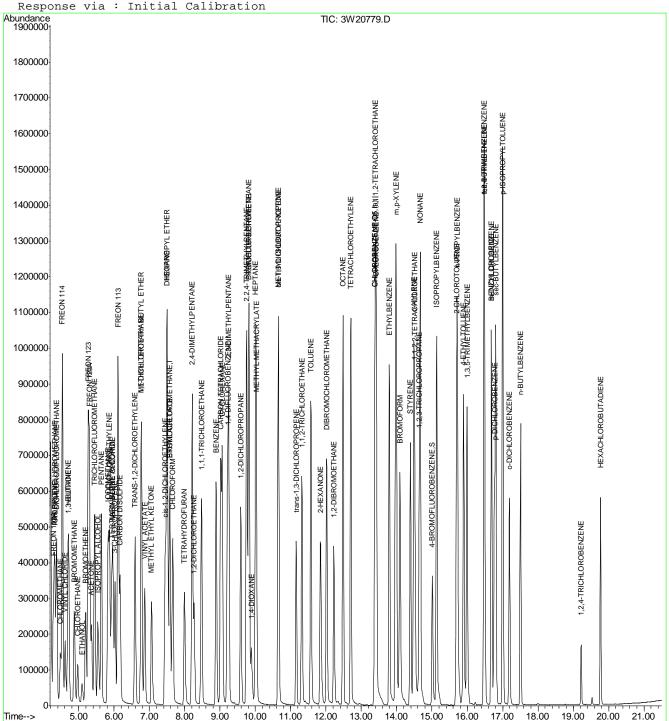


Data File : C:\MSDCHEM\1\DATA\3W20779.D Vial: 2

MS Integration Params: rteint.p

Quant Time: Feb 16 12:44 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 15:27:22 2011



3W20779.D M3W821.M

Wed Feb 16 16:13:34 2011



MS Integration Params: rteint.p

Quant Time: Feb 16 12:50:34 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:49:53 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Inte	rnal Standards		QIon	Response	Conc U	nits D	ev(M	lin)
1)	BROMOCHLOROMETHANE	7.56	128	118381	10.00	PPBV	0	.00
	1,4-DIFLUOROBENZENE	9.20	114	581743	10.00	PPBV	-0	.01
	CHLOROBENZENE-D5	13.37	82	207934	10.00	PPBV	0	.00
	CHLOROBENZENE-D5 (a)	13.37	82	118381 581743 207934 207934	10.00	PPBV	0	.00
Svst	em Monitoring Compounds							
76)	4-BROMOFLUOROBENZENE	15.00	95	96276	4.18	PPBV	0	.00
Sp	iked Amount 5.000	Range 65						
Tarq	et Compounds						Oval	.ue
	FREON 152A	4.28	65	1803	0.19		~	98
	CHLORODIFLUOROMETHANE	4.33		356		PPBV		39
	DICHLORODIFLUOROMETHANE							97
	PROPYLENE	4.33	41	3385 3000 3857 1532 1389 1192 2653 1266 706 3125 1900	0.23	PPBV	#	77
	FREON 114	4.53	85	3857	0.10	PPBV	"	98
	CHLOROMETHANE	4.48	50	1532	0.10	PPBV		78
9)	VINVI. CHI.ORIDE	4.62	62	1389	0.10	PPRV	±	
10)	1,3-BUTADIENE	4.70	54	1192	0.10	PPBV PPBV PPBV	#	78
11)	n-BUTANE	4.71	43	2653	0.12	PPRV	#	76
	BROMOMETHANE		94	1266	0.12	DDRV	"	83
	CHLOROETHANE	4 97	64	706	0.00	DDRV	#	58
	FREON 123	5 26	64 83	3125	0.10	DDRV	π	96
	FREON 123A	5.30	117	1900	0.11	DDBM		97
	TRICHLOROFLUOROMETHANE	5.44	101	3309	0.12	DDRV		96
	ACETONE	5.43	58	1900 3309 384 1975 3499	0.10	DDBM	#	72
,	PENTANE	5.63	42	1975	0.00	DDRV	π	81
,	IODOMETHANE	5.03	142	3499	0.13	DDBM		99
	1,1-DICHLOROETHYLENE	5.02	96	1299	0.00	PPBV		99
22)	CARBON DISULFIDE	5.87 6.16	76	1299 3824	0.10	PPBV		92
	ETHANOL	5.18			0.05	PPBV		80
25)	BROMOETHENE	5.10	106	1100	0.20	DDDM		92
	METHYLENE CHLORIDE	5.19	100	1199 1655 476 2279	0.00	DDDM		90
	3-CHLOROPROPENE	5.90	76	1033	0.13	PPBV	#	51
	FREON 113	6 11	151	2270	0.09	DDDM	#	99
	TRANS-1,2-DICHLOROETHYLE							96
	TERTIARY BUTYL ALCOHOL	6.10	50 E0	1289 1323 272 2179 2204 293	0.10	PPDV	ш	82
	TETRAHYDROFURAN	0.10	72	1323	0.00	PPDV	#	94
,	HEXANE	8.16 7.49	/ Z	2/2	0.00	PPBV	#	81
	1,1-DICHLOROETHANE	6.75	63	2179	0.11	PPDV	#	96
35)	METHYL ETHYL KETONE	7.16	72	293	0.11	PPBV	#	47
30)	cis-1,2-DICHLOROETHYLENE	7.10	96	1200	0.00	PPDV	#	93
			45	1299	0.11	PPBV		100
	DIISOPROPYL ETHER	7.65	45 C1	1299 2888 122 2421	0.08	PPBV	ш	
	ETHYL ACETATE		61	2421	0.04	PPDV	#	41 90
40)	CHLOROFORM	7.05	83	2421	0.10	DDD11		
41)	2,4-DIMETHYLPENTANE	δ.2I	5 / 07	2356 2304 2367 1201 3590	0.10	LLRA		92
	1,1,1-TRICHLOROETHANE	8.47	9 / 1 1 7	∠3U4 23C7	0.10	LLRA.		99 05
	CARBON TETRACHLORIDE	9.00	T T \	∠36/ 1001	0.09	LLRA		95
	1,2-DICHLOROETHANE	8.26	62	7.50T	0.09	FFRV		96
	BENZENE	8.88	78 56	3590	0.11	FFRV		99
	CYCLOHEXANE	9.06		2184	0.10	PPBV		94

3W20780.D M3W821.M Wed Feb 16 16:13:35 2011 MS3W

714 of 840
ACCUTEST

JA68565
LABORATORIES

<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: Feb 16 12:50:34 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:49:53 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	2,3-DIMETHYLPENTANE	9.23	71	860	0.10 PPBV	# 1
49)	TRICHLOROETHYLENE	9.82	95	1509	0.09 PPBV	99
50)	1,2-DICHLOROPROPANE	9.59	63	1514	0.12 PPBV	87
51)	BROMODICHLOROMETHANE	9.80	83	2314	0.10 PPBV	93
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	6281	0.11 PPBV	96
54)	HEPTANE	10.00	43	2644	0.12 PPBV	94
56)	METHYL METHACRYLATE	10.06	69	601	0.06 PPBV	# 41
57)	METHYL ISOBUTYL KETONE	10.76	58	323	0.04 PPBV	# 8
58)	cis-1,3-DICHLOROPROPENE	10.65	75	1395	0.08 PPBV	96
59)	TOLUENE	11.56		2119	0.10 PPBV	95
	trans-1,3-DICHLOROPROPENE	11.15	75 83	881	0.07 PPBV	
61)	1,1,2-TRICHLOROETHANE	11.30	83	857	0.08 PPBV	95
63)	2-HEXANONE	11.95	58	241	0.03 PPBV	# 41
64)	TETRACHLOROETHYLENE	12.70	164	1657	0.12 PPBV	99
65)	DIBROMOCHLOROMETHANE	12.01	129	1867	0.11 PPBV	94
66)	1,2-DIBROMOETHANE	12.22	107	1186	0.09 PPBV	# 98
	OCTANE	12.48	43	2889	0.13 PPBV	96
68)	1,1,1,2-TETRACHLOROETHANE	13.40	131	1281	0.10 PPBV	
69)	CHLOROBENZENE	13.41		1982	0.10 PPBV	
70)	ETHYLBENZENE	13.79			0.09 PPBV	
71)	m,p-XYLENE	13.97	106	2162	0.18 PPBV	# 88
72)	O-XYLENE	14.48		952	0.08 PPBV	
73)	STYRENE	14.38	104	996	0.07 PPBV	
74)	NONANE	14.67	43	1867	0.10 PPBV	
	BROMOFORM	14.08		1230	0.07 PPBV	98
	1,1,2,2-TETRACHLOROETHANE		83	971	0.08 PPBV	
	1,2,3-TRICHLOROPROPANE	14.63		707	0.07 PPBV	
,	ISOPROPYLBENZENE	15.13			0.09 PPBV	
,	2-CHLOROTOLUENE	15.69		674	0.09 PPBV	
,	n-PROPYLBENZENE	15.71		585	0.08 PPBV	
- ,	4-ETHYLTOLUENE	15.89		1847	0.07 PPBV	
,	1,3,5-TRIMETHYLBENZENE	15.98		1784	0.09 PPBV	
,	tert-BUTYLBENZENE	16.47		405	0.08 PPBV	
,	1,2,4-TRIMETHYLBENZENE	16.47		1383	0.08 PPBV	
,	m-DICHLOROBENZENE	16.67		871	0.08 PPBV	
,	BENZYL CHLORIDE	16.68		673	0.06 PPBV	
	p-DICHLOROBENZENE	16.76		951	0.09 PPBV	97
	sec-BUTYLBENZENE	16.80		351	0.06 PPBV	
	p-ISOPROPYLTOLUENE	16.98		414	0.08 PPBV	
	o-DICHLOROBENZENE	17.18		682	0.07 PPBV	88
,	n-BUTYLBENZENE	17.51		197	0.05 PPBV	
93)	HEXACHLOROBUTADIENE	19.78	225	169	0.05 PPBV	# 31

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20780.D M3W821.M Wed Feb  $16 \cdot 16:13:35 \cdot 2011$  MS3W



Data File : C:\MSDCHEM\1\DATA\3W20780.D Vial: 4

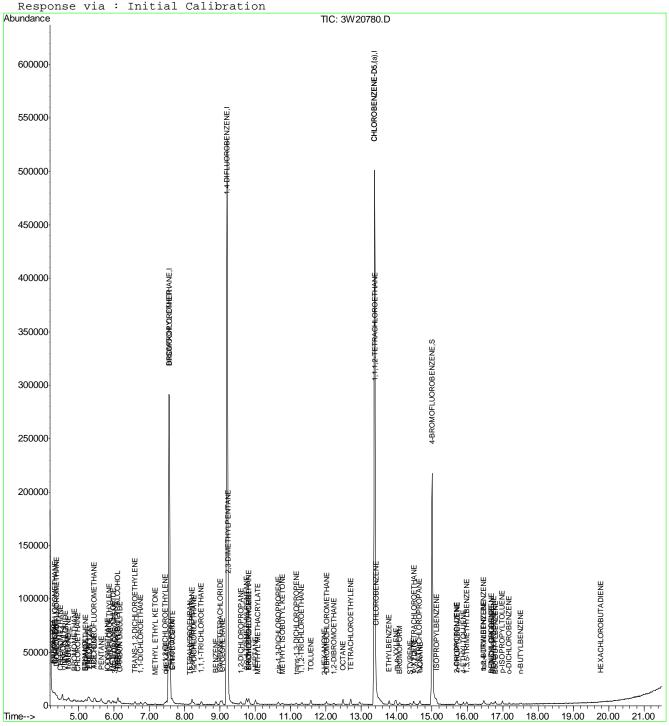
: 15 Feb 2011 10:21 pm Operator: yunxiac Acq On Sample : IC821-0.1 : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 15:23 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : T015 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011



3W20780.D M3W821.M

Wed Feb 16 16:13:36 2011

MS3W



**Manual Integrations** APPROVED (compounds with "m" flag)

> Jessica Reitan-Chu 02/23/11 14:33

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W20781.D Vial: 4

Acq On : 15 Feb 2011 11:00 pm Operator: yunxiac Inst : MS3W Sample : IC821-0.04 Misc : MS7827,V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:50:39 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:49:53 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards			Response				
1) BROMOCHLOROMETHANE	7.56	128	115052 558199 196174 196174	10.00	PPBV		 -0.01
45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5	9.20	114	558199	10.00	PPBV		-0.01
62) CHLOROBENZENE-D5	13.37	82	196174	10.00	PPBV		0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	196174	10.00	PPBV		0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.00	95	91878	4.23	PPBV		0.00
76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	Range 65	- 128	Recove	ery =	84.	60%	
Target Compounds  3) FREON 152A  4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHY 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL 33) HEXANE 35) 1,1-DICHLOROETHANE 37) cis-1,2-DICHLOROETHYLE 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE 44) BENZENE 47) CYCLOHEXANE 48) 2,3-DIMETHYLPENTANE 49) TRICHLOROETHYLENE						Qv	alue
3) FREON 152A	4.29	65	1174	0.13	PPBV		90
4) CHLORODIFLUOROMETHANE	4.35	67	146	0.04	PPBV	#	1
5) DICHLORODIFLUOROMETHAN	E 4.37	85	1682	0.05	PPBV		96
6) PROPYLENE	4.32	41	2064	0.16	PPBV	#	76
7) FREON 114	4.54	85	1870	0.05	PPBV		93
8) CHLOROMETHANE	4.48	50	815	0.06	PPBV		71
9) VINYL CHLORIDE	4.61	62	550	0.04	PPBV	#	49
10) 1,3-BUTADIENE	4.70	54	575	0.06	PPBV	#	52
11) n-BUTANE	4.72	43	1497	0.07	PPBV		8.9
12) BROMOMETHANE	4.88	94	709	0.05	PPBV		90
13) CHLOROETHANE	4.98	64	289	0.04	PPBV	#	46
14) FREON 123	5.27	83	1364	0.05	PPBV		96
15) FREON 123A	5.30	117	741	0.05	PPBV	#	74
16) TRICHLOROFLUOROMETHANE	5.44	101	1525	0.05	PPBV	"	9.8
18) ACETONE	5.44	58	228	0.05	PPBV		91
19) PENTANE	5.63	42	1164	0.08	PPBV	#	79
21) TODOMETHANE	5 82	142	1565	0.03	PPRV	"	92
22) 1 1-DICHLOROETHYLENE	5 85	96	723	0.01	PPRV	±	75
23) CARRON DISHLETDE	6 17	76	1962	0.05	PPRV	ii	83
24) ETHANOL	5 15	45	432	0.03	PPRV	±	31
25) BROMOETHENE	5 20	106	591	0.05	DDBW	#	80
26) METHYLENE CHLORIDE	5 96	84	1121	0.01	DDBW	π	9:
27) 3-CHIOROPROPENE	6.02	76	171	0.10	DDBM	#	70
28) FREON 113	6 10	151	933	0.03	DDBW	π	93
20) TRANG_1 2_DTCHT.OPORTHY	T.FNF 6 50	96	655	0.01	DDBM	#	70
20) TEPTIARY RITYL ALCOHOL.	6 0.35	50	450	0.03	DDBM	#	25
21) METUVI TEDTIADV DIITVI	0.05 TTUT 6 96	73	1462	0.02	זמממ	π	Ω Ω
32) HEYANE	7 48	73 57	913	0.05	DDBM		20
25	6 76	63	971	0.05	זמממ	#	Ω/
27) gig-1 2-DICHLOROETHANE	NTE 7 / 2	96	57I	0.03	DDDM	#	01
20) DITCODDODYL ETHER	7.43	15	1265	0.04	DDDM	#	7.0
30) DITOORKORID FIUFK	7.3/	45 61	±305	0.04	PPDV	#	7 (
10) CALODOEODM	7.45	0 J	U∠⊥ 112∩	0.21	PDDII	#	υ c T
10) CHLOKOFOKM	7.04	0 <i>3</i>	1130	0.05	LLDA.	#	90
12) 1 1 1 TRICHTOROGENIANE	0.20	07	1004 111F	0.05	LLDA.	#	0.0
42) CARRON TETRACITIONE	0.4/	9 / 1 1 7	1000	0.05	LLRA		88
45) CARBON TETRACHLORIDE	9.01	11 / 70	1092 1500	0.04	LLRA		0.7
40) BENZENE	8.88	/ 8 F.C	1598	0.05	LLR.		93
4/) CYCLOHEXANE	9.05	56	1025	0.05	LLRA		85
48) Z,3-DIMETHYLPENTANE	9.19	,/ T	1047	0.12	LLRA.	#	
49) TRICHLOROETHYLENE	9.82	95	758	0.05	PPBV		84

(#) = qualifier out of range (m) = manual integration

3W20781.D M3W821.M Wed Feb 16 16:15:49 2011 MS3W

717 of 840 ACCUTEST JA68565

Data File : C:\MSDCHEM\1\DATA\3W20781.D Vial: 4

MS Integration Params: rteint.p

Quant Time: Feb 16 12:50:39 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:49:53 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qva	alue
50)	1,2-DICHLOROPROPANE	9.57	63	883	0.07 PPBV	#	60
51)	BROMODICHLOROMETHANE	9.80	83	1026	0.05 PPBV		100
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	2729	0.05 PPBV	#	92
54)	HEPTANE	9.99	43	1194	0.05 PPBV		93
56)	METHYL METHACRYLATE	10.06		220	0.02 PPBV	#	13
58)	cis-1,3-DICHLOROPROPENE	10.65 11.57	75	570	0.03 PPBV	#	45
59)	TOLUENE	11.57	92	965	0.05 PPBV		98
60)	trans-1,3-DICHLOROPROPENE	11.15	75	379	0.03 PPBV	#	33
61)	1,1,2-TRICHLOROETHANE	11.31	83	387	0.04 PPBV		84
64)	TETRACHLOROETHYLENE	12.70	164	708	0.05 PPBV		98
65)	DIBROMOCHLOROMETHANE	12.01	129	738	0.04 PPBV		93
66)	1,2-DIBROMOETHANE	12.22	107	564	0.04 PPBV	#	99
67)	OCTANE	12.48	43	1529	0.07 PPBV		82
68)	1,1,1,2-TETRACHLOROETHANE	13.39	131	456	0.04 PPBV		88
69)	CHLOROBENZENE	13.42	112	1012	0.05 PPBV	#	40
70)	ETHYLBENZENE	13.78	91	1485	0.05 PPBV		92
71)	m,p-XYLENE	13.97	106	1070	0.09 PPBV	#	82
72)	O-XYLENE	14.48	106	497	0.05 PPBV	#	84
73)	STYRENE	14.39	104	400	0.03 PPBV		90
74)	NONANE	14.65	43	1035	0.06 PPBV	#	80
- ,	BROMOFORM	14.08		587	0.04 PPBV	#	84
77)	1,1,2,2-TETRACHLOROETHANE	14.50	83	422	0.04 PPBV	#	90
78)	1,2,3-TRICHLOROPROPANE	14.64	75	279	0.03 PPBV		39
79)	ISOPROPYLBENZENE	15.12	105	1269	0.04 PPBV		97
80)	2-CHLOROTOLUENE	15.70	126	287	0.04 PPBV	#	42
81)	n-PROPYLBENZENE	15.71		299	0.04 PPBV	#	62
82)	4-ETHYLTOLUENE	15.88		885	0.04 PPBV		97
83)	1,3,5-TRIMETHYLBENZENE	15.98	105	768	0.04 PPBV	#	82
84)	tert-BUTYLBENZENE	16.47	134	235	0.05 PPBV	#	68
85)	1,2,4-TRIMETHYLBENZENE	16.48	105	560	0.03 PPBV	#	81
86)	m-DICHLOROBENZENE	16.67		363m	0.03 PPBV		
87)	BENZYL CHLORIDE	16.67		292	0.03 PPBV		59
88)	p-DICHLOROBENZENE	16.75	146	434			84
,	sec-BUTYLBENZENE	16.79		162			75
90)	p-ISOPROPYLTOLUENE	16.98		115	0.02 PPBV		51
91)	o-DICHLOROBENZENE	17.19	146	281	0.03 PPBV	#	42

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W20781.D M3W821.M Wed Feb 16 16:15:49 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20781.D

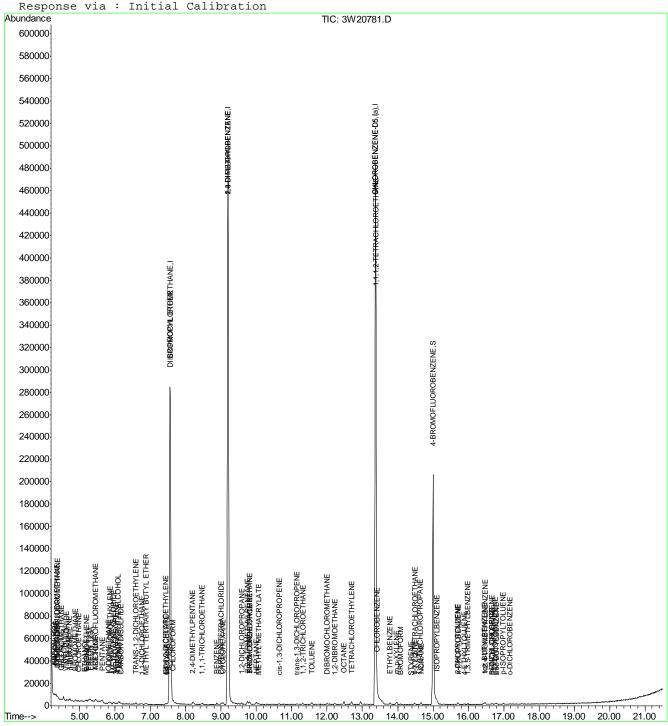
Vial: 4 : 15 Feb 2011 11:00 pm Operator: yunxiac Acq On Sample : IC821-0.04 : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 16:15 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011



3W20781.D M3W821.M

Wed Feb 16 16:15:50 2011



# **Manual Integration Approval Summary**

Sample Number: V3W821-IC821 Method: TO-15

 Lab FileID:
 3W20781.D
 Analyst approved:
 02/16/11 16:16
 Yunxia Chen

 Injection Time:
 02/15/11 23:00
 Supervisor approved:
 02/23/11 14:33
 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
m-Dichlorobenzene	541-73-1		16.67	Missed peak



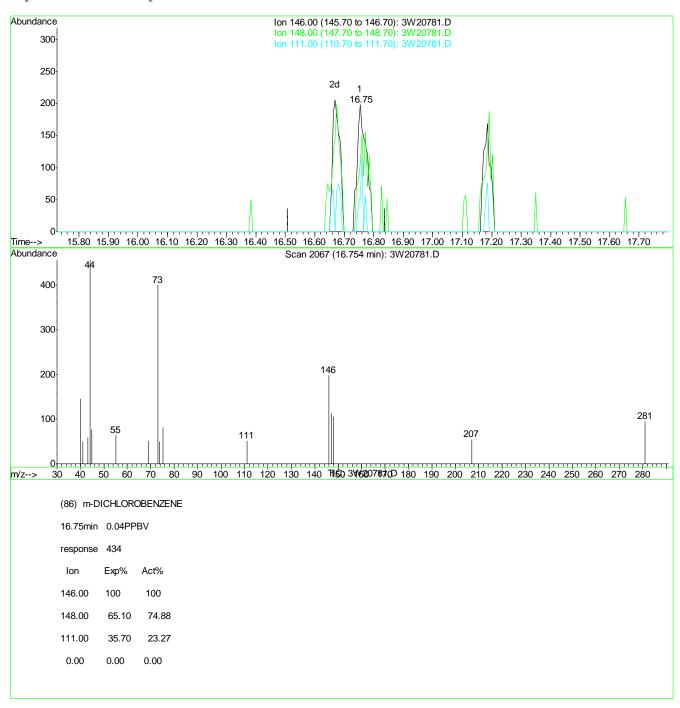
#### Quantitation Report (Qedit)

MS Integration Params: rteint.p

Quant Time: Feb 16 15:24 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011 Response via : Multiple Level Calibration



3W20781.D M3W821.M

Wed Feb 16 16:15:26 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3W20781.D Vial: 4

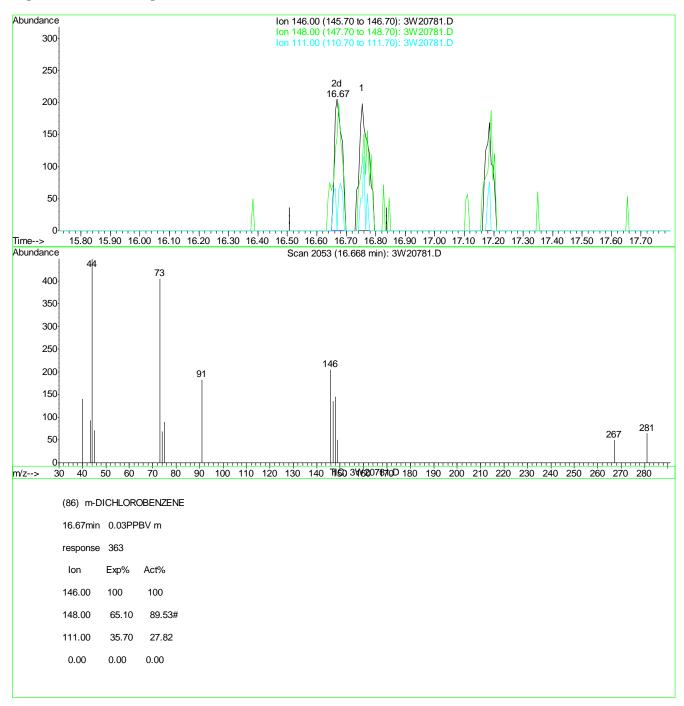
: 15 Feb 2011 11:00 pm Operator: yunxiac Acq On Sample : IC821-0.04 : MS3W Inst : MS7827, V3W821, , , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 16:15 2011 Quant Results File: temp.res

: C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Method Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011 Response via : Multiple Level Calibration



Wed Feb 16 16:15:32 2011



Data File : C:\MSDCHEM\1\DATA\3W20782.D Vial: 6

MS Integration Params: rteint.p

Quant Time: Feb 16 15:18:03 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 14:50:05 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	7.56 9.20 13.37 13.37	128 114 82 82	134143 644844 285175 285894	10.00 10.00 10.00 10.00	PPBV PPBV	-0.01
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 Range 65	95 - 128	173088 Recove	5.71 ery =	PPBV 114.	
Target Compounds 96) NAPHTHALENE	19.36	128	166211	8.55	PPBV	Qvalue 96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20782.D M3W821.M Wed Feb 16 16:18:45 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20782.D

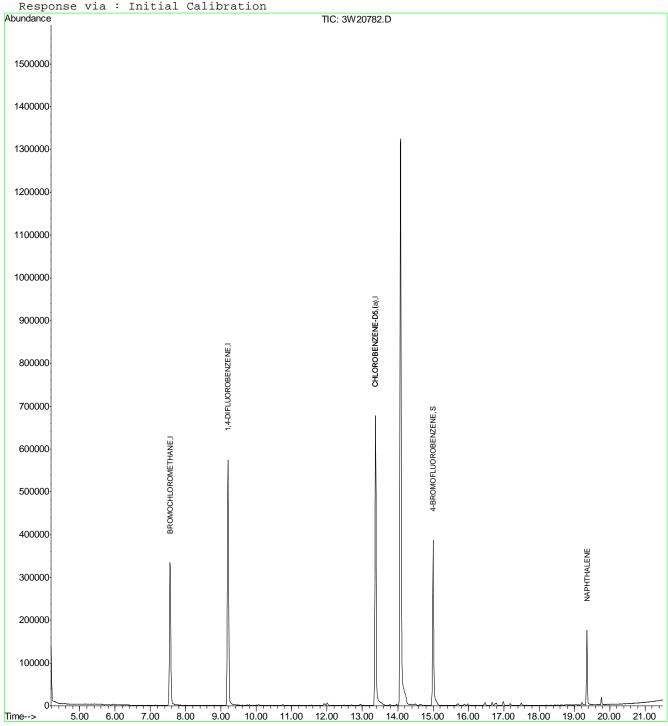
Vial: 6 : 16 Feb 2011 12:20 am Operator: yunxiac Acq On Sample : NAP-10 Inst : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 15:19 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011



3W20782.D M3W821.M

Wed Feb 16 16:18:45 2011



Data File : C:\MSDCHEM\1\DATA\3W20783.D Vial: 6

 Acq On : 16 Feb 2011 1:00 am
 Operator: yunxiac

 Sample : NAP-5
 Inst : MS3W

 Misc : MS7827,V3W821,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 13:41:48 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 13:03:42 2011 Response via : Initial Calibration

Response via · initiai cai

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc U	nits	Dev(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	7.56 9.20 13.37 13.37	128 114 82 82	124505 618294 274209 274891	10.00 10.00 10.00 10.00	PPBV PPBV	-0.01
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 Range 65	95 - 128	164829 Recove	5.65 ry =	PPBV 113.	
Target Compounds 96) NAPHTHALENE	19.36	128	129597	8.11	PPBV	Qvalue 96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20783.D M3W821.M Wed Feb 16 16:18:46 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20783.D Vial: 6

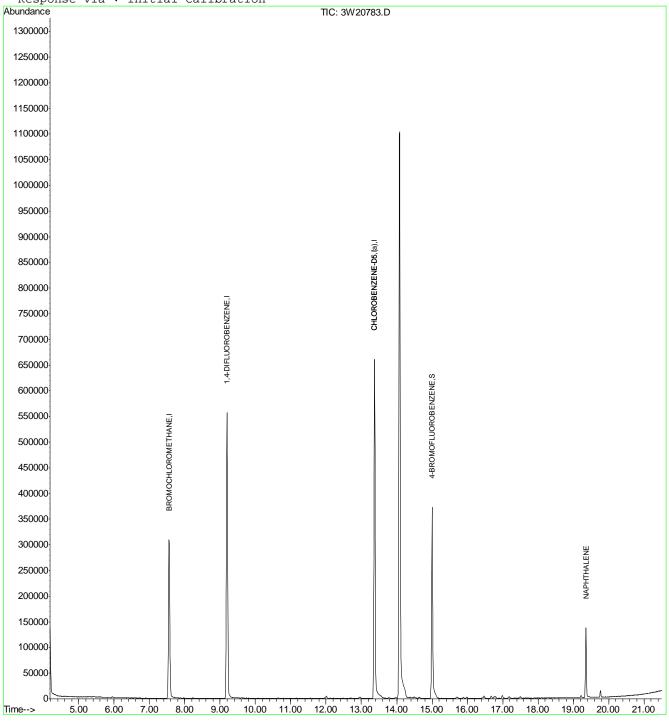
: 16 Feb 2011 1:00 am Operator: yunxiac Acq On Sample : NAP-5 Inst : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 15:19 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration



3W20783.D M3W821.M

Wed Feb 16 16:18:46 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 16 14:24:19 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 14:24:16 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

	rnal Standards 	R.T.	QIon	Response	Conc Ur	nits	Dev(	Min
1)	BROMOCHLOROMETHANE	7.59	128	125021 633715 313388 313388	10.00	PPBV		0.0
45)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	9.23	114	633715	10.00	PPBV		0.0
62)	CHLOROBENZENE-D5	13.40	82	313388	10.00	PPBV		0.0
95)	CHLOROBENZENE-D5 (a)	13.40	82	313388	10.00	PPBV		0.0
	em Monitoring Compounds							
76)	4-BROMOFLUOROBENZENE	15.03	95	178091	5.35	PPBV		0.0
Sp	iked Amount 5.000 F	Range 65	- 128	Recove	ery =	107.	00%	
Targ	et Compounds  FREON 152A CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE 1 ODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLENE TETTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ETT TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE DIISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE						Qva	lue
3)	FREON 152A	4.29	65	286089	28.24	PPBV		9
4)	CHLORODIFLUOROMETHANE	4.32	67	110372	29.86	PPBV		9
5)	DICHLORODIFLUOROMETHANE	4.38	85	1118329	30.38	PPBV		9
6)	PROPYLENE	4.33	41	381505	27.46	PPBV		9
7)	FREON 114	4.54	85	1306392	30.74	PPBV		9
8)	CHLOROMETHANE	4.49	50	444086	28.37	PPBV		10
9)	VINYL CHLORIDE	4.62	62	494386	32.93	PPBV		10
10)	1,3-BUTADIENE	4.70	54	378312	31.74	PPBV		9
11)	n-BUTANE	4.73	43	748290	30.90	PPBV		10
12)	BROMOMETHANE	4.88	94	494790	32.65	PPBV		10
13)	CHLOROETHANE	4.98	64	258145	35.64	PPBV		9
14)	FREON 123	5.28	83	1100125	35.18	PPBV		9
15)	FREON 123A	5.32	117	639569	35.47	PPBV		9
16)	TRICHLOROFLUOROMETHANE	5.46	101	1143253	31.88	PPBV		9
17)	ISOPROPYL ALCOHOL	5.60	45	848773	41.60	PPBV		9
18)	ACETONE	5.38	58	208484	42.22	PPBV		10
19)	PENTANE	5.65	42	547806	32.89	PPBV		9
21)	IODOMETHANE	5.85	142	1462891	35.69	PPBV		9
22)	1,1-DICHLOROETHYLENE	5.89	96	476098	32.13	PPBV		9
23)	CARBON DISULFIDE	6.18	76	1358091	30.93	PPBV		10
24)	ETHANOL	5.13	45	187201	36.76	PPBV		9
25)	BROMOETHENE	5.21	106	518306	34.78	PPBV		10
26)	METHYLENE CHLORIDE	5.99	84	398223	34.15	PPBV		9
27)	3-CHLOROPROPENE	6.05	76	211172	39.92	PPBV	#	7
28)	FREON 113	6.13	151	867336	34.79	PPBV		9
29)	TRANS-1,2-DICHLOROETHYLEN	NE 6.61	96	502422	35.68	PPBV		9
30)	TERTIARY BUTYL ALCOHOL	5.99	59	992649	51.60	PPBV	#	-
31)	METHYL TERTIARY BUTYL ETH	HE 6.79	73	1249339	40.94	PPBV		9
32)	TETRAHYDROFURAN	8.02	72	230588	46.13	PPBV		9
33)	HEXANE	7.51	57	730794	32.65	PPBV		10
34)	VINYL ACETATE	6.89	86	106718	46.77	PPBV	#	-
35)	1,1-DICHLOROETHANE	6.78	63	827571	36.43	PPBV		9
36)	METHYL ETHYL KETONE	7.09	72	230281	49.82	PPBV		(
37)	cis-1,2-DICHLOROETHYLENE	7.46	96	497779	37.82	PPBV		10
38)	DIISOPROPYL ETHER	7.53	45	1484947	41.37	PPBV		- 0
39)	ETHYL ACETATE	7.62	61	158078	48.83	PPRV	#	,
40)	CHLOROFORM	7.69	83	923495	36.02	PPBV	. "	
41)	2.4-DIMETHYLPENTANE	8.23	57	881845	34.52	PPRV		Ć
42)	1.1.1-TRICHLOROETHANE	8.49	97	918985	36.38	PPRV		Ć
/	_,_,_	0.17			55.50	v		_

(#) = qualifier out of range (m) = manual integration

3W20784.D M3W821.M Wed Feb 16 16:13:39 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20784.D Vial: 2 Acq On : 16 Feb 2011 1:44 am Operator: yunxiac Inst : MS3W Sample : IC821-40 Misc : MS7827,V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 14:24:19 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 14:24:16 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.29	62	546266	43.69 PPBV	99
	BENZENE	8.91	78	1387250	36.62 PPBV	100
47)	CYCLOHEXANE	9.08	56	764913	31.49 PPBV	98
48)	2,3-DIMETHYLPENTANE	9.26	71	333805	34.96 PPBV	91
49)	TRICHLOROETHYLENE	9.84	95	607379	32.68 PPBV	98
50)	1,2-DICHLOROPROPANE	9.61	63	539393	38.72 PPBV	99
51)	BROMODICHLOROMETHANE	9.83	83	971876	37.13 PPBV	99
52)	2,2,4-TRIMETHYLPENTANE	9.77	57	2205650	34.04 PPBV	100
53)	1,4-DIOXANE	9.92	88	335943	50.82 PPBV	99
54)	HEPTANE	10.03	43	848743	32.17 PPBV	97
56)	METHYL METHACRYLATE	10.06	69	487290	48.91 PPBV	# 96
57)	METHYL ISOBUTYL KETONE	10.69		425596	50.08 PPBV	98
58)	cis-1,3-DICHLOROPROPENE	10.67	75	798542	44.58 PPBV	99
59)	TOLUENE	11.59		953546	39.22 PPBV	97
	trans-1,3-DICHLOROPROPENE	11.18	75	659632	49.98 PPBV	99
61)	1,1,2-TRICHLOROETHANE	11.34		478064	43.13 PPBV	99
	2-HEXANONE	11.88	58	541128	48.26 PPBV	
	TETRACHLOROETHYLENE	12.71	164	693301	31.18 PPBV	99
	DIBROMOCHLOROMETHANE	12.04		1015998	37.22 PPBV	
	1,2-DIBROMOETHANE	12.25	107	826330	40.85 PPBV	
,	OCTANE	12.50	43	1075129	30.66 PPBV	
	1,1,1,2-TETRACHLOROETHANE	13.42	131	714970	37.91 PPBV	
	CHLOROBENZENE	13.44		1146978	36.12 PPBV	
	ETHYLBENZENE	13.81		1826184	36.88 PPBV	98
	m,p-XYLENE	14.00		1417001	76.76 PPBV	
	O-XYLENE	14.51		676665	38.99 PPBV	96
,	STYRENE	14.41			49.28 PPBV	99
	NONANE	14.68	43	949468	32.86 PPBV	98
	BROMOFORM	14.12		921492	38.70 PPBV	98
	1,1,2,2-TETRACHLOROETHANE	14.54	83	856626	46.74 PPBV	99
	1,2,3-TRICHLOROPROPANE	14.67		662105	46.58 PPBV	99
	ISOPROPYLBENZENE	15.15			39.25 PPBV	98 99
	2-CHLOROTOLUENE	15.71		444929	40.88 PPBV	
,	n-PROPYLBENZENE	15.74		478368	43.04 PPBV	98 98
,	4-ETHYLTOLUENE	15.91	105	1556898	43.26 PPBV	98 97
	1,3,5-TRIMETHYLBENZENE tert-BUTYLBENZENE	16.01 16.49	105 134	1241002 317550	40.68 PPBV 41.76 PPBV	96
	1,2,4-TRIMETHYLBENZENE	16.50		1143774	43.93 PPBV	
,	m-DICHLOROBENZENE	16.70		759648	45.64 PPBV	
,	BENZYL CHLORIDE	16.70		839647	48.07 PPBV	99
	p-DICHLOROBENZENE	16.78		711240	43.62 PPBV	
	sec-BUTYLBENZENE	16.82			46.36 PPBV	
,	p-ISOPROPYLTOLUENE	17.01			50.42 PPBV	
	o-DICHLOROBENZENE	17.01			48.79 PPBV	99
,	n-BUTYLBENZENE	17.52		301261	49.65 PPBV	93
	HEXACHLOROBUTADIENE	19.78	225		45.43 PPBV	99
	1,2,4-TRICHLOROBENZENE	19.23	180	145703	43.47 PPBV	99
/	, ,		_ 0 0			

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20784.D M3W821.M Wed Feb 16 16:13:39 2011 MS3W

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Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W20784.D

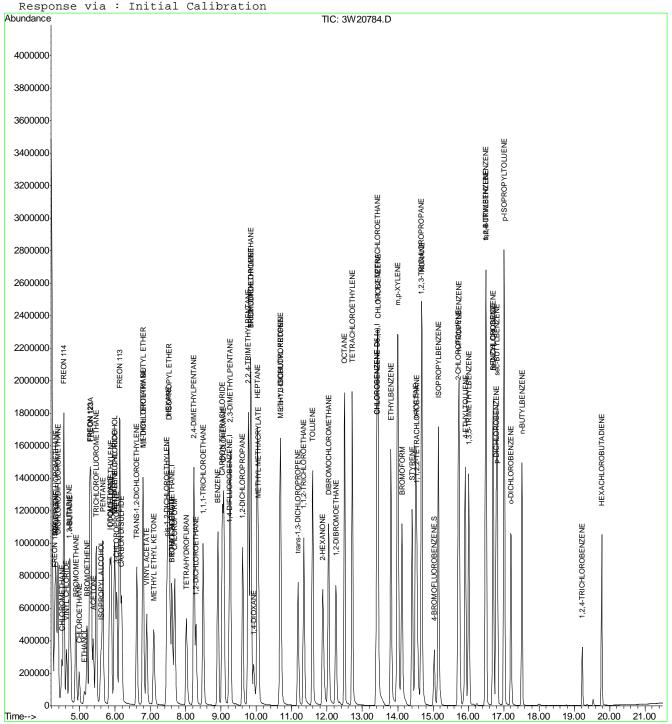
Operator: yunxiac : 16 Feb 2011 1:44 am Acq On : IC821-40 : MS3W Sample Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 15:24 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011



3W20784.D M3W821.M

Wed Feb 16 16:13:39 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\3W20785.D Vial: 7

MS Integration Params: rteint.p

Quant Time: Feb 16 13:43:08 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 13:42:59 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	7.57 128 9.20 114 13.38 82 13.38 82	595241 263185	10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 95 Range 65 - 12		5.70 PPBV 0.00 ery = 114.00%
Target Compounds 96) NAPHTHALENE	19.36 128	6889	Qvalue 0.45 PPBV 96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20785.D M3W821.M Wed Feb 16 16:18:47 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20785.D Vial: 7

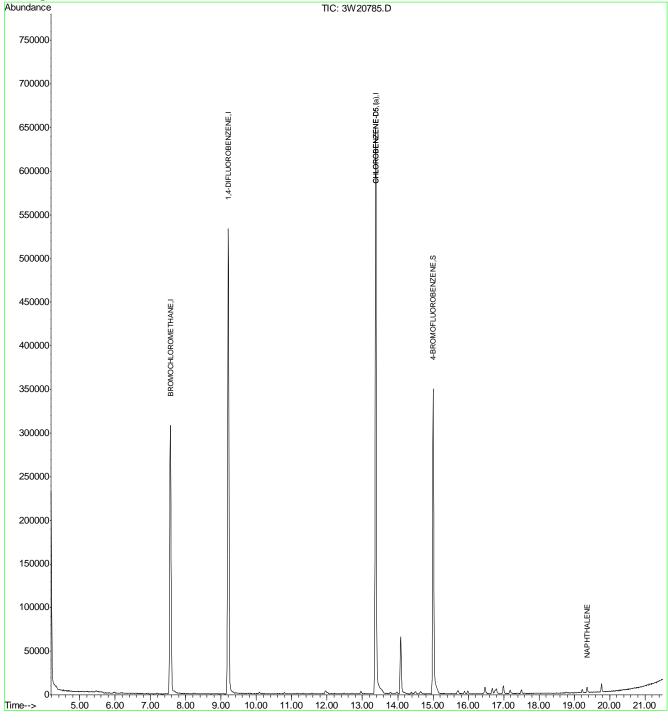
Acq On : 16 Feb 2011 2:23 am Operator: yunxiac Sample : NAP-0.5 Inst : MS3W Misc : MS7827,V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 15:20 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration



3W20785.D M3W821.M

Wed Feb 16 16:18:47 2011



Data File : C:\MSDCHEM\1\DATA\3W20786.D Vial: 7 Acq On : 16 Feb 2011 3:02 am Operator: yunxiac Inst : MS3W Sample : NAP-0.2 Misc : MS7827, V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 13:43:44 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 13:42:59 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	7.56 128 9.20 114 13.37 82 13.37 82	131208 639973 275674 275976	10.00 PPBV -0.01 10.00 PPBV -0.01 10.00 PPBV 0.00 10.00 PPBV 0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 95 Range 65 - 12	159836 8 Recove	5.45 PPBV 0.00 ry = 109.00%
Target Compounds 96) NAPHTHALENE	19.36 128	2239	Qvalue 0.14 PPBV 98

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<sup>3</sup>W20786.D M3W821.M Wed Feb 16 16:18:48 2011 MS3W

Data File : C:\MSDCHEM\1\DATA\3W20786.D Vial: 7

 Acq On
 : 16 Feb 2011 3:02 am
 Operator: yunxiac

 Sample
 : NAP-0.2
 Inst : MS3W

 Misc
 : MS7827,V3W821,,,,,1
 Multiplr: 1.00

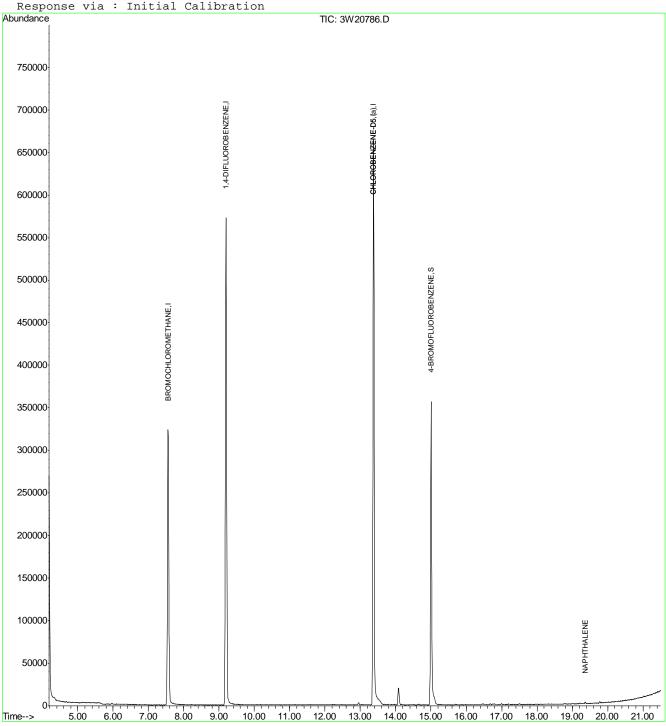
MS Integration Params: rteint.p

Quant Time: Feb 16 15:21 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration



3W20786.D M3W821.M

Wed Feb 16 16:18:48 2011



Data File : C:\MSDCHEM\1\DATA\3W20787.D Vial: 6

MS Integration Params: rteint.p

Quant Time: Feb 16 13:44:00 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 13:42:59 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc U	nits	Dev(Min)
1) BROMOCHLOROMETHANE	7.56	128	127920	10.00	PPBV	0.00
45) 1,4-DIFLUOROBENZENE	9.20	114	639792	10.00	PPBV	-0.01
62) CHLOROBENZENE-D5	13.37	82	279986	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	279986	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.00	95	174767	5.87	PPBV	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	117.	40%
Target Compounds						Qvalue
96) NAPHTHALENE	19.36	128	501724	30.82	PPBV	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20787.D M3W821.M Wed Feb  $16 \cdot 16:18:48 \cdot 2011$  MS3W

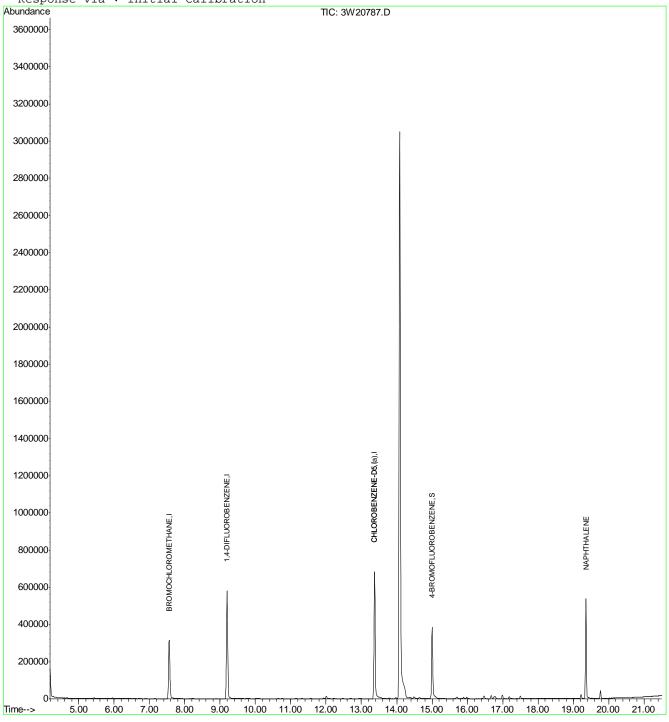


Data File : C:\MSDCHEM\1\DATA\3W20787.D Vial: 6

MS Integration Params: rteint.p

Quant Time: Feb 16 15:22 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration



3W20787.D M3W821.M

Wed Feb 16 16:18:49 2011



Data File : C:\MSDCHEM\1\DATA\3W20788.D Vial: 6

Acq On : 16 Feb 2011 5:06 am Operator: yunxiac Inst : MS3W Sample : NAP-40 Misc : MS7827, V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 13:44:16 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 13:42:59 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T.	QIon	Response	Conc U	nits	Dev(Min)
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	7.56 9.20 13.37 13.37	128 114 82 82	120070 595950 272405 273150	10.00 10.00 10.00 10.00	PPBV PPBV	-0.01
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	15.00 Range 65	95 - 128	168444 Recove	5.82 ery =	PPBV	
Target Compounds 96) NAPHTHALENE	19.36	128	823348	51.85	PPBV	Qvalue 96

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20788.D M3W821.M Wed Feb 16 16:18:49 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20788.D Vial: 6

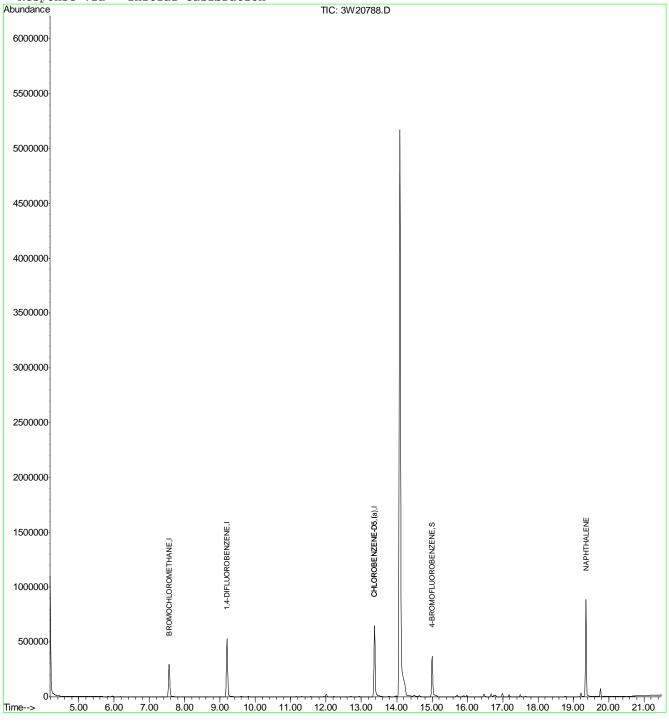
: 16 Feb 2011 5:06 am Operator: yunxiac Acq On Sample : NAP-40 : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 15:22 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration



3W20788.D M3W821.M

Wed Feb 16 16:18:50 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 16 12:46:13 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:46:10 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Units I	ev(Min)
1) BROMOCHLOROMETHANE	7.55	128	122105	10.00 PPBV	-0.02
45) 1,4-DIFLUOROBENZENE	9.19	114	585920	10.00 PPBV	-0.02
62) CHLOROBENZENE-D5	13.37	82	212921	10.00 PPBV	-0.01
95) CHLOROBENZENE-D5 (a)	13.37	82	213525	10.00 PPBV 10.00 PPBV 10.00 PPBV 10.00 PPBV	-0.01
System Monitoring Compounds					
76) 4-BROMOFLUOROBENZENE	15.00	95	99327	4.09 PPBV	-0.01
Spiked Amount 5.000 R	ange 65	- 128	Recove	ery = 81.8	30%
Target Compounds					Qvalue
3) FREON 152A	4.28	65	3082	0.35 PPBV	94
4) CHLORODIFLUOROMETHANE	4.31	67	1002	0.31 PPBV	75
5) DICHLORODIFLUOROMETHANE	4.37	85	7946	0.35 PPBV 0.31 PPBV 0.24 PPBV 0.27 PPBV 0.23 PPBV 0.27 PPBV 0.23 PPBV 0.24 PPBV 0.24 PPBV 0.18 PPBV 0.18 PPBV 0.18 PPBV 0.19 PPBV 0.19 PPBV 0.21 PPBV 0.21 PPBV 0.21 PPBV 0.21 PPBV 0.22 PPBV 0.21 PPBV 0.24 PPBV 0.28 PPBV 0.28 PPBV	98
6) PROPYLENE	4.32	41	4391	0.37 PPBV	96
7) FREON 114	4.53	85	9057	0.23 PPBV	97
8) CHLOROMETHANE 9) VINYL CHLORIDE	4.48	50	3850	0.27 PPBV	95
9) VINYL CHLORIDE	4.61	62	3264	0.23 PPBV	97
10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A	4.68	54	2435	0.23 PPBV	# 84
11) n-BUTANE	4.71	43	5339	0.24 PPBV	94
12) BROMOMETHANE	4.87	94	3145	0.22 PPBV	99
13) CHLOROETHANE	4.96	64	1253	0.18 PPBV	90
14) FREON 123	5.26	83	5294	0.18 PPBV	97
15) FREON 123A	5.29	117	3032	0.18 PPBV	88
16) TRICHLOROFLUOROMETHANE	5.44	101	7015	0.21 PPBV	94
17) ISOPROPYL ALCOHOL	5.61	45	3487	0.17 PPBV	# 1
18) ACETONE	5.41	58	954	0.19 PPBV	# 85
19) PENTANE	5.62	42	3835	0.24 PPBV	97
21) IODOMETHANE	5.82	142	7633	0.19 PPBV	99
22) 1,1-DICHLOROETHYLENE	5.86	96	2926	0.21 PPBV	98
23) CARBON DISULFIDE	6.16	76	9693	0.24 PPBV	98
24) ETHANOL	5.14	45	1378	0.28 PPBV	91
25) BROMOETHENE	5.19	106	3007	0.20 PPBV	96
26) METHYLENE CHLORIDE	5.96	84	2592	0.23 PPBV	99
27) 3-CHLOROPROPENE	6.02	76	933	0.17 PPBV	# 68
28) FREON 113	6.10	151	4476	0.24 PPBV 0.28 PPBV 0.20 PPBV 0.23 PPBV 0.17 PPBV 0.18 PPBV	97
29) TRANS-1,2-DICHLOROETHYLEN	E 6.58	96	2319	0.17 PPBV	94
27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLEN 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETH 32) TETRAHYDROFURAN 33) HEYANE	6.03	59	3039	0.16 PPBV	# 74
31) METHYL TERTIARY BUTYL ETH	E 6.83	73	4678	0.15 PPBV	# 68
32) TETRAHYDROFURAN	8.09	72	626	0.12 PPBV	# 67
33) HEXANE	7.47	57	4292	0.20 PPBV	88
34) VINYL ACETATE	6.87	86	244	0.10 PPBV	# 37
35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE	6.74	63	3818	0.17 PPBV	78
36) METHYL ETHYL KETONE	7.12	72	566	0.11 PPBV	# 84
	7.44	96	2262	0.18 PPBV	96
38) DIISOPROPYL ETHER	7.54	45	5690	0.15 PPBV	97
39) EIRIL ACEIAIE	7.62	61	402	0.12 PPBV	# 96
40) CHLOROFORM	7.63	83	4415	0.18 PPBV	96
41) 2,4-DIMETHYLPENTANE	8.21	57	4487	0.18 PPBV	98
42) 1,1,1-TRICHLOROETHANE	8.46	97	4480	0.18 PPBV	98
41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE	9.00	117	4876	0.12 PPBV 0.20 PPBV 0.10 PPBV 0.17 PPBV 0.11 PPBV 0.18 PPBV 0.15 PPBV 0.12 PPBV 0.18 PPBV 0.18 PPBV 0.18 PPBV 0.18 PPBV 0.18 PPBV	97

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3W20789.D M3W821.M Wed Feb 16 16:13:40 2011 MS3W

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ACCUTEST
JA68565
LABORATORIES

<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W20789.D Vial: 1

Acq On : 16 Feb 2011 7:02 am Operator: yunxiac Sample : IC821-0.2 Inst : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:46:13 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:46:10 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qva	lue
44)	1,2-DICHLOROETHANE	8.25	62	2212	0.16 PPBV		94
,	BENZENE	8.88		6186	0.18 PPBV		96
,	CYCLOHEXANE	9.05		4536	0.21 PPBV		96
	2,3-DIMETHYLPENTANE	9.22		1563	0.17 PPBV		1
	TRICHLOROETHYLENE	9.81	95	5207	0.34 PPBV		98
50)	1,2-DICHLOROPROPANE	9.58	63	2182	0.17 PPBV		97
	BROMODICHLOROMETHANE	9.79	83	4299	0.18 PPBV		96
52)	2,2,4-TRIMETHYLPENTANE	9.74	57	11074	0.19 PPBV		99
53)	1,4-DIOXANE	10.03	88	713	0.11 PPBV	#	39
54)	HEPTANE	9.99	43	4834	0.21 PPBV		94
56)	METHYL METHACRYLATE	10.04	69	1329	0.13 PPBV	#	52
57)	METHYL ISOBUTYL KETONE	10.72		933	0.11 PPBV	#	75
58)	cis-1,3-DICHLOROPROPENE	10.65	75	2474	0.14 PPBV		93
59)	TOLUENE	11.56	92	3914	0.17 PPBV		96
60)	trans-1,3-DICHLOROPROPENE	11.14		1696	0.12 PPBV		87
61)	1,1,2-TRICHLOROETHANE	11.30	83	1568	0.14 PPBV		97
63)	2-HEXANONE	11.91	58	977	0.12 PPBV	#	83
64)	TETRACHLOROETHYLENE	12.69	164	3240	0.24 PPBV		98
	DIBROMOCHLOROMETHANE	12.00	129	3284	0.18 PPBV		99
	1,2-DIBROMOETHANE	12.22		2245	0.16 PPBV		93
	OCTANE	12.47		5100	0.23 PPBV		97
	1,1,1,2-TETRACHLOROETHANE	13.40		2310	0.18 PPBV		93
	CHLOROBENZENE	13.41		3948	0.19 PPBV		92
	ETHYLBENZENE	13.78		5966	0.18 PPBV		98
,	m,p-XYLENE	13.97		4470	0.35 PPBV		97
	O-XYLENE	14.48		2027	0.17 PPBV		88
	STYRENE	14.37		1981	0.12 PPBV		96
	NONANE	14.66		3516	0.19 PPBV		98
	BROMOFORM	14.08		4681	0.30 PPBV		98
77)	1,1,2,2-TETRACHLOROETHANE	14.50		1718	0.12 PPBV		90
	1,2,3-TRICHLOROPROPANE	14.62		1576	0.14 PPBV		95
	ISOPROPYLBENZENE	15.12		5523	0.17 PPBV		98
	2-CHLOROTOLUENE	15.68		1247	0.16 PPBV		97
,	n-PROPYLBENZENE	15.71		1238	0.15 PPBV 0.15 PPBV		95
,	4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE	15.88 15.98		3928 3449	0.15 PPBV 0.16 PPBV		98 99
,	tert-BUTYLBENZENE	16.47		798	0.16 PPBV 0.15 PPBV		99
,	1,2,4-TRIMETHYLBENZENE	16.47		2951	0.15 PPBV 0.15 PPBV		96
	m-DICHLOROBENZENE	16.47		1704	0.13 PPBV 0.14 PPBV		99
,	BENZYL CHLORIDE	16.67		1693	0.14 PPBV 0.13 PPBV		92
	p-DICHLOROBENZENE	16.76		1735	0.15 PPBV 0.15 PPBV		95
	sec-BUTYLBENZENE	16.79		831	0.13 PPBV 0.14 PPBV		97
	p-ISOPROPYLTOLUENE	16.98		780	0.14 PPBV 0.13 PPBV		89
,	o-DICHLOROBENZENE	17.18		1266	0.13 PPBV 0.12 PPBV		90
	n-BUTYLBENZENE	17.10		585	0.12 PPBV 0.13 PPBV		92
	HEXACHLOROBUTADIENE	19.77		457	0.13 FFBV 0.12 PPBV		83
	1,2,4-TRICHLOROBENZENE	19.22	180	390	0.12 11BV 0.17 PPBV		81
/	_,_,_		_00	2,7 3	0.1. 11DV	"	V =

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20789.D M3W821.M Wed Feb 16 16:13:40 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20789.D Vial: 1

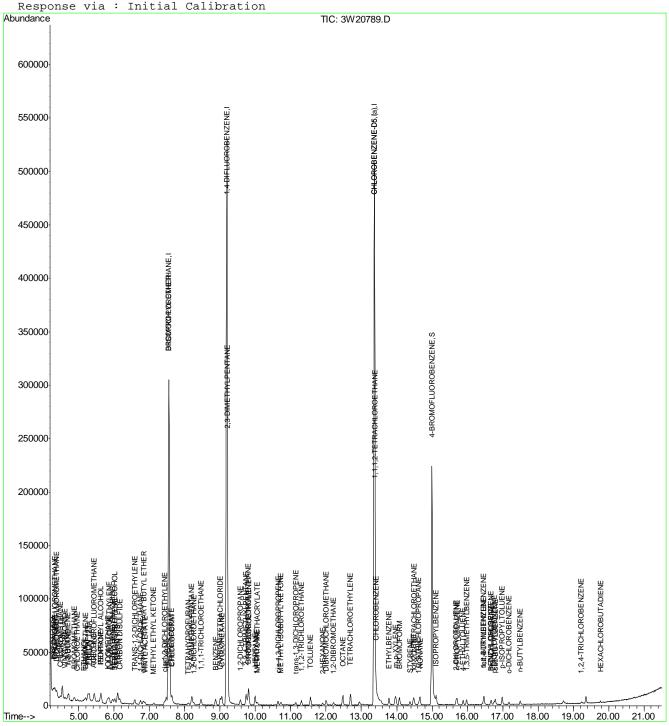
Acq On : 16 Feb 2011 7:02 am Operator: yunxiac Sample : IC821-0.2 Inst : MS3W Misc : MS7827,V3W821,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:46 2011 Quant Results File: M3W821.RES

Last Update : Wed Feb 16 15:27:22 2011

Response via : Initial Calibration



3W20789.D M3W821.M

Wed Feb 16 16:13:41 2011



MS Integration Params: rteint.p

Quant Time: Feb 16 12:42:56 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:39:01 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards			Response			
1) BROMOCHLOROMETHANE	7.56	128	157191 795574 353147 355522	10.00	PPBV	-0.01
45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5	9.19	114	795574	10.00	PPBV	-0.02
62) CHLOROBENZENE-D5	13.37	82	353147	10.00	PPBV	0.00
95) CHLOROBENZENE-D5 (a)	13.37	82	355522	10.00	PPBV	0.00
System Monitoring Compounds						
76) 4-BROMOFLUOROBENZENE	15.00	95	214945	5.00	PPBV	0.00
76) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Ran	.ge 65	- 128	Recove	ry =	100.	00%
Target Compounds						Qvalue
3) FREON 152A	4.28	65	53391	5.24	PPBV	. ~ 99
4) CHLORODIFLUOROMETHANE	4.31	67	19928	4.78	PPBV	94
5) DICHLORODIFLUOROMETHANE	4.37	85	19928 213185	4.87	PPBV	100
6) PROPYLENE	4.32	41	73086	4.90	PPBV	99
7) FREON 114	4.53	85	249004	4.82	PPBV	99
8) CHLOROMETHANE	4.48	50	96938	5.76	PPBV	90
9) VINYL CHLORIDE	4.60	62	88531	4.76	PPBV	100
10) 1.3-BUTADIENE	4.69	54	65331	4.71	PPBV	99
11) n-BUTANE	4.71	43	138690	4.81	PPBV	100
12) BROMOMETHANE	4.87	94	87218	4.74	PPBV	100
13) CHLOROETHANE	4.96	64	42829	5.06	PPBV	. 99
14) FREON 123	5.26	8.3	161365	4.50	PPBV	. 99
15) FREON 123A	5.30	117	93232	4.43	PPBV	. 97
16) TRICHLOROFLUOROMETHANE	5.44	101	207555	4.66	PPBV	. 99
17) TSOPROPYL ALCOHOL	5.54	45	108416	3.86	PPBV	97
18) ACETONE	5.37	58	24925	3.74	PPBV	. 90
19) DENTANE	5 63	42	92280	4 65	PPRV	. 100
21) IODOMETHANE	5 82	142	250931	4 86	PPRV	100
22) 1 1-DICHLOROETHYLENE	5 86	96	82856	4 69	PPRV	. 98
23) CARBON DISHLETDE	6 16	76	251333	4 81	PPRV	. 98
24) ETHANOI.	5 09	45	24707	4 04	DDRV	. 90
25) RDOMOFTHENE	5 10	106	89260	4 69	DDBW	. 100
26) METHYLENE CHLORIDE	5 96	84	61500	4.07	DDBW	. 98
27) 3-CHIOROPROPENE	6 02	76	28536	4 37	DDRV	. 98
28) FPFON 113	6 11	151	150434	4 69	DDBW	. 90
20) TREON 113	6 59	96	85060	5 10	DDBW	. 90
20) TRANS 1,2 DICHEOROEIHILENE	5 0/	50	126080	3 9/	מסממ	. 95
21) METHYL TEPTIARY RITYL ETHE	6 78	73	147974	3.94	DDBW	. 90
22) TETHE IERITARI BOILL EIHE	Ω 01	73	26203	3.09	DDDW	. 100
22) UEVAND	7 / 0	7 Z	107157	1 50	DDDW	. 06
24) VINVI ACETATE	6 06	06	11502	2 65	DDDM	. 00
25) 1 1_DTCUTODOFTUNNE	6 75	63	116442	1 11	PPDV	. 100
26) METUVI ETUVI VETONE	7 07	72	710447	2 72	DDDM	
27) ata 1 2 DICUI ODORTUST ENTE	7.07	06	4300 <del>4</del>	3.12	PPD	. 00
20) DIICODDODVI ETHED	7.43	90 15	100404	2 70	PPD	. 100
Target Compounds 3) FREON 152A 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLENE 38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE	7.51	45 61	16071	3.70	LLR.	
AO) CHIODOEODM	7.58	οs ρΤ	122022	3.05 1 27	LLRA.	. 99
41) 2 4 DIMERLINI DENGANE	7.04	03 E7	132UZZ	4.3/	LLR.	. 99
41) 2,4-DIMETHYLPENTANE	0.40	5 / 0.7	149595	5.UI	LLBA.	. 100
42) I,I,I-TKICHLUKUETHANE	0.46	9 / 1 1 ワ	129/6U	4.40	LLR.	T00
43) CARBON TETRACHLORIDE	9.01	ΤΤ./	1/4/11	5.11	₽₽B/	99

3W20790.D M3W821.M Wed Feb 16 16:13:42 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: Feb 16 12:42:56 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:39:01 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.25		67478	4.03 PPBV	100
46)	BENZENE	8.88	78	173355	4.09 PPBV	100
47)	CYCLOHEXANE	9.05		132994	4.67 PPBV	
48)	2,3-DIMETHYLPENTANE	9.23	71	51659	4.82 PPBV 4.48 PPBV	97
49)	TRICHLOROETHYLENE	9.81	95	85931	4.48 PPBV	99
50)	1,2-DICHLOROPROPANE	9.57	63	61974	3.84 PPBV 4.28 PPBV	98
51)	BROMODICHLOROMETHANE	9.79	83			99
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	324576	4.49 PPBV	100
53)	1,4-DIOXANE	9.92		35181	3.72 PPBV	
,	HEPTANE	9.99	43	128640	4.55 PPBV	
	METHYL METHACRYLATE	10.03	69	50585	3.72 PPBV	
,	METHYL ISOBUTYL KETONE	10.66	58	39513	3.65 PPBV	
,	cis-1,3-DICHLOROPROPENE	10.64	75	91141	3.92 PPBV	
	TOLUENE	11.56	92	110421 69425	3.83 PPBV	
		11.14	75	69425	3.73 PPBV	
,	1,1,2-TRICHLOROETHANE	11.30	83	55705	3.87 PPBV	
,	2-HEXANONE		58		3.67 PPBV	
,	TETRACHLOROETHYLENE	12.70		93560		
,	DIBROMOCHLOROMETHANE	12.01			4.06 PPBV	
,	1,2-DIBROMOETHANE	12.22		89922		
,	OCTANE	12.48				
	1,1,1,2-TETRACHLOROETHANE			79019		
,	CHLOROBENZENE	13.41		131453	3.97 PPBV	
	ETHYLBENZENE		91			
,	m,p-XYLENE	13.97	106	158422 78022	7.70 PPBV	
,	O-XYLENE	14.48				
,	STYRENE NONANE	14.37 14.66		99806 122446	3.71 PPBV 4.03 PPBV	
	BROMOFORM		173			
				93971		
701	1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE	14.50	75	72224		
	ISOPROPYLBENZENE	15.12	105	218293	3.85 PPBV	
,	2-CHLOROTOLUENE	15.69				
	n-PROPYLBENZENE	15.71		53362		
	4-ETHYLTOLUENE	15.88		175570	3.77 PPBV	
,	1,3,5-TRIMETHYLBENZENE	15.98		147626		
,	tert-BUTYLBENZENE	16.46			3.74 PPBV	
	1,2,4-TRIMETHYLBENZENE			132319		
	m-DICHLOROBENZENE	16.67		82029	3.85 PPBV	
,	BENZYL CHLORIDE	16.67		76717		
,	p-DICHLOROBENZENE	16.76			3.85 PPBV	
	sec-BUTYLBENZENE	16.80		39889	3.79 PPBV	99
90)	p-ISOPROPYLTOLUENE	16.98	134	38162	3.82 PPBV	
91)	o-DICHLOROBENZENE	17.18	146	68335	3.80 PPBV	99
,	n-BUTYLBENZENE	17.50	134	26522		
	HEXACHLOROBUTADIENE	19.77	225	26522 29669	4.05 PPBV	99
94)	1,2,4-TRICHLOROBENZENE	19.22		18190	3.63 PPBV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20790.D M3W821.M Wed Feb 16 16:13:42 2011 MS3W



Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W20790.D

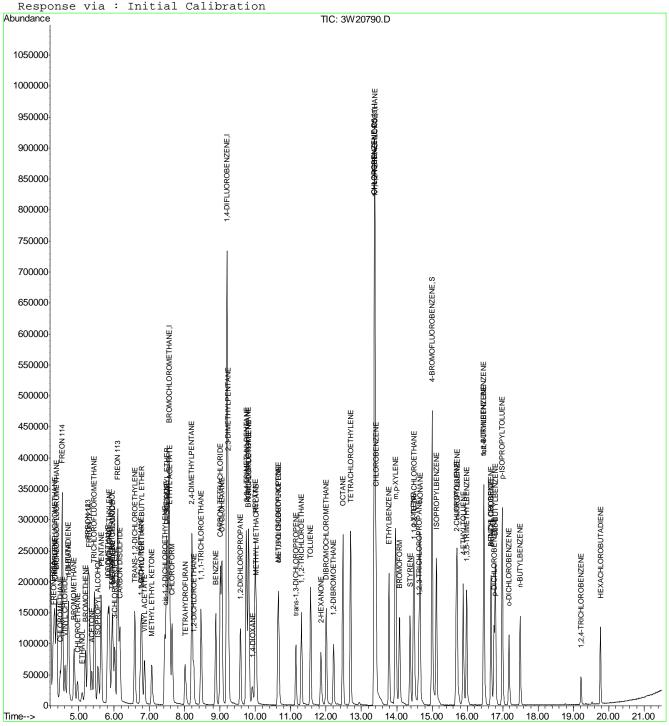
: 16 Feb 2011 10:32 am Operator: yunxiac Acq On Sample : IC821-5 : MS3W Misc : MS7827, V3W821, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:43 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011



3W20790.D M3W821.M

Wed Feb 16 16:13:43 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 16 12:38:17 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:38:13 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Units I	Dev(Min)
1) BROMOCHLOROMETHANE	7 57	128	 121224	10 00 pprv	0 00
1) BROMOCHLOROMETHANE 45) 1,4-DIFLUOROBENZENE 62) CHLOROBENZENE-D5 95) CHLOROBENZENE-D5 (a)	9 21	114	620189	10.00 FFBV	0.00
62) CHLOROBENZENE-D5	13 38	82	283614	10.00 TIBV	0.00
95) CHLOROBENZENE-D5 (a)	13.38	82	283614	10.00 PPBV	0.00
Jo, engeneganizate zo (a,	13.30	02	200011	10.00 1120	0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE					
76) 4-BROMOFLUOROBENZENE	15.01	95	172606	5.00 PPBV	0.00
Spiked Amount 5.000 Ra	ange 65	- 128	Recove	ery = 100.0	0%
Target Compounds 3) FREON 152A 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) FREON 123 15) FREON 123A 16) TRICHLOROFLUOROMETHANE 17) ISOPROPYL ALCOHOL 18) ACETONE 19) PENTANE 21) IODOMETHANE 22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE 34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE 37) cis-1,2-DICHLOROETHYLENE 38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE					Qvalue
3) FREON 152A	4.28	65	78591	10.00 PPBV	100
4) CHLORODIFLUOROMETHANE	4.31	67	32129	10.07 PPBV	100
5) DICHLORODIFLUOROMETHANE	4.37	85	337341	10.00 PPBV	100
6) PROPYLENE	4.33	41	115102	10.00 PPBV	100
7) FREON 114	4.54	85	398166	10.03 PPBV	100
8) CHLOROMETHANE	4.48	50	129749	10.00 PPBV	100
9) VINYL CHLORIDE	4.62	62	143390	9.97 PPBV	100
10) 1,3-BUTADIENE	4.70	54	107028	10.00 PPBV	100
11) n-BUTANE	4.72	43	222464	10.00 PPBV	100
12) BROMOMETHANE	4.88	94	141878	10.00 PPBV	100
13) CHLOROETHANE	4.97	64	65308	10.00 PPBV	100
14) FREON 123	5.27	83	276509	10.00 PPBV	100
15) FREON 123A	5.31	117	162202	10.00 PPBV	100
16) TRICHLOROFLUOROMETHANE	5.45	101	343712	10.01 PPBV	100
17) ISOPROPYL ALCOHOL	5.56	45	216667	10.04 PPBV	100
18) ACETONE	5.37	58	51328	10.00 PPBV	100
19) PENTANE	5.64	42	152917	10.00 PPBV	100
21) IODOMETHANE	5.83	142	397928	10.00 PPBV	100
22) 1,1-DICHLOROETHYLENE	5.88	96	136191	10.00 PPBV	100
23) CARBON DISULFIDE	6.17	76	402806	10.00 PPBV	100
24) ETHANOL	5.11	45	47219	10.00 PPBV	100
25) BROMOETHENE	5.20	106	146749	10.00 PPBV	100
26) METHYLENE CHLORIDE	5.97	84	99353	10.00 PPBV	100
27) 3-CHLOROPROPENE	6.03	76	50332	10.00 PPBV	100
28) FREON 113	6.11	151	247169	10.00 PPBV	100
29) TRANS-1, 2-DICHLOROETHYLENI	6.59	96	126362	10.00 PPBV	100
30) TERTIARY BUTYL ALCOHOL	5.96	59	248732	10.00 PPBV	100
31) METHYL TERTLARY BUTYL ETHI	0.79	7.3	308845	10.00 PPBV	100
32) TETRAHIDROFURAN	8.01	/ 2	212522	10.00 PPBV	100
33) HEXANE	7.49	5 /	213522	10.00 PPBV	100
34) VINIL ACETATE	6.87	60 62	24290	10.00 PPBV	100
26) METHYL ETHYL KETONE	7 07	72	ZUZI39 E2E07	10.00 PPBV	100
27) ais 1 2 DICHIODOFTUVIENE	7.07	06	120557	10.00 PPBV	100
28) DIICODDODVI ETUED	7.43	15	376929	10.00 PFBV	100
30) ETHVI ACETATE	7.51	61	370029	10.00 PPBV	100
40) CHLOROFORM	7.59	83	233046	10.00 FFBV	100
41) 2.4-DIMETHYLDENTANE	8 21	57	230054	10.00 IFBV	100
42) 1.1.1-TRICHLOROETHANE	8.47	97	227683	10.00 PPRV	100
43) CARBON TETRACHLORIDE	9.02	117	263728	10.00 PPRV	100

744 of 840
ACCUTEST.

JA68565

<sup>(#) =</sup> qualifier out of range (m) = manual integration 3W20791.D M3W821.M Wed Feb 16 16:13:44 2011 MS3W

MS Integration Params: rteint.p

Quant Time: Feb 16 12:38:17 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 12:38:13 2011 Response via : Initial Calibration

Response via · Initiai cai

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	1,2-DICHLOROETHANE	8.27	 62	129227	10.00 PPBV	100
46)	BENZENE	8.89	78	330098	10.00 PPBV	100
47)	CYCLOHEXANE	9.06	56	222030	10.00 PPBV	100
48)	2,3-DIMETHYLPENTANE	9.24	71	83580 149397	10.00 PPBV	100
49)	TRICHLOROETHYLENE	9.82	95	149397	10.00 PPBV	100
50)	1,2-DICHLOROPROPANE	9.59	63	125669	10.00 PPBV	
51)	BROMODICHLOROMETHANE	9.81	83	237761	9.98 PPBV	
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	125669 237761 563884 73780	10.00 PPBV	100
,	1,4-DIOXANE	9.91	88	73780	10.00 PPBV	
	HEPTANE	10.01	43	220346 105984	10.00 PPBV	
	METHYL METHACRYLATE	10.04		105984	10.00 PPBV	
	METHYL ISOBUTYL KETONE	10.67		84330	10.00 PPBV	
,	cis-1,3-DICHLOROPROPENE	10.65		84330 181034 224973 145195	10.00 PPBV	
,	TOLUENE	11.57		224973	9.99 PPBV	
	trans-1,3-DICHLOROPROPENE	11.16		145195	10.00 PPBV	
,	1,1,2-TRICHLOROETHANE	11.32		112345	10.00 PPBV	
	2-HEXANONE	11.86		102431	10.00 PPBV	
,	TETRACHLOROETHYLENE	12.70			10.00 PPBV	
,	DIBROMOCHLOROMETHANE	12.01		232637	10.00 PPBV	
	1,2-DIBROMOETHANE	12.22		184018 273928	10.00 PPBV	
	OCTANE	12.48		273928	10.00 PPBV	
	1,1,1,2-TETRACHLOROETHANE			165708	10.00 PPBV	
	CHLOROBENZENE	13.43 13.79		265825		
	ETHYLBENZENE	13.79		439575 330382	20.00 PPBV	
,	m,p-XYLENE o-XYLENE	14.48		159113	10.00 PPBV	
,	STYRENE	14.40		139113	10.00 PPBV 10.00 PPBV	
,	NONANE	14.39		216284 244270	10.00 PPBV 10.00 PPBV	
,	BROMOFORM	14.09		2112/0	10.00 PPBV	
				207242 197891	10.00 PPBV	
78)	1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE	14.51	75	152683	10.00 PPBV	
	ISOPROPYLBENZENE	15.13		152683 455128	10.00 PPBV	
	2-CHLOROTOLUENE	15.70		104444	10.00 PPBV	
	n-PROPYLBENZENE	15.72		111693	10.00 PPBV	
	4-ETHYLTOLUENE	15.89		374486	10.00 PPBV	
	1,3,5-TRIMETHYLBENZENE	15.99		374486 309406	10.00 PPBV	
,	tert-BUTYLBENZENE	16.47		75582	10.00 PPBV	
85)	1,2,4-TRIMETHYLBENZENE	16.48	105	274351	10.00 PPBV	100
86)	m-DICHLOROBENZENE	16.67	146	171121 170390	10.00 PPBV	100
87)	BENZYL CHLORIDE	16.68		170390	10.00 PPBV	100
88)	p-DICHLOROBENZENE	16.77	146	162161	10.00 PPBV	100
89)	sec-BUTYLBENZENE	16.80	134	162161 84574	10.00 PPBV	100
90)	p-ISOPROPYLTOLUENE	16.99	134	80224 144283	10.00 PPBV	100
91)	o-DICHLOROBENZENE	17.19	146	144283	10.00 PPBV	100
92)	n-BUTYLBENZENE	17.50	134	57865 58768	10.00 PPBV	
,	HEXACHLOROBUTADIENE	19.77		58768		
94)	1,2,4-TRICHLOROBENZENE	19.22	180	40294	10.00 PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20791.D M3W821.M Wed Feb 16 16:13:44 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20791.D Vial: 2

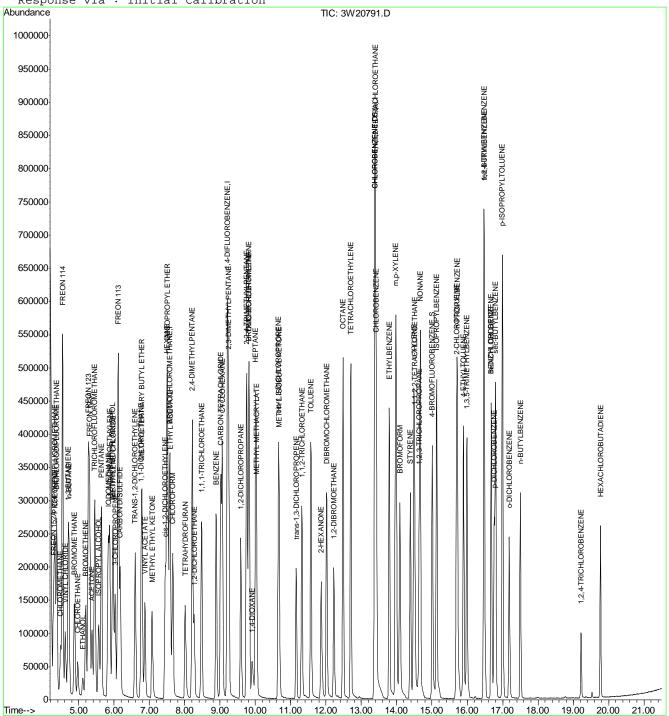
Operator: yunxiac : 16 Feb 2011 11:55 am Acq On : ICC821-10 : MS3W Sample Inst : MS7827, V3W821,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 16 12:38 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 15:27:22 2011 Response via : Initial Calibration



3W20791.D M3W821.M

Wed Feb 16 16:13:44 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 16 16:18:49 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Inte	rnal Standards	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
1)	BROMOCHLOROMETHANE	7.57	128	124915	10.00	PPBV	0.00
45)	1,4-DIFLUOROBENZENE	9.20	114	648488	10.00	PPBV	0.00
	CHLOROBENZENE-D5	13.38	82	299835	10.00	PPBV	0.00
	CHLOROBENZENE-D5 (a)	13.38	82	124915 648488 299835 300630	10.00	PPBV	0.00
Svst	em Monitoring Compounds						
76)	4-BROMOFLUOROBENZENE	15.01	95	182085	5.71	PPBV	0.00
Sp	iked Amount 5.000	Range 65					
Тэга	et Compounds						Ovalue
	FREON 152A	4.28	65	78065	7.71		99
	CHLORODIFLUOROMETHANE						
	DICHLORODIFLUOROMETHANE	4.37	85	32138 342192 114436 395552 129119 144849 107972 223675 143522 66005 276533 160015 339232 209719 50145 149442 404434 137272 400123 46264 146940 99744 50653 249704 129778 242710 300861 53072 210702 24696	9.30	PPRV	100
	PROPYLENE	4 32	41	114436	8 24	PPRV	98
7)	FREON 114	4 53	85	395552	9 31	PPRV	100
8)	FREON 114 CHLOROMETHANE VINYL CHLORIDE	4 48	50	129119	8 26	PPRV	99
9)	VINYL CHLORIDE	4 61	62	144849	9 66	DDRV	100
10)	1 3-RITADIENE	4 69	54	107972	9.00	DDBN	100
11)	n-RIITANE	4.00	43	223675	9 24	DDRV	100
121	1,3-BUTADIENE n-BUTANE BROMOMETHANE	4 87	94	143522	9 48	DDBN	99
13)	CHLOROETHANE	4.07	64	66005	9 12	DDBM	100
1/1	FREON 123	5 27	0.3	276533	2 25	זמממ	100
	FREON 123 FREON 123A	5.27	117	160015	0.00	DDDM	100
16	TO TOUT ODOET HODOMETHAND	5.30	101	100013	0.00	DDDM	99
17)	ISOPROPYL ALCOHOL	5.45	101	202710	10 20	DDDM	99
101	ACETONE	5.30	<u>-</u> 23	501/15	10.29	DDDM	100
10)	DENTAND	5.57	12	1/0//2	2 02	DDDM	100
21)	PENTANE IODOMETHANE	5.01	1/12	101121	0.90	DDDM	99
221	1,1-DICHLOROETHYLENE	5.03	06	127272	9.00	PPDV	99
22)	CARBON DISULFIDE	6 17	76	10/2/2	0.12	DDDM	100
	ETHANOL	0.17 E 11	/ G	400123	9.12	PPDV	100
	BROMOETHENE	5.11	106	146040	9.09	PPDV	100
		5.19	100	140940	9.07	PPBV	100
20)	METHYLENE CHLORIDE 3-CHLOROPROPENE	6.03	76	55/44	0.50	PPDV	100
		6.03	/ O	240704	10 00	PPBV	96
	FREON 113	0.11	121	249704	10.02	PPDM	99
29)	TRANS-1,2-DICHLOROETHYLE	NE 0.59	96	129778	9.23	PPBV	98
30)	TERTIARY BUTYL ALCOHOL	5.95	59	242/10	10.44	PPD74	100
3T)	METHYL TERTIARY BUTYL ET	HE 0./8	7.3	300861	9.87	PPBV	100
	TETRAHYDROFURAN	8.01	/ 2	53072	10.63	PPBV	99
33)	HEXANE VINYL ACETATE	7.49	57 86	210702 24696	9.42	PPBV	99
		6.87	86	24696	10.83	PPB11	# 92
35)	1,1-DICHLOROETHANE	6./6	63	203063	8.95	PPBV	99
36)	METHYL ETHYL KETONE	7.07	72	53144	11.51	PPBV	97
37)	cis-1,2-DICHLOROETHYLENE	7.07 7.45	96	120838	9.19	PPE	100
38)	DIISOPROPYL ETHER	7.51	45	363587	10.14	PPBV	100
39)	ETHYL ACETATE	7.59	61	34862	10.78	PPBV	# 94
40)	CHLOROFORM	7.66	83	231084	9.02	PPBV	100
41)	2,4-DIMETHYLPENTANE	8.21	57	229080	8.98	PPBV	99
42)	I,I,I-TRICHLOROETHANE	8.47	97	227705	9.02	PPBV	99
43)	2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE	9.02	TT./	24696 203063 53144 120838 363587 34862 231084 229080 227705 264029	9.44		100

(#) = qualifier out of range (m) = manual integration

3W20792.D M3W821.M Wed Feb 16 16:19:15 2011 MS3W



MS Integration Params: rteint.p

Quant Time: Feb 16 16:18:49 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Uni	t Qvalue
44)	1,2-DICHLOROETHANE	8.26	62	128969		
46)	BENZENE	8.89	78	330706	8.53 P	PBV 100
47)	CYCLOHEXANE	9.06	56	219088	8.82 P	PBV 98
48)	2,3-DIMETHYLPENTANE	9.24	71	83696	8.57 P	PBV 96
49)	TRICHLOROETHYLENE	9.82	95	146914	7.72 PI	PBV 99
50)	1,2-DICHLOROPROPANE	9.59	63	122714	8.61 P	PBV 99
51)	BROMODICHLOROMETHANE	9.81	83	234765	8.76 P	
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	555590	8.38 P	PBV 100
53)	1,4-DIOXANE	9.90	88	74655	11.04 P	PBV 99
54)	HEPTANE	10.01	43	217607	8.06 P	PBV 100
56)	METHYL METHACRYLATE	10.03	69	107060	10.50 PI	PBV # 99
57)	METHYL ISOBUTYL KETONE	10.66	58	84450	9.71 P	
,	cis-1,3-DICHLOROPROPENE	10.65	75	181963	9.93 P	
,	TOLUENE	11.57	92		8.96 P	
	trans-1,3-DICHLOROPROPENE	11.16	75		10.59 P	PBV 99
	1,1,2-TRICHLOROETHANE	11.31	83	110222	9.72 P	
,	2-HEXANONE	11.86	58	103669	9.66 P	
,	TETRACHLOROETHYLENE	12.70	164	168237		
,	DIBROMOCHLOROMETHANE	12.01	129	231360		
	1,2-DIBROMOETHANE	12.22	107	182181	9.41 P	
,	OCTANE	12.48		266154	7.93 P	
	1,1,1,2-TETRACHLOROETHANE	13.40		162907	9.03 P	
	CHLOROBENZENE	13.43	112	260997	8.59 PI	PBV 100
	ETHYLBENZENE	13.79	91	431776		
	m,p-XYLENE	13.97		325025		
,	O-XYLENE	14.48		155732	9.38 P	
,	STYRENE	14.39		213660	10.96 P	
	NONANE	14.67		237279	8.58 PI	
	BROMOFORM	14.09		202790	8.90 PI	
	1,1,2,2-TETRACHLOROETHANE				10.93 PI	
	1,2,3-TRICHLOROPROPANE	14.64		151362	11.13 P	
,	ISOPROPYLBENZENE	15.13		443784		
	2-CHLOROTOLUENE	15.70		103663	9.95 PI	
	n-PROPYLBENZENE	15.72			10.27 PI	
,	4-ETHYLTOLUENE	15.89		367653	10.68 PI	
,	1,3,5-TRIMETHYLBENZENE	15.99		300278	10.29 PI	
	tert-BUTYLBENZENE	16.47			9.98 PI	
	1,2,4-TRIMETHYLBENZENE	16.48	105	267599	10.74 PI	
,	m-DICHLOROBENZENE	16.67		168280	10.80 PI	
,	BENZYL CHLORIDE	16.67		169769	10.16 PI	
	p-DICHLOROBENZENE	16.77			10.18 PI	
,	sec-BUTYLBENZENE	16.80		80462	10.84 PI	
	p-ISOPROPYLTOLUENE	16.99		80531	10.24 PI	
	o-DICHLOROBENZENE	17.19	146	141869	10.53 PI	
	n-BUTYLBENZENE	17.50	134	57968 54848	9.98 P	
,	HEXACHLOROBUTADIENE	19.77	100	24848 24740	10.64 P	
94)	1,2,4-TRICHLOROBENZENE	19.22	180	34749	10.84 P	PBV 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20792.D M3W821.M Wed Feb 16 16:19:15 2011 MS3W



MS Integration Params: rteint.p

Quant Time: Feb 24 08:00:45 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

1) BROMOCHLOROMETHANE		rnal Standards	R.T.	QIon	Response	Conc U	nits D	ev(Min)
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE 15.00 95 229946 5.58 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%			7 57	128	166107	10 00	PPRV	0 00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE 15.00 95 229946 5.58 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%			9.20	114	823784	10.00	PPBV	0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE 15.00 95 229946 5.58 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%	62)	CHLOROBENZENE-D5	13 37	82	387717	10.00	PPRV	0.00
System Monitoring Compounds 76) 4-BROMOFLUOROBENZENE 15.00 95 229946 5.58 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%			13.37	82	387717	10.00	PPRV	0.00
76) 4-BROMOFLUOROBENZENE 15.00 95 229946 5.58 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%	,,	CHECKODENZENE D3 (a)	13.37	02	307717	10.00	IIDV	0.00
Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%	Syst	em Monitoring Compounds						
Spiked Amount 5.000 Range 65 - 128 Recovery = 111.60%	76)	4-BROMOFLUOROBENZENE	15.00	95	229946	5.58	PPBV	0.00
Target Compounds 3) FREON 152A 4.29 65 119476 8.88 PDBV 94 4) CHLORODIFLUOROMETHANE 4.32 67 45946 9.35 PDBV 98 5) DICHLORODIFLUOROMETHANE 4.38 85 46868 9.58 PDBV 99 6) FROPYLENE 4.34 41 178116 9.65 PDBV 98 7) FREON 114 4.54 85 536348 9.50 PDBV 96 8) CHLOROMETHANE 4.49 50 226040 10.87 PDBV 96 8) CHLOROMETHANE 4.70 54 154393 10.62 PDBV 96 11) n-BUTANE 4.70 54 154393 10.62 PDBV 98 12) BROMOMETHANE 4.88 94 190230 9.45 PDBV 97 13) CHLOROFTHANE 4.88 94 190230 9.45 PDBV 97 14) FREON 123 5.27 83 421395 10.14 PDBV 100 15) FREON 123A 5.31 117 235392 9.83 PDBV 87 16) TRICHLOROFILOROMETHANE 5.46 101 464971 9.76 PDBV 99 17) ISOPROPYL ALCOHOL 5.56 45 260588 9.61 PDBV 98 18) ACETONE 5.38 58 57465 8.76 PDBV 99 19) PENTANE 5.65 42 235559 10.65 PDBV 99 21) IODOMETHANE 5.84 235559 22) 1,1-DICHLOROCETHYLENE 5.88 96 180132 9.15 PDBV 97 24) ETHANOL 5.11 45 58319 25 BROMOMETENE 5.20 16 193298 9.76 PDBV 93 23) CARBON DISULFIDE 6.17 76 542880 9.31 PDBV 97 24) ETHANOL 5.51 45 58319 8.62 PDBV 93 25 BROMOMETENE 5.80 61 113298 9.76 PDBV 93 26 METHYLENE CHLORIDE 5.97 84 160808 10.38 PDBV 97 24) ETHANOL 5.95 99 25) TRANS-1, 2-DICHLOROETHYLENE 6.79 73 320083 7.89 PDBV 96 32) TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PDBV 96 32) TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PDBV 96 32) TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PDBV 97 34) VINYL ACETATE 6.87 86 25871 8.53 PDBV 97 34) VINYL ACETATE 6.87 86 25871 8.53 PDBV 97 34) VINYL ACETATE 6.87 86 25871 8.53 PDBV 97 34) VINYL ACETATE 6.87 86 25871 8.53 PDBV 97 36) CHLOROFORM 7.45 96 171723 9.82 PDBV 98 36) DISOPROPYL ETHER 7.59 61 38064 8.81 9.50 PDBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PDBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PDBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PDBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PDBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PDBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PDBV 98								
3) FREON 152A	Тэкс	et Compounds						Ovalue
A CHLORODIFLUOROMETHANE	3)	FREON 152A	4 29	65	119476	8 88	DDBN	94
1.32   1.33   1.34   1.35	4)	CHIODON ISZA	4.20	67	45946	9 35	DDBM	98
6) PROPYLENE	5)	DICHLORODIFILIOROMETHANE	4 38	85	468668	9 58	DDBN	99
7) FREON 114	6)	DRODVI.ENE	4 34	41	178116	9 65	DDBN	98
8 CHLOROMETHANE	7)	FREON 114	4 54	85	536348	9 50	PPRV	96
9 VINYL CHLORIDE	8)	CHLOROMETHANE	4 49	50	226040	10 87	PPRV	91
10) 1,3-BUTADIENE	9)	VINVI, CHLORIDE	4 62	62	200176	10.07	PPRV	100
11) n-BUTANE	10)	1 3-BUTADIENE	4 70	54	154393	9 75	PPRV	95
12) BROMOMETHANE	11)	n-BUTANE	4.73	43	341593	10.62	PPBV	98
13) CHLOROETHANE	12)	BROMOMETHANE	4 88	94	190230	9 45	PPRV	97
14) FREON 123	13)	CHLOROETHANE	4 98	64	105570	10 97	PPRV	97
15) FREON 123A	14)	FREON 123	5 27	83	421395	10.57	PPRV	100
16) TRICHLOROFLUOROMETHANE 5.46 101 464971 9.76 PPBV 99 17) ISOPROPYL ALCOHOL 5.56 45 260588 9.61 PPBV 98 18) ACETONE 5.38 58 57465 8.76 PPBV 93 19) PENTANE 5.65 42 235559 10.65 PPBV 99 21) IODOMETHANE 5.83 142 527557 9.69 PPBV 96 22) 1,1-DICHLOROETHYLENE 5.88 96 180132 9.15 PPBV 93 23) CARBON DISULFIDE 6.17 76 542880 9.31 PPBV 97 24) ETHANOL 5.11 45 58319 8.62 PPBV 98 25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV 96 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.45 96 171723 9.82 PPBV 97 37) Cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYL, PENTANE 8.21 57 378194 11 14 PPBV 98	15)	FREON 123A	5 31	117	235392	9 83	PPRV	87
17) ISOPROPYL ALCOHOL 5.56 45 260588 9.61 PPBV 98 18) ACETONE 5.38 58 57465 8.76 PPBV 93 19) PENTANE 5.65 42 235559 10.65 PPBV 99 21) IODOMETHANE 5.83 142 527557 9.69 PPBV 96 22) 1,1-DICHLOROETHYLENE 5.88 96 180132 9.15 PPBV 97 24) ETHANOL 5.11 45 58319 8.62 PPBV 97 24) ETHANOL 5.11 45 58319 8.62 PPBV 98 25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 94 30) TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.76 63 311068 10.31 PPBV 99 34) VINYL ACETATE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV 98 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYL PENTANE 8.21 57 378194 11 14 PPBV 98	16)	TRICHLOROFLUOROMETHANE	5.46	101	464971	9.76	PPBV	99
18) ACETONE 5.38 58 57465 8.76 PPBV 93 19) PENTANE 5.65 42 235559 10.65 PPBV 99 21) IODOMETHANE 5.83 142 527557 9.69 PPBV 96 22) 1,1-DICHLOROETHYLENE 5.88 96 180132 9.15 PPBV 93 23) CARBON DISULFIDE 6.17 76 542880 9.31 PPBV 97 24) ETHANOL 5.11 45 58319 8.62 PPBV 98 25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYL PENTANE 8.21 57 378194 11 14 PPBV 98	17)	TSOPROPYL ALCOHOL	5.56	45	260588	9.61	PPBV	98
19) PENTANE	18)	ACETONE	5.38	58	57465	8.76	PPBV	93
21) IODOMETHANE	19)	PENTANE	5.65	42	235559	10.65	PPBV	99
22) 1,1-DICHLOROETHYLENE 5.88 96 180132 9.15 PPBV 93 23) CARBON DISULFIDE 6.17 76 542880 9.31 PPBV 97 24) ETHANOL 5.11 45 58319 8.62 PPBV 98 25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 86 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 94 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPBV 98	21)	TODOMETHANE	5.83	142	527557	9.69	PPBV	96
23) CARBON DISULFIDE 6.17 76 542880 9.31 PPBV 97 24) ETHANOL 5.11 45 58319 8.62 PPBV 98 25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 94 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPRV 98	22)	1.1-DICHLOROETHYLENE	5.88	96	180132	9.15	PPBV	93
24) ETHANOL 5.11 45 58319 8.62 PPBV 98 25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYL PENTANE 8.21 57 378194 11 14 PPBV 98	23)	CARBON DISULFIDE	6.17	76	542880	9.31	PPBV	97
25) BROMOETHENE 5.20 106 193298 9.76 PPBV 98 26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYL PENTANE 8.21 57 378194 11 14 PPBV 98	24)	ETHANOL	5.11	45	58319	8.62	PPBV	98
26) METHYLENE CHLORIDE 5.97 84 160808 10.38 PPBV 92 27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPBV 98	25)	BROMOETHENE	5.20	106	193298	9.76	PPBV	98
27) 3-CHLOROPROPENE 6.03 76 75309 10.72 PPBV # 81 28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPBV 98	26)	METHYLENE CHLORIDE	5.97	84	160808	10.38	PPBV	92
28) FREON 113 6.11 151 314291 9.49 PPBV 95 29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	27)	3-CHLOROPROPENE	6.03	76	75309	10.72	PPBV	# 81
29) TRANS-1,2-DICHLOROETHYLENE 6.59 96 190697 10.19 PPBV 94 30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPBV 98	28)	FREON 113	6.11	151	314291	9.49	PPBV	95
30) TERTIARY BUTYL ALCOHOL 5.95 59 304563 9.85 PPBV 95 31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	29)	TRANS-1,2-DICHLOROETHYLE	NE 6.59	96	190697	10.19	PPBV	94
31) METHYL TERTIARY BUTYL ETHE 6.79 73 320083 7.89 PPBV 96 32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	30)	TERTIARY BUTYL ALCOHOL	5.95	59	304563	9.85	PPBV	95
32) TETRAHYDROFURAN 8.01 72 56258 8.47 PPBV # 86 33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDBV 98	31)	METHYL TERTIARY BUTYL ET	HE 6.79	73	320083	7.89	PPBV	96
33) HEXANE 7.49 57 300112 10.09 PPBV 99 34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	32)	TETRAHYDROFURAN	8.01	72	56258	8.47	PPBV	# 86
34) VINYL ACETATE 6.87 86 25871 8.53 PPBV # 66 35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	33)	HEXANE	7.49	57	300112	10.09	PPBV	99
35) 1,1-DICHLOROETHANE 6.76 63 311068 10.31 PPBV 99 36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	34)	VINYL ACETATE	6.87	86	25871	8.53	PPBV	# 66
36) METHYL ETHYL KETONE 7.07 72 57361 9.34 PPBV # 79 37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPRV 98	35)	1,1-DICHLOROETHANE	6.76	63	311068	10.31	PPBV	99
37) cis-1,2-DICHLOROETHYLENE 7.45 96 171723 9.82 PPBV 94 38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PPRV 98	36)	METHYL ETHYL KETONE	7.07	72	57361	9.34	PPBV	# 79
38) DIISOPROPYL ETHER 7.51 45 426083 8.93 PPBV 98 39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	37)	cis-1,2-DICHLOROETHYLENE	7.45	96	171723	9.82	PPBV	94
39) ETHYL ACETATE 7.59 61 38064 8.85 PPBV # 88 40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	38)	DIISOPROPYL ETHER	7.51	45	426083	8.93	PPBV	98
40) CHLOROFORM 7.65 83 348037 10.22 PPBV 98 41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	39)	ETHYL ACETATE	7.59	61	38064	8.85	PPBV	# 88
41) 2.4-DIMETHYLPENTANE 8.21 57 378194 11 14 PDRV 98	40)	CHLOROFORM	7.65	83	348037	10.22	PPBV	98
11, 1, 1 21.11.11.11.11 0.21 3, 3,017.1 11.11.11.11.10V 90	41)	2,4-DIMETHYLPENTANE	8.21	57	378194	11.14	PPBV	98
42) 1,1,1-TRICHLOROETHANE 8.47 97 338240 10.08 PPBV 99	42)	1,1,1-TRICHLOROETHANE	8.47	97	338240	10.08	PPBV	99
43) CARBON TETRACHLORIDE 9.02 117 398545 10.72 PPBV 99	43)	CARBON TETRACHLORIDE	9.02	117	398545	10.72	PPBV	99

3W20972.D M3W821.M Thu Feb 24 10:15:12 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: Feb 24 08:00:45 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qva	alue
44)	1,2-DICHLOROETHANE	8.26	62	191264	11.51 PPBV		99
,	BENZENE	8.89		472552	9.60 PPBV		99
,	CYCLOHEXANE	9.06		314270	9.95 PPBV		96
,	2,3-DIMETHYLPENTANE	9.24		132855	10.70 PPBV		93
	TRICHLOROETHYLENE	9.82	95	216476	8.96 PPBV		97
50)	1,2-DICHLOROPROPANE	9.58	63	176138	9.73 PPBV		99
	BROMODICHLOROMETHANE	9.80	83	339258	9.97 PPBV		99
52)	2,2,4-TRIMETHYLPENTANE	9.75	57	853416 76680	10.13 PPBV		99
53)	1,4-DIOXANE	9.91	88				92
54)	HEPTANE	10.00	43	374388	10.92 PPBV		93
56)	METHYL METHACRYLATE	10.03	69	112923	8.72 PPBV	#	13
57)	METHYL ISOBUTYL KETONE	10.66		106622	9.65 PPBV	#	89
58)	cis-1,3-DICHLOROPROPENE	10.65		246525	10.59 PPBV		93
59)	TOLUENE	11.56		292165	9.24 PPBV		100
60)	trans-1,3-DICHLOROPROPENE	11.15	75	194442			94
61)	1,1,2-TRICHLOROETHANE	11.31		148578			98
63)	2-HEXANONE	11.86	58	120340	8.68 PPBV		94
64)	TETRACHLOROETHYLENE	12.70		223248	8.12 PPBV		99
,	DIBROMOCHLOROMETHANE	12.01		305930	9.06 PPBV		97
,	1,2-DIBROMOETHANE	12.22		238861	9.54 PPBV		100
,	OCTANE	12.48	43	432457			93
	1,1,1,2-TETRACHLOROETHANE	13.40		204636	8.77 PPBV		95
,	CHLOROBENZENE	13.42		333216			97
	ETHYLBENZENE	13.78		532205	8.69 PPBV		98
,	m,p-XYLENE	13.97		368022			98
,	O-XYLENE	14.48		174158			97
- ,	STYRENE	14.38		245487	9.73 PPBV		98
	NONANE	14.66		372211			94
	BROMOFORM	14.08			8.43 PPBV		99
77)	1,1,2,2-TETRACHLOROETHANE	14.50		220503	9.73 PPBV		99
	1,2,3-TRICHLOROPROPANE	14.63		167736	9.54 PPBV		99
	ISOPROPYLBENZENE	15.12		477421	8.15 PPBV		99
	2-CHLOROTOLUENE	15.69		134798			100
	n-PROPYLBENZENE	15.71		122469	8.91 PPBV 9.35 PPBV		99
,	4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE	15.88 15.98		416114 345498	9.35 PPBV 9.15 PPBV		98 97
,	tert-BUTYLBENZENE	16.46		80408	8.55 PPBV		95
,	1,2,4-TRIMETHYLBENZENE	16.47		307794	9.56 PPBV		98
	m-DICHLOROBENZENE	16.47		213043			100
,	BENZYL CHLORIDE	16.67		213043	9.76 PPBV		98
,	p-DICHLOROBENZENE	16.76					99
	sec-BUTYLBENZENE	16.80		91734	9.56 PPBV		91
	p-ISOPROPYLTOLUENE	16.98					99
,	o-DICHLOROBENZENE	17.18			10.14 PPBV		99
,	n-BUTYLBENZENE	17.50		72424	9.65 PPBV		88
	HEXACHLOROBUTADIENE	19.77		72424 71771	10.77 PPBV		100
,	1,2,4-TRICHLOROBENZENE	19.22	180	41909			99
/	_,_,_		_00	11707			

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W20972.D M3W821.M Thu Feb 24 10:15:13 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W20972.D Vial: 2

Acq On : 24 Feb 2011 7:25 am Operator: yunxiac Sample : CC821-10 Inst : MS3W Misc : MS8082,V3W828,,,,,1 Multiplr: 1.00

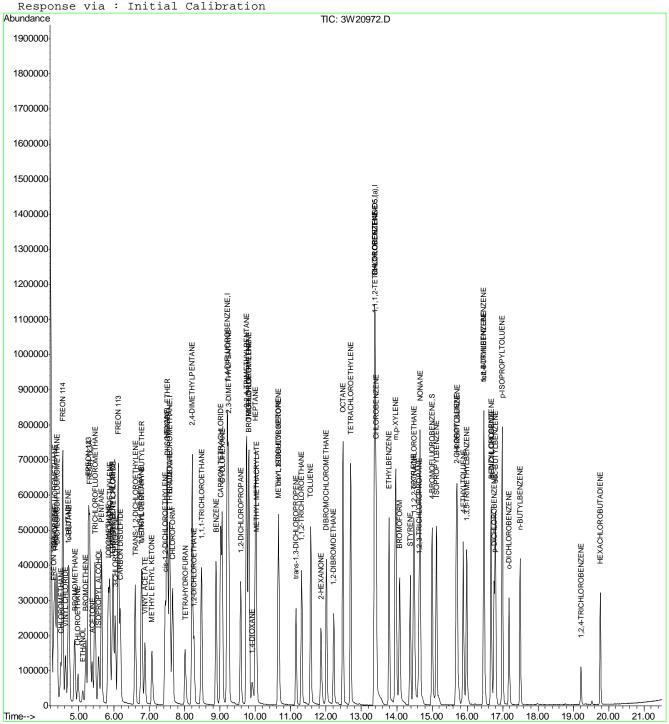
MS Integration Params: rteint.p

Quant Time: Feb 24 9:14 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Wed Feb 16 16:16:09 2011

Response via : Initial Calibration



3W20972.D M3W821.M

Thu Feb 24 10:15:13 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Feb 25 08:13:07 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards			Response	Conc Ui	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	7.57	128	150126	10.00	PPBV	7	0.00
45) 1,4-DIFLUOROBENZENE	9.21	114	723218	10.00	PPBV	7	0.00
62) CHLOROBENZENE-D5	13.38	82	358768	10.00	PPBV	7	0.00
95) CHLOROBENZENE-D5 (a)	13.38	82	150126 723218 358768 358768	10.00	PPBV	7	0.00
System Monitoring Compounds							
76) 4-BROMOFLUOROBENZENE	15.01	95	213368	5.59	PPBV	7	0.00
Spiked Amount 5.000 Ra:	nge 65	- 128	Recove	ery =	111.	80%	
Target Compounds						Qva	alue
3) FREON 152A	4.29	65	121013	9.95	PPBV	7	94
4) CHLORODIFLUOROMETHANE	4.32	67	47355	10.67	PPBV	7	96
5) DICHLORODIFLUOROMETHANE	4.38	85	47355 481178 182678 537037 229497 201268 154095 347862 193280 108348 415670 231717	10.89	PPBV	7	99
6) PROPYLENE	4.33	41	182678	10.95	PPBV	7	99
7) FREON 114	4.54	85	537037	10.52	PPBV	7	96
8) CHLOROMETHANE	4.49	50	229497	12.21	PPBV	7	94
9) VINYL CHLORIDE	4.62	62	201268	11.17	PPBV	7	100
10) 1,3-BUTADIENE	4.70	54	154095	10.77	PPBV	7	93
11) n-BUTANE	4.73	43	347862	11.96	PPBV	7	97
12) BROMOMETHANE	4.88	94	193280	10.62	PPBV	7	98
13) CHLOROETHANE	4.98	64	108348	12.46	PPBV	7	99
14) FREON 123	5.27	83	415670	11.07	PPBV	7	99
15) FREON 123A	5.31	117	231717	10.70	PPBV	7	88
15) FREON 123A 16) TRICHLOROFLUOROMETHANE	5.46	101	231717 469032 282747 61045 240341 538736 180579 555319 61439	10.89	PPBV	7	100
17) ISOPROPYL ALCOHOL	5.58	45	282747	11.54	PPBV	7	98
18) ACETONE	5.38	58	61045	10.29	PPBV	7	91
19) PENTANE	5.65	42	240341	12.02	PPBV	7	98
19) PENTANE 21) IODOMETHANE	5.84	142	538736	10.95	PPBV	7	96
22) 1,1-DICHLOROETHYLENE	5.88	96	180579	10.15	PPBV	7	92
23) CARBON DISULFIDE	6.17	76	555319	10.53	PPBV	7	98
24) ETHANOL	5.13	45	61439	10.05	PPBV	7	100
25) BROMOETHENE	5.20	106	192835	10.78	PPBV	7	99
26) METHYLENE CHLORIDE	5.97	84	162747	11.62	PPBV	7	92
27) 3-CHLOROPROPENE	6.03	76	71717	11.29	PPBV	<i>r</i> #	63
28) FREON 113	6.12	151	322092	10.76	PPBV	7 ''	96
22) 1,1-DICHLOROETHYLENE 23) CARBON DISULFIDE 24) ETHANOL 25) BROMOETHENE 26) METHYLENE CHLORIDE 27) 3-CHLOROPROPENE 28) FREON 113 29) TRANS-1,2-DICHLOROETHYLENE 30) TERTIARY BUTYL ALCOHOL 31) METHYL TERTIARY BUTYL ETHE 32) TETRAHYDROFURAN 33) HEXANE	6.60	96	194496	11.50	PPBV	7	95
30) TERTIARY BUTYL ALCOHOL	5.97	59	327120	11.70	PPBV	7	94
31) METHYL TERTIARY BUTYL ETHE	6.79	73	338252	9.23	PPBV	7	96
32) TETRAHYDROFIIRAN	8.02	72	58644	9.77	PPBV	<i>7</i> #	84
33) HEXANE	7.49	57	309054	11 50	PPRV	, ''	99
34) VINYL ACETATE 35) 1,1-DICHLOROETHANE 36) METHYL ETHYL KETONE	6.88	86	309054 26011 301958 60056 167809	9 49	PPRV	7 ±	59
35) 1.1-DICHLOROETHANE	6.77	63	301958	11.07	PPBV	7 ''	99
36) METHYL ETHYL KETONE	7 08	72	60056	10 82	PPRV	7 ±	76
27) aia 1 2 DICHI ODOETHVIENE	7 45	96	167809	10.62	DDRV	7	93
38) DIIGODRODVI, ETHER	7.13	45	458668	10.62	DDRV	7	98
30) ETHVI ACETATE	7.52	61	40387	10.01	DDB	7 #	87
40) CHIOROFORM	7 66	83	344610	11 10	DDB	π† 7	98
41) 2 4-DIMETHYLDENTANE	8 22	5 <i>7</i>	386713	12 61	DDB	7	98
42) 1 1 1-TRICHTOPORTHAME	8 49	97	332264	10 95	DDD	7	99
38) DIISOPROPYL ETHER 39) ETHYL ACETATE 40) CHLOROFORM 41) 2,4-DIMETHYLPENTANE 42) 1,1,1-TRICHLOROETHANE 43) CARBON TETRACHLORIDE	9 02	<i>ا خ</i> 117	406500	10.93	DDD	7	100
43) CARBON IBIRACHLORIDE	J.UZ			12.10	V		

(#) = qualifier out of range (m) = manual integration

3W21003.D M3W821.M Fri Feb 25 10:07:50 2011 MS3W



MS Integration Params: rteint.p

Quant Time: Feb 25 08:13:07 2011 Quant Results File: M3W821.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Ç	)value
44)	1,2-DICHLOROETHANE	8.27	 62	186335	12.41 PPB	 V	99
	BENZENE	8.89		186335 455355	10.53 PPB		98
47)	CYCLOHEXANE	9.06	56	323718	11.68 PPB	V	96
48)	2,3-DIMETHYLPENTANE	9.25	56 71	323718 134303	12.32 PPB		91
49)	TRICHLOROETHYLENE	9.82	95 63	215471 174515	10.16 PPB	V	97
50)	1,2-DICHLOROPROPANE	9.59	63	174515	10.98 PPB	V	100
51)	BROMODICHLOROMETHANE	9.81	83	333045 849099	11.15 PPB	V	100
	2,2,4-TRIMETHYLPENTANE	9.76	57	849099	11.48 PPB		99
	1,4-DIOXANE	9.92		82165 382890	10.89 PPB		93
,	HEPTANE	10.01		382890	12.72 PPB	V	93
,	METHYL METHACRYLATE	10.04	69	120045 115888	10.56 PPB		
	METHYL ISOBUTYL KETONE	10.68		115888	11.95 PPB		
	cis-1,3-DICHLOROPROPENE	10.65 11.57	75	248539 293738	12.16 PPB		93
59)	TOLUENE	11.57	92	293738	10.59 PPB		99
60)	trans-1,3-DICHLOROPROPENE	11.16	75	193609 150931	12.85 PPB		93
	1,1,2-TRICHLOROETHANE	11.31		150931	11.93 PPB		98
,	2-HEXANONE	11.87		137555	10.72 PPB		
	TETRACHLOROETHYLENE	12.70					99
	DIBROMOCHLOROMETHANE	12.01 12.23		305982 241838	9.79 PPB 10.44 PPB		97 98
,	1,2-DIBROMOETHANE OCTANE	12.23		438652	10.44 PPB 10.93 PPB		
	1,1,1,2-TETRACHLOROETHANE			199180			94
	CHLOROBENZENE	13.43		334382			
	ETHYLBENZENE	13.79		529118			98
	m,p-XYLENE	13.75		378030	17.89 PPB		
	O-XYLENE	14.48		179589	9.04 PPB		98
	STYRENE	14.39		249232	10.68 PPB		98
- ,	NONANE	14.67		385300	11.65 PPB		
	BROMOFORM	14.09	173	253776	11.65 PPB 9.31 PPB	V	100
77)	1,1,2,2-TETRACHLOROETHANE	14.51	83	23698I	11.30 PPB	V	99
	1,2,3-TRICHLOROPROPANE	14.64	75	177491	10.91 PPB	V	98
79)	ISOPROPYLBENZENE	15.13		493692	9.11 PPB	V	99
80)	2-CHLOROTOLUENE	15.70	126	124486	9.99 PPB	V	100
81)	n-PROPYLBENZENE	15.72	120	116450	9.15 PPB	V	100
82)	4-ETHYLTOLUENE	15.89	105	404023	9.81 PPB	V	98
83)	1,3,5-TRIMETHYLBENZENE	15.99		332640	9.52 PPB		98
	tert-BUTYLBENZENE	16.47	134	78118	8.97 PPB	V	95
85)	1,2,4-TRIMETHYLBENZENE	16.48		299032 203460	10.03 PPB		97
	m-DICHLOROBENZENE	16.67		203460	10.91 PPB		100
	BENZYL CHLORIDE	16.68		205355	10.27 PPB		98
	p-DICHLOROBENZENE	16.77					
	sec-BUTYLBENZENE	16.80		88106	9.92 PPB		
	p-ISOPROPYLTOLUENE	16.99 17.19	134	90439	9.61 PPB		100
,	O-DICHLOROBENZENE	17.19	146	167671	10.40 PPB		99
	n-BUTYLBENZENE	17.50	134	90439 167671 71393 75459 42805	10.28 PPB		
93)	HEXACHLOROBUTADIENE	19.77	∠∠5 100	42805	12.24 PPB		99 99
94)	1,2,4-TRICHLOROBENZENE	19.22	180	42805	11.16 PPB	٧	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W21003.D M3W821.M Fri Feb 25 10:07:50 2011 MS3W

753 of 840
ACCUTEST
JA68565
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\3W21003.D Vial: 2

 Acq On
 : 25 Feb 2011 6:55 am
 Operator: yunxiac

 Sample
 : CC821-10
 Inst : MS3W

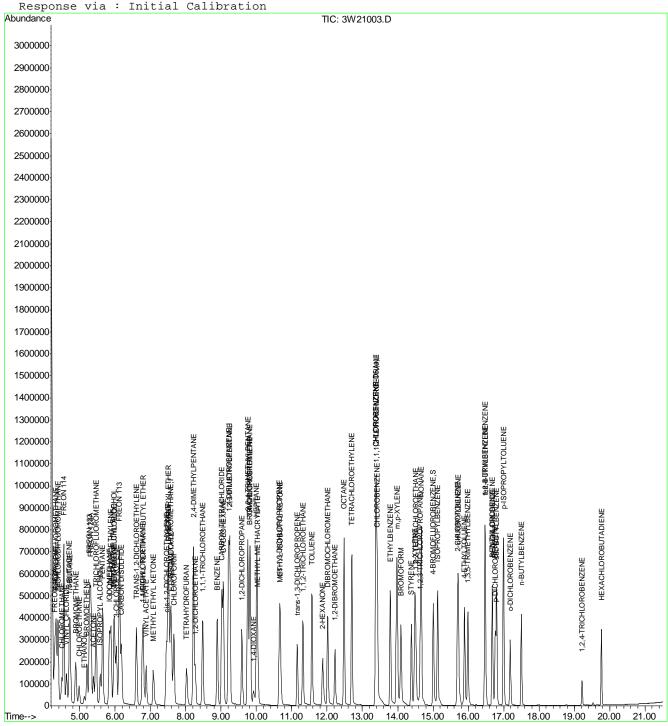
 Misc
 : MS8082,V3W829,100,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 25 9:59 2011 Quant Results File: M3W821.RES

Method : C:\MSDCHEM\1\METHODS\M3W821.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri Feb 25 07:11:01 2011



3W21003.D M3W821.M

MS3W



Data File : C:\MSDCHEM\1\DATA\W29766.D Vial: 2

 Acq On
 : 19 Jan 2011
 5:47 pm
 Operator: YOUMINH

 Sample
 : ICC1222-10
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:31 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Inte				Response			
1)	BROMOCHLOROMETHANE	8 82	128	86606	10 00	PPRV	0 00
		10.52	114	448526	10.00	PPRV	0.00
63)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a)	14 73	82	448526 248549 247821	10.00	PPRV	0.00
96)	Chlorobenzene-d5(a)	14 73	82	247821	10.00	DDRV	0.00
50,	cirror obcirzenc as (a)	11.75	02	217021	10.00	IIDV	0.00
	em Monitoring Compounds						
78)	4-BROMOFLUOROBENZENE	16.37	95	149861	5.00	PPBV	0.00
Sp	iked Amount 5.000	Range 65	- 128	Recove	ry =	100.0	0%
Tard	et Compounds FREON 152A CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE DI-ISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE						Qvalue
3)	FREON 152A	4 94	65	45832	10 00	PPRV	100
4)	CHIORODIELUOROMETHANE	4 98	67	42660	10.00	DDRV	100
5)	DICHLORODIFILIOROMETHANE	5 07	85	381070	10.00	DDRV	99
6)	PROPYLENE	5.07	41	50619	10.00	PPRV	100
7)	FREON 114	5.29	85	326171	10.00	PPBV	100
8)	CHLOROMETHANE	5 22	52	19099	10.00	PPRV	100
9)	VINYL CHLORIDE	5 40	62	81090	10.00	PPRV	99
10)	1 3-BUTADIENE	5 51	54	61423	10.20	PPRV	100
11)	n-BUTANE	5.55	43	110690	10.00	PPBV	100
12)	BROMOMETHANE	5.33	94	90977	10.00	PPRV	100
13)	CHLOROETHANE	5 86	64	45150	10.00	PPRV	100
14)	ACROLEIN	6 22	56	28327	10.00	PPRV	100
15)	FREON 123	6 23	83	231290	10.00	DDRV	# 100
16)	FREON 123A	6 27	117	175403	10.00	PPRV	100
17)	TRICHLOROFILIOROMETHANE	6 46	101	418783	10.00	DDRV	100
18)	TSOPROPYL ALCOHOL	6 52	45	150456	10.00	DDRV	100
19)	ACETONE	6 33	58	34992	10.00	DDRV	100
20)	DENTANE	6 72	57	21981	10.00	DDRV	100
21)	TVHC as FOULV DENTANE	6 72	ידר דדר	409540m	10.01	DDRV	100
22)	TODOMETHANE	6 92	142	279747	10.00	DDRV	100
23)	1 1-DICHLOROETHYLENE	6 96	96	95072	10.00	DDRV	100
24)	CAPRON DIGILLETOF	7 33	76	258096	10.00	DDRV	100
25)	ETHANOI.	7.33 5.97	45	25604	10.00	DDRV	100
26)	BROMOETHENE	6 14	106	100528	10.00	DDRV	100
27)	METHYLENE CHLORIDE	7 05	84	79878	10.00	DDRV	97
281	3_CHI.OPODPODENE	7.03	76	44426	10.00	DDRV	100
20)	FREON 113	7 24	151	217695	10.00	DDRV	100
30)	TRANG-1 2-DICHLOROETHYLE	NE 7.24	96	110827	10.00	DDRV	100
31)	TERTIARY RITYI, ALCOHOL	6 99	50	280011	10.00	DDRV	100
321	METHVI TEPTIARY RITTVI ET	UF 8 00	73	389928	10.00	DDRV	100
331	TETTIL TEKTIAKI BOTTL ET	9 28	73	49645	10.00	DDRV	100
34)	HEXANE	8 82	7 Z 5 7	144721	10.00	DDRV	100
35)	VINVI. ACETATE	8 06	86	28363	10.00	DDRV	99
361	1 1-DICHLOROETHANE	7 97	63	190724	10.00	DDRW	100
30) 37)	METHYL ETHYL KETONE	8 29	72	49010	10.00	DDBM	100
321	cig-1 2-DICHLOROETHVIENE	8 66	96	114849	10.00	DDRW	100
30)	DI-ISOPROPYI ETHER	2 20	<i>4</i> 5	318844	10.00	DDBM	100
4 N	ETHVI. ACETATE	8 83	4.5 6.1	27467	10.00	DDBM	100
40) 41\	CHIOROFORM	Q.03	83	288021	10.00	DDDM	100
421	2 4-DIMETHYLDENTANE	0.9Z 0.5Ω	5 <i>5</i>	181270	10.00	DDDM	100
	2,4-DIMEIHILPENIANE	<i></i>					100



<sup>(#) =</sup> qualifier out of range (m) = manual integration W29766.D MW1222.M Mon Jan 24 09:29:11 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29766.D Vial: 2

 Acq On
 : 19 Jan 2011
 5:47 pm
 Operator: YOUMINH

 Sample
 : ICC1222-10
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:31 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,1,1-TRICHLOROETHANE	9.79	 97	370714	10.00 PPBV	100
44)	CARBON TETRACHLORIDE	10.34		412987	10.00 PPBV	100
45)	1,2-DICHLOROETHANE	9.57	62	222529	9.99 PPBV	100
47)	BENZENE	10.21	78	331405	10.00 PPBV	100
48)	CYCLOHEXANE	10.45	84	158279	10.00 PPBV	100
49)	2,3-DIMETHYLPENTANE	10.64	71	75042	10.00 PPBV	100
	TRICHLOROETHYLENE	11.16	95	171574	10.00 PPBV	100
51)	1,2-DICHLOROPROPANE	10.95	63	100020	10.00 PPBV	100
52)	BROMODICHLOROMETHANE	11.13	83	328560	10.00 PPBV	100
53)	2,2,4-TRIMETHYLPENTANE	11.17	57	496451	10.00 PPBV	100
54)	1,4-DIOXANE	11.19	88	77380	9.96 PPBV	100
	METHYL METHACRYLATE	11.33	69	113148	10.00 PPBV	100
56)	HEPTANE	11.41	43	161964	10.00 PPBV	100
57)	TVHC as EQUIV HEPTANE	11.41	TIC	913329m	10.00 PPBV	
58)	METHYL ISOBUTYL KETONE	12.00	43	225171	10.00 PPBV	100
59)	cis-1,3-DICHLOROPROPENE	11.97	75	206259	10.00 PPBV	100
	TOLUENE	12.93	92	257982	10.00 PPBV	100
61)	trans-1,3-DICHLOROPROPENE	12.47	75	196523	10.00 PPBV	100
62)	1,1,2-TRICHLOROETHANE	12.66	83	107326	10.00 PPBV	100
	2-HEXANONE	13.19	43	211205	10.00 PPBV	
65)	TETRACHLOROETHYLENE	14.07	164	192324	10.00 PPBV	100
	DIBROMOCHLOROMETHANE	13.37	129	310376	10.00 PPBV	
	1,2-DIBROMOETHANE	13.61	107	207992	10.00 PPBV	
	OCTANE	13.88	43	222193	10.00 PPBV	100
	1,1,1,2-TETRACHLOROETHANE	14.76	131	229404	10.00 PPBV	
	CHLOROBENZENE	14.78	112	339051	10.00 PPBV	100
	ETHYLBENZENE	15.17	91	586431	10.00 PPBV	100
	m,p-XYLENE	15.36	106	437270	20.00 PPBV	100
	O-XYLENE	15.87	106	212912	10.00 PPBV	100
	STYRENE	15.75	104	310649	10.00 PPBV	100
75)	1,2,3-TRICHLOROPROPANE	16.01	75	205531	10.00 PPBV	100
76)	NONANE	16.07	43	210369	10.00 PPBV	100
77)	BROMOFORM	15.47	173	277647	10.00 PPBV	100
79)	1,1,2,2-TETRACHLOROETHANE	15.87	83	223618	10.00 PPBV	100
80)	ISOPROPYLBENZENE	16.51	105	689708	10.00 PPBV	100
81)	2-CHLOROTOLUENE	17.04	126	141438	10.00 PPBV	# 100
	n-PROPYLBENZENE	17.07	120	167396	10.00 PPBV	100
83)	4-ETHYLTOLUENE	17.23	105	598634	10.09 PPBV	100
84)	1,3,5-TRIMETHYLBENZENE	17.32	105	497281	10.00 PPBV	100
85)	TERT-BUTYLBENZENE	17.77	134	126280	10.00 PPBV	100
86)	1,2,4-TRIMETHYLBENZENE	17.78	105	474369	10.00 PPBV	100
87)	m-DICHLOROBENZENE	17.96	146	277952	10.00 PPBV	100
88)	BENZYL CHLORIDE	17.94	91	346063	10.00 PPBV	100
89)	p-DICHLOROBENZENE	18.03	146	260827	10.00 PPBV	100
	SEC-BUTYLBENZENE	18.08	134	144762	10.00 PPBV	
91)	p-ISOPROPYLTOLUENE	18.26	134	142686	10.00 PPBV	100
	o-DICHLOROBENZENE	18.42	146	239782	10.00 PPBV	100
	n-BUTYLBENZENE	18.73	134	106719	10.00 PPBV	100
	HEXACHLOROBUTADIENE	20.87	225	75536	10.00 PPBV	100

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W29766.D MW1222.M Mon Jan 24 09:29:11 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29766.D Vial: 2

 Acq On
 : 19 Jan 2011
 5:47 pm
 Operator: YOUMINH

 Sample
 : ICC1222-10
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:31 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) 1,2,4-TRICHLOROBENZENE	20.36	 180	35931	10.00 PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29766.D MW1222.M Mon Jan 24 09:29:11 2011 MSW

757 of 840
ACCUTEST.

JA68565

Data File : C:\MSDCHEM\1\DATA\W29766.D Vial: 2

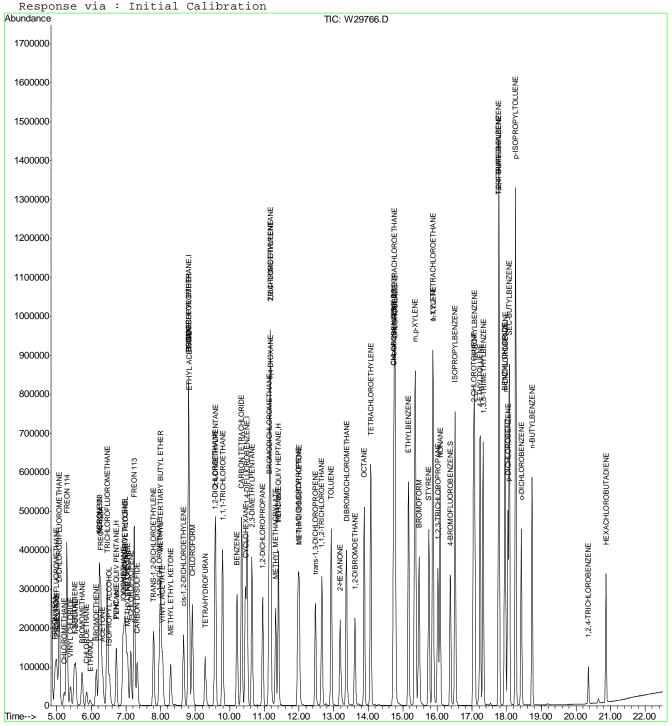
: 19 Jan 2011 5:47 pm Operator: YOUMINH Acq On Sample : ICC1222-10 : MSW Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:06 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011



W29766.D MW1222.M

Mon Jan 24 09:29:12 2011

MSW

758 of 840 ACCUTEST: JA68565

#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29766.D Vial: 2

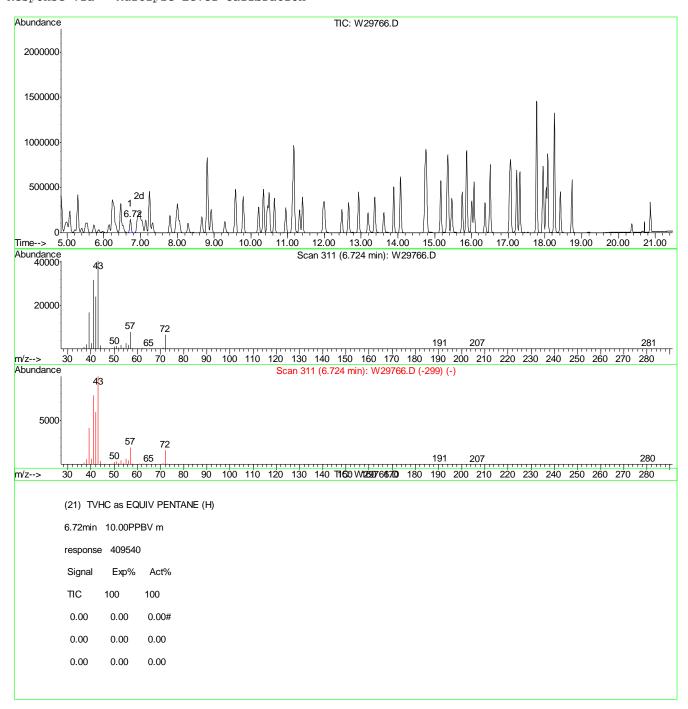
Acq On : 19 Jan 2011 5:47 pm Operator: YOUMINH Sample : ICC1222-10 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:06 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29766.D MW1222.M

Mon Jan 24 09:29:33 2011



Vial: 2

Acq On : 19 Jan 2011 5:47 pm Operator: YOUMINH Sample : ICC1222-10 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

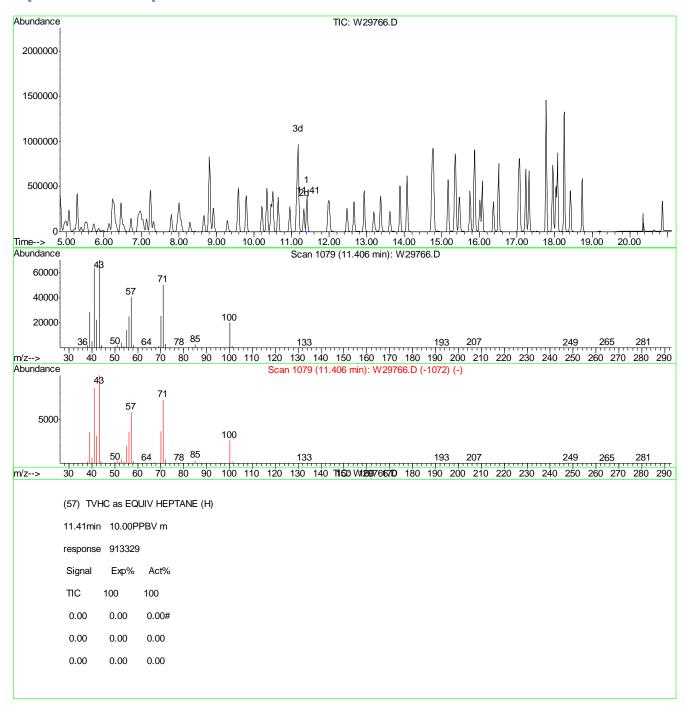
MS Integration Params: rteint.p

Data File : C:\MSDCHEM\1\DATA\W29766.D

Quant Time: Jan 24 9:06 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29766.D MW1222.M

Mon Jan 24 09:29:37 2011



Data File : C:\MSDCHEM\1\DATA\W29770.D Vial: 2

 Acq On
 : 19 Jan 2011
 9:46 pm
 Operator: YOUMINH

 Sample
 : IC1222-20
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:04 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	8.85	128	79833	10.00	PPBV	7	0.04
46) 1,4-DIFLUOROBENZENE	10.53	114	206000	10.00	PPBV	7	0.03
63) CHLOROBENZENE-D5	14.75	82	244631	10.00	PPBV	7	
96) Chlorobenzene-d5(a)	14.75	82	243709	10.00	PPBV	7	0.02
System Monitoring Compounds							
78) 4-BROMOFLUOROBENZENE							0.02
Spiked Amount 5.000 H	Range 65	- 128	Recove	ery =	94.	.60%	
Target Compounds						~	alue
3) FREON 152A	5.01		81588				99
4) CHLORODIFLUOROMETHANE	5.04		77580	19.73			100
5) DICHLORODIFLUOROMETHANE	5.13		659942	19.48			99
6) PROPYLENE	5.07		89246 582225	19.13			96
7) FREON 114	5.35	85	582225	19.36			100
8) CHLOROMETHANE	5.27	52	34648 141782	19.68			54
9) VINYL CHLORIDE	5.46	62	141782	19.35	PPBV	7	100
10) 1,3-BUTADIENE	5.57	54	114600	20.24	PPBV	7	98
11) n-BUTANE	5.60	43	200719	19.67	PPBV	7 #	99
12) BROMOMETHANE	5.79	94	114600 200719 162975 80570 51729	19.43	PPBV	Ţ	99
13) CHLOROETHANE	5.91	64	80570	19.36	PPBV	7	100
14) ACROLEIN	6.29	56	51729	19.81	PPBV	Ţ	98
15) FREON 123	6.29	83	429219	20.13	PPBV	7 #	99
16) FREON 123A	6.33	117	323558	20.01	PPBV	7	100
17) TRICHLOROFLUOROMETHANE	6.51	101	761028	19 71	DDDI	7	100
18) ISOPROPYL ALCOHOL	6.60	45	323558 761028 278348 63793 39851 755086m	20.07	PPBV	Ţ	98
19) ACETONE	6.38	58	63793	19.78	PPBV	Ţ	96
20) PENTANE	6.77	57	39851	19.69	PPBV	7	98
21) TVHC as EQUIV PENTANE	6.77	TIC	755086m	20.01	PPBV	7	
22) IODOMETHANE	6.97	142	522392	20.26 20.33	PPBV	7	100
23) 1,1-DICHLOROETHYLENE	7.00	96	178136	20.33	PPBV	Ţ	100
24) CARBON DISULFIDE	7.37	76	478424	20.11	PPBV	7	99
25) ETHANOL	6.03	45	47152	19.98	PPBV	Ţ	97
26) BROMOETHENE	6.19	106	180718	19.51	PPBV	Ţ	98
27) METHYLENE CHLORIDE	7.10	84	149336	20.29	PPBV	Ţ	100
28) 3-CHLOROPROPENE	7.19	76	478424 47152 180718 149336 80789	19.73	PPBV	7	96
29) FREON 113	7.29	151	407330 202480 492687 712724 89917	20.30	PPBV	7	100
30) TRANS-1,2-DICHLOROETHYLE		96	202480	19.82	PPBV	7	99
31) TERTIARY BUTYL ALCOHOL	7.07	59	492687	19.09	PPBV	7	99
32) METHYL TERTIARY BUTYL ET	HE 8.05	73	712724	19.83	PPBV	7	99
33) TETRAHYDROFURAN	9.33	72	89917	19.65	PPBV	Ţ	98
34) HEXANE	8.85	57	267461 52206	20.05	PPBV	7	99
35) VINYL ACETATE	8.10	86	52206	19.97	PPBV	7 #	40
36) 1,1-DICHLOROETHANE	8.02	63	345287	19.64	PPBV	Ţ	100
37) METHYL ETHYL KETONE	8.34	72	345287 89957 210300 593399 51277	19.91	PPBV	7	99
38) cis-1,2-DICHLOROETHYLENE	8.71	96	210300	19.86	PPBV	7	99
39) DI-ISOPROPYL ETHER	8.85	45	593399	20.19	PPBV	7	99
40) ETHYL ACETATE	8.87	61	51277	20.25	PPBV	Ţ	99
41) CHLOROFORM	8.96	83 57	521758	19.65 20.03	PPBV	Ţ	99
42) 2,4-DIMETHYLPENTANE	9.62	57	334763	20.03	PPBV	Ţ	100

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W29770.D MW1222.M Mon Jan 24 09:29:12 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29770.D Vial: 2

Acq On : 19 Jan 2011 9:46 pm Operator: YOUMINH Sample : IC1222-20 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:04 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

(	Compound	R.T.		Response	Conc Unit	Qva	alue
43) 1	1,1,1-TRICHLOROETHANE	9.83		677086	19.81 PPBV	,	100
	CARBON TETRACHLORIDE			763174	20.05 PPBV		100
	1,2-DICHLOROETHANE	9.60	62				100
	BENZENE	10.24	78	407058 598632	20.42 PPBV		99
48) (	CYCLOHEXANE	10.48	84	286899	20.49 PPBV		97
49) 2	2,3-DIMETHYLPENTANE	10.67	71	286899 138056	20.80 PPBV		100
50) 7	TRICHLOROETHYLENE	11.19	95	323109	21 29 PPRV		99
51) 1	1,2-DICHLOROPROPANE	10.98	63	181687 613055	20.53 PPBV		100
52) I	BROMODICHLOROMETHANE	11.16	83	613055	21.09 PPBV		100
53) 2	2,2,4-TRIMETHYLPENTANE	11.20	57	923248 145410	21.02 PPBV		100
54) 1	1,4-DIOXANE	11.22	88	145410	21.16 PPBV	#	86
55) N	METHYL METHACRYLATE	11.36	69	212387 298570	21.22 PPBV	•	99
	HEPTANE						100
	TVHC as EQUIV HEPTANE			1675205m			
	METHYL ISOBUTYL KETONE	12.04	43	422294	21.20 PPBV		100
59) d	cis-1,3-DICHLOROPROPENE	12.00	75	375411	20.57 PPBV		98
60) 7	TOLUENE	12.95	92	472946	20.72 PPBV		99
61) t	cis-1,3-DICHLOROPROPENE TOLUENE trans-1,3-DICHLOROPROPENE	12.50	75	366661	21.09 PPBV		100
62) 1	1,1,2-TRICHLOROETHANE	12.69	83	199247 401103	20.98 PPBV		99
	2-HEXANONE	13.22	43	401103	19.30 PPBV		99
	TETRACHLOROETHYLENE	14.09	164	362238 579035 390838	19.14 PPBV		100
	DIBROMOCHLOROMETHANE	13.39	129	579035	18.95 PPBV		100
	1,2-DIBROMOETHANE	13.64	107	390838	19.09 PPBV		100
68) (	OCTANE	13.90	43	411214 433339	18.80 PPBV		99
	1,1,1,2-TETRACHLOROETHANE		131	433339	19.19 PPBV		99
,	CHLOROBENZENE	14.80	112	637754 1101164	19.11 PPBV		99
,	ETHYLBENZENE	15.18	91	1101164	19.08 PPBV		99
	m,p-XYLENE	15.38	106	839211	39.00 PPBV		98
	O-XYLENE	15.89	106	403001	19.23 PPBV		99
	STYRENE	15.77	104	839211 403001 588971 387189 397575	19.26 PPBV		99
	1,2,3-TRICHLOROPROPANE	16.03	75	387189	19.14 PPBV		100
,	NONANE	16.09	43	397575	19.20 PPBV		99
	BROMOFORM	15.49	173	520741 426070	19.05 PPBV		100
79) _	1,1,2,2-TETRACHLOROETHANE	15.89	83	426070	19.36 PPBV		100
	ISOPROPYLBENZENE	16.52		1299451 270109 325597	19.14 PPBV		100
	2-CHLOROTOLUENE	17.06		270109	19.40 PPBV		99
	n-PROPYLBENZENE	17.09		325597	19.76 PPBV		94
	4-ETHYLTOLUENE	17.25	105	1121863 946475	19.22 PPBV		100
	1,3,5-TRIMETHYLBENZENE		105	946475	19.34 PPBV 19.79 PPBV		100 99
	TERT-BUTYLBENZENE 1,2,4-TRIMETHYLBENZENE	17.78 17.79	105	245961 927808	19.79 PPBV		99
	m-DICHLOROBENZENE	17.79	146	927000 E26E60	19.67 PPBV		100
	MENZYL CHLORIDE	17.95	01	600261	20.21 PPBV		99
		18.05	116	536569 688364 503336	19.61 PPBV		100
_	p-DICHLOROBENZENE	10.03	12/	202220	19.82 PPBV		98
	SEC-BUTYLBENZENE p-ISOPROPYLTOLUENE	18.09 18.26	121 121	282423 279843	19.82 PPBV		98
, -	o-DICHLOROBENZENE	10.20	146	462040	19.58 PPBV		99
	n-BUTYLBENZENE	18 74	124	462049 208382	19.84 PPBV		100
	HEXACHLOROBUTADIENE	20.74	225	126112	16.96 PPBV		100

(#) = qualifier out of range (m) = manual integration W29770.D MW1222.M Mon Jan 24 09:29:12 2011 MSW



Data File : C:\MSDCHEM\1\DATA\W29770.D Vial: 2

Acq On : 19 Jan 2011 9:46 pm Operator: YOUMINH : IC1222-20 Sample : IC1222-20 Misc : MS6862,VW1222,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:04 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) 1,2,4-TRICHLOROBENZENE	20.37	180	69376	19.62 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29770.D MW1222.M Mon Jan 24 09:29:13 2011 MSW

> 763 of 840 ACCUTEST JA68565

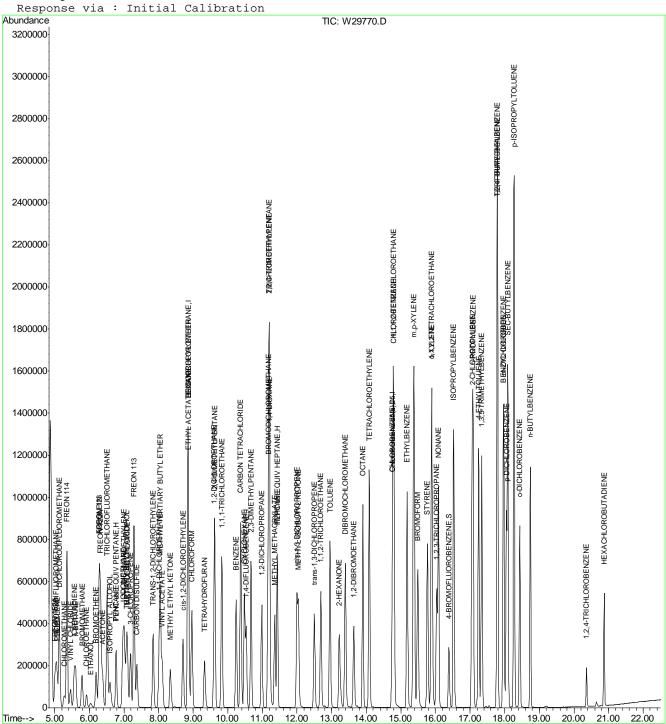
Data File : C:\MSDCHEM\1\DATA\W29770.D Vial: 2

Acq On : 19 Jan 2011 9:46 pm Operator: YOUMINH Sample : IC1222-20 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:07 2011 Quant Results File: MW1222.RES

Last Update : Mon Jan 24 09:23:27 2011



W29770.D MW1222.M

Mon Jan 24 09:29:13 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29770.D Vial: 2

 Acq On
 : 19 Jan 2011
 9:46 pm
 Operator: YOUMINH

 Sample
 : IC1222-20
 Inst
 : MSW

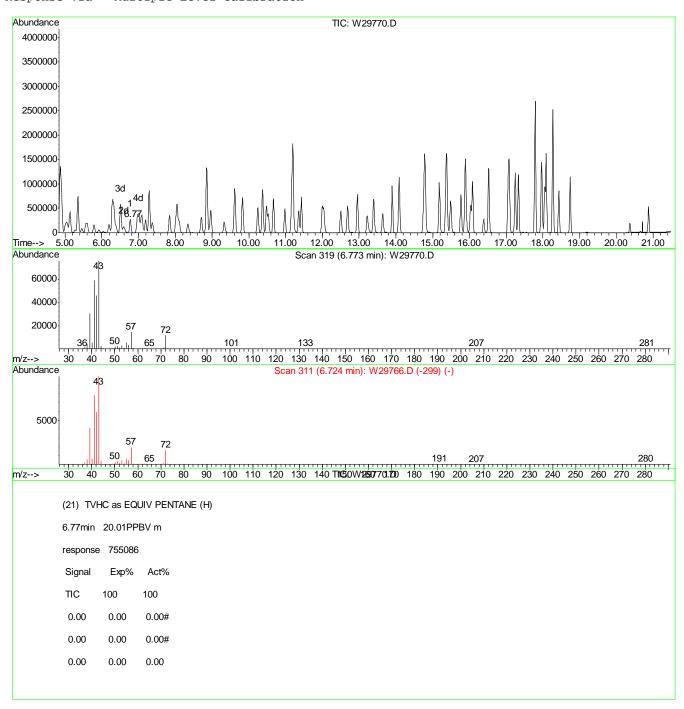
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:07 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29770.D MW1222.M

Mon Jan 24 09:29:46 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29770.D Vial: 2

 Acq On
 : 19 Jan 2011
 9:46 pm
 Operator: YOUMINH

 Sample
 : IC1222-20
 Inst
 : MSW

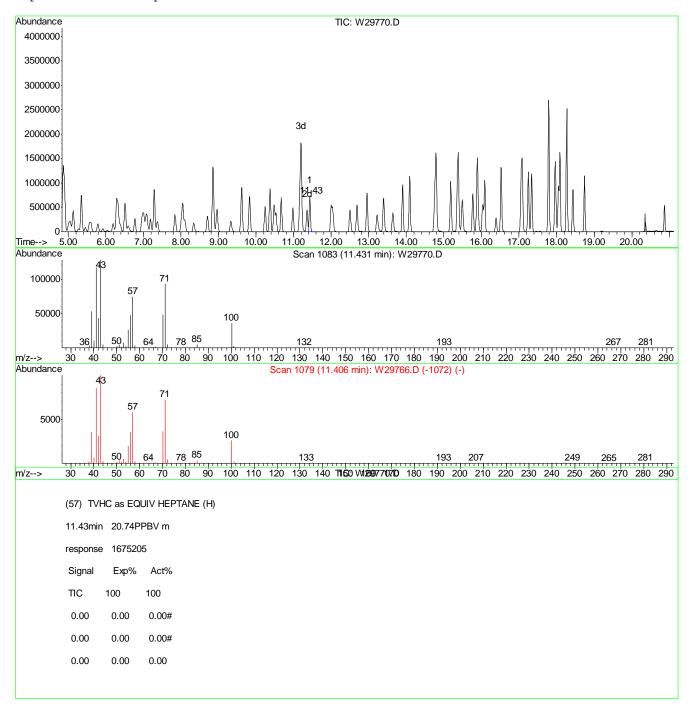
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:07 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29770.D MW1222.M

Mon Jan 24 09:29:51 2011



Data File : C:\MSDCHEM\1\DATA\W29771.D Vial: 2

 Acq On
 : 19 Jan 2011 10:26 pm
 Operator: YOUMINH

 Sample
 : IC1222-5
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:05 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

1) BROMOCHLOROMETHANE 8.75 128 816	558 10.00 PPBV -0.06
46\ 1 4 DIELHODODENZENE 10 4C 114 4043	
40   1,4-DIFLUUKUBENZENE	336 10.00 PPBV -0.04
63) CHLOROBENZENE-D5 14.72 82 2102	213 10.00 PPBV -0.02
46) 1,4-DIFLUOROBENZENE 10.46 114 4043 63) CHLOROBENZENE-D5 14.72 82 2102 96) Chlorobenzene-d5(a) 14.72 82 2097	797 10.00 PPBV -0.02
System Monitoring Compounds 78) 4-BROMOFLUOROBENZENE 16.36 95 1316	521 5 19 DDBV _0 01
Spiked Amount 5.000 Range 65 - 128 Re	
Spined impaire 3.000 hange 53 120 ha	103.000
Target Compounds	Qvalue
3) FREON 152A 4.86 65 134	3.11 PPBV 99
4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) PROPYLENE 4) FREON 114 5) CHLOROMETHANE 4) PROPYLENE 4) PROPYLENE 4) PROPYLENE 4) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 5) PROPYLENE 6)	360 4.44 PPBV 100
5) DICHLORODIFLUOROMETHANE 4.99 85 1676	581 4.84 PPBV 99
6) PROPYLENE 4.92 41 220	087 4.63 PPBV 90
7) FREON 114 5.20 85 1571	180 5.11 PPBV 99
8) CHLOROMETHANE 5.12 52 96	5.36 PPBV # 70
9) VINYL CHLORIDE 5.31 62 412	294 5.51 PPBV 99
10) 1,3-BUTADIENE 5.42 54 315	5.45 PPBV 95
11) n-BUTANE 5.46 43 5/2	253 5.49 PPBV # 99
12) BROMOMETHANE 5.65 94 464	111 5.41 PPBV 98
13) CHLOROETHANE 5.// 64 239	5.63 PPBV 9/
14) ACROLEIN 6.15 56 135	5.06 PPBV 96
15) FREUN 123 0.15 83 1108	358 5.08 PPBV # 99
10) FREUN 123A 0.19 11/ 837	708 5.U/ PPBV 99
17) TRICHLOROFLUOROMETHANE 0.38 IUI 1903	393 4.82 PPBV 99
10) 150PROPIL ALCOHOL 0.44 45 095	001 F 24 DDD7 90
19) ACETONE 0.25 50 1/3	501 5.24 PPBV 93
20) PENIANE 0.05 5/ 105 21) TUUC 20 POIITY DENTANE 6.65 TTC 1016	523 5.00 PPBV 90
22) TODOMETHANE 6.83 142 124	707 4 73 DDBV 98
23) 1 1-DICHLOROETHYLENE 6 88 96 429	567 4 75 DDRV 97
24) CARRON DISHLETDE 7 25 76 1153	358 4 74 DDRV 100
25) ETHANOI. 5 88 45 138	308 5 72 PPRV 95
26) BROMOETHENE 6.05 106 483	338 5.10 PPBV 99
27) METHYLENE CHLORIDE 6.97 84 371	158 4.94 PPBV 98
28) 3-CHLOROPROPENE 7.07 76 196	574 4.70 PPBV 99
29) FREON 113 7.17 151 960	95 4.68 PPBV 99
30) TRANS-1,2-DICHLOROETHYLENE 7.73 96 487	710 4.66 PPBV 100
31) TERTIARY BUTYL ALCOHOL 6.91 59 1195	572 4.53 PPBV 99
32) METHYL TERTIARY BUTYL ETHE 7.94 73 1631	L92 4.44 PPBV 100
33) TETRAHYDROFURAN 9.24 72 212	299 4.55 PPBV 98
34) HEXANE 8.76 57 620	)36 4.55 PPBV 99
35) VINYL ACETATE 7.99 86 123	L90 4.56 PPBV # 94
36) 1,1-DICHLOROETHANE 7.90 63 832	270 4.63 PPBV 100
37) METHYL ETHYL KETONE 8.23 72 202	287 4.39 PPBV 97
38) cis-1,2-DICHLOROETHYLENE 8.61 96 500	020 4.62 PPBV 100
39) DI-ISOPROPYL ETHER 8.75 45 1334	4.44 PPBV 100
40) ETHYL ACETATE 8.77 61 120	068 4.66 PPBV # 88
41) CHLOROFORM 8.86 83 1237	766 4.56 PPBV 100
21) TVHC as EQUIV PENTANE 6.65 TIC 1916 22) IODOMETHANE 6.83 142 1247 23) 1,1-DICHLOROETHYLENE 6.88 96 425 24) CARBON DISULFIDE 7.25 76 1153 25) ETHANOL 5.88 45 138 26) BROMOETHENE 6.05 106 483 27) METHYLENE CHLORIDE 6.97 84 371 28) 3-CHLOROPROPENE 7.07 76 196 29) FREON 113 7.17 151 960 30) TRANS-1,2-DICHLOROETHYLENE 7.73 96 487 31) TERTIARY BUTYL ALCOHOL 6.91 59 1195 32) METHYL TERTIARY BUTYL ETHE 7.94 73 1631 33) TETRAHYDROFURAN 9.24 72 212 34) HEXANE 8.76 57 620 35) VINYL ACETATE 7.99 86 121 36) 1,1-DICHLOROETHANE 7.90 63 832 37) METHYL ETHYL KETONE 8.23 72 202 38) Cis-1,2-DICHLOROETHYLENE 8.61 96 500 39) DI-ISOPROPYL ETHER 8.75 45 1334 40) ETHYL ACETATE 8.77 61 120 41) CHLOROFORM 8.86 83 1237 42) 2,4-DIMETHYLPENTANE 9.53 57 769	975 4.50 PPBV 98

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W29771.D MW1222.M Mon Jan 24 09:29:14 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29771.D Vial: 2

Acq On : 19 Jan 2011 10:26 pm Operator: YOUMINH Sample : IC1222-5
Misc : MS6862,VW1222,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:05 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,1,1-TRICHLOROETHANE	9.74	97	158190	4.53 PPBV	100
	CARBON TETRACHLORIDE	10.30	117	176073	4.52 PPBV	
	1,2-DICHLOROETHANE	9.52	62	92680	4.41 PPBV	98
	BENZENE	10.16	78	142540	4.77 PPBV	100
48)	CYCLOHEXANE	10.41	84	68404	4.79 PPBV	90
49)	2,3-DIMETHYLPENTANE	10.60	71	32746	4.84 PPBV	97
50)	TRICHLOROETHYLENE	11.13	95	70628	4.57 PPBV	100
51)	1,2-DICHLOROPROPANE	10.91	63	43279	4.80 PPBV	99
52)	BROMODICHLOROMETHANE	11.10	83	137044	4.63 PPBV	100
53)	2,2,4-TRIMETHYLPENTANE	11.14	57	211020	4.72 PPBV	100
54)	1,4-DIOXANE	11.15	88	31585	4.51 PPBV	# 92
55)	METHYL METHACRYLATE	11.29		45926		99
56)	HEPTANE	11.37	43	68864	4.72 PPBV	100
57)	TVHC as EQUIV HEPTANE	11.37	TIC	384620m	4.67 PPBV	
58)	METHYL ISOBUTYL KETONE	11.97	43	90357	4.45 PPBV	99
59)	cis-1,3-DICHLOROPROPENE	11.94	75	84534	4.55 PPBV	99
	TOLUENE	12.91	92	106105	4.56 PPBV	99
61)	trans-1,3-DICHLOROPROPENE	12.44	75	80063	4.52 PPBV	98
62)	1,1,2-TRICHLOROETHANE	12.63	83	44491	4.60 PPBV	99
64)	2-HEXANONE	13.16	43	83349	4.67 PPBV	99
65)	TETRACHLOROETHYLENE	14.05	164	77660	4.77 PPBV	99
66)	DIBROMOCHLOROMETHANE	13.35	129	126931	4.84 PPBV	99
67)	1,2-DIBROMOETHANE	13.59	107	83851	4.77 PPBV	99
,	OCTANE	13.86		90607		
69)	1,1,1,2-TETRACHLOROETHANE	14.74	131	95418		# 100
70)	CHLOROBENZENE	14.76	112	137093	4.78 PPBV	99
71)	ETHYLBENZENE	15.15	91	241343	4.87 PPBV	
	m,p-XYLENE	15.34		180780	9.78 PPBV	
73)	O-XYLENE	15.85	106	86949	4.83 PPBV	99
	STYRENE	15.73		126790		
	1,2,3-TRICHLOROPROPANE	15.99		83924	4.83 PPBV	
	NONANE	16.06		85266	4.79 PPBV	
	BROMOFORM	15.45		111527		
	1,1,2,2-TETRACHLOROETHANE	15.85	83	90393		
	ISOPROPYLBENZENE	16.50		283869		
	2-CHLOROTOLUENE	17.03	126	58097		
	n-PROPYLBENZENE	17.06	120		4.79 PPBV	100
	4-ETHYLTOLUENE	17.22		241413	4.81 PPBV	99
	1,3,5-TRIMETHYLBENZENE	17.31		201201	4.78 PPBV	
	TERT-BUTYLBENZENE	17.76			4.66 PPBV	
	1,2,4-TRIMETHYLBENZENE	17.77		186770		
	m-DICHLOROBENZENE	17.95		109742	4.67 PPBV	
	BENZYL CHLORIDE	17.93		134181	4.58 PPBV	
	p-DICHLOROBENZENE	18.03			4.78 PPBV	
	SEC-BUTYLBENZENE	18.07			4.69 PPBV	
	p-ISOPROPYLTOLUENE	18.25	134	54724	4.53 PPBV	
	o-DICHLOROBENZENE	18.41		95495	4.71 PPBV	
	n-BUTYLBENZENE				4.45 PPBV	
94)	HEXACHLOROBUTADIENE	20.87	225	35741	5.59 PPBV	99

(#) = qualifier out of range (m) = manual integration W29771.D MW1222.M Mon Jan 24 09:29:14 2011 MSW



Data File : C:\MSDCHEM\1\DATA\W29771.D Vial: 2

 Acq On
 : 19 Jan 2011 10:26 pm
 Operator: YOUMINH

 Sample
 : IC1222-5
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:05 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue
----95) 1,2,4-TRICHLOROBENZENE 20.36 180 14243 4.69 PPBV 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29771.D MW1222.M Mon Jan 24 09:29:14 2011 MSW

769 of 840
ACCUTEST

JA68565
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\W29771.D Vial: 2

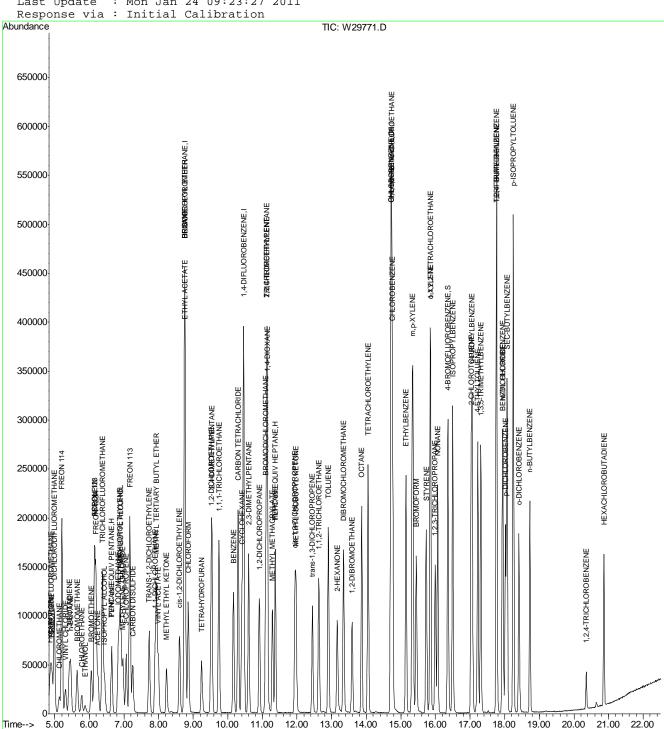
: 19 Jan 2011 10:26 pm Operator: YOUMINH Acq On Sample : IC1222-5 : MSW : MS6862, VW1222, , , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Jan 24 9:08 2011

Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : T015 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011



W29771.D MW1222.M

Mon Jan 24 09:29:14 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29771.D Vial: 2

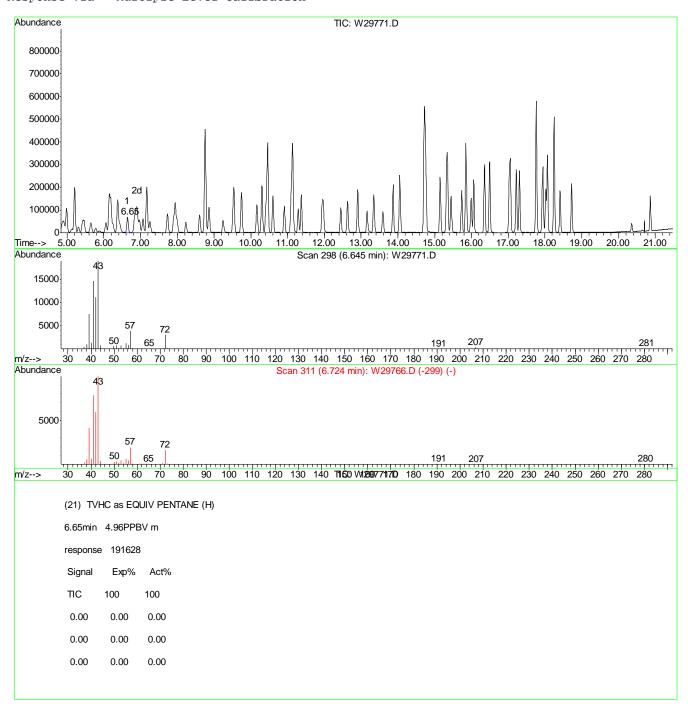
Acq On : 19 Jan 2011 10:26 pm Operator: YOUMINH Sample : IC1222-5 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:08 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29771.D MW1222.M

Mon Jan 24 09:29:56 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29771.D Vial: 2

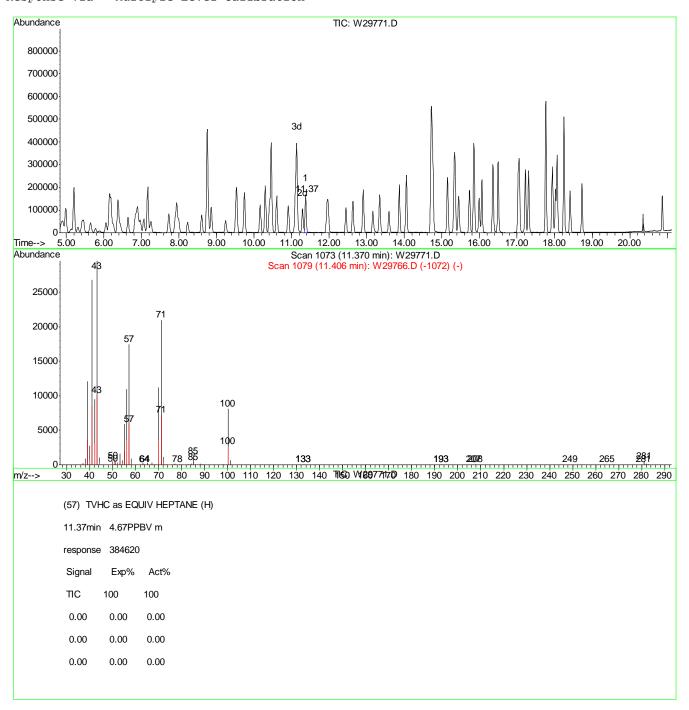
Acq On : 19 Jan 2011 10:26 pm Operator: YOUMINH Sample : IC1222-5 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:08 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29771.D MW1222.M

Mon Jan 24 09:30:01 2011



Data File : C:\MSDCHEM\1\DATA\W29774.D

Vial: 2 Acq On : 20 Jan 2011 1:46 am Operator: YOUMINH Sample : IC1222-40 Misc : MS6862,VW1222,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:08 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Inte	rnal Standards	R.T.	QIon	Response	Conc Units Dev(Min	n)
1)	BROMOCHLOROMETHANE	8.85	128	75059	10.00 PPBV 0.0	0.3
46)	1.4-DIFLUOROBENZENE	10.52	114	350825	10.00 PPBV 0.0	02
63)	CHLOROBENZENE-D5	14.75	82	254841	10.00 PPBV 0.0	01
96)	BROMOCHLOROMETHANE 1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a)	14.75	82	253783	10.00 PPBV 0.0	01
Svet	em Monitoring Compounds					
78)	4-BROMOFLUOROBENZENE	16.38	95	132479	4.31 PPBV 0.0	01
Sp	iked Amount 5.000	Range 65	- 128	Recove	ery = 86.20%	
Tarq	et Compounds				Ovalue	e
3)	FREON 152A	4.99	65	112894	28.42 PPBV	94
4)	CHLORODIFLUOROMETHANE	5.02	67	122394	33.10 PPBV	99
5)	DICHLORODIFLUOROMETHANE	5.11	85	1037586	32.57 PPBV	98
6)	PROPYLENE	5.05	41	125000	28.49 PPBV	95
7)	FREON 114	5.33	85	855811	30.27 PPBV 10	00
8)	CHLOROMETHANE	5.26	52	45425	27.44 PPBV #	22
9)	VINYL CHLORIDE	5.44	62	197425	28.66 PPBV 10	0 0
10)	1,3-BUTADIENE	5.55	54	163617	30.74 PPBV	95
11)	n-BUTANE	5.59	43	288009	30.02 PPBV 10	00
12)	BROMOMETHANE	5.77	94	228072	28.93 PPBV	99
13)	CHLOROETHANE	5.91	64	111076	28.39 PPBV	97
14)	ACROLEIN	6.27	56	77359	31.51 PPBV	99
15)	FREON 123	6.27	83	645554	32.20 PPBV # 10	0 0
16)	FREON 123A	6.32	117	492233	32.38 PPBV 10	00
17)	TRICHLOROFLUOROMETHANE	6.50	101	1201885	33.11 PPBV 10	00
18)	ISOPROPYL ALCOHOL	6.57	45	406814	31.20 PPBV	98
19)	ACETONE	6.36	58	90213	29.75 PPBV #	74
20)	PENTANE	6.76	57	57529	30.24 PPBV #	94
21)	TVHC as EQUIV PENTANE	6.76	TIC	1114894m	31.42 PPBV	
22)	IODOMETHANE	6.96	142	781071	32.22 PPBV	94
23)	1,1-DICHLOROETHYLENE	7.00	96	266233	32.31 PPBV	96
24)	CARBON DISULFIDE	7.36	76	699376	31.27 PPBV	96
25)	ETHANOL	6.01	45	64873	29.23 PPBV	96
26)	BROMOETHENE	6.18	106	263182	30.21 PPBV	97
27)	METHYLENE CHLORIDE	7.08	84	214841	31.04 PPBV	97
28)	3-CHLOROPROPENE	7.18	76	120362	31.26 PPBV #	90
29)	FREON 113	7.28	151	630188	33.40 PPBV 10	00
30)	TRANS-1,2-DICHLOROETHYLE	NE 7.83	96	300259	31.26 PPBV	97
31)	TERTIARY BUTYL ALCOHOL	7.04	59	372270	15.34 PPBV	99
32)	METHYL TERTIARY BUTYL ET	HE 8.04	73	1138580	33.69 PPBV	99
33)	TETRAHYDROFURAN	9.32	72	138027	32.08 PPBV	98
34)	HEXANE	8.85	57	418645	33.38 PPBV	95
35)	VINYL ACETATE	8.10	86	80152	32.61 PPBV #	43
36)	1,1-DICHLOROETHANE	8.00	63	524696	31.74 PPBV	99
37)	METHYL ETHYL KETONE	8.33	72	137746	32.43 PPBV	93
38)	cis-1,2-DICHLOROETHYLENE	8.69	96	322996	32.45 PPBV	98
39)	DI-ISOPROPYL ETHER	8.84	45	929073	33.62 PPBV 10	00
40)	ETHYL ACETATE	8.86	61	80126	33.66 PPBV #	95
41)	CHLOROFORM	8.96	83	828691	33.20 PPBV	99
42)	FREON 152A CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE DI-ISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE	9.61	57	518978	33.03 PPBV	99



<sup>(#) =</sup> qualifier out of range (m) = manual integration W29774.D MW1222.M Mon Jan 24 09:29:15 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29774.D Vial: 2

Acq On : 20 Jan 2011 1:46 am Operator: YOUMINH Sample : IC1222-40 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:08 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

43) 1,1,1-TRICHLOROETHANE 9,82 97 1108817 34.51 PPBV 99 44) CARRON TETRACHLORIDE 10.36 117 1253901 35.03 PPBV 199 45) 1,2-DICHLOROETHANE 9,60 62 684960 35.49 PPBV 99 47) BENZENE 10.24 78 944242 36.43 PPBV 99 48) CYCLOHEXANE 10.47 84 451516 36.47 PPBV 94 49) 2,3-DIMETHYLPENTANE 10.66 71 219208 37.35 PPBV 100 50) TRICHLOROETHYLENE 11.19 95 561524 41.84 PPBV 99 51) 1,2-DICHLOROFROPANE 10.97 63 287181 36.71 PPBV 96 52) BROMODICHLOROETHANE 11.19 95 561524 40.23 PPBV 100 53) Z,2,4-TRIMETHYLPENTANE 11.19 57 1557464 40.11 PPBV 99 54) 1,4-DIOXANE 11.20 88 251678 41.33 PPBV 99 54) 1,4-DIOXANE 11.20 88 251678 41.33 PPBV 99 55) METHYL METHACRYLATE 11.35 69 345582 39.05 PPBV 97 56) HEPTANE 11.42 11.2 TIC 2760316m 38.65 PPBV 97 57) TVHC as EQUIV HEPTANE 11.42 17C 2760316m 38.65 PPBV 97 58) METHYL ISOBUTYL KETONE 12.03 43 693883 39.40 PPBV 99 60) TOLUENE 12.95 92 790127 39.16 PPBV 96 61) TOLUENE 12.95 92 790127 39.16 PPBV 96 62) 1,1,2-TRICHLOROPROPENE 12.99 75 619390 40.29 PPBV 96 63) 1-1,3-DICHLOROPROPENE 12.49 75 619390 40.29 PPBV 96 64) 2-HEXANONE 12.49 75 619390 40.29 PPBV 96 65) IERCHOROETHANE 13.60 12.68 83 330374 39.35 PPBV 100 64) 2-HEXANONE 13.90 43 664276 30.68 PPBV 99 66) DIBROMOCHLOROMETHANE 13.69 12.99 883436 30.90 PPBV 99 66) DIBROMOCHLOROMETHANE 13.69 12.99 883436 30.90 PPBV 100 68) OCTANE 13.90 43 6662387 31.06 PPBV 100 68) OCTANE 13.90 43 6662387 31.06 PPBV 100 68) OCTANE 13.90 43 686039 30.11 PPBV 99 69) 1,1,2-TRICHLOROFROPENE 15.37 106 1445737 64.49 PPBV 100 73) α-XYLENE 15.37 106 1445737 64.49 PPBV 100 74) STYKENE 15.88 106 704859 32.29 PPBV 100 75) 1,2-TRICHLOROPROPENE 15.79 112 1108188 31.88 PPBV 100 76) NONNE 15.88 106 704859 32.29 PPBV 100 77) ROPOYLEBRAGENE 17.05 126 473071 32.62 PPBV 100 78) 1,1,2-TRICHLOROFROPENE 15.79 105 168138 32.37 PPBV 100 79) 1,1,2-TRICHLOROFROPENE 15.79 112 1108188 31.39 PPBV 100 79) 1,1,2-TRICHLOROFROPENE 15.79 112 1108188 31.39 PPBV 100 79) 1,1,2-TRICHLOROFROPENE 15.79 112 1108188 31.39 PPBV 100 79) 1,1,2-TRICHLOROFROPENE 15.79 112 1108188 31.49 PPBV 99 80) ISOPROPYLLENCE 1	Compound	R.T.	QIon	Response	Conc Unit	Qva	lue
44) CARBON TETRACHLORIDE	43) 1 1 1-TRICHLOROETHANE	9 82	97	1108817	34 51 PPRV		99
47) BENZENE 10.24 78 944242 36.43 PPBV 99 48) CYCLOHEXANE 10.47 84 451516 36.47 PPBV 94 49) 2,3-DIMETHYLPENTANE 10.66 71 219208 37.35 PPBV 100 50) TRICHLOROETHYLENE 11.19 95 561524 41.84 PPBV 99 51) 1,2-DICHLOROPROPANE 10.97 63 287181 36.71 PPBV 96 52) BROMODICHLOROMETHANE 11.16 83 1033866 40.23 PPBV 100 53) 2,2,4-TRIMETHYLPENTANE 11.16 83 1033866 40.23 PPBV 100 53) 2,2,4-TRIMETHYLPENTANE 11.19 95 71557464 40.11 PPBV 99 54) 1,4-DIOXANE 11.20 88 251678 41.43 PPBV 99 55) METHYL METHACRYLATE 11.35 69 345582 39.05 PPBV 97 56) HEPTANE 11.42 43 484917 38.28 PPBV 100 57) TVHC AS EQUIV HEPTANE 11.42 43 484917 38.28 PPBV 100 57) TVHC AS EQUIV HEPTANE 11.99 75 630167 39.06 PPBV 96 58) METHYL ISOBUTYL KETONE 12.03 43 693883 39.40 PPBV 99 59) cis-1,3-DICHLOROPROPENE 11.99 75 630167 39.06 PPBV 96 60) TOLUME 12.95 92 790127 39.16 PPBV 96 61) trans-1,3-DICHLOROPROPENE 12.49 75 619390 40.29 PPBV 96 62) 1,1,2-TRICHLOROETHANE 13.20 43 664276 30.68 PPBV 100 64) 2-HEXANONE 13.20 43 664276 30.68 PPBV 100 65) TETRACHLOROETHANE 13.64 107 662387 31.06 PPBV 100 66) DEBROMOCHLOROMETHANE 13.64 107 662387 31.06 PPBV 100 67) 1,2-DIBROMOCHHANE 13.39 129 983436 30.09 PPBV 100 68) OCTANE 13.90 43 666399 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE 14.08 164 624284 31.66 PPBV 100 68) OCTANE 13.90 43 666391 31.04 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.18 91 1866391 31.04 PPBV 99 71) ETHYLBENZENE 15.76 104 1017229 31.94 PPBV 100 73) o-XYLENE 15.76 104 1017229 31.94 PPBV 100 74) STYRENE 15.76 104 1017229 31.38 PPBV 99 75) NONANE 16.08 43 67669 31.42 PPBV 99 76) NONANE 16.08 43 67669 31.42 PPBV 99 77) BROMOFORM 15.48 17.9 105 1643899 32.25 PPBV 100 78) 1,2,2-TETRACHLOROETHANE 15.76 104 1017229 31.94 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.79 105 1649086 32.34 PPBV 99 71) ETHYLBENZENE 15.76 104 1017229 31.38 PPBV 99 72) m,p-XYLENE 15.76 104 1017229 31.38 PPBV 99 73) O-XYLENE 15.76 104 1017229 31.38 PPBV 99 74) NONANE 16.08 43 67669 31.42 PPBV 99 75) NONANE 17.79 105 1663399 34.61 PPBV 99 76) NONANE 17.79 105 1663		10.36	117	1253901	35.03 PPBV		
48) CYCLOHEXANE  10.47 84 451516 36.47 PPBV 99 49) 2,3-DIMETHYLPENTANE  10.66 71 219208 37.35 PPBV 100 50) TRICHLOROPROPANE  10.97 63 287181 36.71 PPBV 96 52) BROMODICHLOROMETHANE  11.19 95 561524 41.84 PPBV 99 51) 1,2-DICHLOROPROPANE  10.97 63 287181 36.71 PPBV 96 52) BROMODICHLOROMETHANE  11.16 83 1033866 40.23 PPBV 100 53) 2,2,4-TRIMETHYLPENTANE  11.19 57 1557464 40.11 PPBV 99 54) 1,4-DIOXANE  11.20 88 251678 41.43 PPBV # 59 55) METHYL METHACRYLATE  11.35 69 345582 39.05 PPBV 97 56) HPPTANE  11.42 43 484917 38.28 PPBV 100 57) TVHC as EQUIV HEPTANE  11.42 43 484917 38.28 PPBV 100 58) METHYL ISOBUTYL KETONE  12.03 43 693883 39.40 PPBV 99 58) METHYL ISOBUTYL KETONE  12.03 43 693883 39.40 PPBV 99 59) CIS-1,3-DICHLOROPROPENE  11.99 75 630167 39.06 PPBV 96 60) TOLUENE  12.95 92 790127 39.16 PPBV 100 61) trans-1,3-DICHLOROPROPENE  12.95 92 790127 39.16 PPBV 100 61) trans-1,3-DICHLOROPROPENE  12.49 75 619390 40.29 PPBV 98 62) 1,1,2-TRICHLOROFTHANE  13.20 43 664276 30.68 PPBV 100 64) 2-HEXANONE  13.20 43 664276 30.68 PPBV 100 65) TETRACHLOROETHANE  13.39 129 983436 30.90 PPBV 99 66) DIBROMOCHLOROMETHANE  13.39 129 983436 30.90 PPBV 100 67) 1,2-DIBROMOETHANE  13.40 107 662387 31.06 PPBV 99 69) 1,1,1,2-TETRACHLOROETHANE  13.50 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE  13.64 107 662387 31.06 PPBV 100 68) OCTANE  13.90 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE  14.78 131 756539 32.16 PPBV 100 70) CHLOROBENZENE  15.18 91 1866391 31.04 PPBV 99 71) ETHYLBENZENE  15.88 106 704859 32.29 PPBV 100 74) STYRENE  15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE  15.88 106 704859 32.29 PPBV 100 74) STYRENE  15.76 104 1017229 31.94 PPBV 99 77) BROMOFORM  15.48 173 921440 32.35 PPBV 100 74) STYRENE  15.76 104 1017229 31.94 PPBV 99 77) BROMOFORM  15.48 173 921440 32.35 PPBV 100 78) L-CHLOROBENZENE  17.08 120 570035 33.11 PPBV 99 77) BROMOFORM  15.48 173 921440 32.35 PPBV 100 80) ISOPROPYLBENZENE  17.78 134 445487 34.41 PPBV 99 81) 2-CHLOROBENZENE  17.79 105 1683399 34.61 PPBV 99 86) 1,2,4-TRIMETHYLB		9.60	62	684960	35.49 PPBV		
49   2,3-DIMETHYLPENTANE		10.24	78	944242	36.43 PPBV		
49) 2,3-DIMETHYLPENTANE	48) CYCLOHEXANE	10.47	84	451516	36.47 PPBV		94
50   TRICHLOROETHYLENE   11.19   95   561524   41.84 PPBV   99   95   11.2-DICHLOROPROPANE   10.97   63   287181   36.71 PPBV   96   96   52) BROMODICHLOROMETHANE   11.16   83   1033866   40.23 PPBV   100   53   2.2,4-TRIMETHYLENTANE   11.19   57   1557464   40.11 PPBV   99   44.4-DIOXAME   11.20   88   251678   41.43 PPBV   #5   55   METHYL METHACRYLATE   11.35   69   345582   39.05 PPBV   97   75   100   10	49) 2,3-DIMETHYLPENTANE	10.66	71	219208	37.35 PPBV		100
53   2,2,4-TRIMETHYLPENTANE		11.19	95	561524	41.84 PPBV		99
53   2,2,4-TRIMETHYLPENTANE		10.97	63	287181	36.71 PPBV		96
54   1,4-DIOXANE	52) BROMODICHLOROMETHANE	11.16	83	1033866	40.23 PPBV		100
S5	53) 2,2,4-TRIMETHYLPENTANE		57	1557464	40.11 PPBV		99
57) TVHC AS EQUIV HEPTANE 58) METHYL ISOBUTYL KETONE 59) cis-1,3-DICHLOROPROPENE 59) cis-1,3-DICHLOROPROPENE 50) TOLUENE 51,1,3-DICHLOROPROPENE 52,1,3-DICHLOROPROPENE 53,1,3-DICHLOROPROPENE 54,1,1,2-TRICHLOROPROPENE 55,1,1,2-TRICHLOROPROPENE 56,1,1,2-TRICHLOROPROPENE 57,1,1,2-TRICHLOROPROPENE 58,1,1,2-TRICHLOROPROPENE 59,2,3-DICHLOROPROPENE 50,1,1,2-TRICHLOROPROPENE 51,2,0,2-TRICHLOROPROPENE 51,2,0,2-TRICHLOROPROPENE 51,2,0,2-TRICHLOROPROPENE 51,2-DIBROMOCHLOROMETHANE 51,2-DIBROMOCHANE 51,2-TRICHLOROPROPANE 51,2-TRICHLOROPROPANE 51,2-TRICHLOROPROPANE 51,2-TRICHLOROPROPANE 51,2-TRICHLOROPROPANE 51,2-TRICHLOROPROPANE 51,2-TRICHLOROFOPANE 51,2-TRICHLOROFOPANE 51,2-TRICHLOROFOPANE 51,2-TRICHLOROFOPANE 51,2-TRICHLOROFOPANE 51,2-TRICHLOROFOLUENE 51,2-TRICHLOROFOPANE 51,2-	54) 1,4-DIOXANE	11.20	88	251678	41.43 PPBV	#	59
57) TVHC AS EQUIV HEPTANE 58) METHYL ISOBUTYL KETONE 59) cis-1,3-DICHLOROPROPENE 59) cis-1,3-DICHLOROPROPENE 50) TOLUENE 51) TOLUENE 52) TOLUENE 53) TOLUENE 54) TOLUENE 55) TOLUENE 56) TOLUENE 57) TOLUENE 58) TOLUENE 58) TOLUENE 59) TOLUENE 59) TOLUENE 51) TOLUENE 51) TOLUENE 52) TOLUENE 53) TOLUENE 54) TOLUENE 55) TOLUENE 56) TOLUENE 57) TOLUENE 58) TOLUENE 58) TOLUENE 59) TOLUENE 59) TOLUENE 51) TOLUENE 52) TOLUENE 53) TOLUENE 54) TOLUENE 55) TOLUENE 56) TOLUENE 57) TOLUENE 58) TOLUENE 58) TOLUENE 59) TOLUENE 59) TOLUENE 51) TOLUENE 52) TOLUENE 53) TOLUENE 54) TOLUENE 55) TOLUENE 56) TOLUENE 57) TOLUENE 58) TOLUENE 58) TOLUENE 58) TOLUENE 59) T	55) METHYL METHACRYLATE	11.35	69	345582	39.05 PPBV		97
S8   METHYL ISOBUTYL KETONE	56) HEPTANE	11.42	43	484917	38.28 PPBV		100
11.95   92   790127   39.16   PPBV   100	57) TVHC as EQUIV HEPTANE	11.42	TIC	2760316m	38.65 PPBV	•	
11.95   92   790127   39.16   PPBV   100	58) METHYL ISOBUTYL KETONE	12.03	43	693883	39.40 PPBV		99
61) trans-1,3-DICHLOROPROPENE 12.49 75 619390 40.29 PPBV 98 62) 1,1,2-TRICHLOROETHANE 12.68 83 330374 39.35 PPBV 100 64) 2-HEXANONE 13.20 43 664276 30.68 PPBV 100 65) TETRACHLOROETHYLENE 14.08 164 624284 31.66 PPBV 99 66) DIBROMOCHLOROMETHANE 13.39 129 983436 30.90 PPBV 100 67) 1,2-DIBROMOETHANE 13.64 107 662387 31.06 PPBV 100 68) OCTANE 13.90 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE 14.78 131 756539 32.16 PPBV # 100 70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.37 106 1445737 64.49 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 15.05 2242865 31.71 PPBV 99 81) 2-CHLOROTOLURNE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 99 81) 2-CHLOROTOLURNE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.79 105 1683399 34.61 PPBV 99 88) BBNYL CHLOROBENZENE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 17.95 91 1258169 35.46 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91 p-ISOPROPYLTOLURNE 18.26 134 511243 34.95 PPBV 100 92 0-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 96 91 p-ISOPROPYLTOLURNE 18.26 134 511243 34.95 PPBV 100 92 0-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 96 91 p-ISOPROPYLTOLURNE 18.26 134 511243 34.95 PPBV 100 99 90 O-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 99 99 100 PDICHLOROBENZENE 18.09 134 505182 34.04 PPBV 99 100 PDICHLOROBENZENE 18.09 134 5051		エエ・フフ	1 5	030107	JJ.00 FFDV	•	96
62) 1,1,2-TRICHLOROETHANE 12.68 83 330374 39.35 PPBV 100 64) 2-HEXANONE 13.20 43 664276 30.68 PPBV 100 65) TETRACHLOROETHYLENE 14.08 164 624284 31.66 PPBV 99 66) DIBROMOCHLOROMETHANE 13.39 129 983436 30.90 PPBV 100 67) 1,2-DIBROMOETHANE 13.64 107 662387 31.06 PPBV 100 68) OCTANE 13.90 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE 14.78 131 756539 32.16 PPBV # 100 70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.88 106 704859 32.29 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.33 105 1649086 32.34 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.38 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 87) m-DICHLOROBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 99 90 90 SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 90 90 90 SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 90 90 90 DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 90 90 90 DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 90 90 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DICHLOROBENZENE 18.09 134 505182 34.09 PPBV 100 90 DIC	60) TOLUENE	12.95	92	790127	39.16 PPBV	•	100
66) DIBROMOCHLOROMETHANE 67) 1,2-DIBROMOCHLOROMETHANE 13.39 129 983436 30.90 PPBV 100 68) OCTANE 13.64 107 662387 31.06 PPBV 100 68) OCTANE 13.90 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE 14.78 131 756539 32.16 PPBV # 100 70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.88 106 704859 32.29 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.08 120 570035 33.21 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 87) m-DICHLOROBENZENE 17.79 105 1683399 34.61 PPBV 99 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96	<pre>61) trans-1,3-DICHLOROPROPENE</pre>	12.49	75	619390	40.29 PPBV		98
66) DIBROMOCHLOROMETHANE 67) 1,2-DIBROMOCHLOROMETHANE 13.39 129 983436 30.90 PPBV 100 68) OCTANE 13.64 107 662387 31.06 PPBV 100 68) OCTANE 13.90 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE 14.78 131 756539 32.16 PPBV # 100 70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.88 106 704859 32.29 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.08 120 570035 33.21 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 87) m-DICHLOROBENZENE 17.79 105 1683399 34.61 PPBV 99 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96	62) 1,1,2-TRICHLOROETHANE		83	330374	39.35 PPBV		100
66) DIBROMOCHLOROMETHANE 67) 1,2-DIBROMOCHLOROMETHANE 13.39 129 983436 30.90 PPBV 100 68) OCTANE 13.64 107 662387 31.06 PPBV 100 68) OCTANE 13.90 43 686039 30.11 PPBV 98 69) 1,1,1,2-TETRACHLOROETHANE 14.78 131 756539 32.16 PPBV # 100 70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.88 106 704859 32.29 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.08 120 570035 33.21 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 87) m-DICHLOROBENZENE 17.79 105 1683399 34.61 PPBV 99 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLDENZENE 18.09 134 505182 34.04 PPBV 96	64) 2-HEXANONE	13.20	43	664276	30.68 PPBV		100
68) OCTANE 69) 1,1,1,2-TETRACHLOROETHANE 69) 1,1,1,2-TETRACHLOROETHANE 69) 1,1,1,2-TETRACHLOROETHANE 69) 1,1,1,2-TETRACHLOROETHANE 70) CHLOROBENZENE 71) ETHYLBENZENE 72) m,p-XYLENE 73	65) TETRACHLOROETHYLENE	14.08	164	624284	31.66 PPBV		99
68) OCTANE 69) 1,1,1,2-TETRACHLOROETHANE 69) 1,1,1,2-TETRACHLOROETHANE 69) 1,1,1,2-TETRACHLOROETHANE 69) 1,1,1,2-TETRACHLOROETHANE 70) CHLOROBENZENE 71) ETHYLBENZENE 72) m,p-XYLENE 73	66) DIBROMOCHLOROMETHANE	13.39	129	983436	30.90 PPBV	•	100
70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.88 106 704859 32.29 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	67) 1,2-DIBROMOETHANE	13.64	107	662387	31.06 PPBV	•	100
70) CHLOROBENZENE 14.79 112 1108188 31.88 PPBV 99 71) ETHYLBENZENE 15.18 91 1866391 31.04 PPBV 99 72) m,p-XYLENE 15.37 106 1445737 64.49 PPBV 100 73) o-XYLENE 15.88 106 704859 32.29 PPBV 100 74) STYRENE 15.76 104 1017229 31.94 PPBV 100 75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99				686039	30.11 PPBV		98
73) O-XYLENE       15.88       106       704859       32.29 PPBV       100         74) STYRENE       15.76       104       1017229       31.94 PPBV       100         75) 1,2,3-TRICHLOROPROPANE       16.03       75       661219       31.38 PPBV       99         76) NONANE       16.08       43       677669       31.42 PPBV       98         77) BROMOFORM       15.48       173       921440       32.35 PPBV       100         79) 1,1,2,2-TETRACHLOROETHANE       15.89       83       743949       32.45 PPBV       99         80) ISOPROPYLBENZENE       16.52       105       2242865       31.71 PPBV       99         81) 2-CHLOROTOLUENE       17.05       126       473071       32.62 PPBV #       100         82) n-PROPYLBENZENE       17.08       120       570035       33.21 PPBV       94         83) 4-ETHYLTOLUENE       17.24       105       1968138       32.37 PPBV       100         84) 1,3,5-TRIMETHYLBENZENE       17.33       105       1649086       32.34 PPBV       100         85) TERT-BUTYLBENZENE       17.79       105       1683399       34.61 PPBV       99         87) m-DICHLOROBENZENE       17.97       146       978090	69) 1,1,1,2-TETRACHLOROETHANE			756539	32.16 PPBV		
73) O-XYLENE       15.88       106       704859       32.29 PPBV       100         74) STYRENE       15.76       104       1017229       31.94 PPBV       100         75) 1,2,3-TRICHLOROPROPANE       16.03       75       661219       31.38 PPBV       99         76) NONANE       16.08       43       677669       31.42 PPBV       98         77) BROMOFORM       15.48       173       921440       32.35 PPBV       100         79) 1,1,2,2-TETRACHLOROETHANE       15.89       83       743949       32.45 PPBV       99         80) ISOPROPYLBENZENE       16.52       105       2242865       31.71 PPBV       99         81) 2-CHLOROTOLUENE       17.05       126       473071       32.62 PPBV #       100         82) n-PROPYLBENZENE       17.08       120       570035       33.21 PPBV       94         83) 4-ETHYLTOLUENE       17.24       105       1968138       32.37 PPBV       100         84) 1,3,5-TRIMETHYLBENZENE       17.33       105       1649086       32.34 PPBV       100         85) TERT-BUTYLBENZENE       17.79       105       1683399       34.61 PPBV       99         87) m-DICHLOROBENZENE       17.97       146       978090	· ·			1108188	31.88 PPBV		
73) O-XYLENE       15.88       106       704859       32.29 PPBV       100         74) STYRENE       15.76       104       1017229       31.94 PPBV       100         75) 1,2,3-TRICHLOROPROPANE       16.03       75       661219       31.38 PPBV       99         76) NONANE       16.08       43       677669       31.42 PPBV       98         77) BROMOFORM       15.48       173       921440       32.35 PPBV       100         79) 1,1,2,2-TETRACHLOROETHANE       15.89       83       743949       32.45 PPBV       99         80) ISOPROPYLBENZENE       16.52       105       2242865       31.71 PPBV       99         81) 2-CHLOROTOLUENE       17.05       126       473071       32.62 PPBV #       100         82) n-PROPYLBENZENE       17.08       120       570035       33.21 PPBV       94         83) 4-ETHYLTOLUENE       17.24       105       1968138       32.37 PPBV       100         84) 1,3,5-TRIMETHYLBENZENE       17.33       105       1649086       32.34 PPBV       100         85) TERT-BUTYLBENZENE       17.79       105       1683399       34.61 PPBV       99         87) m-DICHLOROBENZENE       17.97       146       978090				1866391	31.04 PPBV		99
75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) 0-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99			106	1445737	64.49 PPBV		100
75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) 0-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	,		106	704859	32.29 PPBV		
75) 1,2,3-TRICHLOROPROPANE 16.03 75 661219 31.38 PPBV 99 76) NONANE 16.08 43 677669 31.42 PPBV 98 77) BROMOFORM 15.48 173 921440 32.35 PPBV 100 79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) 0-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	, =		104	1017229	31.94 PPBV		
77) BROMOFORM       15.48       173       921440       32.35 PPBV       100         79) 1,1,2,2-TETRACHLOROETHANE       15.89       83       743949       32.45 PPBV       99         80) ISOPROPYLBENZENE       16.52       105       2242865       31.71 PPBV       99         81) 2-CHLOROTOLUENE       17.05       126       473071       32.62 PPBV #       100         82) n-PROPYLBENZENE       17.08       120       570035       33.21 PPBV       94         83) 4-ETHYLTOLUENE       17.24       105       1968138       32.37 PPBV       100         84) 1,3,5-TRIMETHYLBENZENE       17.33       105       1649086       32.34 PPBV       100         85) TERT-BUTYLBENZENE       17.78       134       445487       34.41 PPBV       99         86) 1,2,4-TRIMETHYLBENZENE       17.79       105       1683399       34.61 PPBV       99         87) m-DICHLOROBENZENE       17.97       146       978090       34.32 PPBV       100         88) BENZYL CHLORIDE       17.95       91       1258169       35.46 PPBV       100         89) p-DICHLOROBENZENE       18.05       146       897563       33.56 PPBV       100         90) SEC-BUTYLBENZENE       18.26       13	· · ·		75	661219	31.38 PPBV		
79) 1,1,2,2-TETRACHLOROETHANE 15.89 83 743949 32.45 PPBV 99 80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	· ·		43	677669	31.42 PPBV		
80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) 0-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99				921440	32.35 PPBV		
80) ISOPROPYLBENZENE 16.52 105 2242865 31.71 PPBV 99 81) 2-CHLOROTOLUENE 17.05 126 473071 32.62 PPBV # 100 82) n-PROPYLBENZENE 17.08 120 570035 33.21 PPBV 94 83) 4-ETHYLTOLUENE 17.24 105 1968138 32.37 PPBV 100 84) 1,3,5-TRIMETHYLBENZENE 17.33 105 1649086 32.34 PPBV 100 85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) 0-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99			83	743949	32.45 PPBV		
83) 4-ETHYLTOLUENE     17.24     105     1968138     32.37 PPBV     100       84) 1,3,5-TRIMETHYLBENZENE     17.33     105     1649086     32.34 PPBV     100       85) TERT-BUTYLBENZENE     17.78     134     445487     34.41 PPBV     99       86) 1,2,4-TRIMETHYLBENZENE     17.79     105     1683399     34.61 PPBV     99       87) m-DICHLOROBENZENE     17.97     146     978090     34.32 PPBV     100       88) BENZYL CHLORIDE     17.95     91     1258169     35.46 PPBV     100       89) p-DICHLOROBENZENE     18.05     146     897563     33.56 PPBV     100       90) SEC-BUTYLBENZENE     18.09     134     505182     34.04 PPBV     96       91) p-ISOPROPYLTOLUENE     18.26     134     511243     34.95 PPBV     100       92) o-DICHLOROBENZENE     18.43     146     820403     33.37 PPBV     99			T05	2242865	31.71 PPBV		
83) 4-ETHYLTOLUENE     17.24     105     1968138     32.37 PPBV     100       84) 1,3,5-TRIMETHYLBENZENE     17.33     105     1649086     32.34 PPBV     100       85) TERT-BUTYLBENZENE     17.78     134     445487     34.41 PPBV     99       86) 1,2,4-TRIMETHYLBENZENE     17.79     105     1683399     34.61 PPBV     99       87) m-DICHLOROBENZENE     17.97     146     978090     34.32 PPBV     100       88) BENZYL CHLORIDE     17.95     91     1258169     35.46 PPBV     100       89) p-DICHLOROBENZENE     18.05     146     897563     33.56 PPBV     100       90) SEC-BUTYLBENZENE     18.09     134     505182     34.04 PPBV     96       91) p-ISOPROPYLTOLUENE     18.26     134     511243     34.95 PPBV     100       92) o-DICHLOROBENZENE     18.43     146     820403     33.37 PPBV     99			126	473071	32.62 PPBV		
85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	•			570035	33.21 PPBV		
85) TERT-BUTYLBENZENE 17.78 134 445487 34.41 PPBV 99 86) 1,2,4-TRIMETHYLBENZENE 17.79 105 1683399 34.61 PPBV 99 87) m-DICHLOROBENZENE 17.97 146 978090 34.32 PPBV 100 88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99				1968138	32.37 PPBV		
86)       1,2,4-TRIMETHYLBENZENE       17.79       105       1683399       34.61 PPBV       99         87)       m-DICHLOROBENZENE       17.97       146       978090       34.32 PPBV       100         88)       BENZYL CHLORIDE       17.95       91       1258169       35.46 PPBV       100         89)       p-DICHLOROBENZENE       18.05       146       897563       33.56 PPBV       100         90)       SEC-BUTYLBENZENE       18.09       134       505182       34.04 PPBV       96         91)       p-ISOPROPYLTOLUENE       18.26       134       511243       34.95 PPBV       100         92)       o-DICHLOROBENZENE       18.43       146       820403       33.37 PPBV       99				1649086	32.34 PPBV		
88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	,				34.41 PPBV		
88) BENZYL CHLORIDE 17.95 91 1258169 35.46 PPBV 100 89) p-DICHLOROBENZENE 18.05 146 897563 33.56 PPBV 100 90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99			105	1683399	34.61 PPBV		
90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99			146	978090	34.32 PPBV		
90) SEC-BUTYLBENZENE 18.09 134 505182 34.04 PPBV 96 91) p-ISOPROPYLTOLUENE 18.26 134 511243 34.95 PPBV 100 92) o-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99			91	1258169	35.46 PPBV		
92) O-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	· -		146	897563	33.56 PPBV		
92) O-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99			134	505182	34.04 PPBV		
92) O-DICHLOROBENZENE 18.43 146 820403 33.37 PPBV 99	AT) D-TROPKOLITIOPOEME	10.26	134	511243	34.95 PPBV		
94) HEXACHLOROBUTADIENE 20.87 225 245586 31.71 PPBV 100	92) O-DICHLOROBENZENE	10.43	146 124	8∠U4U3	33.3/ PPBV		
94) NEMACHLOROBUTADIENE 20.8/ 225 245580 31./1 PPBV 100	33) II-BUTILBENZENE	10./4	134 225	3/8695 245596	34.01 PPBV		
	54) HEXACHLOROBUTADIENE	∠∪.8/ 	∠∠5 	243580 	31./1 PPBV		T00

(#) = qualifier out of range (m) = manual integration W29774.D MW1222.M Mon Jan 24 09:29:15 2011 MSW



Vial: 2

Data File : C:\MSDCHEM\1\DATA\W29774.D

 Acq On
 : 20 Jan 2011 1:46 am
 Operator: YOUMINH

 Sample
 : IC1222-40
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:08 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : T015W

Compound R.T. QIon Response Conc Unit Qvalue

95) 1,2,4-TRICHLOROBENZENE 20.36 180 140621 38.17 PPBV 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29774.D MW1222.M Mon Jan 24 09:29:15 2011 MSW



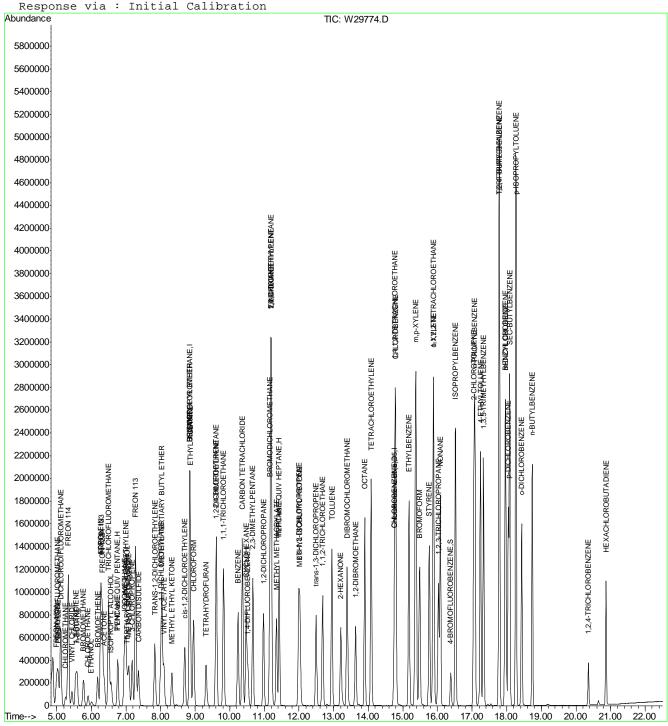
Data File : C:\MSDCHEM\1\DATA\W29774.D Vial: 2

Acq On : 20 Jan 2011 1:46 am Operator: YOUMINH Sample : IC1222-40 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:09 2011 Quant Results File: MW1222.RES

Last Update : Mon Jan 24 09:23:27 2011



W29774.D MW1222.M

Mon Jan 24 09:29:15 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29774.D Vial: 2

 Acq On
 : 20 Jan 2011
 1:46 am
 Operator: YOUMINH

 Sample
 : IC1222-40
 Inst
 : MSW

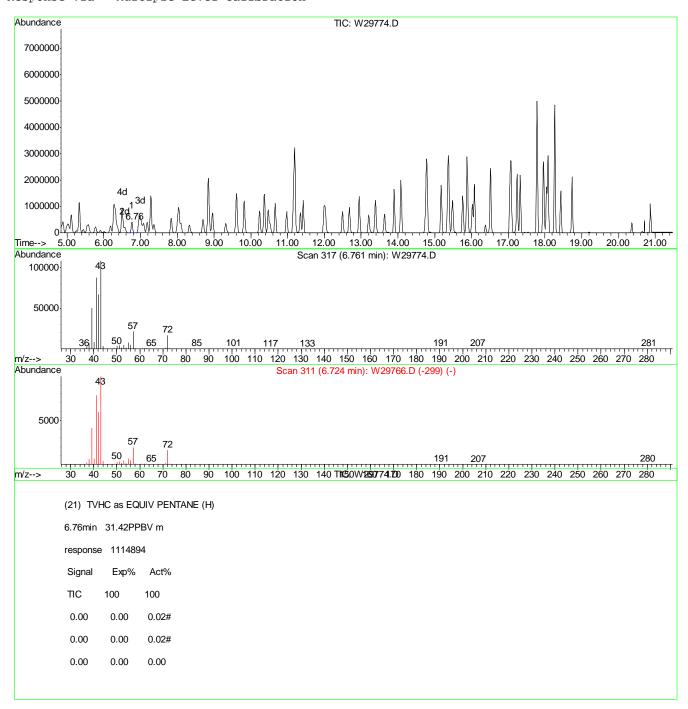
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:09 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29774.D MW1222.M

Mon Jan 24 09:30:11 2011



#### Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W29774.D Vial: 2

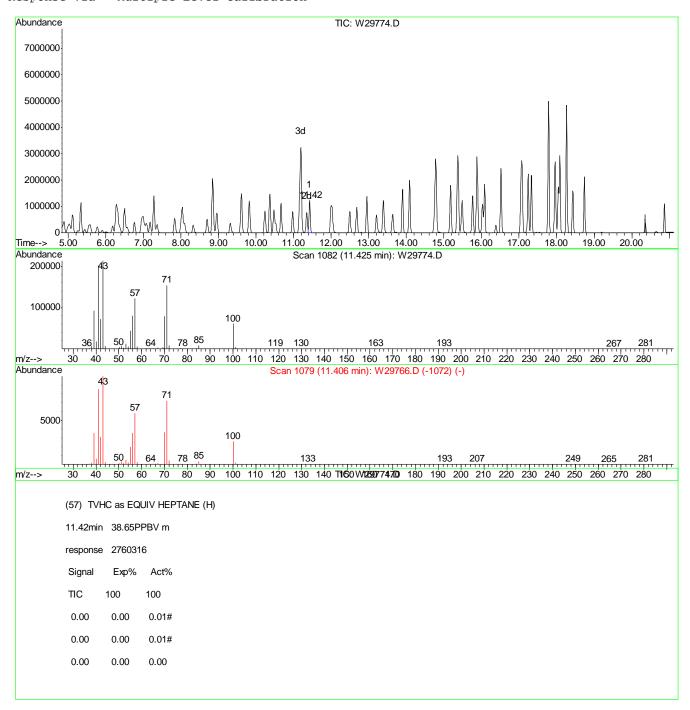
Acq On : 20 Jan 2011 1:46 am Operator: YOUMINH Sample : IC1222-40 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:09 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29774.D MW1222.M

Mon Jan 24 09:30:15 2011



Data File : C:\MSDCHEM\1\DATA\W29775.D Vial: 1

 Acq On
 : 20 Jan 2011 6:34 am
 Operator: YOUMINH

 Sample
 : IC1222-0.5
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:09 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	rnal Standards			Response			
	BROMOCHLOROMETHANE	0 77	120	80679 367655 163398 162597	10 00		0 05
		10.77	11/	367655	10.00	DDDM	-0.03
621	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	14 72	114	162200	10.00	DDDM	0.04
05)	Chlorobenzene-d5(a)	14.72	02	163550	10.00	DDDM	0.02
90)	Chrorobenzene-d5(a)	14.72	0.4	102597	10.00	PPBV	-0.02
Syst	em Monitoring Compounds						
78)	4-BROMOFLUOROBENZENE iked Amount 5.000	16.36	95	92701	4.70	PPBV	-0.01
Sp	iked Amount 5.000	Range 65	- 128	Recove	ry =	94.00	) %
Tarq	et Compounds FREON 152A CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TETTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE DI-ISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE					(	Ovalue
3)	FREON 152A	4.88	65	2785 1936	0.65	PPBV	91
4)	CHLORODIFLUOROMETHANE	4.91	67	1936	0.49	PPBV	94
5)	DICHLORODIFLUOROMETHANE	5.00	85	17880	0.52	PPBV	98
6)	PROPYLENE	4.94	41	2980	0.63	PPBV	92
7)	FREON 114	5.22	85	16582	0.55	PPBV	99
8)	CHLOROMETHANE	5.15	52	1117	0.63	PPBV :	# 67
9)	VINYL CHLORIDE	5.33	62	4661	0.63	PPBV	75
10)	1.3-BUTADIENE	5.44	54	3285	0.57	PPBV	95
11)	n-BUTANE	5.47	43	6770	0.66	PPBV :	# 98
12)	BROMOMETHANE	5.66	94	5146	0.61	PPBV	99
13)	CHLOROETHANE	5.79	64	2470	0.59	PPBV	93
14)	ACROLEIN	6.17	56	1351	0.51	PPBV	99
15)	FREON 123	6 16	83	11831	0.51	PPRV :	± 99
16)	FREON 123A	6.21	117	8885	0.54	PPBV	99
17)	TRICHLOROFILLOROMETHANE	6.40	101	21167	0.54	PPBV	99
18)	TSOPROPYL ALCOHOL	6 52	45	8202	0.51	PPRV	99
19)	ACETONE	6 29	58	1935	0.59	PPRV	93
20)	PENTANE	6 66	57	1042	0.51	PPRV :	± 66
21)	TVHC as EQUIV PENTANE	6.66	TIC	22180m	0.58	PPBV	
22)	TODOMETHANE	6.85	142	14443	0.55	PPBV	93
23)	1.1-DICHLOROETHYLENE	6.90	96	4791	0.54	PPBV	96
24)	CARRON DISHLETDE	7 27	76	13493	0.56	PPRV	99
25)	ETHANOL	5 93	45	2233	0.30	PPRV	87
26)	BROMOETHENE	6.07	106	5651	0.60	PPBV	98
27)	METHYLENE CHLORIDE	6.99	84	4548	0.61	PPBV	97
28)	3-CHLOROPROPENE	7 08	76	2074	0.50	PPRV :	± 89
29)	FREON 113	7 18	151	10487	0.50	PPRV	98
30)	TRANS-1 2-DICHLOROETHYLE	NE 7.10	96	5183	0.52	PPRV	98
31)	TERTIARY BITTYL ALCOHOL	7 01	59	12123	0.30	PPRV	92
32)	METHYL TERTLARY BUTYL ET	л.от нв. 7 97	73	14679	0.10	PPRV	96
33)	TETRAHYDROFIIRAN	9 30	72	1814	0.10	DDBV	92
34)	HEXANE	8 77	57	6528	0.33	PPRV	96
35)	VINVI ACETATE	8 01	86	1064	0.10	PPRV :	± 90
361	1.1-DICHLOROETHANE	7 91	63	8544	0.10	PPRV	98
371	METHYL ETHYL KETONE	8 26	72	1843	0 40	PPRV :	± 83
381	cis-1.2-DICHLOROETHYLENE	8 61	96	5188	0 48	PPRV	99
391	DI-ISOPROPYL ETHER	8.77	45	12410	0.42	PPBV	100
401	ETHYL ACETATE	8 78	61	1066	0.12	PPRV :	± 98
41)	CHIOROFORM	8 86	83	12369	0 46	PPRV	99
42)	2.4-DIMETHYLDENTANE	9 54	5 <i>7</i>	8108	0.10	PPRV	9.8

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W29775.D MW1222.M Mon Jan 24 09:29:16 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29775.D Vial: 1

Acq On : 20 Jan 2011 6:34 am Operator: YOUMINH Sample : IC1222-0.5 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:09 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	1,1,1-TRICHLOROETHANE	9.75	97	15589	0.45 PPBV	99
44)	CARBON TETRACHLORIDE	10.30	117	17281	0.45 PPBV	98
45)	1,2-DICHLOROETHANE	9.52	62	9104	0.44 PPBV	
47)	BENZENE	10.17	78	14121	0.52 PPBV	100
48)	CYCLOHEXANE	10.41	84	7649	0.59 PPBV	# 8
49)	2,3-DIMETHYLPENTANE	10.60		3664	0.60 PPBV	
50)	TRICHLOROETHYLENE	11.13	95	7269	0.52 PPBV	99
51)	1,2-DICHLOROPROPANE	10.92	63	3976	0.48 PPBV	
	BROMODICHLOROMETHANE	11.10	83	13338	0.50 PPBV	97
53)	2,2,4-TRIMETHYLPENTANE	11.14		19800	0.49 PPBV	
54)	1,4-DIOXANE	11.27	88	2915	0.46 PPBV	# 1
55)	METHYL METHACRYLATE	11.31	69	4043	0.44 PPBV	95
56)	HEPTANE	11.38	43	7059	0.53 PPBV	95
57)	TVHC as EQUIV HEPTANE	11.38	TIC	39594m	0.53 PPBV	
58)	METHYL ISOBUTYL KETONE	12.01	43	8520	0.46 PPBV	98
59)	cis-1,3-DICHLOROPROPENE	11.94	75	7859	0.46 PPBV	# 79
60)	TOLUENE	12.91	92	9456	0.45 PPBV	99
61)	trans-1,3-DICHLOROPROPENE	12.45	75	7446	0.46 PPBV	96
62)	1,1,2-TRICHLOROETHANE	12.64	83	3806	0.43 PPBV	98
64)	2-HEXANONE	13.20	43	8269	0.60 PPBV	97
65)	TETRACHLOROETHYLENE	14.06	164	7587	0.60 PPBV	98
66)	DIBROMOCHLOROMETHANE	13.35	129	11154	0.55 PPBV	96
	1,2-DIBROMOETHANE	13.59	107	7901	0.58 PPBV	98
68)	OCTANE	13.86	43	7748	0.53 PPBV	100
69)	1,1,1,2-TETRACHLOROETHANE	14.75	131	7811	0.52 PPBV	# 98
	CHLOROBENZENE	14.77	112		0.56 PPBV	# 75
	ETHYLBENZENE	15.16	91	19587	0.51 PPBV	99
72)	m,p-XYLENE	15.34	106	14269	0.99 PPBV	91
73)	O-XYLENE	15.85	106	6491	0.46 PPBV	95
	STYRENE	15.73	104	9934	0.49 PPBV	97
75)	1,2,3-TRICHLOROPROPANE	16.00	75	6560	0.49 PPBV	99
76)	NONANE	16.06	43	6137	0.44 PPBV	96
77)	BROMOFORM	15.45	173	9856	0.54 PPBV	98
79)	1,1,2,2-TETRACHLOROETHANE	15.86	83	6753	0.46 PPBV	96
80)	ISOPROPYLBENZENE	16.50		20563	0.45 PPBV	99
81)	2-CHLOROTOLUENE	17.03	126	4725	0.51 PPBV	# 95
	n-PROPYLBENZENE	17.06	120	4818	0.44 PPBV	97
83)	4-ETHYLTOLUENE	17.22	105	16602	0.43 PPBV	96
	1,3,5-TRIMETHYLBENZENE	17.31		13716	0.42 PPBV	99
85)	TERT-BUTYLBENZENE	17.76	134	3122	0.38 PPBV	89
	1,2,4-TRIMETHYLBENZENE	17.77	105	12422	0.40 PPBV	99
87)	m-DICHLOROBENZENE	17.95		8632	0.47 PPBV	99
88)	BENZYL CHLORIDE	17.93	91	9709	0.43 PPBV	98
89)	p-DICHLOROBENZENE	18.03	146	8546	0.50 PPBV	99
	SEC-BUTYLBENZENE	18.07			0.41 PPBV	
	p-ISOPROPYLTOLUENE	18.25			0.39 PPBV	
	o-DICHLOROBENZENE	18.42			0.48 PPBV	
	n-BUTYLBENZENE	18.72			0.33 PPBV	
	HEXACHLOROBUTADIENE	20.87	225	2467	0.50 PPBV	
,						

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(#) = qualifier out of range (m) = manual integration W29775.D MW1222.M Mon Jan 24 09:29:16 2011 MSW



Page 2

Data File : C:\MSDCHEM\1\DATA\W29775.D Vial: 1

 Acq On
 : 20 Jan 2011 6:34 am
 Operator: YOUMINH

 Sample
 : IC1222-0.5
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:09 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue
95) 1,2,4-TRICHLOROBENZENE 20.36 180 2134 0.90 PPBV 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29775.D MW1222.M Mon Jan 24 09:29:16 2011 MSW

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ACCUTEST

JA68565
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\W29775.D Vial: 1

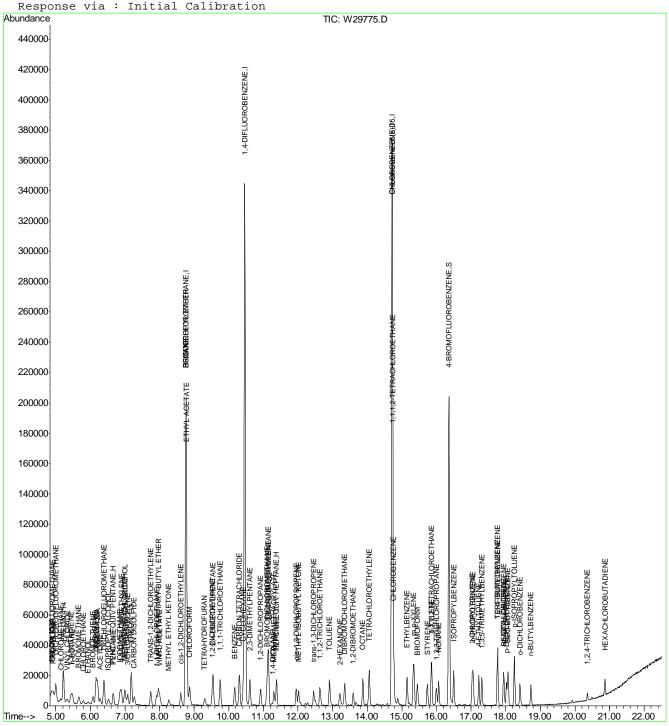
: 20 Jan 2011 6:34 am Operator: YOUMINH Acq On Sample : IC1222-0.5 : MSW : MS6862,VW1222,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:10 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011



W29775.D MW1222.M Mon Jan 24 09:29:17 2011



Data File : C:\MSDCHEM\1\DATA\W29775.D Vial: 1

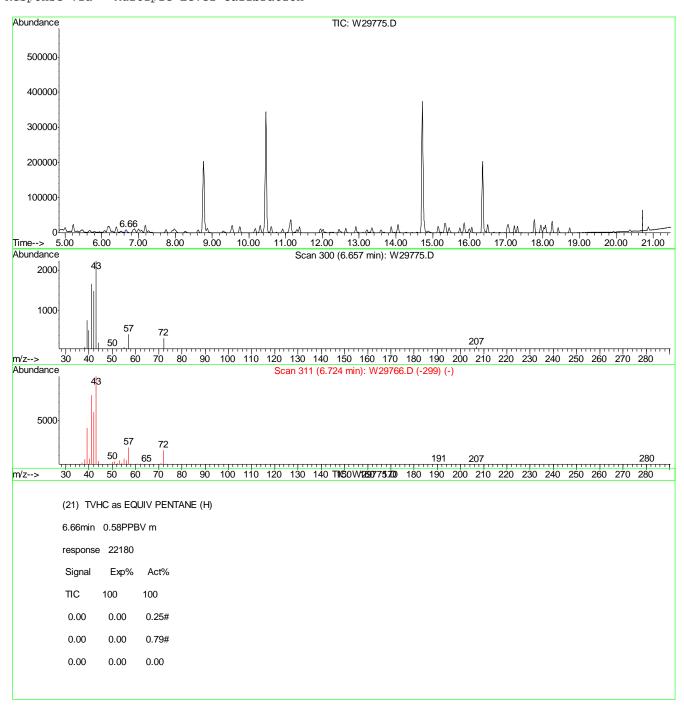
: 20 Jan 2011 6:34 am Operator: YOUMINH Acq On Sample : IC1222-0.5 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:10 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:30:25 2011



Data File : C:\MSDCHEM\1\DATA\W29775.D Vial: 1

 Acq On
 : 20 Jan 2011 6:34 am
 Operator: YOUMINH

 Sample
 : IC1222-0.5
 Inst : MSW

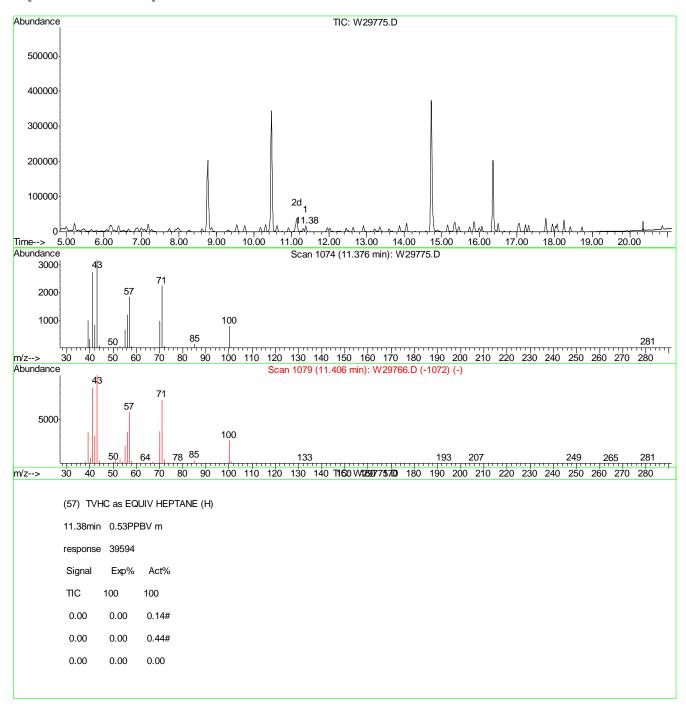
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:10 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29775.D MW1222.M

Mon Jan 24 09:30:28 2011



**Manual Integrations** APPROVED (compounds with "m" flag)

> Jessica Reitan-Chu 01/25/11 14:40

W29776.D

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

Acq On : 20 Jan 2011 7:15 am Operator: YOUMINH Sample : IC1222-0.2 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:10 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	_	Conc Ui			
1) BROMOCHLOROMETHANE	8.77		69106	10 00	DDBN		-0.04
46) 1,4-DIFLUOROBENZENE	10.47	114	349114 169427	10.00	PPBV		-0.03
63) CHLOROBENZENE-D5	14.72	82	349114 169427 168136	10.00	PPBV		-0.01
96) Chlorobenzene-d5(a)	14.72	82	168136	10.00	PPBV		-0.01
System Monitoring Compounds							
78) 4-BROMOFLUOROBENZENE					PPBV		0.00
Spiked Amount 5.000 Ra	inge 65	- 128	Recove	ry =	93.	60%	
Target Compounds						~	alue
3) FREON 152A	4.90		1307		PPBV		85
4) CHLORODIFLUOROMETHANE	4.92	67	792		PPBV		79
5) DICHLORODIFLUOROMETHANE	5.02	85	7266		PPBV		98
6) PROPYLENE	4.96	41	946		PPBV		81
7) FREON 114	5.24	85	6222	0.24	PPBV		98
8) CHLOROMETHANE	5.16	52	296	0.19	PPBV	#	63
9) VINYL CHLORIDE	5.34	62	1465		PPBV		77
10) 1,3-BUTADIENE	5.46	54	1214		PPBV		90
11) n-BUTANE	5.49	43	2300		PPBV		92
12) BROMOMETHANE	5.68	94	1772		PPBV		86
13) CHLOROETHANE	5.81	64	757		PPBV		83
14) ACROLEIN	6.19	56	382	0.17	PPBV		86
15) FREON 123	6.18	83	4255	0.23	PPBV	#	100
16) FREON 123A	6.22	117	3371	0.24	PPBV		93
17) TRICHLOROFLUOROMETHANE	6.41		8249	0.25	PPBV		98
18) ISOPROPYL ALCOHOL	6.61	45	2762	0.23	PPBV		94
19) ACETONE	6.30	58	677		PPBV	#	76
20) PENTANE	6.68	57	395 8346m	0.23	PPBV	#	67
21) TVHC as EQUIV PENTANE	6.68	TIC	8346m	0.26	PPBV		
22) IODOMETHANE	6.86	142	5211	0.23	PPBV		94
23) 1,1-DICHLOROETHYLENE	6.90	96	1827	0.24	PPBV		99
24) CARBON DISULFIDE	7.27	76	4810		PPBV		88
26) BROMOETHENE	6.09	106	1867	0.23 0.26	PPBV		93
27) METHYLENE CHLORIDE	7.00	84	1664				85
28) 3-CHLOROPROPENE	7.09	76	824		PPBV		63
29) FREON 113	7.19		3920		PPBV		98
30) TRANS-1,2-DICHLOROETHYLENE			2247		PPBV		93
31) TERTIARY BUTYL ALCOHOL		59	4992m	0.22	PPBV		
32) METHYL TERTIARY BUTYL ETHE	7.99	73	6984	0.22	PPBV		99
33) TETRAHYDROFURAN	9.36	72	663	0.17	PPBV	#	77
34) HEXANE	8.78	57	2744	0.24	PPBV		95
35) VINYL ACETATE	8.04	86	471	0.21	PPBV	#	1
36) 1,1-DICHLOROETHANE	7.93	63	3530	0.23	PPBV		95
37) METHYL ETHYL KETONE	8.31	72	709m	0.18	PPBV		
38) cis-1,2-DICHLOROETHYLENE	8.63	96	2224	0.24	PPBV		93
39) DI-ISOPROPYL ETHER	8.79	45	5500	0.22	PPBV		97
40) ETHYL ACETATE	8.83	61	332		PPBV		1
41) CHLOROFORM	8.88	83	5281	0.23	PPBV		96
42) 2,4-DIMETHYLPENTANE	9.56	57	3226	0.22			98
43) 1,1,1-TRICHLOROETHANE	9.76	97	6474	0.22	PPBV		95

(#) = qualifier out of range (m) = manual integration W29776.D MW1222.M Tue Jan 25 14:40:24 2011 MSW



Page 1

Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

Acq On : 20 Jan 2011 7:15 am Operator: YOUMINH : IC1222-0.2 Sample Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:10 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qv	alue
44) CARBON TETRACHLORIDE	10.31	 117	7629	0.23 PPBV		98
45 \ 1 0 DIGHT OD OFFICE	0 - 4		2000	0 00 555		98
47) BENZENE	10.18	78	5634			96
48) CYCLOHEXANE	10.43	84	3161	0.22 PPBV 0.26 PPBV	#	8
49) 2,3-DIMETHYLPENTANE	10.61	71	1305	0.22 PPBV		93
50) TRICHLOROETHYLENE	11.14	95	3032	0.23 PPBV		95
51) 1,2-DICHLOROPROPANE	10.92	63	1787	0.23 PPBV		96
52) BROMODICHLOROMETHANE	11.11	83	5587	0.22 PPBV		99
53) 2,2,4-TRIMETHYLPENTANE	11.15	57	7876	0.20 PPBV		98
54) 1,4-DIOXANE	11.39	88	861m	0.14 PPBV		
55) METHYL METHACRYLATE	11.33	69	1753	0.20 PPBV		97
56) HEPTANE	11.38	43	2829	0.22 PPBV		94
57) TVHC as EQUIV HEPTANE	11.38	TIC	17004m	0.24 PPBV		
58) METHYL ISOBUTYL KETONE	12.08	4.3	3176	0.18 PPBV	#	54
59) cis-1,3-DICHLOROPROPENE 60) TOLUENE 61) trans-1,3-DICHLOROPROPENE 62) 1,1,2-TRICHLOROETHANE	11.96	75	3378	0.21 PPBV		82
60) TOLUENE	12.91	92	4166	0.21 PPBV		96
<pre>61) trans-1,3-DICHLOROPROPENE</pre>	12.46	75	2902	0.19 PPBV		93
62) 1,1,2-TRICHLOROETHANE	12.64	83	1627	0.19 PPBV 0.19 PPBV		99
D41 Z-FFXANUNE	13.70	4 1	7. 1 7. 7.	0.19 PPBV		85
65) TETRACHLOROETHYLENE	14.06 13.35	164	3006	0.23 PPBV		97
	13.35 13.60 13.88	129	4748	0.22 PPBV		97
67) 1,2-DIBROMOETHANE	13.60	107	2978	0.21 PPBV		99
68) OCTANE	13.88	43	3188	0.21 PPBV 0.21 PPBV		99
69) 1,1,1,2-TETRACHLOROETHANE 70) CHLOROBENZENE	14.75	131	3682	0.24 PPBV 0.22 PPBV		
						88
71) ETHYLBENZENE	15.15		8776	0.22 PPBV		99
72) m,p-XYLENE	15.35		5804	0.39 PPBV 0.20 PPBV	#	97
73) o-XYLENE	15.85	106	2945	0.20 PPBV		97
74) STYRENE	15.85 15.74 16.01	104	3702	0.17 PPBV 0.21 PPBV		98
75) 1,2,3-TRICHLOROPROPANE	16.01	75	2907			93
76) NONANE	16.06 15.45	43	2631	0.18 PPBV 0.22 PPBV		98
77) BROMOFORM	15.45	173	4244			97
79) 1,1,2,2-TETRACHLOROETHANE	15.88	83	2661	0.17 PPBV		93
76) NONANE 77) BROMOFORM 79) 1,1,2,2-TETRACHLOROETHANE 80) ISOPROPYLBENZENE 81) 2-CHLOROTOLUENE	16.50	105	9120	0.19 PPBV 0.19 PPBV		98
81) 2-CHLOROTOLUENE	17.04	126	1840	0.19 PPBV	#	
82) n-PROPYLBENZENE	17.06 17.23	120	2023	0.18 PPBV 0.16 PPBV		98
83) 4-ETHYLTOLUENE	17.23	105				100
84) 1,3,5-TRIMETHYLBENZENE	17.31 17.77	105	6005	0.18 PPBV		98
85) IERI-BUIYLBENZENE	1/.//	134		0.16 PPBV		94
86) 1,2,4-TRIMETHYLBENZENE	17.78 17.95	105	4835	0.15 PPBV		92
	17.95	146	2682	0.14 PPBV		98
88) BENZYL CHLORIDE	17.94	146	2631	0.11 PPBV		98
89) p-DICHLOROBENZENE	18.03	146	2507 1573	0.14 PPBV		100
90) SEC-BUTYLBENZENE	18.08	134	15/3	0.16 PPBV		99
91) P-ISOPROPYLTOLUENE	10.25	134 146	135Z	0.14 PPBV		97
92) ~ DUTTI DENZENE	10.42	140 124	4393 060	0.15 PPBV		97
04) HEANCHI ODODILLIADI LIME	10./3	134 225	800	0.12 PPBV	. щ	88
89) p-DICHLOROBENZENE 90) SEC-BUTYLBENZENE 91) p-ISOPROPYLTOLUENE 92) o-DICHLOROBENZENE 93) n-BUTYLBENZENE 94) HEXACHLOROBUTADIENE 95) 1,2,4-TRICHLOROBENZENE	∠U.0/	∠∠⊃ 10∩	200	0.13 PPBV	. #	81 85
JJ   1,2,4-IKICHLOKODENZENE		100	300	U.I3 PPBV		

(#) = qualifier out of range (m) = manual integration W29776.D MW1222.M Tue Jan 25 14:40:25 2011 MSW



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

Acq On : 20 Jan 2011 7:15 am Operator: YOUMINH Sample : IC1222-0.2 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:10 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

Response via · initial calls

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29776.D MW1222.M Tue Jan 25 14:40:25 2011 MSW

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LABORATORIES

Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

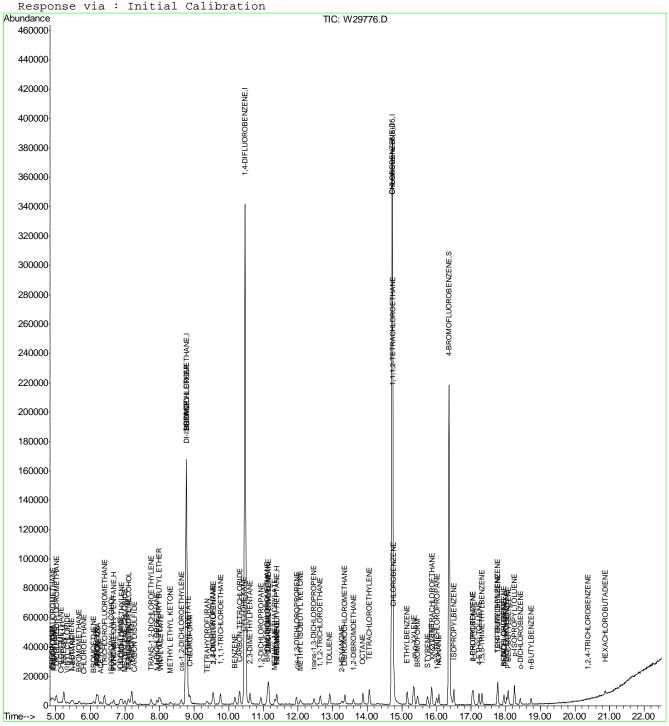
Acq On : 20 Jan 2011 7:15 am Operator: YOUMINH Sample : IC1222-0.2 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:39 2011 Quant Results File: MW1222.RES

Last Update : Mon Jan 24 09:39:52 2011

Response via : Initial Calibration



W29776.D MW1222.M

Tue Jan 25 14:40:25 2011



Page 1 of 1

# **Manual Integration Approval Summary**

Sample Number: VW1222-IC1222 Method: TO-15

Lab FileID:W29776.DAnalyst approved:01/24/11 09:37Youmin HuInjection Time:01/20/11 07:15Supervisor approved:01/25/11 14:40Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tertiary Butyl Alcohol	75-65-0		7.11	Missed peak
1,4-Dioxane	123-91-1		11.39	Missed peak



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

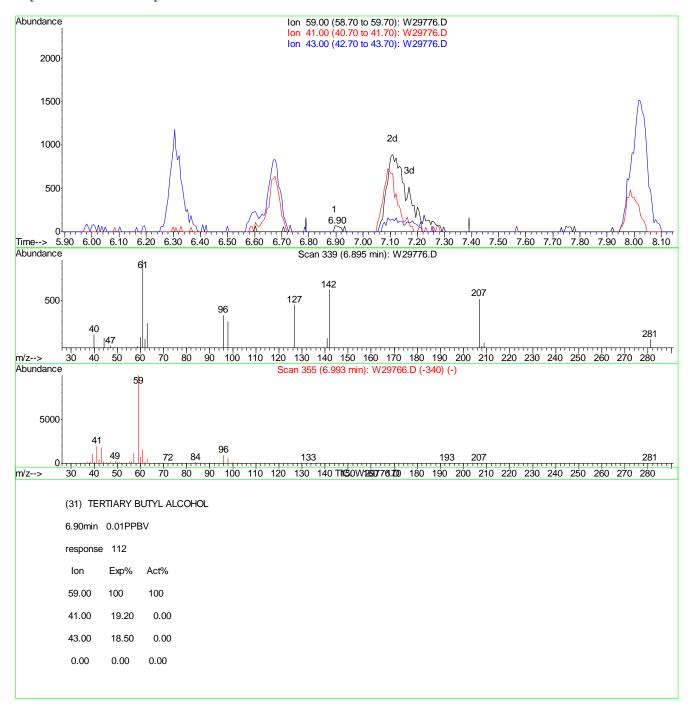
: 20 Jan 2011 7:15 am Operator: YOUMINH Acq On Sample : IC1222-0.2 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:11 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:11:46 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

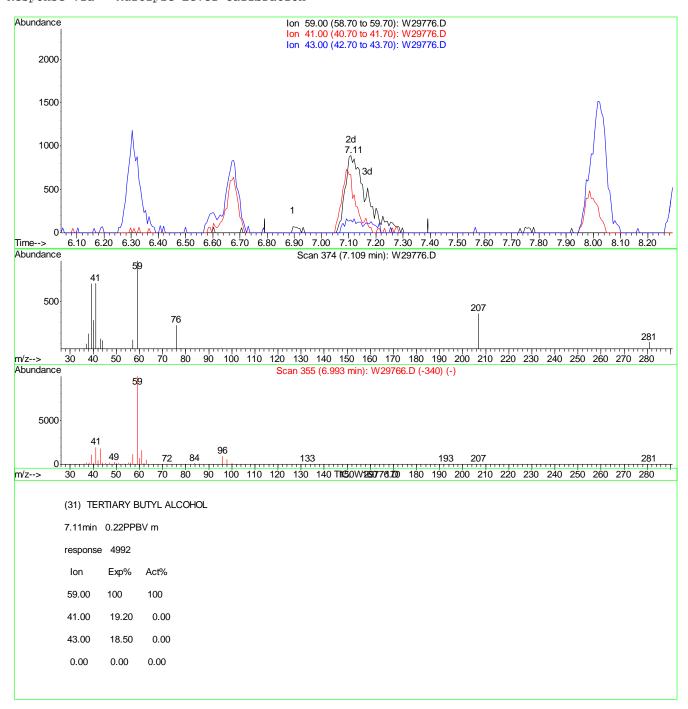
: 20 Jan 2011 7:15 am Operator: YOUMINH Acq On : IC1222-0.2 : MSW Sample Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:11 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:12:10 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

 Acq On
 : 20 Jan 2011
 7:15 am
 Operator: YOUMINH

 Sample
 : IC1222-0.2
 Inst
 : MSW

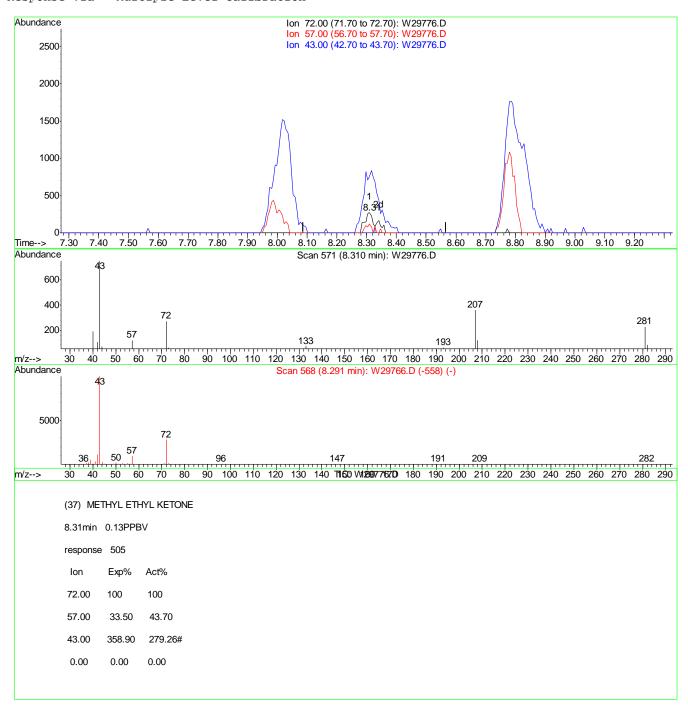
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:11 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29776.D MW1222.M

Mon Jan 24 09:12:19 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

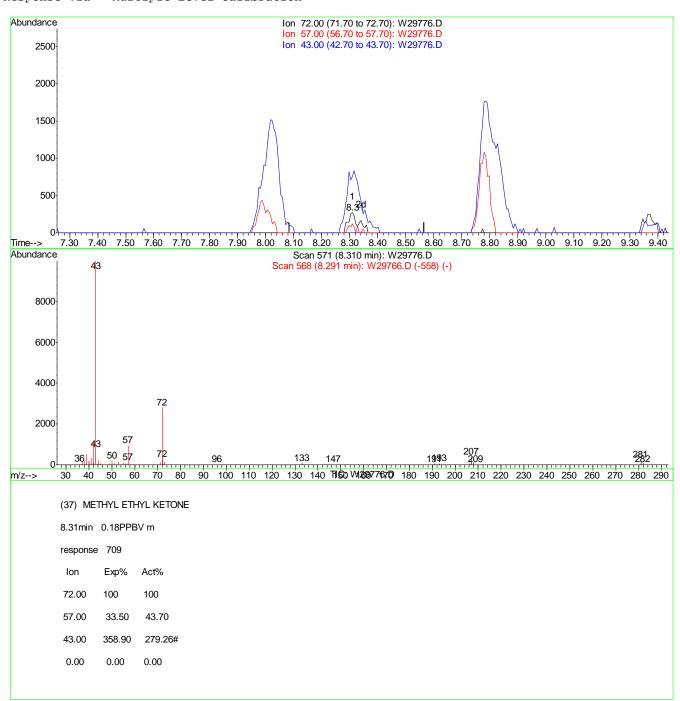
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MS Integration Params: rteint.p

Quant Time: Jan 24 9:12 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29776.D MW1222.M

Mon Jan 24 09:12:30 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

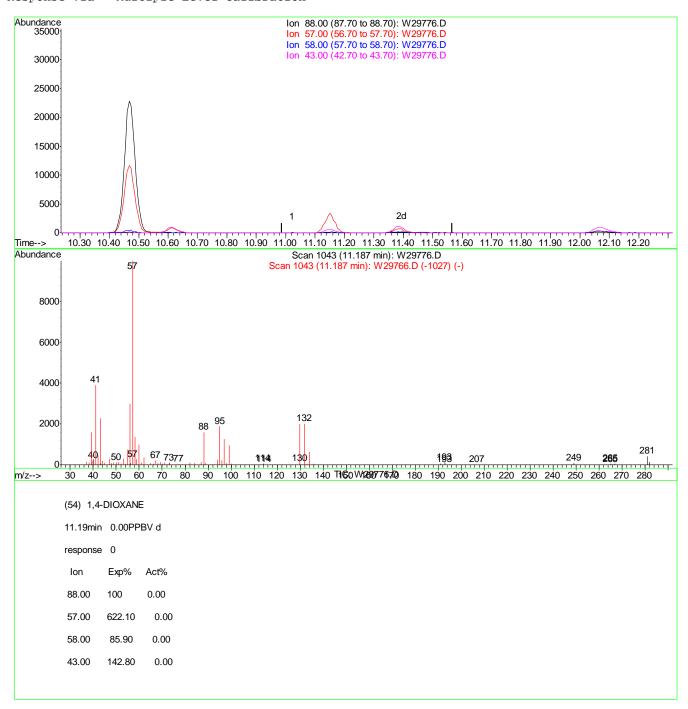
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MS Integration Params: rteint.p

Quant Time: Jan 24 9:13 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:13:08 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

 Acq On
 : 20 Jan 2011
 7:15 am
 Operator: YOUMINH

 Sample
 : IC1222-0.2
 Inst
 : MSW

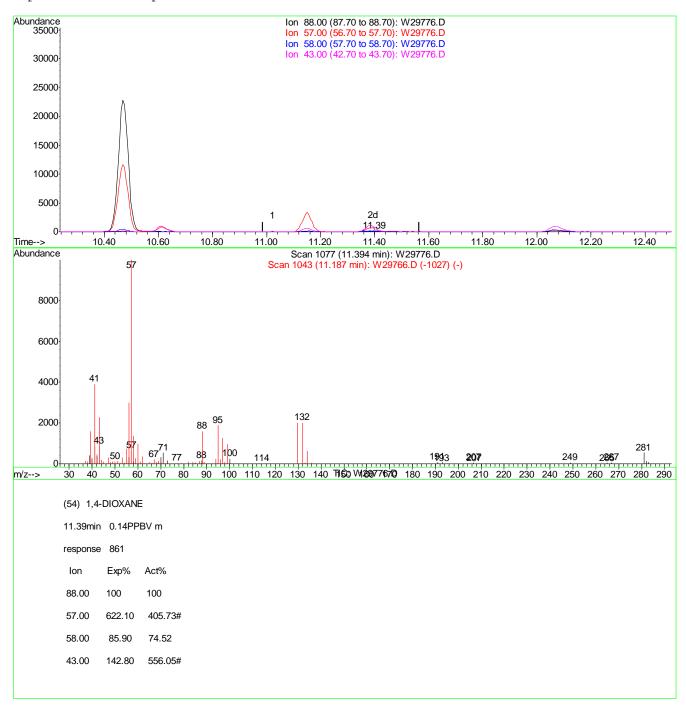
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 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:13 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29776.D MW1222.M

Mon Jan 24 09:13:57 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

 Acq On
 : 20 Jan 2011
 7:15 am
 Operator: YOUMINH

 Sample
 : IC1222-0.2
 Inst
 : MSW

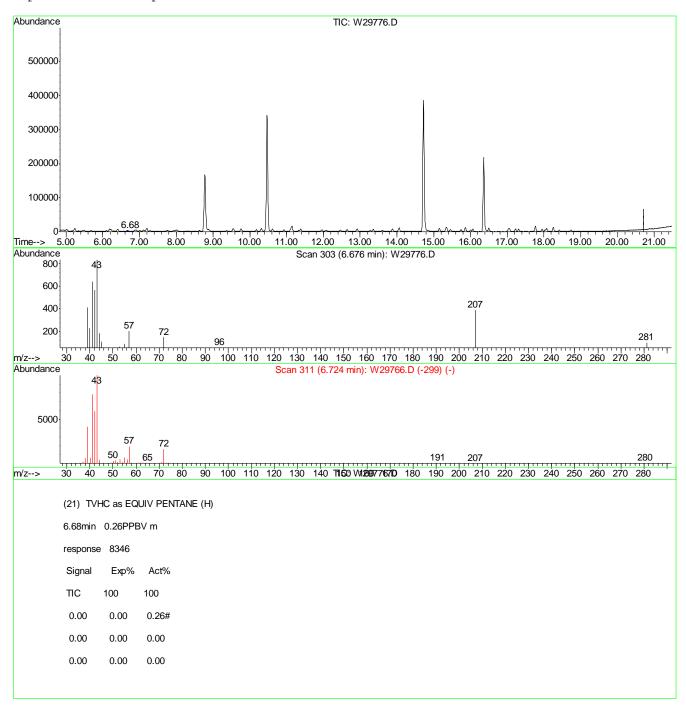
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 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:14 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29776.D MW1222.M

Mon Jan 24 09:30:36 2011



Data File : C:\MSDCHEM\1\DATA\W29776.D Vial: 1

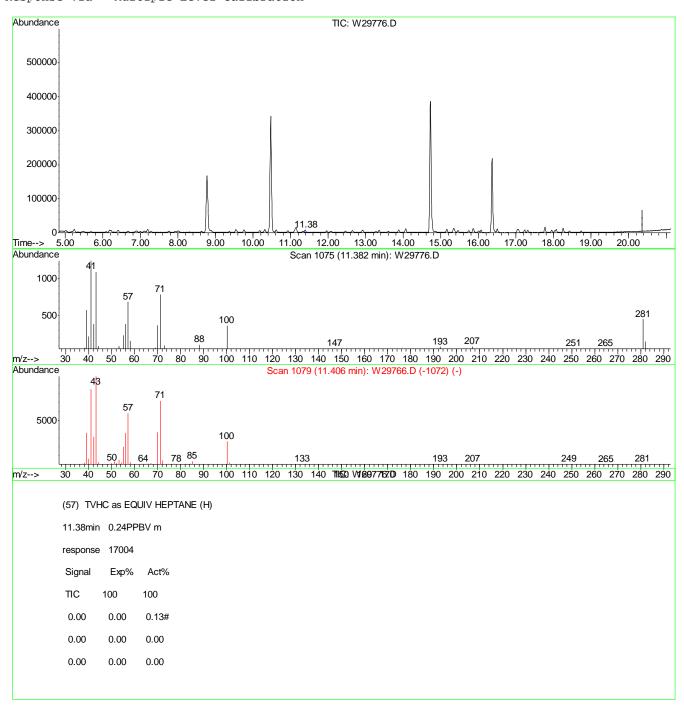
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MS Integration Params: rteint.p

Quant Time: Jan 24 9:14 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29776.D MW1222.M

Mon Jan 24 09:30:40 2011



Jessica Reitan-Chu 01/25/11 14:40

# Quantitation Report (QT Reviewed)

Vial: 4

Data File : C:\MSDCHEM\1\DATA\W29777.D

Acq On : 20 Jan 2011 11:23 am Operator: YOUMINH Sample : IC1222-0.1 Inst : MSW : MS6862,VW1222,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:11 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U	nits I	Dev	(Min)
1) BROMOCHLOROMETHANE	8.75	128	82639	10.00	PPBV		-0.07
46) 1,4-DIFLUOROBENZENE	10.45	114	381399	10.00	PPBV		-0.05
63) CHLOROBENZENE-D5	14.71	82	177868	10.00	PPBV		-0.02
96) Chlorobenzene-d5(a)	14.71	82	82639 381399 177868 176424	10.00	PPBV		-0.02
System Monitoring Compounds 78) 4-BROMOFLUOROBENZENE	16 26	0.5	100064	4 51			0 01
Spiked Amount 5.000 Ra	nge 65	- 128	Recover	y =	94.	20%	
Target Compounds						Qv	alue
4) CHLORODIFLUOROMETHANE		67		0.10	PPBV		
5) DICHLORODIFLUOROMETHANE	4.98	85	3386	0.10	PPBV		99
6) PROPYLENE	4.93	41	3386 529m 2822 139	0.11	PPBV		
7) FREON 114	5.21	85	2822	0.09	PPBV		96
8) CHLOROMETHANE	5.13	52	139	0.08	PPBV	#	31
9) VINYL CHLORIDE	5.32	62	665	0.09	PPBV	#	52
10) 1,3-BUTADIENE	5.43	54	604	0.10	PPBV	#	83
11) n-BUTANE	5.46	43	1213	0.11	PPBV	#	86
12) BROMOMETHANE	5.65	94	837	0.10	PPBV	#	71
13) CHLOROETHANE	5.79	64	370m	0.09	PPBV		
15) FREON 123	6.15	83	2027	0.09	PPBV	#	51
16) FREON 123A	6.18	117	1465	0.09	PPBV	#	88
17) TRICHLOROFLUOROMETHANE	6.38	101	3959	0.10	PPBV		99
18) ISOPROPYL ALCOHOL	6.49	45	1686	0.12	PPBV		94
19) ACETONE	6.27	58	416	0.12	PPBV	#	91
20) PENTANE	6.65	57	183	0.09	PPBV	#	50
21) TVHC as EQUIV PENTANE	6.65	TIC	3506m	0.09	PPBV		
22) IODOMETHANE	6.84	142	2382	0.09	PPBV		100
23) 1,1-DICHLOROETHYLENE	6.90	96	1062m	0.12	PPBV		
24) CARBON DISULFIDE	7.25	76	2331	0.09	PPBV		91
26) BROMOETHENE	6.06	106	860	0.09	PPBV	#	94
28) 3-CHLOROPROPENE	7.08	76	387	0.09	PPBV	#	70
29) FREON 113	7.18	151	1928	0.09	PPBV		96
30) TRANS-1,2-DICHLOROETHYLENE	7.75	96	1315m	0.12	PPBV		
31) TERTIARY BUTYL ALCOHOL	6.99	59	2026m	0.08	PPBV		
32) METHYL TERTIARY BUTYL ETHE	7.96	73	3079	0.08	PPBV		97
34) HEXANE	8.75	57	1327	0.10	PPBV		94
36) 1,1-DICHLOROETHANE	7.90	63	1507	0.08	PPBV		99
38) cis-1,2-DICHLOROETHYLENE	8.60	96	1166	0.11	PPBV		88
39) DI-ISOPROPYL ETHER	8.75	45	2317	0.08	PPBV	#	93
41) CHLOROFORM	8.86	83	2174	0.08	PPBV		94
42) 2,4-DIMETHYLPENTANE	9.53	57	1456	0.08	PPBV		98
43) 1,1,1-TRICHLOROETHANE	9.73	97	2791	0.08	PPBV		95
44) CARBON TETRACHLORIDE	10.29	117	3275	0.08	PPBV		98
45) 1,2-DICHLOROETHANE	9.51	62	1729	0.08	PPBV		96
47) BENZENE	10.16	78	2612	0.09	PPBV		98
48) CYCLOHEXANE	10.41	84	1640	0.12	PPBV	#	8
5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 15) FREON 123 16) FREON 123 16) FREON 123A 17) TRICHLOROFLUOROMETHANE 18) ISOPROPYL ALCOHOL 19) ACETONE 20) PENTANE 21) TVHC as EQUIV PENTANE 22) IODOMETHANE 23) 1,1-DICHLOROETHYLENE 24) CARBON DISULFIDE 26) BROMOETHENE 28) 3-CHLOROPROPENE 29) FREON 113 30) TRANS-1,2-DICHLOROETHYLENE 31) TERTIARY BUTYL ALCOHOL 32) METHYL TERTIARY BUTYL ETHE 34) HEXANE 36) 1,1-DICHLOROETHANE 38) cis-1,2-DICHLOROETHYLENE 39) DI-ISOPROPYL ETHER 41) CHLOROFORM 42) 2,4-DIMETHYLPENTANE 43) 1,1,1-TRICHLOROETHANE 44) CARBON TETRACHLORIDE 45) 1,2-DICHLOROETHANE 47) BENZENE 48) CYCLOHEXANE 49) 2,3-DIMETHYLPENTANE 50) TRICHLOROETHYLENE	10.60	71	567	0.09	PPBV		91
50) TRICHLOROETHYLENE	11.13	95	567 1161 839	0.08	PPBV		90
51) 1,2-DICHLOROPROPANE	10.91	63	839	0.10	PPBV		78

(#) = qualifier out of range (m) = manual integration W29777.D MW1222.M Mon Jan 24 09:29:19 2011 MSW



Page 1

Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

Acq On : 20 Jan 2011 11:23 am Operator: YOUMINH Sample : IC1222-0.1 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:11 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
52)	BROMODICHLOROMETHANE	11.09	83	2481	0.09 PPBV	95
53)	2,2,4-TRIMETHYLPENTANE	11.13	57	3738	0.09 PPBV	97
56)	HEPTANE	11.36	43	1309	0.10 PPBV	95
57)	TVHC as EQUIV HEPTANE	11.36	TIC	6816m	0.09 PPBV	
58)	METHYL ISOBUTYL KETONE	12.01	43	1286	0.07 PPBV	93
59)	cis-1,3-DICHLOROPROPENE	11.94	75	1434	0.08 PPBV	82
60)	TOLUENE	12.90	92	1846	0.08 PPBV	91
61)	trans-1,3-DICHLOROPROPENE	12.44	75	1350	0.08 PPBV	88
65)	TETRACHLOROETHYLENE	14.06	164	1376	0.10 PPBV	97
66)	DIBROMOCHLOROMETHANE	13.33	129	2004	0.09 PPBV	99
67)	1,2-DIBROMOETHANE	13.58	107	1128	0.08 PPBV	98
68)	OCTANE	13.86	43	1287	0.08 PPBV	87
69)	1,1,1,2-TETRACHLOROETHANE	14.74	131	1502	0.09 PPBV	# 81
70)	CHLOROBENZENE	14.75	112	2122	0.09 PPBV	
71)	ETHYLBENZENE	15.14	91	3601	0.09 PPBV	98
72)	m,p-XYLENE	15.34	106	2551	0.16 PPBV	
73)	O-XYLENE	15.84		1163	0.08 PPBV	# 89
74)	STYRENE	15.72	104	1538	0.07 PPBV	96
75)	1,2,3-TRICHLOROPROPANE	15.99		1166	0.08 PPBV	
76)	NONANE	16.06	43	1017	0.07 PPBV	
77)	BROMOFORM	15.44	173	1794	0.09 PPBV	98
80)	ISOPROPYLBENZENE	16.50	105	3636	0.07 PPBV	
81)	2-CHLOROTOLUENE	17.03	126	734	0.07 PPBV	# 88
82)	n-PROPYLBENZENE	17.06	120	751	0.06 PPBV	86
83)	4-ETHYLTOLUENE	17.22	105	2432	0.06 PPBV	98
84)	1,3,5-TRIMETHYLBENZENE	17.30	105	2359	0.07 PPBV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29777.D MW1222.M Mon Jan 24 09:29:19 2011 MSW



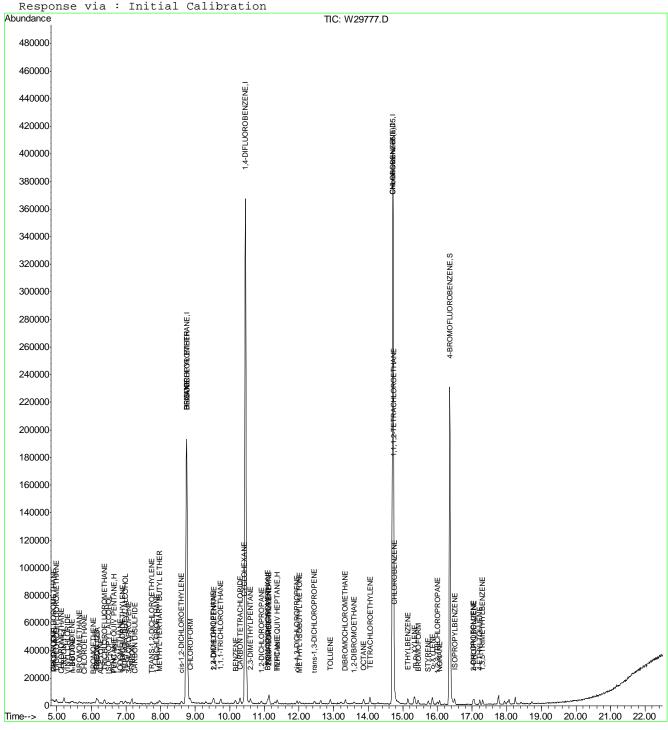
Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

Acq On : 20 Jan 2011 11:23 am Operator: YOUMINH Sample : IC1222-0.1 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:19 2011 Quant Results File: MW1222.RES

Last Update : Mon Jan 24 09:23:27 2011



W29777.D MW1222.M

Mon Jan 24 09:29:20 2011



Page 1 of 1

# **Manual Integration Approval Summary**

Sample Number: VW1222-IC1222 Method: TO-15

Lab FileID:W29777.DAnalyst approved:01/24/11 09:37Youmin HuInjection Time:01/20/11 11:23Supervisor approved:01/25/11 14:40Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propylene	115-07-1		4.93	Missed peak
Chloroethane	75-00-3		5.79	Poor instrument integration
1,1-Dichloroethylene	75-35-4		6.90	Poor instrument integration
Tertiary Butyl Alcohol	75-65-0		6.99	Poor instrument integration
trans-1,2-Dichloroethylene	156-60-5		7.75	Poor instrument integration



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

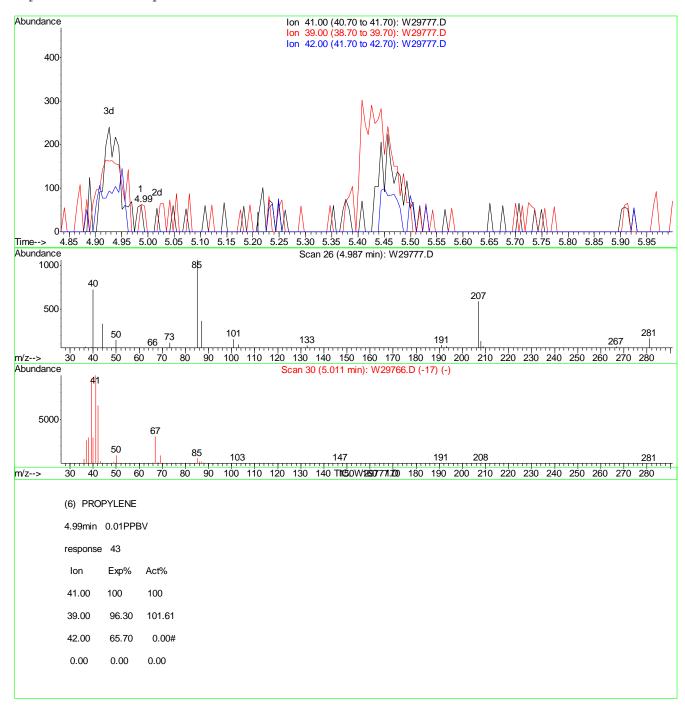
: 20 Jan 2011 11:23 am Operator: YOUMINH Acq On Sample : IC1222-0.1 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:14 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:14:55 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

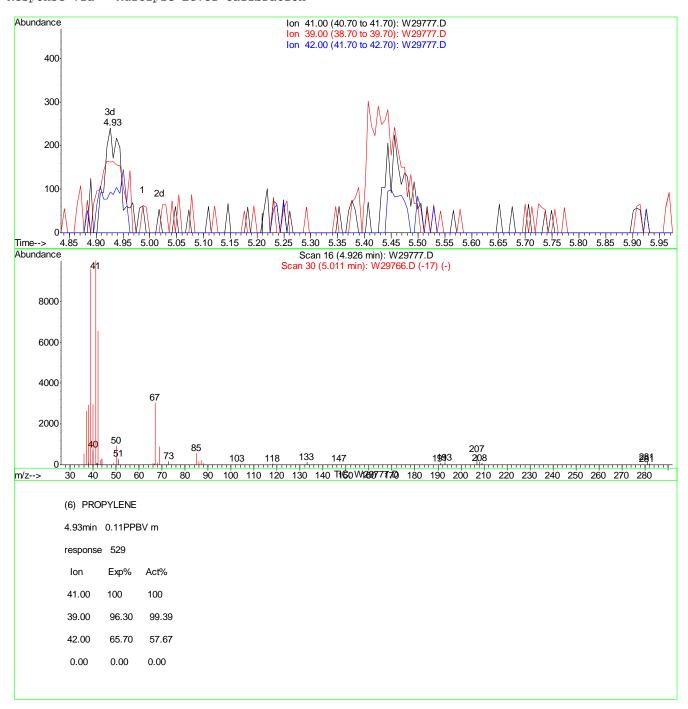
: 20 Jan 2011 11:23 am Operator: YOUMINH Acq On Sample : IC1222-0.1 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:14 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:15:01 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

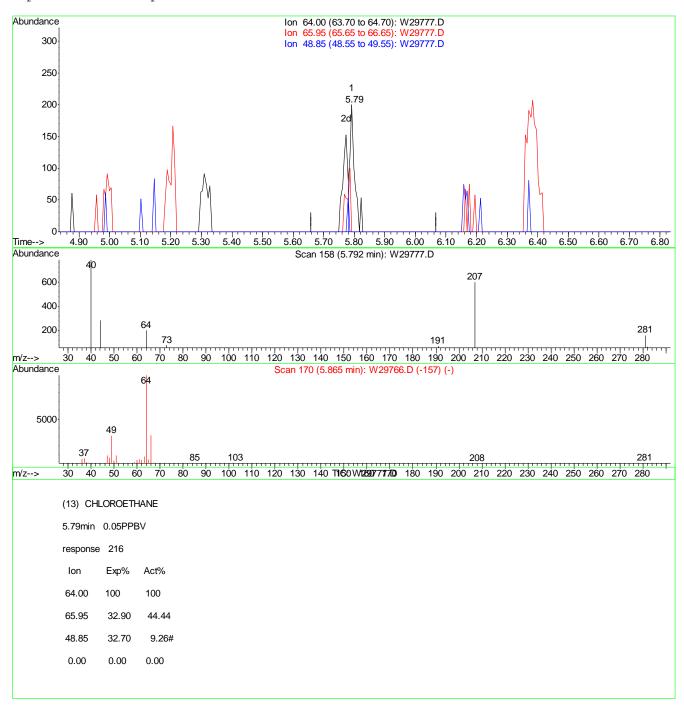
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MS Integration Params: rteint.p

Quant Time: Jan 24 9:14 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:15:15 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

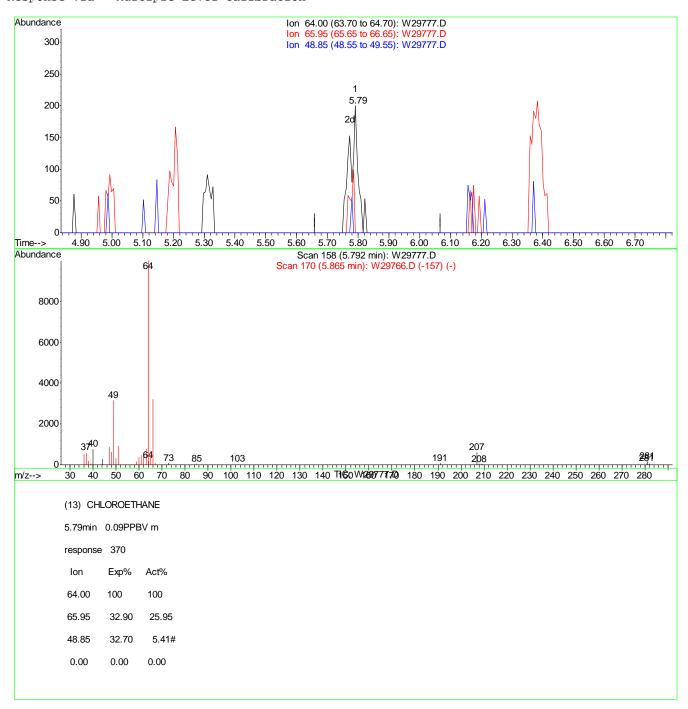
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MS Integration Params: rteint.p

Quant Time: Jan 24 9:15 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:15:21 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

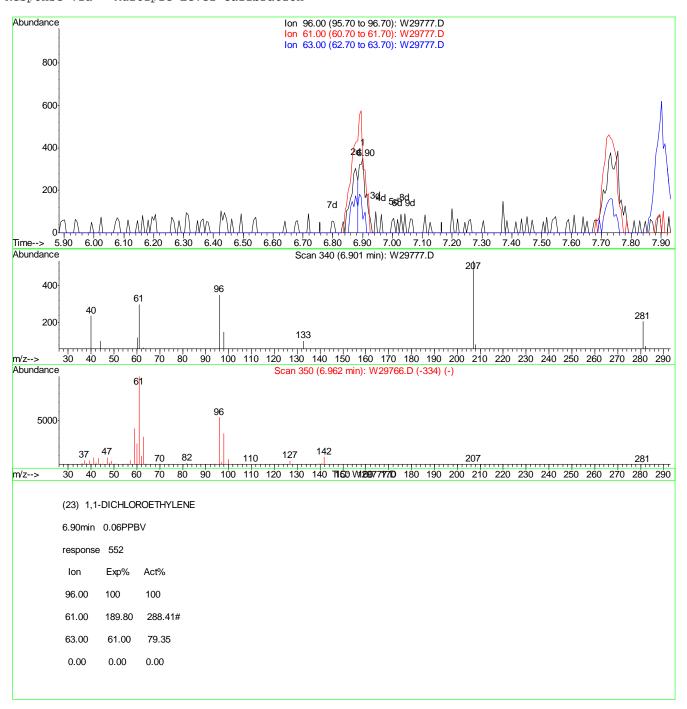
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MS Integration Params: rteint.p

Quant Time: Jan 24 9:15 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:15:49 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

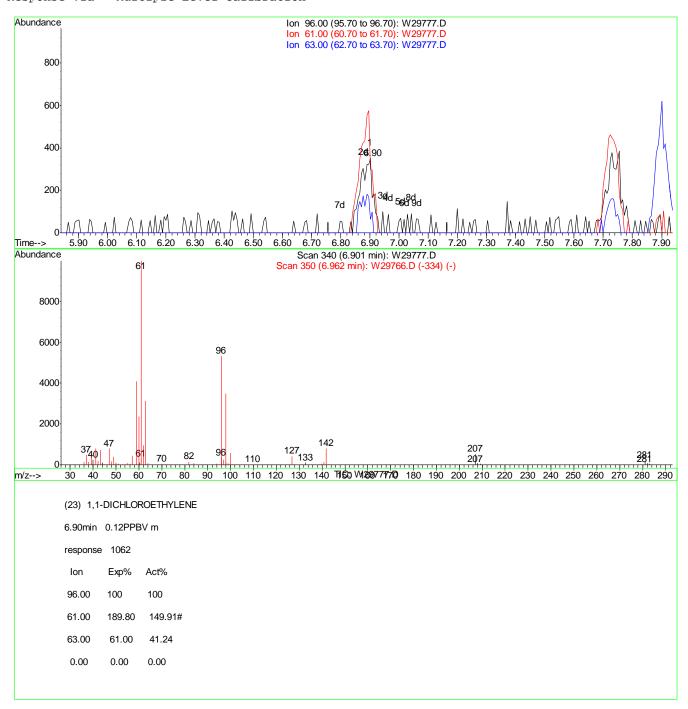
: 20 Jan 2011 11:23 am Operator: YOUMINH Acq On Sample : IC1222-0.1 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:15 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:15:59 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

 Acq On
 : 20 Jan 2011 11:23 am
 Operator: YOUMINH

 Sample
 : IC1222-0.1
 Inst : MSW

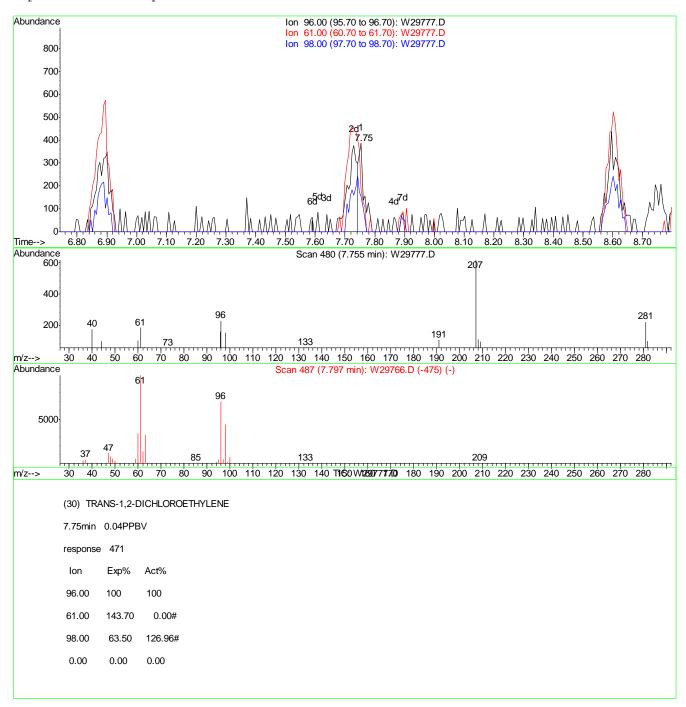
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:16:55 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

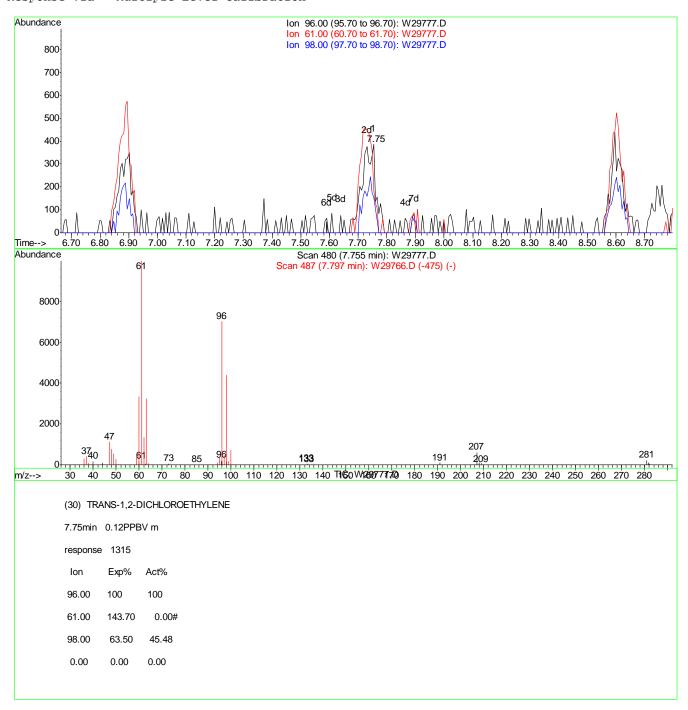
Acq On : 20 Jan 2011 11:23 am Operator: YOUMINH Sample : IC1222-0.1 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:17 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:17:05 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

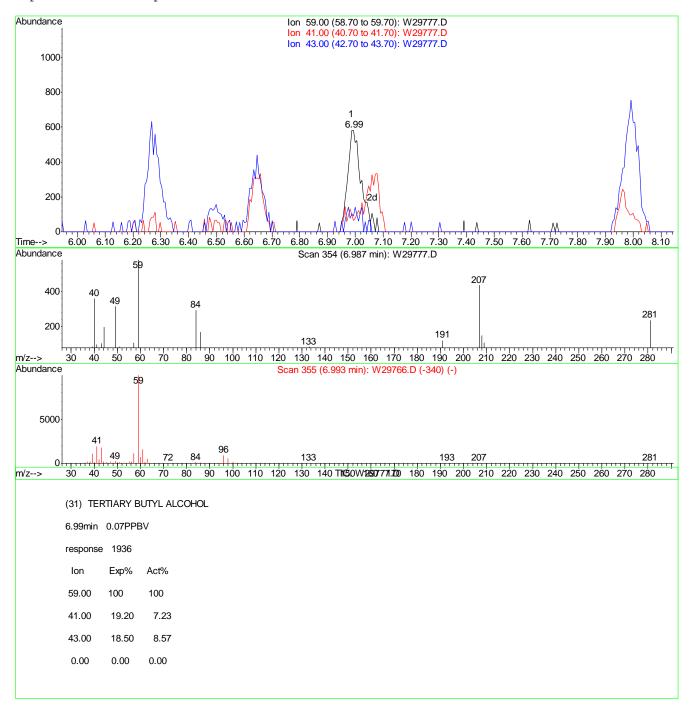
: 20 Jan 2011 11:23 am Operator: YOUMINH Acq On : IC1222-0.1 : MSW Sample Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:17 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:17:12 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

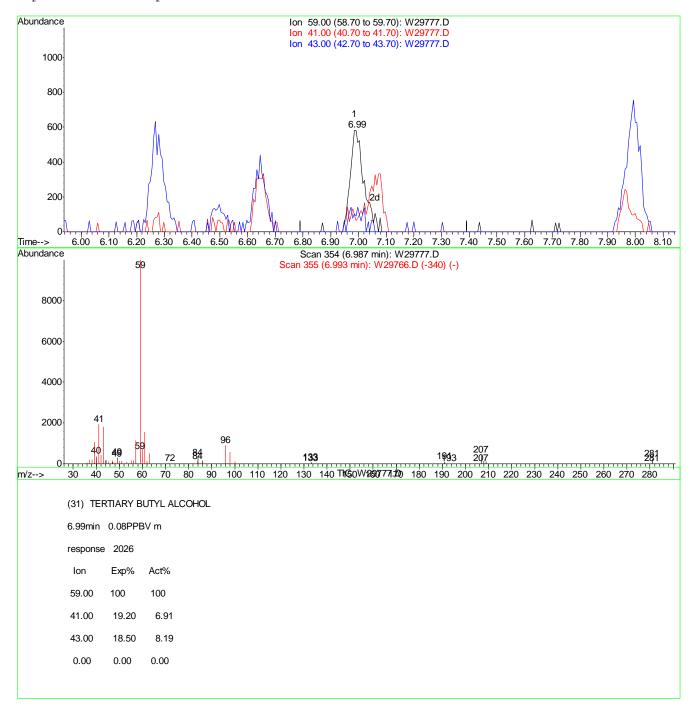
: 20 Jan 2011 11:23 am Operator: YOUMINH Acq On Sample : IC1222-0.1 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:17 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Multiple Level Calibration



Mon Jan 24 09:17:20 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

 Acq On
 : 20 Jan 2011 11:23 am
 Operator: YOUMINH

 Sample
 : IC1222-0.1
 Inst : MSW

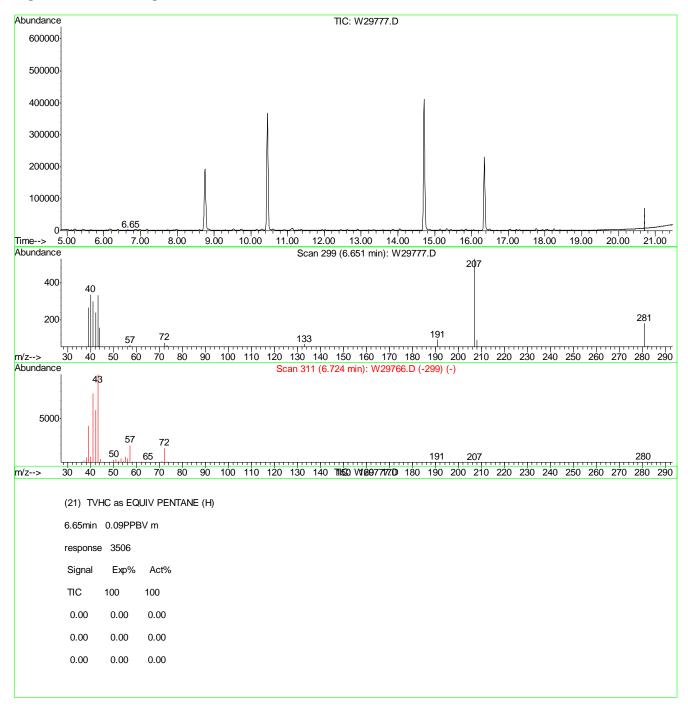
 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:19 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:30:48 2011



Data File : C:\MSDCHEM\1\DATA\W29777.D Vial: 4

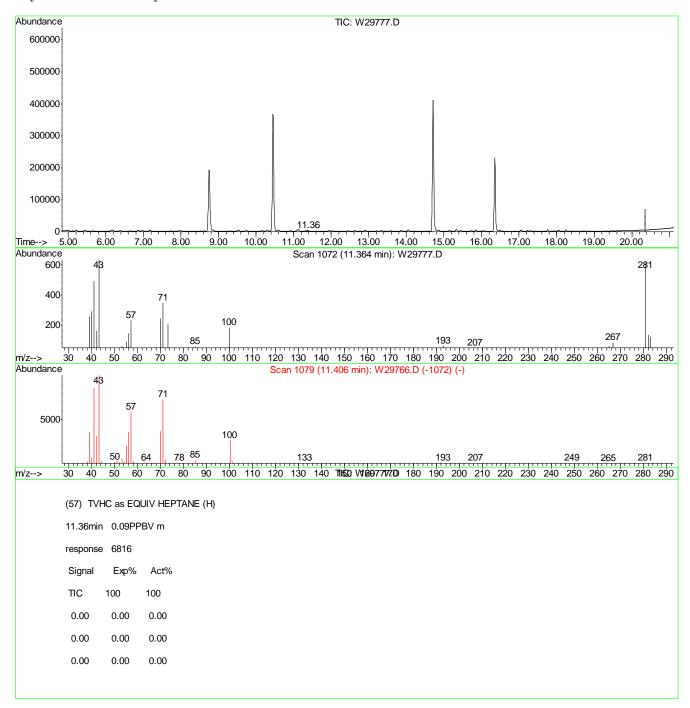
: 20 Jan 2011 11:23 am Operator: YOUMINH Acq On Sample : IC1222-0.1 : MSW Inst Misc : MS6862, VW1222, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 9:19 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011 Response via : Multiple Level Calibration



W29777.D MW1222.M

Mon Jan 24 09:30:52 2011



Data File : C:\MSDCHEM\1\DATA\W29778.D Vial: 4

 Acq On
 : 20 Jan 2011 12:02 pm
 Operator: YOUMINH

 Sample
 : IC1222-0.04
 Inst : MSW

 Misc
 : MS6862,VW1222,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:12 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U	nits De	ev(Min)
1) BROMOCHLOROMETHANE	8.77	128	 69266	10.00	DDRV	-0.05
46) 1,4-DIFLUOROBENZENE		114		10.00		-0.03
63) CHLOROBENZENE-D5	14.72		151912	10.00	PPBV	
96) Chlorobenzene-d5(a)	14.72	82	151912 149995	10.00		-0.01
ju, direrezenzene de (d)		02		20.00		0.01
System Monitoring Compounds						
78) 4-BROMOFLUOROBENZENE	16.36	95	85336	4.66	PPBV	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	93.20	) %
Target Compounds					(	Ovalue
7) FREON 114	5.23	85	1258	0.05	PPBV	99
10) 1,3-BUTADIENE	5.45		179		PPBV :	
15) FREON 123	6.18	83	847		PPBV :	
16) FREON 123A	6.22	117	717		PPBV :	
22) IODOMETHANE	6.86	142	987		PPBV	88
24) CARBON DISULFIDE	7.28	76	1046		PPBV	79
26) BROMOETHENE	6.08		357		PPBV :	
29) FREON 113	7.19		931		PPBV	90
34) HEXANE	8.78	57	590	0.05	PPBV	96
36) 1,1-DICHLOROETHANE	7.92	63	722		PPBV	81
39) DI-ISOPROPYL ETHER	8.79	45	1168		PPBV ‡	# 76
41) CHLOROFORM	8.86	83	1177	0.05	PPBV ‡	# 76
42) 2,4-DIMETHYLPENTANE	9.55	57	565	0.04	PPBV ‡	# 92
43) 1,1,1-TRICHLOROETHANE	9.75	97	1555		PPBV	95
44) CARBON TETRACHLORIDE	10.30	117	1670	0.05	PPBV	95
45) 1,2-DICHLOROETHANE	9.53	62	764	0.04	PPBV ‡	# 91
47) BENZENE	10.18	78	1178	0.05	PPBV	90
50) TRICHLOROETHYLENE	11.13	95	612	0.05	PPBV	91
51) 1,2-DICHLOROPROPANE	10.92	63	307	0.04	PPBV :	# 7 <b>4</b>
52) BROMODICHLOROMETHANE	11.11		1088	0.05	PPBV	100
53) 2,2,4-TRIMETHYLPENTANE	11.15	57	1768		PPBV ‡	# 58
56) HEPTANE	11.38		608		PPBV	86
59) cis-1,3-DICHLOROPROPENE	11.96 12.92	75	666		PPBV :	
60) TOLUENE			789		PPBV	88
61) trans-1,3-DICHLOROPROPEN			587		PPBV ‡	
62) 1,1,2-TRICHLOROETHANE	12.65		281		PPBV ‡	
65) TETRACHLOROETHYLENE	14.06		655		PPBV :	
66) DIBROMOCHLOROMETHANE	13.36		879		PPBV	
67) 1,2-DIBROMOETHANE	13.59		540		PPBV :	
68) OCTANE	13.88		652		PPBV :	
69) 1,1,1,2-TETRACHLOROETHAN			674		PPBV :	
70) CHLOROBENZENE	14.76		1066		PPBV ‡	
71) ETHYLBENZENE	15.16		1575		PPBV	99
72) m,p-XYLENE	15.34		1198		PPBV :	
73) O-XYLENE	15.85		550 657		PPBV :	
74) STYRENE	15.74 16.00		657 557		PPBV :	
75) 1,2,3-TRICHLOROPROPANE 76) NONANE	16.00		458		PPBV #	
77) BROMOFORM	15.45		845		PPBV 1	+ 63 91
80) ISOPROPYLBENZENE	16.50	105	1722		PPBV	91
00) ISOPROFILDENZENE	10.50			0.04	v	<i>э і</i>

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LABORATORIES

Page 1

<sup>(#) =</sup> qualifier out of range (m) = manual integration W29778.D MW1222.M Mon Jan 24 09:29:21 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W29778.D Vial: 4

Acq On : 20 Jan 2011 12:02 pm Operator: YOUMINH Sample : IC1222-0.04 Inst : MSW Misc : MS6862,VW1222,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jan 24 09:05:12 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:04:12 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W29778.D MW1222.M Mon Jan 24 09:29:21 2011 MSW

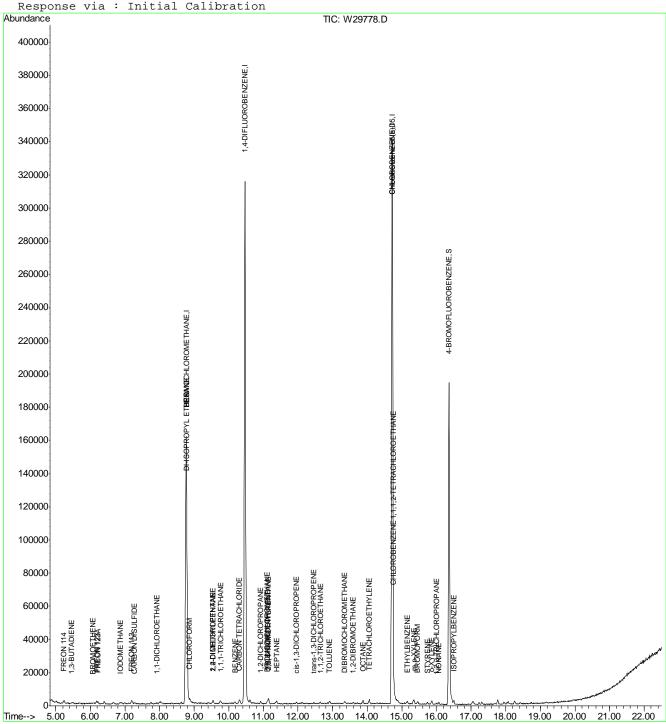


Data File : C:\MSDCHEM\1\DATA\W29778.D Vial: 4

MS Integration Params: rteint.p Quant Time: Jan 24 9:23 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Mon Jan 24 09:23:27 2011



W29778.D MW1222.M

Mon Jan 24 09:29:22 2011

MSW



Data File : W29783.D

Acq On : 20 Jan 2011 9:00 pm Operator : YOUMINH

Sample : ICV1222-10 Misc : MS6862,VW1223,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 24 11:53:52 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 09:39:52 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(1	Min)
Internal Standards						
1) BROMOCHLOROMETHANE	8.779				.v −(	0.04
46) 1,4-DIFLUOROBENZENE	10.474 14.729	114	379817 201818	10.00 PPE	.v −(	0.02
63) CHLOROBENZENE-D5	14.729	82	201818	10.00 PPE	V (	0.00
96) Chlorobenzene-d5(a)	14.729	82	201736	10.00 PPE	\V (	0.00
System Monitoring Compounds						
78) 4-BROMOFLUOROBENZENE	16.369	95	119675	5.18 PPE	V (	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ery = 103	.60%	
Target Compounds					Qva.	lue
3) FREON 152A	4.883	65	35939	8.07 PPE		100
4) CHLORODIFLUOROMETHANE	4.926	67	34679	9.16 PPE		98
5) DICHLORODIFLUOROMETHANE	5.017	85	321384	9.53 PPE		100
6) PROPYLENE	4.950	41	40381			98
7) FREON 114	5.231	85	281027	9.28 PPE		100
8) CHLOROMETHANE	5.164	52	16703	9.97 PPE		88
9) VINYL CHLORIDE	5.341			9 88 PPF	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	99
10) 1,3-BUTADIENE	5.450	62 54	55053	9.88 PPE 9.59 PPE	(\T	98
11) n-BUTANE	5.493	43	99231	9.06 PPE	17 ±	99
12) BROMOMETHANE	5.676	94	99231 81118 40967	9.06 PPE 9.54 PPE	· ν π	99
13) CHLOROETHANE	5.804	64	40967	10 11 DDF	17	99
14) ACROLEIN	6.170	56	24441	10.11 PPE 10.03 PPE	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	99
15) FREON 123	6.176	83	206122	9.60 PPE	(77 ±	100
16) FREON 123A	6.218	117	155235	9.39 PPE		99
17) TRICHLOROFLUOROMETHANE	6.407	101	366945	9.49 PPE		99
18) ISOPROPYL ALCOHOL	6.481					100
19) ACETONE	6.273	5.8	30010	8 86 DDE	17	98
20) PENTANE	6.670	57	19570	8.85 PPE 8.86 PPE 10.09 PPE	17	99
21) TVHC as EQUIV PENTANE	6.670	ידר ידר	364170m	9.59 PPE		
22) IODOMETHANE	6.865	142	248688	9.71 PPE		97
23) 1,1-DICHLOROETHYLENE	6.907		82727	9.24 PPE		99
24) CARBON DISULFIDE	7.273	76		9.32 PPE		99
25) ETHANOL	5.920		22638	8.44 PPE		94
26) BROMOETHENE	6.084					96
27) METHYLENE CHLORIDE	6.999	84	88904 69920	9.14 PPE		99
28) 3-CHLOROPROPENE	7.090	76	38037	9.69 PPE		98
29) FREON 113	7.194	151	186876	9.17 PPE		100
30) TRANS-1,2-DICHLOROETHY.		96	96457	9.25 PPE		98
31) TERTIARY BUTYL ALCOHOL	6.956	59	223879	9.29 PPE		99
32) METHYL TERTIARY BUTYL .			311056	9.45 PPE		100
33) TETRAHYDROFURAN	9.267	72	38979	9.72 PPE		100
34) HEXANE	8.779	57	121372	9.04 PPE		98
35) VINYL ACETATE	8.017	86	23730	9.88 PPE		90
		63	161087	9.46 PPE		100
36) 1,1-DICHLOROETHANE 37) METHYL ETHYL KETONE	8.255		38821	9.40 PPE 9.65 PPE		99
38) cis-1,2-DICHLOROETHYLEN			98582	9.45 PPE		99
39) DI-ISOPROPYL ETHER	8.767		251188	9.45 PPE 9.14 PPE		100
40) ETHYL ACETATE	8.791		251166	9.14 PPE 9.70 PPE		100
41) CHLOROFORM	8.883	83	242598	9.40 PPE		100
TI) CHLOROPORM	0.003	03	Z4ZJJ0	9.40 PPE	V	100

MW1222.M Mon Jan 24 11:54:27 2011 VOA-05

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Data File : W29783.D

Acq On : 20 Jan 2011 9:00 pm Operator : YOUMINH

Sample : ICV1222-10
Misc : MS6862,VW1223,,,,,1 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 24 11:53:52 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 09:39:52 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Un	its I	)ev	(Min)
	2,4-DIMETHYLPENTANE	9.553	57	152585	9.69	PPBV		100
43)	1,1,1-TRICHLOROETHANE	9.760	97	309743	9.33	PPBV		100
44)	CARBON TETRACHLORIDE	10.315	117	348256	9.32	PPBV		100
45)	1,2-DICHLOROETHANE	9.535	62	182383	9.40	PPBV		99
47)	BENZENE	10.181	78	277732	9.68	PPBV		100
	CYCLOHEXANE	10.425	84	134317	9.26	PPBV		99
	2,3-DIMETHYLPENTANE	10.614	71	62386	9.63			99
50)	TRICHLOROETHYLENE	11.144	95	144577	9.67			99
	1,2-DICHLOROPROPANE	10.925	63	82861	9.69			100
	BROMODICHLOROMETHANE	11.114	83	273154	9.69			100
	2,2,4-TRIMETHYLPENTANE	11.150	57	407407	9.56			99
	1,4-DIOXANE	11.181	88	55643	9.03		#	2
	METHYL METHACRYLATE	11.309	69	87371	9.43			99
	HEPTANE	11.388	43	136177	9.48			99
	TVHC as EQUIV HEPTANE	11.388	TIC	764156m				
	METHYL ISOBUTYL KETONE	11.998	43	166567	9.50			99
	cis-1,3-DICHLOROPROPENE	11.955	75	169636	9.92			98
	TOLUENE	12.918	92	212307	10.01			100
	trans-1,3-DICHLOROPROPENE	12.461	75	161279	10.09			99
	1,1,2-TRICHLOROETHANE	12.644	83	88129	10.13			99
,	2-HEXANONE	13.187	43	154840	9.34			99
	TETRACHLOROETHYLENE	14.064	164	161886	9.82			99
	DIBROMOCHLOROMETHANE	13.357	129	256867	10.24			99
	1,2-DIBROMOETHANE	13.607	107	170424	10.47			100
	OCTANE	13.875	43	179873	10.25			99
	1,1,1,2-TETRACHLOROETHANE	14.753	131	186248	9.90		#	100
- ,	CHLOROBENZENE	14.772		275753	9.89			99
	ETHYLBENZENE	15.162	91 106	477766	10.33			99
	m,p-XYLENE	15.351 15.863	106	355969 171451	20.94 10.58			98 100
	O-XYLENE							
	STYRENE 1,2,3-TRICHLOROPROPANE	15.747 16.009	104 75	249187 163652	11.08 10.30			99 99
	NONANE	16.070	43	171118	11.33			99
	BROMOFORM	15.461	173	223794	9.85			100
,	1,1,2,2-TETRACHLOROETHANE	15.869	83	178273	10.66			99
	ISOPROPYLBENZENE	16.503	105	548788	10.65			100
,	2-CHLOROTOLUENE	17.040	126	113565	10.73		#	99
	n-PROPYLBENZENE	17.070	120	134800	11.26		π	97
	4-ETHYLTOLUENE	17.228	105	475800	11.54			99
	1,3,5-TRIMETHYLBENZENE	17.314		396010	11.22			100
	TERT-BUTYLBENZENE	17.771	134	97904	10.74			99
	1,2,4-TRIMETHYLBENZENE	17.777	105	370119	10.81			100
	m-DICHLOROBENZENE	17.954	146	219347	10.75			99
	BENZYL CHLORIDE	17.936	91	255235	10.43			100
	p-DICHLOROBENZENE	18.033	146	202673	10.48			99
	SEC-BUTYLBENZENE	18.076	134	113020	10.67			98
	p-ISOPROPYLTOLUENE	18.253	134	105194	10.39			97
	o-DICHLOROBENZENE	18.423	146	186718	10.58			99
	n-BUTYLBENZENE	18.734	134	76878	10.65			99
,	HEXACHLOROBUTADIENE	20.868	225	54415	9.85			99

MW1222.M Mon Jan 24 11:54:27 2011 VOA-05



Data File : W29783.D

Acq On : 20 Jan 2011 9:00 pm Operator : YOUMINH

: ICV1222-10 Sample

Misc

ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 24 11:53:52 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 09:39:52 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units Dev(M	(in)
95) 1,2,4-TRICHLOROBENZENE	20.362	180	25736	8.39 PPBV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

MW1222.M Mon Jan 24 11:54:27 2011 VOA-05

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6.7.42

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\w\VW1223-24\

Data File : W29783.D

Acq On : 20 Jan 2011 9:00 pm

Operator : YOUMINH Sample : ICV1222-10

Misc : MS6862,VW1223,,,,,1
ALS Vial : 2 Sample Multiplier: 1

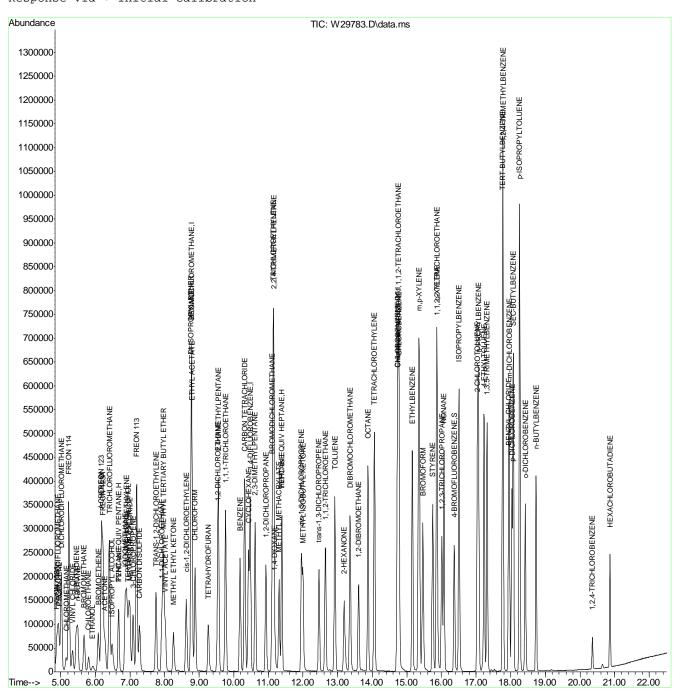
Quant Time: Jan 24 11:53:52 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Quantitation Report

QLast Update : Mon Jan 24 09:39:52 2011 Response via : Initial Calibration



MW1222.M Mon Jan 24 11:54:33 2011 VOA-05

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ACCUTEST

JA68565
LABORATORIES

## Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\w\VW1223-24\

Data File : W29783.D

: 20 Jan 2011 9:00 pm Acq On

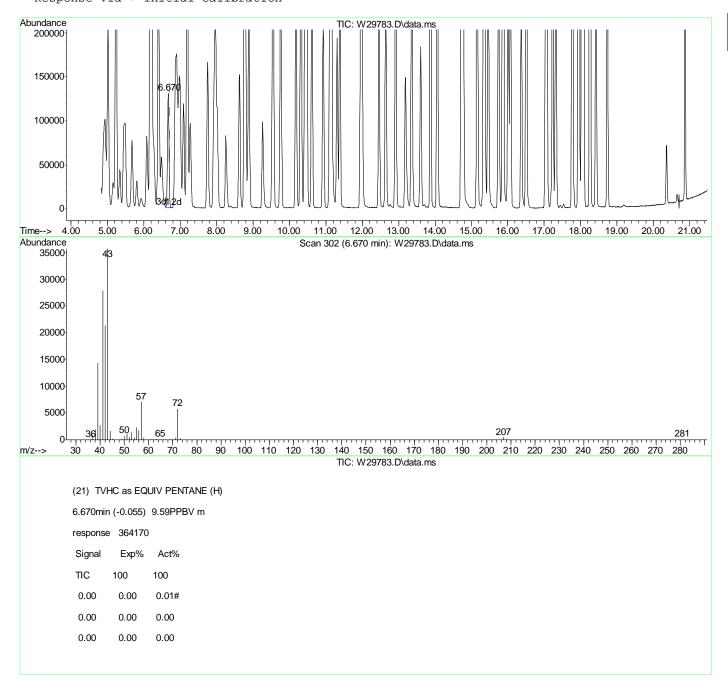
Operator : YOUMINH : ICV1222-10 Sample

: MS6862,VW1223,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 24 11:53:52 2011 Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 09:39:52 2011 Response via : Initial Calibration



821 of 840 ACCUTEST: JA68565

Data Path : C:\msdchem\1\DATA\w\VW1223-24\

Data File : W29783.D

: 20 Jan 2011 9:00 pm Acq On

Operator : YOUMINH : ICV1222-10 Sample

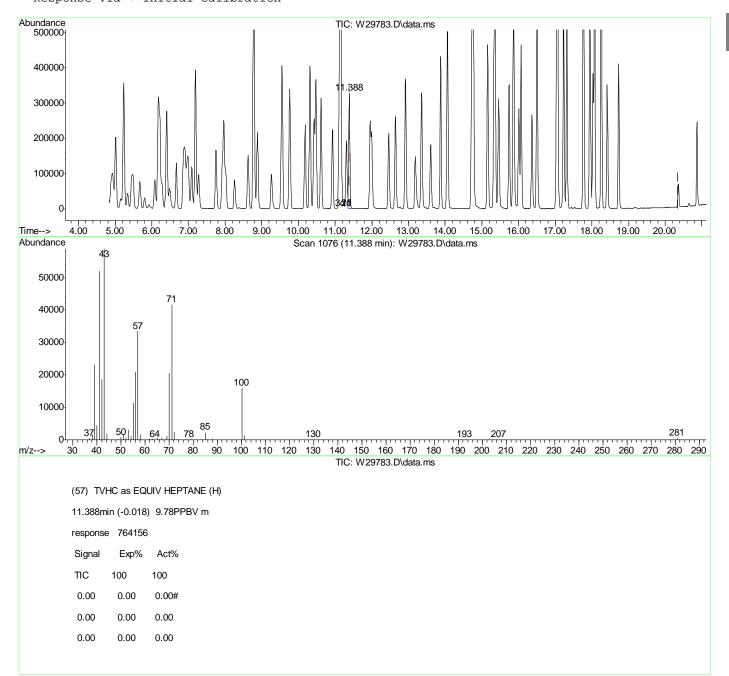
: MS6862,VW1223,,,,1 Misc ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 24 11:53:52 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Mon Jan 24 09:39:52 2011 Response via : Initial Calibration





Data File : C:\MSDCHEM\1\DATA\W30126.D Vial: 2

 Acq On
 : 11 Feb 2011
 7:13 am
 Operator: YOUMINH

 Sample
 : CC1222-10
 Inst : MSW

 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:17:51 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	ernal Standards	R.T.	QIon	Response	Conc Ui	nits De	ev(Min)
1 \	RROMOCHI OROMETHANE		128	95315	10 00	DDRV	-0 06
46)	BROMOCHLOROMETHANE 1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a)	10.75	114	437021	10.00	DDRV	-0.00
63)	CHLOROBENZENE-D5	14 70	82	239233	10.00	PPRV	-0.01
96)	Chlorobenzene-d5(a)	14 70	82	236597	10.00	PPRV	-0.03
50,	cirior oberizerie as (a)	11.70	02	230371	10.00	IIDV	0.03
Syst	tem Monitoring Compounds						
78)	em Monitoring Compounds 4-BROMOFLUOROBENZENE	16.34	95	136720	4.99	PPBV	-0.02
Sp	piked Amount 5.000	Range 65	- 128	Recove	ery =	99.80	) %
Tarc	Siked Amount 5.000  get Compounds FREON 152A CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE N-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CHLOROFORM 2,4-DIMETHYLPENTANE					(	Ovalue
3)	FREON 152A	4.88	65	45941	8.55	PPBV	88
4)	CHLORODIFLUOROMETHANE	4.93	67	49506	10.83	PPBV	99
5)	DICHLORODIFLUOROMETHANE	5.02	85	409482	10.06	PPBV	99
6)	PROPYLENE	4.95	41	54090	9.54	PPBV	94
7)	FREON 114	5.23	85	341879	9.35	PPBV	99
8)	CHLOROMETHANE	5.16	52	18893	9.35	PPBV ‡	# 46
9)	VINYL CHLORIDE	5.33	62	78641	8.87	PPBV	99
10)	1.3-BUTADIENE	5.44	54	59118	8.53	PPBV :	# 84
11)	n-BUTANE	5.49	43	114945	8.70	PPBV ‡	# 97
12)	BROMOMETHANE	5.67	94	90873	8.85	PPBV	99
13)	CHLOROETHANE	5.80	64	45506	9.31	PPBV	96
14)	ACROLEIN	6.18	56	28070	9.54	PPBV	99
15)	FREON 123	6.17	83	249165	9.62	PPBV ‡	# 100
16)	FREON 123A	6.21	117	192760	9.66	PPBV	98
17)	TRICHLOROFLUOROMETHANE	6.40	101	474891	10.18	PPBV	100
18)	ISOPROPYL ALCOHOL	6.49	45	155215	9.03	PPBV	97
19)	ACETONE	6.27	58	33898	8.30	PPBV #	# 71
20)	PENTANE	6.66	57	24026	10.27	PPBV #	# 86
21)	TVHC as EQUIV PENTANE	6.66	TIC	492639m	10.75	PPBV	
22)	IODOMETHANE	6.85	142	328460	10.62	PPBV	97
23)	1,1-DICHLOROETHYLENE	6.90	96	99805	9.23	PPBV	93
24)	CARBON DISULFIDE	7.26	76	244343	8.35	PPBV	90
25)	ETHANOL	5.93	45	25841	7.98	PPBV	95
26)	BROMOETHENE	6.08	106	105815	9.41	PPBV	97
27)	METHYLENE CHLORIDE	6.99	84	79030	8.56	PPBV	88
28)	3-CHLOROPROPENE	7.08	76	42541	8.98	PPBV ‡	# 71
29)	FREON 113	7.18	151	240215	9.77	PPBV	95
30)	TRANS-1,2-DICHLOROETHYLE	NE 7.74	96	105551	8.39	PPBV	96
31)	TERTIARY BUTYL ALCOHOL	6.96	59	263434	9.05	PPBV	95
32)	METHYL TERTIARY BUTYL ET	'HE 7.96	73	365211	9.19	PPBV	96
33)	TETRAHYDROFURAN	9.25	72	40642	8.40	PPBV	91
34)	HEXANE	8.76	57	135576	8.37	PPBV ‡	# 84
35)	VINYL ACETATE	8.00	86	25040	8.64	PPBV ‡	# 73
36)	1,1-DICHLOROETHANE	7.91	63	184223	8.96	PPBV	99
37)	METHYL ETHYL KETONE	8.24	72	38765	7.99	PPBV :	‡ 73
38)	cis-1,2-DICHLOROETHYLENE	8.61	96	104922	8.33	PPBV	95
39)	DI-ISOPROPYL ETHER	8.75	45	290782	8.77	PPBV	98
40)	ETHYL ACETATE	8.78	61	23571	8.70	PPBV :	# 68
41)	CHLOROFORM	8.86	83	282115	9.05	PPBV	97
42)	2,4-DIMETHYLPENTANE	9.53	57	165460	8.71	PPBV	99



Page 1

<sup>(#) =</sup> qualifier out of range (m) = manual integration W30126.D MW1222.M Mon Feb 14 10:30:14 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30126.D Vial: 2

Acq On : 11 Feb 2011 7:13 am Operator: YOUMINH Sample : CC1222-10 Inst : MSW Misc : MS7890,VW1236,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:17:51 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Uni	.t	Qv	alue
43)	1,1,1-TRICHLOROETHANE	9.74	97	384179	9.59 P	PBV		97
	CARBON TETRACHLORIDE	10.29			9.62 P			99
	1,2-DICHLOROETHANE	9.52	62	235538	10.05 P			99
	BENZENE	10.16	78	235538 294228	8.91 P			99
48)	CYCLOHEXANE	10.41	84	143435	8.59 P	PBV		96
49)	2,3-DIMETHYLPENTANE	10.60	71	143435 67646 165463	9.07 P	PBV		95
50)	TRICHLOROETHYLENE	11.12				PBV		96
51)	1,2-DICHLOROPROPANE	10.91	63	88347 325067	8.98 P	PBV		89
52)	BROMODICHLOROMETHANE	11.09	83	325067	10.02 P	PBV		99
53)	2,2,4-TRIMETHYLPENTANE	11.13	57	448525 53044	9.14 P			98
54)	1,4-DIOXANE	11.17	88	53044	7.48 P	PBV	#	1
55)	METHYL METHACRYLATE	11.29		90219	8.46 P 9.19 P	PBV	#	86
56)	HEPTANE	11.36	43	151991	9.19 P	PBV		94
57)	TVHC as EQUIV HEPTANE	11.36	TIC	917301m	10.21 P	PBV		
58)	METHYL ISOBUTYL KETONE	11.98	43	186700	9.26 P	PBV		95
59)	cis-1,3-DICHLOROPROPENE	11.93		185679	9.43 P	PBV	#	79
60)	TOLUENE	12.89	92	229136 181537	9.39 P	PBV		99
61)	trans-1,3-DICHLOROPROPENE					PBV		86
62)	1,1,2-TRICHLOROETHANE	12.63	83	93403	9.25 P			99
64)	2-HEXANONE	13.17	43	167252	8.51 P	PBV		91
65)	TETRACHLOROETHYLENE	14.04	104	19//24	10.12 P	PBV		97
66)	DIBROMOCHLOROMETHANE	13.33	129	293664 183545	9.88 P	PBV		100
67)	1,2-DIBROMOETHANE	13.58	107	183545	9.51 P	PBV		99
68)	OCTANE	13.86	43	204486	9.83 P			96
69)	1,1,1,2-TETRACHLOROETHANE	14.73	131	223635	10.03 P	PBV	#	100
70)	CHLOROBENZENE	14.75						100
,	ETHYLBENZENE	15.14		521572	9.51 P	PBV		100
	m,p-XYLENE	15.33		393108	19.51 P	PBV		98
,	O-XYLENE	15.84	106	188781 264172	9.83 P	PBV		99
	STYRENE				9.91 P	PBV		98
,	1,2,3-TRICHLOROPROPANE	15.98		171634	9.11 P			96
	NONANE	16.05		200885				96
	BROMOFORM	15.44		259040	9.62 P			99
	1,1,2,2-TETRACHLOROETHANE			175082	8.83 P			99
	ISOPROPYLBENZENE	16.48		601046	9.84 P			98
	2-CHLOROTOLUENE	17.02	126	126463 148762	10.08 P 10.48 P	PBV	#	89
,	n-PROPYLBENZENE	17.05						91
	4-ETHYLTOLUENE	17.21	105	510848	10.46 P			99
	1,3,5-TRIMETHYLBENZENE	17.30	105	447894	10.70 P			99
	TERT-BUTYLBENZENE	17.75	134	108346	10.02 P			96
	1,2,4-TRIMETHYLBENZENE	17.75	105	419068 230737	10.32 P			99
	m-DICHLOROBENZENE	17.94	146	230737	9.54 P			99
	BENZYL CHLORIDE	17.92	91	242566 217734	8.36 P			98
	p-DICHLOROBENZENE	18.01	146	217734	9.50 P			98
	SEC-BUTYLBENZENE	18.06	134	121800 114991	9.70 P			92
	p-ISOPROPYLTOLUENE	18.23	134	114991	9.58 P			98
	o-DICHLOROBENZENE	18.40	146	192898	9.22 P			99
	n-BUTYLBENZENE	18.72	134	78627 46447	9.19 P			91
94)	HEXACHLOROBUTADIENE	20.85 	∠25 	46447	7.09 P	 'FR\		100



<sup>(#) =</sup> qualifier out of range (m) = manual integration W30126.D MW1222.M Mon Feb 14 10:30:15 2011 MSW

Data File : C:\MSDCHEM\1\DATA\W30126.D Vial: 2

 Acq On
 : 11 Feb 2011
 7:13 am
 Operator: YOUMINH

 Sample
 : CC1222-10
 Inst : MSW

 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 08:17:51 2011 Quant Results File: MW1222.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
95) 1,2,4-TRICHLOROBENZENE	20.34	180	27222	7.49 PPBV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed W30126.D MW1222.M Mon Feb 14 10:30:15 2011 MSW

825 of 840
ACCUTEST.

JA68565

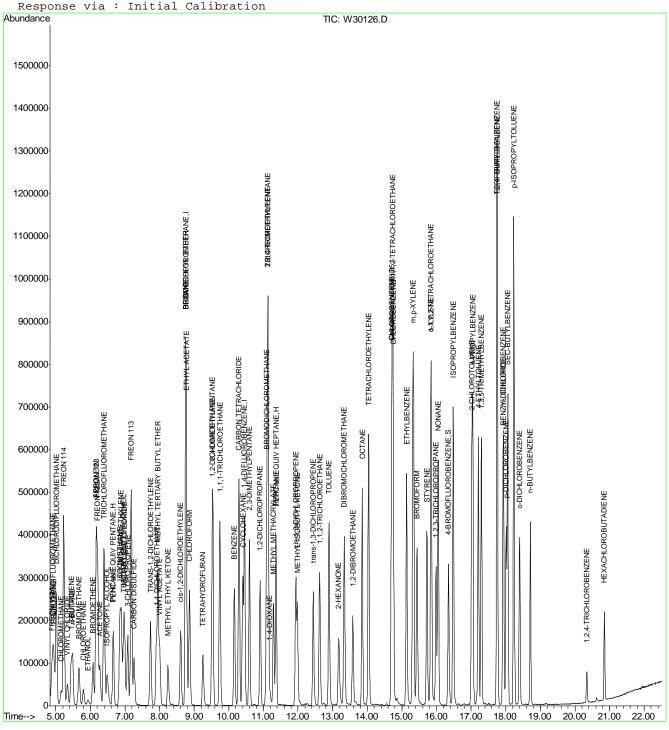
Data File : C:\MSDCHEM\1\DATA\W30126.D Vial: 2

: 11 Feb 2011 7:13 am Operator: YOUMINH Acq On Sample : CC1222-10 : MSW Misc : MS7890, VW1236, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p Quant Time: Feb 14 10:02 2011 Quant Results File: MW1222.RES

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011



W30126.D MW1222.M Mon Feb 14 10:30:16 2011

MSW

826 of 840 ACCUTEST: JA68565

## Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W30126.D Vial: 2

 Acq On
 : 11 Feb 2011
 7:13 am
 Operator: YOUMINH

 Sample
 : CC1222-10
 Inst : MSW

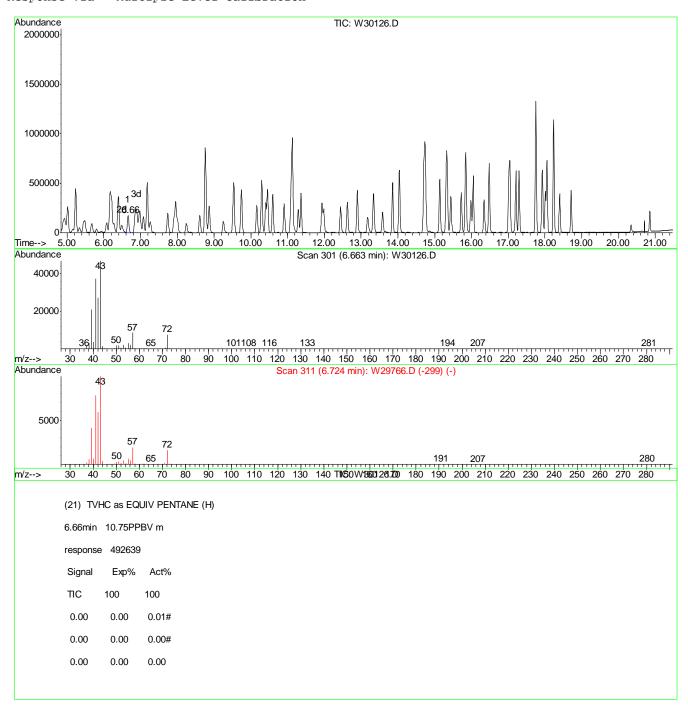
 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:02 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration



W30126.D MW1222.M

Mon Feb 14 10:30:22 2011

MSW



## Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\W30126.D Vial: 2

 Acq On
 : 11 Feb 2011
 7:13 am
 Operator: YOUMINH

 Sample
 : CC1222-10
 Inst
 : MSW

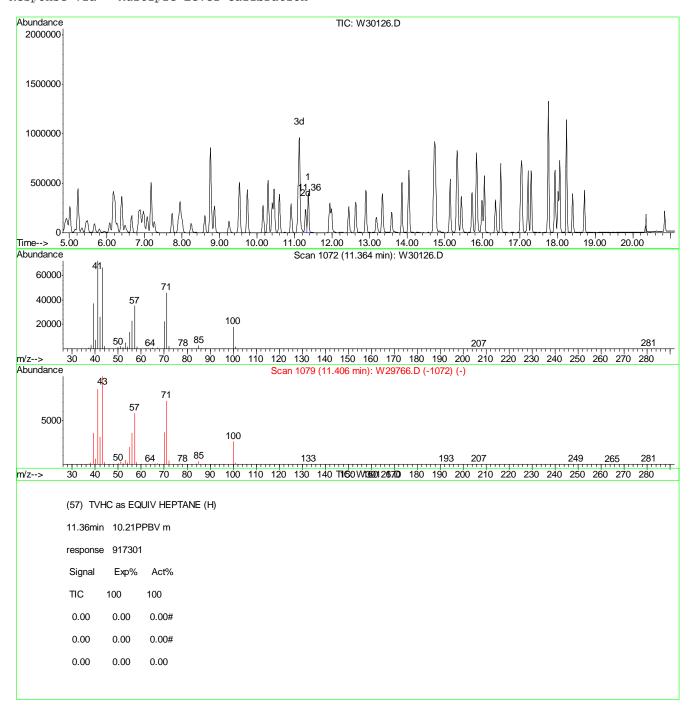
 Misc
 : MS7890,VW1236,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Feb 14 10:02 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1222.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Fri Jan 28 09:38:45 2011 Response via : Multiple Level Calibration



W30126.D MW1222.M

Mon Feb 14 10:30:27 2011

MSW



MM SACCUTEST

# TO-14/TO-15

AS Data

Method: TOIS, MFT

Batch ID: VIW1140

Date:	1/22/11
	1166111

Analyst Signature: ym Mu

Co

Columns: <u>RTX-1 bon X.32mm</u> Method: <u>TOISZWIM</u>

Seq. File:

Seq. File: ZWOIZIII.S
Initial Cal. Method: MZW/140

# Standard Data

Lot #	Description	Conc.
AS4671	Island	40/ rorph
AS4685	Nuphthaline	Hoppbu
AS 4686	Naphthaline	2.opphu

# ' <u>Standard Data</u>

Lot#	Description	Conc.
A54697	TOISSTO	4oppbv
AS 4648	TOISSTD	2.0ppbv
AS 4699	TOISSID	0,49960
AS 4642	Toisus	HOPPEN

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature:

Date:	4/11	
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AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil	TICS	Int. STD	Surr	Status	Comments
2	7W29351	ВТ-В		A962		Fact		Areas		Data	Comments
2	71029352	IC1240 -5		A974	100	- 1	1			OK	
1	1w29353	IC1240 -0.2		A971	50					notused	
2	ZW29354	ICC1240-10		A974	40	<u> </u>	<u> </u>		/	OK.	
	21029355	ICC1240 -0.5			100					OK	
- 1	ZW29356	ICC1240-20		A971	100	!			_/	OK	
	ZW29357	IC1240-5		A974	200	_!				OR	
4	ZW29358	IC1240-3		A974	50	1				on	
	2W24359	IC1240-0,04		A972	100					OVL	
	ZW29360	IC1740-0,04 IC1740-40 YH		A971	40	L			/	OK	
	2W29361	Nap-5		A946	lov				_/	on	Nap-10
	ZW29362			A946	50			/	_/	ov-	
	7621363	IC1740-40		A974	400				/	on.	
-		Nup-0.5		A930	iou			_/	/	OVL	
<del></del>	7.029364	Nup-0.2		A930	40	1			/	on_	
	20029365	ICV1240-10		A975	100	1		/		on	
7	21029366	Nur-20		A946	200					on	********
	71029367	Nup-40		A946	400	1				on	"I
	ZW29368	IB		A962	lov			/	7	on	
	20029369	SCC		A428	400					on	
	20029370	SCC		A196	400			_ l	<del>-</del>	RR	
12 1	20029371	SCC		A275	400			1	7	RR	
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All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, #3 = Computer Miscalculation, #4 = Analyst's Correction Error

Form: AT008-04 Rev. Date: 6/13/06

829 of 840
ACCUTEST.

JA68565
LABORATORIES

Batch ID: V2 W256

Date:

Analyst Signature:

Columns: RTX-160MX.32mm

Method:

TOISZW.M

AS Data Method: TOIS.MPT

ZWUZ1411.S Seq. File:

Initial Cal. Method: MYW1240

# Standard Data

# Lot# Description Conc.

## Standard Data

Lot#	Description	Conc.
AS4717	TOISSTO	Hoppor
AS 4718	TOISLLS	Hopph
AS 4709	Islauce	40/2000

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Quelle

Date: 3/15/11

AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	ZW 29757	BFB		A162	100					OK.	
2	2W29758	CC1240-10		A474	100			,		ac	
3	ZW29759	BS		A968	100				/	ON	
3	ZW29760	BSD		A968	100				/	il	
5	2W29761	MB		A962	400			/	/	o <sup>st</sup> .	
ь	ZW74762	JA67832-1	STO	A313	100	1		/		OIL	
7	ZW79763	JA67832-2	<b>-</b>	A248	40	1		/	/	ac	
8	21029764	JA67954-3	STO	. A773	100	ĺ		/	/	ac	
9	21029765	SCC		A398	400	i		/	1	de	
10	71029766	JA61951-Z	STO	A039,A714	200	24.6		/	1	du	
- 11	2W29767	JA67451-3	i	A169	100	i		`	/	سان	
12	20079768	JA67951-4		A238	100	ì		/		UL	
12	ZW24764	JA61951-40mp		A238	100	1			/	ÜL	
13	20029770	JA67957-5		A451	100	1		/	1	(X	
14	ZWZ4771	JA61951-6	7	A13 i	100	ı		/	/	014/01	predx
12	ZW29772	SCC		- A197	400	i		/	1	υL	
16	2W24773	JA67951-7	STD	A881	541	5.41			1	01/20	RRZOM!
_	ZWZ4774	JA67451-8	1	A866	148	1.48		/	1	01/00	RKYOX
3	ZW29775	JA61451-9		AZIZ	lov	)		/	/	RR	Possible Clo
4	ZW29776	JA17451-10	J	A818	100	į		/		RR	Possible Clo
$\boldsymbol{b}$	ZW29777	5CC		ACUZ	400	1		/ :		ot.	
7	ZWZ9718	JA67451-11	STD	A288	100	i		/	/	014/00	RRSOX
8	ZW29779	JA61451-12	ĺ	A733	100	1		1		2 <b>Y</b>	
9	71029780	JA67457-13		A851	100	ı		/	1	014/00	RR40m
10	ZW29781	JA67951-14	J	A243	lov	1		/	1	OK/DL	pre40ml
11	ZWZ9782	Scc		A749	400	į		2		0"	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-04

Rev. Date: 6/13/06



TOIS, MPT

AS Data

Method:

Batch ID: VEW1256

Date: 2/14/11	
---------------	--

Analyst Signature:

Columns:

KTX-160MX.32mm

Method: Seq. File:

TOISZW.M 2W021411.S

Initial Cal. Method: M2W1240

Standard Data

Standard Data

Lot#	Description	Conc.
	·	<del></del>

Lot#	Description	Conc.
	Scepyal	
	1 1	
L		1

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: 120

3/15 (4 Date:

AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comment
12	7629783	JA67451-15	STD	A259	100	i			OIC	OFF	0.0)
13	71029784	JA67951-16		ATLS	ioo	1			3(	100	RRSTX
14	21029785	JA67951-17		A875	100	i			OK.	DIL	
5	2 W24786	SCC		A862	400	<del>;</del>				04/06	RESUX
					100				()r		
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		<del></del>									
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								<del></del>		<del></del>	
					<del></del>	<del></del> - -					

outs must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-04

Rev. Date: 6/13/06

### MD ACCUTEST:

Date: 2 15 2011

A

Analyst Signature: Juch

Columns: RTX-1 60m X 32mm

Method: <u>70173W.M</u> Seq. File: <u>3W024511.S</u>

Initial Cal. Method: M3W82)

AS Data

Method: TO 15 MPT

TO-14/TO-15

Standard Data

	Otaliani a District	
Lot#	Description	Conc.
A5 473b	Nap	40 0000
A 4737	Nap	2 PPBV
AS 4708	151542	40/20/200
49.2 T W W		<u>'</u>

	Standard Data	
Lot#	Description	Conc.
A54733	TOIS STU	40 000
A64734		2
A54735	<u> </u>	<u> </u>
A34732	TO15 L11	40 V

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria

of Accutest SOP EQA044. 2/17/11 44 Date: Supervisor Signature: Int. STD Status Comments Canister Vol Dil TICS Surr Data TEST Sample ID Areas Data File AS# Serial# Sample Fact 014 A 962 įψα BFB 311/20777 5 014 A965 CO 3W20778 10871-05 1 016 A978 3W20779 10821-2N DIL A966 100 4 014 A 966 40 4 al A 933 100 OK 50 A 913 Nap-5 914 A 978 60n 10821-40 OK A 941 jøo Nab-0.5 40 AK-A 941 ZW 20786 Nap-0.2 0 K A 933 200 2W20787 <u>Nab-20.</u> ο¥ A 933 400 3W20788 Nap-40 0/4 40 A 965 3WZ0789 10821-02 1 or. 180 20 4978 3W20790 1 OK A 978 /0 n 2 7W20791 10821-10 OK 4975 100 ie V821-10 3W20792 2115/10-11 YOU

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3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09



Man	M ACC			7
	ACC	<b>.</b>	==	1.

Date:	2/24/11	

Lot#

Analyst Signature:	Jech _

	0.00.0		
Columns	PTX-1.	Com	(32 m

Method: <u>To153w. As</u> Seq. File: <u>3W0</u>\$2411.5

Initial Cal. Method: M3W821

AS Data Method: 7015, Mor.

Standard Data

Description Conc.

	Standard Data	
Lot#	Description	Conc.
164732	TO15 LCS	40 ppb
4733	510	40
4708	1515412	100/20

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

					isor Sig	-	Date: 2/14				
AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	3W20971	BFB		A960	(DO)					DIL	6245/1m
	3W2097)	a 821-10		A978	(00					<u>واد</u>	
3	311/20973	BS		A975	001			/		ok	61 43 T
3	3420974	BSD		A 975	100					OK	
5	3W20975	····		18 960	400			/		VIC	
5	34/20976	SCC		A820	400				/	0K	
5	3W20977	Scc		A266	400					01-	
2	3W22978	JAL6404-1		A272, A 400	30	57.2				ole	
3,	3W20979	JA68404-2		Δ357	50	1-58				OK	·
1'	3420980	JA68814-1	8180	A 238	400	(				OK	
4	3W20981	JA68814-2		A176	400					014	
z	3W20982	TA68565-1	8536	A398	100		<u> </u>	1		KIZ	
3	3W20983	JA68565-2		4590	100		<u> </u>	1		PR	
i	3W20984	JA68565-3		A600	100	<u> </u>	ļ			014	
4-	3w20985	JA68565-2dup	Vx.C	A600791	100		<u> </u>			04/121	
4	34220986	JA68565-4dup		A 298 791	100		<u> </u>	-		014	
6	3W20987	JA68565-5		A 592	100		<u> </u>		/	014/174	
7	34/20988	JA68565-6		A565	100					PK-/DL	
8	3W20989	TA6856I-7		A712	100					0K	
9	3W20990	JA68565-8		A 573	100			/ .		UK	
i.o	3W20991	JA68565-9		A 500	100		<u> </u>		/	01-	
1	34/20992	JA68565-10		A796	100		<u> </u>			OKIDL	
12	3W>0992	JA68565-11		A 580	100					or-	
13	3W20994	JA68565-12		A514	100				1	CV bi	
14	34220998	JA68423-4	8458	A 548	100	<u>                                     </u>	_		/	OK.	
15	3w20996	JA68423-5		A522	100	1			/	CIL	
16	3W20997	JA68564-2	8536	A891, A516	200	56	<u> </u>			OHR	
10.00	3W20998	JA 68564-3		A 459. A530	100	115			1	OFOL	<u> </u>
5	3W20999	Torre		AZIS	400	1		<u> </u>		<u>rr</u>	<u> </u>
2	3WZ1000	327		A398	100					8K/DL	J

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Rev. Date: 10/20/09

31 3W21001 JA68515-2

A590

100

OK



# Canister Secondary Dilution Log

Z ACCUTEST.

													 	 _
	Final	Canister	nolintion	Factor	56	115	57.2							
		:	Dilution	Factor	50	100	40							
	Equiv	Total	Pressure Volume Dilution	႘	2002	7000	2002							
er Dilution		Final	Pressure	psig	14.7	14.7	147							
Secondary Canister Dilution	Sample	Volume	Added	သ	777	20	50							
Second		Canister Volume	Volume	ည	(000	(000	0.00/			İ				
			Canister	Qi	A516	X4 A	A 400							
Ī			Dilution	Factor	1.12	115	1,42							
ar Dilution	I DIIMIIO	Final	Pressure Dilution	psig	+1.2	.2	^ ·				•			
Ocidinal Canister Dilution	liat Callia	Vacuum	in "Hg at	time or Dilution	-	~~	-7.0	7,77						i.
, C	5		Canister	9	Acai	1) 6 / 10 / V	/477 / / 77. /	777						
<u>L.</u>	†	:	est.	le ID	544	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	222	24048						
			Accutest	Samp	7,469		777		_					 <u> </u>
		ANNE	Accute	Initials Sample ID	D. TARCELLES ACA!	7. 2/200 2 2 / 3 / A 12-9	TAIMON J	がスクダイ						

	Final DE - (Original Canister DE) x (Secondary Ganister DE)
Definition.	Dilution Factor at Instrument = (Final Canister Dilution Factor) × (Normal Sampling Volume in cc)
	(Sample Volume in cc Injected)
Example.	Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig
	or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is $2 \times 10 = 20$ . From the
	dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of
	20. The final dilution multiplier is 20(from canister dilution) × 20(from instrument dilution) = 400

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error, # 2 = Transcription Error, # 3 = Computer Miscalciulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06



Notes:

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Date: 2/15/11

Method: 7015

Analyst Signature:

Columns: 1274-1. 60m x 0.32 mm Method: TOIS.3W. AA

Seq. File: 3WOLK 11-5

Initial Cal. Method: 16342821

Standard Data		
Description	Conc.	Lot#
		A/672

	Standard Data			Standard Data	
Lot#	Description	Conc.	Lot#	Description	Conc.
			A54732	TOIG LUS	40 japk
			4733	שוז	40 1
	•		4-708	15/5UNY	40/20

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

				Super	visor Sig	nature:_		27		Date: 2/2/		
AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments	
5	34121002	BFB	· ·	A960	(00)					014	6:16 Am	
	3W21007	Cr 821-10		Áq 78	100					014		
3	3W21004	BS		A978 A9785	100			/	_	014	60 T	
3	211121005	BSD		A975	100				/	OL		
5	3W2006	MB		A 960	400				/	014		
5	31121007	scc		13715	400				-/	OK-	cp4601	
5	311/21008	Scc		∆ 380	400				1	هاد	(04602	
	3W21009	JA 68864-1	8680	A262	(00	<u> </u>			1	OK		
3	3W21010	JA68864-5		A467	100				-/-	tk_		
2	3W 21011	JA68565-1	8536	A 398	30	<u> </u>			/	Dr-	·	
4	3W21012	JA68565-4	1	A791	40				/	ماد		
<b>5</b> -51	3W 210 13	JA48565-5 SCC		A592 A46	400					ok.	CP 4604	
		JA68565-6		A 565	40			/		0/4		
<b>16</b>	3W40145	JA68565-10	u,	A796	30				/	eK-		
		JA68565-12		A514	40		ļ	_	/	ov		
1 701	1	JA68864-8	8680	Azob	400			/	1	<i>و</i> اد		
لندا	3W210178	JA 68864-8dup		Azeb	400			10	/	OK		
2 3	3W210189	TA68864-2		A079	100				1	014		
3		TA68864-3		A732	100_				/	OL		
4	BUZUZUI	JA68864-6		A320	400			./		014		
11	1	TA68864-7		A 348	100			/		OK/DI		
	3W4023	TA68864 -4	<u> </u>	A441	40				/	OK		
8	3W7105A	JA68868-1		A624	100			/	/	4401		
a	3W21025			A 402	100			/ '	/	0 4		
10	3W21026	JA68868-3		4528	(00			. /	/	06-		
ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ		JA6X868-4		1513	100			/	1	014		
6	1 '	JA68565 - 5		A592	40	4		/	/	014		
15	3W21029	JA68564 2 34x		AST YXL	50	# 4	אאר סס	1		OK	A459 A530 A689	
16	1 /	JA68564-3 2		A449 A530 A	189 400	96001	12		/	Not used	,	
<u>. 5</u>		Sce		A854	áno.			J	_	P.L.	CP4605	

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, #

3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09



# Canister Secondary Dilution Log

Z ACCUTEST.

														_		•
	Final	Canister		Factor	115		4600									
		il ti		Factor	5.T		\$									
	Equiv	Total		ပ္ပ	2002		7007							_		
er Dilution		Final Total	Fiessule	psig	147	+ + + + + + + + + + + + + + + + + + + +	ダン	•								
Secondary Canister Dilution	Sample	Volume	Added	၁၁	20	3	50									
Seconda		Canister	Volume	ပ္ပ	1000	200	1000									
			Canister	Q	,	4 550	4689									
			Dilution	Factor	27,	1:12										
or Dilution		Final	in "Hg at Pressure	psid		117 2 1.12										
not Capieter Dilution	llai Cailla	Vacuum	in "Hg at	time of	7 7 7							·				
Circ	5		Canister	2	73956	7										
J			Accutest	Ol clama?	initials Sample in	746664-3										
				(1)	Initials	14.6									-	
					Date	Jar fri										

(Sample Volume in cc Injected)
Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) 20. The final dilution multiplier is 20(from canister dilution)  $\times$  20(from instrument dilution) = 400 Final DF =  $(Original Canister DF) \times (Secondary Canister DF)$ Dilution Factor at Instrument = Definition: Example:

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error, #2 = Transcription Error, #3 = Computer Miscalctulation, #4 = Analyst's Correction

Notes:

Form: AT003-03
Rev. Date: 6/13/06

836 of 840
ACCUTEST

JA68565
LABORATORIES

	CUTEST.	
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	1/20/11	
nate:		

Method:

TOIS.MPT

AS Data

Analyst Signature:\_\_ Columns: Method: \_\_\_\_ TOISW.M

Seq. File: Woltoli.S Initial Cal. Method: MWILL

Standard Data

Lot#	Description	Conc.
As 4673	Islaurr	YULZOPPAV

Standard Data

Lot#	Description	Conc.
AS4676	TOISSTO	40ppos
AS 4692	TOISSID	Loppb)
A5 4693	TOIT STD	0.4 pp60
AS4675	TOIT LCS	40ps V

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

			Super	Date:	120					
Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
27155	BFB		A961	100	ł				on	
	7.000		M ALL	1.00		]	_	1, 1		

AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Areas	Surr	Status Data	Comments
5	WZ9765	BFB		A961	100	ĺ				on	
Z	WZ9766	IC(1727-10		A964	100	:4				on.	
1	WZ9767	IC1222-0.5		A965	200	ļ		/		NF	wrong Somple tuken
Z	WZ9768	ICILLI2-5		A464	30	1		/		AN Used	,
1	WZ9769	IC1222-0.2		A965	80.7 <del>10.3</del> H	1		\		No	wrong sumple taken
2	W29770	IC1222-20		A964	200			/	1	on	
2	W29771	ICIZZZ-5		A964	50	١			/	on	
4	W29772	I(1222-0.1		A966	100	1		/	/	N6-	wrong Sampletakan
4	W29773	IC1222-0.04	_	Aqeb	40	1		/	/	NG-	J
2	WZ9774	IC1222-40		A 964	400			/	/	on	
	WZ9775	I(1222-05		A965	200	1		/	/	on	
	WZ9776	IC1222-0.2		A945	8040-14	1		/		on	
. 4	W29777	I(1222-0.1	,	Aqul	100 8 4H	!		/		on	
4	WZ9718	IC1222-0.04		A966	40			/	/	on	
3	W29779	ICV1222-10		A967	100	1		/	/	NE	
				7.							
				·	44						
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Rev. Date: 10/20/09

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1/21/11 Date:

AS Data

Method: TOISMIT

TOISW.M Method: Seq. File:\_\_\_ WOIZHLS Initial Cal. Method: <u>HWI272</u>

RTX-160MX.32mm

Analyst Signature:\_\_\_

Columns:

	Standard Data			Standard Data	
Lot#	Description	Conc.	Lot#	Description	Conc.
			AS 4676	TUISSTO	4 opphu
			AS 4275	TOISLES	40ppbu
	•		As 4613	Islsucc	YClzopphu
	W	<u> </u>			

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

				Super	visor Sig	nature:	74	di	·	Date:	1/24/4
AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil	TICS	W / COMPANY	Surr	Status Data	Comments
5	WZ9780	BFB		A961	100					٥٢	
2	WZ9781	£CC1222-10		A964	נטט			-		NG	
2	WZ918Z	CC1222-10		A914_	100				/	, oil	
3	WZ9783	BS		<u> </u>	100					oK	
3	WZ9784	BSD		A967	(00)					OK	
T	WZ9785	ИB		A961	400					ac	
<i>l</i> 2	W2978b	SCC		A365	400				/	Ø	
7	W29787	SCC '		A776	400					on	
											- 10-10-10-10-10-10-10-10-10-10-10-10-10-1
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All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, #

3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09

TO-	1	4/	$\mathbf{T}$	O-	.1	5

Batch	ID: <u>VW1236</u>
. A Nicrostrino	ym yu

Analyst Signature:\_

RTX-160MX.32mm Columns:\_ TOIS W.M Method: \_\_\_ WOZIIII.S

Seq. File:\_\_\_\_ Initial Cal. Method: MW1722

AS Data

Method: TOIS, MPT

Standard Data

MACCUTEST.

Date:

2/11/11

	Standard Data	
Lot#	Description	Conc.

	Standard Data	
Lot#	Description	Conc.
AS 4712	TO15570	HOPPOU
AS 4711	TOISUS	4 offbu
AS 4710	Isisurr	40/20pplov
75 (1.9		

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

M) Ma	nually integra	ited chromatogi apiii	, p	of Accur	test SOP I	QA044.		1		Date:	X14 (1)
				Super	visor Sigi Vol	Dil		Int. STD	Surr	Status	Comments
s#	Data File	Sample ID	TEST	Serial #	Sample	Fact	TICS	Areas	Sull	Data	
	No. is a	BF0		A961	100					OK	
	W30125	CC1272-10		A913	100				-	OIL	
2	W30126	BS		A980	100			-	<del>                                     </del>	DVL	
3	W30127	650		A980	100		ļ		-	DN	
<u></u> -	W30128 W30129	MB		A961	400		ļ			on_	
<u>b</u>		JA67189-1	STD	A326, A520	100	250	<u> </u>	/	-	OK	
7	W30130 W30131	JA61786-4	STD	ALOZ	100	1	ļ			DV-	
8	W30131	JA67654-1	STO	A56,A571	200	24	ļ		+	on	
9	W30132	SCC		A791	400	1		1	<del>                                     </del>	DIL	
		JA67911-1	STO	A289	400				1	DIL	
10	W30135	JA67911-Z	i	A815	400	1		/	+	OR	
12		JA67911-3		A470	100	1-1-			+-	012	
12		JA67911-3 Dup		A470	100			1	+-	or_	
1.2 1.3		SCL		A904	400	1		1	+	612	
11		JA67910-5	STO		100	1		+	+/	DIL	
		JA67910-6		A404		<del> </del>		/	+	OIL	
	b W30141	JA67410-7		A554		<del></del>		1		on	
	W30142	SU		A311	400			1	1	on	
3		JA61405-1	STO					+-/	+	01400	RR 40ml
4		JA67905-2		A & F.				+	+-	OUT	RESOM
6		JA67405-3		A871		D   '	_	1	+		76
7		JA67905-4		AZZ				1 1	+-		RR40vm/4vm
8				A34			<del>-   -</del>	+	+-	01/0	
0		JH67905-6		A23			_	+	1	04/	RRHoml
_	0 W3449	JA67905-7		<u>A41</u>					<del>-   -  </del>	01/0	RRIOUMI YH
		JA67905-8		AZT					1		at the Property of the Propert
_	12 W30151	JA67905-9	_ \ \ \					<del></del>		on	C 1 :
	13# W3015			A41	69 40	TD   1					
_	5 W3015	3				7/-	<i>f</i>				
		ust be initial, dated a			1 - 5 - 11 -		= Rev	lewer Corre	ction Err	or; # 2 = T	ranscription Error,

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, #

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Accutest         Canister Liminal Canister Notume Image         Final Pressure In "Hg at Image of the final Dilution Image of the	Accutest         Canister Volume Final Total         Final Total Final Total         Commission Pressure In "Hour I	Canister in "Hg at Pressure Dilution time of Dilution time of Dilution by Sample Final Total Canister of time of Dilution psig Factor A326 -0.5 1.2 1.2 1.2 A371 1.000 1.00 1.00 1.00 2.0 A326 -0.5 1.2 A371 1.000 1.00 1.00 1.00 1.00 1.00 1.00 1	Z ACCUEST.	•		331130	Oilotion			Seconda	ary Canist	Secondary Canister Dilution	- Louis	П	Final
Accutest         Canister time of position         Final time of position         Canister time of position         Factor time of position         Factor position         CC         CC         CC         Pressure pointion	Accutest         Canister (mark)         Vacuum Final time of	Accutest Canister in "Hg at Pressure Dilution Canister Volume Added Pressure Volume Dilution time of time of psig Factor AS26 -0.5 1.1 AS20 1670 10 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 1.2 AS71 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 1.2 AS71 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS71 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS26 -0.5 1.2 AS31 1070 14.7 2070 20 JA61189-1 AS31 1070 14.7			Oris	inal Canist	er Ullution			-	Sample	Final	Total		Canister
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Definition:

Example:

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

7 Form: AT003-03 F Rev. Date: 6/13/06

6.8.8

840 of 840

ACCUTEST

JA68565

LABORATORIES



09/12/11



# Technical Report for

# **TRC**

Lockheed Electronics Co, Watchung, NJ

116473.0000 PO#35332

Accutest Job Number: JA81330

Sampling Date: 07/19/11

# Report to:

TRC Environmental Corporation

smccray@trcsolutions.com

ATTN: Scott McCray

Total number of pages in report: 685



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

David N. Speis<sup>\(\)</sup> VP, Laboratory Director

Client Service contact: Matt Cordova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

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# **Sample Summary**

TRC

**Job No:** JA81330

Lockheed Electronics Co, Watchung, NJ Project No: 116473.0000 PO#35332

Sample Number	Collected Date	Time By	Received	Matr Code		Client Sample ID
JA81330-1	07/19/11	10:13 SM	07/19/11	AIR	Indoor Air Comp.	7006 CR
JA81330-2	07/19/11	10:16 SM	07/19/11	AIR	Indoor Air Comp.	7007 CR
JA81330-3	07/19/11	10:23 SM	07/19/11	AIR	Indoor Air Comp.	12002 CR
JA81330-4	07/19/11	10:26 SM	07/19/11	AIR	Indoor Air Comp.	12003 CR
JA81330-5	07/19/11	10:37 SM	07/19/11	AIR	Indoor Air Comp.	6007 CR
JA81330-6	07/19/11	10:45 SM	07/19/11	AIR	Indoor Air Comp.	BLDG 3 CR
JA81330-7	07/19/11	10:33 SM	07/19/11	AIR	Indoor Air Comp.	6006 CR
JA81330-8	07/19/11	11:33 SM	07/19/11	AIR	Indoor Air Comp.	BLDG 26 RV





## CASE NARRATIVE / CONFORMANCE SUMMARY

Client: TRC Job No JA81330

Site: Lockheed Electronics Co, Watchung, NJ Report Date 8/3/2011 2:51:46 PM

On 07/19/2011, 8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories . An Accutest Job Number of JA81330 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

## Volatiles by GCMS By Method TO-15

Matrix: AIR Batch ID: VW1341

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JA81330-5DUP were used as the QC samples indicated.
- Sample(s) JA81330-1, JA81330-4 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.
- RPD(s) for Duplicate for 4-Ethyltoluene are outside control limits for sample JA81330-5DUP. Probable cause due to sample homogeneity.

Matrix: AIR Batch ID: VW1342

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JA81054-3DUP were used as the QC samples indicated.
- Sample(s) JA81330-5, JA81330-6, JA81330-7 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover



Sample Results	
Report of Analysis	



# Accutest LabLink@633525 12:40 12-Sep-2011

# **Report of Analysis**

Page 1 of 3

Client Sample ID: 7006 CR

Lab Sample ID: JA81330-1 **Date Sampled:** 07/19/11 Matrix: Summa ID: A19(Date Received: 07/19/11 AIR - Indoor Air Comp. TO-15 Percent Solids: n/a Method:

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
Run #1	W32807.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32816.D	1	07/20/11	YMH	n/a	n/a	VW1341

	Initial Volume
Run #	<sup>‡</sup> 1 400 ml
Run #	<sup>2</sup> 50.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	135 a	1.6	0.29	ppbv		321 <sup>a</sup>	3.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	1.5	0.20	0.046	ppbv		4.8	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.28	0.20	0.032	ppbv		0.87	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	0.096	0.20	0.039	ppbv	J	0.25	0.53	ug/m3
67-66-3	119.4	Chloroform	0.35	0.20	0.028	ppbv		1.7	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.94	0.20	0.037	ppbv		1.9	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.13	0.20	0.040	ppbv	J	0.82	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.50	0.20	0.034	ppbv		1.7	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv		ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.26	0.20	0.043	ppbv		1.1	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.48	0.20	0.038	ppbv		2.4	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv		ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv		ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.025	ppbv		ND	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv		ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# **Report of Analysis**

Client Sample ID: 7006 CR

Lab Sample ID:JA81330-1Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A19(Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	852 a	4.0	0.76	ppbv E	1610 <sup>a</sup>	7.5	ug/m3
100-41-4	106.2	Ethylbenzene	3.2	0.20	0.031	ppbv	14	0.87	ug/m3
141-78-6	88	Ethyl Acetate	8.1	0.20	0.061	ppbv	29	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	5.6	0.20	0.024	ppbv	28	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	100.2	Heptane	1.9	0.20	0.033	ppbv	7.8	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	86.17	Hexane	1.3	0.20	0.044	ppbv	4.6	0.70	ug/m3
591-78-6	100	2-Hexanone	3.5	0.20	0.043	ppbv	14	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	23.1	0.20	0.059	ppbv	56.8	0.49	ug/m3
75-09-2	84.94	Methylene chloride	0.23	0.20	0.027	ppbv	0.80	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	17.1	0.20	0.048	ppbv	50.4	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.9	0.20	0.036	ppbv	7.8	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	42	Propylene	5.1	0.50	0.070	ppbv	8.8	0.86	ug/m3
100-42-5	104.1	Styrene	0.48	0.20	0.027	ppbv	2.0	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	12.1	0.20	0.024	ppbv	59.5	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	3.6	0.20	0.028	ppbv	18	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.60	0.20	0.028	ppbv	2.8	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	4.0	0.20	0.032	ppbv	12	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.75	0.040	0.028	ppbv	5.1	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.0	0.20	0.047	ppbv	2.9	0.59	ug/m3
108-88-3	92.14	Toluene	10.6	0.20	0.040	ppbv	39.9	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.23	0.040	0.033	ppbv	1.2	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.37	0.20	0.042	ppbv	2.1	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	106.2	m,p-Xylene	12.8	0.20	0.031	ppbv	55.6	0.87	ug/m3
95-47-6	106.2	o-Xylene	5.4	0.20	0.031	ppbv	23	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	18.2	0.20	0.031	ppbv	79.1	0.87	ug/m3

CAS No. Surrogate Recoveries Run# 1 Run# 2 Limits

460-00-4 4-Bromofluorobenzene 101% 99% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 

N = Indicates presumptive evidence of a compound



# C

**Report of Analysis** 

Client Sample ID: 7006 CR

Lab Sample ID:JA81330-1Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A19(Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



# **Report of Analysis**

Page 1 of 3

Client Sample ID: 7007 CR

Lab Sample ID: JA81330-2 **Date Sampled:** 07/19/11 Matrix: Summa ID: A089Date Received: 07/19/11 AIR - Indoor Air Comp. Percent Solids: n/a Method: TO-15

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W32808.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32817.D	1	07/20/11	YMH	n/a	n/a	VW1341

	Initial Volume
n #1	400 ml
lun #2	50.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	138 <sup>a</sup>	1.6	0.29	ppbv		328 a	3.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	1.8	0.20	0.046	ppbv		5.8	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.52	0.20	0.032	ppbv		1.6	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	0.11	0.20	0.039	ppbv	J	0.29	0.53	ug/m3
67-66-3	119.4	Chloroform	0.31	0.20	0.028	ppbv		1.5	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.83	0.20	0.037	ppbv		1.7	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.040	ppbv		ND	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.71	0.20	0.034	ppbv		2.4	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv		ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.63	0.20	0.043	ppbv		2.5	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.52	0.20	0.038	ppbv		2.6	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv		ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv		ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.025	ppbv		ND	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv		ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# **Report of Analysis**

Client Sample ID: 7007 CR

Lab Sample ID:JA81330-2Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A089Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	221 <sup>a</sup>	4.0	0.76	ppbv	416 <sup>a</sup>	7.5	ug/m3
100-41-4	106.2	Ethylbenzene	3.8	0.20	0.031	ppbv	17	0.87	ug/m3
141-78-6	88	Ethyl Acetate	4.7	0.20	0.061	ppbv	17	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	5.8	0.20	0.024	ppbv	29	0.98	ug/m3
76-13-1	187.4	Freon 113	0.10	0.20	0.034	ppbv J	0.77	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	100.2	Heptane	1.5	0.20	0.033	ppbv	6.1	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	86.17	Hexane	2.2	0.20	0.044	ppbv	7.8	0.70	ug/m3
591-78-6	100	2-Hexanone	0.52	0.20	0.043	ppbv	2.1	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	15.5	0.20	0.059	ppbv	38.1	0.49	ug/m3
75-09-2	84.94	Methylene chloride	0.27	0.20	0.027	ppbv	0.94	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	6.0	0.20	0.048	ppbv	18	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.28	0.20	0.036	ppbv	1.1	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	42	Propylene	4.1	0.50	0.070	ppbv	7.0	0.86	ug/m3
100-42-5	104.1	Styrene	0.51	0.20	0.027	ppbv	2.2	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	10.5	0.20	0.024	ppbv	51.6	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	3.6	0.20	0.028	ppbv	18	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.0	0.20	0.028	ppbv	4.7	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	11.8	0.20	0.032	ppbv	35.8	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.1	0.040	0.028	ppbv	7.5	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.2	0.20	0.047	ppbv	3.5	0.59	ug/m3
108-88-3	92.14	Toluene	14.9	0.20	0.040	ppbv	56.2	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.50	0.040	0.033	ppbv	2.7	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.29	0.20	0.042	ppbv	1.6	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	106.2	m,p-Xylene	14.8	0.20	0.031	ppbv	64.3	0.87	ug/m3
95-47-6	106.2	o-Xylene	6.4	0.20	0.031	ppbv	28	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	21.3	0.20	0.031	ppbv	92.5	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 100% 97% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 

N = Indicates presumptive evidence of a compound



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# **Report of Analysis**

Client Sample ID: 7007 CR

Lab Sample ID: JA81330-2 **Date Sampled:** 07/19/11 Matrix: Summa ID: A089Date Received: 07/19/11 AIR - Indoor Air Comp. Method: TO-15 Percent Solids: n/a

Lockheed Electronics Co, Watchung, NJ **Project:** 

CAS No. MWCompound Result RL MDL Units Q Result RLUnits

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 1 of 3

Client Sample ID: 12002 CR

Lab Sample ID: JA81330-3 **Date Sampled:** 07/19/11 Matrix: Summa ID: A147Date Received: 07/19/11 AIR - Indoor Air Comp. Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W32809.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32818.D	1	07/20/11	YMH	n/a	n/a	VW1341

	Initial Volume
#1	400 ml
un #2	100 ml

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	58.08	Acetone	111 <sup>a</sup>	0.80	0.15	ppbv	264 <sup>a</sup>	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	78.11	Benzene	2.3	0.20	0.046	ppbv	7.3	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.27	0.20	0.032	ppbv	0.84	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	119.4	Chloroform	0.78	0.20	0.028	ppbv	3.8	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.79	0.20	0.037	ppbv	1.6	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.040	ppbv	ND	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.82	0.20	0.034	ppbv	2.8	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.043	ppbv	ND	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.46	0.20	0.038	ppbv	2.3	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: 12002 CR

Lab Sample ID:JA81330-3Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A147Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	156 <sup>a</sup>	2.0	0.38	ppbv	294 <sup>a</sup>	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	4.2	0.20	0.031	ppbv	18	0.87	ug/m3
141-78-6	88	Ethyl Acetate	3.6	0.20	0.061	ppbv	13	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	7.5	0.20	0.024	ppbv	37	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	100.2	Heptane	1.6	0.20	0.033	ppbv	6.6	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	86.17	Hexane	2.5	0.20	0.044	ppbv	8.8	0.70	ug/m3
591-78-6	100	2-Hexanone	0.51	0.20	0.043	ppbv	2.1	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	26.2	0.20	0.059	ppbv	64.4	0.49	ug/m3
75-09-2	84.94	Methylene chloride	0.27	0.20	0.027	ppbv	0.94	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	4.8	0.20	0.048	ppbv	14	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.21	0.20	0.036	ppbv	0.86	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	42	Propylene	5.0	0.50	0.070	ppbv	8.6	0.86	ug/m3
100-42-5	104.1	Styrene	0.61	0.20	0.027	ppbv	2.6	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	16.5	0.20	0.024	ppbv	81.1	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	4.8	0.20	0.028	ppbv	24	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.4	0.20	0.028	ppbv	6.5	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	18.8	0.20	0.032	ppbv	57.0	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.2	0.040	0.028	ppbv	8.1	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.1	0.20	0.047	ppbv	3.2	0.59	ug/m3
108-88-3	92.14	Toluene	16.3	0.20	0.040	ppbv	61.4	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.13	0.040	0.033	ppbv	0.70	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.29	0.20	0.042	ppbv	1.6	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	106.2	m,p-Xylene	16.7	0.20	0.031	ppbv	72.5	0.87	ug/m3
95-47-6	106.2	o-Xylene	7.4	0.20	0.031	ppbv	32	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	24.1	0.20	0.031	ppbv	105	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 103% 94% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



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# **Report of Analysis**

Client Sample ID: 12002 CR

Lab Sample ID:JA81330-3Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A147Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



#### Accutest LabLink@633525 12:40 12-Sep-2011

# **Report of Analysis**

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Client Sample ID: 12003 CR

Lab Sample ID: JA81330-4 **Date Sampled:** 07/19/11 Matrix: Summa ID: A66 Date Received: 07/19/11 AIR - Indoor Air Comp. Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W32810.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32819.D	1	07/20/11	YMH	n/a	n/a	VW1341

	Initial Volume
Run #1	400 ml
Run #2	50.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	58.08	Acetone	155 a	1.6	0.29	ppbv	368 <sup>a</sup>	3.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	78.11	Benzene	1.7	0.20	0.046	ppbv	5.4	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.39	0.20	0.032	ppbv	1.2	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	119.4	Chloroform	0.37	0.20	0.028	ppbv	1.8	0.98	ug/m3
74-87-3	50.49	Chloromethane	ND	0.20	0.037	ppbv	ND	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.33	0.20	0.040	ppbv	2.1	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.72	0.20	0.034	ppbv	2.5	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.67	0.20	0.043	ppbv	2.7	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.46	0.20	0.038	ppbv	2.3	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	0.14	0.20	0.025	ppbv J	0.84	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: 12003 CR

Lab Sample ID:JA81330-4Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A66 Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	342 a	4.0	0.76	ppbv E	644 <sup>a</sup>	7.5	ug/m3
100-41-4	106.2	Ethylbenzene	3.8	0.20	0.031	ppbv	17	0.87	ug/m3
141-78-6	88	Ethyl Acetate	5.4	0.20	0.061	ppbv	19	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	6.6	0.20	0.024	ppbv	32	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	100.2	Heptane	1.4	0.20	0.033	ppbv	5.7	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	86.17	Hexane	1.8	0.20	0.044	ppbv	6.3	0.70	ug/m3
591-78-6	100	2-Hexanone	0.31	0.20	0.043	ppbv	1.3	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	106 <sup>a</sup>	1.6	0.47	ppbv	261 <sup>a</sup>	3.9	ug/m3
75-09-2	84.94	Methylene chloride	0.34	0.20	0.027	ppbv	1.2	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	3.8	0.20	0.048	ppbv	11	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.69	0.20	0.036	ppbv	2.8	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	42	Propylene	10.5	0.50	0.070	ppbv	18.0	0.86	ug/m3
100-42-5	104.1	Styrene	0.90	0.20	0.027	ppbv	3.8	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	14.4	0.20	0.024	ppbv	70.8	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	4.2	0.20	0.028	ppbv	21	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.2	0.20	0.028	ppbv	5.6	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	9.7	0.20	0.032	ppbv	29	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.7	0.040	0.028	ppbv	12	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.92	0.20	0.047	ppbv	2.7	0.59	ug/m3
108-88-3	92.14	Toluene	13.4	0.20	0.040	ppbv	50.5	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.088	0.040	0.033	ppbv	0.47	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.27	0.20	0.042	ppbv	1.5	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	106.2	m,p-Xylene	15.2	0.20	0.031	ppbv	66.0	0.87	ug/m3
95-47-6	106.2	o-Xylene	6.7	0.20	0.031	ppbv	29	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	21.9	0.20	0.031	ppbv	95.1	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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460-00-4 4-Bromofluorobenzene 105% 93% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



# C

# **Report of Analysis**

Client Sample ID: 12003 CR

Lab Sample ID:JA81330-4Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID: A66 Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 1 of 3

Client Sample ID: 6007 CR

Lab Sample ID: JA81330-5 **Date Sampled:** 07/19/11 Matrix: Summa ID: A36**5Date Received:** 07/19/11 AIR - Indoor Air Comp. TO-15 Method: Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
Run #1	W32811.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32833.D	1	07/21/11	YMH	n/a	n/a	VW1342

	Initial Volume
Run #1	400 ml
Run #2	40.0 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	98.8 a	2.0	0.36	ppbv		235 a	4.8	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	0.62	0.20	0.046	ppbv		2.0	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.14	0.20	0.032	ppbv	J	0.44	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.039	ppbv		ND	0.53	ug/m3
67-66-3	119.4	Chloroform	0.88	0.20	0.028	ppbv		4.3	0.98	ug/m3
74-87-3	50.49	Chloromethane	1.2	0.20	0.037	ppbv		2.5	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.19	0.20	0.040	ppbv	J	1.2	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.29	0.20	0.034	ppbv		1.0	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv		ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.18	0.20	0.043	ppbv	J	0.73	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	2.4	0.20	0.038	ppbv		12	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv		ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv		ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	1.1	0.20	0.025	ppbv		6.6	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv		ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: 6007 CR

Lab Sample ID:JA81330-5Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A365Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	2070 a	5.0	0.95	ppbv	Е	3900 a	9.4	ug/m3
100-41-4	106.2	Ethylbenzene	0.56	0.20	0.031	ppbv		2.4	0.87	ug/m3
141-78-6	88	Ethyl Acetate	5.8	0.20	0.061	ppbv		21	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.22	0.20	0.024	ppbv		1.1	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv		ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	100.2	Heptane	0.66	0.20	0.033	ppbv		2.7	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	86.17	Hexane	0.53	0.20	0.044	ppbv		1.9	0.70	ug/m3
591-78-6	100	2-Hexanone	0.19	0.20	0.043	ppbv	J	0.78	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	85.2 a	2.0	0.59	ppbv		209 a	4.9	ug/m3
75-09-2	84.94	Methylene chloride	0.29	0.20	0.027	ppbv		1.0	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.4	0.20	0.048	ppbv		7.1	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.34	0.20	0.036	ppbv		1.4	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv		ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv		ND	0.82	ug/m3
115-07-1	42	Propylene	ND	0.50	0.070	ppbv		ND	0.86	ug/m3
100-42-5	104.1	Styrene	0.82	0.20	0.027	ppbv		3.5	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv		ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv		ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.1	0.20	0.024	ppbv		5.4	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.27	0.20	0.028	ppbv		1.3	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.23	0.20	0.028	ppbv		1.1	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.032	ppbv		ND	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.20	0.040	0.028	ppbv		1.4	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.49	0.20	0.047	ppbv		1.4	0.59	ug/m3
108-88-3	92.14	Toluene	5.1	0.20	0.040	ppbv		19	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.040	0.040	0.033	ppbv		0.21	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	1.1	0.20	0.042	ppbv		6.2	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv		ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv		ND	0.70	ug/m3
	106.2	m,p-Xylene	1.8	0.20	0.031	ppbv		7.8	0.87	ug/m3
95-47-6	106.2	o-Xylene	0.61	0.20	0.031	ppbv		2.6	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	2.4	0.20	0.031	ppbv		10	0.87	ug/m3

460-00-4 4-Bromofluorobenzene 105% 90% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



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# **Report of Analysis**

Client Sample ID: 6007 CR

Lab Sample ID:JA81330-5Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A365Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Page 1 of 3

Client Sample ID: BLDG 3 CR

Lab Sample ID: JA81330-6 **Date Sampled:** 07/19/11 Matrix: Summa ID: A039Date Received: 07/19/11 AIR - Indoor Air Comp. Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
Run #1	W32813.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32834.D	1	07/21/11	YMH	n/a	n/a	VW1342

	Initial Volume
#1	400 ml
un #2	100 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	20.9	0.20	0.036	ppbv		49.6	0.48	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	0.49	0.20	0.046	ppbv		1.6	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.032	ppbv		ND	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.039	ppbv		ND	0.53	ug/m3
67-66-3	119.4	Chloroform	0.19	0.20	0.028	ppbv	J	0.93	0.98	ug/m3
74-87-3	50.49	Chloromethane	ND	0.20	0.037	ppbv		ND	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.097	0.20	0.040	ppbv	J	0.61	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.18	0.20	0.034	ppbv	J	0.62	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv		ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.043	ppbv		ND	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.46	0.20	0.038	ppbv		2.3	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv		ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv		ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	0.28	0.20	0.025	ppbv		1.7	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv		ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: BLDG 3 CR

Lab Sample ID:JA81330-6Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A039Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	524 <sup>a</sup>	2.0	0.38	ppbv	Е	987 <sup>a</sup>	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.46	0.20	0.031	ppbv		2.0	0.87	ug/m3
141-78-6	88	Ethyl Acetate	2.0	0.20	0.061	ppbv		7.2	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.12	0.20	0.024	ppbv	J	0.59	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv		ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	100.2	Heptane	0.32	0.20	0.033	ppbv		1.3	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	86.17	Hexane	0.36	0.20	0.044	ppbv		1.3	0.70	ug/m3
591-78-6	100	2-Hexanone	0.13	0.20	0.043	ppbv	J	0.53	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	15.1	0.20	0.059	ppbv		37.1	0.49	ug/m3
75-09-2	84.94	Methylene chloride	0.24	0.20	0.027	ppbv		0.83	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.2	0.20	0.048	ppbv		3.5	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.57	0.20	0.036	ppbv		2.3	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv		ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv		ND	0.82	ug/m3
115-07-1	42	Propylene	4.4	0.50	0.070	ppbv		7.6	0.86	ug/m3
100-42-5	104.1	Styrene	0.32	0.20	0.027	ppbv		1.4	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv		ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv		ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.47	0.20	0.024	ppbv		2.3	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.12	0.20	0.028	ppbv	J	0.59	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.23	0.20	0.028	ppbv		1.1	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.26	0.20	0.032	ppbv		0.79	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.32	0.040	0.028	ppbv		2.2	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.31	0.20	0.047	ppbv		0.91	0.59	ug/m3
108-88-3	92.14	Toluene	3.3	0.20	0.040	ppbv		12	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.085	0.040	0.033	ppbv		0.46	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.29	0.20	0.042	ppbv		1.6	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv		ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv		ND	0.70	ug/m3
	106.2	m,p-Xylene	1.5	0.20	0.031	ppbv		6.5	0.87	ug/m3
95-47-6	106.2	o-Xylene	0.53	0.20	0.031	ppbv		2.3	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	2.0	0.20	0.031	ppbv		8.7	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 101% 89% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



# C

**Report of Analysis** 

Client Sample ID: BLDG 3 CR

Lab Sample ID:JA81330-6Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A039Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



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# **Report of Analysis**

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Client Sample ID: 6006 CR

Lab Sample ID: JA81330-7 **Date Sampled:** 07/19/11 Matrix: Summa ID: A358Date Received: 07/19/11 AIR - Indoor Air Comp. TO-15 Method: Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
Run #1	W32814.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32835.D	1	07/21/11	YMH	n/a	n/a	VW1342

	Initial Volume
Run #1	400 ml
Run #2	100 ml

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	97.3 a	0.80	0.15	ppbv		231 <sup>a</sup>	1.9	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	2.4	0.20	0.046	ppbv		7.7	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.28	0.20	0.032	ppbv		0.87	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	0.096	0.20	0.039	ppbv	J	0.25	0.53	ug/m3
67-66-3	119.4	Chloroform	0.22	0.20	0.028	ppbv		1.1	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.83	0.20	0.037	ppbv		1.7	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.040	ppbv		ND	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.88	0.20	0.034	ppbv		3.0	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv		ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.76	0.20	0.043	ppbv		3.1	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.49	0.20	0.038	ppbv		2.4	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv		ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv		ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.025	ppbv		ND	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv		ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



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# **Report of Analysis**

Client Sample ID: 6006 CR

Lab Sample ID: JA81330-7 **Date Sampled:** 07/19/11 Matrix: Summa ID: A358Date Received: 07/19/11 AIR - Indoor Air Comp. Percent Solids: n/a Method: TO-15

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units Q	Result	RL	Units
64-17-5	46.07	Ethanol	544 <sup>a</sup>	2.0	0.38	ppbv E	1030 <sup>a</sup>	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	3.8	0.20	0.031	ppbv	17	0.87	ug/m3
141-78-6	88	Ethyl Acetate	5.2	0.20	0.061	ppbv	19	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	5.2	0.20	0.024	ppbv	26	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	100.2	Heptane	1.7	0.20	0.033	ppbv	7.0	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	86.17	Hexane	2.6	0.20	0.044	ppbv	9.2	0.70	ug/m3
591-78-6	100	2-Hexanone	0.40	0.20	0.043	ppbv	1.6	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	24.6	0.20	0.059	ppbv	60.5	0.49	ug/m3
75-09-2	84.94	Methylene chloride	0.26	0.20	0.027	ppbv	0.90	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	3.3	0.20	0.048	ppbv	9.7	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.22	0.20	0.036	ppbv	0.90	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	42	Propylene	ND	0.50	0.070	ppbv	ND	0.86	ug/m3
100-42-5	104.1	Styrene	0.42	0.20	0.027	ppbv	1.8	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	8.5	0.20	0.024	ppbv	42	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	2.9	0.20	0.028	ppbv	14	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.2	0.20	0.028	ppbv	5.6	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	8.2	0.20	0.032	ppbv	25	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.1	0.040	0.028	ppbv	7.5	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.97	0.20	0.047	ppbv	2.9	0.59	ug/m3
108-88-3	92.14	Toluene	15.8	0.20	0.040	ppbv	59.5	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.033	ppbv	ND	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.30	0.20	0.042	ppbv	1.7	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	106.2	m,p-Xylene	14.3	0.20	0.031	ppbv	62.1	0.87	ug/m3
95-47-6	106.2	o-Xylene	6.0	0.20	0.031	ppbv	26	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	20.3	0.20	0.031	ppbv	88.2	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 97% 90% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: 6006 CR

Lab Sample ID: JA81330-7 **Date Sampled:** 07/19/11 Matrix: Summa ID: A358Date Received: 07/19/11 AIR - Indoor Air Comp. Method: TO-15 Percent Solids: n/a

Lockheed Electronics Co, Watchung, NJ **Project:** 

CAS No. MWCompound Result RL MDL Units Q Result RLUnits

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



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# **Report of Analysis**

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Client Sample ID: BLDG 26 RV

Lab Sample ID: JA81330-8 **Date Sampled:** 07/19/11 Matrix: Summa ID: A853Date Received: 07/19/11 AIR - Indoor Air Comp. Method: TO-15 Percent Solids: n/a

Project: Lockheed Electronics Co, Watchung, NJ

	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
Run #1	W32815.D	1	07/20/11	YMH	n/a	n/a	VW1341
Run #2	W32836.D	1	07/21/11	YMH	n/a	n/a	VW1342

	Initial Volume	
Run #1	400 ml	
Run #2	200 ml	

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone	62.1 <sup>a</sup>	0.40	0.073	ppbv		148 <sup>a</sup>	0.95	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.024	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	1.1	0.20	0.046	ppbv		3.5	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.030	ppbv		ND	1.3	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.037	ppbv		ND	2.1	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.037	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.037	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.041	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	0.16	0.20	0.032	ppbv	J	0.50	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.027	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.039	ppbv		ND	0.53	ug/m3
67-66-3	119.4	Chloroform	0.23	0.20	0.028	ppbv		1.1	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.63	0.20	0.037	ppbv		1.3	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.041	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.031	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.040	ppbv		ND	1.3	ug/m3
110-82-7	84.16	Cyclohexane	0.51	0.20	0.034	ppbv		1.8	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.028	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.046	ppbv		ND	0.79	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.18	0.20	0.043	ppbv	J	0.73	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.038	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.056	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.46	0.20	0.038	ppbv		2.3	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.027	ppbv		ND	1.7	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv		ND	0.79	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
106-46-7	147	p-Dichlorobenzene	0.18	0.20	0.025	ppbv	J	1.1	1.2	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv		ND	0.91	ug/m3

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank



Client Sample ID: BLDG 26 RV

Lab Sample ID:JA81330-8Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A853Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	72.2 <sup>a</sup>	1.0	0.19	ppbv		136 <sup>a</sup>	1.9	ug/m3
100-41-4	106.2	Ethylbenzene	3.2	0.20	0.031	ppbv		14	0.87	ug/m3
141-78-6	88	Ethyl Acetate	2.2	0.20	0.061	ppbv		7.9	0.72	ug/m3
622-96-8	120.2	4-Ethyltoluene	6.4	0.20	0.024	ppbv		31	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.034	ppbv		ND	1.5	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	100.2	Heptane	1.8	0.20	0.033	ppbv		7.4	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.046	ppbv		ND	2.1	ug/m3
110-54-3	86.17	Hexane	1.6	0.20	0.044	ppbv		5.6	0.70	ug/m3
591-78-6	100	2-Hexanone	0.25	0.20	0.043	ppbv		1.0	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	8.6	0.20	0.059	ppbv		21	0.49	ug/m3
75-09-2	84.94	Methylene chloride	0.73	0.20	0.027	ppbv		2.5	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	7.3	0.20	0.048	ppbv		22	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.19	0.20	0.036	ppbv	J	0.78	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv		ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.043	ppbv		ND	0.82	ug/m3
115-07-1	42	Propylene	ND	0.50	0.070	ppbv		ND	0.86	ug/m3
100-42-5	104.1	Styrene	0.60	0.20	0.027	ppbv		2.6	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	0.17	0.20	0.022	ppbv	J	0.93	1.1	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv		ND	1.4	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv		ND	1.1	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv		ND	1.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	13.6	0.20	0.024	ppbv		66.9	0.98	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	4.0	0.20	0.028	ppbv		20	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.50	0.20	0.028	ppbv		2.3	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	3.5	0.20	0.032	ppbv		11	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.2	0.040	0.028	ppbv		8.1	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	4.5	0.20	0.047	ppbv		13	0.59	ug/m3
108-88-3	92.14	Toluene	12.2	0.20	0.040	ppbv		46.0	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.033	ppbv		ND	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.36	0.20	0.042	ppbv		2.0	1.1	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.032	ppbv		ND	0.51	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.057	ppbv		ND	0.70	ug/m3
	106.2	m,p-Xylene	13.4	0.20	0.031	ppbv		58.2	0.87	ug/m3
95-47-6	106.2	o-Xylene	5.8	0.20	0.031	ppbv		25	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	19.1	0.20	0.031	ppbv		83.0	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits

460-00-4 4-Bromofluorobenzene 100% 92% 65-128%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

 $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$ 



#### Page 3 of 3

**Report of Analysis** 

Client Sample ID: BLDG 26 RV

Lab Sample ID:JA81330-8Date Sampled:07/19/11Matrix:AIR - Indoor Air Comp.Summa ID:A853Date Received:07/19/11Method:TO-15Percent Solids:n/a

Project: Lockheed Electronics Co, Watchung, NJ

CAS No. MW Compound Result RL MDL Units Q Result RL Units

(a) Result is from Run# 2

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound





Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- · Chain of Custody
- Summa Canister and Flow Controller Log
- Sample Tracking Chronicle
- Internal Chain of Custody
- 2011 MDL Study Method: TO-15



# CHAIN OF CUSTODY Air Sampling Field Data Sheet

2235 US Highway 130, Dayton, NJ 08810

FED-EX Tracking #	Bottle Order Control #	2011-13	PAGE / OF /
Lab Quote #	Lab Job#	7,220	

				Tel:	32.329.02	ou ra	x: 732.329	.3499							JAMI)	,,,				
				Client / Rep	orting Informa	55800000		(A) (B) (A)	444, 650		1,4100	2.5	. 650. 22.00	Wea	ather Paramete	rs		Rec	uested	Analysis
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Project Contact			F-mail			Proje		<del>'3</del>					Start: 29,8		Maximu	m: 29.8	2	1		
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				Indoor (I)	Canister	Canister	Flow	Date	Time	Canister	Interior	Sampler	Date	Time	Canister	Interior	Sampler	$\square$	- 1	- 1
Lab Sample #	Field I	D / Point of Colle	ection	Soil Vap (SV) Ambient(A)	Serial #	Size 6L or 1L	Controller Serial #	H	(24 hr clock)	Pressure ("Ha)	Temp (F)	init.		(24 hr clock)	Pressure ("Ha)	Temp (F)	Init.			- 1
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	12002	<u></u> CR			A147	(oL	FC514	7/18/1	1029	$\infty$	72	CM	7/19/1	1023	6	70	M	IX.		
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JA81330: Chain of Custody

Page 1 of 2





### **Accutest Laboratories Sample Receipt Summary**

ACCUTEST:

Accutest Job Number: JA81330

Client:

Date / Time Received:	7/19/2011	Project
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No. Coolers: 0	Airbill #'s	iz		Delivery Method:			
Cooler Security Y	or N		Y or N	Sample Integrity - Documentation	Υ	or N	
1. Custody Seals Present:		COC Present:		Sample labels present on bottles:	✓		
2. Custody Seals Intact:	☐ 4. Sm	pl Dates/Time OK	<b>2</b>	2. Container labeling complete:	✓		
Cooler Temperature	Y or N			3. Sample container label / COC agree:	✓		
1. Temp criteria achieved:	<b>v</b>			Sample Integrity - Condition	_Y_	or N	
Cooler temp verification:				Sample recvd within HT:	✓		
3. Cooler media:				2. All containers accounted for:	✓		
<b>Quality Control Preservation</b>	Y or N	N/A		3. Condition of sample:		Intact	
1. Trip Blank present / cooler:		$\checkmark$		Sample Integrity - Instructions	Υ	or N	N/A
2. Trip Blank listed on COC:		$\checkmark$		1. Analysis requested is clear:	•		
3. Samples preserved properly:	<b>✓</b>			2. Bottles received for unspecified tests		<b>✓</b>	
4. VOCs headspace free:		$\checkmark$		3. Sufficient volume recvd for analysis:	•		
				4. Compositing instructions clear:			<b>✓</b>
				5. Filtering instructions clear:			<b>✓</b>
Comments							

2235 US Highway 130 F: 732.329.3499

JA81330: Chain of Custody Page 2 of 2

# **Summa Canister and Flow Controller Log**

**Job Number:** JA81330 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

**Received:** 07/19/11

SUMMA	CA	NISTI	ERS										
Shipping	g						Receiving						
Summa		Vac	Date		SCC	SCC	Sample	Date		Vac	Pres	Final	Dil
ID	L	"Hg	Out	By	Batch	FileID	Number	In	By	"Hg	psig	psig	Fact
A190	6	29.4	07/13/11	TVW	CP4875	W32412.D	JA81330-1	07/20/11	TVW	3			1
A089	6	29.4	07/13/11	TVW	CP4875	W32412.D	JA81330-2	07/20/11	TVW	1.5			1
A147	6	29.4	07/13/11	TVW	CP4876	3W23024.D	JA81330-3	07/20/11	TVW	5			1
A661	6	29.4	07/13/11	TVW	CP4875	W32412.D	JA81330-4	07/20/11	TVW	2			1
A365	6	29.4	07/13/11	TVW	CP4876	3W23024.D	JA81330-5	07/20/11	TVW	5			1
A039	6	29.4	07/13/11	TVW	CP4876	3W23024.D	JA81330-6	07/20/11	TVW	6.5			1
A358	6	29.4	07/13/11	TVW	CP4876	3W23024.D	JA81330-7	07/20/11	TVW	6			1
A853	6	29.4	07/13/11	TVW	CP4876	3W23024.D	JA81330-8	07/20/11	TVW	3			1

FLOW C	CONTROL	LERS					
Shipping	g				Receivin	g	
Flow	Date		cc/	Time	Date		cc/
Crtl ID	Out	By	min	hrs.	In	By	min
FC445	07/13/11	TVW	3.4	24	07/20/11	TVW	4.2
FC456	07/13/11	TVW	3.4	24	07/20/11	TVW	3.6
FC488	07/13/11	TVW	3.4	24	07/20/11	TVW	3.3
FC491	07/13/11	TVW	3.4	24	07/20/11	TVW	3.8
FC507	07/13/11	TVW	3.4	24	07/20/11	TVW	4
FC514	07/13/11	TVW	3.4	24	07/20/11	TVW	3.8
FC525	07/13/11	TVW	3.4	24	07/20/11	TVW	3.8
FC542	07/13/11	TVW	3.4	24	07/20/11	TVW	4.2

#### **Accutest Bottle Order(s):**

MC-7/11/2011-13

 Prep Date
 Room Temp(F)
 Bar Pres 'Hg

 07/13/11
 68
 29.62



# **Internal Sample Tracking Chronicle**

TRC

**Job No:** JA81330

Lockheed Electronics Co, Watchung, NJ Project No: 116473.0000 PO#35332

Sample Number	Method	Analyzed	Ву	Prepped	Ву	Test Codes
JA81330-1 7006 CR	Collected: 19-JUL-11	10:13 By: SM	Receiv	ed: 19-JUL-	11 By:	MPC
JA81330-1 JA81330-1		20-JUL-11 14:05 20-JUL-11 20:15	YMH YMH			VTO15STD VTO15STD
JA81330-2 7007 CR	Collected: 19-JUL-11	10:16 By: SM	Receiv	ved: 19-JUL-	11 By:	MPC
JA81330-2 JA81330-2		20-JUL-11 14:46 20-JUL-11 20:56	YMH YMH			VTO15STD VTO15STD
JA81330-3 12002 CR	Collected: 19-JUL-11	10:23 By: SM	Receiv	ved: 19-JUL-	11 By:	MPC
JA81330-3 JA81330-3		20-JUL-11 15:28 20-JUL-11 21:37	YMH YMH			VTO15STD VTO15STD
JA81330-4 12003 CR	Collected: 19-JUL-11	10:26 By: SM	Receiv	ved: 19-JUL-	11 By:	MPC
JA81330-4 JA81330-4		20-JUL-11 16:09 20-JUL-11 22:17	YMH YMH			VTO15STD VTO15STD
JA81330-5 6007 CR	Collected: 19-JUL-11	10:37 By: SM	Receiv	ved: 19-JUL-	11 By:	MPC
JA81330-5 JA81330-5		20-JUL-11 16:50 21-JUL-11 12:53	YMH YMH			VTO15STD VTO15STD
JA81330-6 BLDG 3 CI	Collected: 19-JUL-11	10:45 By: SM	Receiv	ved: 19-JUL-	11 By:	MPC
JA81330-6 JA81330-6		20-JUL-11 18:12 21-JUL-11 13:34	YMH YMH			VTO15STD VTO15STD
JA81330-7 6006 CR	Collected: 19-JUL-11	10:33 By: SM	Receiv	ved: 19-JUL-	11 By:	MPC
JA81330-7	TO-15	20-JUL-11 18:53	YMH			VTO15STD

# **Internal Sample Tracking Chronicle**

TRC

**Job No:** JA81330

Lockheed Electronics Co, Watchung, NJ Project No: 116473.0000 PO#35332

Sample Number	Method	Analyzed	Ву	Prepped	Ву	Test Codes
JA81330-7	TO-15	21-JUL-11 14:15	YMH			VTO15STD
JA81330-8 BLDG 26 R	Collected: 19-JUL-11	11:33 By: SM	Receiv	ved: 19-JUL	-11 By:	: MPC
JA81330-8 JA81330-8		20-JUL-11 19:34 21-JUL-11 14:57	YMH YMH			VTO15STD VTO15STD

# **Accutest Internal Chain of Custody Job Number:** JA81330

RAVIV TRC Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

Received: 07/19/11

Sample. Bottle	Transfer	Transfer		
Number	FROM	TO	Date/Time	Reason
JA81330-1.1	Tim Hudson	Air Storage	07/19/11 18:58	Return to Storage
JA81330-1.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-2.1	Tim Hudson	Air Storage	07/19/11 18:58	Return to Storage
JA81330-2.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-3.1	Tim Hudson	Air Storage		Return to Storage
JA81330-3.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-4.1	Tim Hudson	Air Storage		Return to Storage
JA81330-4.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-5.1	Tim Hudson	Air Storage		Return to Storage
JA81330-5.1	Air Storage	Youmin Hu		Retrieve from Storage
JA81330-5.1	Youmin Hu	GCMSW	07/21/11 16:34	Load on Instrument
JA81330-5.1	GCMSW	Youmin Hu		Unload from Instrument
JA81330-5.1	Youmin Hu	Air Storage		Return to Storage
JA81330-5.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-6.1	Tim Hudson	Air Storage		Return to Storage
JA81330-6.1	Air Storage	Youmin Hu		Retrieve from Storage
JA81330-6.1	Youmin Hu	GCMSW	07/21/11 16:34	Load on Instrument
JA81330-6.1	GCMSW	Youmin Hu		Unload from Instrument
JA81330-6.1	Youmin Hu	Air Storage		Return to Storage
JA81330-6.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-7.1	Tim Hudson	Air Storage		Return to Storage
JA81330-7.1	Air Storage	Youmin Hu	07/21/11 16:34	Retrieve from Storage
JA81330-7.1	Youmin Hu	GCMSW	07/21/11 16:34	Load on Instrument
JA81330-7.1	GCMSW	Youmin Hu	07/22/11 10:20	Unload from Instrument
JA81330-7.1	Youmin Hu	Air Storage		Return to Storage
JA81330-7.1	Dave Hunkele		08/24/11 13:12	Disposed
JA81330-8.1	Tim Hudson	Air Storage		Return to Storage
JA81330-8.1	Air Storage	Youmin Hu	07/21/11 16:34	Retrieve from Storage
JA81330-8.1	Youmin Hu	GCMSW		Load on Instrument
JA81330-8.1	GCMSW	Youmin Hu	07/22/11 10:20	Unload from Instrument
JA81330-8.1	Youmin Hu	Air Storage	07/22/11 10:20	Return to Storage
JA81330-8.1	Dave Hunkele		08/24/11 13:12	Disposed



# Accutest Laboratories Annual Method Detection Limit Determination Dayton, NJ Facility

Method: Instrument(s): Analyst:

TO-15 (VTO14/15) GCMS2W, GCMS3W, GCMSW Pooled

April,2011 AIR Matrix: Quant Factor: Study Period:

		;				Replicate Spikes								
	Analysis	Spike	2	R2	R3	<b>R</b> 4	R5	R6	R7	X-Bar	X-Bar	STD.Dev.	MDL	Spike/MDL
Cmpd./Element/Parm. Name	Date	nqdd	nqdd	hpbv	vddd	hpbv	hpbv	hpbv	vddd	vddd	%Recov.	vddd		Ratio
Acetone	26-Apr-11	0.2	0.21	0.19	0.17	0.20	0.19	0.20	0.19	0.19	96.84	0.012	0.036	5.50
Acrolein	30-Mar-11	0.1	0.09	0.11	0.10	0.10	0.10	0.09	0.08	0.09	94.00	0.009	0.029	3.50
Acrylonitrile	8-Apr-11	0.2	0.16	0.18	0.15	0.15	0.18	0.14	0.18	0.16	81.40	0.017	0.054	3.73
Acetonitrile	8-Apr-11	0.2	0.18	0.15	0.16	0.17	0.11	0.18	0.16	0.16	79.48	0.024	0.077	2.61
1,3-Butadiene	8-Apr-11	0.1	0.10	0.10	0.12	0.11	0.10	0.11	0.11	0.11	105.69	0.008	0.024	4.11
Benzene	30-Mar-11	0.1	0.11	0.14	0.12	0.13	0.11	0.10	0.11	0.12	117.81	0.015	0.046	2.17
Bromodichloromethane	19-Mar-11	0.1	0.10	0.10	0.10	0.10	0.11	0.12	0.10	0.11	105.36	0.010	0.030	3.35
Bromoform	30-Mar-11	0.1	0.09	0.12	0.10	0.11	0.10	0.08	60.0	0.10	98.18	0.012	0.037	2.69
Bromomethane	26-Apr-11	0.2	0.24	0.22	0.21	0.22	0.22	0.21	0.20	0.22	108.08	0.012	0.037	5.44
Bromoethene	26-Apr-11	0.2	0.24	0.21	0.20	0.23	0.22	0.21	0.21	0.22	107.98	0.012	0.037	5.45
n-Butane	30-Mar-11	0.1	0.12	0.15	0.13	0.14	0.13	0.11	0.12	0.13	128.52	0.014	0.043	2.35
Benzyl Chloride	8-Apr-11	0.2	0.14	0.11	0.12	0.11	0.11	0.12	0.11	0.12	59.31	0.013	0.041	4.92
n-Butylbenzene	8-Apr-11	0.2	0.12	0.08	0.10	0.07	0.08	0.09	0.07	0.00	43.75	0.017	0.052	3.82
sec-Butylbenzene	26-Apr-11	0.2	0.18	0.16	0.16	0.17	0.17	0.17	0.16	0.17	82.83	600.0	0.027	7.49
tert-Butylbenzene	26-Apr-11	0.2	0.17	0.16	0.17	0.18	0.16	0.16	0.17	0.17	82.85	600.0	0.028	7.05
Carbon disulfide	26-Apr-11	0.2	0.23	0.20	0.20	0.22	0.20	0.20	0.20	0.21	103.61	0.010	0.032	6.17
Chlorobenzene	26-Apr-11	0.2	0.22	0.19	0.20	0.20	0.19	0.20	0.19	0.20	99.78	600.0	0.027	7.44
Chlorodifluoromethane	19-Mar-11	0.1	0.10	0.12	0.14	0.12	0.13	0.14	0.10	0.12	121.74	0.014	0.045	2.24
Chloroethane	26-Apr-11	0.2	0.22	0.21	0.19	0.20	0.19	0.21	0.19	0.20	100.57	0.013	0.039	5.11
Chloroform	26-Apr-11	0.2	0.23	0.21	0.21	0.22	0.21	0.22	0.21	0.22	107.49	0.009	0.028	7.16
Chloromethane	26-Apr-11	0.2	0.22	0.20	0.19	0.21	0.21	0.22	0.20	0.21	103.37	0.012	0.037	5.42
3-Chloropropene	26-Apr-11	0.2	0.21	0.17	0.19	0.19	0.18	0.18	0.18	0.19	93.38	0.013	0.041	4.85
2-Chlorotoluene	26-Apr-11	0.2	0.20	0.18	0.17	0.19	0.18	0.19	0.18	0.18	92.14	0.010	0.031	6.42
Carbon tetrachloride	26-Apr-11	0.2	0.24	0.20	0.21	0.22	0.21	0.22	0.21	0.22	107.53	0.013	0.040	5.07
Cyclohexane	26-Apr-11	0.2	0.23	0.21	0.21	0.21	0.20	0.20	0.20	0.21	105.14		0.034	5.98
1,1-Dichloroethane	26-Apr-11	0.2	0.22	0.20	0.20	0.22	0.20	0.21	0.20	0.21	103.88		0.028	7.14
1,1-Dichloroethylene	26-Apr-11	0.2	0.25	0.24	0.23	0.22	0.22	0.21	0.23	0.23	114.94	0.015	0.046	4.33
1,2-Dibromoethane	26-Apr-11	0.2	0.20	0.18	0.18	0.20	0.18	0.18	0.18	0.18	92.19	0.00	0.027	7.36
1,2-Dichloroethane	30-Mar-11	0.1	0.11	0.13	0.12	0.12	0.11	0.09	0.10	0.11	112.02	0.014	0.043	2.31
1,2-Dichloropropane	8-Apr-11	0.2	0.23	0.23	0.20	0.22	0.24	0.24	0.22	0.23	112.51	0.012	0.038	5.21
1,4-Dioxane	8-Apr-11	0.2	0.23	0.18	0.19	0.19	0.18	0.19	0.20	0.19	97.28	0.018	0.056	3.56
Dichlorodifluoromethane	26-Apr-11	0.2	0.26	0.23	0.23	0.26	0.24	0.25	0.23	0.24	121.94	0.012	0.038	5.31
Dibromochloromethane	26-Apr-11	0.2	0.21	0.19	0.18	0.20	0.19	0.19	0.19	0.19	96.93	0.009	0.027	7.42
trans-1,2-Dichloroethylene	8-Apr-11	0.2	0.22	0.21	0.21	0.19	0.22	0.22	0.21	0.21	106.29	0.011	0.033	6.07
cis-1,2-Dichloroethylene	26-Apr-11	0.2	0.21	0.19	0.19	0.20	0.17	0.19	0.19	0.19	96.41	0.012	0.038	5.29
cis-1,3-Dichloropropene	30-Mar-11	0.1	0.10	0.13	0.11	0.12	0.11	0.09	0.10	0.11	_		0.043	2.35
m-Dichlorobenzene	8-Apr-11	0.2	0.18	0.16	0.16	0.15	0.16	0.16	0.14	0.16	78.96	0.012	0.037	5.35



Detection limits derived using the method described in 40 CFR Part 136, Appendix B

TO-15 (VTO14/15) GCMS2W, GCMS3W, GCMSW Pooled

Method: Instrument(s): Analyst:

Matrix: Quant Factor: Study Period:

AIR 1.00 April,2011

					Rep	Replicate Spikes	es							
	Analysis	Spike	<b>R</b>	R2	R3	R4	R5	R6	R7	X-Bar	X-Bar	STD.Dev.	MDL	Spike/MDL
Cmpd./Element/Parm. Name	Date	vddd	hpbv	ppbv	vddd	hpbv	ppbv	vddd	ppbv	vddd	%Recov.	vddd		Ratio
o-Dichlorobenzene	19-Mar-11	0.1	0.11	0.10	0.10	0.10	0.11	0.12	0.10	0.10		0.009	0.027	3.76
p-Dichlorobenzene	19-Mar-11	0.1	0.11	0.00	0.10	0.10	0.11	0.12	0.10	0.10		0.008	0.025	4.02
trans-1,3-Dichloropropene	8-Apr-11	0.2	0.22	0.19	0.19	0.20	0.22	0.22	0.20	0.21	103.35	0.012	0.039	5.13
Di-Isopropyl ether	26-Apr-11	0.2	0.19	0.17	0.16	0.18	0.17	0.17	0.17	0.17	98.98	0.010	0.032	6.25
2,3-Dimethylpentane	19-Mar-11	0.2	0.28	0.25	0.25	0.32	0.26	0:30	0.25	0.27	136.99	0.028	0.088	2.27
2,4-Dimethylpentane	26-Apr-11	0.2	0.21	0.18	0.18	0.18	0.18	0.18	0.18	0.18	91.44	0.011	0.036	5.58
Ethanol	19-Mar-11	0.2	0.42	0.34	0.35	0.41	0.35	0.40	0.39	0.38	1	0.030	0.095	
Ethylbenzene	26-Apr-11	0.2	0.21	0.18	0.18	0.19	0.18	0.18	0.18	0.19		0.010	0.031	6.53
Ethyl Acetate	8-Apr-11	0.2	0.19	0.15	0.15	0.14	0.16	0.19	0.17	0.17	82.73	0.019	0.061	3.28
4-Ethyltoluene	19-Mar-11	0.1	60.0	0.00	0.09	0.08	0.10	0.10	0.08	0.09		0.008	0.024	4.14
Freon 113	8-Apr-11	0.2	0.22	0.21	0.20	0.21	0.23	0.23	0.20	0.21	107.47	0.011	0.034	5.88
Freon 114	26-Apr-11	0.2	0.24	0.22	0.21	0.22	0.22	0.22	0.21	0.22	110.03	0.010	0.031	6.49
Freon 115	8-Apr-11	0.1	60.0	0.00	0.10	60.0	0.11	60.0	0.00	0.09	93.33	0.007	0.021	4.71
Freon 123	26-Apr-11	0.2	0.22	0.20	0.19	0.22	0.20	0.20	0.20	0.20	102.35	0.012	0.036	
Freon 123A	26-Apr-11	0.2	0.24	0.20	0.20	0.22	0.21	0.21	0.21	0.21	107.18	0.011	0.034	5.88
Freon 152A	19-Mar-11	0.2	0.29	0.27	0.27	0.34	0.27	0.31	0.28	0.29	145.07	0.027	0.085	2.36
Heptane	26-Apr-11	0.2	0.20	0.17	0.18	0.19	0.18	0.17	0.17	0.18	26.06	0.011	0.033	5.99
Hexachlorobutadiene	19-Mar-11	0.1	0.11	0.10	0.10	0.11	0.14	0.14	0.11	0.12	116.17	0.015	0.046	2.18
Hexachloroethane	19-Mar-11	0.1	0.09	0.00	0.09	0.09	0.10	0.11	0.00	0.10	97.22	0.008	0.026	3.85
Hexane	26-Apr-11	0.2	0.23	0.20	0.20	0.20	0.20	0.19	0.20	0.20	101.87	0.014	0.044	4.53
2-Hexanone	8-Apr-11	0.2	0.06	0.02	0.04	0.04	0.03	0.05	0.02	0.04	21.17	0.014	0.043	4.69
Iodomethane	26-Apr-11	0.2	0.22	0.20	0.19	0.21	0.20	0.20	0.20	0.20	101.70	0.011	0.033	00.9
Isopropylbenzene	19-Mar-11	0.1	0.10	0.10	0.10	0.09	0.11	0.11	0.00	0.10		0.010	0.031	3.23
Isopropyl Alcohol	8-Apr-11	0.2	0.20	0.20	0.20	0.17	0.20	0.23	0.22	0.20	100.86	0.019	0.059	3.42
p-IsopropyItoluene	8-Apr-11	0.1	90.0	0.00	90.0	90.0	0.04	0.04	0.00	0.02	54.40	0.012	0.037	2.72
Methylene chloride	19-Mar-11	0.1	0.16	0.16	0.16	0.16	0.17	0.18	0.16	0.16	1	0.009	0.027	3.68
Methyl ethyl ketone	19-Mar-11	0.1	0.08	0.00	0.00	0.08	0.10	0.12	0.10	0.09	93.27	0.015	0.048	
Methyl Isobutyl Ketone	8-Apr-11	0.2	0.19	0.16	0.15	0.16	0.17	0.17	0.17	0.16		0.012	0.036	
Methyl Tert Butyl Ether	26-Apr-11	0.2	0.21	0.20	0.20	0.20	0.18	0.19	0.20	0.20		0.009	0.027	7.32
Methylmethacrylate	8-Apr-11	0.2	0.20	0.18	0.17	0.17	0.18	0.21	0.18	0.18		0.014	0.043	
Naphthalene	8-Apr-11	0.2	0.10	0.00	0.08	0.08	0.00	0.08	0.07	0.09		0.010	0.031	
Nonane	19-Mar-11	0.1	0.10	0.10	0.09	0.00	0.11	0.11	0.00	0.10		0.008	0.026	
Octane	8-Apr-11	0.2	0.22	0.21	0.21	0.20	0.22	0.22	0.21	0.21	_	0.009	0.027	7.42
Pentane	26-Apr-11	0.2	0.21	0.19	0.18	0.20	0.19	0.21	0.18	0.20		0.012	0.037	5.34
n-Propylbenzene	26-Apr-11	0.2	0.19	0.16	0.17	0.18	0.16	0.17	0.18	0.17		0.010	0.030	89.9
Propylene	19-Mar-11	0.2	0.27	0.25	0.26	0.31	0.29	0.30	0.30	0.28	1	0.022	0.070	2.87
Styrene	19-Mar-11	0.1	0.09	0.00	0.08	0.08	0.00	0.10	0.08	0.09		0.009	0.027	3.67
1,1,1-Trichloroethane	26-Apr-11	0.2	0.23	0.22	0.22	0.23	0.22	0.23	0.22	0.22	_	0.007	0.022	90.6
1,1,1,2-Tetrachloroethane	26-Apr-11	0.2	0.22	0.20	0.19	0.20	0.20	0.20	0.19	0.20	99.50	0.010	0.031	6.38
1,1,2,2-Tetrachloroethane	26-Apr-11	0.2	0.19	0.17	0.17	0.18	0.16	0.18	0.17	0.17		0.010	0.030	6.68



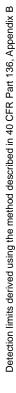
TO-15 (VTO14/15)	GCMS2W, GCMS3W, GCMSW	Pooled

Method: Instrument(s): Analyst:

Matrix: Quant Factor: Study Period:

1.00 April,2011

					Rep	Replicate Spikes	(es							
	Analysis	Spike	R1	R2	R3	R4	R5	R6	R7	X-Bar	X-Bar	STD.Dev.	MDL	Spike/MDL
Cmpd./Element/Parm. Name	Date	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	%Recov.	ppbv		Ratio
1,1,2-Trichloroethane	8-Apr-11	0.2	0.21	0.21	0.20	0.20	0.23	0.22	0.21	0.21	105.64	0.010	0.030	6.67
1,2,4-Trichlorobenzene	30-Mar-11	0.1	0.10	0.08	0.09	0.02	0.10	0.09	0.07	0.08	82.29	0.016	0.051	1.95
1,2,3-Trichloropropane	19-Mar-11	0.1	0.10	0.10	0.09	0.00	0.11	0.12	0.00	0.10	99.59	0.011	0.033	3.00
1,2,4-Trimethylbenzene	19-Mar-11	0.1	0.10	60.0	0.08	0.00	0.10	0.10	0.08	0.09	91.56	0.008	0.024	4.16
1,3,5-Trimethylbenzene	19-Mar-11	0.1	60.0	0.10	0.08	0.00	0.10	0.11	0.08	0.00	93.61	0.00	0.028	3.57
2,2,4-Trimethylpentane	26-Apr-11	0.2	0.20	0.18	0.17	0.19	0.18	0.18	0.18	0.18	92.02	600'0	0.028	7.08
Tertiary Butyl Alcohol	8-Apr-11	0.2	0.22	0.20	0.20	0.20	0.21	0.20	0.19	0.20	102.18	0.010	0.032	6.28
Tetrachloroethylene	26-Apr-11	0.2	0.22	0.20	0.20	0.21	0.20	0.22	0.21	0.21	104.63	0.009	0.028	7.07
Tetrahydrofuran	26-Apr-11	0.2	0.20	0.17	0.17	0.18	0.17	0.16	0.16	0.17	86.53	0.015	0.047	4.28
Foluene	26-Apr-11	0.2	0.21	0.18	0.18	0.19	0.18	0.17	0.17	0.18	91.60	0.013	0.040	4.98
Trichloroethylene	19-Mar-11	0.1	0.11	0.10	0.10	0.10	0.11	0.13	0.10	0.11	107.16	0.010	0.033	3.07
Trichlorofluoromethane	30-Mar-11	0.1	0.11	0.14	0.13	0.14	0.12	0.11	0.11	0.12	121.71	0.014	0.042	2.36
Vinyl chloride	26-Apr-11	0.2	0.23	0.20	0.21	0.23	0.22	0.22	0.21	0.22	108.07	0.010	0.032	6.24
Vinyl Acetate	8-Apr-11	0.2	0.14	0.13	60.0	0.12	0.10	0.12	0.13	0.12	59.21	0.018	0.057	3.54
m,p-Xylene	30-Mar-11	0.1	0.20	0.25	0.21	0.24	0.21	0.18	0.19	0.21	209.80	0.025	0.079	1.27
o-Xylene	26-Apr-11	0.2	0.20	0.17	0.17	0.19	0.18	0.17	0.17	0.18	89.88	0.010	0.031	6.43
TVHC As Equiv Pentane	19-Mar-11	0.2	0.20	0.13	0.24	0.32	0.20	0.20	0.16	0.21	103.69	0.058	0.182	1.10
TVHC As Equiv Heptane	19-Mar-11	0.2	0.19	0.13	0.15	0.19	0.13	0.20	0.15	0.16	81.58	0.029	0.091	2.20





## GC/MS Volatiles

# QC Data Summaries

#### Includes the following where applicable:

- · Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Initial Calibration RT/ISTD Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

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Method: TO-15

# **Method Blank Summary**

Job Number: JA81330 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	•	<b>Prep Date</b>	Prep Batch	Analytical Batch
VW1341-MB	W32803.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

JA81330-1, JA81330-2, JA81330-3, JA81330-4, JA81330-5, JA81330-6, JA81330-7, JA81330-8

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.046	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.032	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.037	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.034	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.043	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.038	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.095	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.061	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



Method: TO-15

# **Method Blank Summary**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1341-MB	W32803.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

JA81330-1, JA81330-2, JA81330-3, JA81330-4, JA81330-5, JA81330-6, JA81330-7, JA81330-8

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.033	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.044	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.059	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.070	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.028	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.032	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.028	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.047	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.040	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.033	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.042	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.031	ppbv	ND	0.87	ug/m3

Method: TO-15

# **Method Blank Summary**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample VW1341-MB	<b>File ID</b> W32803.D	<b>DF</b> 1	<b>Analyzed</b> 07/20/11	By YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch VW1341

The QC reported here applies to the following samples:

JA81330-1, JA81330-2, JA81330-3, JA81330-4, JA81330-5, JA81330-6, JA81330-7, JA81330-8

CAS No. Surrogate Recoveries Limits

460-00-4 4-Bromofluorobenzene 89% 65-128%



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Method: TO-15

# Method Blank Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample VW1342-MB	<b>File ID</b> W32832.D	<b>DF</b> 1	<b>Analyzed</b> 07/21/11	By YMH	<b>Prep Date</b> n/a	Prep Batch n/a	Analytical Batch VW1342

The QC reported here applies to the following samples:

JA81330-5, JA81330-6, JA81330-7, JA81330-8

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv	ND	0.48	ug/m3
64-17-5	Ethanol	ND	0.50	0.095	ppbv	ND	0.94	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.059	ppbv	ND	0.49	ug/m3

CAS No. Limits **Surrogate Recoveries** 460-00-4 4-Bromofluorobenzene 89% 65-128%



Page 1 of 3

Method: TO-15

# Method Blank Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1324-MB	W32389.D	1	06/23/11	YMH	n/a	n/a	VW1324

The QC reported here applies to the following samples:

VW1324-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.046	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.032	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.037	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.034	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.043	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.038	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.095	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.061	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



Method: TO-15

# Method Blank Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
VW1324-MB	W32389.D	1	06/23/11	YMH	n/a	n/a	VW1324

The QC reported here applies to the following samples:

VW1324-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.033	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.044	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.059	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.070	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.028	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.032	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.028	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.047	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.040	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.033	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.042	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.031	ppbv	ND	0.87	ug/m3



Method: TO-15

#### **Method Blank Summary Job Number:** JA81330

**Job Number:** JA81330 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample VW1324-MB	File ID W32389.D	<b>DF</b> 1	<b>Analyzed</b> 06/23/11	<b>By</b> YMH	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch VW1324

The QC reported here applies to the following samples:

VW1324-SCC

CAS No. Surrogate Recoveries Limits

460-00-4 4-Bromofluorobenzene 94% 65-128%



Method: TO-15

# Method Blank Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
V3W910-MB	3W23021.D	1	06/24/11	YXC	n/a	n/a	V3W910

The QC reported here applies to the following samples:

V3W910-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.046	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.032	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.037	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.034	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.043	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.038	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.095	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.061	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



Method: TO-15

# Method Blank Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample F	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W910-MB 3	3W23021.D	1	06/24/11	YXC	n/a	n/a	V3W910

The QC reported here applies to the following samples:

V3W910-SCC

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.033	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.044	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.059	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.070	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.028	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.032	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.028	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.047	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.040	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.033	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.042	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.031	ppbv	ND	0.87	ug/m3



#### **Method Blank Summary Job Number:** JA81330

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample V3W910-MB	<b>File ID</b> 3W23021.D	<b>DF</b> 1	<b>Analyzed</b> 06/24/11	By YXC	<b>Prep Date</b> n/a	<b>Prep Batch</b> n/a	Analytical Batch V3W910

The QC reported here applies to the following samples: Method: TO-15

V3W910-SCC

CAS No. Surrogate Recoveries Limits
460-00-4 4-Bromofluorobenzene 95% 65-128%



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary

Job Number: JA81330 Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
VW1341-BS	W32801.D	1	07/20/11	YMH	n/a	n/a	VW1341
VW1341-BSD	W32802.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.1	91	9.3	93	2	70-130/30
106-99-0	1,3-Butadiene	10	9.1	96	9.3	93	3	70-130/30
71-43-2	Benzene	10	10.2	102	10.2	102	0	70-130/30
71-43-2 75-27-4	Bromodichloromethane	10	10.2	102	10.2	102	0	70-130/30
75-27- <del>4</del> 75-25-2	Bromoform	10	9.8	98	10.8	108	10	70-130/30
73-23-2 74-83-9	Bromomethane	10	9.8	98	9.6	96	2	70-130/30
593-60-2	Bromoethene	10	9.8	98	9.8	98	0	70-130/30
100-44-7	Benzyl Chloride	10	10.5	105	11.5	115	9	70-130/30
75-15-0	Carbon disulfide	10	11.2	112	10.9	109	3	70-130/30
			9.8	98				
108-90-7 75-00-3	Chlorobenzene	10 10	9.8 10.0		10.6 9.7	106 97	8	70-130/30
	Chloroethane Chloroform	10		100 96	9.7	94	2	70-130/30
67-66-3	Chloromethane	10	9.6 9.9	99	9.4	94	3	70-130/30
74-87-3		10	9.9 10.4	104	10.3	103	1	70-130/30
107-05-1 95-49-8	3-Chloropropene 2-Chlorotoluene	10	9.7	97	10.3	103	10	70-130/30
			9.7 8.8		8.7			70-130/30
56-23-5	Carbon tetrachloride	10		88		87	1	70-130/30
110-82-7	Cyclohexane	10	9.6	96	9.6	96	0	70-130/30
75-34-3	1,1-Dichloroethane	10	9.8	98	9.5	95	3	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.5	95	9.4	94	1	70-130/30
106-93-4	1,2-Dibromoethane	10	10	100	10.9	109	9	70-130/30
107-06-2	1,2-Dichloroethane	10	9.6	96	9.4	94	2	70-130/30
78-87-5	1,2-Dichloropropane	10	9.7	97	9.8	98	1	70-130/30
123-91-1	1,4-Dioxane	10	10.0	100	10.4	104	4	70-130/30
75-71-8	Dichlorodifluoromethane	10	8.6	86	8.5	85	1	70-130/30
124-48-1	Dibromochloromethane	10	9.8	98	10.4	104	6	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.9	99	9.8	98	1	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.3	93	9.2	92	1	70-130/30
10061-01-5		10	9.8	98	10.2	102	4	70-130/30
541-73-1	m-Dichlorobenzene	10	10.2	102	11.5	115	12	70-130/30
95-50-1	o-Dichlorobenzene	10	9.8	98	10.9	109	11	70-130/30
106-46-7	p-Dichlorobenzene	10	10.1	101	11.1	111	9	70-130/30
	trans-1,3-Dichloropropene	10	9.7	97	9.9	99	2	70-130/30
64-17-5	Ethanol	10	8.7	87	8.7	87	0	70-130/30
100-41-4	Ethylbenzene	10	10.1	101	10.8	108	7	70-130/30
141-78-6	Ethyl Acetate	10	9.7	97	9.9	99	2	70-130/30
622-96-8	4-Ethyltoluene	10	10.1	101	11.1	111	9	70-130/30



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Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
VW1341-BS	W32801.D	1	07/20/11	YMH	n/a	n/a	VW1341
VW1341-BSD	W32802.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	8.3	83	8.4	84	1	70-130/30
76-14-2	Freon 114	10	8.3	83	8.1	81	2	70-130/30
142-82-5	Heptane	10	10.7	107	10.5	105	2	70-130/30
87-68-3	Hexachlorobutadiene	10	9.6	96	11.2	112	15	70-130/30
110-54-3	Hexane	10	10.6	106	10.3	103	3	70-130/30
591-78-6	2-Hexanone	10	10.8	108	10.9	109	1	70-130/30
67-63-0	Isopropyl Alcohol	10	9.8	98	9.7	97	1	70-130/30
75-09-2	Methylene chloride	10	9.5	95	9.6	96	1	70-130/30
78-93-3	Methyl ethyl ketone	10	9.5	95	9.9	99	4	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.9	109	10.8	108	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.7	87	9.0	90	3	70-130/30
80-62-6	Methylmethacrylate	10	9.4	94	9.8	98	4	70-130/30
115-07-1	Propylene	10	8.3	83	8.0	80	4	70-130/30
100-42-5	Styrene	10	10.3	103	11.2	112	8	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.0	90	8.9	89	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.9	109	11.7	117	7	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.1	101	10.4	104	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10.7	107	12.5	125	16	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.9	99	10.9	109	10	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.6	96	10.5	105	9	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	11.1	111	10.9	109	2	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.3	103	10.2	102	1	70-130/30
127-18-4	Tetrachloroethylene	10	9.7	97	10.3	103	6	70-130/30
109-99-9	Tetrahydrofuran	10	9.7	97	10.1	101	4	70-130/30
108-88-3	Toluene	10	9.7	97	10.1	101	4	70-130/30
79-01-6	Trichloroethylene	10	10.1	101	10.2	102	1	70-130/30
75-69-4	Trichlorofluoromethane	10	9.2	92	9.1	91	1	70-130/30
75-01-4	Vinyl chloride	10	10.3	103	10.0	100	3	70-130/30
108-05-4	Vinyl Acetate	10	9.2	92	9.5	95	3	70-130/30
	m, p-Xylene	20	20.2	101	21.8	109	8	70-130/30
95-47-6	o-Xylene	10	9.9	99	10.8	108	9	70-130/30
1330-20-7	Xylenes (total)	30	30.1	100	32.6	109	8	70-130/30

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Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample VW1341-BS VW1341-BSD	<b>File ID</b> W32801.D W32802.D	<b>DF</b> 1 1	<b>Analyzed</b> 07/20/11 07/20/11	By YMH YMH	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch VW1341 VW1341

The QC reported here applies to the following samples:

CAS No.	<b>Surrogate Recoveries</b>	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	93%	94%	65-128%

460-00-4

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Method: TO-15

## Blank Spike/Blank Spike Duplicate Summary

Job Number: JA81330 Account: **RAVIV TRC** 

Project: Lockheed Electronics Co, Watchung, NJ

Sample VW1342-BS VW1342-BSD	<b>File ID</b> W32830.D W32831.D	<b>DF</b> 1 1	<b>Analyzed</b> 07/21/11 07/21/11	By YMH YMH	Prep Date n/a n/a	Prep Batch n/a n/a	Analytical Batch VW1342 VW1342

The QC reported here applies to the following samples:

JA81330-5, JA81330-6, JA81330-7, JA81330-8

4-Bromofluorobenzene

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.6	96	9.4	94	2	70-130/30
64-17-5	Ethanol	10	9.0	90	8.2	82	9	70-130/30
67-63-0	Isopropyl Alcohol	10	10.0	100	9.4	94	6	70-130/30
CAS No.	Surrogate Recoveries	BSP	BS	D	Limits			

92%

92%

65-128%



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1324-BS	W32387.D	1	06/23/11	YMH	n/a	n/a	VW1324
VW1324-BSD	W32388.D	1	06/23/11	YMH	n/a	n/a	VW1324

The QC reported here applies to the following samples:

VW1324-SCC

CACN	C 1	Spike	BSP	BSP	BSD	BSD	DDD	Limits
CAS No.	Compound	ppbv	ppbv	%	ppbv	%	RPD	Rec/RPD
67-64-1	Acetone	10	8.5	85	10.1	101	17	70-130/30
106-99-0	1,3-Butadiene	10	9.1	91	10.6	106	15	70-130/30
71-43-2	Benzene	10	9.2	92	10.8	108	16	70-130/30
75-27-4	Bromodichloromethane	10	9.2	92	10.8	108	16	70-130/30
75-25-2	Bromoform	10	9.7	97	11.5	115	17	70-130/30
74-83-9	Bromomethane	10	9.0	90	10.4	104	14	70-130/30
593-60-2	Bromoethene	10	9.0	90	10.4	104	14	70-130/30
100-44-7	Benzyl Chloride	10	10.4	104	12.9	129	21	70-130/30
75-15-0	Carbon disulfide	10	9.8	98	11.3	113	14	70-130/30
108-90-7	Chlorobenzene	10	9.3	93	10.9	109	16	70-130/30
75-00-3	Chloroethane	10	9.4	94	10.8	108	14	70-130/30
67-66-3	Chloroform	10	9.0	90	10.4	104	14	70-130/30
74-87-3	Chloromethane	10	9.4	94	10.8	108	14	70-130/30
107-05-1	3-Chloropropene	10	9.4	94	11.1	111	17	70-130/30
95-49-8	2-Chlorotoluene	10	9.8	98	11.7	117	18	70-130/30
56-23-5	Carbon tetrachloride	10	8.9	89	10.3	103	15	70-130/30
110-82-7	Cyclohexane	10	8.6	86	10.2	102	17	70-130/30
75-34-3	1,1-Dichloroethane	10	9.1	91	10.6	106	15	70-130/30
75-35-4	1,1-Dichloroethylene	10	8.3	83	9.6	96	15	70-130/30
106-93-4	1,2-Dibromoethane	10	9.4	94	11.1	111	17	70-130/30
107-06-2	1,2-Dichloroethane	10	9.5	95	11.0	110	15	70-130/30
78-87-5	1,2-Dichloropropane	10	9.1	91	10.6	106	15	70-130/30
123-91-1	1,4-Dioxane	10	8.2	82	10.5	105	25	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.1	91	10.4	104	13	70-130/30
124-48-1	Dibromochloromethane	10	9.4	94	11.0	110	16	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.1	91	10.6	106	15	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	8.4	84	9.8	98	15	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.3	93	11.0	110	17	70-130/30
541-73-1	m-Dichlorobenzene	10	10.1	101	12.1	121	18	70-130/30
95-50-1	o-Dichlorobenzene	10	9.8	98	11.8	118	19	70-130/30
106-46-7	p-Dichlorobenzene	10	10	100	12.1	121	19	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	9.4	94	11.2	112	17	70-130/30
64-17-5	Ethanol	10	8.2	82	9.5	95	15	70-130/30
100-41-4	Ethylbenzene	10	9.8	98	11.6	116	17	70-130/30
141-78-6	Ethyl Acetate	10	8.9	89	10.8	108	19	70-130/30
622-96-8	4-Ethyltoluene	10	10.4	104	12.4	124	18	70-130/30



Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
VW1324-BS	W32387.D	1	06/23/11	YMH	n/a	n/a	VW1324
VW1324-BSD	W32388.D	1	06/23/11	YMH	n/a	n/a	VW1324

The QC reported here applies to the following samples:

VW1324-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	8.2	82	9.5	95	15	70-130/30
76-14-2	Freon 114	10	8.1	81	9.4	94	15	70-130/30
142-82-5	Heptane	10	9.1	91	10.6	106	15	70-130/30
87-68-3	Hexachlorobutadiene	10	10	100	12.1	121	19	70-130/30
110-54-3	Hexane	10	9.1	91	10.4	104	13	70-130/30
591-78-6	2-Hexanone	10	8.2	82	10.6	106	26	70-130/30
67-63-0	Isopropyl Alcohol	10	8.7	87	10.5	105	19	70-130/30
75-09-2	Methylene chloride	10	8.0	80	9.3	93	15	70-130/30
78-93-3	Methyl ethyl ketone	10	8.8	88	10.9	109	21	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	8.6	86	10.9	109	24	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.1	91	10.9	109	18	70-130/30
80-62-6	Methylmethacrylate	10	8.7	87	10.7	107	21	70-130/30
115-07-1	Propylene	10	8.6	86	9.8	98	13	70-130/30
100-42-5	Styrene	10	10.0	100	11.9	119	17	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.0	90	10.5	105	15	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.2	102	12.2	122	18	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.4	94	11.2	112	17	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	8.6	86	11.0	110	24	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.4	104	12.5	125	18	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.1	101	12.1	121	18	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	9.6	96	11.2	112	15	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	8.8	88	10.8	108	20	70-130/30
127-18-4	Tetrachloroethylene	10	8.7	87	10.1	101	15	70-130/30
109-99-9	Tetrahydrofuran	10	9.4	94	11.3	113	18	70-130/30
108-88-3	Toluene	10	9.3	93	11.0	110	17	70-130/30
79-01-6	Trichloroethylene	10	8.9	89	10.4	104	16	70-130/30
75-69-4	Trichlorofluoromethane	10	8.8	88	10.2	102	15	70-130/30
75-01-4	Vinyl chloride	10	9.5	95	11.0	110	15	70-130/30
108-05-4	Vinyl Acetate	10	9.1	91	10.8	108	17	70-130/30
	m,p-Xylene	20	19.4	97	22.9	115	17	70-130/30
95-47-6	o-Xylene	10	9.7	97	11.5	115	17	70-130/30
1330-20-7	Xylenes (total)	30	29.1	97	34.4	115	17	70-130/30



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Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: **RAVIV TRC** 

Lockheed Electronics Co, Watchung, NJ **Project:** 

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
VW1324-BS	W32387.D	1	06/23/11	YMH	n/a	n/a	VW1324
VW1324-BSD	W32388.D	1	06/23/11	YMH	n/a	n/a	VW1324

The QC reported here applies to the following samples:

VW1324-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	104%	104%	65-128%

Method: TO-15

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	Prep Date	Prep Batch	<b>Analytical Batch</b>
V3W910-BS	3W23019.D	1	06/24/11	YXC	n/a	n/a	V3W910
V3W910-BSD	3W23020.D	1	06/24/11	YXC	n/a	n/a	V3W910

The QC reported here applies to the following samples:

V3W910-SCC

CACN	G 1	Spike	BSP	BSP	BSD	BSD	DDD	Limits
CAS No.	Compound	ppbv	ppbv	%	ppbv	%	RPD	Rec/RPD
67-64-1	Acetone	10	8.4	84	7.9	79	6	70-130/30
106-99-0	1,3-Butadiene	10	9.2	92	9.0	90	2	70-130/30
71-43-2	Benzene	10	9.8	98	10.2	102	4	70-130/30
75-27-4	Bromodichloromethane	10	10.1	101	10.5	105	4	70-130/30
75-25-2	Bromoform	10	9.3	93	9.6	96	3	70-130/30
74-83-9	Bromomethane	10	7.9	79	7.8	78	1	70-130/30
593-60-2	Bromoethene	10	8.3	83	8.1	81	2	70-130/30
100-44-7	Benzyl Chloride	10	10.1	101	10.1	101	0	70-130/30
75-15-0	Carbon disulfide	10	8.9	89	8.9	89	0	70-130/30
108-90-7	Chlorobenzene	10	8.8	88	9.1	91	3	70-130/30
75-00-3	Chloroethane	10	9.4	94	9.0	90	4	70-130/30
67-66-3	Chloroform	10	9.5	95	9.3	93	2	70-130/30
74-87-3	Chloromethane	10	8.8	88	8.5	85	3	70-130/30
107-05-1	3-Chloropropene	10	9.9	99	9.7	97	2	70-130/30
95-49-8	2-Chlorotoluene	10	9.5	95	9.8	98	3	70-130/30
56-23-5	Carbon tetrachloride	10	8.9	89	8.9	89	0	70-130/30
110-82-7	Cyclohexane	10	8.7	87	9.1	91	4	70-130/30
75-34-3	1,1-Dichloroethane	10	9.6	96	9.6	96	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	7.7	77	7.7	77	0	70-130/30
106-93-4	1,2-Dibromoethane	10	10	100	10.2	102	2	70-130/30
107-06-2	1,2-Dichloroethane	10	10.2	102	10.1	101	1	70-130/30
78-87-5	1,2-Dichloropropane	10	10.6	106	11.0	110	4	70-130/30
123-91-1	1,4-Dioxane	10	9.8	98	10.2	102	4	70-130/30
75-71-8	Dichlorodifluoromethane	10	8.2	82	8.1	81	1	70-130/30
124-48-1	Dibromochloromethane	10	9.3	93	9.6	96	3	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	8.9	89	8.9	89	0	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.6	96	9.5	95	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.5	105	11.0	110	5	70-130/30
541-73-1	m-Dichlorobenzene	10	9.6	96	9.8	98	2	70-130/30
95-50-1	o-Dichlorobenzene	10	10	100	10.2	102	2	70-130/30
106-46-7	p-Dichlorobenzene	10	9.8	98	10.1	101	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.5	105	11.1	111	6	70-130/30
64-17-5	Ethanol	10	7.7	77	7.5	75	3	70-130/30
100-41-4	Ethylbenzene	10	9.5	95	9.7	97	2	70-130/30
141-78-6	Ethyl Acetate	10	9.8	98	9.6	96	2	70-130/30
622-96-8	4-Ethyltoluene	10	10.2	102	10.1	101	1	70-130/30



Method: TO-15

Blank Spike/Blank Spike Duplicate Summary
Job Number: JA81330
Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
V3W910-BS	3W23019.D	1	06/24/11	YXC	n/a	n/a	V3W910
V3W910-BSD	3W23020.D	1	06/24/11	YXC	n/a	n/a	V3W910

The QC reported here applies to the following samples:

V3W910-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	7.2	72	7.0	70	3	70-130/30
76-14-2	Freon 114	10	7.2	72	7.1	71	1	70-130/30
142-82-5	Heptane	10	10.5	105	11.2	112	6	70-130/30
87-68-3	Hexachlorobutadiene	10	10.1	101	10.1	101	0	70-130/30
110-54-3	Hexane	10	9.2	92	9.2	92	0	70-130/30
591-78-6	2-Hexanone	10	10.6	106	10.9	109	3	70-130/30
67-63-0	Isopropyl Alcohol	10	8.9	89	8.8	88	1	70-130/30
75-09-2	Methylene chloride	10	7.4	74	7.2	72	3	70-130/30
78-93-3	Methyl ethyl ketone	10	9.5	95	9.1	91	4	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.3	113	11.7	117	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.7	87	8.3	83	5	70-130/30
80-62-6	Methylmethacrylate	10	9.7	97	9.9	99	2	70-130/30
115-07-1	Propylene	10	8.5	85	8.4	84	1	70-130/30
100-42-5	Styrene	10	9.6	96	9.9	99	3	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.5	95	9.5	95	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.4	104	10.4	104	0	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.3	103	10.8	108	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	9.1	91	9.1	91	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.4	104	10.4	104	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.1	101	9.9	99	2	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.3	103	10.8	108	5	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.0	100	9.7	97	3	70-130/30
127-18-4	Tetrachloroethylene	10	8.3	83	8.6	86	4	70-130/30
109-99-9	Tetrahydrofuran	10	9.5	95	8.8	88	8	70-130/30
108-88-3	Toluene	10	9.9	99	10.3	103	4	70-130/30
79-01-6	Trichloroethylene	10	9.4	94	9.8	98	4	70-130/30
75-69-4	Trichlorofluoromethane	10	8.1	81	8.0	80	1	70-130/30
75-01-4	Vinyl chloride	10	9.2	92	8.9	89	3	70-130/30
108-05-4	Vinyl Acetate	10	10.8	108	10	100	8	70-130/30
	m,p-Xylene	20	18.6	93	19.1	96	3	70-130/30
95-47-6	o-Xylene	10	9.6	96	9.7	97	1	70-130/30
1330-20-7	Xylenes (total)	30	28.2	94	28.8	96	2	70-130/30

# Blank Spike/Blank Spike Duplicate Summary Job Number: JA81330

Account: **RAVIV TRC** 

Lockheed Electronics Co, Watchung, NJ **Project:** 

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
V3W910-BS	3W23019.D	1	06/24/11	YXC	n/a	n/a	V3W910
V3W910-BSD	3W23020.D	1	06/24/11	YXC	n/a	n/a	V3W910

The QC reported here applies to the following samples:

V3W910-SCC

CAS No.	<b>Surrogate Recoveries</b>	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	99%	100%	65-128%

Page 3 of 3

Method: TO-15

Method: TO-15

**Duplicate Summary Job Number:** JA81330

**Account: RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample JA81330-5DUP	File ID W32812.D	<b>DF</b>	<b>Analyzed</b> 07/20/11	By YMH	Prep Date	Prep Batch	Analytical Batch VW1341
JA81330-5	W32811.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

		JA8133	JA81330-5				
CAS No.	Compound	ppbv	Q	ppbv	Q	RPD	Limits
67.64.1	Acatoma	04.2	Е	94.1	Е	0	27
67-64-1 106-99-0	Acetone	94.3 ND	E	94.1 ND	E		27 20
71-43-2	1,3-Butadiene Benzene	0.62		0.63		nc 2	20 17
	Bromodichloromethane	0.62 ND		0.63 ND			
75-27-4	Bromoform	ND ND		ND ND		nc	20
75-25-2	Bromomethane	ND ND		ND ND		nc	20 20
74-83-9	Bromoethene					nc	
593-60-2		ND ND		ND ND		nc	30 20
100-44-7	Benzyl Chloride		J		J	nc	
75-15-0	Carbon disulfide	0.14	J	0.14	J	0	11
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	0.88		0.85		3	12
74-87-3	Chloromethane	1.2		1.3		8	22
107-05-1	3-Chloropropene	ND		ND		nc	10
95-49-8	2-Chlorotoluene	ND		ND		nc	20
56-23-5	Carbon tetrachloride	0.19	J	0.18	J	5	10
110-82-7	Cyclohexane	0.29		0.30		3	12
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethylene	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	0.18	J	0.17	J	6	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
123-91-1	1,4-Dioxane	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	2.4		2.4		0	22
124-48-1	Dibromochloromethane	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	10
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	10
10061-01-5	, , ,	ND		ND		nc	20
541-73-1	m-Dichlorobenzene	ND		ND		nc	20
95-50-1	o-Dichlorobenzene	ND		ND		nc	10
106-46-7	p-Dichlorobenzene	1.1		1.0		10	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
64-17-5	Ethanol	1700	E	1750	E	3	33
100-41-4	Ethylbenzene	0.56		0.58		4	15
141-78-6	Ethyl Acetate	5.8		5.9		2	20
622-96-8	4-Ethyltoluene	0.22		0.18	J	20* a	13



Method: TO-15

#### **Duplicate Summary Job Number:** JA81330

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample JA81330-5DUP JA81330-5	<b>File ID</b> W32812.D W32811.D	<b>DF</b> 1	<b>Analyzed</b> 07/20/11 07/20/11	By YMH YMH	<b>Prep Date</b> n/a n/a	Prep Batch n/a n/a	Analytical Batch VW1341 VW1341
JA81330-5	W32811.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

CAS No.	Compound	JA8133 ppbv	0-5 Q	DUP ppbv	Q	RPD	Limits
CAS No.	Compound	phov	Ų	ppnv	Ų	KID	Lillius
76-13-1	Freon 113	ND		ND		nc	10
76-14-2	Freon 114	ND		ND		nc	20
142-82-5	Heptane	0.66		0.68		3	20
87-68-3	Hexachlorobutadiene	ND		ND		nc	20
110-54-3	Hexane	0.53		0.52		2	17
591-78-6	2-Hexanone	0.19	J	0.21		10	20
67-63-0	Isopropyl Alcohol	67.9	E	71.6	E	5	26
75-09-2	Methylene chloride	0.29		0.25		15	26
78-93-3	Methyl ethyl ketone	2.4		2.5		4	21
108-10-1	Methyl Isobutyl Ketone	0.34		0.34		0	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
80-62-6	Methylmethacrylate	ND		ND		nc	20
115-07-1	Propylene	ND		ND		nc	16
100-42-5	Styrene	0.82		0.83		1	11
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	1.1		1.1		0	19
108-67-8	1,3,5-Trimethylbenzene	0.27		0.27		0	13
540-84-1	2,2,4-Trimethylpentane	0.23		0.24		4	18
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	21
127-18-4	Tetrachloroethylene	0.20		0.19		5	17
109-99-9	Tetrahydrofuran	0.49		0.50		2	20
108-88-3	Toluene	5.1		5.1		0	20
79-01-6	Trichloroethylene	0.040		0.037	J	8	13
75-69-4	Trichlorofluoromethane	1.1		1.0		10	21
75-01-4	Vinyl chloride	ND		ND		nc	20
108-05-4	Vinyl Acetate	ND		ND		nc	20
	m,p-Xylene	1.8		1.8		0	26
95-47-6	o-Xylene	0.61		0.63		3	20
1330-20-7	Xylenes (total)	2.4		2.4		0	26



Method: TO-15

# **Duplicate Summary**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample JA81330-5DUP	File ID W32812.D	<b>DF</b>	<b>Analyzed</b> 07/20/11	By YMH	Prep Date	Prep Batch	Analytical Batch VW1341
JA81330-5	W32811.D	1	07/20/11	YMH	n/a	n/a	VW1341

The QC reported here applies to the following samples:

JA81330-1, JA81330-2, JA81330-3, JA81330-4, JA81330-5, JA81330-6, JA81330-7, JA81330-8

CAS No.	Surrogate Recoveries	DUP	JA81330-5	Limits
460-00-4	4-Bromofluorobenzene	105%	105%	65-128%

(a) Outside in house control limits.

Method: TO-15

**Duplicate Summary Job Number:** JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JA81054-3DUP JA81054-3	W32841.D W32840.D	1	07/21/11 07/21/11	YMH YMH	n/a n/a	n/a n/a	VW1342 VW1342
0110100.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	07721711		11/4	11/ 44	, ,, 15.12

The QC reported here applies to the following samples:

JA81330-5, JA81330-6, JA81330-7, JA81330-8

CAS No.	Compound	0110100.0		DUP ppbv Q		RPD Limits	
67-64-1 64-17-5 67-63-0	Acetone Ethanol Isopropyl Alcohol	37.7 2430 122	Е	37.1 2500 126	Е	2 3 3	27 33 26
CAS No.	Surrogate Recoveries	DUP		JA81054	1-3	Limits	
460-00-4	4-Bromofluorobenzene	93%		90%		65-128	%



# **Summa Cleaning Certification Job Number:** JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample VW1324-SCC	<b>File ID</b> W32412.D	<b>DF</b> 1	<b>Analyzed</b> 06/24/11	By YMH	Prep Date n/a	<b>Prep Batch</b> n/a	Analytical Batch VW1324

The QC reported here (Summa A255) applies to the following samples: Method: TO-15

Batch CP4875 cleaned 06/21/11: JA81330-1(A190), JA81330-2(A089), JA81330-4(A661)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.046	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.032	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.037	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.034	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.043	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.038	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.095	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.061	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



# **Summa Cleaning Certification Job Number:** JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	Analytical Batch
VW1324-SCC	W32412.D	1	06/24/11	YMH	n/a	n/a	VW1324

The QC reported here (Summa A255) applies to the following samples: Method: TO-15

Batch CP4875 cleaned 06/21/11: JA81330-1(A190), JA81330-2(A089), JA81330-4(A661)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.033	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.044	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.059	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.070	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.028	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.032	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.028	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.047	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.040	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.033	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.042	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.031	ppbv	ND	0.87	ug/m3

### **Summa Cleaning Certification Job Number:** JA81330

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1324-SCC	W32412.D	1	06/24/11	YMH	n/a	n/a	VW1324

The QC reported here (Summa A255) applies to the following samples: Method: TO-15

Batch CP4875 cleaned 06/21/11: JA81330-1(A190), JA81330-2(A089), JA81330-4(A661)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	92%	65-128%

# **Summa Cleaning Certification Job Number:** JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample V3W910-SCC	<b>File ID</b> 3W23024.D	<b>DF</b> 1	<b>Analyzed</b> 06/24/11	By YXC	<b>Prep Date</b> n/a	Prep Batch n/a	Analytical Batch V3W910

The QC reported here (Summa A377) applies to the following samples: Method: TO-15

Batch CP4876 cleaned 06/22/11: JA81330-3(A147), JA81330-5(A365), JA81330-6(A039), JA81330-7(A358), JA81330-8(A853)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv	ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.024	ppbv	ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.046	ppbv	ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.030	ppbv	ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.037	ppbv	ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.037	ppbv	ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.037	ppbv	ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.041	ppbv	ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.032	ppbv	ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.027	ppbv	ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.039	ppbv	ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.037	ppbv	ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.041	ppbv	ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.031	ppbv	ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.040	ppbv	ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.034	ppbv	ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.028	ppbv	ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.046	ppbv	ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.027	ppbv	ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.043	ppbv	ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.038	ppbv	ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.056	ppbv	ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.038	ppbv	ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.027	ppbv	ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.033	ppbv	ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.038	ppbv	ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.043	ppbv	ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.037	ppbv	ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.027	ppbv	ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.025	ppbv	ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.039	ppbv	ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.095	ppbv	ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.061	ppbv	ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3



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# **Summa Cleaning Certification Job Number:** JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W910-SCC	3W23024.D	1	06/24/11	YXC	n/a	n/a	V3W910

The QC reported here (Summa A377) applies to the following samples: Method: TO-15

Batch CP4876 cleaned 06/22/11: JA81330-3(A147), JA81330-5(A365), JA81330-6(A039), JA81330-7(A358), JA81330-8(A853)

CAS No.	Compound	Result	RL	MDL	Units Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.034	ppbv	ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv	ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.033	ppbv	ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.046	ppbv	ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.044	ppbv	ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.059	ppbv	ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.027	ppbv	ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv	ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.036	ppbv	ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.027	ppbv	ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.043	ppbv	ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.070	ppbv	ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.027	ppbv	ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.022	ppbv	ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.030	ppbv	ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.030	ppbv	ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.051	ppbv	ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.024	ppbv	ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.028	ppbv	ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.028	ppbv	ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.032	ppbv	ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.028	ppbv	ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.047	ppbv	ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.040	ppbv	ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.033	ppbv	ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.042	ppbv	ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.032	ppbv	ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.057	ppbv	ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.031	ppbv	ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.031	ppbv	ND	0.87	ug/m3



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# **Summa Cleaning Certification Job Number:** JA81330

Account: **RAVIV TRC** 

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample V3W910-SCC	File ID 3W23024.D	<b>DF</b> 1	<b>Analyzed</b> 06/24/11	By YXC	Prep Date n/a	Prep Batch n/a	Analytical Batch V3W910

The QC reported here (Summa A377) applies to the following samples: Method: TO-15

Batch CP4876 cleaned 06/22/11: JA81330-3(A147), JA81330-5(A365), JA81330-6(A039), JA81330-7(A358), JA81330-8(A853)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	81%	65-128%



### **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: V3W886-BFB **Injection Date:** 05/13/11 Lab File ID: **Injection Time:** 09:13 3W22414.D

**Instrument ID:** GCMS3W

m/e	Ion Abundance Criteria	Raw Abundance	% Relati Abundan		Pass/Fail
50	8.0 - 40.0% of mass 95	6263	18.4	·	Pass
75	30.0 - 66.0% of mass 95	15734	46.1		Pass
95	Base peak, 100% relative abundance	34112	100.0		Pass
96	5.0 - 9.0% of mass 95	2481	7.27		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	31432	92.1		Pass
175	4.0 - 9.01% of mass 174	2371	6.95	(7.54) <sup>a</sup>	Pass
176	93.0 - 101.0% of mass 174	30914	90.6	(98.4) a	Pass
177	5.0 - 9.0% of mass 176	2014	5.90	(6.51) b	Pass

<sup>(</sup>a) Value is % of mass 174

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3W886-IC886	3W22416.D	05/13/11	10:33	01:20	Initial cal 5
V3W886-IC886	3W22418.D	05/13/11	12:34	03:21	Initial cal 20
V3W886-ICC886	3W22419.D	05/13/11	13:14	04:01	Initial cal 10
V3W886-IC886	3W22420.D	05/13/11	13:57	04:44	Initial cal 1
V3W886-IC886	3W22421.D	05/13/11	14:37	05:24	Initial cal 0.2
V3W886-IC886	3W22422.D	05/13/11	15:57	06:44	Initial cal 0.04
ZZZZZZ	3W22422M.D	05/13/11	15:57	06:44	(unrelated sample)
V3W886-IC886	3W22423.D	05/13/11	16:38	07:25	Initial cal 0.1
ZZZZZZ	3W22423M.D	05/13/11	16:38	07:25	(unrelated sample)
V3W886-IC886	3W22424.D	05/13/11	17:20	08:07	Initial cal 40
V3W886-IC886	3W22425.D	05/13/11	19:21	10:08	Initial cal 0.5
V3W886-ICV886	3W22426.D	05/14/11	00:01	14:48	Initial cal verification 10



<sup>(</sup>b) Value is % of mass 176

### **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: V3W910-BFB **Injection Date:** 06/24/11 Lab File ID: **Injection Time:** 08:46 3W23017.D

**Instrument ID:** GCMS3W

m/e	Ion Abundance Criteria	Raw nce Criteria Abundance		ive nce	Pass/Fail	
50	8.0 - 40.0% of mass 95	8359	19.5		Pass	
75	30.0 - 66.0% of mass 95	20474	47.8		Pass	
95	Base peak, 100% relative abundance	42848	100.0		Pass	
96	5.0 - 9.0% of mass 95	3006	7.02		Pass	
173	Less than 2.0% of mass 174	0	0.00	$(0.00)^{a}$	Pass	
174	50.0 - 120.0% of mass 95	40234	93.9		Pass	
175	4.0 - 9.01% of mass 174	2935	6.85	(7.29) a	Pass	
176	93.0 - 101.0% of mass 174	38826	90.6	(96.5) a	Pass	
177	5.0 - 9.0% of mass 176	2598	6.06	(6.69) b	Pass	

<sup>(</sup>a) Value is % of mass 174

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
V3W910-CC886	3W23018.D	06/24/11	09:27	00:41	Continuing cal 10
V3W910-BS	3W23019.D	06/24/11	10:13	01:27	Blank Spike
V3W910-BSD	3W23020.D	06/24/11	11:06	02:20	Blank Spike Duplicate
V3W910-MB	3W23021.D	06/24/11	12:41	03:55	Method Blank
ZZZZZZ	3W23022.D	06/24/11	13:21	04:35	(unrelated sample)
ZZZZZZ	3W23023.D	06/24/11	14:01	05:15	(unrelated sample)
V3W910-SCC	3W23024.D	06/24/11	14:44	05:58	Summa Cleaning Certification
ZZZZZZ	3W23025.D	06/24/11	15:24	06:38	(unrelated sample)
ZZZZZZ	3W23026.D	06/24/11	16:04	07:18	(unrelated sample)
ZZZZZZ	3W23027.D	06/24/11	16:44	07:58	(unrelated sample)
ZZZZZZ	3W23028.D	06/24/11	17:25	08:39	(unrelated sample)
ZZZZZZ	3W23029.D	06/24/11	18:05	09:19	(unrelated sample)
JA79223-1	3W23030.D	06/24/11	18:47	10:01	(used for QC only; not part of job JA81330)
JA79223-1DUP	3W23031.D	06/24/11	19:30	10:44	Duplicate
ZZZZZZ	3W23032.D	06/24/11	20:13	11:27	(unrelated sample)
ZZZZZZ	3W23033.D	06/24/11	20:55	12:09	(unrelated sample)
ZZZZZZ	3W23034.D	06/24/11	21:38	12:52	(unrelated sample)
ZZZZZZ	3W23035.D	06/24/11	22:20	13:34	(unrelated sample)
ZZZZZZ	3W23036.D	06/24/11	23:03	14:17	(unrelated sample)
ZZZZZZ	3W23037.D	06/24/11	23:46	15:00	(unrelated sample)
ZZZZZZ	3W23038.D	06/25/11	00:29	15:43	(unrelated sample)
ZZZZZZ	3W23039.D	06/25/11	01:52	17:06	(unrelated sample)
ZZZZZZ	3W23040.D	06/25/11	02:32	17:46	(unrelated sample)
ZZZZZZ	3W23041.D	06/25/11	03:13	18:27	(unrelated sample)
					-



<sup>(</sup>b) Value is % of mass 176

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## **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: **RAVIV TRC** 

Project: Lockheed Electronics Co, Watchung, NJ

**Injection Date:** 06/24/11 **Injection Time:** 08:46 Sample: V3W910-BFB Lab File ID: 3W23017.D

**Instrument ID:** GCMS3W

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
ZZZZZZ	3W23042.D	06/25/11	03:53	19:07	(unrelated sample)
ZZZZZZ	3W23043.D	06/25/11	05:14	20:28	(unrelated sample)

### **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: VW1322-BFB **Injection Date:** 06/21/11 Lab File ID: **Injection Time:** 16:40 W32351.D

**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relati Abundar		Pass/Fail
50	8.0 - 40.0% of mass 95	9991	16.7		Pass
75	30.0 - 66.0% of mass 95	26117	43.7		Pass
95	Base peak, 100% relative abundance	59717	100.0		Pass
96	5.0 - 9.0% of mass 95	3967	6.64		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	54200	90.8		Pass
175	4.0 - 9.01% of mass 174	4795	8.03	(8.85) a	Pass
176	93.0 - 101.0% of mass 174	52714	88.3	(97.3) a	Pass
177	5.0 - 9.0% of mass 176	3429	5.74	(6.50) b	Pass

<sup>(</sup>a) Value is % of mass 174

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VW1322-ICC1322	W32352.D	06/21/11	17:20	00:40	Initial cal 10
VW1322-IC1322	W32353.D	06/21/11	18:00	01:20	Initial cal 0.5
VW1322-IC1322	W32356.D	06/21/11	20:00	03:20	Initial cal 20
VW1322-IC1322	W32357.D	06/21/11	20:40	04:00	Initial cal 5.0
VW1322-IC1322	W32359.D	06/21/11	22:00	05:20	Initial cal 0.04
VW1322-IC1322	W32360.D	06/21/11	22:40	06:00	Initial cal 40
VW1322-IC1322	W32364.D	06/22/11	09:56	17:16	Initial cal 0.2
VW1322-IC1322	W32365.D	06/22/11	10:36	17:56	Initial cal 0.1



<sup>(</sup>b) Value is % of mass 176

### **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: VW1324-BFB **Injection Date:** 06/23/11 Lab File ID: **Injection Time:** 08:24 W32385.D

**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relat		Pass/Fail
50	8.0 - 40.0% of mass 95	11481	16.9		Pass
75	30.0 - 66.0% of mass 95	29853	43.9		Pass
95	Base peak, 100% relative abundance	67986	100.0		Pass
96	5.0 - 9.0% of mass 95	4538	6.67		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) a	Pass
174	50.0 - 120.0% of mass 95	60200	88.5		Pass
175	4.0 - 9.01% of mass 174	5109	7.51	(8.49) a	Pass
176	93.0 - 101.0% of mass 174	58517	86.1	(97.2) a	Pass
177	5.0 - 9.0% of mass 176	3752	5.52	(6.41) b	Pass

<sup>(</sup>a) Value is % of mass 174

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
VW1324-CC1322	W32386.D	06/23/11	09:03	00:39	Continuing cal 10
VW1324-BS	W32387.D	06/23/11	09:43	01:19	Blank Spike
VW1324-BSD	W32388.D	06/23/11	11:14	02:50	Blank Spike Duplicate
VW1324-MB	W32389.D	06/23/11	12:33	04:09	Method Blank
ZZZZZZ	W32390.D	06/23/11	13:12	04:48	(unrelated sample)
ZZZZZZ	W32391.D	06/23/11	13:52	05:28	(unrelated sample)
ZZZZZZ	W32392.D	06/23/11	14:31	06:07	(unrelated sample)
ZZZZZZ	W32393.D	06/23/11	15:11	06:47	(unrelated sample)
ZZZZZZ	W32395.D	06/23/11	16:31	08:07	(unrelated sample)
JA79143-2	W32396.D	06/23/11	17:11	08:47	(used for QC only; not part of job JA81330)
JA79143-2DUP	W32397.D	06/23/11	17:51	09:27	Duplicate
ZZZZZZ	W32398.D	06/23/11	18:31	10:07	(unrelated sample)
ZZZZZZ	W32399.D	06/23/11	19:11	10:47	(unrelated sample)
ZZZZZZ	W32400.D	06/23/11	19:51	11:27	(unrelated sample)
ZZZZZZ	W32402.D	06/23/11	21:11	12:47	(unrelated sample)
ZZZZZZ	W32403.D	06/23/11	21:51	13:27	(unrelated sample)
ZZZZZZ	W32404.D	06/23/11	22:31	14:07	(unrelated sample)
ZZZZZZ	W32405.D	06/23/11	23:11	14:47	(unrelated sample)
ZZZZZZ	W32406.D	06/23/11	23:51	15:27	(unrelated sample)
ZZZZZZ	W32407.D	06/24/11	01:11	16:47	(unrelated sample)
ZZZZZZ	W32408.D	06/24/11	01:51	17:27	(unrelated sample)
ZZZZZZ	W32409.D	06/24/11	02:31	18:07	(unrelated sample)
ZZZZZZ	W32411.D	06/24/11	03:52	19:28	(unrelated sample)
VW1324-SCC	W32412.D	06/24/11	05:12	20:48	Summa Cleaning Certification
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<sup>(</sup>b) Value is % of mass 176

### **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: VW1341-BFB **Injection Date:** 07/20/11 Lab File ID: **Injection Time:** 07:29 W32799.D

**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relat		Pass/Fail
50	8.0 - 40.0% of mass 95	14172	18.3		Pass
75	30.0 - 66.0% of mass 95	37602	48.6		Pass
95	Base peak, 100% relative abundance	77381	100.0		Pass
96	5.0 - 9.0% of mass 95	4981	6.44		Pass
173	Less than 2.0% of mass 174	0	0.00	$(0.00)^{a}$	Pass
174	50.0 - 120.0% of mass 95	57605	74.4	, ,	Pass
175	4.0 - 9.01% of mass 174	4396	5.68	(7.63) a	Pass
176	93.0 - 101.0% of mass 174	54973	71.0	(95.4) a	Pass
177	5.0 - 9.0% of mass 176	3629	4.69	(6.60) b	Pass

<sup>(</sup>a) Value is % of mass 174

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
VW1341-CC1322	W32800.D	07/20/11	08:11	00:42	Continuing cal 10
VW1341-BS	W32801.D	07/20/11	08:52	01:23	Blank Spike
VW1341-BSD	W32802.D	07/20/11	09:32	02:03	Blank Spike Duplicate
VW1341-MB	W32803.D	07/20/11	11:11	03:42	Method Blank
ZZZZZZ	W32804.D	07/20/11	12:04	04:35	(unrelated sample)
ZZZZZZ	W32805.D	07/20/11	12:44	05:15	(unrelated sample)
JA81330-1	W32807.D	07/20/11	14:05	06:36	7006 CR
JA81330-2	W32808.D	07/20/11	14:46	07:17	7007 CR
JA81330-3	W32809.D	07/20/11	15:28	07:59	12002 CR
JA81330-4	W32810.D	07/20/11	16:09	08:40	12003 CR
JA81330-5	W32811.D	07/20/11	16:50	09:21	6007 CR
JA81330-5DUP	W32812.D	07/20/11	17:31	10:02	Duplicate
JA81330-6	W32813.D	07/20/11	18:12	10:43	BLDG 3 CR
JA81330-7	W32814.D	07/20/11	18:53	11:24	6006 CR
JA81330-8	W32815.D	07/20/11	19:34	12:05	BLDG 26 RV
JA81330-1	W32816.D	07/20/11	20:15	12:46	7006 CR
JA81330-2	W32817.D	07/20/11	20:56	13:27	7007 CR
JA81330-3	W32818.D	07/20/11	21:37	14:08	12002 CR
JA81330-4	W32819.D	07/20/11	22:17	14:48	12003 CR
ZZZZZZ	W32821.D	07/20/11	23:38	16:09	(unrelated sample)
ZZZZZZ	W32822.D	07/21/11	00:19	16:50	(unrelated sample)
ZZZZZZ	W32823.D	07/21/11	00:59	17:30	(unrelated sample)
ZZZZZZ	W32824.D	07/21/11	01:40	18:11	(unrelated sample)
ZZZZZZ	W32825.D	07/21/11	02:20	18:51	(unrelated sample)
					- '



<sup>(</sup>b) Value is % of mass 176

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## **Instrument Performance Check (BFB)**

**Job Number:** JA81330 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample:VW1341-BFBInjection Date:07/20/11Lab File ID:W32799.DInjection Time:07:29

**Instrument ID:** GCMSW

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
ZZZZZZ	W32826.D	07/21/11	03:00	19:31	(unrelated sample) Summa Cleaning Certification
VW1341-SCC	W32827.D	07/21/11	04:21	20:52	

### **Instrument Performance Check (BFB)**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Sample: **Injection Date:** 07/21/11 VW1342-BFB Lab File ID: **Injection Time:** 08:33 W32828.D

**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relat Abunda		Pass/Fail
50	8.0 - 40.0% of mass 95	12192	18.5		Pass
75	30.0 - 66.0% of mass 95	30080	45.7		Pass
95	Base peak, 100% relative abundance	65802	100.0		Pass
96	5.0 - 9.0% of mass 95	4340	6.60		Pass
173	Less than 2.0% of mass 174	0	0.00	$(0.00)^{a}$	Pass
174	50.0 - 120.0% of mass 95	57301	87.1		Pass
175	4.0 - 9.01% of mass 174	4706	7.15	(8.21) a	Pass
176	93.0 - 101.0% of mass 174	56128	85.3	(98.0) a	Pass
177	5.0 - 9.0% of mass 176	3695	5.62	(6.58) b	Pass

<sup>(</sup>a) Value is % of mass 174

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
VW1342-CC1322	W32829.D	07/21/11	09:18	00:45	Continuing cal 10
VW1342-BS	W32830.D	07/21/11	10:05	01:32	Blank Spike
VW1342-BSD	W32831.D	07/21/11	10:46	02:13	Blank Spike Duplicate
VW1342-MB	W32832.D	07/21/11	12:12	03:39	Method Blank
JA81330-5	W32833.D	07/21/11	12:53	04:20	6007 CR
JA81330-6	W32834.D	07/21/11	13:34	05:01	BLDG 3 CR
JA81330-7	W32835.D	07/21/11	14:15	05:42	6006 CR
JA81330-8	W32836.D	07/21/11	14:57	06:24	BLDG 26 RV
VW1342-SCC	W32837.D	07/21/11	15:38	07:05	Summa Cleaning Certification
ZZZZZZ	W32838.D	07/21/11	16:20	07:47	(unrelated sample)
ZZZZZZ	W32839.D	07/21/11	17:01	08:28	(unrelated sample)
JA81054-3	W32840.D	07/21/11	17:43	09:10	(used for QC only; not part of job JA81330)
JA81054-3DUP	W32841.D	07/21/11	18:25	09:52	Duplicate
ZZZZZZ	W32842.D	07/21/11	19:06	10:33	(unrelated sample)
ZZZZZZ	W32843.D	07/21/11	19:48	11:15	(unrelated sample)
ZZZZZZ	W32844.D	07/21/11	20:30	11:57	(unrelated sample)
ZZZZZZ	W32845.D	07/21/11	21:11	12:38	(unrelated sample)
ZZZZZZ	W32846.D	07/21/11	21:52	13:19	(unrelated sample)
ZZZZZZ	W32847.D	07/21/11	22:33	14:00	(unrelated sample)
ZZZZZZ	W32848.D	07/21/11	23:15	14:42	(unrelated sample)
ZZZZZZ	W32849.D	07/21/11	23:56	15:23	(unrelated sample)
ZZZZZZ	W32850.D	07/22/11	00:37	16:04	(unrelated sample)
ZZZZZZ	W32851.D	07/22/11	01:58	17:25	(unrelated sample)
ZZZZZZ	W32852.D	07/22/11	02:39	18:06	(unrelated sample)



<sup>(</sup>b) Value is % of mass 176

Page 2 of 2

## **Instrument Performance Check (BFB)**

**Job Number:** JA81330 **Account:** RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Sample:
 VW1342-BFB
 Injection Date:
 07/21/11

 Lab File ID:
 W32828.D
 Injection Time:
 08:33

**Instrument ID:** GCMSW

Lab	Lab	Date	Time	Hours	Client
Sample ID	File ID	Analyzed	Analyzed	Lapsed	Sample ID
ZZZZZZ	W32853.D	07/22/11	03:20	18:47	(unrelated sample)
ZZZZZZ	W32854.D	07/22/11	04:01	19:28	(unrelated sample)

### **Volatile Internal Standard Area Summary**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 V3W910-CC886
 Injection Date:
 06/24/11

 Lab File ID:
 3W23018.D
 Injection Time:
 09:27

 Instrument ID:
 GCMS3W
 Method:
 TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std Upper Limit <sup>a</sup> Lower Limit <sup>b</sup>	102842 143979 61705	7.31 7.64 6.98	446279 624791 267767	9.02 9.35 8.69	217987 305182 130792	13.31 13.64 12.98
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V3W910-BS	98736	7.31	421198	9.02	206932	13.31
V3W910-BSD	97677	7.31	393223	9.01	196200	13.31
V3W910-MB	102357	7.30	494500	9.01	233826	13.30
ZZZZZZ	96513	7.31	461700	9.01	220211	13.30
ZZZZZZ	94542	7.31	438769	9.01	209549	13.30
V3W910-SCC	86776	7.30	393541	9.01	182132	13.30
ZZZZZZ	94132	7.31	436326	9.02	224075	13.31
ZZZZZZ	93612	7.31	428036	9.01	202654	13.30
ZZZZZZ	88415	7.31	406886	9.01	193340	13.30
ZZZZZZ	88087	7.31	404050	9.01	211086	13.30
ZZZZZZ	87455	7.30	380717	9.01	218615	13.30
JA79223-1	95135	7.31	452775	9.02	215407	13.30
JA79223-1DUP	99471	7.31	463403	9.02	210070	13.30
ZZZZZZ	99297	7.31	458977	9.02	214836	13.31
ZZZZZZ	100898	7.31	460756	9.02	201001	13.31
ZZZZZZ	106953	7.31	487897	9.02	222454	13.30
ZZZZZZ	101398	7.31	465131	9.02	215099	13.31
ZZZZZZ	103148	7.31	452149	9.01	202875	13.30
ZZZZZZ	100024	7.31	439189	9.01	203270	13.30
ZZZZZZ	99650	7.31	429328	9.02	202179	13.30
ZZZZZZ	107260	7.31	466203	9.02	217110	13.31
ZZZZZZ	102865	7.31	441312	9.01	197521	13.30
ZZZZZZ	103994	7.31	432408	9.02	206409	13.31
ZZZZZZ	104235	7.31	470262	9.01	210941	13.31
ZZZZZZ	101751	7.31	445298	9.01	201424	13.30

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

(a) Upper Limit = +40% of check standard area; Retention time +0.33 minutes.

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



### Volatile Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 VW1324-CC1322
 Injection Date:
 06/23/11

 Lab File ID:
 W32386.D
 Injection Time:
 09:03

 Instrument ID:
 GCMSW
 Method:
 TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	149471	8.62	767115	10.30	376885	14.55
Upper Limit <sup>a</sup>	209259	8.95	1073961	10.63	527639	14.88
Lower Limit b	89683	8.29	460269	9.97	226131	14.22
Lab	IS 1		IS 2		IS 3	
Sample ID	AREA	RT	AREA	RT	AREA	RT
VW1324-BS	149420	8.62	762301	10.30	370524	14.55
VW1324-BSD	151288	8.62	765275	10.30	373517	14.55
VW1324-MB	166902	8.61	854854	10.29	384904	14.54
ZZZZZZ	155983	8.61	807212	10.30	370479	14.54
ZZZZZZ	151189	8.62	783831	10.30	360315	14.54
ZZZZZZ	163761	8.61	874142	10.30	410869	14.54
ZZZZZZ	158348	8.61	836701	10.29	381250	14.54
ZZZZZZ	148841	8.63	780715	10.31	365610	14.54
JA79143-2	152486	8.62	792624	10.30	373063	14.54
JA79143-2DUP	152936	8.62	798557	10.30	372645	14.54
ZZZZZZ	157055	8.62	815985	10.30	385088	14.54
ZZZZZZ	162465	8.62	847398		402994	14.54
ZZZZZZ	163702	8.61	849483			14.54
ZZZZZZ	153988	8.61	795766		367389	14.54
ZZZZZZ	152269	8.62	798617		372630	14.54
ZZZZZZ	151817	8.62	792104	10.30	371728	14.54
ZZZZZZ	150407	8.62	790634		381367	14.54
ZZZZZZ	151412	8.62	795179	10.30	373045	14.54
ZZZZZZ	160771	8.62	832539		385966	14.54
ZZZZZZ	155608	8.62	814740	10.30	390510	14.54

10.30 379692

10.30 401453

10.29 354391

14.54

14.54

14.54

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

155013

158220

156154

8.62

8.62

8.61

ZZZZZZ

ZZZZZZ

VW1324-SCC

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.

815912

826266

790929

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



### **Volatile Internal Standard Area Summary**

Job Number: JA81330 Account: RAVIV TRC

IS 1

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 VW1341-CC1322
 Injection Date:
 07/20/11

 Lab File ID:
 W32800.D
 Injection Time:
 08:11

 Instrument ID:
 GCMSW
 Method:
 TO-15

IS 2

AREA	RT	AREA	RT	AREA	RT
163015	8.59	786379	10.27	378609	14.52
228221	8.92	1100931			14.85
97809	8.26	471827	9.94	227165	14.19
IS 1		IS 2		IS 3	
AREA	RT	AREA	RT	AREA	RT
155968	8.59	781273	10.27	372869	14.52
153068	8.59	758678	10.27	350941	14.52
148435	8.59	742738	10.27	319382	14.51
162822	8.60	825210	10.27	374337	14.52
143582	8.60	706215	10.27	309070	14.52
153068	8.60	768434	10.27	332231	14.52
139668	8.59	681372	10.27	295882	14.52
132243	8.60	645218	10.27	280698	14.52
129595	8.60	621770	10.27	263181	14.52
117296	8.60	569724	10.28	241545	14.52
126295	8.60	600877	10.27	251938	14.52
132095	8.59	629032	10.27	265389	14.52
153360	8.60	766789	10.28	333407	14.52
150463	8.60	754436	10.27	328081	14.52
143501	8.59	709640	10.27	294024	14.52
150553	8.59	769571	10.27	329229	14.52
160219	8.59	816030	10.27	358248	14.52
158434	8.59	810651	10.27	355904	14.52
158135	8.59	813586	10.27	364882	14.52
162603	8.60	832413	10.27	375105	14.52
	163015 228221 97809 IS 1 AREA 155968 153068 148435 162822 143582 153068 139668 132243 129595 117296 126295 132095 153360 150463 143501 150553 160219 158434 158135	AREA         RT           163015         8.59           228221         8.92           97809         8.26           IS 1         AREA           AREA         RT           155968         8.59           153068         8.59           148435         8.59           162822         8.60           139668         8.60           139668         8.59           132243         8.60           129595         8.60           126295         8.60           132095         8.59           153360         8.60           150463         8.60           150553         8.59           158434         8.59           158135         8.59	AREA         RT         AREA           163015         8.59         786379           228221         8.92         1100931           97809         8.26         471827           IS 1         IS 2           AREA         RT         AREA           155968         8.59         758678           153068         8.59         758678           148435         8.59         742738           162822         8.60         825210           143582         8.60         706215           153068         8.60         768434           139668         8.59         681372           132243         8.60         645218           129595         8.60         621770           117296         8.60         569724           126295         8.60         600877           132095         8.59         629032           153360         8.60         766789           150463         8.60         754436           143501         8.59         709640           150553         8.59         769571           160219         8.59         816030           158434	AREA         RT         AREA         RT           163015         8.59         786379         10.27           228221         8.92         1100931         10.60           97809         8.26         471827         9.94           IS 1         IS 2           AREA         RT         AREA         RT           155968         8.59         781273         10.27           153068         8.59         758678         10.27           148435         8.59         742738         10.27           143582         8.60         825210         10.27           143582         8.60         706215         10.27           153068         8.60         768434         10.27           139668         8.59         681372         10.27           132243         8.60         645218         10.27           117296         8.60         621770         10.27           117296         8.60         569724         10.28           126295         8.60         600877         10.27           153360         8.60         766789         10.28           150463         8.60         754436	AREA         RT         AREA         RT         AREA           163015         8.59         786379         10.27         378609           228221         8.92         1100931         10.60         530053           97809         8.26         471827         9.94         227165           IS 1         IS 2         IS 3         AREA           AREA         RT         AREA         RT         AREA           155968         8.59         758678         10.27         372869           153068         8.59         758678         10.27         350941           148435         8.59         742738         10.27         374337           143582         8.60         825210         10.27         374337           143582         8.60         706215         10.27         309070           153068         8.60         768434         10.27         332231           139668         8.59         681372         10.27         295882           132243         8.60         645218         10.27         280698           129595         8.60         621770         10.27         263181           117296 <td< td=""></td<>

10.29 368336

10.28 369328

10.30 363161

10.27 357372

10.27 329523

14.52

14.52

14.52

14.52

14.52

IS 3

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

156934

157568

153166

153137

149501

8.63

8.60

8.63

8.59

8.59

ZZZZZZ

ZZZZZZ

ZZZZZZ

ZZZZZZ

VW1341-SCC

(a) Upper Limit = +40% of check standard area; Retention time +0.33 minutes.

803996

810425

786944

784016

749679

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



Page 1 of 1

#### **Volatile Internal Standard Area Summary**

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

 Check Std:
 VW1342-CC1322
 Injection Date:
 07/21/11

 Lab File ID:
 W32829.D
 Injection Time:
 09:18

 Instrument ID:
 GCMSW
 Method:
 TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std Upper Limit <sup>a</sup> Lower Limit <sup>b</sup>	151689 212365 91013	8.59 8.92 8.26	746250 1044750 447750		365970 512358 219582	14.52 14.85 14.19
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VW1342-BS	151273	8.59	749351	10.27	362293	14.52
VW1342-BSD	157996	8.59	803542	10.27	382780	14.52
VW1342-MB	163529	8.59	817019	10.27	363113	14.52
JA81330-5	168155	8.59	884260	10.27	414296	14.52
JA81330-6	155182	8.59	778947	10.27	366979	14.52
JA81330-7	169517	8.59	845559	10.27	402138	14.52
JA81330-8	155800	8.59	781416	10.27	374827	14.52
VW1342-SCC	166799	8.59	843200	10.27	372365	14.52
ZZZZZZ	157416	8.59	786973	10.27	399346	14.52
ZZZZZZ	168289	8.60	842679	10.27	416866	14.52
JA81054-3	147211	8.59	723376	10.27	343543	14.52
JA81054-3DUP	139645	8.59	687273	10.27	326982	14.52
ZZZZZZ	145751	8.59	710134	10.27	355220	14.52
ZZZZZZ	133767	8.60	661093	10.28	294912	14.52
ZZZZZZ	142235	8.60	690897	10.28	323645	14.52
ZZZZZZ	137029	8.61	683964	10.29	338220	14.52
ZZZZZZ	132945	8.60	654987	10.28	318917	14.52
ZZZZZZ	134240	8.59	645112	10.27	294410	14.52
ZZZZZZ	137714	8.60	675938	10.27	313991	14.52
ZZZZZZ	135653	8.61	668307	10.29	340842	14.52
ZZZZZZ	141745	8.59	668772	10.27	334346	14.52
ZZZZZZ	141590	8.59	710389	10.27	301360	14.52

10.27 327072

10.27 341392

10.27 368605

14.52

14.51

14.52

IS 1 = Bromochloromethane IS 2 = 1,4-Difluorobenzene IS 3 = Chlorobenzene-D5

148899

151104

155633

8.59

8.59

8.59

ZZZZZZ

ZZZZZZ

ZZZZZZ

(a) Upper Limit = +40% of check standard area; Retention time +0.33 minutes.

753477

762420

788397

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.



#### Page 1 of 50

Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Job Number: JA81330 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.01	7.30	0.686	ok	0.689	0.629-0.749
Acrylonitrile	5.33	7.30	0.730	ok	0.732	0.672-0.792
Acetonitrile	4.88	7.30	0.668	ok	0.670	0.610-0.730
1,3-Butadiene	4.37	7.30	0.599	ok	0.598	0.538-0.658
Benzene	8.68	9.01	0.963	ok	0.963	0.903-1.023
Bromodichloromethane	9.64	9.01	1.070	ok	1.069	1.009-1.129
Bromoform	14.04	13.32	1.054	ok	1.054	0.994-1.114
Bromomethane	4.54	7.30	0.622	ok	0.622	0.562-0.682
Bromoethene	4.86	7.30	0.666	ok	0.666	0.606-0.726
n-Butane	4.39	7.30	0.601	ok	0.601	0.541-0.661
Benzyl Chloride	16.67	13.32	1.252	ok	1.251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok	1.314	1.254-1.374
sec-Butylbenzene	16.80	13.32	1.261	ok	1.261	1.201-1.321
tert-Butylbenzene	16.46	13.32	1.236	ok	1.236	1.176-1.296
Carbon disulfide	5.85	7.30	0.801	ok	0.802	0.742-0.862
Chlorobenzene	13.36	13.32	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.98	7.30	0.545	ok	0.546	0.486-0.606
Chloroethane	4.64	7.30	0.636	ok	0.635	0.575-0.695
Chloroform	7.39	7.30	1.012	ok	1.012	0.952-1.072
Chloromethane	4.15	7.30	0.568	ok	0.569	0.509-0.629
3-Chloropropene	5.71	7.30	0.782	ok	0.782	0.722-0.842
2-Chlorotoluene	15.67	13.32	1.176	ok	1.177	1.117-1.237
Carbon tetrachloride	8.82	7.30	1.208	ok	1.208	1.148-1.268
Cyclohexane	8.86	9.01	0.983	ok	0.985	0.925-1.045
1,1-Dichloroethane	6.47	7.30	0.886	ok	0.886	0.826-0.946
1,1-Dichloroethylene	5.55	7.30	0.760	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.13	13.32	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.03	7.30	1.100	ok	1.100	1.040-1.160
1,2-Dichloropropane	9.41	9.01	1.044	ok	1.044	0.984-1.104
1,4-Dioxane	9.71	9.01	1.078	ok	1.079	1.019-1.139
Dichlorodifluoromethane	4.05	7.30	0.555	ok	0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok	0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.29	7.30	0.862	ok	0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.30	0.984	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.01	1.168	ok	1.167	1.107-1.227
m-Dichlorobenzene	16.66	13.32	1.251	ok	1.251	1.191-1.311
o-Dichlorobenzene	17.18	13.32	1.290		1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258	ok	1.257	1.197-1.317
trans-1,3-Dichloropropene	11.04	9.01	1.225	ok	1.225	1.165-1.285

#### Page 2 of 50

Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	7.24	7.30	0.992	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.06	9.01	1.006	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.98	7.30	1.093	ok	1.093	1.033-1.153
Ethanol	4.73	7.30	0.648	ok	0.649	0.589-0.709
Ethylbenzene	13.74	13.32	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.31	7.30	1.001	ok	0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32	1.192	ok	1.192	1.132-1.252
Freon 113	5.80	7.30	0.795	ok	0.794	0.734-0.854
Freon 114	4.21	7.30	0.577	ok	0.577	0.517-0.637
Freon 123	4.93	7.30	0.675	ok	0.675	0.615-0.735
Freon 123A	4.97	7.30	0.681	ok	0.681	0.621-0.741
Heptane	9.85	9.01	1.093	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.79	13.32	1.486	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.32	1.351	ok	1.350	1.290-1.410
Hexane	7.23	7.30	0.990	ok	0.990	0.930-1.050
2-Hexanone	11.73	13.32	0.881	ok	0.881	0.821-0.941
Iodomethane	5.50	7.30	0.753	ok	0.754	0.694-0.814
Isopropylbenzene	15.10	13.32	1.134		1.134	1.074-1.194
Isopropyl Alcohol	5.17	7.30	0.708		0.711	0.651-0.771
p-Isopropyltoluene	16.98	13.32	1.275		1.275	1.215-1.335
Methylene chloride	5.64	7.30	0.773		0.773	0.713-0.833
Methyl ethyl ketone	6.76	7.30	0.926	ok	0.928	0.868-0.988
Methyl Isobutyl Ketone	10.50	9.01	1.165	ok	1.167	1.107-1.227
Methyl Tert Butyl Ether	6.47	7.30	0.886	ok	0.888	0.828-0.948
Methylmethacrylate	9.87	9.01	1.095	ok	1.095	1.035-1.155
Naphthalene	19.37	13.32	1.454		1.454	1.394-1.514
Nonane	14.64	13.32	1.099	ok	1.099	1.039-1.159
Octane	12.42	13.32	0.932		0.932	0.872-0.992
Pentane	5.31	7.30	0.727		0.727	0.667-0.787
n-Propylbenzene	15.70	13.32	1.179		1.179	1.119-1.239
Propylene	4.00	7.30	0.548		0.548	0.488-0.608
Styrene	14.35	13.32	1.077		1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.30	1.130		1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.34	13.32	1.002		1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086		1.086	1.026-1.146
1,1,2-Trichloroethane	11.20	9.01	1.243		1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.23	13.32	1.444		1.444	1.384-1.504
1,2,3-Trichloropropane	14.60	13.32	1.096		1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.236	ok	1.237	1.177-1.297

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#### Initial Calibration Retention Time/Internal Standard Area Summary

**Job Number:** JA81330 **Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.139-1.259	
2,2,4-Trimethylpentane	9.59	9.01		1.064	1.004-1.124	
Tertiary Butyl Alcohol	5.57	7.30	0.763 ok	0.765	0.705-0.825	
Tetrachloroethylene	12.63	13.32		0.948	0.888-1.008	
Tetrahydrofuran	7.73	7.30	1.059 ok	1.062	1.002-1.122	
Toluene	11.47	9.01	1.273 ok	1.272	1.212-1.332	
Trichloroethylene	9.66	9.01	1.072 ok	1.071	1.011-1.131	
Trichlorofluoromethane	5.12	7.30	0.701 ok	0.701	0.641-0.761	
Vinyl chloride	4.29	7.30	0.588 ok	0.588	0.528-0.648	
Vinyl Acetate	6.57	7.30	0.900 ok	0.901	0.841-0.961	
m, p-Xylene	13.93	13.32	1.046 ok	1.046	0.986-1.106	
o-Xylene	14.45	13.32	1.085 ok	1.085	1.025-1.145	
TVHC As Equiv Pentane	5.31	7.30	0.727 ok	0.728	0.668-0.788	
TVHC As Equiv Heptane	9.85	9.01	1.093 ok	1.093	1.033-1.153	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ /- 40 %)
Bromochloromethane	7.30 ok	7.30	6.97-7.63	89922	ok 93035	55821-130249
1,4-Difluorobenzene		9.02	8.69-9.35	396390	ok 396018	237611-554425
Chlorobenzene-D5		13.32	12.99-13.63		ok 181415	108849-253981



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By 1	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC 5	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC 2	20	GCMS3W	TO-15	Reporting this level
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC 1	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC 1	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC (	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC (	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC (	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC 4	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC (	0.5	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.01	7.31	0.685	ok	0.689	0.629-0.749
Acrylonitrile	5.34	7.31	0.731	ok	0.732	0.672-0.792
Acetonitrile	4.88	7.31	0.668	ok	0.670	0.610-0.730
1,3-Butadiene	4.37	7.31	0.598	ok	0.598	0.538-0.658
Benzene	8.69	9.02	0.963	ok	0.963	0.903-1.023
Bromodichloromethane	9.64	9.02	1.069	ok	1.069	1.009-1.129
Bromoform	14.04	13.32	1.054	ok	1.054	0.994-1.114
Bromomethane	4.54	7.31	0.621	ok	0.622	0.562-0.682
Bromoethene	4.86	7.31	0.665	ok	0.666	0.606-0.726
n-Butane	4.39	7.31	0.601	ok	0.601	0.541-0.661
Benzyl Chloride	16.67	13.32	1.252	ok	1.251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok	1.314	1.254-1.374
sec-Butylbenzene	16.80	13.32	1.261	ok	1.261	1.201-1.321
tert-Butylbenzene	16.46	13.32	1.236	ok	1.236	1.176-1.296
Carbon disulfide	5.85	7.31	0.800	ok	0.802	0.742-0.862
Chlorobenzene	13.37	13.32	1.004	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.98	7.31	0.544	ok	0.546	0.486-0.606
Chloroethane	4.64	7.31	0.635	ok	0.635	0.575-0.695
Chloroform	7.40	7.31	1.012	ok	1.012	0.952-1.072
Chloromethane	4.15	7.31	0.568	ok	0.569	0.509-0.629
3-Chloropropene	5.71	7.31	0.781	ok	0.782	0.722-0.842
2-Chlorotoluene	15.68	13.32	1.177	ok	1.177	1.117-1.237
Carbon tetrachloride	8.82	7.31	1.207	ok	1.208	1.148-1.268
Cyclohexane	8.86	9.02	0.982	ok	0.985	0.925-1.045
1,1-Dichloroethane	6.47	7.31	0.885		0.886	0.826-0.946
1,1-Dichloroethylene	5.55	7.31	0.759	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.14	13.32	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.03	7.31	1.098		1.100	1.040-1.160
1,2-Dichloropropane	9.41	9.02	1.043		1.044	0.984-1.104
1,4-Dioxane	9.70	9.02	1.075	ok	1.079	1.019-1.139
Dichlorodifluoromethane	4.05	7.31	0.554		0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895		0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.30	7.31	0.862	ok	0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.31	0.982		0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.02	1.166	ok	1.167	1.107-1.227
m-Dichlorobenzene	16.67	13.32	1.252	ok	1.251	1.191-1.311
o-Dichlorobenzene	17.19	13.32	1.291	ok	1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258		1.257	1.197-1.317
trans-1,3-Dichloropropene	11.04	9.02	1.224	ok	1.225	1.165-1.285

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#### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	Reporting this level
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Target Compound	(111111.)	(111111.)	K1		K1	(+ /00)
Di-Isopropyl ether	7.24	7.31	0.990	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.06	9.02	1.004	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.98	7.31	1.092	ok	1.093	1.033-1.153
Ethanol	4.73	7.31	0.647	ok	0.649	0.589-0.709
Ethylbenzene	13.74	13.32	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.31	7.31	1.000	ok	0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32	1.192	ok	1.192	1.132-1.252
Freon 113	5.80	7.31	0.793	ok	0.794	0.734-0.854
Freon 114	4.21	7.31	0.576	ok	0.577	0.517-0.637
Freon 123	4.93	7.31	0.674	ok	0.675	0.615-0.735
Freon 123A	4.97	7.31	0.680	ok	0.681	0.621-0.741
Heptane	9.85	9.02	1.092	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.79	13.32	1.486	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.32	1.351	ok	1.350	1.290-1.410
Hexane	7.23	7.31	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.72	13.32	0.880	ok	0.881	0.821-0.941
Iodomethane	5.50	7.31	0.752	ok	0.754	0.694-0.814
Isopropylbenzene	15.10	13.32	1.134	ok	1.134	1.074-1.194
Isopropyl Alcohol	5.17	7.31	0.707	ok	0.711	0.651-0.771
p-Isopropyltoluene	16.99	13.32	1.276	ok	1.275	1.215-1.335
Methylene chloride	5.64	7.31	0.772	ok	0.773	0.713-0.833
Methyl ethyl ketone	6.76	7.31	0.925	ok	0.928	0.868-0.988
Methyl Isobutyl Ketone	10.49	9.02	1.163	ok	1.167	1.107-1.227
Methyl Tert Butyl Ether	6.47	7.31	0.885	ok	0.888	0.828-0.948
Methylmethacrylate	9.87	9.02	1.094	ok	1.095	1.035-1.155
Naphthalene	19.37	13.32	1.454	ok	1.454	1.394-1.514
Nonane	14.64	13.32	1.099	ok	1.099	1.039-1.159
Octane	12.42	13.32	0.932	ok	0.932	0.872-0.992
Pentane	5.31	7.31	0.726	ok	0.727	0.667-0.787
n-Propylbenzene	15.70	13.32	1.179	ok	1.179	1.119-1.239
Propylene	4.00	7.31	0.547	ok	0.548	0.488-0.608
Styrene	14.35	13.32	1.077	ok	1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.31	1.129	ok	1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.34	13.32	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086	ok	1.086	1.026-1.146
1,1,2-Trichloroethane	11.20	9.02	1.242	ok	1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.23	13.32	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	14.60	13.32	1.096	ok	1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.236	ok	1.237	1.177-1.297

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#### Initial Calibration Retention Time/Internal Standard Area Summary

**Job Number:** JA81330 **Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By 1	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC 5	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC 2	20	GCMS3W	TO-15	Reporting this level
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC 1	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC 1	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC (	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC (	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC (	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC 4	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC (	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT		RT Range	
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.13	89-1.259	
2,2,4-Trimethylpentane	9.59	9.02	1.063 ok	1.064	1.00	04-1.124	
Tertiary Butyl Alcohol	5.56	7.31	0.761 ok	0.765	0.70	05-0.825	
Tetrachloroethylene	12.63	13.32	0.948 ok	0.948	0.88	38-1.008	
Tetrahydrofuran	7.73	7.31	1.057 ok	1.062	1.00	02-1.122	
Toluene	11.47	9.02	1.272 ok	1.272	1.21	2-1.332	
Trichloroethylene	9.66	9.02	1.071 ok	1.071	1.01	1-1.131	
Trichlorofluoromethane	5.12	7.31	0.700 ok	0.701	0.64	11-0.761	
Vinyl chloride	4.29	7.31	0.587 ok	0.588	0.52	28-0.648	
Vinyl Acetate	6.58	7.31	0.900 ok	0.901	0.84	11-0.961	
m,p-Xylene	13.94	13.32	1.047 ok	1.046	0.98	36-1.106	
o-Xylene	14.45	13.32	1.085 ok	1.085	1.02	25-1.145	
TVHC As Equiv Pentane	5.32	7.31	0.728 ok	0.728	0.66	58-0.788	
TVHC As Equiv Heptane	9.86	9.02	1.093 ok	1.093	1.03	33-1.153	
	RT	Mean	RT Range			Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area		Area	(+ / <b>- 40 %</b> )
Bromochloromethane	7.31 ol	7.30	6.97-7.63	93381	ok	93035	55821-130249
1,4-Difluorobenzene	9.02 ol	9.02	8.69-9.35	408962	ok	396018	237611-554425
Chlorobenzene-D5	13.32 ol	13.32	12.99-13.6	205066	ok	181415	108849-253981



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Leve	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC 5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC 20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC 10	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC 1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC 0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC 0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC 0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC 40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC 0.5	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.02	7.31	0.687	ok 0.689	0.629-0.749
Acrylonitrile	5.35	7.31	0.732	ok 0.732	0.672-0.792
Acetonitrile	4.89	7.31	0.669	ok 0.670	0.610-0.730
1,3-Butadiene	4.37	7.31	0.598	ok 0.598	0.538-0.658
Benzene	8.69	9.02	0.963	ok 0.963	0.903-1.023
Bromodichloromethane	9.64	9.02	1.069	ok 1.069	1.009-1.129
Bromoform	14.04	13.32	1.054	ok 1.054	0.994-1.114
Bromomethane	4.55	7.31	0.622	ok 0.622	0.562-0.682
Bromoethene	4.87	7.31	0.666	ok 0.666	0.606-0.726
n-Butane	4.39	7.31	0.601	ok 0.601	0.541-0.661
Benzyl Chloride	16.67	13.32	1.252	ok 1.251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok 1.314	1.254-1.374
sec-Butylbenzene	16.80	13.32	1.261	ok 1.261	1.201-1.321
tert-Butylbenzene	16.46	13.32	1.236	ok 1.236	1.176-1.296
Carbon disulfide	5.86	7.31	0.802	ok 0.802	0.742-0.862
Chlorobenzene	13.37	13.32	1.004	ok 1.003	0.943-1.063
Chlorodifluoromethane	3.99	7.31	0.546	ok 0.546	0.486-0.606
Chloroethane	4.64	7.31	0.635	ok 0.635	0.575-0.695
Chloroform	7.40	7.31	1.012	ok 1.012	0.952-1.072
Chloromethane	4.16	7.31	0.569	ok 0.569	0.509-0.629
3-Chloropropene	5.71	7.31	0.781	ok 0.782	0.722-0.842
2-Chlorotoluene	15.68	13.32	1.177	ok 1.177	1.117-1.237
Carbon tetrachloride	8.83	7.31	1.208	ok 1.208	1.148-1.268
Cyclohexane	8.87	9.02	0.983	ok 0.985	0.925-1.045
1,1-Dichloroethane	6.47	7.31	0.885	ok 0.886	0.826-0.946
1,1-Dichloroethylene	5.55	7.31	0.759	ok 0.760	0.700-0.820
1,2-Dibromoethane	12.14	13.32	0.911	ok 0.911	0.851-0.971
1,2-Dichloroethane	8.04	7.31	1.100	ok 1.100	1.040-1.160
1,2-Dichloropropane	9.42	9.02	1.044	ok 1.044	0.984-1.104
1,4-Dioxane	9.71	9.02	1.076	ok 1.079	1.019-1.139
Dichlorodifluoromethane	4.05	7.31	0.554	ok 0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok 0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.30	7.31	0.862	ok 0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.31	0.982	ok 0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.02	1.166	ok 1.167	1.107-1.227
m-Dichlorobenzene	16.67	13.32	1.252	ok 1.251	1.191-1.311
o-Dichlorobenzene	17.18	13.32	1.290	ok 1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258	ok 1.257	1.197-1.317
trans-1,3-Dichloropropene	11.04	9.02	1.224	ok 1.225	1.165-1.285



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

**Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC :	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC 2	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC (	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC (	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC (	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC 4	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC (	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	7.24	7.31	0.990	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.06	9.02	1.004	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.99	7.31	1.093	ok	1.093	1.033-1.153
Ethanol	4.74	7.31	0.648	ok	0.649	0.589-0.709
Ethylbenzene	13.75	13.32	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.32	7.31	1.001	ok	0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32	1.192	ok	1.192	1.132-1.252
Freon 113	5.80	7.31	0.793	ok	0.794	0.734-0.854
Freon 114	4.21	7.31	0.576	ok	0.577	0.517-0.637
Freon 123	4.93	7.31	0.674	ok	0.675	0.615-0.735
Freon 123A	4.98	7.31	0.681	ok	0.681	0.621-0.741
Heptane	9.86	9.02	1.093	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.79	13.32	1.486	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.32	1.351	ok	1.350	1.290-1.410
Hexane	7.23	7.31	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.73	13.32	0.881	ok	0.881	0.821-0.941
Iodomethane	5.51	7.31	0.754	ok	0.754	0.694-0.814
Isopropylbenzene	15.10	13.32	1.134	ok	1.134	1.074-1.194
Isopropyl Alcohol	5.19	7.31	0.710	ok	0.711	0.651-0.771
p-Isopropyltoluene	16.99	13.32	1.276	ok	1.275	1.215-1.335
Methylene chloride	5.65	7.31	0.773	ok	0.773	0.713-0.833
Methyl ethyl ketone	6.77	7.31	0.926	ok	0.928	0.868-0.988
Methyl Isobutyl Ketone	10.51	9.02	1.165	ok	1.167	1.107-1.227
Methyl Tert Butyl Ether	6.48	7.31	0.886	ok	0.888	0.828-0.948
Methylmethacrylate	9.87	9.02	1.094	ok	1.095	1.035-1.155
Naphthalene	19.37	13.32	1.454	ok	1.454	1.394-1.514
Nonane	14.64	13.32	1.099	ok	1.099	1.039-1.159
Octane	12.42	13.32	0.932	ok	0.932	0.872-0.992
Pentane	5.32	7.31	0.728	ok	0.727	0.667-0.787
n-Propylbenzene	15.70	13.32	1.179	ok	1.179	1.119-1.239
Propylene	4.00	7.31	0.547	ok	0.548	0.488-0.608
Styrene	14.35	13.32	1.077	ok	1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.31	1.129	ok	1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.35	13.32	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086	ok	1.086	1.026-1.146
1,1,2-Trichloroethane	11.20	9.02	1.242	ok	1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.23	13.32	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	14.60	13.32	1.096	ok	1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.236		1.237	1.177-1.297



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#### Initial Calibration Retention Time/Internal Standard Area Summary

**Job Number:** JA81330 **Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By Le	evel	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC 5		GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC 20	)	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC 10	)	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC 1		GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC 0.2	2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC 0.0	04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC 0.1	1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC 40	)	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC 0.5	5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT		RT Range	
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.13	9-1.259	
2,2,4-Trimethylpentane	9.59	9.02	1.063 ok	1.064	1.00	4-1.124	
Tertiary Butyl Alcohol	5.58	7.31	0.763 ok	0.765	0.70	5-0.825	
Tetrachloroethylene	12.63	13.32	0.948 ok	0.948	0.88	88-1.008	
Tetrahydrofuran	7.74	7.31	1.059 ok	1.062	1.00	2-1.122	
Toluene	11.47	9.02	1.272 ok	1.272	1.21	2-1.332	
Trichloroethylene	9.66	9.02	1.071 ok	1.071	1.01	1-1.131	
Trichlorofluoromethane	5.12	7.31	0.700 ok	0.701	0.64	1-0.761	
Vinyl chloride	4.29	7.31	0.587 ok	0.588	0.52	8-0.648	
Vinyl Acetate	6.58	7.31	0.900 ok	0.901	0.84	1-0.961	
m,p-Xylene	13.93	13.32	1.046 ok	1.046	0.98	6-1.106	
o-Xylene	14.45	13.32	1.085 ok	1.085	1.02	25-1.145	
TVHC As Equiv Pentane	5.32	7.31	0.728 ok	0.728	0.66	8-0.788	
TVHC As Equiv Heptane	9.86	9.02	1.093 ok	1.093	1.03	3-1.153	
	RT	Mean	RT Range			Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area		Area	(+ / <b>- 40 %</b> )
Bromochloromethane	7.31 ok	7.30	6.97-7.63	97311	ok	93035	55821-130249
1,4-Difluorobenzene	9.02 ok	9.02	8.69-9.35	423918	ok	396018	237611-554425
Chlorobenzene-D5	13.32 ok	13.32	12.99-13.6	5 204181	ok	181415	108849-253981



#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
rarget compound	(111111)	(111111)				(17:00)
Acetone	5.02	7.30	0.688	ok	0.689	0.629-0.749
Acrylonitrile	5.34	7.30	0.732	ok	0.732	0.672-0.792
Acetonitrile	4.88	7.30	0.668	ok	0.670	0.610-0.730
1,3-Butadiene	4.36	7.30	0.597	ok	0.598	0.538-0.658
Benzene	8.68	9.01	0.963	ok	0.963	0.903-1.023
Bromodichloromethane	9.63	9.01	1.069	ok	1.069	1.009-1.129
Bromoform	14.04	13.32	1.054	ok	1.054	0.994-1.114
Bromomethane	4.54	7.30	0.622	ok	0.622	0.562-0.682
Bromoethene	4.86	7.30	0.666	ok	0.666	0.606-0.726
n-Butane	4.39	7.30	0.601	ok	0.601	0.541-0.661
Benzyl Chloride	16.66	13.32	1.251	ok	1.251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok	1.314	1.254-1.374
sec-Butylbenzene	16.80	13.32	1.261	ok	1.261	1.201-1.321
tert-Butylbenzene	16.45	13.32	1.235	ok	1.236	1.176-1.296
Carbon disulfide	5.85	7.30	0.801	ok	0.802	0.742-0.862
Chlorobenzene	13.36	13.32	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.98	7.30	0.545	ok	0.546	0.486-0.606
Chloroethane	4.63	7.30	0.634	ok	0.635	0.575-0.695
Chloroform	7.38	7.30	1.011	ok	1.012	0.952-1.072
Chloromethane	4.15	7.30	0.568	ok	0.569	0.509-0.629
3-Chloropropene	5.70	7.30	0.781	ok	0.782	0.722-0.842
2-Chlorotoluene	15.67	13.32	1.176	ok	1.177	1.117-1.237
Carbon tetrachloride	8.81	7.30	1.207	ok	1.208	1.148-1.268
Cyclohexane	8.86	9.01	0.983	ok	0.985	0.925-1.045
1,1-Dichloroethane	6.46	7.30	0.885	ok	0.886	0.826-0.946
1,1-Dichloroethylene	5.55	7.30	0.760	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.13	13.32	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.02	7.30	1.099	ok	1.100	1.040-1.160
1,2-Dichloropropane	9.40	9.01	1.043	ok	1.044	0.984-1.104
1,4-Dioxane	9.73	9.01	1.080	ok	1.079	1.019-1.139
Dichlorodifluoromethane	4.05	7.30	0.555	ok	0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok	0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.29	7.30	0.862	ok	0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.17	7.30	0.982	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.01	1.168	ok	1.167	1.107-1.227
m-Dichlorobenzene	16.67	13.32	1.252	ok	1.251	1.191-1.311
o-Dichlorobenzene	17.18	13.32	1.290		1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258		1.257	1.197-1.317
trans-1,3-Dichloropropene	11.03	9.01	1.224		1.225	1.165-1.285

# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

**Account:** RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Target Compound	(111111.)	(111111-)	K1		K1	(+ / <b>00</b> )
Di-Isopropyl ether	7.24	7.30	0.992	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.06	9.01	1.006	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.97	7.30	1.092	ok	1.093	1.033-1.153
Ethanol	4.73	7.30	0.648	ok	0.649	0.589-0.709
Ethylbenzene	13.74	13.32	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.32	7.30	1.003	ok	0.998	0.938-1.058
4-Ethyltoluene	15.87	13.32	1.191	ok	1.192	1.132-1.252
Freon 113	5.80	7.30	0.795	ok	0.794	0.734-0.854
Freon 114	4.21	7.30	0.577	ok	0.577	0.517-0.637
Freon 123	4.93	7.30	0.675	ok	0.675	0.615-0.735
Freon 123A	4.97	7.30	0.681	ok	0.681	0.621-0.741
Heptane	9.85	9.01	1.093	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.79	13.32	1.486	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.32	1.351	ok	1.350	1.290-1.410
Hexane	7.22	7.30	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.75	13.32	0.882		0.881	0.821-0.941
Iodomethane	5.50	7.30	0.753		0.754	0.694-0.814
Isopropylbenzene	15.10	13.32	1.134		1.134	1.074-1.194
Isopropyl Alcohol	5.19	7.30	0.711	ok	0.711	0.651-0.771
p-Isopropyltoluene	16.98	13.32	1.275		1.275	1.215-1.335
Methylene chloride	5.64	7.30	0.773		0.773	0.713-0.833
Methyl ethyl ketone	6.78	7.30	0.929		0.928	0.868-0.988
Methyl Isobutyl Ketone	10.52	9.01	1.168		1.167	1.107-1.227
Methyl Tert Butyl Ether	6.48	7.30	0.888		0.888	0.828-0.948
Methylmethacrylate	9.87	9.01	1.095		1.095	1.035-1.155
Naphthalene	19.37	13.32	1.454		1.454	1.394-1.514
Nonane	14.64	13.32	1.099		1.099	1.039-1.159
Octane	12.42	13.32	0.932		0.932	0.872-0.992
Pentane	5.31	7.30	0.727		0.727	0.667-0.787
n-Propylbenzene	15.69	13.32	1.178		1.179	1.119-1.239
Propylene	4.00	7.30	0.548		0.548	0.488-0.608
Styrene	14.34	13.32	1.077		1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.30	1.130		1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.34	13.32	1.002		1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086		1.086	1.026-1.146
1,1,2-Trichloroethane	11.20	9.01	1.243		1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.24	13.32	1.444		1.444	1.384-1.504
1,2,3-Trichloropropane	14.60	13.32	1.096		1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.036		1.030	1.177-1.297
1,2,4-1 rimetnyibenzene	10.4/	13.32	1.236	OK	1.23/	1.177-1.297

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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	-
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT R (+ /06)	O
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.139-1.2	59
2,2,4-Trimethylpentane	9.59	9.01	1.064 ok	1.064	1.004-1.1	24
Tertiary Butyl Alcohol	5.58	7.30	0.764 ok	0.765	0.705-0.8	25
Tetrachloroethylene	12.63	13.32	0.948 ok	0.948	0.888-1.0	08
Tetrahydrofuran	7.76	7.30	1.063 ok	1.062	1.002-1.1	22
Toluene	11.47	9.01	1.273 ok	1.272	1.212-1.3	32
Trichloroethylene	9.65	9.01	1.071 ok	1.071	1.011-1.1	31
Trichlorofluoromethane	5.12	7.30	0.701 ok	0.701	0.641-0.7	61
Vinyl chloride	4.29	7.30	0.588 ok	0.588	0.528-0.6	48
Vinyl Acetate	6.58	7.30	0.901 ok	0.901	0.841-0.9	61
m,p-Xylene	13.93	13.32	1.046 ok	1.046	0.986-1.1	06
o-Xylene	14.45	13.32	1.085 ok	1.085	1.025-1.1	45
TVHC As Equiv Pentane	5.31	7.30	0.727 ok	0.728	0.668-0.7	88
TVHC As Equiv Heptane	9.85	9.01	1.093 ok	1.093	1.033-1.1	53
	RT	Mean	RT Range		Mea	n Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	a (+ /- 40 %)
Bromochloromethane	7.30 ok	7.30	6.97-7.63	92995	ok 9303	55821-130249
1,4-Difluorobenzene	9.01 ok	9.02	8.69-9.35	381632	ok 3960	237611-554425
Chlorobenzene-D5	13.32 ok	13.32	12.99-13.6	5 163050	ok 1814	108849-253981



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mo RT	ean Rel	Rel RT Range (+ /06)
Acetone	5.04	7.29	0.691	ok 0.6	589	0.629-0.749
Acrylonitrile	5.34	7.29	0.733	ok 0.7	732	0.672-0.792
Acetonitrile	4.89	7.29	0.671	ok 0.6	570	0.610-0.730
1,3-Butadiene	4.37	7.29	0.599	ok 0.5	598	0.538-0.658
Benzene	8.67	9.01	0.962	ok 0.9	963	0.903-1.023
Bromodichloromethane	9.63	9.01	1.069	ok 1.0	)69	1.009-1.129
Bromoform	14.03	13.32	1.053	ok 1.0	)54	0.994-1.114
Bromomethane	4.54	7.29	0.623	ok 0.6	522	0.562-0.682
Bromoethene	4.86	7.29	0.667	ok 0.6	566	0.606-0.726
n-Butane	4.39	7.29	0.602	ok 0.6	501	0.541-0.661
Benzyl Chloride	16.66	13.32	1.251	ok 1.2	251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok 1.3	314	1.254-1.374
sec-Butylbenzene	16.79	13.32	1.261	ok 1.2	261	1.201-1.321
tert-Butylbenzene	16.46	13.32	1.236	ok 1.2	236	1.176-1.296
Carbon disulfide	5.85	7.29	0.802	ok 0.8	302	0.742-0.862
Chlorobenzene	13.37	13.32	1.004	ok 1.0	003	0.943-1.063
Chlorodifluoromethane	3.99	7.29	0.547	ok 0.5	546	0.486-0.606
Chloroethane	4.64	7.29	0.636	ok 0.6	535	0.575-0.695
Chloroform	7.38	7.29	1.012	ok 1.0	)12	0.952-1.072
Chloromethane	4.16	7.29	0.571	ok 0.5	569	0.509-0.629
3-Chloropropene	5.71	7.29	0.783	ok 0.7	782	0.722-0.842
2-Chlorotoluene	15.68	13.32	1.177	ok 1.1	177	1.117-1.237
Carbon tetrachloride	8.82	7.29	1.210	ok 1.2	208	1.148-1.268
Cyclohexane	8.87	9.01	0.984	ok 0.9	985	0.925-1.045
1,1-Dichloroethane	6.46	7.29	0.886	ok 0.8	386	0.826-0.946
1,1-Dichloroethylene	5.55	7.29	0.761	ok 0.7	760	0.700-0.820
1,2-Dibromoethane	12.13	13.32	0.911	ok 0.9	911	0.851-0.971
1,2-Dichloroethane	8.02	7.29	1.100	ok 1.1	100	1.040-1.160
1,2-Dichloropropane	9.40	9.01	1.043	ok 1.0	)44	0.984-1.104
1,4-Dioxane	9.75	9.01	1.082	ok 1.0	)79	1.019-1.139
Dichlorodifluoromethane	4.05	7.29	0.556	ok 0.5	555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok 0.8	395	0.835-0.955
trans-1,2-Dichloroethylene	6.29	7.29	0.863	ok 0.8	362	0.802-0.922
cis-1,2-Dichloroethylene	7.17	7.29	0.984	ok 0.9	983	0.923-1.043
cis-1,3-Dichloropropene	10.51	9.01	1.166	ok 1.1	167	1.107-1.227
m-Dichlorobenzene	16.66	13.32	1.251	ok 1.2	251	1.191-1.311
o-Dichlorobenzene	17.18	13.32	1.290	ok 1.2	290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258	ok 1.2	257	1.197-1.317
trans-1,3-Dichloropropene	11.04	9.01	1.225	ok 1.2	225	1.165-1.285

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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	7.25	7.29	0.995	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.05	9.01	1.004	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.97	7.29	1.093	ok	1.093	1.033-1.153
Ethanol	4.74	7.29	0.650		0.649	0.589-0.709
Ethylbenzene	13.74	13.32	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.34	7.29	1.007	ok	0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32	1.192	ok	1.192	1.132-1.252
Freon 113	5.80	7.29	0.796	ok	0.794	0.734-0.854
Freon 114	4.21	7.29	0.578	ok	0.577	0.517-0.637
Freon 123	4.93	7.29	0.676	ok	0.675	0.615-0.735
Freon 123A	4.97	7.29	0.682	ok	0.681	0.621-0.741
Heptane	9.85	9.01	1.093	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.78	13.32	1.485	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.32	1.351	ok	1.350	1.290-1.410
Hexane	7.22	7.29	0.990	ok	0.990	0.930-1.050
2-Hexanone	11.76	13.32	0.883	ok	0.881	0.821-0.941
Iodomethane	5.50	7.29	0.754	ok	0.754	0.694-0.814
Isopropylbenzene	15.10	13.32	1.134	ok	1.134	1.074-1.194
Isopropyl Alcohol	5.19	7.29	0.712	ok	0.711	0.651-0.771
p-Isopropyltoluene	16.98	13.32	1.275	ok	1.275	1.215-1.335
Methylene chloride	5.63	7.29	0.772	ok	0.773	0.713-0.833
Methyl ethyl ketone	6.79	7.29	0.931	ok	0.928	0.868-0.988
Methyl Isobutyl Ketone	10.54	9.01	1.170	ok	1.167	1.107-1.227
Methyl Tert Butyl Ether	6.49	7.29	0.890	ok	0.888	0.828-0.948
Methylmethacrylate	9.88	9.01	1.097	ok	1.095	1.035-1.155
Naphthalene	19.38	13.32	1.455	ok	1.454	1.394-1.514
Nonane	14.64	13.32	1.099	ok	1.099	1.039-1.159
Octane	12.42	13.32	0.932	ok	0.932	0.872-0.992
Pentane	5.31	7.29	0.728	ok	0.727	0.667-0.787
n-Propylbenzene	15.69	13.32	1.178	ok	1.179	1.119-1.239
Propylene	4.00	7.29	0.549	ok	0.548	0.488-0.608
Styrene	14.34	13.32	1.077	ok	1.077	1.017-1.137
1,1,1-Trichloroethane	8.24	7.29	1.130	ok	1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.35	13.32	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086	ok	1.086	1.026-1.146
1,1,2-Trichloroethane	11.19	9.01	1.242	ok	1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.23	13.32	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	14.60	13.32	1.096	ok	1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.236	ok	1.237	1.177-1.297



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT		RT Range	
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.139	9-1.259	
2,2,4-Trimethylpentane	9.59	9.01	1.064 ok	1.064	1.004	4-1.124	
Tertiary Butyl Alcohol	5.59	7.29	0.767 ok	0.765	0.703	5-0.825	
Tetrachloroethylene	12.62	13.32	0.947 ok	0.948	0.888	8-1.008	
Tetrahydrofuran	7.79	7.29	1.069 ok	1.062	1.002	2-1.122	
Toluene	11.47	9.01	1.273 ok	1.272	1.212	2-1.332	
Trichloroethylene	9.66	9.01	1.072 ok	1.071	1.01	1-1.131	
Trichlorofluoromethane	5.12	7.29	0.702 ok	0.701	0.64	1-0.761	
Vinyl chloride	4.29	7.29	0.588 ok	0.588	0.528	8-0.648	
Vinyl Acetate	6.58	7.29	0.903 ok	0.901	0.84	1-0.961	
m,p-Xylene	13.92	13.32	1.045 ok	1.046	0.986	6-1.106	
o-Xylene	14.45	13.32	1.085 ok	1.085	1.025	5-1.145	
TVHC As Equiv Pentane	5.30	7.29	0.727 ok	0.728	0.668	8-0.788	
TVHC As Equiv Heptane	9.85	9.01	1.093 ok	1.093	1.033	3-1.153	
	RT	Mean	RT Range			Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area		Area	(+ /- 40 %)
Bromochloromethane	7.29 ok	7.30	6.97-7.63	89260	ok	93035	55821-130249
1,4-Difluorobenzene	9.01 ok	9.02	8.69-9.35	371068	ok	396018	237611-554425
Chlorobenzene-D5	13.32 ok	13.32	12.99-13.6	5 155295	ok	181415	108849-253981



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Initial Calibration Retention Time/Internal Standard Area Summary
Job Number: JA81330
Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

T	RT	Istd RT	Rel			Rel RT Range
<b>Target Compound</b>	(min.)	(min.)	RT		RT	(+ / <b>06</b> )
Acetone	5.04	7.29	0.691	ok	0.689	0.629-0.749
Acetonitrile	4.90	7.29	0.672	ok	0.670	0.610-0.730
1,3-Butadiene	4.37	7.29	0.599	ok	0.598	0.538-0.658
Benzene	8.68	9.01	0.963	ok	0.963	0.903-1.023
Bromodichloromethane	9.63	9.01	1.069	ok	1.069	1.009-1.129
Bromoform	14.04	13.32	1.054	ok	1.054	0.994-1.114
Bromomethane	4.54	7.29	0.623	ok	0.622	0.562-0.682
Bromoethene	4.86	7.29	0.667	ok	0.666	0.606-0.726
n-Butane	4.39	7.29	0.602	ok	0.601	0.541-0.661
Benzyl Chloride	16.67	13.32	1.252	ok	1.251	1.191-1.311
Carbon disulfide	5.85	7.29	0.802	ok	0.802	0.742-0.862
Chlorobenzene	13.36	13.32	1.003	ok	1.003	0.943-1.063
Chloroethane	4.64	7.29	0.636	ok	0.635	0.575-0.695
Chloroform	7.38	7.29	1.012	ok	1.012	0.952-1.072
Chloromethane	4.16	7.29	0.571	ok	0.569	0.509-0.629
Carbon tetrachloride	8.81	7.29	1.209	ok	1.208	1.148-1.268
Cyclohexane	9.01	9.01	1.000	ok	0.985	0.925-1.045
1,1-Dichloroethane	6.47	7.29	0.888	ok	0.886	0.826-0.946
1,1-Dichloroethylene	5.56	7.29	0.763	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.14	13.32	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.04	7.29	1.103	ok	1.100	1.040-1.160
1,2-Dichloropropane	9.41	9.01	1.044	ok	1.044	0.984-1.104
Dichlorodifluoromethane	4.06	7.29	0.557	ok	0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok	0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.30	7.29	0.864	ok	0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.29	0.985	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.01	1.168	ok	1.167	1.107-1.227
m-Dichlorobenzene	16.67	13.32	1.252	ok	1.251	1.191-1.311
o-Dichlorobenzene	17.19	13.32	1.291	ok	1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258	ok	1.257	1.197-1.317
trans-1,3-Dichloropropene	11.03	9.01	1.224	ok	1.225	1.165-1.285
Di-Isopropyl ether	7.26	7.29	0.996	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.01	9.01	1.000	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.97	7.29	1.093	ok	1.093	1.033-1.153
Ethanol	4.74	7.29	0.650	ok	0.649	0.589-0.709
Ethylbenzene	13.74	13.32	1.032		1.032	0.972-1.092
Ethyl Acetate	7.17	7.29	0.984		0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32	1.192		1.192	1.132-1.252
Freon 113	5.79	7.29	0.794		0.794	0.734-0.854

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Freon 114	4.21	7.29	0.578 ok	0.577	0.517-0.637	
Freon 123	4.93	7.29	0.676 ok	0.675	0.615-0.735	
Freon 123A	4.96	7.29	0.680 ok	0.681	0.621-0.741	
Heptane	9.85	9.01	1.093 ok	1.093	1.033-1.153	
Hexane	7.23	7.29	0.992 ok	0.990	0.930-1.050	
Iodomethane	5.50	7.29	0.754 ok	0.754	0.694-0.814	
Isopropylbenzene	15.10	13.32	1.134 ok	1.134	1.074-1.194	
Isopropyl Alcohol	5.21	7.29	0.715 ok	0.711	0.651-0.771	
Methylene chloride	5.64	7.29	0.774 ok	0.773	0.713-0.833	
Methyl Tert Butyl Ether	6.51	7.29	0.893 ok	0.888	0.828-0.948	
Nonane	14.64	13.32	1.099 ok	1.099	1.039-1.159	
Octane	12.41	13.32	0.932 ok	0.932	0.872-0.992	
Pentane	5.31	7.29	0.728 ok	0.727	0.667-0.787	
Propylene	4.01	7.29	0.550 ok	0.548	0.488-0.608	
Styrene	14.34	13.32	1.077 ok	1.077	1.017-1.137	
1,1,1-Trichloroethane	8.25	7.29	1.132 ok	1.130	1.070-1.190	
1,1,1,2-Tetrachloroethane	13.34	13.32	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	14.48	13.32	1.087 ok	1.086	1.026-1.146	
1,2,3-Trichloropropane	14.61	13.32	1.097 ok	1.096	1.036-1.156	
1,2,4-Trimethylbenzene	16.48	13.32	1.237 ok	1.237	1.177-1.297	
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.139-1.259	
2,2,4-Trimethylpentane	9.59	9.01	1.064 ok	1.064	1.004-1.124	
Tertiary Butyl Alcohol	5.60	7.29	0.768 ok	0.765	0.705-0.825	
Tetrachloroethylene	12.63	13.32	0.948 ok	0.948	0.888-1.008	
Toluene	11.47	9.01	1.273 ok	1.272	1.212-1.332	
Trichloroethylene	9.66	9.01	1.072 ok	1.071	1.011-1.131	
Trichlorofluoromethane	5.11	7.29	0.701 ok	0.701	0.641-0.761	
Vinyl chloride	4.29	7.29	0.588 ok	0.588	0.528-0.648	
m,p-Xylene	13.93	13.32	1.046 ok	1.046	0.986-1.106	
o-Xylene	14.45	13.32	1.085 ok	1.085	1.025-1.145	
Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	7.29 ok	7.30	6.97-7.63	92731	ok 93035	55821-130249
1,4-Difluorobenzene		9.02	8.69-9.35	397164	ok 396018	237611-554425
Chlorobenzene-D5		13.32	12.99-13.6		ok 181415	108849-253981



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Turget Compound	()	()				(., 100)
Acetone	5.04	7.30	0.690		0.689	0.629-0.749
Acrylonitrile	5.35	7.30	0.733		0.732	0.672-0.792
Acetonitrile	4.89	7.30	0.670	ok	0.670	0.610-0.730
1,3-Butadiene	4.37	7.30	0.599	ok	0.598	0.538-0.658
Benzene	8.67	9.01	0.962	ok	0.963	0.903-1.023
Bromodichloromethane	9.62	9.01	1.068	ok	1.069	1.009-1.129
Bromoform	14.04	13.32	1.054	ok	1.054	0.994-1.114
Bromomethane	4.55	7.30	0.623	ok	0.622	0.562-0.682
Bromoethene	4.86	7.30	0.666	ok	0.666	0.606-0.726
n-Butane	4.39	7.30	0.601	ok	0.601	0.541-0.661
Benzyl Chloride	16.66	13.32	1.251	ok	1.251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok	1.314	1.254-1.374
sec-Butylbenzene	16.79	13.32	1.261	ok	1.261	1.201-1.321
tert-Butylbenzene	16.46	13.32	1.236	ok	1.236	1.176-1.296
Carbon disulfide	5.85	7.30	0.801	ok	0.802	0.742-0.862
Chlorobenzene	13.36	13.32	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.98	7.30	0.545	ok	0.546	0.486-0.606
Chloroethane	4.63	7.30	0.634	ok	0.635	0.575-0.695
Chloroform	7.39	7.30	1.012	ok	1.012	0.952-1.072
Chloromethane	4.16	7.30	0.570		0.569	0.509-0.629
3-Chloropropene	5.71	7.30	0.782	ok	0.782	0.722-0.842
2-Chlorotoluene	15.67	13.32	1.176	ok	1.177	1.117-1.237
Carbon tetrachloride	8.81	7.30	1.207	ok	1.208	1.148-1.268
1,1-Dichloroethane	6.46	7.30	0.885	ok	0.886	0.826-0.946
1,1-Dichloroethylene	5.54	7.30	0.759	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.13	13.32	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.03	7.30	1.100	ok	1.100	1.040-1.160
1,2-Dichloropropane	9.40	9.01	1.043	ok	1.044	0.984-1.104
1,4-Dioxane	9.76	9.01	1.083		1.079	1.019-1.139
Dichlorodifluoromethane	4.05	7.30	0.555		0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok	0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.29	7.30	0.862		0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.30	0.984		0.983	0.923-1.043
cis-1,3-Dichloropropene	10.51	9.01	1.166		1.167	1.107-1.227
m-Dichlorobenzene	16.66	13.32	1.251		1.251	1.191-1.311
o-Dichlorobenzene	17.19	13.32	1.291		1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258		1.257	1.197-1.317
trans-1,3-Dichloropropene	11.04	9.01	1.225		1.225	1.165-1.285
Di-Isopropyl ether	7.26	7.30	0.995		0.993	0.933-1.053



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
2,4-Dimethylpentane	7.98	7.30	1.093 o	k 1.093	1.033-1.153
Ethanol	4.74	7.30		k 0.649	0.589-0.709
Ethylbenzene	13.74	13.32		k 1.032	0.972-1.092
Ethyl Acetate	7.17	7.30		k 0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32		k 1.192	1.132-1.252
Freon 113	5.79	7.30		k 0.794	0.734-0.854
Freon 114	4.21	7.30		k 0.577	0.517-0.637
Freon 123	4.93	7.30		k 0.675	0.615-0.735
Freon 123A	4.97	7.30		k 0.681	0.621-0.741
Heptane	9.85	9.01		k 1.093	1.033-1.153
Hexachlorobutadiene	19.78	13.32		k 1.485	1.425-1.545
Hexachloroethane	17.99	13.32		k 1.350	1.290-1.410
Hexane	7.23	7.30		k 0.990	0.930-1.050
2-Hexanone	11.76	13.32		k 0.881	0.821-0.941
Iodomethane	5.50	7.30		k 0.754	0.694-0.814
Isopropylbenzene	15.10	13.32		k 1.134	1.074-1.194
Isopropyl Alcohol	5.20	7.30	0.712 o	k 0.711	0.651-0.771
p-Isopropyltoluene	16.98	13.32	1.275 o	k 1.275	1.215-1.335
Methylene chloride	5.64	7.30	0.773 o	k 0.773	0.713-0.833
Methyl Isobutyl Ketone	10.54	9.01		k 1.167	1.107-1.227
Methyl Tert Butyl Ether	6.50	7.30	0.890 o	k 0.888	0.828-0.948
Methylmethacrylate	9.88	9.01	1.097 o	k 1.095	1.035-1.155
Nonane	14.64	13.32	1.099 o	k 1.099	1.039-1.159
Octane	12.41	13.32	0.932 o	k 0.932	0.872-0.992
Pentane	5.30	7.30	0.726 o	k 0.727	0.667-0.787
n-Propylbenzene	15.70	13.32	1.179 o	k 1.179	1.119-1.239
Propylene	4.01	7.30	0.549 o	k 0.548	0.488-0.608
Styrene	14.34	13.32	1.077 o	k 1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.30	1.130 o	k 1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.34	13.32	1.002 o	k 1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086 o	k 1.086	1.026-1.146
1,1,2-Trichloroethane	11.19	9.01	1.242 o	k 1.242	1.182-1.302
1,2,3-Trichloropropane	14.59	13.32	1.095 o	k 1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.236 o	k 1.237	1.177-1.297
1,3,5-Trimethylbenzene	15.97	13.32	1.199 o	k 1.199	1.139-1.259
2,2,4-Trimethylpentane	9.59	9.01	1.064 o	k 1.064	1.004-1.124
Tertiary Butyl Alcohol	5.61	7.30	0.768 o	k 0.765	0.705-0.825
Tetrachloroethylene	12.62	13.32	0.947 o	k 0.948	0.888-1.008
Tetrahydrofuran	7.79	7.30	1.067 o	k 1.062	1.002-1.122

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)		Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)	
	( ',		. ,				•	
Toluene	11.47		9.01	1.273	ok	1.272	1.212-1.332	
Trichloroethylene	9.65		9.01	1.071	ok	1.071	1.011-1.131	
Trichlorofluoromethane	5.12		7.30	0.701	ok	0.701	0.641-0.761	
Vinyl chloride	4.29		7.30	0.588	ok	0.588	0.528-0.648	
m,p-Xylene	13.94		13.32	1.047	ok	1.046	0.986-1.106	
o-Xylene	14.45		13.32	1.085	ok	1.085	1.025-1.145	
	RT		Mean	RT Ra	nge		Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ / <b>- 0.</b>	33)	Area	Area	(+ /- 40 %)
Bromochloromethane	7.30	ok	7.30	6.97-7.	63	92117	ok 93035	55821-130249
1,4-Difluorobenzene	9.01	ok	9.02	8.69-9.	35	378846	ok 396018	237611-554425
Chlorobenzene-D5	13.32	ok	13.32	12.99-1	13.65	158581	ok 181415	108849-253981



# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Ву	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.01	7.31	0.685	ok	0.689	0.629-0.749
Acrylonitrile	5.34	7.31	0.731	ok	0.732	0.672-0.792
Acetonitrile	4.88	7.31	0.668	ok	0.670	0.610-0.730
1,3-Butadiene	4.37	7.31	0.598	ok	0.598	0.538-0.658
Benzene	8.69	9.03	0.962	ok	0.963	0.903-1.023
Bromodichloromethane	9.64	9.03	1.068	ok	1.069	1.009-1.129
Bromoform	14.05	13.33	1.054	ok	1.054	0.994-1.114
Bromomethane	4.54	7.31	0.621	ok	0.622	0.562-0.682
Bromoethene	4.86	7.31	0.665	ok	0.666	0.606-0.726
n-Butane	4.39	7.31	0.601	ok	0.601	0.541-0.661
Benzyl Chloride	16.67	13.33	1.251	ok	1.251	1.191-1.311
n-Butylbenzene	17.51	13.33	1.314	ok	1.314	1.254-1.374
sec-Butylbenzene	16.80	13.33	1.260	ok	1.261	1.201-1.321
tert-Butylbenzene	16.47	13.33	1.236	ok	1.236	1.176-1.296
Carbon disulfide	5.86	7.31	0.802	ok	0.802	0.742-0.862
Chlorobenzene	13.37	13.33	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	3.99	7.31	0.546	ok	0.546	0.486-0.606
Chloroethane	4.64	7.31	0.635	ok	0.635	0.575-0.695
Chloroform	7.40	7.31	1.012	ok	1.012	0.952-1.072
Chloromethane	4.16	7.31	0.569	ok	0.569	0.509-0.629
3-Chloropropene	5.71	7.31	0.781	ok	0.782	0.722-0.842
2-Chlorotoluene	15.68	13.33	1.176	ok	1.177	1.117-1.237
Carbon tetrachloride	8.82	7.31	1.207	ok	1.208	1.148-1.268
Cyclohexane	8.87	9.03	0.982	ok	0.985	0.925-1.045
1,1-Dichloroethane	6.47	7.31	0.885	ok	0.886	0.826-0.946
1,1-Dichloroethylene	5.55	7.31	0.759	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.14	13.33	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.04	7.31	1.100	ok	1.100	1.040-1.160
1,2-Dichloropropane	9.41	9.03	1.042	ok	1.044	0.984-1.104
1,4-Dioxane	9.70	9.03	1.074	ok	1.079	1.019-1.139
Dichlorodifluoromethane	4.05	7.31	0.554	ok	0.555	0.495-0.615
Dibromochloromethane	11.93	13.33	0.895	ok	0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.30	7.31	0.862	ok	0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.31	0.982	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.03	1.165	ok	1.167	1.107-1.227
m-Dichlorobenzene	16.67	13.33	1.251	ok	1.251	1.191-1.311
o-Dichlorobenzene	17.19	13.33	1.290	ok	1.290	1.230-1.350
p-Dichlorobenzene	16.76	13.33	1.257	ok	1.257	1.197-1.317
trans-1,3-Dichloropropene	11.05	9.03	1.224	ok	1.225	1.165-1.285

# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	-

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	7.24	7.31	0.990	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.06	9.03	1.003	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.99	7.31	1.093	ok	1.093	1.033-1.153
Ethanol	4.73	7.31	0.647	ok	0.649	0.589-0.709
Ethylbenzene	13.75	13.33	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.31	7.31	1.000	ok	0.998	0.938-1.058
4-Ethyltoluene	15.88	13.33	1.191	ok	1.192	1.132-1.252
Freon 113	5.80	7.31	0.793	ok	0.794	0.734-0.854
Freon 114	4.21	7.31	0.576	ok	0.577	0.517-0.637
Freon 123	4.93	7.31	0.674	ok	0.675	0.615-0.735
Freon 123A	4.97	7.31	0.680	ok	0.681	0.621-0.741
Heptane	9.86	9.03	1.092	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.79	13.33	1.485	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.33	1.350	ok	1.350	1.290-1.410
Hexane	7.23	7.31	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.72	13.33	0.879	ok	0.881	0.821-0.941
Iodomethane	5.51	7.31	0.754	ok	0.754	0.694-0.814
Isopropylbenzene	15.11	13.33	1.134	ok	1.134	1.074-1.194
Isopropyl Alcohol	5.18	7.31	0.709	ok	0.711	0.651-0.771
p-Isopropyltoluene	16.99	13.33	1.275	ok	1.275	1.215-1.335
Methylene chloride	5.65	7.31	0.773	ok	0.773	0.713-0.833
Methyl ethyl ketone	6.76	7.31	0.925	ok	0.928	0.868-0.988
Methyl Isobutyl Ketone	10.50	9.03	1.163	ok	1.167	1.107-1.227
Methyl Tert Butyl Ether	6.47	7.31	0.885	ok	0.888	0.828-0.948
Methylmethacrylate	9.87	9.03	1.093	ok	1.095	1.035-1.155
Naphthalene	19.37	13.33	1.453	ok	1.454	1.394-1.514
Nonane	14.65	13.33	1.099	ok	1.099	1.039-1.159
Octane	12.42	13.33	0.932	ok	0.932	0.872-0.992
Pentane	5.32	7.31	0.728	ok	0.727	0.667-0.787
n-Propylbenzene	15.71	13.33	1.179	ok	1.179	1.119-1.239
Propylene	4.00	7.31	0.547	ok	0.548	0.488-0.608
Styrene	14.36	13.33	1.077	ok	1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.31	1.129	ok	1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.35	13.33	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.48	13.33	1.086	ok	1.086	1.026-1.146
1,1,2-Trichloroethane	11.21	9.03	1.241	ok	1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.23	13.33	1.443	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	14.61	13.33	1.096	ok	1.096	1.036-1.156
1,2,4-Trimethylbenzene	16.48	13.33	1.236	ok	1.237	1.177-1.297



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Lev	el Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC 5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC 20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC 10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC 1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC 0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC 0.0	4 GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC 0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC 40	GCMS3W	TO-15	Reporting this level
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC 0.5	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,3,5-Trimethylbenzene	15.98	13.33	1.199 ok	1.199	1.139-1.259	
2,2,4-Trimethylpentane	9.59	9.03	1.062 ok	1.064	1.004-1.124	
Tertiary Butyl Alcohol	5.57	7.31	0.762 ok	0.765	0.705-0.825	
Tetrachloroethylene	12.63	13.33	0.947 ok	0.948	0.888-1.008	
Tetrahydrofuran	7.73	7.31	1.057 ok	1.062	1.002-1.122	
Toluene	11.47	9.03	1.270 ok	1.272	1.212-1.332	
Trichloroethylene	9.67	9.03	1.071 ok	1.071	1.011-1.131	
Trichlorofluoromethane	5.12	7.31	0.700 ok	0.701	0.641-0.761	
Vinyl chloride	4.29	7.31	0.587 ok	0.588	0.528-0.648	
Vinyl Acetate	6.58	7.31	0.900 ok	0.901	0.841-0.961	
m,p-Xylene	13.94	13.33	1.046 ok	1.046	0.986-1.106	
o-Xylene	14.45	13.33	1.084 ok	1.085	1.025-1.145	
TVHC As Equiv Pentane	5.32	7.31	0.728 ok	0.728	0.668-0.788	
TVHC As Equiv Heptane	9.86	9.03	1.092 ok	1.093	1.033-1.153	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ /- 40 %)
Bromochloromethane	7.31 o	k 7.30	6.97-7.63	97922	ok 93035	55821-130249
1,4-Difluorobenzene	9.03 o	k 9.02	8.69-9.35	423926	ok 396018	237611-554425
Chlorobenzene-D5	13.33 o	k 13.32	12.99-13.6	233680	ok 181415	108849-253981



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	Reporting this level

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	5.06	7.31	0.692	ok	0.689	0.629-0.749
Acrylonitrile	5.36	7.31	0.733	ok	0.732	0.672-0.792
Acetonitrile	4.92	7.31	0.673	ok	0.670	0.610-0.730
1,3-Butadiene	4.37	7.31	0.598	ok	0.598	0.538-0.658
Benzene	8.69	9.02	0.963	ok	0.963	0.903-1.023
Bromodichloromethane	9.64	9.02	1.069	ok	1.069	1.009-1.129
Bromoform	14.05	13.32	1.055	ok	1.054	0.994-1.114
Bromomethane	4.56	7.31	0.624	ok	0.622	0.562-0.682
Bromoethene	4.87	7.31	0.666	ok	0.666	0.606-0.726
n-Butane	4.40	7.31	0.602	ok	0.601	0.541-0.661
Benzyl Chloride	16.67	13.32	1.252	ok	1.251	1.191-1.311
n-Butylbenzene	17.50	13.32	1.314	ok	1.314	1.254-1.374
sec-Butylbenzene	16.80	13.32	1.261	ok	1.261	1.201-1.321
tert-Butylbenzene	16.46	13.32	1.236	ok	1.236	1.176-1.296
Carbon disulfide	5.86	7.31	0.802	ok	0.802	0.742-0.862
Chlorobenzene	13.36	13.32	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.00	7.31	0.547	ok	0.546	0.486-0.606
Chloroethane	4.65	7.31	0.636	ok	0.635	0.575-0.695
Chloroform	7.40	7.31	1.012	ok	1.012	0.952-1.072
Chloromethane	4.17	7.31	0.570	ok	0.569	0.509-0.629
3-Chloropropene	5.71	7.31	0.781	ok	0.782	0.722-0.842
2-Chlorotoluene	15.68	13.32	1.177	ok	1.177	1.117-1.237
Carbon tetrachloride	8.83	7.31	1.208	ok	1.208	1.148-1.268
Cyclohexane	8.88	9.02	0.984	ok	0.985	0.925-1.045
1,1-Dichloroethane	6.47	7.31	0.885	ok	0.886	0.826-0.946
1,1-Dichloroethylene	5.55	7.31	0.759	ok	0.760	0.700-0.820
1,2-Dibromoethane	12.14	13.32	0.911	ok	0.911	0.851-0.971
1,2-Dichloroethane	8.04	7.31	1.100	ok	1.100	1.040-1.160
1,2-Dichloropropane	9.42	9.02	1.044	ok	1.044	0.984-1.104
1,4-Dioxane	9.79	9.02	1.085	ok	1.079	1.019-1.139
Dichlorodifluoromethane	4.06	7.31	0.555	ok	0.555	0.495-0.615
Dibromochloromethane	11.92	13.32	0.895	ok	0.895	0.835-0.955
trans-1,2-Dichloroethylene	6.30	7.31	0.862	ok	0.862	0.802-0.922
cis-1,2-Dichloroethylene	7.18	7.31	0.982	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	10.52	9.02	1.166	ok	1.167	1.107-1.227
m-Dichlorobenzene	16.67	13.32	1.252	ok	1.251	1.191-1.311
o-Dichlorobenzene	17.18	13.32	1.290	ok	1.290	1.230-1.350
p-Dichlorobenzene	16.75	13.32	1.258	ok	1.257	1.197-1.317
trans-1,3-Dichloropropene	11.05	9.02	1.225	ok	1.225	1.165-1.285



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	Reporting this level

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	7.26	7.31	0.993	ok	0.993	0.933-1.053
2,3-Dimethylpentane	9.06	9.02	1.004	ok	1.004	0.944-1.064
2,4-Dimethylpentane	7.99	7.31	1.093	ok	1.093	1.033-1.153
Ethanol	4.77	7.31	0.653	ok	0.649	0.589-0.709
Ethylbenzene	13.74	13.32	1.032	ok	1.032	0.972-1.092
Ethyl Acetate	7.35	7.31	1.005	ok	0.998	0.938-1.058
4-Ethyltoluene	15.88	13.32	1.192	ok	1.192	1.132-1.252
Freon 113	5.80	7.31	0.793	ok	0.794	0.734-0.854
Freon 114	4.22	7.31	0.577	ok	0.577	0.517-0.637
Freon 123	4.95	7.31	0.677	ok	0.675	0.615-0.735
Freon 123A	4.98	7.31	0.681	ok	0.681	0.621-0.741
Heptane	9.85	9.02	1.092	ok	1.093	1.033-1.153
Hexachlorobutadiene	19.79	13.32	1.486	ok	1.485	1.425-1.545
Hexachloroethane	17.99	13.32	1.351	ok	1.350	1.290-1.410
Hexane	7.23	7.31	0.989	ok	0.990	0.930-1.050
2-Hexanone	11.77	13.32	0.884	ok	0.881	0.821-0.941
Iodomethane	5.51	7.31	0.754	ok	0.754	0.694-0.814
Isopropylbenzene	15.10	13.32	1.134	ok	1.134	1.074-1.194
Isopropyl Alcohol	5.23	7.31	0.715	ok	0.711	0.651-0.771
p-Isopropyltoluene	16.99	13.32	1.276	ok	1.275	1.215-1.335
Methylene chloride	5.66	7.31	0.774	ok	0.773	0.713-0.833
Methyl ethyl ketone	6.81	7.31	0.932	ok	0.928	0.868-0.988
Methyl Isobutyl Ketone	10.55	9.02	1.170	ok	1.167	1.107-1.227
Methyl Tert Butyl Ether	6.51	7.31	0.891	ok	0.888	0.828-0.948
Methylmethacrylate	9.90	9.02	1.098	ok	1.095	1.035-1.155
Naphthalene	19.38	13.32	1.455	ok	1.454	1.394-1.514
Nonane	14.64	13.32	1.099	ok	1.099	1.039-1.159
Octane	12.42	13.32	0.932		0.932	0.872-0.992
Pentane	5.32	7.31	0.728	ok	0.727	0.667-0.787
n-Propylbenzene	15.71	13.32	1.179	ok	1.179	1.119-1.239
Propylene	4.01	7.31	0.549	ok	0.548	0.488 - 0.608
Styrene	14.34	13.32	1.077	ok	1.077	1.017-1.137
1,1,1-Trichloroethane	8.25	7.31	1.129	ok	1.130	1.070-1.190
1,1,1,2-Tetrachloroethane	13.35	13.32	1.002		1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	14.47	13.32	1.086	ok	1.086	1.026-1.146
1,1,2-Trichloroethane	11.21	9.02	1.243	ok	1.242	1.182-1.302
1,2,4-Trichlorobenzene	19.24	13.32	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	14.60	13.32	1.096	ok		1.036-1.156
1,2,4-Trimethylbenzene	16.47	13.32	1.236	ok	1.237	1.177-1.297



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

-							
Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W886-IC886	3W22416.D	05/13/11 10:33	YXC	5	GCMS3W	TO-15	
V3W886-IC886	3W22418.D	05/13/11 12:34	YXC	20	GCMS3W	TO-15	
V3W886-ICC886	3W22419.D	05/13/11 13:14	YXC	10	GCMS3W	TO-15	
V3W886-IC886	3W22420.D	05/13/11 13:57	YXC	1	GCMS3W	TO-15	
V3W886-IC886	3W22421.D	05/13/11 14:37	YXC	0.2	GCMS3W	TO-15	
V3W886-IC886	3W22422.D	05/13/11 15:57	YXC	0.04	GCMS3W	TO-15	
V3W886-IC886	3W22423.D	05/13/11 16:38	YXC	0.1	GCMS3W	TO-15	
V3W886-IC886	3W22424.D	05/13/11 17:20	YXC	40	GCMS3W	TO-15	
V3W886-IC886	3W22425.D	05/13/11 19:21	YXC	0.5	GCMS3W	TO-15	Reporting this level

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
1,3,5-Trimethylbenzene	15.97	13.32	1.199 ok	1.199	1.139-1.259	
2,2,4-Trimethylpentane	9.59	9.02		1.064	1.004-1.124	
Tertiary Butyl Alcohol	5.64	7.31		0.765	0.705-0.825	
Tetrachloroethylene	12.63	13.32		0.703	0.888-1.008	
Tetrahydrofuran	7.80	7.31		1.062	1.002-1.122	
Toluene	11.47	9.02		1.002	1.212-1.332	
Trichloroethylene	9.66	9.02		1.071	1.011-1.131	
Trichlorofluoromethane	5.13	7.31		0.701	0.641-0.761	
	4.30	7.31		0.701	0.528-0.648	
Vinyl A actata						
Vinyl Acetate	6.59	7.31		0.901	0.841-0.961	
m,p-Xylene	13.94	13.32		1.046	0.986-1.106	
o-Xylene	14.45	13.32		1.085	1.025-1.145	
TVHC As Equiv Pentane	5.32	7.31	0.728 ok	0.728	0.668-0.788	
TVHC As Equiv Heptane	9.86	9.02	1.093 ok	1.093	1.033-1.153	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	( <b>min.</b> )	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ <b>/- 40 %</b> )
Bromochloromethane	7.31 o	k 7.30	6.97-7.63	91675	ok 93035	55821-130249
1,4-Difluorobenzene		k 9.02	8.69-9.35	382259	ok 396018	237611-554425
Chlorobenzene-D5						
Chioropenzene-D5	13.32 o	k 13.32	12.99-13.6	163378	ok 181415	108849-253981



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.18	8.62	0.717	ok	0.717	0.657-0.777
Acrolein	6.07	8.62	0.704	ok	0.705	0.645-0.765
Acrylonitrile	6.52	8.62	0.756	ok	0.756	0.696-0.816
Acetonitrile	5.98	8.62	0.694	ok	0.694	0.634-0.754
1,3-Butadiene	5.39	8.62	0.625	ok	0.625	0.565-0.685
Benzene	10.01	10.30	0.972	ok	0.971	0.911-1.031
Bromodichloromethane	10.93	10.30	1.061	ok	1.062	1.002-1.122
Bromoform	15.27	14.55	1.049	ok	1.050	0.990-1.110
Bromomethane	5.60	8.62	0.650	ok	0.650	0.590-0.710
Bromoethene	5.99	8.62	0.695	ok	0.696	0.636-0.756
n-Butane	5.42	8.62	0.629	ok	0.629	0.569-0.689
Benzyl Chloride	17.78	14.55	1.222	ok	1.223	1.163-1.283
n-Butylbenzene	18.59	14.55	1.278	ok	1.278	1.218-1.338
sec-Butylbenzene	17.93	14.55	1.232	ok	1.232	1.172-1.292
tert-Butylbenzene	17.61	14.55	1.210	ok	1.211	1.151-1.271
Carbon disulfide	7.14	8.62	0.828	ok	0.829	0.769-0.889
Chlorobenzene	14.60	14.55	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.88	8.62	0.566	ok	0.567	0.507-0.627
Chloroethane	5.73	8.62	0.665	ok	0.665	0.605-0.725
Chloroform	8.72	8.62	1.012	ok	1.012	0.952-1.072
Chloromethane	5.10	8.62	0.592	ok	0.592	0.532-0.652
3-Chloropropene	6.96	8.62	0.807	ok	0.808	0.748-0.868
2-Chlorotoluene	16.87	14.55	1.159	ok	1.160	1.100-1.220
Carbon tetrachloride	10.14	8.62	1.176	ok	1.176	1.116-1.236
Cyclohexane	10.25	10.30	0.995	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.78	8.62	0.903	ok	0.903	0.843-0.963
1,1-Dichloroethylene	6.79	8.62	0.788	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.42	14.55	0.922	ok	0.923	0.863-0.983
1,2-Dichloroethane	9.37	8.62	1.087	ok	1.087	1.027-1.147
1,2-Dichloropropane	10.75	10.30	1.044	ok	1.044	0.984-1.104
1,4-Dioxane	10.98	10.30	1.066	ok	1.069	1.009-1.129
Dichlorodifluoromethane	4.97	8.62	0.577	ok	0.577	0.517-0.637
Dibromochloromethane	13.18	14.55	0.906	ok	0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.61	8.62	0.883	ok	0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.47	8.62	0.983		0.983	0.923-1.043
cis-1,3-Dichloropropene	11.77	10.30	1.143		1.143	1.083-1.203
m-Dichlorobenzene	17.80	14.55	1.223		1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.55	1.256		1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.55	1.229		1.229	1.169-1.289
trans-1,3-Dichloropropene	12.29	10.30	1.193		1.193	1.133-1.253



#### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330 Page 28 of 50

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	8.61	8.62	0.999	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.44	10.30	1.014	ok	1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.62	1.088	ok	1.089	1.029-1.149
Ethanol	5.81	8.62	0.674	ok	0.675	0.615-0.735
Ethylbenzene	14.98	14.55	1.030	ok	1.030	0.970-1.090
Ethyl Acetate	8.63	8.62	1.001	ok	1.002	0.942-1.062
4-Ethyltoluene	17.07	14.55	1.173	ok	1.174	1.114-1.234
Freon 113	7.06	8.62	0.819	ok	0.820	0.760-0.880
Freon 114	5.18	8.62	0.601	ok	0.601	0.541-0.661
Freon 123	6.08	8.62	0.705	ok	0.706	0.646-0.766
Freon 123A	6.12	8.62	0.710	ok	0.711	0.651-0.771
Heptane	11.21	10.30	1.088	ok	1.088	1.028-1.148
Hexachlorobutadiene	20.74	14.55	1.425	ok	1.426	1.366-1.486
Hexachloroethane	19.04	14.55	1.309	ok	1.309	1.249-1.369
Hexane	8.62	8.62	1.000	ok	1.001	0.941-1.061
2-Hexanone	12.99	14.55	0.893	ok	0.894	0.834-0.954
Iodomethane	6.74	8.62	0.782	ok	0.783	0.723-0.843
Isopropylbenzene	16.34	14.55	1.123	ok	1.123	1.063-1.183
Isopropyl Alcohol	6.35	8.62	0.737		0.738	0.678-0.798
p-Isopropyltoluene	18.11	14.55	1.245	ok	1.245	1.185-1.305
Methylene chloride	6.87	8.62	0.797	ok	0.798	0.738-0.858
Methyl ethyl ketone	8.10	8.62	0.940	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	11.81	10.30	1.147	ok	1.148	1.088-1.208
Methyl Tert Butyl Ether	7.82	8.62	0.907	ok	0.908	0.848-0.968
Methylmethacrylate	11.13	10.30	1.081		1.081	1.021-1.141
Naphthalene	20.35	14.55	1.399	ok	1.399	1.339-1.459
Nonane	15.91	14.55	1.093		1.094	1.034-1.154
Octane	13.71	14.55	0.942	ok	0.942	0.882-1.002
Pentane	6.56	8.62	0.761	ok	0.762	0.702-0.822
n-Propylbenzene	16.91	14.55	1.162	ok	1.162	1.102-1.222
Propylene	4.91	8.62	0.570	ok	0.570	0.510-0.630
Styrene	15.57	14.55	1.070	ok	1.071	1.011-1.131
1, 1, 1-Trichloroethane	9.59	8.62	1.113		1.113	1.053-1.173
1, 1, 1, 2-Tetrachloroethane	14.57	14.55	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.69	14.55	1.078		1.079	1.019-1.139
1,1,2-Trichloroethane	12.46	10.30	1.210		1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.23	14.55	1.390	ok	1.391	1.331-1.451
1,2,3-Trichloropropane	15.83	14.55	1.088	ok	1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.62	14.55	1.211		1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.16	14.55	1.179	ok	1.180	1.120-1.240

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)		Istd RT (min.)	Rel RT		Mean Rel RT		RT Range06)	
2,2,4-Trimethylpentane	10.98		10.30	1.066	ok	1.066	1.00	06-1.126	
Tertiary Butyl Alcohol	6.81		8.62	0.790	ok	0.793	0.73	33-0.853	
Tetrachloroethylene	13.88		14.55	0.954	ok	0.955	0.89	95-1.015	
Tetrahydrofuran	9.09		8.62	1.055	ok	1.057	0.99	97-1.117	
Toluene	12.74		10.30	1.237	ok	1.237	1.17	7-1.297	
Trichloroethylene	10.96		10.30	1.064	ok	1.064	1.00	)4-1.124	
Trichlorofluoromethane	6.30		8.62	0.731	ok	0.731	0.67	71-0.791	
Vinyl chloride	5.28		8.62	0.613	ok	0.613	0.55	3-0.673	
Vinyl Acetate	7.87		8.62	0.913	ok	0.914	0.85	54-0.974	
m, p-Xylene	15.17		14.55	1.043	ok	1.043	0.98	33-1.103	
o-Xylene	15.69		14.55	1.078	ok	1.078	1.01	8-1.138	
TVHC As Equiv Pentane	6.56		8.62	0.761	ok	0.761	0.70	01-0.821	
TVHC As Equiv Heptane	11.21		10.30	1.088	ok	1.088	1.02	28-1.148	
	RT		Mean	RT Ra	nge			Mean	Area Range
Internal Standard	(min.)		RT(min.)	(+ / <b>- 0.</b>	33)	Area		Area	(+ /- 40 %)
Bromochloromethane	8.62	ok	8.61	8.28-8.	94	144503	ok	144432	86659-202205
1,4-Difluorobenzene	10.30	ok	10.30	9.97-10	0.63	742920	ok	737254	442352-1032156
Chlorobenzene-D5	14.55	ok	14.54	14.21-1	14.87	363631	ok	352412	211447-493377



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

	RT	Istd RT	Rel		Mean Rel	Rel RT Range
Target Compound	( <b>min.</b> )	(min.)	RT		RT	(+ / <b>06</b> )
Acetone	6.18	8.61	0.718	ok	0.717	0.657-0.777
Acrolein	6.09	8.61	0.707	ok	0.705	0.645-0.765
Acrylonitrile	6.52	8.61	0.757	ok	0.756	0.696-0.816
Acetonitrile	5.98	8.61	0.695	ok	0.694	0.634-0.754
1,3-Butadiene	5.39	8.61	0.626	ok	0.625	0.565-0.685
Benzene	10.00	10.30	0.971	ok	0.971	0.911-1.031
Bromodichloromethane	10.93	10.30	1.061	ok	1.062	1.002-1.122
Bromoform	15.27	14.54	1.050	ok	1.050	0.990-1.110
Bromomethane	5.60	8.61	0.650	ok	0.650	0.590-0.710
Bromoethene	5.99	8.61	0.696	ok	0.696	0.636-0.756
n-Butane	5.42	8.61	0.630	ok	0.629	0.569-0.689
Benzyl Chloride	17.78	14.54	1.223	ok	1.223	1.163-1.283
n-Butylbenzene	18.59	14.54	1.279	ok	1.278	1.218-1.338
sec-Butylbenzene	17.93	14.54	1.233	ok	1.232	1.172-1.292
tert-Butylbenzene	17.61	14.54	1.211	ok	1.211	1.151-1.271
Carbon disulfide	7.15	8.61	0.830	ok	0.829	0.769-0.889
Chlorobenzene	14.59	14.54	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.89	8.61	0.568	ok	0.567	0.507-0.627
Chloroethane	5.73	8.61	0.666	ok	0.665	0.605-0.725
Chloroform	8.71	8.61	1.012	ok	1.012	0.952-1.072
Chloromethane	5.11	8.61	0.593	ok	0.592	0.532-0.652
3-Chloropropene	6.96	8.61	0.808	ok	0.808	0.748-0.868
2-Chlorotoluene	16.87	14.54	1.160	ok	1.160	1.100-1.220
Carbon tetrachloride	10.13	8.61	1.177	ok	1.176	1.116-1.236
Cyclohexane	10.24	10.30	0.994	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.77	8.61	0.902	ok	0.903	0.843-0.963
1,1-Dichloroethylene	6.79	8.61	0.789	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.42	14.54	0.923	ok	0.923	0.863-0.983
1,2-Dichloroethane	9.36	8.61	1.087	ok	1.087	1.027-1.147
1,2-Dichloropropane	10.75	10.30	1.044	ok	1.044	0.984-1.104
1,4-Dioxane	11.04	10.30	1.072	ok	1.069	1.009-1.129
Dichlorodifluoromethane	4.97	8.61	0.577	ok	0.577	0.517-0.637
Dibromochloromethane	13.17	14.54	0.906	ok	0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.61	8.61	0.884	ok	0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.46	8.61	0.983	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.77	10.30	1.143	ok	1.143	1.083-1.203
m-Dichlorobenzene	17.80	14.54	1.224	ok	1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.54	1.257	ok	1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.54	1.230	ok	1.229	1.169-1.289
trans-1,3-Dichloropropene	12.28	10.30	1.192	ok	1.193	1.133-1.253

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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	GCMSW	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	GCMSW	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	8.62	8.61	1.001	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.43	10.30	1.013	ok	1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.61	1.089	ok	1.089	1.029-1.149
Ethanol	5.82	8.61	0.676	ok	0.675	0.615-0.735
Ethylbenzene	14.97	14.54	1.030	ok	1.030	0.970-1.090
Ethyl Acetate	8.63	8.61	1.002	ok	1.002	0.942-1.062
4-Ethyltoluene	17.07	14.54	1.174	ok	1.174	1.114-1.234
Freon 113	7.06	8.61	0.820	ok	0.820	0.760-0.880
Freon 114	5.18	8.61	0.602	ok	0.601	0.541-0.661
Freon 123	6.09	8.61	0.707	ok	0.706	0.646-0.766
Freon 123A	6.12	8.61	0.711	ok	0.711	0.651-0.771
Heptane	11.21	10.30	1.088	ok	1.088	1.028-1.148
Hexachlorobutadiene	20.74	14.54	1.426	ok	1.426	1.366-1.486
Hexachloroethane	19.03	14.54	1.309	ok	1.309	1.249-1.369
Hexane	8.62	8.61	1.001		1.001	0.941-1.061
2-Hexanone	13.01	14.54	0.895	ok	0.894	0.834-0.954
Iodomethane	6.74	8.61	0.783	ok	0.783	0.723-0.843
Isopropylbenzene	16.33	14.54	1.123	ok	1.123	1.063-1.183
Isopropyl Alcohol	6.37	8.61	0.740	ok	0.738	0.678-0.798
p-Isopropyltoluene	18.10	14.54	1.245	ok	1.245	1.185-1.305
Methylene chloride	6.87	8.61	0.798	ok	0.798	0.738-0.858
Methyl ethyl ketone	8.11	8.61	0.942	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	11.82	10.30	1.148	ok	1.148	1.088-1.208
Methyl Tert Butyl Ether	7.82	8.61	0.908	ok	0.908	0.848-0.968
Methylmethacrylate	11.13	10.30	1.081		1.081	1.021-1.141
Naphthalene	20.35	14.54	1.400	ok	1.399	1.339-1.459
Nonane	15.90	14.54	1.094	ok	1.094	1.034-1.154
Octane	13.71	14.54	0.943	ok	0.942	0.882-1.002
Pentane	6.56	8.61	0.762	ok	0.762	0.702-0.822
n-Propylbenzene	16.91	14.54	1.163	ok	1.162	1.102-1.222
Propylene	4.91	8.61	0.570	ok	0.570	0.510-0.630
Styrene	15.57	14.54	1.071	ok	1.071	1.011-1.131
1,1,1-Trichloroethane	9.59	8.61	1.114		1.113	1.053-1.173
1,1,1,2-Tetrachloroethane	14.57	14.54	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.68	14.54	1.078		1.079	1.019-1.139
1,1,2-Trichloroethane	12.46	10.30	1.210		1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.23	14.54	1.391		1.391	1.331-1.451
1,2,3-Trichloropropane	15.83	14.54	1.089		1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.62	14.54	1.212		1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.16	14.54	1.180	ok	1.180	1.120-1.240

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level		Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	GCMSW	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	GCMSW	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
2,2,4-Trimethylpentane	10.97	10.30	1.065 ok	1.066	1.006-1.126	
Tertiary Butyl Alcohol	6.84	8.61	0.794 ok	0.793	0.733-0.853	
Tetrachloroethylene	13.88	14.54	0.955 ok	0.955	0.895-1.015	
Tetrahydrofuran	9.12	8.61	1.059 ok	1.057	0.997-1.117	
Toluene	12.74	10.30	1.237 ok	1.237	1.177-1.297	
Trichloroethylene	10.96	10.30	1.064 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.30	8.61	0.732 ok	0.731	0.671-0.791	
Vinyl chloride	5.28	8.61	0.613 ok	0.613	0.553-0.673	
Vinyl Acetate	7.87	8.61	0.914 ok	0.914	0.854-0.974	
m,p-Xylene	15.17	14.54	1.043 ok	1.043	0.983-1.103	
o-Xylene	15.68	14.54	1.078 ok	1.078	1.018-1.138	
TVHC As Equiv Pentane	6.56	8.61	0.762 ok	0.761	0.701-0.821	
TVHC As Equiv Heptane	11.21	10.30	1.088 ok	1.088	1.028-1.148	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ /- 40 %)
Bromochloromethane	8.61	ok 8.61	8.28-8.94	141430	ok 144432	86659-202205
1,4-Difluorobenzene	10.30	ok 10.30	9.97-10.63	736420	ok 737254	442352-1032156
Chlorobenzene-D5	14.54	ok 14.54	14.21-14.87	340904	ok 352412	211447-493377



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.17	8.62	0.716	ok 0.717	0.657-0.777
Acrolein	6.07	8.62	0.704	ok 0.705	0.645-0.765
Acrylonitrile	6.52	8.62	0.756	ok 0.756	0.696-0.816
Acetonitrile	5.98	8.62	0.694	ok 0.694	0.634-0.754
1,3-Butadiene	5.38	8.62	0.624	ok 0.625	0.565-0.685
Benzene	10.01	10.31	0.971	ok 0.971	0.911-1.031
Bromodichloromethane	10.94	10.31	1.061	ok 1.062	1.002-1.122
Bromoform	15.28	14.55	1.050	ok 1.050	0.990-1.110
Bromomethane	5.60	8.62	0.650	ok 0.650	0.590-0.710
Bromoethene	6.00	8.62	0.696	ok 0.696	0.636-0.756
n-Butane	5.42	8.62	0.629	ok 0.629	0.569-0.689
Benzyl Chloride	17.79	14.55	1.223	ok 1.223	1.163-1.283
n-Butylbenzene	18.59	14.55	1.278	ok 1.278	1.218-1.338
sec-Butylbenzene	17.93	14.55	1.232	ok 1.232	1.172-1.292
tert-Butylbenzene	17.62	14.55	1.211	ok 1.211	1.151-1.271
Carbon disulfide	7.14	8.62	0.828	ok 0.829	0.769-0.889
Chlorobenzene	14.60	14.55	1.003	ok 1.003	0.943-1.063
Chlorodifluoromethane	4.88	8.62	0.566	ok 0.567	0.507-0.627
Chloroethane	5.73	8.62	0.665	ok 0.665	0.605-0.725
Chloroform	8.73	8.62	1.013	ok 1.012	0.952-1.072
Chloromethane	5.10	8.62	0.592	ok 0.592	0.532-0.652
3-Chloropropene	6.96	8.62	0.807	ok 0.808	0.748-0.868
2-Chlorotoluene	16.88	14.55	1.160	ok 1.160	1.100-1.220
Carbon tetrachloride	10.14	8.62	1.176	ok 1.176	1.116-1.236
Cyclohexane	10.25	10.31	0.994	ok 0.995	0.935-1.055
1,1-Dichloroethane	7.78	8.62	0.903	ok 0.903	0.843-0.963
1,1-Dichloroethylene	6.79	8.62	0.788	ok 0.788	0.728-0.848
1,2-Dibromoethane	13.43	14.55	0.923	ok 0.923	0.863-0.983
1,2-Dichloroethane	9.37	8.62	1.087	ok 1.087	1.027-1.147
1,2-Dichloropropane	10.75	10.31	1.043	ok 1.044	0.984-1.104
1,4-Dioxane	10.98	10.31	1.065	ok 1.069	1.009-1.129
Dichlorodifluoromethane	4.97	8.62	0.577	ok 0.577	0.517-0.637
Dibromochloromethane	13.18	14.55	0.906	ok 0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.61	8.62	0.883	ok 0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.47	8.62	0.983	ok 0.983	0.923-1.043
cis-1,3-Dichloropropene	11.78	10.31	1.143	ok 1.143	1.083-1.203
m-Dichlorobenzene	17.80	14.55	1.223	ok 1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.55	1.256	ok 1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.55	1.229	ok 1.229	1.169-1.289
trans-1,3-Dichloropropene	12.29	10.31	1.192	ok 1.193	1.133-1.253



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	8.61	8.62	0.999	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.45	10.31	1.014	ok	1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.62	1.088	ok	1.089	1.029-1.149
Ethanol	5.81	8.62	0.674	ok	0.675	0.615-0.735
Ethylbenzene	14.99	14.55	1.030	ok	1.030	0.970-1.090
Ethyl Acetate	8.63	8.62	1.001		1.002	0.942-1.062
4-Ethyltoluene	17.07	14.55	1.173	ok	1.174	1.114-1.234
Freon 113	7.06	8.62	0.819	ok	0.820	0.760-0.880
Freon 114	5.18	8.62	0.601	ok	0.601	0.541-0.661
Freon 123	6.08	8.62	0.705	ok	0.706	0.646-0.766
Freon 123A	6.12	8.62	0.710	ok	0.711	0.651-0.771
Heptane	11.21	10.31	1.087	ok	1.088	1.028-1.148
Hexachlorobutadiene	20.74	14.55	1.425	ok	1.426	1.366-1.486
Hexachloroethane	19.04	14.55	1.309	ok	1.309	1.249-1.369
Hexane	8.62	8.62	1.000	ok	1.001	0.941-1.061
2-Hexanone	13.00	14.55	0.893	ok	0.894	0.834-0.954
Iodomethane	6.74	8.62	0.782	ok	0.783	0.723-0.843
Isopropylbenzene	16.34	14.55	1.123	ok	1.123	1.063-1.183
Isopropyl Alcohol	6.35	8.62	0.737	ok	0.738	0.678-0.798
p-Isopropyltoluene	18.11	14.55	1.245	ok	1.245	1.185-1.305
Methylene chloride	6.87	8.62	0.797	ok	0.798	0.738-0.858
Methyl ethyl ketone	8.10	8.62	0.940	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	11.81	10.31	1.145	ok	1.148	1.088-1.208
Methyl Tert Butyl Ether	7.82	8.62	0.907	ok	0.908	0.848-0.968
Methylmethacrylate	11.13	10.31	1.080	ok	1.081	1.021-1.141
Naphthalene	20.35	14.55	1.399	ok	1.399	1.339-1.459
Nonane	15.91	14.55	1.093	ok	1.094	1.034-1.154
Octane	13.71	14.55	0.942	ok	0.942	0.882-1.002
Pentane	6.56	8.62	0.761	ok	0.762	0.702-0.822
n-Propylbenzene	16.91	14.55	1.162		1.162	1.102-1.222
Propylene	4.91	8.62	0.570	ok	0.570	0.510-0.630
Styrene	15.57	14.55	1.070	ok	1.071	1.011-1.131
1,1,1-Trichloroethane	9.59	8.62	1.113	ok	1.113	1.053-1.173
1,1,1,2-Tetrachloroethane	14.58	14.55	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.69	14.55	1.078	ok	1.079	1.019-1.139
1,1,2-Trichloroethane	12.47	10.31	1.210		1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.23	14.55	1.390	ok	1.391	1.331-1.451
1,2,3-Trichloropropane	15.83	14.55	1.088	ok	1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.63	14.55	1.212	ok	1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.16	14.55	1.179	ok	1.180	1.120-1.240



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#### Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JA81330 Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
2,2,4-Trimethylpentane	10.98	10.31	1.065 ok	1.066	1.006-1.126	
Tertiary Butyl Alcohol	6.81	8.62	0.790 ok	0.793	0.733-0.853	
Tetrachloroethylene	13.89	14.55	0.955 ok	0.955	0.895-1.015	
Tetrahydrofuran	9.09	8.62	1.055 ok	1.057	0.997-1.117	
Toluene	12.74	10.31	1.236 ok	1.237	1.177-1.297	
Trichloroethylene	10.97	10.31	1.064 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.30	8.62	0.731 ok	0.731	0.671-0.791	
Vinyl chloride	5.28	8.62	0.613 ok	0.613	0.553-0.673	
Vinyl Acetate	7.87	8.62	0.913 ok	0.914	0.854-0.974	
m,p-Xylene	15.18	14.55	1.043 ok	1.043	0.983-1.103	
o-Xylene	15.69	14.55	1.078 ok	1.078	1.018-1.138	
TVHC As Equiv Pentane	6.56	8.62	0.761 ok	0.761	0.701-0.821	
TVHC As Equiv Heptane	11.21	10.31	1.087 ok	1.088	1.028-1.148	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	8.62 ok	8.61	8.28-8.94	145063	ok 144432	86659-202205
1,4-Difluorobenzene	10.31 ok	10.30	9.97-10.63	734372	ok 737254	442352-1032156
Chlorobenzene-D5	14.55 ok	14.54	14.21-14.8	7 371606	ok 352412	211447-493377



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

	RT	Istd RT	Rel			Rel RT Range
Target Compound	(min.)	( <b>min.</b> )	RT		RT	(+ / <b>06</b> )
Acetone	6.17	8.61	0.717	ok	0.717	0.657-0.777
Acrolein	6.07	8.61	0.705	ok	0.705	0.645-0.765
Acrylonitrile	6.51	8.61	0.756	ok	0.756	0.696-0.816
Acetonitrile	5.98	8.61	0.695	ok	0.694	0.634-0.754
1,3-Butadiene	5.38	8.61	0.625	ok	0.625	0.565-0.685
Benzene	10.00	10.30	0.971	ok	0.971	0.911-1.031
Bromodichloromethane	10.93	10.30	1.061	ok	1.062	1.002-1.122
Bromoform	15.27	14.54	1.050	ok	1.050	0.990-1.110
Bromomethane	5.60	8.61	0.650	ok	0.650	0.590-0.710
Bromoethene	5.99	8.61	0.696	ok	0.696	0.636-0.756
n-Butane	5.42	8.61	0.630	ok	0.629	0.569-0.689
Benzyl Chloride	17.78	14.54	1.223	ok	1.223	1.163-1.283
n-Butylbenzene	18.59	14.54	1.279		1.278	1.218-1.338
sec-Butylbenzene	17.92	14.54	1.232	ok	1.232	1.172-1.292
tert-Butylbenzene	17.61	14.54	1.211	ok	1.211	1.151-1.271
Carbon disulfide	7.14	8.61	0.829	ok	0.829	0.769-0.889
Chlorobenzene	14.59	14.54	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.89	8.61	0.568	ok	0.567	0.507-0.627
Chloroethane	5.72	8.61	0.664	ok	0.665	0.605-0.725
Chloroform	8.71	8.61	1.012	ok	1.012	0.952-1.072
Chloromethane	5.10	8.61	0.592	ok	0.592	0.532-0.652
3-Chloropropene	6.96	8.61	0.808	ok	0.808	0.748-0.868
2-Chlorotoluene	16.87	14.54	1.160	ok	1.160	1.100-1.220
Carbon tetrachloride	10.13	8.61	1.177	ok	1.176	1.116-1.236
Cyclohexane	10.24	10.30	0.994	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.78	8.61	0.904	ok	0.903	0.843-0.963
1,1-Dichloroethylene	6.79	8.61	0.789	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.42	14.54	0.923	ok	0.923	0.863-0.983
1,2-Dichloroethane	9.36	8.61	1.087	ok	1.087	1.027-1.147
1,2-Dichloropropane	10.74	10.30	1.043	ok	1.044	0.984-1.104
1,4-Dioxane	10.99	10.30	1.067	ok	1.069	1.009-1.129
Dichlorodifluoromethane	4.97	8.61	0.577	ok	0.577	0.517-0.637
Dibromochloromethane	13.18	14.54	0.906	ok	0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.60	8.61	0.883	ok	0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.47	8.61	0.984	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.77	10.30	1.143	ok	1.143	1.083-1.203
m-Dichlorobenzene	17.80	14.54	1.224	ok	1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.54	1.257		1.256	1.196-1.316
p-Dichlorobenzene	17.87	14.54	1.229	ok	1.229	1.169-1.289
trans-1,3-Dichloropropene	12.28	10.30	1.192		1.193	1.133-1.253



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Lab File ID	Injected	By Le	vel Inst ID	Method	
W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	
W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	
W32357.D	06/21/11 20:40	YMH 5.0	GCMSW	TO-15	Reporting this level
W32359.D	06/21/11 22:00	YMH 0.0	4 GCMSW	TO-15	
W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	
	W32352.D W32353.D W32356.D W32357.D W32359.D W32360.D W32364.D	W32352.D 06/21/11 17:20 W32353.D 06/21/11 18:00 W32356.D 06/21/11 20:00 W32357.D 06/21/11 20:40 W32359.D 06/21/11 22:00 W32360.D 06/21/11 22:40 W32364.D 06/22/11 09:56	W32352.D 06/21/11 17:20 YMH 10 W32353.D 06/21/11 18:00 YMH 0.5 W32356.D 06/21/11 20:00 YMH 20 W32357.D 06/21/11 20:40 YMH 5.0 W32359.D 06/21/11 22:00 YMH 0.0 W32360.D 06/21/11 22:40 YMH 40 W32364.D 06/22/11 09:56 YMH 0.2	W32352.D 06/21/11 17:20 YMH 10 GCMSW W32353.D 06/21/11 18:00 YMH 0.5 GCMSW W32356.D 06/21/11 20:00 YMH 20 GCMSW W32357.D 06/21/11 20:40 YMH 5.0 GCMSW W32359.D 06/21/11 22:00 YMH 0.04 GCMSW W32360.D 06/21/11 22:40 YMH 40 GCMSW W32364.D 06/22/11 09:56 YMH 0.2 GCMSW	W32352.D 06/21/11 17:20 YMH 10 GCMSW TO-15 W32353.D 06/21/11 18:00 YMH 0.5 GCMSW TO-15 W32356.D 06/21/11 20:00 YMH 20 GCMSW TO-15 W32357.D 06/21/11 20:40 YMH 5.0 GCMSW TO-15 W32359.D 06/21/11 22:00 YMH 0.04 GCMSW TO-15 W32360.D 06/21/11 22:40 YMH 40 GCMSW TO-15 W32364.D 06/22/11 09:56 YMH 0.2 GCMSW TO-15

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	8.61	8.61	1.000	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.44	10.30	1.014		1.000	0.954-1.074
2,4-Dimethylpentane	9.38	8.61	1.014		1.014	1.029-1.149
Ethanol	5.81	8.61	0.675		0.675	0.615-0.735
Ethylbenzene	14.98	14.54	1.030		1.030	0.970-1.090
Ethyl Acetate	8.63	8.61	1.002		1.002	0.942-1.062
4-Ethyltoluene	17.07	14.54	1.174		1.174	1.114-1.234
Freon 113	7.06	8.61	0.820		0.820	0.760-0.880
Freon 114	5.18	8.61	0.602		0.620	0.541-0.661
Freon 123	6.08	8.61	0.706		0.706	0.646-0.766
Freon 123A	6.12	8.61	0.700		0.700	0.651-0.771
Heptane Heptane	11.21	10.30	1.088		1.088	
Hexachlorobutadiene						1.028-1.148
Hexachloroethane	20.74 19.03	14.54 14.54	1.426 1.309		1.426 1.309	1.366-1.486
					1.001	1.249-1.369
Hexane	8.62	8.61	1.001			0.941-1.061
2-Hexanone	12.99	14.54	0.893		0.894	0.834-0.954
Iodomethane	6.74	8.61	0.783		0.783	0.723-0.843
Isopropylbenzene	16.33	14.54	1.123		1.123	1.063-1.183
Isopropyl Alcohol	6.35	8.61	0.738		0.738	0.678-0.798
p-Isopropyltoluene	18.10	14.54	1.245		1.245	1.185-1.305
Methylene chloride	6.87	8.61	0.798		0.798	0.738-0.858
Methyl ethyl ketone	8.10	8.61	0.941		0.941	0.881-1.001
Methyl Isobutyl Ketone	11.81	10.30	1.147		1.148	1.088-1.208
Methyl Tert Butyl Ether	7.82	8.61	0.908		0.908	0.848-0.968
Methylmethacrylate	11.13	10.30	1.081		1.081	1.021-1.141
Naphthalene	20.35	14.54	1.400		1.399	1.339-1.459
Nonane	15.90	14.54	1.094		1.094	1.034-1.154
Octane	13.70	14.54	0.942		0.942	0.882-1.002
Pentane	6.56	8.61	0.762		0.762	0.702-0.822
n-Propylbenzene	16.90	14.54	1.162		1.162	1.102-1.222
Propylene	4.91	8.61	0.570		0.570	0.510-0.630
Styrene	15.57	14.54	1.071		1.071	1.011-1.131
1,1,1-Trichloroethane	9.59	8.61	1.114		1.113	1.053-1.173
1,1,1,2-Tetrachloroethane	14.57	14.54	1.002		1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.68	14.54	1.078		1.079	1.019-1.139
1,1,2-Trichloroethane	12.46	10.30	1.210		1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.22	14.54	1.391		1.391	1.331-1.451
1,2,3-Trichloropropane	15.82	14.54	1.088		1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.62	14.54	1.212		1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.16	14.54	1.180	ok	1.180	1.120-1.240



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
10.97	10.30	1.065 ok	1.066	1.006-1.126	
6.81	8.61	0.791 ok	0.793	0.733-0.853	
13.88	14.54	0.955 ok	0.955	0.895-1.015	
9.09	8.61	1.056 ok	1.057	0.997-1.117	
12.74	10.30	1.237 ok	1.237	1.177-1.297	
10.96	10.30	1.064 ok	1.064	1.004-1.124	
6.30	8.61	0.732 ok	0.731	0.671-0.791	
5.28	8.61	0.613 ok	0.613	0.553-0.673	
7.87	8.61	0.914 ok	0.914	0.854-0.974	
15.17	14.54	1.043 ok	1.043	0.983-1.103	
15.68	14.54	1.078 ok	1.078	1.018-1.138	
6.56	8.61	0.762 ok	0.761	0.701-0.821	
11.21	10.30	1.088 ok	1.088	1.028-1.148	
RT	Mean	RT Range		Mean	Area Range
(min.)	RT(min.)	(+ / <b>- 0.33</b> )	Area	Area	(+ / <b>- 40 %</b> )
8.61 o	k 8.61	8.28-8.94	144061	ok 144432	86659-202205
10.30 o	k 10.30	9.97-10.63	731584	ok 737254	442352-1032156
14.54 o	k 14.54	14.21-14.87	347185	ok 352412	211447-493377
	(min.)  10.97 6.81 13.88 9.09 12.74 10.96 6.30 5.28 7.87 15.17 15.68 6.56 11.21  RT (min.)	(min.)         (min.)           10.97         10.30           6.81         8.61           13.88         14.54           9.09         8.61           12.74         10.30           10.96         10.30           6.30         8.61           5.28         8.61           7.87         8.61           15.17         14.54           15.68         14.54           6.56         8.61           11.21         10.30           RT         Mean           (min.)         RT(min.)           8.61         10.30           0k         8.61           10.30         0k	(min.)         (min.)         RT           10.97         10.30         1.065 ok           6.81         8.61         0.791 ok           13.88         14.54         0.955 ok           9.09         8.61         1.056 ok           12.74         10.30         1.237 ok           10.96         10.30         1.064 ok           6.30         8.61         0.732 ok           5.28         8.61         0.613 ok           7.87         8.61         0.914 ok           15.17         14.54         1.043 ok           15.68         14.54         1.078 ok           6.56         8.61         0.762 ok           11.21         10.30         1.088 ok           RT         Mean         RT Range           (min.)         RT(min.)         (+/- 0.33)           8.61         0.30         9.97-10.63	(min.)         (min.)         RT         RT           10.97         10.30         1.065         ok         1.066           6.81         8.61         0.791         ok         0.793           13.88         14.54         0.955         ok         0.955           9.09         8.61         1.056         ok         1.057           12.74         10.30         1.237         ok         1.237           10.96         10.30         1.064         ok         1.064           6.30         8.61         0.732         ok         0.731           5.28         8.61         0.613         ok         0.613           7.87         8.61         0.914         ok         0.914           15.17         14.54         1.043         ok         1.043           15.68         14.54         1.078         ok         1.078           6.56         8.61         0.762         ok         0.761           11.21         10.30         1.088         ok         1.088           RT         Mean         RT Range           (min.)         RT (min.)         (+/- 0.33)         Area	(min.) (min.) RT RT (+/06)  10.97 10.30 1.065 ok 1.066 1.006-1.126 6.81 8.61 0.791 ok 0.793 0.733-0.853 13.88 14.54 0.955 ok 0.955 0.895-1.015 9.09 8.61 1.056 ok 1.057 0.997-1.117 12.74 10.30 1.237 ok 1.237 1.177-1.297 10.96 10.30 1.064 ok 1.064 1.004-1.124 6.30 8.61 0.732 ok 0.731 0.671-0.791 5.28 8.61 0.613 ok 0.613 0.553-0.673 7.87 8.61 0.914 ok 0.914 0.854-0.974 15.17 14.54 1.043 ok 1.043 0.983-1.103 15.68 14.54 1.078 ok 1.078 1.018-1.138 6.56 8.61 0.762 ok 0.761 0.701-0.821 11.21 10.30 1.088 ok 1.088 1.028-1.148  RT Mean RT Range Mean (min.) RT(min.) (+/- 0.33) Area Mean  RT Mean RT Range Mean (min.) RT(min.) (+/- 0.33) Area



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Target Compound	(111111.)	(111111.)	IX I		IX.I	(17-100)
Acetonitrile	5.98	8.61	0.695	ok	0.694	0.634-0.754
1,3-Butadiene	5.37	8.61	0.624	ok	0.625	0.565-0.685
Benzene	9.99	10.30	0.970	ok	0.971	0.911-1.031
Bromodichloromethane	10.93	10.30	1.061	ok	1.062	1.002-1.122
Bromoform	15.27	14.54	1.050	ok	1.050	0.990-1.110
Bromomethane	5.61	8.61	0.652	ok	0.650	0.590-0.710
Bromoethene	5.99	8.61	0.696	ok	0.696	0.636-0.756
Benzyl Chloride	17.78	14.54	1.223	ok	1.223	1.163-1.283
sec-Butylbenzene	17.92	14.54	1.232	ok	1.232	1.172-1.292
Carbon disulfide	7.14	8.61	0.829	ok	0.829	0.769-0.889
Chlorobenzene	14.58	14.54	1.003	ok	1.003	0.943-1.063
Chloroethane	5.73	8.61	0.666	ok	0.665	0.605-0.725
Chloroform	8.72	8.61	1.013	ok	1.012	0.952-1.072
3-Chloropropene	6.96	8.61	0.808	ok	0.808	0.748-0.868
2-Chlorotoluene	16.86	14.54	1.160	ok	1.160	1.100-1.220
Carbon tetrachloride	10.13	8.61	1.177	ok	1.176	1.116-1.236
Cyclohexane	10.24	10.30	0.994	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.77	8.61	0.902		0.903	0.843-0.963
1,2-Dibromoethane	13.41	14.54	0.922		0.923	0.863-0.983
1,2-Dichloroethane	9.37	8.61	1.088		1.087	1.027-1.147
1,2-Dichloropropane	10.75	10.30	1.044	ok	1.044	0.984-1.104
Dichlorodifluoromethane	4.97	8.61	0.577	ok	0.577	0.517-0.637
Dibromochloromethane	13.17	14.54	0.906	ok	0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.60	8.61	0.883		0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.46	8.61	0.983	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.77	10.30	1.143		1.143	1.083-1.203
m-Dichlorobenzene	17.80	14.54	1.224		1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.54	1.257	ok	1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.54	1.230	ok	1.229	1.169-1.289
trans-1,3-Dichloropropene	12.28	10.30	1.192		1.193	1.133-1.253
Di-Isopropyl ether	8.62	8.61	1.001	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.43	10.30	1.013		1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.61	1.089	ok	1.089	1.029-1.149
Ethylbenzene	14.98	14.54	1.030	ok	1.030	0.970-1.090
4-Ethyltoluene	17.07	14.54	1.174	ok	1.174	1.114-1.234
Freon 113	7.06	8.61	0.820		0.820	0.760-0.880
Freon 114	5.17	8.61	0.600		0.601	0.541-0.661
Freon 123	6.08	8.61	0.706		0.706	0.646-0.766
Freon 123A	6.13	8.61	0.712		0.711	0.651-0.771
Heptane	11.21	10.30	1.088		1.088	1.028-1.148

### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330 Page 40 of 50

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	Bv Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	GCMSW	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	<b>Rel RT Range</b> (+ /06)	
Hexachlorobutadiene	20.75	14.54	1.427 ok	1.426	1.366-1.486	
Hexane	8.62	8.61		1.001	0.941-1.061	
2-Hexanone	13.02	14.54	0.895 ok	0.894	0.834-0.954	
Iodomethane	6.75	8.61	0.784 ok	0.783	0.723-0.843	
Isopropylbenzene	16.33	14.54	1.123 ok	1.123	1.063-1.183	
p-Isopropyltoluene	18.11	14.54	1.246 ok	1.245	1.185-1.305	
Methyl ethyl ketone	8.12	8.61	0.943 ok	0.941	0.881-1.001	
Methyl Isobutyl Ketone	11.84	10.30	1.150 ok	1.148	1.088-1.208	
Methyl Tert Butyl Ether	7.84	8.61	0.911 ok	0.908	0.848-0.968	
Methylmethacrylate	11.15	10.30	1.083 ok	1.081	1.021-1.141	
Nonane	15.90	14.54	1.094 ok	1.094	1.034-1.154	
Octane	13.70	14.54	0.942 ok	0.942	0.882-1.002	
Pentane	6.57	8.61	0.763 ok	0.762	0.702-0.822	
n-Propylbenzene	16.90	14.54	1.162 ok	1.162	1.102-1.222	
Propylene	4.92	8.61	0.571 ok	0.570	0.510-0.630	
Styrene	15.57	14.54	1.071 ok	1.071	1.011-1.131	
1,1,1-Trichloroethane	9.59	8.61	1.114 ok	1.113	1.053-1.173	
1,1,1,2-Tetrachloroethane	14.57	14.54	1.002 ok	1.002	0.942-1.062	
1,1,2,2-Tetrachloroethane	15.69	14.54	1.079 ok	1.079	1.019-1.139	
1,1,2-Trichloroethane	12.46	10.30	1.210 ok	1.210	1.150-1.270	
1,2,3-Trichloropropane	15.83	14.54	1.089 ok	1.088	1.028-1.148	
1,2,4-Trimethylbenzene	17.62	14.54	1.212 ok	1.212	1.152-1.272	
1,3,5-Trimethylbenzene	17.15	14.54		1.180	1.120-1.240	
2,2,4-Trimethylpentane	10.96	10.30		1.066	1.006-1.126	
Tertiary Butyl Alcohol	6.87	8.61		0.793	0.733-0.853	
Tetrachloroethylene	13.88	14.54		0.955	0.895-1.015	
Tetrahydrofuran	9.14	8.61		1.057	0.997-1.117	
Toluene	12.74	10.30		1.237	1.177-1.297	
Trichloroethylene	10.96	10.30		1.064	1.004-1.124	
Trichlorofluoromethane	6.31	8.61	0.733 ok	0.731	0.671-0.791	
Vinyl chloride	5.28	8.61	0.613 ok	0.613	0.553-0.673	
m,p-Xylene	15.16	14.54		1.043	0.983-1.103	
o-Xylene	15.68	14.54		1.078	1.018-1.138	
TVHC As Equiv Heptane	11.21	10.30	1.088 ok	1.088	1.028-1.148	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	8.61 ok	8.61	8.28-8.94	141897	ok 144432	86659-202205
1,4-Difluorobenzene	10.30 ok	10.30	9.97-10.63	729611	ok 737254	442352-1032156

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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	GCMSW	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Chlorobenzene-D5	14.54 ol	14.54	14.21-14.87	330760	ok	352412	211447-493377

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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.17	8.62	0.716	ok	0.717	0.657-0.777
Acrolein	6.07	8.62	0.704	ok	0.705	0.645-0.765
Acrylonitrile	6.51	8.62	0.755	ok	0.756	0.696-0.816
Acetonitrile	5.97	8.62	0.693	ok	0.694	0.634-0.754
1,3-Butadiene	5.37	8.62	0.623	ok	0.625	0.565-0.685
Benzene	10.01	10.30	0.972	ok	0.971	0.911-1.031
Bromodichloromethane	10.94	10.30	1.062	ok	1.062	1.002-1.122
Bromoform	15.29	14.55	1.051	ok	1.050	0.990-1.110
Bromomethane	5.59	8.62	0.648	ok	0.650	0.590-0.710
Bromoethene	5.98	8.62	0.694	ok	0.696	0.636-0.756
n-Butane	5.42	8.62	0.629	ok	0.629	0.569-0.689
Benzyl Chloride	17.79	14.55	1.223	ok	1.223	1.163-1.283
n-Butylbenzene	18.60	14.55	1.278	ok	1.278	1.218-1.338
sec-Butylbenzene	17.93	14.55	1.232	ok	1.232	1.172-1.292
tert-Butylbenzene	17.62	14.55	1.211	ok	1.211	1.151-1.271
Carbon disulfide	7.13	8.62	0.827	ok	0.829	0.769-0.889
Chlorobenzene	14.60	14.55	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.87	8.62	0.565	ok	0.567	0.507-0.627
Chloroethane	5.71	8.62	0.662	ok	0.665	0.605-0.725
Chloroform	8.72	8.62	1.012	ok	1.012	0.952-1.072
Chloromethane	5.10	8.62	0.592	ok	0.592	0.532-0.652
3-Chloropropene	6.96	8.62	0.807	ok	0.808	0.748-0.868
2-Chlorotoluene	16.88	14.55	1.160	ok	1.160	1.100-1.220
Carbon tetrachloride	10.14	8.62	1.176		1.176	1.116-1.236
Cyclohexane	10.25	10.30	0.995	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.77	8.62	0.901		0.903	0.843-0.963
1,1-Dichloroethylene	6.78	8.62	0.787	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.43	14.55	0.923		0.923	0.863-0.983
1,2-Dichloroethane	9.37	8.62	1.087	ok	1.087	1.027-1.147
1,2-Dichloropropane	10.76	10.30	1.045	ok	1.044	0.984-1.104
1,4-Dioxane	10.99	10.30	1.067		1.069	1.009-1.129
Dichlorodifluoromethane	4.96	8.62	0.575	ok	0.577	0.517-0.637
Dibromochloromethane	13.18	14.55	0.906		0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.60	8.62	0.882	ok	0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.47	8.62	0.983	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.78	10.30	1.144		1.143	1.083-1.203
m-Dichlorobenzene	17.81	14.55	1.224		1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.55	1.256		1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.55	1.229		1.229	1.169-1.289
trans-1,3-Dichloropropene	12.29	10.30	1.193	ok	1.193	1.133-1.253



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Lab File ID	Injected	By 1	Level	Inst ID	Method	
W32352.D	06/21/11 17:20	YMH 1	10	GCMSW	TO-15	
W32353.D	06/21/11 18:00	YMH (	0.5	GCMSW	TO-15	
W32356.D	06/21/11 20:00	YMH 2	20	GCMSW	TO-15	
W32357.D	06/21/11 20:40	YMH 5	5.0	GCMSW	TO-15	
W32359.D	06/21/11 22:00	YMH (	0.04	GCMSW	TO-15	
W32360.D	06/21/11 22:40	YMH 4	40	GCMSW	TO-15	Reporting this level
W32364.D	06/22/11 09:56	YMH (	0.2	GCMSW	TO-15	
W32365.D	06/22/11 10:36	YMH (	0.1	GCMSW	TO-15	
	W32352.D W32353.D W32356.D W32357.D W32359.D W32360.D W32364.D	W32352.D 06/21/11 17:20 W32353.D 06/21/11 18:00 W32356.D 06/21/11 20:00 W32357.D 06/21/11 20:40 W32359.D 06/21/11 22:00 W32360.D 06/21/11 22:40 W32364.D 06/22/11 09:56	W32352.D 06/21/11 17:20 YMH W32353.D 06/21/11 18:00 YMH 0 W32356.D 06/21/11 20:00 YMH 2 W32357.D 06/21/11 20:40 YMH 3 W32359.D 06/21/11 22:00 YMH 0 W32360.D 06/21/11 22:40 YMH 0 W32364.D 06/22/11 09:56 YMH 0	W32352.D 06/21/11 17:20 YMH 10 W32353.D 06/21/11 18:00 YMH 0.5 W32356.D 06/21/11 20:00 YMH 20 W32357.D 06/21/11 20:40 YMH 5.0 W32359.D 06/21/11 22:00 YMH 0.04 W32360.D 06/21/11 22:40 YMH 40 W32364.D 06/22/11 09:56 YMH 0.2	W32352.D 06/21/11 17:20 YMH 10 GCMSW W32353.D 06/21/11 18:00 YMH 0.5 GCMSW W32356.D 06/21/11 20:00 YMH 20 GCMSW W32357.D 06/21/11 20:40 YMH 5.0 GCMSW W32357.D 06/21/11 22:40 YMH 5.0 GCMSW W32359.D 06/21/11 22:40 YMH 0.04 GCMSW W32360.D 06/21/11 22:40 YMH 40 GCMSW W32364.D 06/22/11 09:56 YMH 0.2 GCMSW	W32352.D 06/21/11 17:20 YMH 10 GCMSW TO-15 W32353.D 06/21/11 18:00 YMH 0.5 GCMSW TO-15 W32356.D 06/21/11 20:00 YMH 20 GCMSW TO-15 W32357.D 06/21/11 20:40 YMH 5.0 GCMSW TO-15 W32359.D 06/21/11 22:00 YMH 0.04 GCMSW TO-15 W32360.D 06/21/11 22:40 YMH 40 GCMSW TO-15 W32364.D 06/22/11 09:56 YMH 0.2 GCMSW TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	8.61	8.62	0.999	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.45	10.30	1.015	ok	1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.62	1.088	ok	1.089	1.029-1.149
Ethanol	5.81	8.62	0.674	ok	0.675	0.615-0.735
Ethylbenzene	14.99	14.55	1.030	ok	1.030	0.970-1.090
Ethyl Acetate	8.63	8.62	1.001	ok	1.002	0.942-1.062
4-Ethyltoluene	17.08	14.55	1.174	ok	1.174	1.114-1.234
Freon 113	7.06	8.62	0.819	ok	0.820	0.760-0.880
Freon 114	5.17	8.62	0.600	ok	0.601	0.541-0.661
Freon 123	6.07	8.62	0.704	ok	0.706	0.646-0.766
Freon 123A	6.12	8.62	0.710	ok	0.711	0.651-0.771
Heptane	11.21	10.30	1.088	ok	1.088	1.028-1.148
Hexachlorobutadiene	20.74	14.55	1.425	ok	1.426	1.366-1.486
Hexachloroethane	19.03	14.55	1.308	ok	1.309	1.249-1.369
Hexane	8.62	8.62	1.000	ok	1.001	0.941-1.061
2-Hexanone	13.01	14.55	0.894	ok	0.894	0.834-0.954
Iodomethane	6.74	8.62	0.782	ok	0.783	0.723-0.843
Isopropylbenzene	16.35	14.55	1.124	ok	1.123	1.063-1.183
Isopropyl Alcohol	6.35	8.62	0.737	ok	0.738	0.678-0.798
p-Isopropyltoluene	18.11	14.55	1.245	ok	1.245	1.185-1.305
Methylene chloride	6.87	8.62	0.797	ok	0.798	0.738-0.858
Methyl ethyl ketone	8.10	8.62	0.940	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	11.82	10.30	1.148	ok	1.148	1.088-1.208
Methyl Tert Butyl Ether	7.81	8.62	0.906	ok	0.908	0.848-0.968
Methylmethacrylate	11.14	10.30	1.082	ok	1.081	1.021-1.141
Naphthalene	20.35	14.55	1.399	ok	1.399	1.339-1.459
Nonane	15.91	14.55	1.093	ok	1.094	1.034-1.154
Octane	13.71	14.55	0.942	ok	0.942	0.882-1.002
Pentane	6.55	8.62	0.760	ok	0.762	0.702 - 0.822
n-Propylbenzene	16.91	14.55	1.162	ok	1.162	1.102-1.222
Propylene	4.90	8.62	0.568	ok	0.570	0.510-0.630
Styrene	15.58	14.55	1.071	ok	1.071	1.011-1.131
1,1,1-Trichloroethane	9.59	8.62	1.113	ok	1.113	1.053-1.173
1,1,1,2-Tetrachloroethane	14.58	14.55	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.69	14.55	1.078	ok	1.079	1.019-1.139
1,1,2-Trichloroethane	12.48	10.30	1.212	ok	1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.23	14.55	1.390	ok	1.391	1.331-1.451
1,2,3-Trichloropropane	15.84	14.55	1.089	ok	1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.63	14.55	1.212	ok	1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.16	14.55	1.179	ok	1.180	1.120-1.240



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	GCMSW	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	GCMSW	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
2,2,4-Trimethylpentane	10.98	10.30	1.066 ok	1.066	1.006-1.126	
Tertiary Butyl Alcohol	6.81	8.62	0.790 ok	0.793	0.733-0.853	
Tetrachloroethylene	13.89	14.55	0.955 ok	0.955	0.895-1.015	
Tetrahydrofuran	9.09	8.62	1.055 ok	1.057	0.997-1.117	
Toluene	12.74	10.30	1.237 ok	1.237	1.177-1.297	
Trichloroethylene	10.97	10.30	1.065 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.29	8.62	0.730 ok	0.731	0.671-0.791	
Vinyl chloride	5.27	8.62	0.611 ok	0.613	0.553-0.673	
Vinyl Acetate	7.87	8.62	0.913 ok	0.914	0.854-0.974	
m, p-Xylene	15.19	14.55	1.044 ok	1.043	0.983-1.103	
o-Xylene	15.69	14.55	1.078 ok	1.078	1.018-1.138	
TVHC As Equiv Pentane	6.55	8.62	0.760 ok	0.761	0.701-0.821	
TVHC As Equiv Heptane	11.21	10.30	1.088 ok	1.088	1.028-1.148	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	( <b>min.</b> )	RT(min.)	(+ /- 0.33)	Area	Area	(+ / <b>- 40 %</b> )
Bromochloromethane	8.62 o	k 8.61	8.28-8.94	144315	ok 144432	86659-202205
1,4-Difluorobenzene	10.30 o	k 10.30	9.97-10.63	730116	ok 737254	442352-1032156
Chlorobenzene-D5	14.55 o	k 14.54	14.21-14.87	384708	ok 352412	211447-493377



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acetone	6.18	8.61	0.718	ok	0.717	0.657-0.777
Acrolein	6.08	8.61	0.706	ok	0.705	0.645-0.765
Acrylonitrile	6.51	8.61	0.756	ok	0.756	0.696-0.816
Acetonitrile	5.98	8.61	0.695	ok	0.694	0.634-0.754
1,3-Butadiene	5.39	8.61	0.626	ok	0.625	0.565-0.685
Benzene	10.00	10.29	0.972	ok	0.971	0.911-1.031
Bromodichloromethane	10.93	10.29	1.062	ok	1.062	1.002-1.122
Bromoform	15.27	14.54	1.050	ok	1.050	0.990-1.110
Bromomethane	5.60	8.61	0.650	ok	0.650	0.590-0.710
Bromoethene	5.99	8.61	0.696	ok	0.696	0.636-0.756
n-Butane	5.42	8.61	0.630	ok	0.629	0.569-0.689
Benzyl Chloride	17.78	14.54	1.223	ok	1.223	1.163-1.283
n-Butylbenzene	18.58	14.54	1.278	ok	1.278	1.218-1.338
sec-Butylbenzene	17.92	14.54	1.232	ok	1.232	1.172-1.292
tert-Butylbenzene	17.61	14.54	1.211	ok	1.211	1.151-1.271
Carbon disulfide	7.15	8.61	0.830	ok	0.829	0.769-0.889
Chlorobenzene	14.59	14.54	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	4.88	8.61	0.567	ok	0.567	0.507-0.627
Chloroethane	5.72	8.61	0.664	ok	0.665	0.605-0.725
Chloroform	8.71	8.61	1.012	ok	1.012	0.952-1.072
Chloromethane	5.11	8.61	0.593	ok	0.592	0.532-0.652
3-Chloropropene	6.96	8.61	0.808	ok	0.808	0.748-0.868
2-Chlorotoluene	16.87	14.54	1.160	ok	1.160	1.100-1.220
Carbon tetrachloride	10.13	8.61	1.177	ok	1.176	1.116-1.236
Cyclohexane	10.24	10.29	0.995	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.77	8.61	0.902		0.903	0.843-0.963
1,1-Dichloroethylene	6.79	8.61	0.789	ok	0.788	0.728-0.848
1,2-Dibromoethane	13.41	14.54	0.922	ok	0.923	0.863-0.983
1,2-Dichloroethane	9.36	8.61	1.087	ok	1.087	1.027-1.147
1,2-Dichloropropane	10.74	10.29	1.044	ok	1.044	0.984-1.104
1,4-Dioxane	11.06	10.29	1.075		1.069	1.009-1.129
Dichlorodifluoromethane	4.96	8.61	0.576	ok	0.577	0.517-0.637
Dibromochloromethane	13.17	14.54	0.906	ok	0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.61	8.61	0.884		0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.47	8.61	0.984	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.77	10.29	1.144	ok	1.143	1.083-1.203
m-Dichlorobenzene	17.80	14.54	1.224	ok	1.224	1.164-1.284
o-Dichlorobenzene	18.26	14.54	1.256	ok	1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.54	1.230		1.229	1.169-1.289
trans-1,3-Dichloropropene	12.28	10.29	1.193	ok	1.193	1.133-1.253



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

**Project:** Lockheed Electronics Co, Watchung, NJ

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Di-Isopropyl ether	8.62	8.61	1.001	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.43	10.29	1.014		1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.61	1.089		1.089	1.029-1.149
Ethylbenzene	14.98	14.54	1.030		1.030	0.970-1.090
Ethyl Acetate	8.64	8.61	1.003		1.002	0.942-1.062
4-Ethyltoluene	17.07	14.54	1.174		1.174	1.114-1.234
Freon 113	7.06	8.61	0.820		0.820	0.760-0.880
Freon 114	5.18	8.61	0.602		0.601	0.541-0.661
Freon 123	6.08	8.61	0.706		0.706	0.646-0.766
Freon 123A	6.12	8.61	0.711		0.711	0.651-0.771
Heptane	11.21	10.29	1.089		1.088	1.028-1.148
Hexachlorobutadiene	20.74	14.54	1.426		1.426	1.366-1.486
Hexachloroethane	19.03	14.54	1.309		1.309	1.249-1.369
Hexane	8.62	8.61	1.001		1.001	0.941-1.061
2-Hexanone	13.01	14.54	0.895		0.894	0.834-0.954
Iodomethane	6.74	8.61	0.783	ok	0.783	0.723-0.843
Isopropylbenzene	16.33	14.54	1.123	ok	1.123	1.063-1.183
Isopropyl Alcohol	6.37	8.61	0.740	ok	0.738	0.678-0.798
p-Isopropyltoluene	18.10	14.54	1.245	ok	1.245	1.185-1.305
Methylene chloride	6.88	8.61	0.799	ok	0.798	0.738-0.858
Methyl ethyl ketone	8.12	8.61	0.943	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	11.83	10.29	1.150	ok	1.148	1.088-1.208
Methyl Tert Butyl Ether	7.83	8.61	0.909	ok	0.908	0.848-0.968
Methylmethacrylate	11.13	10.29	1.082	ok	1.081	1.021-1.141
Naphthalene	20.36	14.54	1.400	ok	1.399	1.339-1.459
Nonane	15.90	14.54	1.094	ok	1.094	1.034-1.154
Octane	13.70	14.54	0.942	ok	0.942	0.882-1.002
Pentane	6.56	8.61	0.762	ok	0.762	0.702-0.822
n-Propylbenzene	16.90	14.54	1.162	ok	1.162	1.102-1.222
Propylene	4.91	8.61	0.570	ok	0.570	0.510-0.630
Styrene	15.56	14.54	1.070	ok	1.071	1.011-1.131
1,1,1-Trichloroethane	9.59	8.61	1.114	ok	1.113	1.053-1.173
1,1,1,2-Tetrachloroethane	14.57	14.54	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.69	14.54	1.079	ok	1.079	1.019-1.139
1,1,2-Trichloroethane	12.46	10.29	1.211	ok	1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.23	14.54	1.391	ok	1.391	1.331-1.451
1,2,3-Trichloropropane	15.83	14.54	1.089	ok	1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.61	14.54	1.211		1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.15	14.54	1.180	ok	1.180	1.120-1.240
2,2,4-Trimethylpentane	10.97	10.29	1.066	ok	1.066	1.006-1.126



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# Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: **RAVIV TRC** 

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	GCMSW	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	GCMSW	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	GCMSW	TO-15	Reporting this level
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	

<b>Target Compound</b>	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /06)	
Tertiary Butyl Alcohol	6.85	8.61	0.796 ok	0.793	0.733-0.853	
Tetrachloroethylene	13.88	14.54	0.955 ok	0.955	0.895-1.015	
Tetrahydrofuran	9.12	8.61	1.059 ok	1.057	0.997-1.117	
Toluene	12.74	10.29	1.238 ok	1.237	1.177-1.297	
Trichloroethylene	10.96	10.29	1.065 ok	1.064	1.004-1.124	
Trichlorofluoromethane	6.30	8.61	0.732 ok	0.731	0.671-0.791	
Vinyl chloride	5.29	8.61	0.614 ok	0.613	0.553-0.673	
Vinyl Acetate	7.88	8.61	0.915 ok	0.914	0.854-0.974	
m, p-Xylene	15.17	14.54	1.043 ok	1.043	0.983-1.103	
o-Xylene	15.68	14.54	1.078 ok	1.078	1.018-1.138	
TVHC As Equiv Pentane	6.56	8.61	0.762 ok	0.761	0.701-0.821	
TVHC As Equiv Heptane	11.21	10.29	1.089 ok	1.088	1.028-1.148	
	RT	Mean	RT Range		Mean	Area Range
Internal Standard	(min.)	RT(min.)	(+ /- 0.33)	Area	Area	(+ <b>/- 40 %</b> )
Bromochloromethane	8.61 ok	8.61	8.28-8.94	150155	ok 144432	86659-202205
1,4-Difluorobenzene	10.29 ok	10.30	9.97-10.63	752387	ok 737254	442352-1032156
Chlorobenzene-D5	14.54 ok	14.54	14.21-14.8	7 344093	ok 352412	211447-493377



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Acrylonitrile	6.52	8.61	0.757	ok	0.756	0.696-0.816
Acetonitrile	5.98	8.61	0.695	ok	0.694	0.634-0.754
1,3-Butadiene	5.39	8.61	0.626	ok	0.625	0.565-0.685
Benzene	10.00	10.29	0.972	ok	0.971	0.911-1.031
Bromodichloromethane	10.93	10.29	1.062	ok	1.062	1.002-1.122
Bromoform	15.27	14.54	1.050	ok	1.050	0.990-1.110
Bromomethane	5.60	8.61	0.650	ok	0.650	0.590-0.710
Bromoethene	6.00	8.61	0.697	ok	0.696	0.636-0.756
Benzyl Chloride	17.78	14.54	1.223	ok	1.223	1.163-1.283
sec-Butylbenzene	17.92	14.54	1.232	ok	1.232	1.172-1.292
tert-Butylbenzene	17.61	14.54	1.211	ok	1.211	1.151-1.271
Carbon disulfide	7.15	8.61	0.830	ok	0.829	0.769-0.889
Chlorobenzene	14.59	14.54	1.003	ok	1.003	0.943-1.063
Chloroethane	5.73	8.61	0.666	ok	0.665	0.605-0.725
Chloroform	8.71	8.61	1.012	ok	1.012	0.952-1.072
3-Chloropropene	6.97	8.61	0.810	ok	0.808	0.748-0.868
2-Chlorotoluene	16.87	14.54	1.160	ok	1.160	1.100-1.220
Carbon tetrachloride	10.13	8.61	1.177	ok	1.176	1.116-1.236
Cyclohexane	10.24	10.29	0.995	ok	0.995	0.935-1.055
1,1-Dichloroethane	7.78	8.61	0.904	ok	0.903	0.843-0.963
1,2-Dibromoethane	13.42	14.54	0.923	ok	0.923	0.863-0.983
1,2-Dichloroethane	9.35	8.61	1.086	ok	1.087	1.027-1.147
1,2-Dichloropropane	10.74	10.29	1.044	ok	1.044	0.984-1.104
Dichlorodifluoromethane	4.97	8.61	0.577	ok	0.577	0.517-0.637
Dibromochloromethane	13.17	14.54	0.906	ok	0.906	0.846-0.966
trans-1,2-Dichloroethylene	7.61	8.61	0.884	ok	0.883	0.823-0.943
cis-1,2-Dichloroethylene	8.46	8.61	0.983	ok	0.983	0.923-1.043
cis-1,3-Dichloropropene	11.77	10.29	1.144	ok	1.143	1.083-1.203
m-Dichlorobenzene	17.79	14.54	1.224	ok	1.224	1.164-1.284
o-Dichlorobenzene	18.27	14.54	1.257	ok	1.256	1.196-1.316
p-Dichlorobenzene	17.88	14.54	1.230	ok	1.229	1.169-1.289
trans-1,3-Dichloropropene	12.28	10.29	1.193	ok	1.193	1.133-1.253
Di-Isopropyl ether	8.62	8.61	1.001	ok	1.000	0.940-1.060
2,3-Dimethylpentane	10.45	10.29	1.016	ok	1.014	0.954-1.074
2,4-Dimethylpentane	9.38	8.61	1.089	ok	1.089	1.029-1.149
Ethylbenzene	14.98	14.54	1.030	ok	1.030	0.970-1.090
Ethyl Acetate	8.63	8.61	1.002	ok	1.002	0.942-1.062
4-Ethyltoluene	17.07	14.54	1.174	ok	1.174	1.114-1.234
Freon 113	7.06	8.61	0.820	ok	0.820	0.760-0.880
Freon 114	5.18	8.61	0.602	ok	0.601	0.541-0.661



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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /06)
Freon 123	6.09	8.61	0.707	ok	0.706	0.646-0.766
Freon 123A	6.12	8.61	0.711	ok	0.711	0.651-0.771
Heptane	11.21	10.29	1.089	ok	1.088	1.028-1.148
Hexachlorobutadiene	20.75	14.54	1.427	ok	1.426	1.366-1.486
Hexachloroethane	19.03	14.54	1.309	ok	1.309	1.249-1.369
Hexane	8.62	8.61	1.001	ok	1.001	0.941-1.061
2-Hexanone	13.02	14.54	0.895	ok	0.894	0.834-0.954
Iodomethane	6.74	8.61	0.783	ok	0.783	0.723-0.843
Isopropylbenzene	16.33	14.54	1.123	ok	1.123	1.063-1.183
p-Isopropyltoluene	18.10	14.54	1.245	ok	1.245	1.185-1.305
Methyl ethyl ketone	8.12	8.61	0.943	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	11.84	10.29	1.151	ok	1.148	1.088-1.208
Methyl Tert Butyl Ether	7.83	8.61	0.909	ok	0.908	0.848-0.968
Methylmethacrylate	11.14	10.29	1.083	ok	1.081	1.021-1.141
Nonane	15.90	14.54	1.094	ok	1.094	1.034-1.154
Octane	13.70	14.54	0.942	ok	0.942	0.882-1.002
Pentane	6.56	8.61	0.762	ok	0.762	0.702-0.822
n-Propylbenzene	16.90	14.54	1.162	ok	1.162	1.102-1.222
Propylene	4.92	8.61	0.571	ok	0.570	0.510-0.630
Styrene	15.57	14.54	1.071	ok	1.071	1.011-1.131
1,1,1-Trichloroethane	9.59	8.61	1.114	ok	1.113	1.053-1.173
1,1,1,2-Tetrachloroethane	14.57	14.54	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.68	14.54	1.078	ok	1.079	1.019-1.139
1,1,2-Trichloroethane	12.47	10.29	1.212	ok	1.210	1.150-1.270
1,2,4-Trichlorobenzene	20.23	14.54	1.391	ok	1.391	1.331-1.451
1,2,3-Trichloropropane	15.82	14.54	1.088	ok	1.088	1.028-1.148
1,2,4-Trimethylbenzene	17.61	14.54	1.211	ok	1.212	1.152-1.272
1,3,5-Trimethylbenzene	17.16	14.54	1.180	ok	1.180	1.120-1.240
2,2,4-Trimethylpentane	10.98	10.29	1.067	ok	1.066	1.006-1.126
Tertiary Butyl Alcohol	6.85	8.61	0.796	ok	0.793	0.733-0.853
Tetrachloroethylene	13.88	14.54	0.955	ok	0.955	0.895-1.015
Tetrahydrofuran	9.13	8.61	1.060	ok	1.057	0.997-1.117
Toluene	12.74	10.29	1.238	ok	1.237	1.177-1.297
Trichloroethylene	10.96	10.29	1.065	ok	1.064	1.004-1.124
Trichlorofluoromethane	6.29	8.61	0.731	ok	0.731	0.671-0.791
Vinyl chloride	5.28	8.61	0.613	ok	0.613	0.553-0.673
m,p-Xylene	15.16	14.54	1.043	ok	1.043	0.983-1.103
o-Xylene	15.68	14.54	1.078	ok	1.078	1.018-1.138
TVHC As Equiv Pentane	6.56	8.61	0.762	ok	0.761	0.701-0.821
TVHC As Equiv Heptane	11.21	10.29	1.089	ok	1.088	1.028-1.148

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### Initial Calibration Retention Time/Internal Standard Area Summary Job Number: JA81330

Account: RAVIV TRC

Sample Number	Lab File ID	Injected	By Level	Inst ID	Method	
VW1322-ICC1322	W32352.D	06/21/11 17:20	YMH 10	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32353.D	06/21/11 18:00	YMH 0.5	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32356.D	06/21/11 20:00	YMH 20	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32357.D	06/21/11 20:40	YMH 5.0	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32359.D	06/21/11 22:00	YMH 0.04	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32360.D	06/21/11 22:40	YMH 40	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32364.D	06/22/11 09:56	YMH 0.2	<b>GCMSW</b>	TO-15	
VW1322-IC1322	W32365.D	06/22/11 10:36	YMH 0.1	GCMSW	TO-15	Reporting this level

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.61 ok	8.61	8.28-8.94	144028	ok	144432	86659-202205
1,4-Difluorobenzene	10.29 ok	10.30	9.97-10.63	740621	ok	737254	442352-1032156
Chlorobenzene-D5	14.54 ok	14.54	14.21-14.87	336405	ok	352412	211447-493377

#### Volatile Surrogate Recovery Summary Job Number: JA81330

Job Number: JA81330 Account: RAVIV TRC

Project: Lockheed Electronics Co, Watchung, NJ

Method: TO-15 Matrix: AIR

#### Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
JA81330-1	W32816.D	99.0
JA81330-1	W32807.D	101.0
JA81330-2	W32817.D	97.0
JA81330-2	W32808.D	100.0
JA81330-3	W32818.D	94.0
JA81330-3	W32809.D	103.0
JA81330-4	W32819.D	93.0
JA81330-4	W32810.D	105.0
JA81330-5	W32833.D	90.0
JA81330-5	W32811.D	105.0
JA81330-6	W32834.D	89.0
JA81330-6	W32813.D	101.0
JA81330-7	W32835.D	90.0
JA81330-7	W32814.D	97.0
JA81330-8	W32836.D	92.0
JA81330-8	W32815.D	100.0
JA81054-3DUP	W32841.D	93.0
JA81330-5DUP	W32812.D	105.0
V3W910-SCC	3W23024.D	81.0
VW1324-SCC	W32412.D	92.0
VW1341-BS	W32801.D	93.0
VW1341-BSD	W32802.D	94.0
VW1341-MB	W32803.D	89.0
VW1342-BS	W32830.D	92.0
VW1342-BSD	W32831.D	92.0
VW1342-MB	W32832.D	89.0
V3W910-BS	3W23019.D	99.0
V3W910-BSD	3W23020.D	100.0
V3W910-MB	3W23021.D	95.0
VW1324-BS	W32387.D	104.0
VW1324-BSD	W32388.D	104.0
VW1324-MB	W32389.D	94.0

Surrogate Recovery Compounds Limits

**S1** = 4-Bromofluorobenzene 65-128%

0.000

-1.00

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**Initial Calibration Summary** 

Job Number: JA81330

Account: RAVIV TRC **Project:** Lockheed Electronics Co, Watchung, NJ Sample: V3W886-ICC886 Lab FileID: 3W22419.D

Response Factor Report MS3W

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Initial Calibration

Calibration Files

0.04=3W22422.D 0.1 = 3W22423.D 0.2 = 3W22421.D 0.5 = 3W22425.D 5 = 3W22416.D 10 = 3W22419.D 20 = 3W22418.D 40 = 3W22424.D

1 =3W22420.D

Compound

0.04 0.1 0.2 0.5 5 10 20 40 1 Avg %RSD

1) I BROMOCHLOROMETHANE -----ISTD-----ISTD-----

2) FREON 115

0.000 3) FREON 152A

4) CHLORODIFLUOROMETHANE 0.427 0.476 0.448 0.436 0.349 0.343 0.329 0.450 0.407 14.07

5) DICHLORODIFLUOROMETHANE

4.152 3.826 4.107 3.998 4.181 3.321 3.213 2.996 3.980 3.752 12.05

6) PROPYLENE

2.783 1.866 1.602 1.294 1.250 1.180 1.675 1 664 33 27

7) FREON 114

4.171 3.889 4.501 4.510 4.646 3.780 3.625 3.314 4.535 4.108 11 59

8) CHLOROMETHANE

2.351 1.740 1.855 1.657 1.704 1.380 1.373 1.347 1.708 1.680 18.60

9) VINYL CHLORIDE

1.305 1.552 1.687 1.708 1.849 1.544 1.497 1.428 1.808 1.598 11.22

10) 1,3-BUTADIENE

1.186 1.068 1.260 1.242 1.392 1.178 1.135 1.079 1.318 1.207 8.93

11) n-BUTANE

3.704 3.434 2.926 2.911 2.393 2.297 2.154 2.974 2.849 19.20

12) BROMOMETHANE

1.653 1.409 1.543 1.567 1.636 1.373 1.331 1.254 1.531 1.477 9.50

13) CHLOROETHANE

0.555 0.725 0.812 0.818 0.962 0.808 0.789 0.745 0.889 0.789 14.33

14) DICHLOROFLUOROMETHANE

3.769 3.033 3.519 3.443 3.740 3.105 3.000 2.801 3.575 3.332 10.59

15) ACETONITRILE

1.805 1.271 1.272 1.124 1.230 1.211 1.305 1.317 16.95

16) FREON 123

2.399 3.063 3.081 3.134 3.796 3.179 3.067 2.837 3.279 3.093

17) FREON 123A

1.235 1.371 1.655 1.720 2.095 1.726 1.691 1.588 1.762 1.649 14.80

18) TRICHLOROFLUOROMETHANE

3.947 3.247 3.643 3.584 3.931 3.218 3.131 2.894 3.812 3.490 10.90

19) ISOPROPYL ALCOHOL

2.799 2.371 2.507 2.165 2.178 2.235 2.813 2.438 11.40

20) ACETONE

0.525 0.770 0.561 0.558 0.498 0.568 0.582 0.639 0 588 14 38

21) PENTANE

2.564 2.344 2.155 1.937 2.014 1.680 1.603 1.498 1.960 1.973 17.66

22) TVHC as EOUIV PENTANE

0.702 1.077 1.148 0.978 0.970 0.918 1.038 0.976 E1 14.62

23) IODOMETHANE



#### Initial Calibration Summary Job Number: JA81330

Job Number: JA81330 Sample: V3W886-ICC886 Account: RAVIV TRC Lab FileID: 3W22419.D

Project: Lockheed Electronics Co, Watchung, NJ

	3.418 3.300 3.888 3.796 4.370 3.584 3.489 3.269 3.990	3.678 9.88	
24)	1,1-DICHLOROETHYLENE 1.219 1.218 1.517 1.445 1.599 1.293 1.285 1.201 1.513	1.365 11.22	
25)	CARBON DISULFIDE 4.036 3.588 3.902 3.810 4.203 3.418 3.351 3.129 4.000	3.715 9.73	
26)	ETHANOL	0.605 23.00	
27)	0.880 0.652 0.553 0.571 0.587 0.927 BROMOETHENE	0.695 23.80	
28)	1.151 1.241 1.543 1.409 1.629 1.371 1.319 1.253 1.510 ACRYLONITRILE	1.381 11.41	
29)	0.416 0.686 0.704 0.888 0.814 0.878 0.859 0.765 METHYLENE CHLORIDE	0.751 20.71	
	1.966 1.577 1.283 1.503 1.233 1.198 1.126 1.457	1.418 19.23	
	3-CHLOROPROPENE 0.466 0.490 0.532 0.752 0.628 0.628 0.598 0.632	0.591 15.65	
31)	FREON 113 2.079 2.097 2.442 2.460 2.680 2.152 2.109 1.968 2.459	2.272 10.64	
32)	TRANS-1,2-DICHLOROETHYLENE 1.086 1.052 1.297 1.312 1.541 1.268 1.263 1.212 1.386	1.269 11.63	
33)	TERTIARY BUTYL ALCOHOL		
34)	1.979 2.024 2.256 2.390 2.906 2.479 2.441 2.428 2.783 METHYL TERTIARY BUTYL ETHER	2.410 12.72	
35)	2.904 2.666 2.797 3.013 2.973 2.510 2.999 3.102 3.081 TETRAHYDROFURAN	2.894 6.90	
36)	0.354 0.481 0.548 0.463 0.561 0.593 0.516 HEXANE	0.502 15.82	
	2.116 2.141 2.441 2.309 2.627 2.113 2.099 1.995 2.387	2.248 9.13	
37)	VINYL ACETATE 0.074 0.181 0.273 0.245 0.281 0.282 0.210	0.221 34.06	
38)	1,1-DICHLOROETHANE 2.162 2.133 2.352 2.374 3.046 2.466 2.459 2.325 2.489	2.423 10.96	
39)	METHYL ETHYL KETONE 0.299 0.473 0.550 0.454 0.518 0.570 0.520	0.484 18.83	
40)	cis-1,2-DICHLOROETHYLENE		
41)	0.922 0.986 1.166 1.267 1.637 1.360 1.369 1.318 1.350 DIISOPROPYL ETHER	1.264 17.10	
42)	3.699 3.468 3.698 3.736 4.007 3.292 3.852 3.962 4.017 ETHYL ACETATE	3.748 6.58	
421	0.202 0.280 0.360 0.302 0.355 0.386 0.354 METHYL ACRYLATE	0.320 19.84	
	1.232 1.202 1.606 1.663 2.040 1.773 2.161 2.210 1.894	1.753 20.98	
44)	CHLOROFORM 2.316 2.414 2.525 2.490 3.205 2.612 2.620 2.508 2.676	2.596 9.76	
45)	2,4-DIMETHYLPENTANE 2.017 2.267 2.685 2.583 3.277 2.632 2.626 2.503 2.787	2.597 13.36	
46)	1,1,1-TRICHLOROETHANE 2.127 2.110 2.214 2.328 3.078 2.468 2.496 2.409 2.506	2.415 12.08	
47)	CARBON TETRACHLORIDE		
48)	2.017 2.334 2.814 2.757 3.337 2.690 2.687 2.573 2.892 1,2-DICHLOROETHANE	2.678 13.67	
	1.248 1.312 1.466 1.946 1.573 1.635 1.602 1.483	1.533 14.05	
	I 1,4-DIFLUOROBENZENEISTDISTD		
	0.893 0.782 0.806 0.806 1.067 0.895 0.908 0.888 0.882 CYCLOHEXANE	0.881 9.58	
	0.136 0.175 0.184 0.179 0.147 0.145 0.143 0.184	0.162 12.74	
52)	2,3-DIMETHYLPENTANE 0.267 0.236 0.256 0.212 0.212 0.207 0.243	0.233 10.06	
53)	TRICHLOROETHYLENE		

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#### Initial Calibration Summary Job Number: JA81330

Job Number:JA81330Sample:V3W886-ICC886Account:RAVIV TRCLab FileID:3W22419.D

Project: Lockheed Electronics Co, Watchung, NJ

	0.314 0.319 0.3	54 0.376	0.467	0.381	0.387	0.376	0.418	0.377	12.55
54)	1,2-DICHLOROPROPANE 0.271 0.296 0.3	01 0.304	0.405	0.343	0.357	0.354	0.332	0.329	12.41
55)	DIBROMOMETHANE 0.284 0.292 0.3	05 0.307	0.420	0.349	0.357	0.348	0.352	0.335	12.74
56)	ETHYL ACRYLATE 0.220 0.307 0.3	89 0 377	0 565	0 481	0 540	0 594	0 500	0 441	28.61
57)	BROMODICHLOROMETHANE								
58)	0.453 0.475 0.5 2,2,4-TRIMETHYLPENTAN		0.743	0.615	0.621	0.606	0.621	0.580	15.15
59)	1.455 1.400 1.4 1,4-DIOXANE	32 1.491	1.852	1.515	1.514	1.447	1.598	1.523	8.96
60)	0.090 0.1 HEPTANE	26 0.141	0.182	0.151	0.160	0.171	0.153	0.147	19.65
60)	0.672 0.618 0.5	98 0.611	0.736	0.611	0.608	0.578	0.660	0.632	7.68
61)	·-			2 500	2 510		2 222	0.655	0.65
62)	3.3 METHYL METHACRYLATE	21 3.342	4.224	3.520	3.712	3.722	3.883	3.675	8.67
	0.134 0.1		0.270	0.231	0.272	0.302	0.275	0.235	23.51
63)	METHYL ISOBUTYL KETON 0.119 0.1		0 245	0 209	0 219	0 241	0 193	0 195	21.83
64)	cis-1,3-DICHLOROPROPE		0.213	0.203	0.219	0.211	0.133	0.133	21.03
<b>(F)</b>	0.338 0.3	49 0.371	0.557	0.474	0.495	0.491	0.442	0.440	18.01
65)	TOLUENE 0.446 0.520 0.4	86 0.476	0.691	0.587	0.611	0.610	0.548	0.553	14.28
66)	trans-1,3-DICHLOROPRO	PENE 81 0.315	0.516	0.457	0.490	0.502	0.378	0.420	22.65
67)	1,1,2-TRICHLOROETHANE								
	0.140 0.245 0.2	55 0.270	0.356	0.299	0.311	0.312	0.290	0.275	22.03
68)	T CHLOROBENZENE-D5				ISTD				
	I CHLOROBENZENE-D5 2-HEXANONE			:	ISTD				
69)	2-HEXANONE 0.213 0.4								27.15
69) 70)	2-HEXANONE 0.213 0.4 ETHYL METHACRYLATE 0.6		0.666	0.594	0.600	0.610	0.579	0.526	
69) 70)	2-HEXANONE 0.213 0.4 ETHYL METHACRYLATE	84 0.465	0.666	0.594	0.600	0.610	0.579	0.526	
69) 70) 71)	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.6  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE	.84 0.465 11 0.576 30 0.844	0.666 0.910 1.030	0.594 0.754 0.844	0.600 0.781 0.815	0.610 0.792 0.731	0.579 0.721 0.978	0.526 0.735 0.860	15.42
69) 70) 71) 72)	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.6  TETRACHLOROETHYLENE  0.836 0.833 0.8	.84 0.465 11 0.576 30 0.844	0.666 0.910 1.030	0.594 0.754 0.844	0.600 0.781 0.815	0.610 0.792 0.731	0.579 0.721 0.978	0.526 0.735 0.860	15.42
<ul><li>69)</li><li>70)</li><li>71)</li><li>72)</li><li>73)</li></ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.6  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE  0.615 0.704 0.8	84 0.465 31 0.576 30 0.844 366 1.095	0.666 0.910 1.030 1.512	0.594 0.754 0.844 1.249	0.600 0.781 0.815 1.256	0.610 0.792 0.731 1.156	0.579 0.721 0.978 1.236	0.526 0.735 0.860 1.179	15.42
<ul><li>69)</li><li>70)</li><li>71)</li><li>72)</li><li>73)</li></ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.6  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE	84 0.465 31 0.576 30 0.844 466 1.095	0.666 0.910 1.030 1.512 1.241	0.594 0.754 0.844 1.249	0.600 0.781 0.815 1.256 1.071	0.610 0.792 0.731 1.156 0.990	0.579 0.721 0.978 1.236 1.057	0.526 0.735 0.860 1.179 0.932	15.42 10.41 13.29
<ul><li>69)</li><li>70)</li><li>71)</li><li>72)</li><li>73)</li></ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.66  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE  0.615 0.704 0.8  OCTANE  1.396 1.444 1.5	84 0.465 31 0.576 30 0.844 466 1.095 307 0.855 335 1.509 THANE	0.666 0.910 1.030 1.512 1.241 1.993	0.594 0.754 0.844 1.249 1.051	0.600 0.781 0.815 1.256 1.071 1.558	0.610 0.792 0.731 1.156 0.990 1.384	0.579 0.721 0.978 1.236 1.057	0.526 0.735 0.860 1.179 0.932 1.572	15.42 10.41 13.29 21.50
<ul> <li>69)</li> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> </ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.6  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE  0.615 0.704 0.8  OCTANE  1.396 1.444 1.5	84 0.465 31 0.576 30 0.844 466 1.095 307 0.855 335 1.509 THANE	0.666 0.910 1.030 1.512 1.241 1.993	0.594 0.754 0.844 1.249 1.051	0.600 0.781 0.815 1.256 1.071 1.558	0.610 0.792 0.731 1.156 0.990 1.384	0.579 0.721 0.978 1.236 1.057	0.526 0.735 0.860 1.179 0.932 1.572	15.42 10.41 13.29 21.50
<ul> <li>69)</li> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> <li>76)</li> </ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.66  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE  0.615 0.704 0.8  OCTANE  1.396 1.444 1.5  1,1,1,2-TETRACHLOROET  0.558 0.676 0.7  CHLOROBENZENE  1.361 1.336 1.3	84 0.465 31 0.576 30 0.844 66 1.095 07 0.855 35 1.509 HANE 19 0.775	0.666 0.910 1.030 1.512 1.241 1.993	0.594 0.754 0.844 1.249 1.051 1.606	0.600 0.781 0.815 1.256 1.071 1.558	0.610 0.792 0.731 1.156 0.990 1.384	0.579 0.721 0.978 1.236 1.057 1.723	0.526 0.735 0.860 1.179 0.932 1.572 0.785	15.42 10.41 13.29 21.50
<ul> <li>69)</li> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> </ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.66  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE  0.615 0.704 0.8  OCTANE  1.396 1.444 1.5  1,1,1,2-TETRACHLOROET  0.558 0.676 0.7  CHLOROBENZENE	84 0.465 31 0.576 30 0.844 66 1.095 35 1.509 HANE 19 0.775	0.666 0.910 1.030 1.512 1.241 1.993 0.999	0.594 0.754 0.844 1.249 1.051 1.606 0.829	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515	0.610 0.792 0.731 1.156 0.990 1.384 0.781	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483	15.42 10.41 13.29 21.50 12.11 16.15
<ul> <li>69)</li> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> <li>76)</li> </ul>	2-HEXANONE  0.213 0.4  ETHYL METHACRYLATE  0.66  TETRACHLOROETHYLENE  0.836 0.833 0.8  DIBROMOCHLOROMETHANE  0.993 1.051 1.0  1,2-DIBROMOETHANE  0.615 0.704 0.8  OCTANE  1.396 1.444 1.5  1,1,1,2-TETRACHLOROET  0.558 0.676 0.7  CHLOROBENZENE  1.361 1.336 1.3  ETHYLBENZENE  2.300 1.992 2.1  m,p-XYLENE	84 0.465 31 0.576 33 0.844 366 1.095 35 1.509 35 1.509 37 0.775 37 1.426 30 2.216	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344	15.42 10.41 13.29 21.50 12.11 16.15 10.70 10.54
<ul> <li>69)</li> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> <li>76)</li> <li>77)</li> </ul>	2-HEXANONE	84 0.465 31 0.576 33 0.844 366 1.095 35 1.509 35 1.509 37 0.775 37 1.426 30 2.216	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344	15.42 10.41 13.29 21.50 12.11 16.15
69) 70) 71) 72) 73) 74) 75) 76) 77) 78)	2-HEXANONE	84 0.465 31 0.576 33 0.844 366 1.095 35 1.509 35 1.509 37 0.775 37 1.426 30 2.216	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767 1.015	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414 0.886	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515 2.467 0.937	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344 0.859	15.42 10.41 13.29 21.50 12.11 16.15 10.70 10.54
69) 70) 71) 72) 73) 74) 75) 76) 77)	2-HEXANONE	84 0.465 31 0.576 33 0.844 366 1.095 35 1.509 35 1.509 37 0.775 37 1.426 30 2.216	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767 1.015	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414 0.886 0.858	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515 2.467 0.937	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212 0.859 0.849	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618 0.965 0.963	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344 0.859 0.810	15.42 10.41 13.29 21.50 12.11 16.15 10.70 10.54 11.54
69) 70) 71) 72) 73) 74) 75) 76) 77) 78) 79)	2-HEXANONE	84 0.465 31 0.576 33 0.844 366 1.095 35 1.509 35 1.509 37 0.775 37 1.426 30 2.216 37 0.803 33 0.786	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767 1.015 0.979	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414 0.886 0.858 1.312	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515 2.467 0.937 0.919	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212 0.859 0.849	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618 0.965 0.963 1.217	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344 0.859 0.810 1.181	15.42 10.41 13.29 21.50 12.11 16.15 10.70 10.54 11.54 18.42 24.24
69) 70) 71) 72) 73) 74) 75) 76) 77) 78) 79)	2-HEXANONE	84 0.465 31 0.576 33 0.844 366 1.095 35 1.509 35 1.509 37 0.775 37 1.426 30 2.216 37 0.803 33 0.786	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767 1.015 0.979	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414 0.886 0.858 1.312	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515 2.467 0.937 0.919	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212 0.859 0.849	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618 0.965 0.963 1.217	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344 0.859 0.810 1.181	15.42 10.41 13.29 21.50 12.11 16.15 10.70 10.54 11.54 18.42
69) 70) 71) 72) 73) 74) 75) 76) 77) 80) 81) 82)	2-HEXANONE	84 0.465 31 0.576 33 0.844 366 1.095 37 0.855 35 1.509 31 1.236 31 0.775 32 0.775 33 0.786 33 0.786 35 1.235	0.666 0.910 1.030 1.512 1.241 1.993 0.999 1.820 2.767 1.015 0.979 1.452	0.594 0.754 0.844 1.249 1.051 1.606 0.829 1.508 2.414 0.886 0.858 1.312 1.503	0.600 0.781 0.815 1.256 1.071 1.558 0.846 1.515 2.467 0.937 0.919 1.417	0.610 0.792 0.731 1.156 0.990 1.384 0.781 1.371 2.212 0.859 0.849 1.312	0.579 0.721 0.978 1.236 1.057 1.723 0.884 1.635 2.618 0.965 0.963 1.217 1.425	0.526 0.735 0.860 1.179 0.932 1.572 0.785 1.483 2.344 0.859 0.810 1.181 1.366	15.42 10.41 13.29 21.50 12.11 16.15 10.70 10.54 11.54 18.42 24.24 17.58



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#### Initial Calibration Summary Job Number: JA81330

Job Number:JA81330Sample:V3W886-ICC886Account:RAVIV TRCLab FileID:3W22419.D

**Project:** Lockheed Electronics Co, Watchung, NJ

	0.918 0.942 0.965	1.007	1.190	1.162	1.151	1.067	1.101	1.056	9.66
84)	1,1,2,2-TETRACHLOROETHAN	E							
	0.736 0.784 0.912	0.912	1.314	1.135	1.244	1.139	1.303	1.053	21.05
85)	1,2,3-TRICHLOROPROPANE								
	0.727 0.629 0.778	0.749	0.993	0.874	1.004	0.938	1.017	0.857	16.47
86)	ISOPROPYLBENZENE								
	1.795 1.776 1.965	2.199	2.699	2.367	2.589	2.330	2.758	2.275	16.32
87)	BROMOBENZENE								
/		0 864	1 311	1 119	1 167	1 071	1.108	1 074	14.71
88)	2-CHLOROTOLUENE	0.001	1.511	1.117	1.107	1.071	1.100	1.071	11.71
007	0.349 0.460	n 100	0 602	0 617	0 642	0 506	0 620	0 550	20.59
001	n-PROPYLBENZENE	0.409	0.092	0.617	0.042	0.596	0.029	0.559	20.59
89)		0 405	0 683	0 506	0 680	0 608	0 640	0 550	10.00
		0.425	0.6/3	0.596	0.670	0.627	0.640	0.5/8	19.09
90)	4-ETHYLTOLUENE								
	1.194 1.121 1.459	1.473	2.312	2.041	2.349	2.159	2.190	1.811	27.29
91)	1,3,5-TRIMETHYLBENZENE								
	1.142 0.970 1.257	1.178	1.838	1.602	1.867	1.720	1.638	1.468	22.72
92)	ALPHA-METHYLSTYRENE								
	0.357	0.362	0.771	0.705	0.855	0.817	0.500	0.624	34.26
93)	tert-BUTYLBENZENE								
	0.187 0.242	0.282	0.424	0.366	0.437	0.420	0.412	0.346	27.80
94)	1,2,4-TRIMETHYLBENZENE								
	0.841 0.861 1.106	1.085	1.748	1.489	1.734	1.626	1.390	1.320	27.10
95)	m-DICHLOROBENZENE								
	0.833 0.701 0.815	0.735	1.248	1.093	1.193	1.112	1.116	0.983	21.35
96)									
,	0.899 0.571 0.944	0 872	1 300	1 164	1 414	1 398	1 226	1 088	26 05
971	p-DICHLOROBENZENE	0.072	1.500	1.101		1.370	1.220	1.000	20.05
511	0.689 0.569 0.817	n 760	1 100	1 066	1 100	1 000	1 0/12	0 024	24.31
001	sec-BUTYLBENZENE	0.700	1.109	1.000	1.100	1.000	1.043	0.554	24.31
98)		0 005	0 515	0 440	0 506	0 505	0 454	0 400	05 24
001		0.285	0.515	0.442	0.526	0.505	0.454	0.428	25.34
99)	p-ISOPROPYLTOLUENE								
		0.314	0.535	0.441	0.534	0.530	0.422	0.437	24.10
100)	o-DICHLOROBENZENE								
	0.520 0.528 0.691	0.705	1.088	0.962	1.080	1.003	0.946	0.836	27.15
101)	n-BUTYLBENZENE								
	0.223	0.239	0.433	0.372	0.453	0.454	0.310	0.355	27.82
102)	HEXACHLOROETHANE								
	0.402	0.433	0.792	0.679	0.731	0.678	0.636	0.622	23.81
103)	HEXACHLOROBUTADIENE								
	0.197 0.408	0.389	0.596	0.534	0.607	0.557	0.513	0.475	28.99
104)	1,2,4-TRICHLOROBENZENE								
	0.244	0.275	0.347	0.329	0.398	0.411	0.243	0.321	21.61
									<del>-</del>
1051	I CHLOROBENZENE-D5 (a)				rstd				
	NAPHTHALENE								
100)		0 271	0 460	0 420	0 E2C	O E40	0 264	0 402	20 00
								0.402	
									-
(#)	= Out of Range ### Number	er of	calib	ration	revels	s excee	eded form	nat ###	

(#) = Out of Range ### Number of calibration levels exceeded format ##

M3W886.M Mon May 16 16:38:21 2011 MS3W

### 5.9.2

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#### **Initial Calibration Verification**

Job Number: JA81330 V3W886-ICV886 Sample: **RAVIV TRC** Lab FileID: 3W22426.D Account:

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\3W22426.D Vial: 6 Acq On : 14 May 2011 12:01 am Operator: yunxiac Sample : icv886-10 Misc : MS12271,V3W886,,,,,1 Inst : MS3W Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um Title

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(mi	n)R.T.
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	102	-0.01	7.30
2	FREON 115			NA		_	
3	FREON 152A			NA		-	
4	CHLORODIFLUOROMETHANE	0.407	0.357	12.3	104	0.00	3.99
5	DICHLORODIFLUOROMETHANE	3.752	3.344	10.9	102	0.00	4.05
6	PROPYLENE		1.287			0.00	4.00
7	FREON 114	4.108	3.312 1.441	19.4	89	0.00	4.21
8	CHLOROMETHANE	1.680	1.441	14.2	106	0.00	4.15
9	VINYL CHLORIDE		1.493				4.29
10	1,3-BUTADIENE	1.207	1.119 2.300	7.3	97	0.00	4.37
11	n-BUTANE	2.849	2.300	19.3	98	0.00	4.39
12	BROMOMETHANE		1.298				4.54
13	CHLOROETHANE	0.789	0.770	2.4	97	0.00	4.64
14	DICHLOROFLUOROMETHANE			NA		-	
15	ACETONITRILE						
16	FREON 123	3.093	3.095 1.664	-0.1	99	0.00	4.93
17	FREON 123A	1.649	1.664	-0.9	98	0.00	4.97
18	TRICHLOROFLUOROMETHANE	3.490	3.133	10.2	99	0.00	5.12
19	ISOPROPYL ALCOHOL	2.438	2.024 0.440	17.0	95	-0.02	5.17
20	ACETONE	0.588	0.440	25.2	90	-0.01	5.01
21	PENTANE	1.973	1.648	16.5	100	0.00	5.31
22 H	TVHC as EQUIV PENTANE IODOMETHANE	9.759	7.365	24.5	77	0.00	5.31
23	IODOMETHANE	3.678	3.489	5.1	99	0.00	5.50
24	1,1-DICHLOROETHYLENE	1.365	1.193	12.6	94	0.00	5.55
25	CARBON DISULFIDE	3.715	3.575 0.519	3.8	106	0.00	5.85
26	ETHANOL	0.695	0.519	25.3	95	-0.02	4.72
27	BROMOETHENE	1.381	1.292	6.4	96	0.00	4.86
28	ACRYLONITRILE			NA		_	
29	METHYLENE CHLORIDE	1.418	1.144	19.3	94	0.00	5.64
30	3-CHLOROPROPENE	0.591	0.592	-0.2	96	0.00	5.71
31	FREON 113						5.80
32	FREON 113 TRANS-1,2-DICHLOROETHYLEN	1.269	1.270	-0.1	102	0.00	6.30
33	TERTIARY BUTYL ALCOHOL						5.56
34	METHYL TERTIARY BUTYL ETH	2.894	2.332	19.4	94	0.00	6.47
35	TETRAHYDROFURAN	0.502	2.332 0.427	14.9	94	-0.01	7.73
36	HEXANE	2.248		6.0			7.23
37	VINYL ACETATE	0.221			82	-0.01	6.57
38	1,1-DICHLOROETHANE	2.423	0.197 2.308	4.7	95	0.00	6.47
39	METHYL ETHYL KETONE		0.434			-0.01	
40	cis-1,2-DICHLOROETHYLENE	1.264	1,274	-0.8	95	0.00	
41	DIISOPROPYL ETHER	3.748	3.161	15.7	98	0.00	7.24
42	ETHYL ACETATE	0.320	0.289	9.7			



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### **Initial Calibration Verification**

Job Number:JA81330Sample:V3W886-ICV886Account:RAVIV TRCLab FileID:3W22426.D

**Project:** Lockheed Electronics Co, Watchung, NJ

Project:	Lockheed Electronics Co, Watchung, NJ											
43	METHYL ACRYLATE			NA		_						
44	CHLOROFORM	2.596	2.536	2.3	99	-0.01	7.39					
45	2,4-DIMETHYLPENTANE	2 507	2.530	_1 5	102	0.00	7.98					
46	1 1 1 TOTCUI ODORTUNE	2.337	2.037	1 0	00	0.00	8.25					
47	1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE	2.413	2.372	2.7	90	0.00	8.82					
		2.070	1 404									
48	1,2-DICHLOROETHANE	1.533	1.484	3.2	96	0.00	8.03					
49 I	1,4-DIFLUOROBENZENE		1.000	0.0	105	0.00	9.01					
50	BENZENE	0.881		8.6		0.00	8.68					
51	CYCLOHEXANE	0.162	0.140	13.6			8.86					
52	2,3-DIMETHYLPENTANE TRICHLOROETHYLENE	0.233	0.205	12.0	101	0.00	9.06					
53	TRICHLOROETHYLENE	0.377	0.356	5.6	98	0.00	9.66					
54	1,2-DICHLOROPROPANE	0.329	0.305	7.3	93	0.00	9.41					
55	DIBROMOMETHANE			NA		_						
56	ETHYL ACRYLATE			NA		_						
57	DIBROMOMETHANE ETHYL ACRYLATE BROMODICHLOROMETHANE	0.580	0.550	5.2	93	0.00	9.64					
58	2,2,4-TRIMETHYLPENTANE	1.523	1.420	6.8	98	0.00	9.59					
59	1,4-DIOXANE	0.147	0.140	4.8	97	-0.01	9.70					
60	HEPTANE	0 632	0.140 0.585	7 4	100	0 00	9.85					
61 H	TVHC as EQUIV HEPTANE	3 675	3.279	10.8		0.00	9.86					
62	METHAL METHACRALATE	0 235	0 199	15.3		0.00	9.87					
63	METHYL METHACRYLATE METHYL ISOBUTYL KETONE	0.233	0.199 0.192	1 5	96	0.00	10.50					
64	cis-1,3-DICHLOROPROPENE	0.195	0.192	1.5 5.7	91	0.00	10.52					
65		0.440	0.415	0.7	90							
	TOLUENE	0.553	0.507	6.3	90	0.00	11.47					
66	trans-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	0.420	0.394	6.2 6.2	90	0.00	11.04					
67	1,1,2-TRICHLOROETHANE	0.275	0.258	6.2	90	0.00	11.20					
68 I	CHLOROBENZENE-D5	1.000	1.000 0.483	0.0	103	0.00	13.32					
69	2-HEXANONE	0.526	0.483	8.2	84	-0.01	11.72					
70	ETHYL METHACRYLATE			NA		_						
71	TETRACHLOROETHYLENE	0.860	0.771	10.3	95	0.00	12.63					
72	DIBROMOCHLOROMETHANE 1,2-DIBROMOETHANE	1.179	1.080	8.4	90	0.00	11.92					
73	1,2-DIBROMOETHANE	0.932	0.909	2.5	90	0.00	12.13					
74	OCTANE	1.572	1.467	6.7		0.00	12.42					
75	1,1,1,2-TETRACHLOROETHANE CHLOROBENZENE	0.785	0.732	6.8	91	0.00	13.34					
76	CHLOROBENZENE	1.483	1.311	11.6	90	0.00	13.36					
77	ETHYLBENZENE	2.344		14.9	86	0.00	13.74					
78	m,p-XYLENE	0.859	0.713	17.0	83	0.00	13.93					
79	O-XYLENE	0.810	0.677	16.4		0.00	14.45					
80	CHLOROBENZENE ETHYLBENZENE m,p-XYLENE o-XYLENE STYRENE NONANE BROMOFORM	1.181	0.713 0.677 1.022	13.5		0.00	14.35					
81	NONANE	1.366	1.337	2.1		0.00	14.64					
82	BROMOFORM	1.018	0.951	6.6	89	0.00	14.04					
83 S	4-BROMOFLUOROBENZENE	1.056	1.151	-9.0	103	0.00	14.98					
84	1,1,2,2-TETRACHLOROETHANE	1.053	0.938	10.9	86	0.00	14.47					
85	1,2,3-TRICHLOROPROPANE	0.857	0.726	15.3	86	0.00	14.60					
86	ISOPROPYLBENZENE	2.275	1.886	17.1	82	0.00	15.10					
87	BROMOBENZENE	2.273		NA		-	13.10					
88	2-CHLOROTOLUENE	0.559	0.499	10.7	84	0.00	15.67					
89	n-PROPYLBENZENE	0.578	0.470	18.7	82	0.00	15.70					
90	4-ETHYLTOLUENE	1.811	1.638	9.6	83	0.00	15.87					
91	1,3,5-TRIMETHYLBENZENE	1.468	1.320	10.1	85	0.00	15.97					
		1.400					15.97					
92	ALPHA-METHYLSTYRENE	0 246		NA			16 46					
93	tert-BUTYLBENZENE	0.346	0.308	11.0	87	0.00	16.46					
94	1,2,4-TRIMETHYLBENZENE	1.320	1.265	4.2	88	0.00	16.47					
95	m-DICHLOROBENZENE	0.983	0.901	8.3	85	0.00	16.67					
96	BENZYL CHLORIDE	1.088	1.005	7.6	89	0.00	16.67					
97	p-DICHLOROBENZENE	0.934	0.879	5.9	85	0.00	16.75					
98	sec-BUTYLBENZENE	0.428	0.363	15.2	85	0.00	16.79					
99	p-ISOPROPYLTOLUENE	0.437	0.390	10.8	92	0.00	16.98					
100	o-DICHLOROBENZENE	0.836	0.782	6.5	84	0.00	17.18					



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### **Initial Calibration Verification**

Job Numb Account: Project:	: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung, NJ			Sample: Lab FileID:	V3W886-ICV886 3W22426.D			
101	n-BUTYLBENZENE	0.355	0.327	7.9	91	0.00	17.50	
102	HEXACHLOROETHANE			NA		_		
103	HEXACHLOROBUTADIENE	0.475	0.408	14.1	79	0.00	19.79	
104	1,2,4-TRICHLOROBENZENE	0.321	0.263	18.1	83	0.00	19.23	
105 I 106	CHLOROBENZENE-D5 (a)	1.000	1.000	0.0 NA	103	0.00	13.32	

\_\_\_\_\_\_

(#) = Out of Range SPCC's out = 0 CCC's out = 0 3W22419.D M3W886.M Mon May 16 16:42:08 2011 MS3W

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#### **Continuing Calibration Summary**

Job Number: JA81330 V3W910-CC886 Sample: **RAVIV TRC** Lab FileID: Account: 3W23018.D

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W23018.D Acq On : 24 Jun 2011 9:27 am Operator: yunxiac Sample : CC886-10 Misc : MS14246,V3W910,,,,,1 Inst : MS3W Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um Title

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev		Dev(mi	n)R.T.
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	106	0.00	7.31
2	FREON 115			NA			
3	FREON 152A			NA			
4	CHLORODIFLUOROMETHANE				105		
5	DICHLORODIFLUOROMETHANE		3.035			0.00	4.08
6	PROPYLENE		1.425	14.4			4.03
7	FREON 114	4.108	3.312	19.4		0.02	4.24
8	CHLOROMETHANE		1 472	12.4		0.02	4.18
9	VINYL CHLORIDE	1.598	1.423	11.0	97	0.02	4.32
10	1,3-BUTADIENE	1.207	1.113	7.0	100	0.02	4.39
11	n-BUTANE	2.849	2.390			0.02	4.41
12	BROMOMETHANE	1.477	1.191		92	0.01	4.56
13	CHLOROETHANE	0.789	0.746			0.02	4.66
14	DICHLOROFLUOROMETHANE	3.332	2.919	12.4		0.02	4.72
15	ACETONITRILE	1.317	1.284			0.02	4.91
16 17	FREON 123	3.093	2.881		96 03	0.02	4.95 4.99
	FREON 123A	1.649			93		
18 19	TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL	3.490 2.438	2.915 2.299	16.5 5.7	96 112	0.02	5.14 5.19
20	ACETONE	0.588	0.538	8.5	114	0.00	5.19
20 21	PENTANE	1.973	1.689		106	0.00	5.33
21 22 H	TVHC as EQUIV PENTANE			-2.4		0.01	5.33
23	IODOMETHANE	3.678	3.096	15.8	91	0.01	5.53
24	1,1-DICHLOROETHYLENE	1.365	1.168	14.4	95	0.01	5.57
25	CARBON DISULFIDE	3.715	3.205	13.7		0.00	5.87
26	ETHANOL	0.695	0.597	14.1		0.00	4.75
27	BROMOETHENE	1.381	1.186			0.01	4.88
28	ACRYLONITRILE	0.751		-18.6		0.00	5.36
29	METHYLENE CHLORIDE	1.418	1.120	21.0	96	0.00	5.66
30	3-CHLOROPROPENE	0.591	0.604		102	0.01	5.73
31	FREON 113	2.272	1.839		90	0.01	5.82
32	TRANS-1,2-DICHLOROETHYLEN			8.4	97	0.00	6.30
33	TERTIARY BUTYL ALCOHOL		2.511	-4.2	107	0.00	5.57
34	METHYL TERTIARY BUTYL ETH	2.894	2.729	5.7	115	0.00	6.48
35	TETRAHYDROFURAN	0.502	0.516	-2.8	118	0.00	7.73
36	HEXANE	2.248	2.131	5.2	107	0.00	7.24
37	VINYL ACETATE	0.221			115	0.00	6.58
38	1,1-DICHLOROETHANE	2.423	2.488	-2.7	107	0.00	6.47
39	METHYL ETHYL KETONE	0.484	0.459	5.2	107	0.00	6.77
40	cis-1,2-DICHLOROETHYLENE				100	0.00	7.19
41	DIISOPROPYL ETHER	3.748	3.925	-4.7	126	0.00	7.24
42	ETHYL ACETATE	0.320	0.333	-4.1	116	0.00	7.31



**Continuing Calibration Summary** 

Page 2 of 3 Job Number: JA81330 Sample: V3W910-CC886 **RAVIV TRC** Lab FileID: 3W23018.D Account: **Project:** Lockheed Electronics Co, Watchung, NJ 43 METHYL ACRYLATE 1.753 2.059 -17.5 123 0.00 7.33 44 CHLOROFORM 2.596 2.559 1.4 104 0.00 7.40 45 2.597 2.653 107 0.00 7.98 2,4-DIMETHYLPENTANE -2.22.415 0.8 103 0.00 46 1,1,1-TRICHLOROETHANE 2.395 8.26 47 CARBON TETRACHLORIDE 2.678 2.513 6.2 99 0.00 8.82 48 1,2-DICHLOROETHANE 1.533 1.625 -6.0 109 0.00 8.03 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 105 0.00 9.02 49 I 0.897 105 0.00 50 BENZENE 0.881 -1.8 8.68 CYCLOHEXANE 0.162 101 0.00 51 0.141 13.0 8.87 2,3-DIMETHYLPENTANE 0.233 0.208 10.7 103 0.00 52 9.05 0.377 0.365 3.2 101 0.00 9.66 53 TRICHLOROETHYLENE 54 1,2-DICHLOROPROPANE 0.329 0.376 -14.3115 0.00 9.41 0.335 94 55 DIBROMOMETHANE 0.312 6.9 0.00 9.43 56 ETHYL ACRYLATE 0.441 0.529 -20.0 116 -0.02 9.43 57 BROMODICHLOROMETHANE 0.580 0.612 -5.5 105 0.00 9.63 58 1.523 1.592 -4.5 111 0.00 9.58 2,2,4-TRIMETHYLPENTANE 0.147 -0.02 59 1,4-DIOXANE 0.152 -3.4 106 9.69 60 HEPTANE 0.632 0.678 -7.3 117 0.00 9.85 61 H TVHC as EQUIV HEPTANE 3.675 3.782 -2.9 113 0.00 9.85 0.235 0.252 -7.2 115 0.00 62 METHYL METHACRYLATE 9.86 10.49 63 METHYL ISOBUTYL KETONE 0.195 0.220 -12.8 111 -0.02 64 cis-1,3-DICHLOROPROPENE 0.440 0.485 -10.2 108 -0.01 10.51 65 TOLUENE 0.553 0.580 -4.9 104 -0.02 11.46 66 trans-1,3-DICHLOROPROPENE 0.420 0.471 -12.1 109 0.00 11.03 67 1,1,2-TRICHLOROETHANE 0.275 0.305 -10.9107 -0.02 11.19 68 I CHLOROBENZENE-D5 1.000 1.000 0.0 107 -0.02 13.31 69 2-HEXANONE 0.526 0.604 -14.8109 -0.02 11.71 70 ETHYL METHACRYLATE 0.735 0.754 -2.6 107 -0.01 11.75 71 0.860 0.739 14.1 94 -0.02 12.61 TETRACHLOROETHYLENE 72 1.179 1.174 100 -0.02 DIBROMOCHLOROMETHANE 0.4 11.91 1,2-DIBROMOETHANE 0.932 0.991 12.12 73 -6.3 101 -0.02 74 OCTANE 1.572 1.788 -13.7 119 -0.02 12.40 75 1,1,1,2-TETRACHLOROETHANE 0.785 0.787 -0.3 101 -0.02 13.32 CHLOROBENZENE 5.7 76 1.483 1.399 99 -0.02 13.35 77 2.344 0.1 104 2.342 -0.02 13.73 ETHYLBENZENE 78 0.859 0.860 -0.1 104 -0.02 13.91 m,p-XYLENE 14.43 79 0.810 0.835 -3.1 104 -0.02 O-XYLENE 80 1.181 1.205 -2.0 98 -0.02 14.33 STYRENE 122 81 NONANE 1.366 1.723 -26.1 -0.02 14.63 82 BROMOFORM 1.018 1.004 1.4 97 -0.01 14.02 83 S 4-BROMOFLUOROBENZENE 1.056 1.037 1.8 95 -0.02 14.96 84 1.053 1.168 -10.9110 -0.02 14.45 1,1,2,2-TETRACHLOROETHANE 85 0.857 0.914 -6.7 112 -0.02 1,2,3-TRICHLOROPROPANE 14.58 ISOPROPYLBENZENE 86 2.275 2.342 -2.9106 -0.02 15.09 87 BROMOBENZENE 1.074 1.067 0.7 102 -0.02 15.20 88 2-CHLOROTOLUENE 0.559 0.569 -1.8 98 -0.02 15.65 0.578 0.580 -0.3 -0.01 89 104 15.69 n-PROPYLBENZENE 90 1.811 2.015 -11.3 105 -0.02 15.86 4-ETHYLTOLUENE -7.4 91 1,3,5-TRIMETHYLBENZENE 1.468 1.577 105 -0.02 15.95 92 -8.3 -0.02 0.624 0.676 102 16.17 ALPHA-METHYLSTYRENE 93 0.346 -3.2 104 -0.02 tert-BUTYLBENZENE 0.357 16.44 1.320 94 1,2,4-TRIMETHYLBENZENE 1.471 -11.4105 -0.02 16.45 95 m-DICHLOROBENZENE 0.983 0.989 -0.6 97 -0.02 16.65 1.149 96 BENZYL CHLORIDE 1.088 -5.6 105 -0.02 16.65 -0.02 97 0.934 0.938 -0.4 94 p-DICHLOROBENZENE 16.73 98 sec-BUTYLBENZENE 0.428 0.420 1.9 101 -0.02 16.77 99 p-ISOPROPYLTOLUENE 0.437 0.421 3.7 102 -0.02 16.97 o-DICHLOROBENZENE 100 0.836 0.872 -4.3 97 -0.02 17.16



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**Continuing Calibration Summary** Job Number: JA81330 **RAVIV TRC** Account:

105 I CHLOROBENZENE-D5 (a)

106 NAPHTHALENE

V3W910-CC886 Sample: Lab FileID:

3W23018.D

Lockheed Electronics Co, Watchung, NJ Project: 
 0.355
 0.341
 3.9
 98
 -0.01
 17.49

 0.622
 0.655
 -5.3
 103
 -0.02
 17.97

 0.475
 0.496
 -4.4
 99
 -0.02
 19.77

 0.321
 0.290
 9.7
 94
 -0.02
 19.21
 101 n-BUTYLBENZENE 102 HEXACHLOROETHANE HEXACHLOROBUTADIENE 103 104 1,2,4-TRICHLOROBENZENE

 
 1.000
 1.000
 0.0
 107
 -0.02
 13.31

 0.402
 0.403
 -0.2
 100
 -0.02
 19.35
 \_\_\_\_\_ \_\_\_\_\_\_

(#) = Out of Range SPCC's out = 0 CCC's out = 3W22419.D M3W886.M Tue Jun 28 14:18:47 2011 MS3W SPCC's out = 0 CCC's out = 0 **Initial Calibration Summary** Page 1 of 3

VW1322-ICC1322 **Job Number:** JA81330 Sample: **Account:** RAVIV TRC Lab FileID: W32352.D

Lockheed Electronics Co, Watchung, NJ Project:

Response Factor Report MSW

Compound 0.04 0.1 0.2 0.5 5 10 20 40 Avg %RSD \_\_\_\_\_\_

: C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Method Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

Calibration Files

5 = W32357.D 10 = W32352.D 20 = W32356.D 40 = W32360.D

1) I BROMOCHLOROMETHANE -----ISTD------2) FREON 115 3) FREON 152A 4) CHLORODIFLUO 0.280 0.297 0.300 0.292 0.299 0.283 0.292 2.90 5) DICHLORODIFL 2.689 3.278 2.779 2.805 3.089 2.982 3.039 2.840 2.938 6.63 6) PROPYLENE 1.522 1.405 1.220 1.141 1.198 1.153 1.211 1.150 1.250 11.10 7) FREON 114 3.122 3.724 3.213 3.301 3.648 3.581 3.608 3.344 3.443 6.52 8) CHLOROMETHAN 0.382 0.380 0.386 0.373 0.390 0.372 0.380 1.86 9) VINYL CHLORI 1.147 1.480 1.187 1.281 1.381 1.348 1.394 1.316 1.317 8.35 10) 1,3-BUTADIEN 1.082 1.175 1.048 1.077 1.133 1.106 1.140 1.061 1.103 3.97 11) n-BUTANE 2.131 2.105 2.277 2.202 2.272 2.103 2.182 3.68 12) BROMOMETHANE 0.944 1.227 1.062 1.142 1.206 1.170 1.175 1.095 1.128 8.16 13) CHLOROETHANE 0.671 0.791 0.711 0.749 0.793 0.783 0.796 0.749 0.755 14) DICHLOROFLUO 2.449 2.899 2.518 2.647 2.810 2.767 2.765 2.580 2.679 15) ACROLEIN 0.552 0.528 0.547 0.544 0.551 0.518 0.540 2.59
16) FREON 123 2.676 3.058 2.650 2.787 3.064 3.011 2.969 2.751 2.871 6.03
17) FREON 123A 1.524 1.837 1.635 1.699 1.826 1.798 1.769 1.649 1.717 6.40
18) TRICHLOROFLU 2.752 3.090 2.696 2.743 2.905 2.841 2.822 2.593 2.805 5.32 19) ISOPROPYL AL 2.529 2.341 2.458 2.439 2.516 2.338 2.437 3.39 20) ACETONE 0.709 0.617 0.624 0.633 0.644 0.611 0.640 5.60 20) ACETONE 0.709 0.617 0.624 0.633 0.644 0.611 0.640 5.60 21) ACRYLONITRIL 1.007 0.896 0.945 1.047 1.059 1.081 1.018 1.008 6.54 22) PENTANE 0.448 0.482 0.395 0.421 0.402 0.393 0.396 0.365 0.413 8.91 23) TVHC as EQUI 8.684 7.499 7.169 7.305 7.357 7.482 6.837 7.476 7.74 24) IODOMETHANE 2.467 3.156 2.836 3.012 3.230 3.169 3.107 2.857 2.979 8.47 25) 1,1-DICHLORO 1.239 1.243 1.307 1.296 1.283 1.199 1.261 3.27 26) CARBON DISUL 2.634 3.357 2.897 3.096 3.222 3.151 3.133 2.894 3.048 7.48 0.807 0.621 0.603 0.604 0.566 0.640 14.89 27) ETHANOL 28) ACETONITRILE 1.246 1.039 0.936 0.953 1.075 1.079 1.106 1.049 1.060 9.06 29) BROMOETHENE 1.015 1.279 1.095 1.164 1.245 1.222 1.220 1.136 1.172 7.47 30) METHYLENE CH 1.432 1.253 1.182 1.171 1.152 1.068 1.210 10.25 31) 3-CHLOROPROP 0.474 0.633 0.565 0.604 0.660 0.655 0.652 0.610 0.607 10.30 33) TRANS-1,2-DI 1.038 1.212 1.177 1.184 1.244 1.237 1.225 1.150 1.184 5.68 34) TERTIARY BUT 2.290 2.937 2.673 2.915 3.032 2.992 3.026 2.712 2.822 9.02 35) METHYL TERTI 2.858 3.494 2.940 3.362 3.605 3.684 3.645 3.398 3.373 9.33 36) TETRAHYDROFU 0.398 0.574 0.522 0.588 0.641 0.666 0.660 0.629 0.585 15.31 37) HEXANE 2.137 2.345 2.054 2.175 2.302 2.265 2.201 1.944 2.178 6.09 38) VINYL ACETAT 0.241 0.300 0.351 0.364 0.360 0.346 0.327 14.66 39) 1,1-DICHLORO 2.005 2.438 2.158 2.274 2.448 2.432 2.383 2.200 2.292 40) METHYL ETHYL 0.440 0.628 0.536 0.607 0.638 0.658 0.659 0.631 0.600 12.55 41) cis-1,2-DICH 1.427 1.367 1.213 1.415 1.352 1.358 1.341 1.262 1.342 42) DI-ISOPROPYL 4.095 4.817 4.109 4.636 4.750 4.832 4.673 4.121 4.504 43) ETHYL ACETAT 0.366 0.353 0.410 0.400 0.406 0.407 0.374 0.388 44) METHYL ACRYL 2.091 2.290 2.046 2.274 2.413 2.483 2.439 2.218 2.282 45) CHLOROFORM 1.980 2.528 2.222 2.323 2.497 2.465 2.416 2.255 2.336 7.79

46) 2,4-DIMETHYL 2.296 2.672 2.437 2.533 2.775 2.766 2.700 2.462 2.580



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VW1322-ICC1322

Initial Calibration Summary

**Job Number:** JA81330

102) n-BUTYLBENZE

103) HEXACHLOROET

**RAVIV TRC** Account: Lab FileID: W32352.D Lockheed Electronics Co, Watchung, NJ **Project:** 47) 1,1,1-TRICHL 2.031 2.422 2.201 2.279 2.520 2.484 2.416 2.252 2.326 7.09 48) CARBON TETRA 2.100 2.449 2.269 2.352 2.575 2.552 2.473 2.294 2.383 6.72 49) 1,2-DICHLORO 1.055 1.416 1.251 1.377 1.463 1.470 1.438 1.326 1.350 10.38 1,4-DIFLUOROBENZENE -----ISTD-----51) BENZENE 0.678 0.772 0.713 0.724 0.827 0.817 0.811 0.759 0.763 7.12 52) CYCLOHEXANE 0.376 0.456 0.379 0.359 0.390 0.384 0.380 0.355 0.385 8.10 53) 2,3-DIMETHYL 0.164 0.196 0.189 0.179 0.203 0.201 0.201 0.188 0.190 7.09 54) TRICHLOROETH 0.259 0.307 0.286 0.290 0.317 0.314 0.312 0.287 0.297 6.66 55) DIBROMOMETHA 0.237 0.272 0.260 0.258 0.288 0.287 0.285 0.270 0.270 6.51 56) 1,2-DICHLORO 0.272 0.314 0.271 0.274 0.302 0.298 0.295 0.270 0.287 6.01 57) ETHYL ACRYLA 0.420 0.468 0.440 0.488 0.539 0.552 0.556 0.513 0.497 10.39 58) BROMODICHLOR 0.402 0.478 0.443 0.455 0.516 0.510 0.502 0.463 0.471 8.20 59) 2,2,4-TRIMET 1.172 1.378 1.231 1.289 1.456 1.414 1.369 1.188 1.312 60) 1,4-DIOXANE 0.117 0.144 0.170 0.168 0.172 0.158 0.155 13.83 60) 1,4-DIOXANE 0.117 0.144 0.170 0.168 0.172 0.158 0.155 61) METHYL METHA 0.239 0.224 0.251 0.269 0.282 0.285 0.273 0.260 62) HEPTANE 0.513 0.536 0.465 0.449 0.511 0.500 0.498 0.453 0.491 63) TVHC as EQUI 2.142 2.354 2.035 1.986 2.206 2.188 2.181 1.983 2.134 64) METHYL ISOBU 0.489 0.524 0.484 0.519 0.557 0.559 0.562 0.519 0.527 5.83 65) cis-1,3-DICH 0.326 0.389 0.361 0.364 0.409 0.412 0.411 0.386 0.382 66) TOLUENE 0.462 0.518 0.467 0.477 0.551 0.556 0.550 0.513 0.512 67) trans-1,3-DI 0.303 0.339 0.331 0.336 0.383 0.388 0.388 0.368 0.355 8.92 68) 1,1,2-TRICHL 0.169 0.223 0.198 0.218 0.244 0.247 0.246 0.232 0.222 12.33 69) I CHLOROBENZENE-D5 -----ISTD-----70) ETHYL METHAC 0.580 0.725 0.701 0.779 0.877 0.875 0.857 0.770 0.770 13.25 71) 2-HEXANONE 1.029 0.848 0.933 1.101 1.075 1.031 1.006 0.885 0.989 72) TETRACHLOROE 0.603 0.722 0.649 0.668 0.716 0.696 0.665 0.605 0.666 73) DIBROMOCHLOR 0.761 0.865 0.862 0.881 1.014 0.988 0.948 0.857 0.897 74) 1,2-DIBROMOE 0.601 0.753 0.710 0.741 0.828 0.822 0.792 0.720 0.746 9.84 75) OCTANE 1.222 1.370 1.211 1.248 1.374 1.333 1.267 1.108 1.267 7.15 76) 1,1,1,2-TETR 0.551 0.671 0.624 0.666 0.741 0.727 0.697 0.620 0.662 9.42 77) CHLOROBENZEN 1.104 1.276 1.153 1.245 1.347 1.322 1.275 1.142 1.233 7.25 78) ETHYLBENZENE 1.735 1.962 1.800 1.958 2.224 2.206 2.114 1.896 1.987 9.09 79) m,p-XYLENE 0.618 0.765 0.713 0.772 0.866 0.864 0.829 0.740 0.771 10.84 80) O-XYLENE 0.610 0.745 0.682 0.741 0.838 0.832 0.799 0.710 0.745 10.47 81) STYRENE 0.842 0.907 0.909 1.025 1.221 1.243 1.203 1.096 1.056 15.03 82) 1,2,3-TRICHL 0.723 0.702 0.665 0.715 0.790 0.786 0.757 0.680 0.727 83) NONANE 0.989 1.138 1.007 1.036 1.246 1.226 1.165 1.011 1.102 84) BROMOFORM 0.611 0.745 0.674 0.753 0.875 0.878 0.845 0.773 0.769 12.38 85) 4-BROMOFLUOR 1.024 1.033 1.053 1.078 1.130 1.151 1.110 1.067 1.081 86) 1,1,2,2-TETR 0.708 0.864 0.808 0.852 0.983 0.980 0.947 0.841 0.873 10.77 87) ISOPROPYLBEN 1.667 2.077 1.918 2.073 2.385 2.377 2.259 2.010 2.096 11.59 88) BROMOBENZENE 0.456 0.499 0.484 0.523 0.627 0.630 0.606 0.558 0.548 12.38 89) 2-CHLOROTOLU 0.396 0.447 0.428 0.455 0.527 0.525 0.506 0.459 0.468 10.13 90) n-PROPYLBENZ 0.390 0.468 0.438 0.510 0.596 0.609 0.589 0.535 0.517 15.54 91) 4-ETHYLTOLUE 1.368 1.546 1.474 1.660 2.033 2.073 1.992 1.797 1.743 15.59 92) 1,3,5-TRIMET 1.159 1.364 1.318 1.422 1.627 1.647 1.572 1.421 1.441 11.60 0.427 0.514 0.720 0.760 0.744 0.682 0.641 21.45 93) ALPHA-METHYL 0.427 0.514 0.720 0.700 0.71 0.321 0.380 11.01 0.324 0.344 0.358 0.419 0.432 0.415 0.371 0.380 11.01 94) TERT-BUTYLBE 95) 1,2,4-TRIMET 1.062 1.182 1.146 1.290 1.515 1.549 1.495 1.326 1.321 13.97 96) m-DICHLOROBE 0.690 0.669 0.652 0.727 0.880 0.916 0.894 0.829 0.782 13.96 97) BENZYL CHLOR 0.837 0.725 0.750 0.839 1.044 1.103 1.114 1.043 0.932 17.26

98) p-DICHLOROBE 0.782 0.661 0.657 0.693 0.852 0.868 0.862 0.795 0.771 99) SEC-BUTYLBEN 0.294 0.358 0.360 0.400 0.472 0.490 0.475 0.434 0.410

101) o-DICHLOROBE 0.706 0.614 0.605 0.669 0.768 0.786 0.772 0.711 0.704

104) HEXACHLOROBU 0.214 0.232 0.279 0.289 0.259 0.245 0.239 0.213 0.246

100) p-ISOPROPYLT 0.271 0.329 0.332 0.377 0.454 0.474 0.463 0.419 0.390 19.06

0.239 0.277 0.337 0.360 0.365 0.345 0.321

0.349 0.341 0.361 0.490 0.499 0.486 0.450 0.425

Sample:



16.94

#### **Initial Calibration Summary**

Page 3 of 3 **Job Number:** JA81330 Sample: VW1322-ICC1322

Account: RAVIV TRC Lab FileID: W32352.D

**Project:** Lockheed Electronics Co, Watchung, NJ

105) 1,2,4-TRICHL 0.141 0.180 0.202 0.163 0.155 0.170 0.169 0.169 11.29

106) I Chlorobenzene-d5(a) ------ISTD------

107) NAPHTHALENE 0.210 0.355 0.319 0.286 0.319 0.308 0.299 16.36

(#) = Out of Range ### Number of calibration levels exceeded format ###

MW1322.M Wed Jun 22 15:01:40 2011 MSW

# 5.9.5

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#### **Initial Calibration Verification**

Job Number: JA81330 VW1323-ICV1322 Sample: Lab FileID: W32368.D

**RAVIV TRC** Account:

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 3 Data File : C:\MSDCHEM\1\DATA\W32368.D

: 22 Jun 2011 1:22 pm Acq On Operator: YOUMINH Sample : ICV1322-10 Misc : MS14116,VW1323,,,,,1 Inst : MSW Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um Title

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev A	rea% ]	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	103	0.00
2	FREON 115	0.000	0.000	0.0	0#	-5.02#
3	FREON 152A	0.000	0.000	0.0	0#	-4.85#
4	CHLORODIFLUOROMETHANE	0.292	0.279	4.5	99	0.00
5	DICHLORODIFLUOROMETHANE	2.938	2.794	4.9	97	0.00
6	PROPYLENE	1.250	1.090	12.8	98	0.00
7	FREON 114	3.443	2.975	13.6	86	0.00
8	CHLOROMETHANE	0.380	0.370	2.6	103	0.00
9	VINYL CHLORIDE	1.317	1.309	0.6	100	0.00
10	1,3-BUTADIENE	1.103	1.045	5.3	98	0.00
11	n-BUTANE	2.182	2.069	5.2	97	0.00
12	BROMOMETHANE	1.128	1.081	4.2	96	0.00
13	CHLOROETHANE	0.755	0.739	2.1	98	0.00
14	DICHLOROFLUOROMETHANE	2.679	0.000	100.0#	0#	-5.78#
15	ACROLEIN	0.540	0.520	3.7	99	0.00
16	FREON 123	2.871	2.819	1.8	97	0.00
17	FREON 123A	1.717	1.637	4.7	94	0.00
18	TRICHLOROFLUOROMETHANE	2.805	2.616	6.7	95	0.00
19	ISOPROPYL ALCOHOL	2.437	2.293	5.9	97	0.00
20	ACETONE	0.640	0.581	9.2	95	0.00
21	ACRYLONITRILE	1.008	0.000	100.0#	0#	-6.52#
22	PENTANE	0.413	0.371	10.2	98	0.00
23 Н	TVHC as EQUIV PENTANE	7.476	6.535	12.6	92	0.00
24	IODOMETHANE	2.979	2.935	1.5	96	0.00
25	1,1-DICHLOROETHYLENE	1.261	1.115	11.6	89	0.00
26	CARBON DISULFIDE	3.048	3.183	-4.4	104	0.00
27	ETHANOL	0.640	0.542	15.3	93	0.00
28	ACETONITRILE	1.060	0.000	100.0#	0#	-5.98#
29	BROMOETHENE	1.172	1.131	3.5	96	0.00
30	METHYLENE CHLORIDE	1.210	1.031	14.8	91	0.00
31	3-CHLOROPROPENE	0.607	0.613	-1.0	97	0.00
32	FREON 113	2.072	1.855	10.5	87	0.00
33	TRANS-1,2-DICHLOROETHYLENE	1.184	1.165	1.6	97	0.00
34	TERTIARY BUTYL ALCOHOL	2.822	2.769	1.9	96	0.00
35	METHYL TERTIARY BUTYL ETHER	3.373	3.361	0.4	94	0.00
36	TETRAHYDROFURAN	0.585	0.611	-4.4	95	0.00
37	HEXANE	2.178	2.054	5.7	94	0.00
38	VINYL ACETATE	0.327	0.317	3.1	90	0.00
39	1,1-DICHLOROETHANE	2.292	2.200	4.0	94	0.00
40	METHYL ETHYL KETONE	0.600	0.603	-0.5	95	0.00
41	cis-1,2-DICHLOROETHYLENE	1.342	1.222	8.9	93	0.00
42	DI-ISOPROPYL ETHER	4.504	4.465	0.9	96	0.00



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### **Initial Calibration Verification**

**Job Number:** JA81330 VW1323-ICV1322 Sample: **RAVIV TRC** Lab FileID: W32368.D Account:

**Project:** Lockheed Electronics Co, Watchung, NJ

Project:	Lockheed Electronics Co, Watchung	, NJ		
43	ETHYL ACETATE	0.388	0.384	1.0 98 0.00
44	METHYL ACRYLATE	2.282		
45	CHLOROFORM	2.336	2.231	4.5 94 0.00
46	2,4-DIMETHYLPENTANE	2.580	2.555	1.0 96 0.00
47		2.326		3.3 94 0.00
48	1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE	2.383		5.0 92 0.00
49	1,2-DICHLOROETHANE	1.350	1.354	-0.3 95 0.00
50 I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0 102 0.00
51	BENZENE	0.763	0.758	0.7 95 0.00
52	CYCLOHEXANE	0.385	0.750	7.3 95 0.00
53	2,3-DIMETHYLPENTANE	0.190	0.187	1.6 95 0.00
54	TRICHLOROETHYLENE	0.297	0.284	4.4 93 0.00
55	DIBROMOMETHANE	0.270	0.000	100.0# 0# -10.73#
56	1,2-DICHLOROPROPANE	0.287	0.278	3.1 95 0.00
57	ETHYL ACRYLATE	0.497	0.000	100.0# 0# -10.72#
58	BROMODICHLOROMETHANE	0.471		0.4 94 0.00
59	2,2,4-TRIMETHYLPENTANE	1.312	1.325	-1.0 96 0.00
60	1,4-DIOXANE	0.155	0.154	0.6 94 0.00
61	METHYL METHACRYLATE	0.260	0.256	1.5 93 0.00
62	HEPTANE	0.491	0.465	5.3 95 0.00
63 H	TVHC as EQUIV HEPTANE	2.134	2.004	6.1 94 0.00
64	METHYL ISOBUTYL KETONE	0.527		0.9 96 0.00
65	cis-1,3-DICHLOROPROPENE			
66	TOLUENE	0 512	0 517	-1.0 95 0.00
67	trans-1,3-DICHLOROPROPENE		0.363	-2.3 96 0.00
68	1,1,2-TRICHLOROETHANE	0.222	0.228	-2.7 94 0.00
69 I	CHLOROBENZENE-D5	1.000	1.000	0.0 101 0.00
70	ETHYL METHACRYLATE	0.770	0.000	100.0# 0# -12.99#
71	2-HEXANONE	0.770	0.000	1.9 95 0.00
72	TETRACHLOROETHYLENE	0.666	0.641	3.8 93 0.00
73	DIBROMOCHLOROMETHANE	0.897		-4.2 95 0.00
74	1,2-DIBROMOETHANE	0.746	0.775	
75	OCTANE	1.267		-0.6 96 0.00
76	1,1,1,2-TETRACHLOROETHANE		0.702	-6.0 97 0.00
77	CHLOROBENZENE	1.233	1.265	-2.6 96 0.00
78	ETHYLBENZENE	1.987		-8.0 98 0.00
79	m,p-XYLENE	0.771	0.833	-8.0 97 0.00
80	o-XYLENE	0.745	0.804	-7.9 97 0.00
81	STYRENE	1.056	1.182	-11.9 96 0.00
82	1,2,3-TRICHLOROPROPANE	0.727	0.778	-7.0 100 0.00
83	NONANE	1.102	1.202	-9.1 99 0.00
84	BROMOFORM	0.769	0.832	-8.2 95 0.00
85 S	4-BROMOFLUOROBENZENE	1.081	1.134	-4.9 99 0.00
86	1,1,2,2-TETRACHLOROETHANE	0.873	0.983	-12.6 101 0.00
87	ISOPROPYLBENZENE	2.096	2.301	-9.8 97 0.00
88	BROMOBENZENE	0.548	0.000	100.0# 0# -16.45#
89	2-CHLOROTOLUENE	0.468	0.516	-10.3 99 0.00
90	n-PROPYLBENZENE	0.517	0.593	-14.7 98 0.00
91	4-ETHYLTOLUENE	1.743	2.027	-16.3 98 0.00
92	1,3,5-TRIMETHYLBENZENE	1.441	1.634	-13.4 100 0.00
93	ALPHA-METHYLSTYRENE	0.641	0.000	100.0# 0# -17.34#
94	TERT-BUTYLBENZENE	0.380	0.424	-11.6 99 0.00
95	1,2,4-TRIMETHYLBENZENE	1.321	1.548	-17.2 101 0.00
96	m-DICHLOROBENZENE	0.782	0.912	-16.6 100 0.00
97	BENZYL CHLORIDE	0.932	1.120	-20.2 102 0.00
98	p-DICHLOROBENZENE	0.771	0.868	-12.6 101 0.00
99	SEC-BUTYLBENZENE	0.410	0.483	-17.8 99 0.00
100	p-ISOPROPYLTOLUENE	0.390	0.472	-21.0 100 0.00



### **Initial Calibration Verification**

Initial Control Job Number Account:  Project:	alibration Verification :: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung,	NJ	Sample Lab Fil		VW132 W3236	3-ICV1322	age 3 of 3
101	o-DICHLOROBENZENE	0.704	0.800	-13.6	5 10	3 0.00	
102	n-BUTYLBENZENE	0.321	0.366	-14.0	10	2 0.00	
103	HEXACHLOROETHANE	0.425	0.000	100.0	)#	0# -19.04	‡
104	HEXACHLOROBUTADIENE	0.246	0.290	-17.9	11:	9 0.00	
105	1,2,4-TRICHLOROBENZENE	0.169	0.180	-6.5	5 11	7 0.00	
106 I	Chlorobenzene-d5(a)	1.000	1.000	0.0	10	1 0.00	
107	NAPHTHALENE	0.299	0.000	100.0	)#	0# -20.35	‡

(#) = Out of Range SPCC's out = 0 CCC's out = 0 W32352.D MW1322.M Wed Jun 22 15:01:39 2011 MSW



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### **Continuing Calibration Summary**

Job Number: JA81330 VW1324-CC1322 Sample: **RAVIV TRC** Account: Lab FileID: W32386.D

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\W32386.D

: 23 Jun 2011 9:03 am Acq On Operator: YOUMINH Sample : CC1322-10 Misc : MS14299,VW1324,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um Title

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev A	rea% I	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	103	0.00
2	FREON 115	0.000	0.000	0.0	0#	-5.02#
3	FREON 152A	0.000	0.000	0.0	0#	-4.85#
4	CHLORODIFLUOROMETHANE		0.289			0.01
5	DICHLORODIFLUOROMETHANE		2.898	1.4	101	0.00
6	PROPYLENE	1.250	1.214	2.9	109	0.00
7	FREON 114	3.443	3.424	0.6	99	0.00
8	CHLOROMETHANE	0.380		-1.1		0.00
9	DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE DICHLOROFLUOROMETHANE ACROLEIN	1.317	1.353	-2.7	104	0.00
10	1,3-BUTADIENE	1.103	1.096		102	0.00
11	n-BUTANE	2.182	2.279	-4.4	107	0.00
12	BROMOMETHANE	1.128		1.6	98	0.00
13	CHLOROETHANE	0.755	1.110 0.772 2.702	-2.3	102	0.00
14	DICHLOROFLUOROMETHANE	2.679	2.702	-0.9	101	0.00
15	ACROLEIN	0.540	0.545	-0.9	104	0.00
16	FREON 123	2.871	2.855	0.6	98	0.00
17	FREON 123A	1.717	2.855 1.641	0.6 4.4	94	0.00
18	TRICHLOROFLUOROMETHANE	2.805	2.716	3.2	99	0.00
19	ISOPROPYL ALCOHOL		2.447	-0.4	104	0.00
20	ACETONE	0.640	0.649	-0.4 -1.4	106	0.00
21	ACRYLONITRILE	1.008	1.050	-4.2	103	0.00
22	PENTANE	0.413	0.388 7.162	6.1	102	0.00
23 Н	TVHC as EQUIV PENTANE	7.476	7.162	4.2	101	0.00
24	IODOMETHANE	2.979			93	0.00
25	IODOMETHANE  1,1-DICHLOROETHYLENE  CARBON DISULFIDE  ETHANOL  ACETONITRILE  BROMOETHENE	1.261	1.197 2.954	5.1 3.1	96	0.00
26	CARBON DISULFIDE	3.048	2.954	3.1	97	0.00
27	ETHANOL	0.640		4.7	105	0.00
28	ACETONITRILE BROMOETHENE	1.060	1.123	-5.9	108	0.00
29	BROMOETHENE	1.172	1.137	3.0	96	0.00
30	METHYLENE CHLORIDE		1.129			0.00
31	3-CHLOROPROPENE	0.607	0.619 1.972	-2.0 4.8	98	0.00
32	FREON 113			4.8	93	0.00
33	TRANS-1,2-DICHLOROETHYLENE					0.00
34	TERTIARY BUTYL ALCOHOL	2.822	2.855 3.447	-1.2	99	0.00
35	METHYL TERTIARY BUTYL ETHER			-2.2	97	0.00
36	TETRAHYDROFURAN	0.585				0.00
37	HEXANE	2.178	2.195	-0.8	100	0.00
38	VINYL ACETATE	0.327	0.339	-3.7	96	0.00
	1,1-DICHLOROETHANE	2.292	2.335	-1.9	99	
40	METHYL ETHYL KETONE	0.600	0.602 1.249	-0.3	95	0.00
41	cis-1,2-DICHLOROETHYLENE			6.9		0.00
42	DI-ISOPROPYL ETHER	4.504	4.704	-4.4	101	0.00



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Continuing	<b>Calibration</b>	Summary
Job Number:	JA81330	•

Sample: VW1324-CC1322 **RAVIV TRC** Lab FileID: Account: W32386.D Lockheed Electronics Co, Watchung, NJ **Project:** 43 ETHYL ACETATE 0.388 0.387 0.3 99 0.00 44 METHYL ACRYLATE 2.282 2.390 -4.7 100 0.00 45 2.336 2.319 0.7 97 0.00 CHLOROFORM 2,4-DIMETHYLPENTANE 2.580 2.646 99 46 -2.6 0.00 2.326 2.289 2.383 2.337 47 1,1,1-TRICHLOROETHANE 1.6 95 0.00 48 CARBON TETRACHLORIDE 1.9 95 0.00 49 1,2-DICHLOROETHANE 1.350 1.398 -3.6 98 0.00 50 I 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 103 0.00 BENZENE 0.763 0.00 51 0.763 0.0 96 0.385 0.354 8.1 95 0.00 52 CYCLOHEXANE 0.190 0.191 -0.5 98 0.00 53 2,3-DIMETHYLPENTANE 0.297 0.293 54 TRICHLOROETHYLENE 1.3 96 0.00 0.270 0.256 55 DIBROMOMETHANE 5.2 92 0.00 0.287 0.289 56 1,2-DICHLOROPROPANE -0.7 1000.00 57 ETHYL ACRYLATE 0.497 0.505 -1.6 94 0.00 58 BROMODICHLOROMETHANE 0.471 0.471 0.0 95 0.00 1.312 1.365 -4.0 100 0.00 59 2,2,4-TRIMETHYLPENTANE 60 1,4-DIOXANE 0.155 0.149 3.9 92 0.00 61 METHYL METHACRYLATE 0.260 0.260 0.0 95 0.00 1.0 100 62 HEPTANE 0.491 0.486 0.00 2.134 0.00 63 H TVHC as EQUIV HEPTANE 2.072 2.9 98 METHYL ISOBUTYL KETONE 0.527 0.00 64 0.514 2.5 95 0.382 65 cis-1,3-DICHLOROPROPENE 0.384 -0.5 96 0.00 TOLUENE 0.6 66 0.512 0.509 95 0.00 0.355 0.360 67 trans-1,3-DICHLOROPROPENE 0.00 -1.496 68 1,1,2-TRICHLOROETHANE 0.222 0.228 -2.795 0.00 0.00 69 I CHLOROBENZENE-D5 1.000 1.000 0.0 104 70 ETHYL METHACRYLATE 0.770 0.780 -1.3 92 0.00 0.989 0.938 5.2 94 0.00 71 2-HEXANONE 72 0.666 0.609 8.6 91 0.00 TETRACHLOROETHYLENE 0.897 0.6 0.00 73 DIBROMOCHLOROMETHANE 0.892 94 1,2-DIBROMOETHANE 74 0.746 0.738 1.1 93 0.00 75 OCTANE 1.267 1.278 -0.9 99 0.00 1,1,1,2-TETRACHLOROETHANE 0.662 0.665 76 -0.5 95 0.00 1.202 77 1.233 94 0.00 CHLOROBENZENE 2.5 78 1.987 2.010 -1.2 94 0.00 ETHYLBENZENE 79 0.771 0.784 -1.7 94 0.00 m,p-XYLENE 0.00 80 0.745 0.764 -2.6 95 O-XYLENE 1.105 92 0.00 81 STYRENE 1.056 -4.6 1,2,3-TRICHLOROPROPANE 82 0.727 0.739 -1.7 97 0.00 83 NONANE 1.102 1.196 -8.5 101 0.00 84 0.769 0.781 -1.6 92 0.00 BROMOFORM 4-BROMOFLUOROBENZENE 85 S 1.081 -3.9 101 0.00 1.123 0.873 86 1,1,2,2-TETRACHLOROETHANE 0.917 -5.0 97 0.00 87 ISOPROPYLBENZENE 2.096 2.169 -3.595 0.00 88 0.548 0.559 -2.0 92 0.00 BROMOBENZENE 0.468 0.474 -1.3 0.00 89 2-CHLOROTOLUENE 93 2-CHLUKUTULULLL n-PROPYLBENZENE 90 0.517 0.555 -7.4 94 0.00 91 4-ETHYLTOLUENE 1.743 1.892 -8.5 95 0.00 92 1.441 1.503 -4.3 95 0.00 1,3,5-TRIMETHYLBENZENE 0.641 93 0.672 -4.8 92 0.00 ALPHA-METHYLSTYRENE 0.380 94 TERT-BUTYLBENZENE 0.392 -3.2 94 0.00 1.321 -7.8 95 1,2,4-TRIMETHYLBENZENE 1.424 95 0.00 0.782 96 m-DICHLOROBENZENE 0.810 -3.6 92 0.00 0.932 0.771 97 0.988 -6.0 93 0.00 BENZYL CHLORIDE 98 p-DICHLOROBENZENE 0.767 0.5 92 0.00 99 0.410 95 SEC-BUTYLBENZENE 0.449 -9.5 0.00 -10.8 100 p-ISOPROPYLTOLUENE 0.390 0.432 94 0.00



### **Continuing Calibration Summary**

Continu Job Numbe Account: Project:	ing Calibration Summary r: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung, N	1]	Sample: Lab FileID		W1324-C 32386.D	Page 3 of 3 C1322
101	o-DICHLOROBENZENE	0.704	0.697	1.0	92	0.00
102	n-BUTYLBENZENE	0.321	0.321	0.0	93	0.00
103	HEXACHLOROETHANE	0.425	0.444	-4.5	92	0.00
104	HEXACHLOROBUTADIENE	0.246	0.219	11.0	93	0.00
105	1,2,4-TRICHLOROBENZENE	0.169	0.132	21.9	88	0.00
106 I	Chlorobenzene-d5(a)	1.000	1.000	0.0	103	0.00
107	NAPHTHALENE	0.299	0.242	19.1	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0 W32352.D MW1322.M Fri Jun 24 11:00:21 2011 MSW

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#### **Continuing Calibration Summary**

Job Number: JA81330 VW1341-CC1322 Sample: **RAVIV TRC** Account: Lab FileID: W32800.D

Project: Lockheed Electronics Co, Watchung, NJ

#### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\W32800.D

Acq On : 20 Jul 2011 8:11 am Operator: YOUMINH Sample : CC1322-10 Misc : MS15431,VW1341,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um Title

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev A	rea% 	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	113	-0.02
2	FREON 115	0.000	0.000			-5.02#
3	FREON 152A	0.000	0.000	0.0	0#	-4.85#
4	CHLORODIFLUOROMETHANE	0.292	0.244	16.4	94	
5	DICHLORODIFLUOROMETHANE	2.938	2.603	11.4	98	0.00
6	PROPYLENE	1.250	1.124	10.1	110	0.00
7	FREON 114	3.443	3.281	4.7	103	0.00
8	CHLOROMETHANE	0.380	0.389	-2.4	118	0.00
9	VINYL CHLORIDE	1.317	1.394	-5.8	117	0.00
10	1,3-BUTADIENE	1.103			116	0.00
11	n-BUTANE	2.182		-11.6	125	0.00
12	BROMOMETHANE	1.128	1.115	1.2	107	0.00
13	CHLOROETHANE	0.755	0.795	-5.3	115	-0.01
14	DICHLOROFLUOROMETHANE	2.679	2.634	1.7	107	0.00
15	ACROLEIN	0.540	0.528	2.2	109	-0.01
16	FREON 123	2.871	2.941	-2.4	110	-0.01
17	FREON 123A	1.717	1.596	7.0	100	-0.01
18	TRICHLOROFLUOROMETHANE	2.805	2.613	6.8	104	-0.01
19	ISOPROPYL ALCOHOL	2.437	2.544	-4.4	118	-0.01
20	ACETONE	0.640	0.646	-4.4 -0.9	115	-0.01
21	ACRYLONITRILE	1.008	1.039	-3.1	111	-0.02
22	PENTANE	0.413	0.412	0.2	118	-0.01
23 Н	TVHC as EQUIV PENTANE	7.476	7.629	-2.0	117	-0.02
24	IODOMETHANE	2.979	2.837	4.8	101	-0.01
25	1,1-DICHLOROETHYLENE	1.261	1.276	-1.2	111	-0.01
26	CARBON DISULFIDE	3.048	3.132	-2.8	112	-0.01
27	ETHANOL	0.640		0.0	120	0.00
28	ACETONITRILE	1.060	1.106	-4.3	116	-0.01
29	BROMOETHENE	1.172	1.137	3.0	105	-0.01
30	METHYLENE CHLORIDE	1.210		2.5	114	-0.02
31	3-CHLOROPROPENE	0.607 2.072	0.621	-2.3	107	-0.02
32	FREON 113			12.5	93	-0.01
33	TRANS-1,2-DICHLOROETHYLENE	1.184	1.142	3.5	104	-0.02
34	TERTIARY BUTYL ALCOHOL	2.822	2.939	-4.1	111	-0.01
35	METHYL TERTIARY BUTYL ETHER	3.373	3.020	10.5	92	-0.02
36	TETRAHYDROFURAN	0.585	0.568	2.9	96	-0.02
37	HEXANE	2.178	2.363	-8.5	118	-0.02
38	VINYL ACETATE	0.327		5.5	96	-0.02
39	1,1-DICHLOROETHANE		2.365		110	-0.02
40	METHYL ETHYL KETONE	0.600	0.577	3.8	99	-0.02
41	cis-1,2-DICHLOROETHYLENE	1.342	1.252	6.7	104	-0.02
42	DI-ISOPROPYL ETHER	4.504	4.608	-2.3	108	-0.02

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Job Number: JA81330 Sample: VW1341-CC1322 **RAVIV TRC** Lab FileID: W32800.D Account: Lockheed Electronics Co, Watchung, NJ **Project:** 43 ETHYL ACETATE 0.388 0.377 2.8 105 -0.02 44 METHYL ACRYLATE 2.282 2.289 -0.3 104 -0.02 -0.02 45 2.336 2.259 3.3 103 CHLOROFORM 2.580 2.732 -5.9 -0.02 46 2,4-DIMETHYLPENTANE 111 47 1,1,1-TRICHLOROETHANE 2.326 2.092 10.1 95 -0.02 -0.03 48 CARBON TETRACHLORIDE 2.383 2.079 12.8 92 49 1,2-DICHLOROETHANE 1.350 1.297 3.9 100 -0.02 50 I 1,4-DIFLUOROBENZENE 1.000 1.000 0.0 106 -0.02 0.763 -0.03 51 BENZENE 0.796 -4.3 103 -0.03 0.385 3.9 102 52 CYCLOHEXANE 0.370 0.190 0.202 107 -0.02 53 2,3-DIMETHYLPENTANE -6.3 0.297 54 TRICHLOROETHYLENE 0.303 -2.0 102 -0.02 0.270 0.252 -0.02 55 DIBROMOMETHANE 6.7 93 56 1,2-DICHLOROPROPANE 0.287 0.302 -5.2 107 -0.03 57 ETHYL ACRYLATE 0.497 0.521 -4.8 100 -0.02 58 0.471 0.477 -1.3 99 -0.02 BROMODICHLOROMETHANE 1.312 1.507 -0.03 59 2,2,4-TRIMETHYLPENTANE -14.9 113 60 1,4-DIOXANE 0.155 0.155 0.0 98 -0.02 METHYL METHACRYLATE 61 0.260 0.251 3.5 94 -0.03 HEPTANE 0.491 0.553 117 -0.03 62 -12.6 -0.03 63 H TVHC as EQUIV HEPTANE 2.134 2.257 -5.8 109 -7.6 -0.03 64 METHYL ISOBUTYL KETONE 0.527 0.567 107 65 cis-1,3-DICHLOROPROPENE 0.382 0.374 2.1 96 -0.02 66 TOLUENE 0.512 0.491 94 -0.02 4.1 67 trans-1,3-DICHLOROPROPENE 0.355 0.333 91 -0.03 6.2 68 1,1,2-TRICHLOROETHANE 0.222 0.226 -1.8 97 -0.02 69 I CHLOROBENZENE-D5 1.000 1.000 0.0 104 -0.03 70 ETHYL METHACRYLATE 0.770 0.817 -6.1 97 -0.03 0.989 1.072 -8.4 108 -0.02 71 2-HEXANONE 72 0.666 8.3 -0.03 TETRACHLOROETHYLENE 0.611 91 -0.03 DIBROMOCHLOROMETHANE 0.897 73 0.838 6.6 88 74 1,2-DIBROMOETHANE 0.746 0.706 5.4 89 -0.03 1.419 75 OCTANE 1.267 -12.0 111 -0.03 0.662 76 0.603 8.9 86 -0.03 1,1,1,2-TETRACHLOROETHANE 77 -0.03 1.233 1.135 7.9 89 CHLOROBENZENE 78 1.987 1.897 4.5 90 -0.02 ETHYLBENZENE 79 0.771 0.731 5.2 88 -0.02 m,p-XYLENE 0.701 80 0.745 5.9 88 -0.03 O-XYLENE 81 STYRENE 1.056 1.010 4.4 85 -0.02 82 1,2,3-TRICHLOROPROPANE 0.727 0.664 8.7 88 -0.03 83 NONANE 1.102 1.213 -10.1 103 -0.03 84 0.769 0.701 83 -0.02 BROMOFORM 8.8 4-BROMOFLUOROBENZENE 1.081 1.004 7.1 -0.03 85 S 91 86 1,1,2,2-TETRACHLOROETHANE 0.873 0.884 -1.3 94 -0.03 87 ISOPROPYLBENZENE 2.096 1.926 8.1 84 -0.03 88 0.548 0.501 8.6 83 -0.03 BROMOBENZENE 9.8 0.468 -0.02 89 0.422 84 2-CHLOROTOLUENE 90 0.517 0.480 7.2 82 -0.03 n-PROPYLBENZENE 91 4-ETHYLTOLUENE 1.743 1.626 6.7 82 -0.03 -0.02 92 1.441 1.263 12.4 80 1,3,5-TRIMETHYLBENZENE 93 0.641 10.3 79 -0.03 ALPHA-METHYLSTYRENE 0.575 94 TERT-BUTYLBENZENE 0.380 0.325 14.5 78 -0.02 95 1,2,4-TRIMETHYLBENZENE 1.321 1.194 9.6 80 -0.02 0.782 10.1 96 m-DICHLOROBENZENE 0.703 80 -0.02 97 0.932 6.5 -0.02 BENZYL CHLORIDE 0.871 82 98 p-DICHLOROBENZENE 0.771 0.678 12.1 81 -0.02 99 10.0 SEC-BUTYLBENZENE 0.410 0.369 78 -0.02 100 p-ISOPROPYLTOLUENE 0.390 0.354 9.2 78 -0.03



Continu Job Numbe Account: Project:	ing Calibration Summary Pr: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung, 1	NJ	Sample: Lab FileID:		W1341- 32800.I	Page 3 of 3 CC1322
101	o-DICHLOROBENZENE	0.704	0.605 1	4.1	80	-0.02
102	n-BUTYLBENZENE	0.321	0.270 1	5.9	78	-0.02
103	HEXACHLOROETHANE	0.425	0.378	1.1	79	-0.02
104	HEXACHLOROBUTADIENE	0.246	0.187 2	1.0	79	-0.02
105	1,2,4-TRICHLOROBENZENE	0.169	0.141 10	5.6	95	-0.02
106 I	Chlorobenzene-d5(a)	1.000	1.000	0.0	104	-0.03
107	NAPHTHALENE	0.299	0.277	7.4	100	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0 W32352.D MW1322.M Thu Jul 21 10:49:22 2011 MSW (#) = Out of Range

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## **Continuing Calibration Summary**

Job Number: JA81330 VW1342-CC1322 Sample: **RAVIV TRC** Account: Lab FileID: W32829.D

Project: Lockheed Electronics Co, Watchung, NJ

### Evaluate Continuing Calibration Report

Vial: 2 Data File : C:\MSDCHEM\1\DATA\W32829.D

Acq On : 21 Jul 2011 9:18 am Operator: YOUMINH Sample : CC1322-10 Misc : MS15431,VW1342,,,,,1 Inst : MSW Misc Multiplr: 1.00

MS Integration Params: rteint.p

: C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Method : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um Title

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev A	rea%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	105	-0.02
2	FREON 115	0.000	0.000	0.0	0#	-5.02#
3	FREON 152A	0.000	0.000	0.0	0#	-4.85#
4	CHLORODIFLUOROMETHANE	0.292	0.255	12.7	92	
5	DICHLORODIFLUOROMETHANE	2.938	2.632	10.4	93	0.00
6	PROPYLENE	1.250		7.5		0.00
7	FREON 114	3.443			97	
8	CHLOROMETHANE	0.380				0.00
9	VINYL CHLORIDE	1.317	1.396	-6.0	109	0.00
10	1,3-BUTADIENE	1.103			109	0.00
11	n-BUTANE	2.182		-12.4		
12	BROMOMETHANE	1.128	1.114			0.00
13	CHLOROETHANE	0.755	0.801	-6.1	107	-0.01
14	DICHLOROFLUOROMETHANE	2.679	2.679	0.0	102	0.00
15	ACROLEIN	0.540	0.555	-2.8	107	-0.01
16	FREON 123	2.871	2.942	-2.5	103	-0.01
17	FREON 123A	1.717	1.596	7.0	93	-0.01
18	TRICHLOROFLUOROMETHANE	2.805	2.657	5.3	98	-0.01
19	ISOPROPYL ALCOHOL	2.437	2.606	-6.9	112	0.00
20	ACETONE	0.640	0.680	-6.3	113	-0.01
21	ACRYLONITRILE	1.008	1.098	-8.9	109	-0.01
22	PENTANE	0.413	0.420	-1.7 -5.7	112	-0.01
23 Н	TVHC as EQUIV PENTANE	7.476	7.901	-5.7	113	-0.01
24	IODOMETHANE	2.979		5.3	93	-0.01
25	1,1-DICHLOROETHYLENE	1.261	1.261 3.093	0.0	102	-0.02
26	CARBON DISULFIDE	3.048	3.093	-1.5	103	-0.01
27	ETHANOL	0.640		-5.5	118	0.00
28	ACETONITRILE	1.060	1.187	-12.0	115	0.00
29	BROMOETHENE	1.172	1.130	3.6	97	-0.01
30	METHYLENE CHLORIDE	1.210		3.6	105	-0.02
31	3-CHLOROPROPENE	0.607 2.072	0.624	-2.8 12.8	100	-0.01
32	FREON 113			12.0	86	-0.01
33	TRANS-1,2-DICHLOROETHYLENE			3.3	97	-0.02
34	TERTIARY BUTYL ALCOHOL	2.822	2.965 3.198	-5.1	104	0.00
35	METHYL TERTIARY BUTYL ETHER	3.373	3.198	5.2	91	-0.02
36	TETRAHYDROFURAN	0.585			95	-0.02
37	HEXANE	2.178	2.403	-10.3	111	-0.02
38	VINYL ACETATE	0.327		0.6	94	-0.02
	1,1-DICHLOROETHANE		2.387		103	-0.02
40	METHYL ETHYL KETONE	0.600	0.599	0.2		-0.02
41	cis-1,2-DICHLOROETHYLENE		1.258	6.3		
42	DI-ISOPROPYL ETHER	4.504	4.929	-9.4	107	-0.02

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**Continuing Calibration Summary** 

Job Number: JA81330 Sample: VW1342-CC1322 **RAVIV TRC** Lab FileID: W32829.D Account: Lockheed Electronics Co, Watchung, NJ **Project:** 43 ETHYL ACETATE 0.388 0.399 -2.8 103 -0.02 METHYL ACRYLATE 44 2.282 2.470 -8.2 104 -0.02 2.336 45 2.306 1.3 98 -0.02 CHLOROFORM 2,4-DIMETHYLPENTANE 2.580 2.794 -8.3 106 -0.02 46 2.326 2.175 2.383 2.155 92 -0.02 47 1,1,1-TRICHLOROETHANE 6.5 CARBON TETRACHLORIDE 48 9.6 89 -0.03 49 1,2-DICHLOROETHANE 1.350 1.352 -0.1 97 -0.02 1.000 1.000 50 I 0.0 100 1,4-DIFLUOROBENZENE -0.02 1.000 0.816 -6.9 100 -0.03 BENZENE 0.763 51 0.385 0.372 3.4 97 -0.03 52 CYCLOHEXANE 0.190 0.204 0.297 0.305 0.270 0.254 -7.4 102 -0.02 53 2,3-DIMETHYLPENTANE 98 -0.02 54 TRICHLOROETHYLENE -2.7 5.9 89 -0.02 55 DIBROMOMETHANE 0.270 0.234 0.287 0.315 -9.8 106 -0.03 0.497 0.546 -9.9 99 -0.02 0.471 0.488 -3.6 96 -0.02 1.312 1.525 -16.2 108 -0.03 0.155 0.153 1.3 91 -0.02 56 1,2-DICHLOROPROPANE 57 ETHYL ACRYLATE 58 BROMODICHLOROMETHANE 59 2,2,4-TRIMETHYLPENTANE 60 1,4-DIOXANE 0.260 0.267 61 METHYL METHACRYLATE -2.7 95 -0.02 62 HEPTANE 0.491 0.561 -14.3 113 -0.03 TVHC as EQUIV HEPTANE 2.134 2.260
METHYL ISOBUTYL KETONE 0.527 0.579
cis-1,3-DICHLOROPROPENE 0.382 0.389 -0.03 63 H -5.9 104 -9.9 104 -0.02 64 cis-1,3-DICHLOROPROPENE 65 -1.8 95 -0.02 0.512 -0.02 66 TOLUENE 0.515 -0.6 93 1,1,2-TRICHLOROPENE 0.355 0.351 0.222 0.234 1.1 67 91 -0.03 95 68 -5.4 -0.02 1.000 0.0 101 -0.03 69 I CHLOROBENZENE-D5 1.000 ETHYL METHACRYLATE 70 0.770 0.818 -6.2 94 -0.03 2-HEXANONE 0.989 1.065 -7.7 104 -0.02 71 0.666 0.602 0.897 0.854 0.746 0.719 TETRACHLOROETHYLENE 9.6 72 87 -0.03 DIBROMOCHLOROMETHANE 87 -0.03 73 4.8 1,2-DIBROMOETHANE -0.02 74 3.6 88 0.719
1.267 1.455
1,1,1,2-TETRACHLOROETHANE 0.662 0.626
CHLOROBENZENE 1.233 1.166
ETHYLBENZENE 1 207 1 277 75 -14.8 110 -0.03 5.4 87 76 -0.02 77 89 -0.03 5.4 78 0.8 90 -0.02 m,p-XYLENE ..., P-AYLENE O-XYLENE STYRENE 1.7 79 0.771 0.758 88 -0.02 0.731 88 -0.03 80 0.745 1.9 0.2 1.056 1.054 85 -0.02 81 1,2,3-TRICHLOROPROPANE 90 -0.03 82 0.727 0.702 3.4 83 NONANE 1.102 1.283 -16.4 105 -0.03 84 0.769 0.711 7.5 82 -0.02 BROMOFORM 4-BROMOFLUOROBENZENE 1.081 0.988 8.6 86 -0.03 85 S 1,1,2,2-TETRACHLOROETHANE 0.873 ISOPROPYLBENZENE 2.096 95 -0.03 86 0.929 -6.4 87 2.017 3.8 85 - 0.0388 0.548 0.513 6.4 82 -0.03 BROMOBENZENE 0.468 0.517 2-CHLOROTOLUENE 0.435 7.1 83 -0.02 89 n-PROPYLBENZENE
4-ETHYLTOLUENE 90 0.506 2.1 84 -0.03 1.743 -0.03 91 1.732 0.6 84 1.441 0.641 82 -0.02 92 1,3,5-TRIMETHYLBENZENE 1.346 6.6 ALPHA-METHYLSTYRENE TERT-BUTYLBENZENE 93 5.5 80 -0.03 0.606 0.380 94 0.348 8.4 81 -0.02 1.321 95 1,2,4-TRIMETHYLBENZENE 1.267 4.1 82 -0.02 0.782 7.3 96 m-DICHLOROBENZENE 0.782 0.932 0.771 0 410 0.725 80 -0.02 -0.02 97 0.904 3.0 83 BENZYL CHLORIDE 98 p-DICHLOROBENZENE 0.699 9.3 81 -0.03 -0.03 99 5.1 80 SEC-BUTYLBENZENE 0.389 100 p-ISOPROPYLTOLUENE 0.390 0.375 3.8 79 -0.03



# **Continuing Calibration Summary**

r: JA81330 RAVIV TRC	NJ	Sample: Lab FileII			
o-DICHLOROBENZENE	0.704	0.628	10.8	80	-0.02
n-BUTYLBENZENE	0.321	0.277	13.7	78	-0.02
HEXACHLOROETHANE	0.425	0.384	9.6	77	-0.02
HEXACHLOROBUTADIENE	0.246	0.193	21.5	79	-0.02
1,2,4-TRICHLOROBENZENE	0.169	0.127	24.9	83	-0.02
Chlorobenzene-d5(a) NAPHTHALENE	1.000 0.299	1.000 0.252			-0.03 -0.02
	RAVIV TRC Lockheed Electronics Co, Watchung, N  O-DICHLOROBENZENE n-BUTYLBENZENE HEXACHLOROETHANE HEXACHLOROBUTADIENE 1,2,4-TRICHLOROBENZENE  Chlorobenzene-d5(a)	r: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung, NJ  o-DICHLOROBENZENE 0.704 n-BUTYLBENZENE 0.321 HEXACHLOROETHANE 0.425 HEXACHLOROBUTADIENE 0.246 1,2,4-TRICHLOROBENZENE 0.169  Chlorobenzene-d5(a) 1.000	r: JA81330	r: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung, NJ  o-DICHLOROBENZENE n-BUTYLBENZENE HEXACHLOROETHANE HEXACHLOROBUTADIENE 1,2,4-TRICHLOROBENZENE 0.169 0.127 0.24.9  Chlorobenzene-d5(a) 1.000 1.000 0.00	r: JA81330 RAVIV TRC Lockheed Electronics Co, Watchung, NJ  O-DICHLOROBENZENE  n-BUTYLBENZENE  HEXACHLOROBETHANE  10.425  0.246  0.193  21.5  79  1,2,4-TRICHLOROBENZENE  0.169  0.127  24.9  83  Chlorobenzene-d5(a)  1.000  Sample: VW1342-C Lab FileID: W32829.E  0.282  0.283  0.277  13.7  78  0.277  13.7  78  0.277  13.7  78  0.277  13.7  78  0.277  13.7  78  0.245  0.384  0.6  0.193  21.5  79  1,2,4-TRICHLOROBENZENE  0.169  0.127  24.9  83

(#) = Out of Range SPCC's out = 0 CCC's out = 0 W32352.D MW1322.M Fri Jul 22 09:35:15 2011 MSW (#) = Out of Range



		T 7		
GC/	MS	V٥	latı	les

Raw Data



### Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32807.D

Acq On : 20 Jul 2011 2:05 pm

Operator : YOUMINH
Sample : JA81330-1

Sample : JA81330-1 Misc : MS15514,VW1341,400,,,,1 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 17 00:24:35 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update: Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Ur	nits I	Dev	(Min)
Tnta	rnal Standards							
	BROMOCHLOROMETHANE	8.598	128	153068	10.00	DDRV		-0 02
50)	1 4-DIFIJIOROBENZENE	10 275	114	768434	10.00	PPRV		-0.02
69)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	14.518	82	332231	10.00	PPBV		-0.03
106)	Chlorobenzene-d5(a)	14.518	82	329934	10.00	PPBV		-0.03
200,	onici openicine as (a)	11.010	02	323331	10.00			0.05
Syste	em Monitoring Compounds							
85)	4-BROMOFLUOROBENZENE	16.164	95	180689	5.03	PPBV		-0.03
Spi	iked Amount 5.000	Range 65	- 128	Recove	ery =	100.6	50%	
_	et Compounds							alue
,	DICHLORODIFLUOROMETHANE	4.959	85	21438	0.48	PPBV	#	93
- ,	PROPYLENE	4.904	41	98403 5496	5.14	PPBV		86
,	CHLOROMETHANE	5.087	52	5496	0.94	PPBV		93
	CHLOROETHANE	5.721	64	1106 15775	0.10	PPBV		82
	TRICHLOROFLUOROMETHANE	6.294	101	15775	0.37	PPBV		99
19)	ISOPROPYL ALCOHOL	6.385	45	862472 1389510	23.12	PPBV		99
20)	ACETONE	6.160	58	1389510	141.89	PPBV	#	82
26)	CARBON DISULFIDE	7.135	76	12893 8533855	0.28	PPBV		93
,	ETHANOL	5.843	45	8533855	871.19	PPBV		98
30)	METHYLENE CHLORIDE	6.867	84	4257 172656 9354	0.23	PPBV		99
34)	TERTIARY BUTYL ALCOHOL		59	172656	4.00	PPBV	#	73
,	TETRAHYDROFURAN	9.080	72	9354	1.05	PPBV	#	
,	HEXANE	8.598	57	44279	1.33	PPBV	#	84
	METHYL ETHYL KETONE	8.080	72	156686 48299	17.07	PPBV	#	73
43)	ETHYL ACETATE	8.610	61	48299 12598 4654 5399	8.13	PPBV	#	1
,	CHLOROFORM	8.702	83	12598	0.35	PPBV		95
,	CARBON TETRACHLORIDE	10.116	117	4654	0.13	PPBV		98
	1,2-DICHLOROETHANE	9.342	62	5399	0.26	PPBV		95
,	BENZENE	9.976	78	90153	1.54	PPBV		99
	CYCLOHEXANE	10.226	84	14888	0.50	PPBV		87
	TRICHLOROETHYLENE	10.933	95	5147	0.23	PPBV		98
	2,2,4-TRIMETHYLPENTANE	10.945	57	5399 90153 14888 5147 60177	0.60	PPBV		87
,	HEPTANE	11.183	43	71302 75587	1.89	PPBV		94
64)	METHYL ISOBUTYL KETONE	11.793	43	75587	1.87	PPBV		97
66)	TOLUENE	12.707	92	416743	10.60	PPBV		98
,	2-HEXANONE	12.969	43	116114	3.54	PPBV		98
72)	TETRACHLOROETHYLENE	13.853	164	16482 209288	0.75	PPBV		97
,	ETHYLBENZENE	14.951	91	209288	3.17	PPBV		98
,	m,p-XYLENE	15.133	106	328001	12.81	PPBV		94
80)	O-XYLENE	15.658	106	328001 133293	5.39	PPBV		95
	STYRENE	15.536	104	16916 41403	0.48	PPBV		96
87)	ISOPROPYLBENZENE	16.310	105	41403	0.59	PPBV		98
91)	4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE	17.042	105	325982	5.63	PPBV		99
92)	1,3,5-TRIMETHYLBENZENE	17.133	105	171536	3.58	PPBV		98
95)	1,2,4-TRIMETHYLBENZENE	17.596	105	531017	12.10	PPBV	#	32
107)	NAPHTHALENE	20.328	128	36399	3.68	PPBV		92

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed

MW1322.M Wed Aug 17 00:24:35 2011 ACC-VOA-DESK1

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ACCUTEST

JA81330
LABORATORIES

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32807.D

Acq On : 20 Jul 2011 2:05 pm

Operator : YOUMINH Sample : JA81330-1

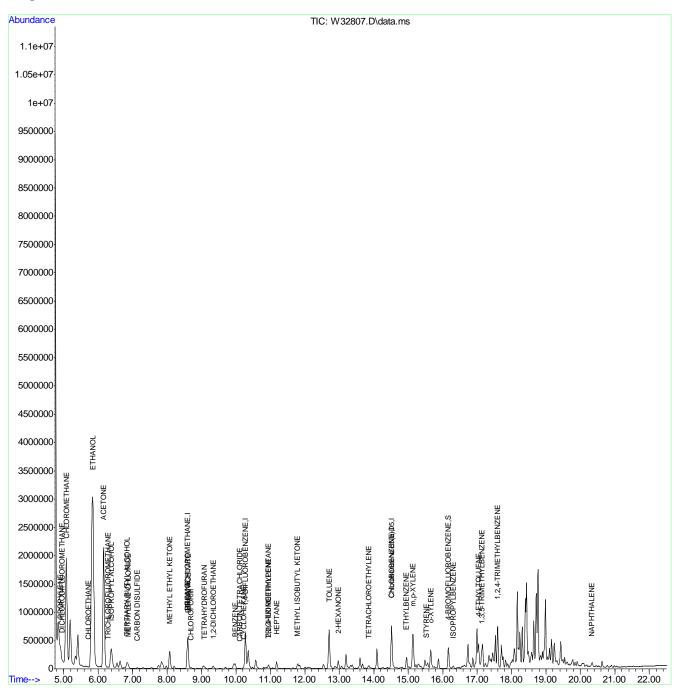
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 17 00:24:35 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m  $\times$  0.32mm ID  $\times$  1.0 um

QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



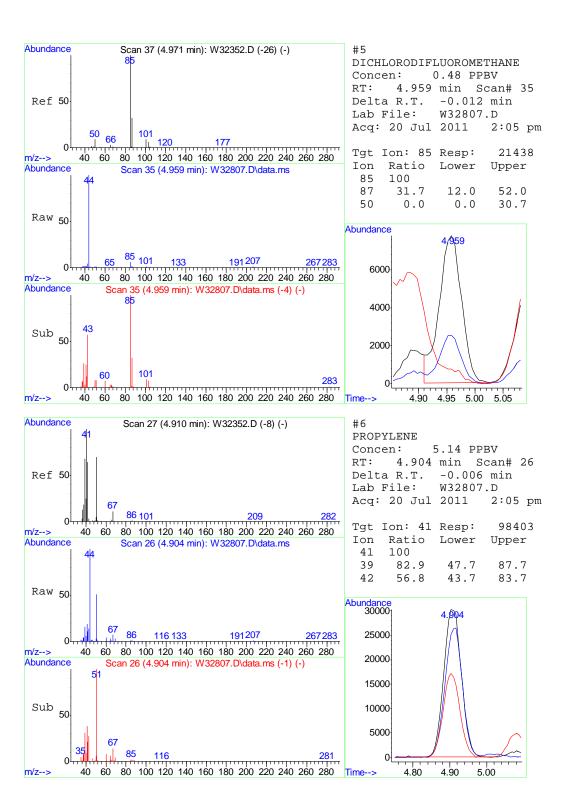
MW1322.M Wed Aug 17 00:24:35 2011 ACC-VOA-DESK1

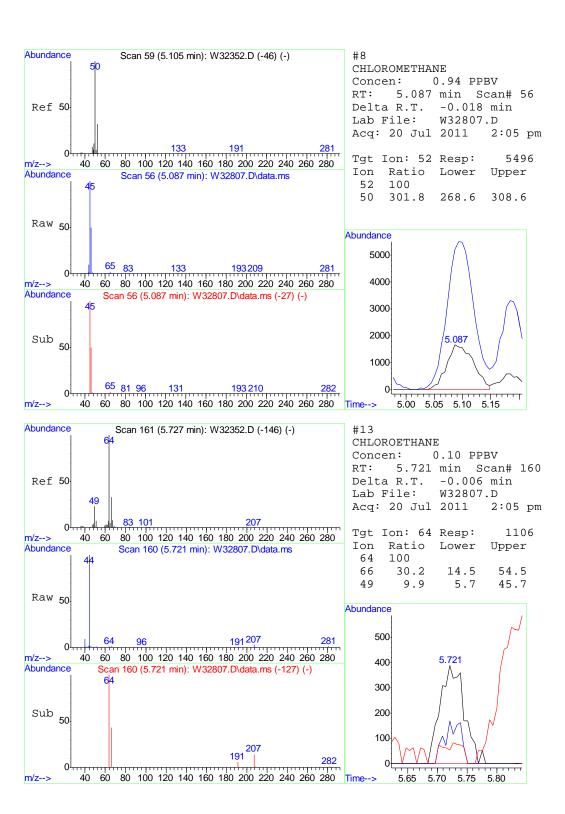
162 of 685

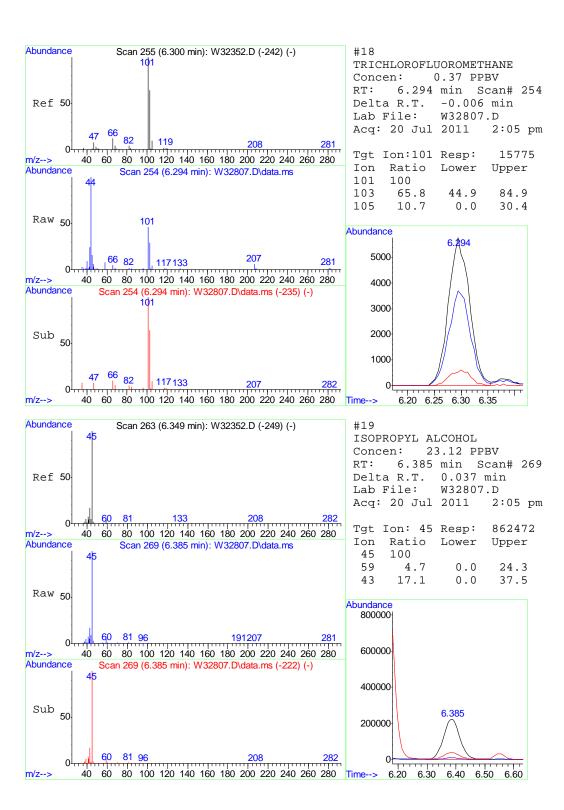
ACCUTEST

JA81330

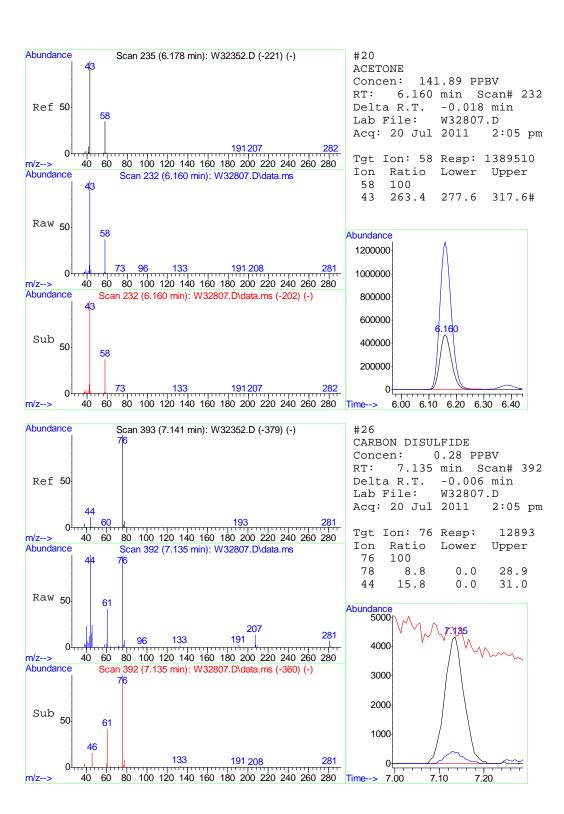
LABORATORIES

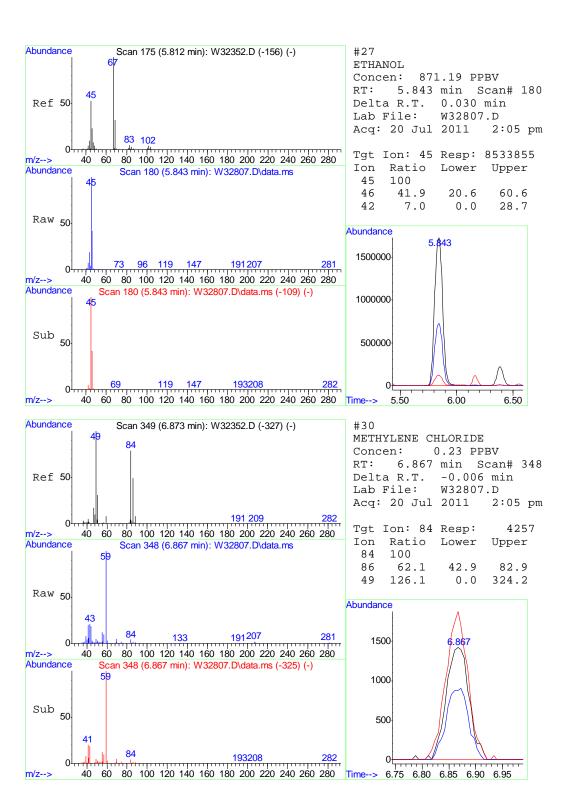


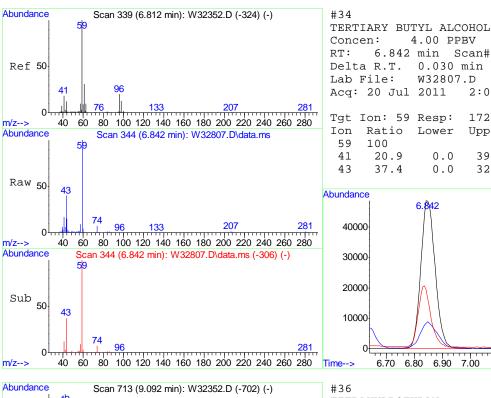


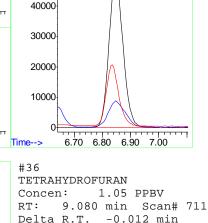


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ACCUTEST.
JA81330









W32807.D

220.0

2:05 pm

9354

Upper

260.0#

Ratio Lower

59

41

43

100

Lab File:

72

42

Acq: 20 Jul 2011

Tgt Ion: 72 Resp:

Ion Ratio Lower

100

438.1

20.9

37.4

4.00 PPBV 6.842 min Scan# 344

0.030 min

2:05 pm

172656

39.2

32.1#

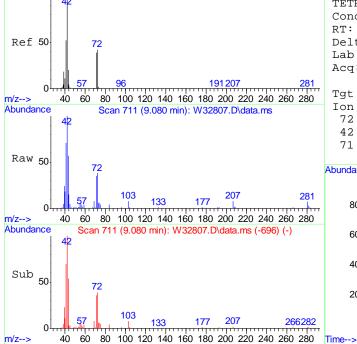
Upper

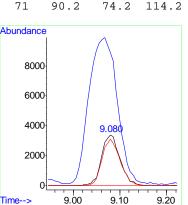
W32807.D

0.0

0.0

6.842



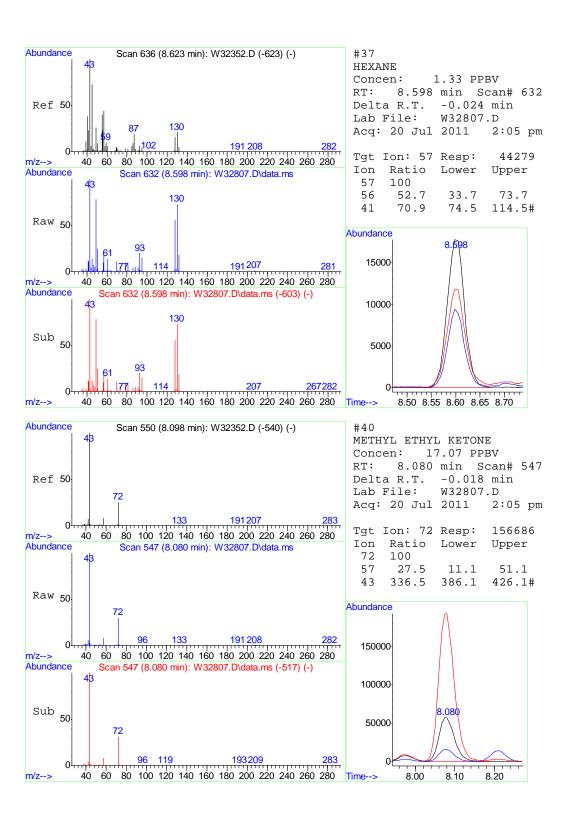


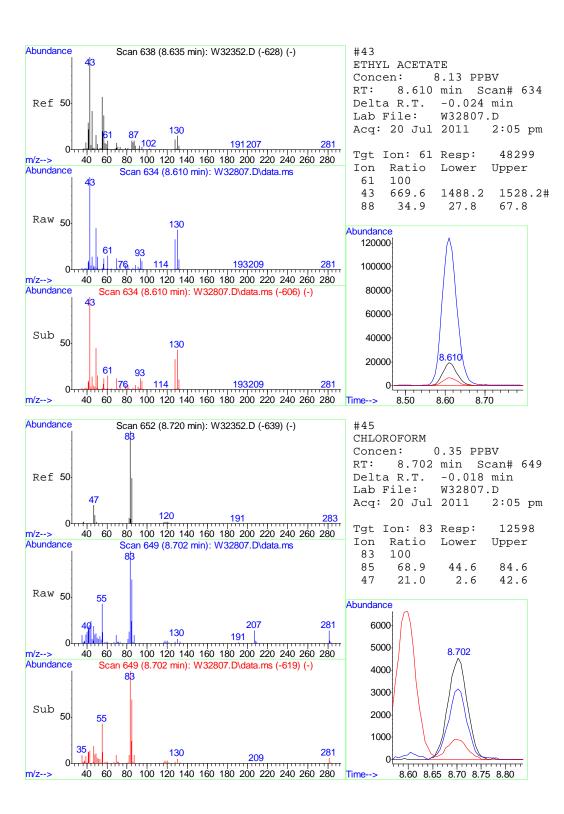
W32807.D MW1322.M

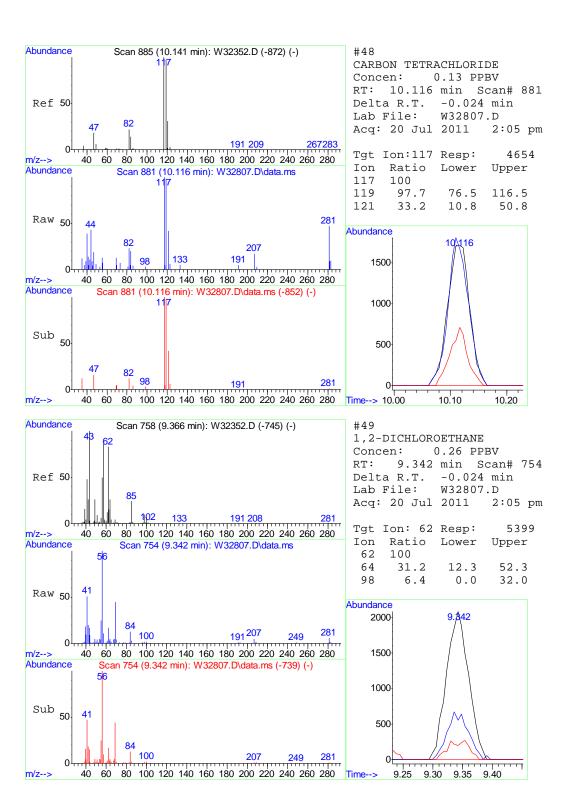
Wed Aug 17 00:24:37 2011

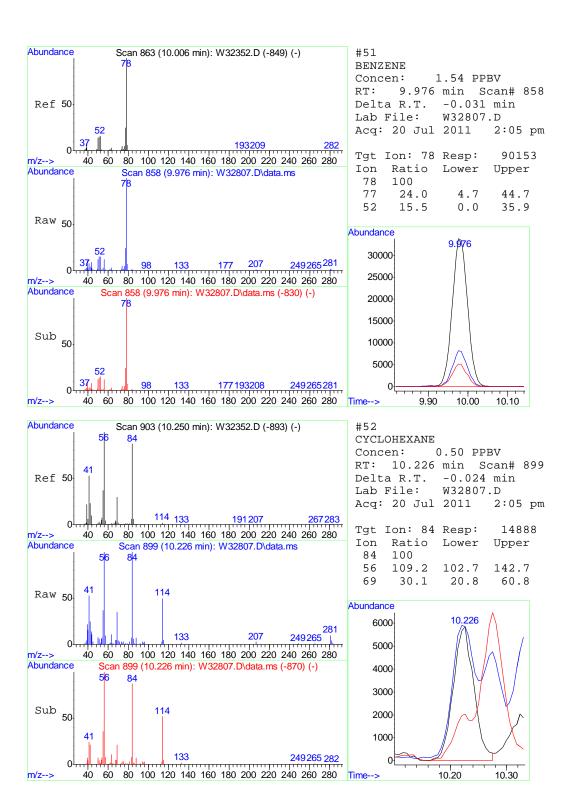
ACC-VOA-DESK1

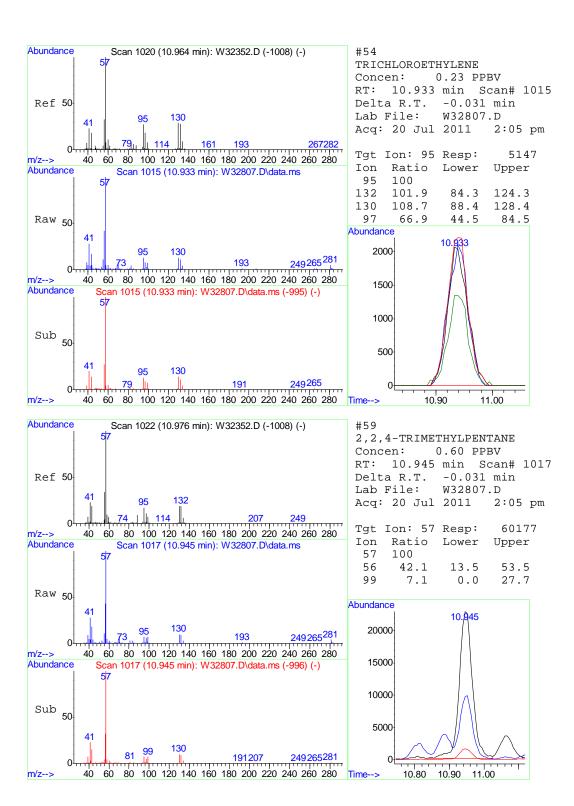
168 of 685 ACCUTEST: JA81330

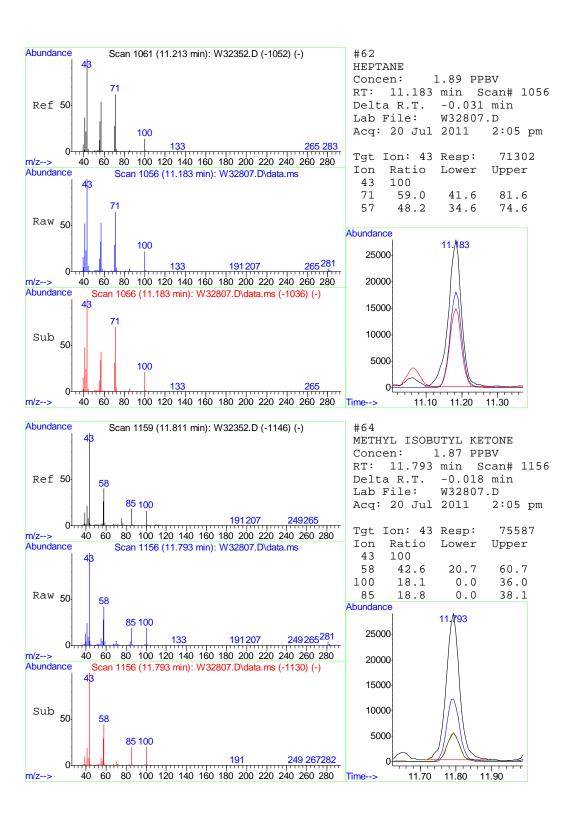


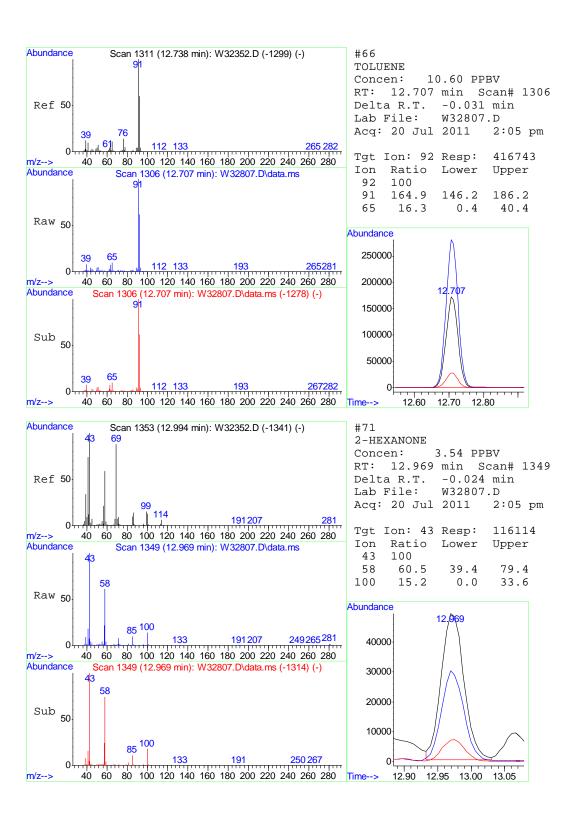


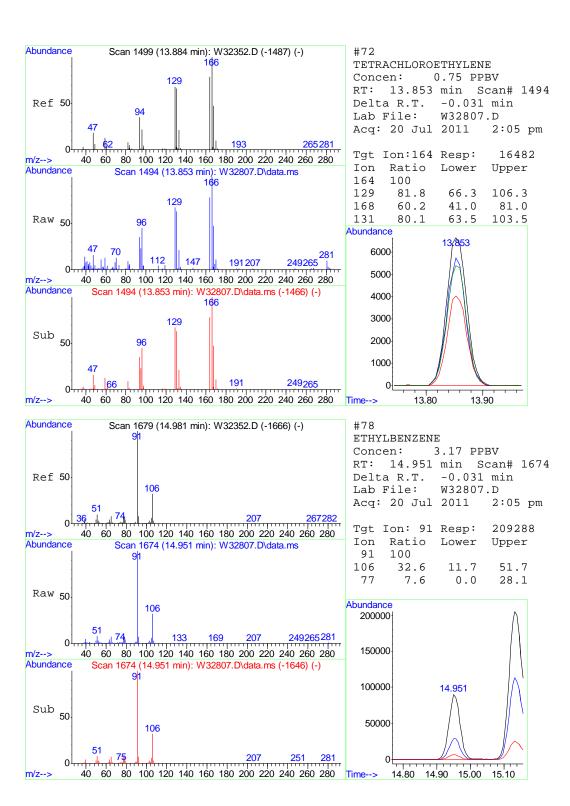


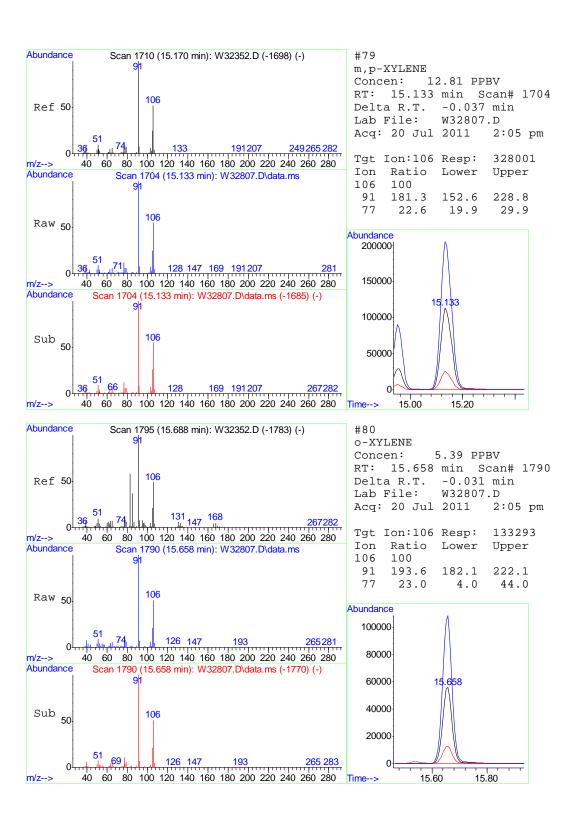


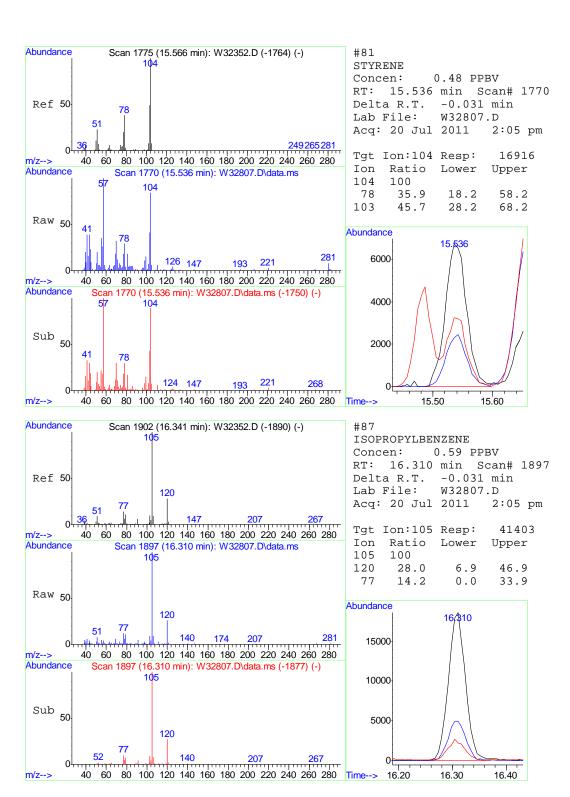


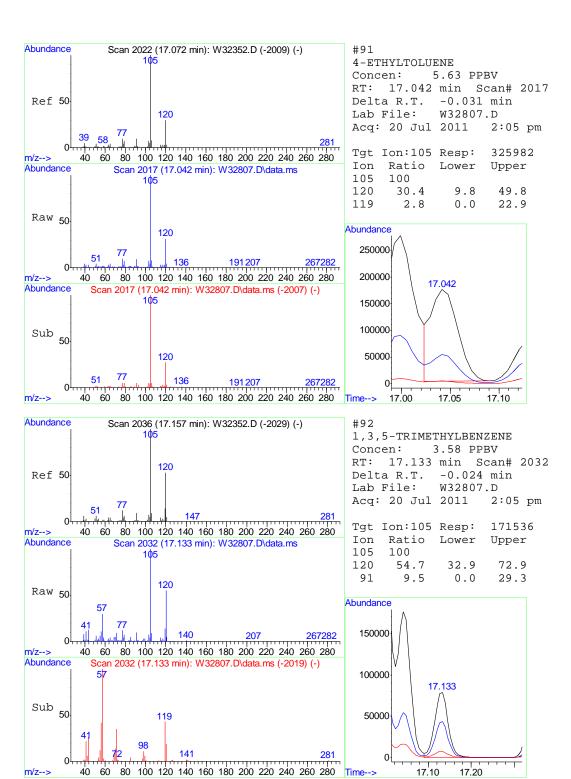




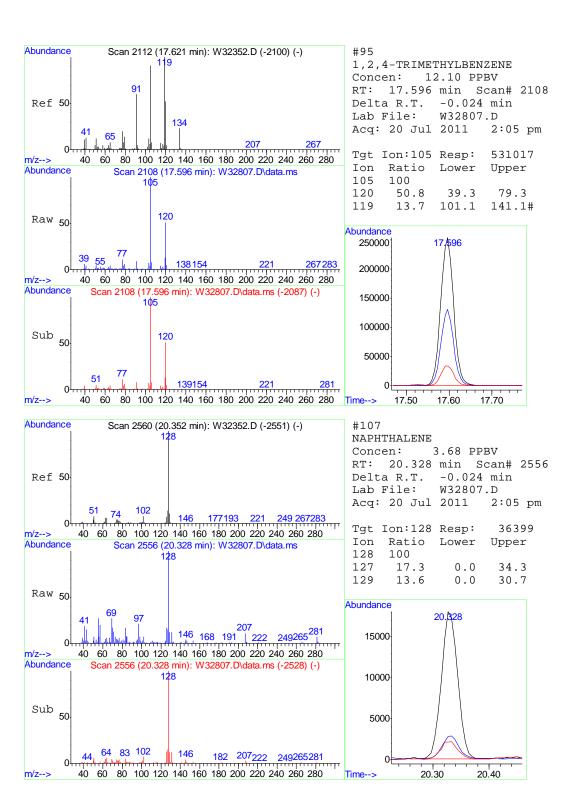








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ACCUTEST
JA81330



### Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32816.D

Acq On : 20 Jul 2011 8:15 pm Operator : YOUMINH

Sample : JA8133U-1 Misc : MS15514,VW1341,50,,,,1 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 17 00:25:31 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits D	ev(	Min)
Internal Standards							
1) BROMOCHLOROMETHANE	8.592	128	143501	10.00	PPBV	-	0.02
50) 1,4-DIFLUOROBENZENE					PPBV	-	0.02
69) CHLOROBENZENE-D5	14.518	82	294024				0.03
106) Chlorobenzene-d5(a)	14.518	82	293221	10.00	PPBV	-	0.03
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE	16.164	95	157258	4.95	PPBV	-	0.03
	Range 65						
Target Compounds						Qva	lue
6) PROPYLENE	4.910	41	14938	0.83	PPBV	#	79
19) ISOPROPYL ALCOHOL	6.355	4.5	99470	2.84	PPBV		98
20) ACETONE	6.166	58	154446	16.82	PPBV	#	82
27) ETHANOL	5.806	45	978522	106.55	PPBV		98
30) METHYLENE CHLORIDE	6.861	0.7	1227	0.25	PPBV		90
34) TERTIARY BUTYL ALCOHOL	6.824	59	23865	0.59	PPBV	#	66
36) TETRAHYDROFURAN	9.098	72	1041	0.12	PPBV	#	81
37) HEXANE	8.598	57	5400	0.17	PPBV	#	85
40) METHYL ETHYL KETONE	8.086	72	16856	1.96	PPBV	#	61
43) ETHYL ACETATE	8.616	61	5435	0.98	PPBV	#	1
51) BENZENE	9.976	78	10847	0.20	PPBV		98
59) 2,2,4-TRIMETHYLPENTANE	10.945	57	7187	0.08	PPBV		86
62) HEPTANE	11.183	43	8731	0.25	PPBV		92
64) METHYL ISOBUTYL KETONE	11.793	43	8157	0.22	PPBV		97
66) TOLUENE	12.713	92	49863		PPBV		99
71) 2-HEXANONE	12.975	43	10193	0.35	PPBV		95
72) TETRACHLOROETHYLENE	13.847			0.11	PPBV		96
78) ETHYLBENZENE	14.950	91	24875	0.43	PPBV		98
79) m,p-XYLENE	15.127	106	39538	1.74	PPBV	#	87
80) o-XYLENE	15.652	106	15916	0.73	PPBV		94
91) 4-ETHYLTOLUENE	17.042	105	35431	0.69	PPBV		97
92) 1,3,5-TRIMETHYLBENZENE	17.127	105	20758	0.49	PPBV		99
95) 1,2,4-TRIMETHYLBENZENE	17.596	105	59397	1.53	PPBV	#	33
107) NAPHTHALENE	20.334				PPBV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32816.D

Acq On : 20 Jul 2011 8:15 pm

Operator : YOUMINH

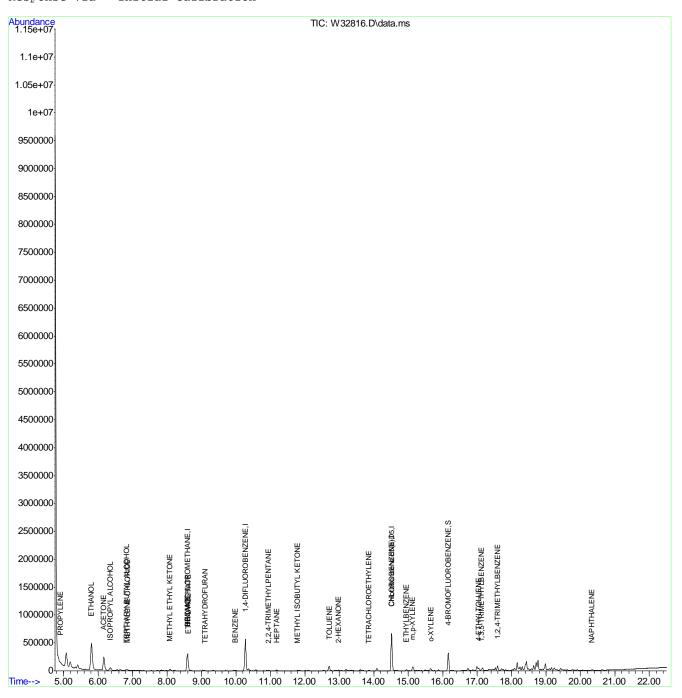
Sample : JA81330-1
Misc : MS15514,VW1341,50,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 17 00:25:31 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m  $\times$  0.32mm ID  $\times$  1.0 um

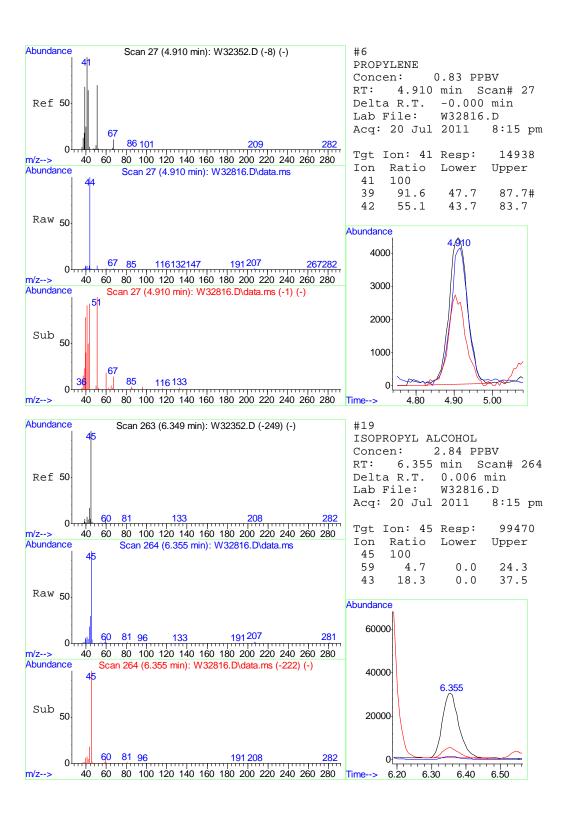
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

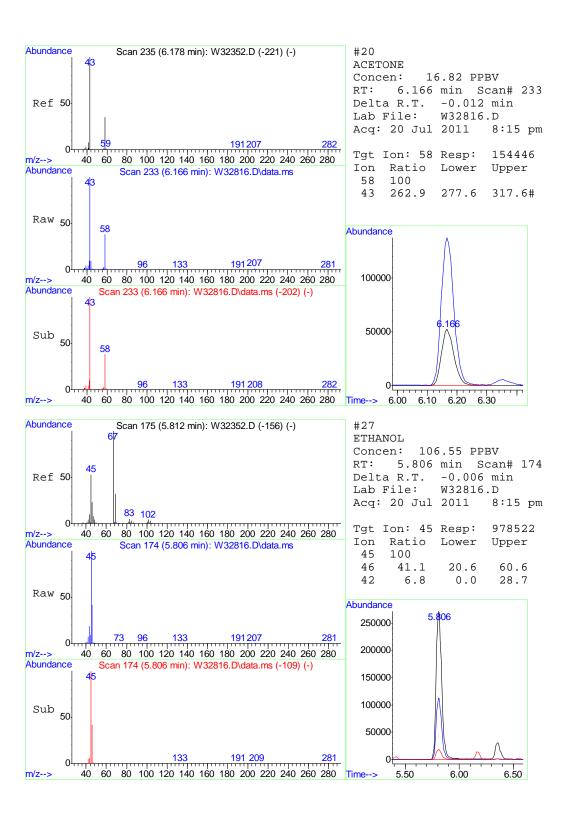


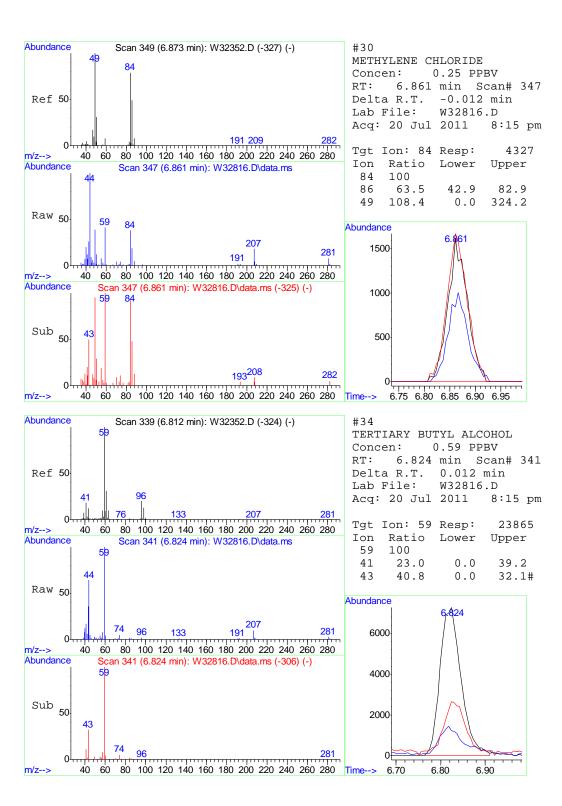
MW1322.M Wed Aug 17 00:25:31 2011 ACC-VOA-DESK1

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ACCUTEST.

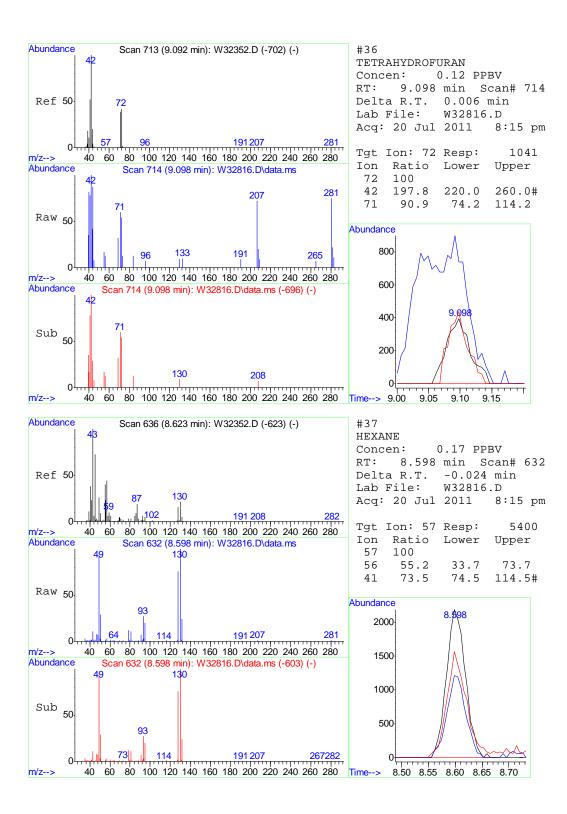
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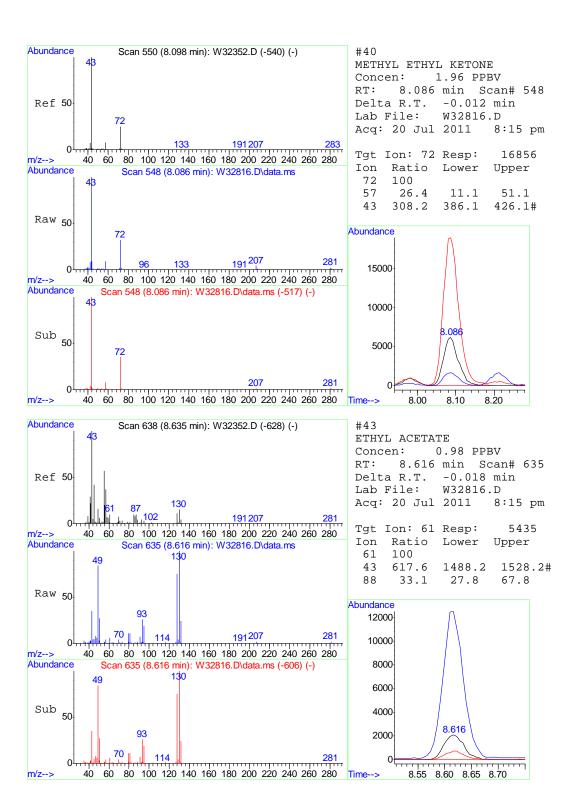


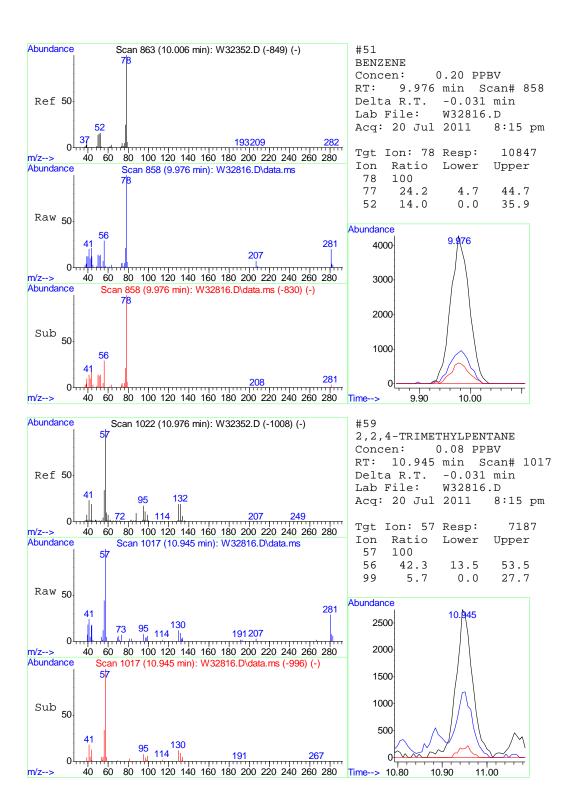


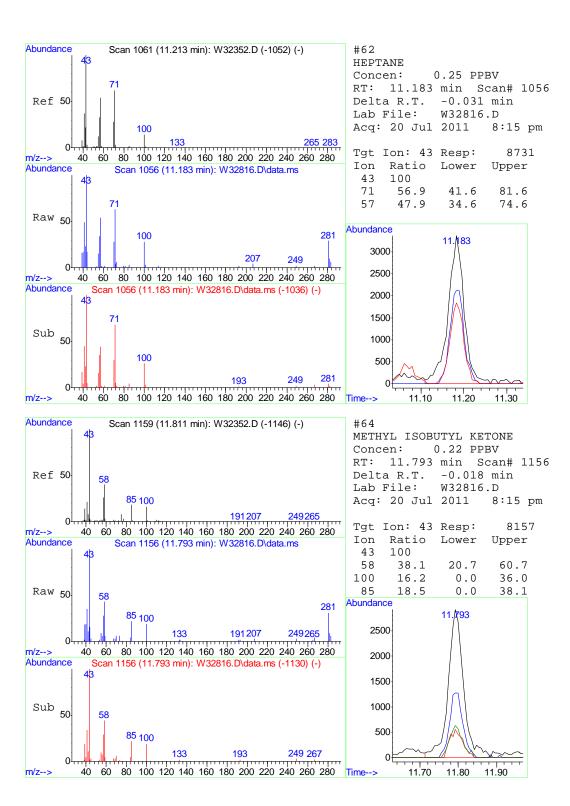


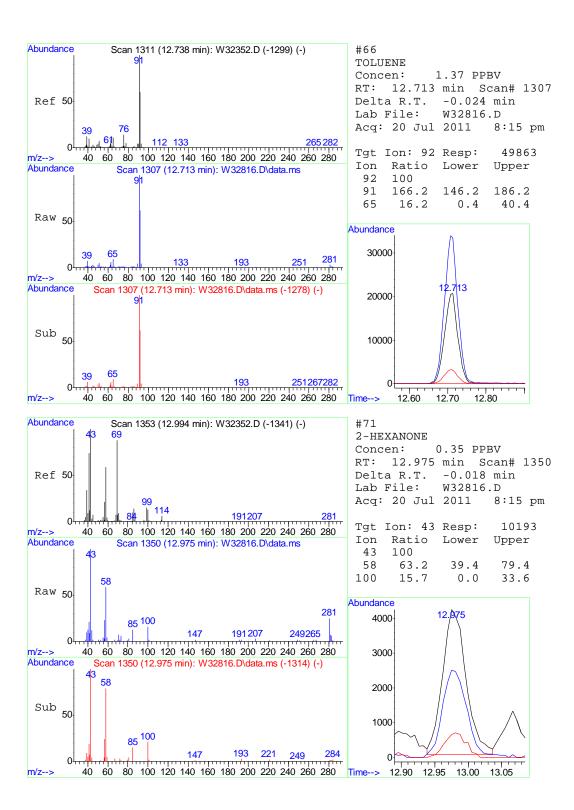
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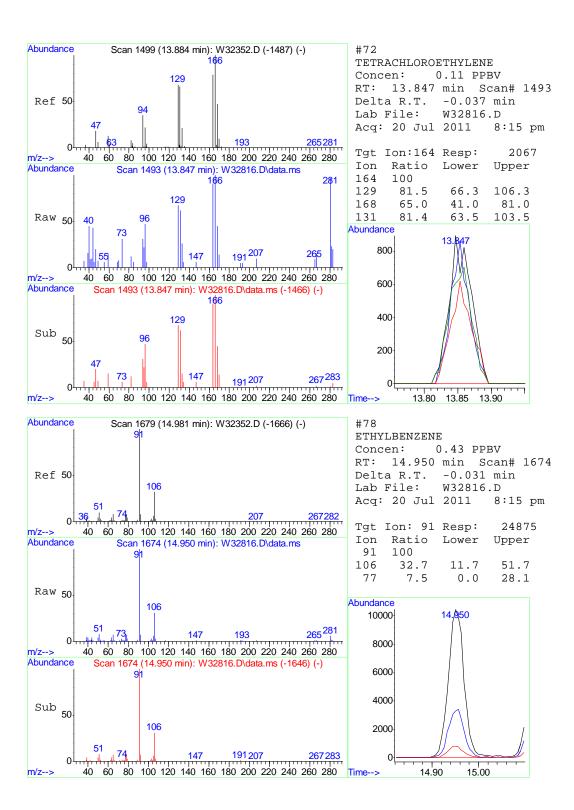


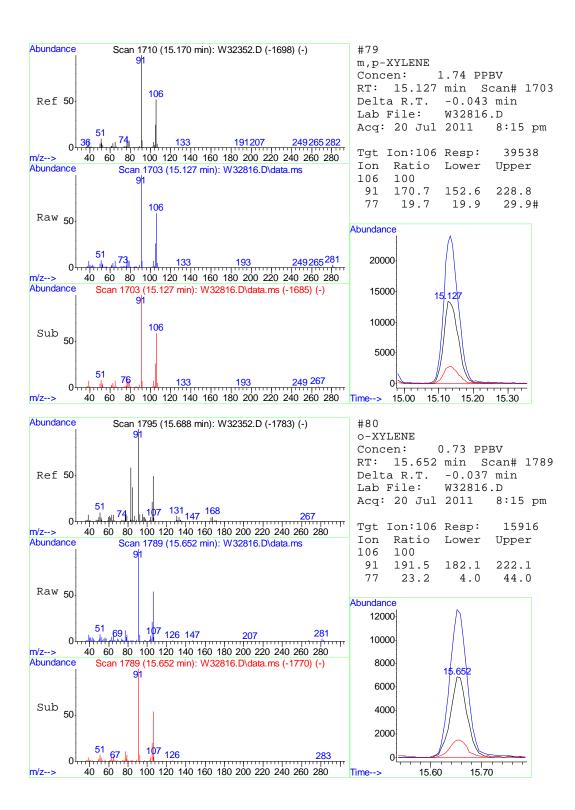


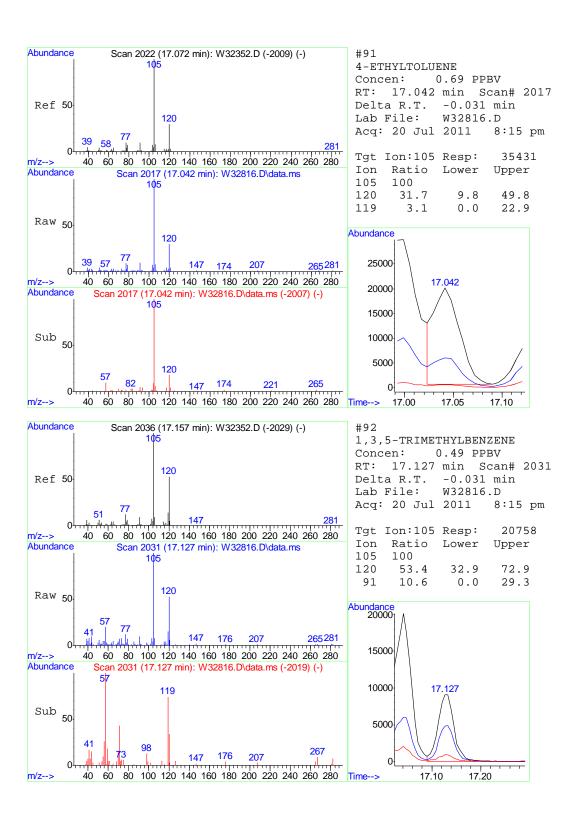


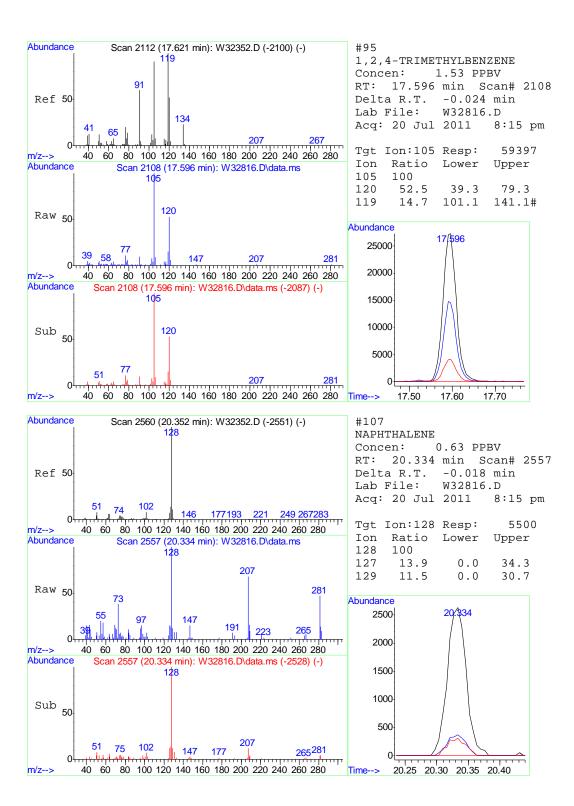












Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32808.D

Acq On : 20 Jul 2011 2:46 pm Operator : YOUMINH

Sample : JA81330-2 Misc : MS15514,VW1341,400,,,,,1 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 17 00:24:41 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

1) BROMOCHLOROMETHANE	Compound	R.T.	QIon	Response	Conc U	nits De	ev(Min)
1,4-DIFLUGROBENZENE	Internal Standards						
1,4-DIFLUGROBENZENE		8.592	128	139668	10.00	PPBV	-0.02
OFFICE   14.518   82   295882   10.00   PPBV   -0.0   10	50) 1,4-DIFLUOROBENZENE	10.275	114	681372	10.00	PPBV	-0.02
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Range 65 - 128 Recovery = 100.00%  Target Compounds 5) DICHLORODIFLUOROMETHANE 4.959 85 21455 0.52 PPBV 9 6) PROPYLENE 4.910 41 72302 4.14 PPBV 8 8) CHLOROMETHANE 5.093 52 4395 0.83 PPBV 9 13) CHLOROSTHANE 5.727 64 1120 0.11 PPBV 8 18) TRICHLOROFLUOROMETHANE 6.294 101 11431 0.29 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 20) ACETONE 6.153 58 1118475 125.18 PPBV 9 21) ETHANOL 5.812 45 1567532 175.38 PPBV 9 22) ETHANOL 5.812 45 1567532 175.38 PPBV 9 23) FREON 113 7.056 151 2887 0.10 PPBV 9 23) FREON 113 7.056 151 2887 0.10 PPBV 9 24) ETHANOL 6.812 59 464543 11.79 PPBV 9 25) ETHANOL 6.812 59 464543 11.79 PPBV 9 26) CARDON DISTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 27) ETHANOL 6.812 59 4659 1.16 PPBV 9 28) FREON 13 7.056 151 2887 0.10 PPBV 9 29 AGTOROME 8.696 83 10.205 0.31 PPBV 9 37) HEXANE 88.598 57 67709 2.23 PPBV 9 38) HEXANE 88.598 57 67709 2.23 PPBV 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV 8 43) ETHYL ACETATE 88.610 61 25289 4.67 PPBV 8 44) CHLOROFORM 8.696 83 10.205 0.31 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.929 95 10166 0.50 PPBV 9 53) CYCLOHEXANE 10.929 95 10166 0.50 PPBV 9 54) TRICHLOROETHYLENE 10.939 95 10166 0.50 PPBV 9 55) CYCLOHEXANE 11.83 43 49744 1.49 PPBV 9 56) HEPTANE 11.183 43 49744 1.49 PPBV 9 57) TRICHLOROETHYLENE 11.83 43 49744 1.49 PPBV 9 58) 1.2-4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 58) 1.2-4-TRIMETHYLENE 11.83 106 338727 14.86 PPBV 9 58) 1.5-4-TRIMETHYLENE 15.133 106 338727 14.86 PPBV 9 58) 1.5-4-TRIMETHYLENE 15.133 106 338727 14.86 PPBV 9 58) 1.5-4-TRIMETHYLENEXENE 15.542 106 141667 6.43 PPBV 9 59 1, 2-4-TRIMETHYLENEXENE 15.542 106 141667 6.43 PPBV 9 59 1, 1.3-5-TRIMETHYLENEXENE 17.596 105 40840 10.47 PPBV 8 59 1, 1, 2, 4-TRIMETHYLENEXENE 17.596 105 40840 10.47 PPBV 8 59 1, 1, 2, 4-TRIMETHYLENEXENE 17.596 105	69) CHLOROBENZENE-D5	14.518	82	295882	10.00	PPBV	-0.03
Spiked Amount   S.000   Range   S - 128   Recovery   = 100.00	106) Chlorobenzene-d5(a)	14.518	82	294028	10.00	PPBV	-0.03
Spiked Amount   S.000   Range   S - 128   Recovery   = 100.00	System Monitoring Compounds						
Spiked Amount   5.000   Range   65   - 128   Recovery   =   100.00%		16.164	95	159826	5.00	PPBV	-0.03
5) DICHLORODIFLUOROMETHANE         4.959         85         21455         0.52         PPBV         9           6) PROPYLENE         4.910         41         72302         4.14         PPBV         8           8) CHLOROMETHANE         5.933         52         4395         0.83         PPBV         9           13) CHLOROFLUOROMETHANE         5.727         64         1120         0.11         PPBV         9           18) TRICHLOROFLUOROMETHANE         6.294         101         11431         0.29         PPBV         9           20) ACETONE         6.153         58         1118475         125.18         PPBV         9           20) ACETONE         6.153         58         1118475         125.18         PPBV         9           20) ACETONE         6.153         58         1118475         125.18         PPBV         9           20) ACETONE         6.151         28         1567532         175.38         PPBV         9           20) ACETONE         5.812         45         1567532         175.38         PPBV         9           20) ETHANOL         5.812         45         1567532         175.38         PPBV         9           32) F			- 128	Recove	ery =	100.00	) %
5) DICHLORODIFLUOROMETHANE         4.959         85         21455         0.52         PPBV         9           6) PROPYLENE         4.910         41         72302         4.14         PPBV         8           8) CHLOROMETHANE         5.933         52         4395         0.83         PPBV         9           13) CHLOROFLUOROMETHANE         5.727         64         1120         0.11         PPBV         9           18) TRICHLOROFLUOROMETHANE         6.294         101         11431         0.29         PPBV         9           20) ACETONE         6.153         58         1118475         125.18         PPBV         9           20) ACETONE         6.153         58         1118475         125.18         PPBV         9           20) ACETONE         6.153         58         1118475         125.18         PPBV         9           20) ACETONE         6.151         28         1567532         175.38         PPBV         9           20) ACETONE         5.812         45         1567532         175.38         PPBV         9           20) ETHANOL         5.812         45         1567532         175.38         PPBV         9           32) F	Target Compounds					(	Ovalue
8) PROPYLENE 4.910 41 72302 4.14 PPBV 8 8) CHLOROMETHANE 5.093 52 4395 0.83 PPBV 9 13) CHLOROMETHANE 5.727 64 1120 0.11 PPBV 8 18) TRICHLOROFLUOROMETHANE 6.294 101 11431 0.29 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 19) ETHANOL 5.812 45 1567532 175.38 PPBV 9 27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 34) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 9 45) CHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) 2,2,4-TRIMETHYLENE 10.925 84 18706 0.71 PPBV 8 54) TRICHLOROETHYLENE 10.925 84 18706 0.50 PPBV 9 55) 2,2,4-TRIMETHYLENTANE 10.945 57 93271 1.04 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 65) TOLUENE 12.707 92 518327 14.04 PPBV 9 66) TOLUENE 12.707 92 518327 14.04 PPBV 9 66) TOLUENE 12.707 92 518327 14.04 PPBV 9 67) TETRACHOROETHYLENE 13.853 164 22549 3.83 PPBV 9 68) D-XYLENE 15.133 106 338727 14.85 PPBV 9 78) ETHYLENEZENE 14.951 91 225429 3.83 PPBV 9 79) M.,P-XYLENE 15.133 106 338727 14.85 PPBV 9 79) M.,P-XYLENE 15.133 106 338727 14.85 PPBV 9 79) M.,P-XYLENE 15.133 106 338727 14.85 PPBV 9 79) M.,P-XYLENE 15.133 106 338727 14.85 PPBV 9 79) M.,P-XYLENE 15.652 106 141667 6.43 PPBV 9 79) M.,P-XYLENE 15.652 106 141667 6.43 PPBV 9 79) M.,P-XYLENE 15.652 106 141667 6.43 PPBV 9 79) J.,2-TRIMETHYLBENZENE 17.042 105 297737 5.77 PPBV 9 79) J.,2-TRIMETHYLBENZENE 17.505 105 105 105 105 105 105 105 105 105		4.959	85	21455	0.52		98
8) CHLOROMETHANE 5.093 52 4395 0.83 PPBV 9 13) CHLOROETHANE 5.727 64 1120 0.11 PPBV 8 18) TRICHLOROFLUOROMETHANE 6.294 101 11431 0.29 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 20) ACETONE 6.153 58 1118475 125.18 PPBV # 8 26) CARBON DISULFIDE 7.129 76 21952 0.52 PPBV 9 27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 33) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ACETATE 8.610 61 25289 4.67 PPBV # 4 45) CHLOROFORM 8.696 83 10205 0.31 PPBV # 4 45) CHLOROFORM 8.696 83 10205 0.31 PPBV # 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 52) CYCLOHEXANE 10.226 84 18706 0.71 PPBV 8 54) TRICHLOROETHYLENE 10.939 95 10166 0.50 PPBV 9 55) CYCLOHEXANE 10.939 95 10166 0.50 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 73) ETHYLBENZENE 15.652 106 141667 6.43 PPBV 9 74) M.PXYLENE 15.652 106 141667 6.43 PPBV 9 75) ETHYLBENZENE 15.542 104 15898 0.52 PPBV 9 78) M.PXYLENE 15.652 106 141667 6.43 PPBV 9 79) M.PXYLENE 15.652 106 141667 6.43 PPBV 9 79) M.PXYLENE 15.652 106 141667 6.43 PPBV 9 79) 1,2-HEXANONE 15.542 104 15898 0.55 PPBV 9 71) 4-ETHYLBENZENE 15.542 104 15898 0.55 PPBV 9 71) 4-ETHYLBENZENE 15.542 104 15898 0.51 PPBV 9 71) 4-ETHYLBENZENE 15.542 104 15898 0.55 PPBV 9 71) 4-ETHYLBENZENE 17.096 105 408940 10.47 PPBV 8 71) 150PROPYLBENZENE 17.096 105 408940 10.47 PPBV 9 75) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV 8	•						82
13) CHLOROETHANE	•						91
18) TRICHLOROFLUOROMETHANE 6.294 101 11431 0.29 PPBV 9 19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 20) ACETONE 6.153 58 1118475 1255.18 PPBV # 8 26) CARBON DISULFIDE 7.129 76 21952 0.52 PPBV 9 27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 34) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 8 40) METHYL ETHYL KETONE 8.680 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 6 43) ETHYL ACETATE 9.336 62 11818 0.63 PPBV # 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.226 84 18706 0.71 PPBV 8 54) TRICHLOROFTHYLENE 10.939 95 10166 0.50 PPBV 9 52) CYCLOHEXANE 10.945 57 93271 1.04 PPBV 9 54) 1,2-DICHLOROETHYLENE 11.183 43 49744 1.49 PPBV 9 54) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 54) METHYL ISOBUTYL KETONE 11.793 43 1054 0.28 PPBV 9 54) METHYL ISOBUTYL KETONE 11.793 43 15268 0.52 PPBV 9 57) TETRACHLOROETHYLENE 12.975 43 15268 0.52 PPBV 9 58) DIETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 59) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 58) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 59) M,P-XYLENE 15.133 106 338727 14.86 PPBV 9 59) M,P-XYLENE 15.133 106 338727 14.85 PPBV 9 58) DIETRACHLOROETHYLENE 15.552 106 141667 6.43 PPBV 9 59) M,P-XYLENE 15.552 106 141667 6.43 PPBV 9 59) 1.3,5-TRIMETHYLDENZENE 15.542 104 15898 0.51 PPBV 9 59) 1,2,4-TRIMETHYLDENZENE 15.542 104 15898 0.51 PPBV 9 59) 1,2,4-TRIMETHYLDENZENE 17.596 105 408940 10.47 PPBV # 3 50) 1,3,5-TRIMETHYLDENZENE 17.596 105 408940 10.47 PPBV # 3 50) 1,3,5-TRIMETHYLDENZENE 17.596 105 408940 10.47 PPBV # 3 50) 1,3,5-TRIMETHYLDENZENE 17.596 105 408940 10.47 PPBV # 3				1120			87
19) ISOPROPYL ALCOHOL 6.349 45 526868 15.48 PPBV 9 20) ACETONE 6.153 58 1118475 125.18 PPBV # 9 26) CARBON DISULFIDE 7.129 76 21952 0.52 PPBV 9 27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 33) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 8 40) METHYL ETHYL KETONE 8.610 61 25289 4.67 PPBV # 4 45) CHLOROFORM 8.696 83 10205 0.31 PPBV 9 49 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.226 84 18706 0.71 PPBV 8 54) TRICHLOROETHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 72) TETRACHLOROETHYLENE 11.183 43 49744 1.49 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 72) TETRACHLOROETHYLENE 12.975 43 15268 0.52 PPBV 9 78) ETHYLBENZENE 12.975 43 15268 0.52 PPBV 9 78) ETHYLBENZENE 13.853 164 22554 1.15 PPBV 9 78) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) TETRACHLOROETHYLENE 15.652 106 141667 6.43 PPBV 9 79) m,p-XYLENE 15.652 106 141667 6.43 PPBV 9 80) 0-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.652 106 141667 6.43 PPBV 9 81) 4-ETHYLDLUENE 17.042 105 297737 5.77 PPBV 9 91) 1,3,5-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 90) 1,3,5-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 3							
27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 34) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 6 43) ETHYL ACETATE 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROFTHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.939 95 10166 0.50 PPBV 9 54) TRICHLOROFTHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 79) m,p-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 3			45	526868	15 48	DDRV	90
27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 34) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 6 43) ETHYL ACETATE 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROFTHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.939 95 10166 0.50 PPBV 9 54) TRICHLOROFTHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 79) m,p-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 3			58	1118475	125 18	DDBM -	د <i>د</i> ۱۹ ۹۶
27) ETHANOL 5.812 45 1567532 175.38 PPBV 9 30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 34) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 6 43) ETHYL ACETATE 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROFTHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.939 95 10166 0.50 PPBV 9 54) TRICHLOROFTHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 79) m,p-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 87) ISOPROPYLBENZENE 15.552 106 141667 6.43 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 3	,		76	21057	0.52	ווסטט ז	9
30) METHYLENE CHLORIDE 6.861 84 4526 0.27 PPBV 9 32) FREON 113 7.056 151 2887 0.10 PPBV 9 34) TERTIARY BUTYL ALCOHOL 6.812 59 464543 11.79 PPBV 9 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 4 45) CHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.939 95 10166 0.50 PPBV 9 54) TRICHLOROETHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) 0-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.652 106 141667 6.43 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 3				1567522	175 20		
32) FREON 113				150/532	0 27		
34) TERTIARY BUTYL ALCOHOL 36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.600 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 45) CHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.226 84 18706 0.71 PPBV 8 54) TRICHLOROETHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) 0-XYLENE 15.542 104 15898 0.51 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.542 104 15898 0.51 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.042 105 297737 5.77 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV #							
36) TETRAHYDROFURAN 9.074 72 9509 1.16 PPBV 9 37) HEXANE 8.598 57 67709 2.23 PPBV # 8 40) METHYL ETHYL KETONE 8.080 72 50000 5.97 PPBV # 6 43) ETHYL ACETATE 8.610 61 25289 4.67 PPBV # 45) CHLOROFORM 8.696 83 10205 0.31 PPBV 9 49) 1,2-DICHLOROETHANE 9.336 62 11818 0.63 PPBV 9 51) BENZENE 9.976 78 96042 1.85 PPBV 9 52) CYCLOHEXANE 10.226 84 18706 0.71 PPBV 8 54) TRICHLOROETHYLENE 10.939 95 10166 0.50 PPBV 9 59) 2,2,4-TRIMETHYLPENTANE 10.945 57 93271 1.04 PPBV 9 62) HEPTANE 11.183 43 49744 1.49 PPBV 9 64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) O-XYLENE 15.133 106 338727 14.85 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 15.542 104 15898 0.51 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 3	· ·			2887 464543	11 70	DDD74	90
40) METHYL ETHYL KETONE			59	404543	11.79	PPD77	93
40) METHYL ETHYL KETONE			/ 2	9509	1.16	PPBM	9 /
45) CHLOROFORM       8.696       83       10205       0.31 PPBV       9         49) 1,2-DICHLOROETHANE       9.336       62       11818       0.63 PPBV       9         51) BENZENE       9.976       78       96042       1.85 PPBV       9         52) CYCLOHEXANE       10.226       84       18706       0.71 PPBV       8         54) TRICHLOROETHYLENE       10.939       95       10166       0.50 PPBV       9         59) 2,2,4-TRIMETHYLPENTANE       10.945       57       93271       1.04 PPBV       9         62) HEPTANE       11.183       43       49744       1.49 PPBV       9         64) METHYL ISOBUTYL KETONE       11.793       43       10154       0.28 PPBV       9         66) TOLUENE       12.707       92       518327       14.86 PPBV       9         71) 2-HEXANONE       12.975       43       15268       0.52 PPBV       9         72) TETRACHLOROETHYLENE       13.853       164       22554       1.15 PPBV       9         78) ETHYLBENZENE       14.951       91       225429       3.83 PPBV       9         79) m,p-XYLENE       15.652       106       141667       6.43 PPBV       9	·		5 /	6//09	2.23	PPBV :	F 83
45) CHLOROFORM       8.696       83       10205       0.31 PPBV       9         49) 1,2-DICHLOROETHANE       9.336       62       11818       0.63 PPBV       9         51) BENZENE       9.976       78       96042       1.85 PPBV       9         52) CYCLOHEXANE       10.226       84       18706       0.71 PPBV       8         54) TRICHLOROETHYLENE       10.939       95       10166       0.50 PPBV       9         59) 2,2,4-TRIMETHYLPENTANE       10.945       57       93271       1.04 PPBV       9         62) HEPTANE       11.183       43       49744       1.49 PPBV       9         64) METHYL ISOBUTYL KETONE       11.793       43       10154       0.28 PPBV       9         66) TOLUENE       12.707       92       518327       14.86 PPBV       9         71) 2-HEXANONE       12.975       43       15268       0.52 PPBV       9         72) TETRACHLOROETHYLENE       13.853       164       22554       1.15 PPBV       9         78) ETHYLBENZENE       14.951       91       225429       3.83 PPBV       9         79) m,p-XYLENE       15.652       106       141667       6.43 PPBV       9			72	50000	5.97	PPBV :	# 68
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		8.610	61	25289	4.67	PPBV :	‡ _
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		8.696	83	10205			
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		9.336	62	11818			
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		9.976	78	96042			
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		10.226	84	18706			82
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		10.939	95	10166			91
62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE 81) STYRENE 82) 104 83) 0.51 PPBV 93) 4-ETHYLTOLUENE 81) 17.042 81) STYRENE 81) STYRENE 81) STYRENE 82) 1.3,5-TRIMETHYLBENZENE 83) 17.127 84) 105 85) 1.2,4-TRIMETHYLBENZENE 86) 105 86) 105 87) 106 87) 107) NAPHTHALENE 81) 107) NAPHTHALENE 81) 1079 108 84) 108 85) 108 86) 108 86) 108 87) 108 86) 108 87) 108 87) 108 87) 108 88) 108 89) 108		10.945	57	93271	1.04		93
64) METHYL ISOBUTYL KETONE 11.793 43 10154 0.28 PPBV 9 66) TOLUENE 12.707 92 518327 14.86 PPBV 9 71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV # 6		11.183	43	49744	1.49		96
71) 2-HEXANONE 12.975 43 15268 0.52 PPBV 9 72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	64) METHYL ISOBUTYL KETONE		43	10154	0.28		92
72) TETRACHLOROETHYLENE 13.853 164 22554 1.15 PPBV 9 78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	66) TOLUENE	12.707	92	518327	14.86	PPBV	98
78) ETHYLBENZENE 14.951 91 225429 3.83 PPBV 9 79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	71) 2-HEXANONE	12.975				PPBV	95
79) m,p-XYLENE 15.133 106 338727 14.85 PPBV 9 80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	72) TETRACHLOROETHYLENE	13.853	164	22554	1.15	PPBV	94
80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	78) ETHYLBENZENE	14.951	91	225429	3.83	PPBV	98
80) o-XYLENE 15.652 106 141667 6.43 PPBV 9 81) STYRENE 15.542 104 15898 0.51 PPBV 9 87) ISOPROPYLBENZENE 16.304 105 48126 0.78 PPBV 9 91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	79) m,p-XYLENE	15.133	106	338727	14.85	PPBV	91
87) ISOPROPYLBENZENE       16.304       105       48126       0.78 PPBV       9         91) 4-ETHYLTOLUENE       17.042       105       297737       5.77 PPBV       9         92) 1,3,5-TRIMETHYLBENZENE       17.127       105       151872       3.56 PPBV       9         95) 1,2,4-TRIMETHYLBENZENE       17.596       105       408940       10.47 PPBV       #         107) NAPHTHALENE       20.334       128       4143       0.47 PPBV       6		15.652	106	141667	6.43	PPBV	93
87) ISOPROPYLBENZENE       16.304       105       48126       0.78 PPBV       9         91) 4-ETHYLTOLUENE       17.042       105       297737       5.77 PPBV       9         92) 1,3,5-TRIMETHYLBENZENE       17.127       105       151872       3.56 PPBV       9         95) 1,2,4-TRIMETHYLBENZENE       17.596       105       408940       10.47 PPBV       #         107) NAPHTHALENE       20.334       128       4143       0.47 PPBV       6	81) STYRENE	15.542	104	15898	0.51	PPBV	99
91) 4-ETHYLTOLUENE 17.042 105 297737 5.77 PPBV 9 92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	,	16.304	105	48126	0.78		98
92) 1,3,5-TRIMETHYLBENZENE 17.127 105 151872 3.56 PPBV 9 95) 1,2,4-TRIMETHYLBENZENE 17.596 105 408940 10.47 PPBV # 3 107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6		17.042	105	297737			
107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6		17.127	105	151872	3.56	PPRV	97
107) NAPHTHALENE 20.334 128 4143 0.47 PPBV 6	95) 1.2.4-TRIMETHYLBENZENE	17.596	105	408940	10.47	PPRV :	# 32
,		20 334	128				68
	•						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

MW1322.M Wed Aug 17 00:24:41 2011 ACC-VOA-DESK1

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32808.D

Acq On : 20 Jul 2011 2:46 pm

Operator : YOUMINH Sample : JA81330-2

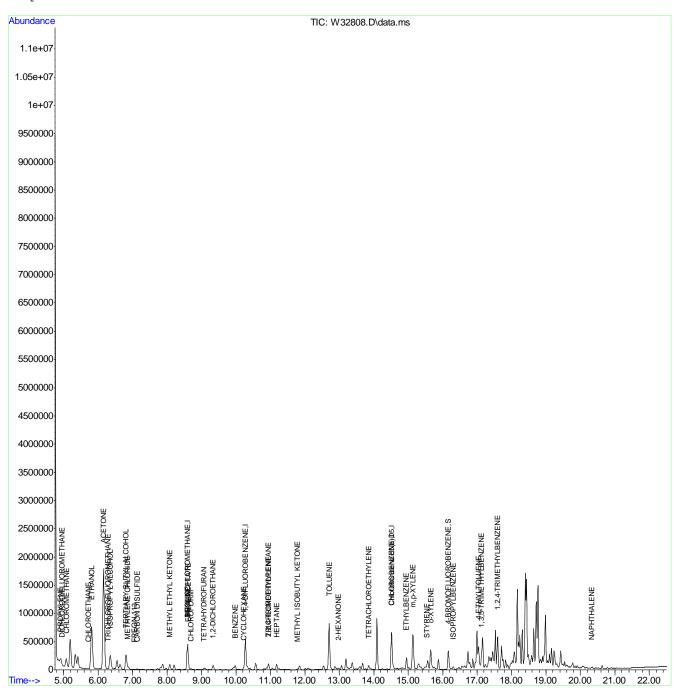
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 17 00:24:41 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

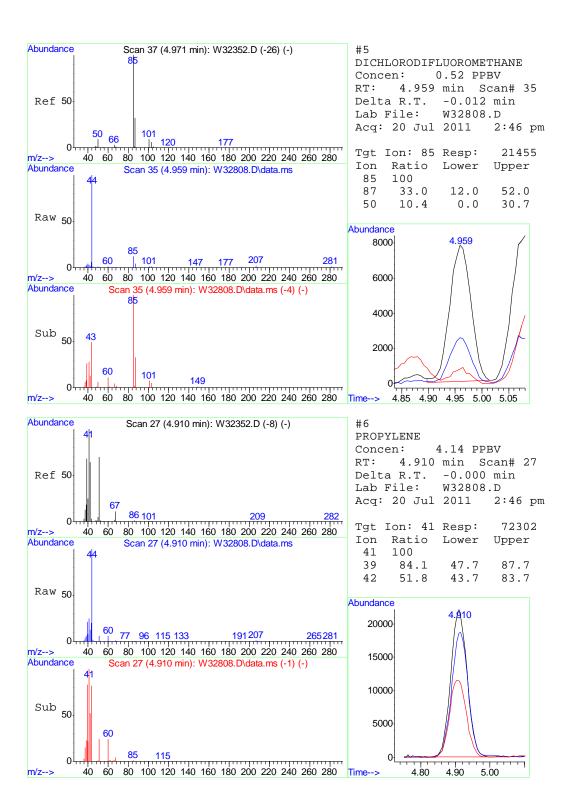
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



MW1322.M Wed Aug 17 00:24:41 2011 ACC-VOA-DESK1

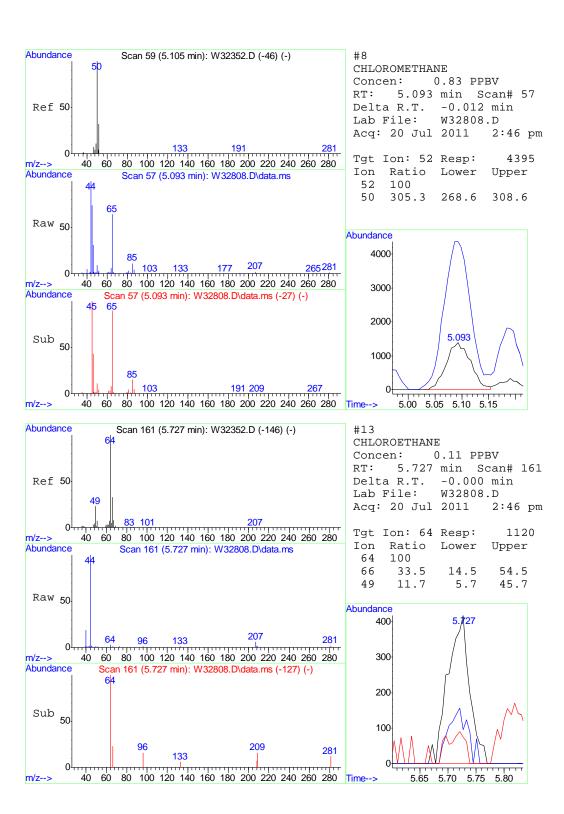
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ACCUTEST.

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LABORATORIES



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ACCUTEST.
JA81330



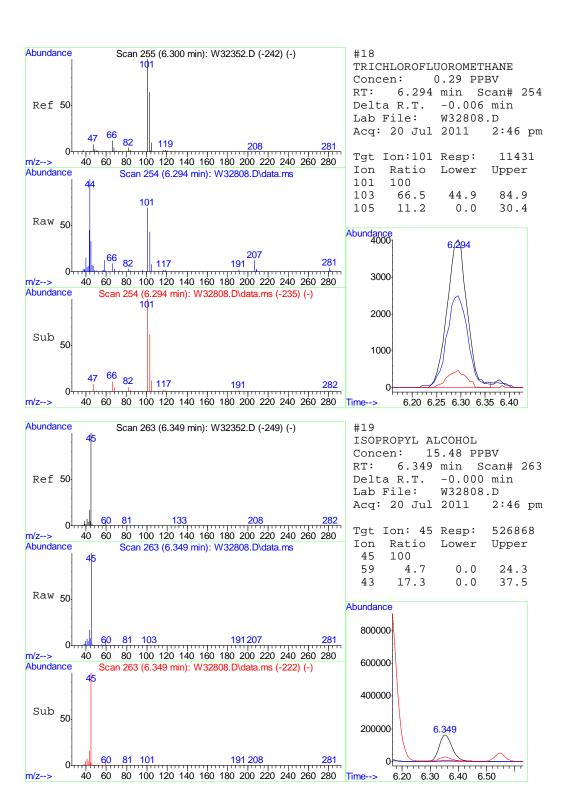


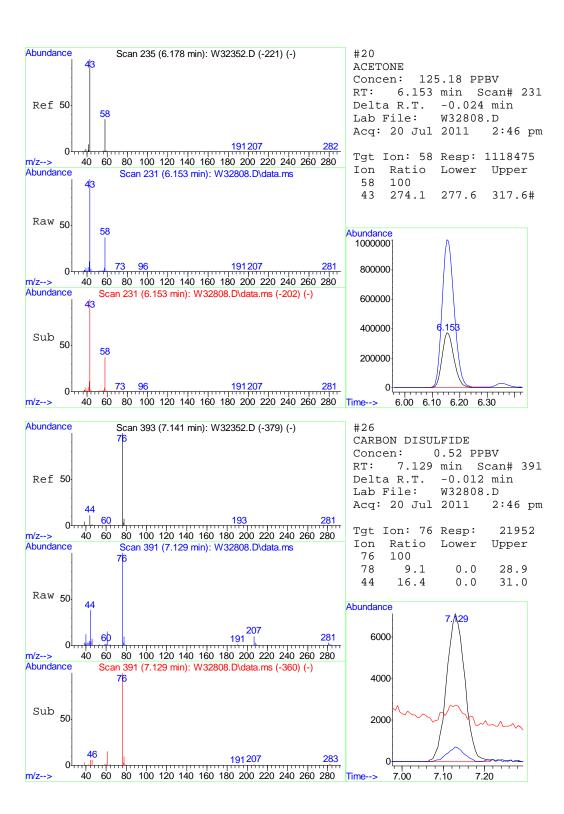
W32808.D MW1322.M

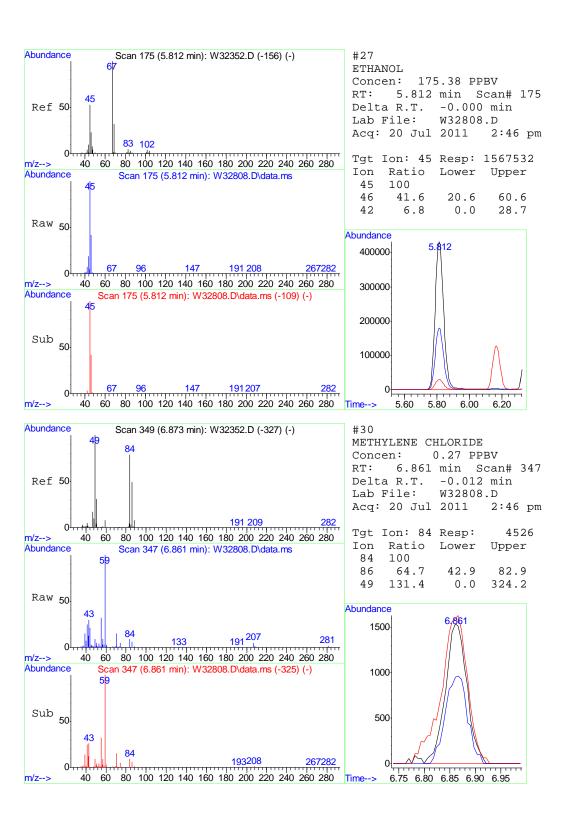
Wed Aug 17 00:24:42 2011

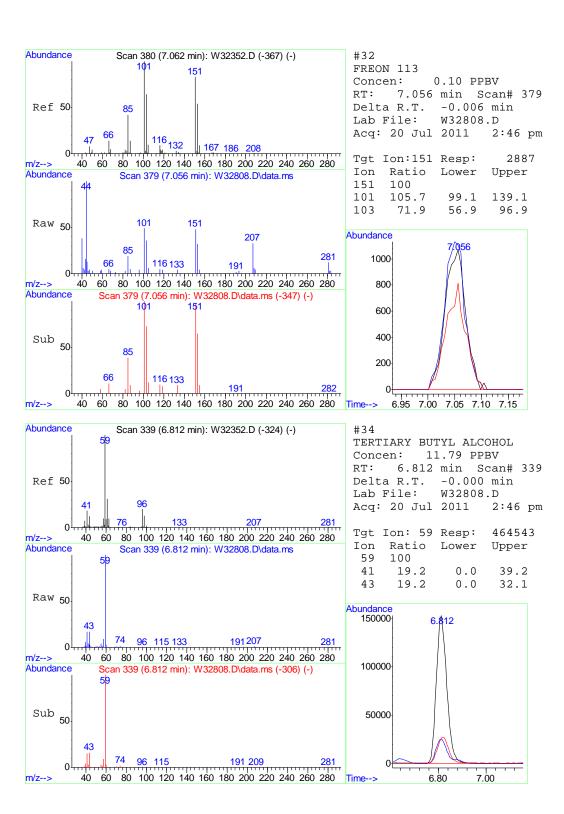
ACC-VOA-DESK1

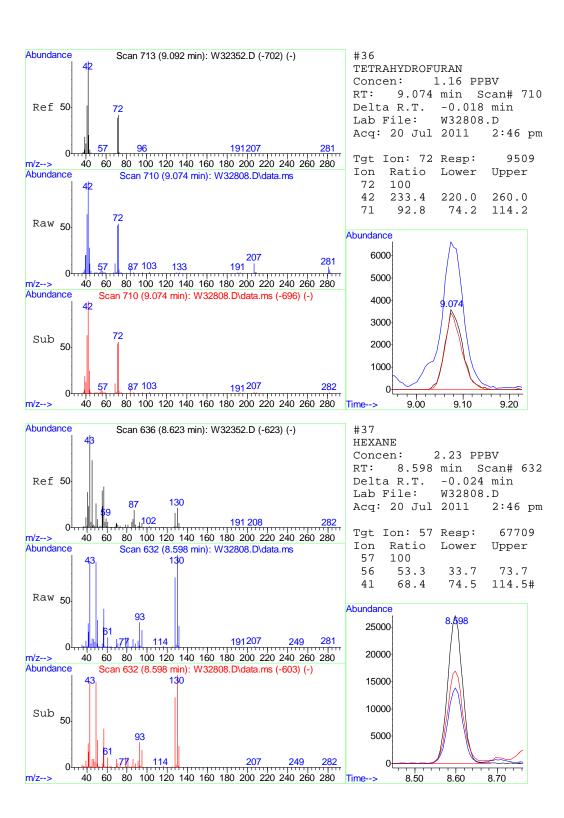


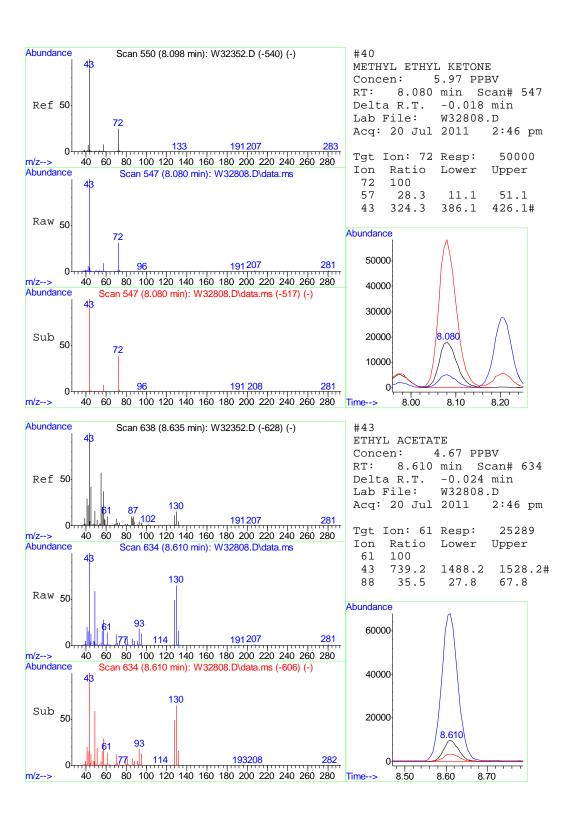


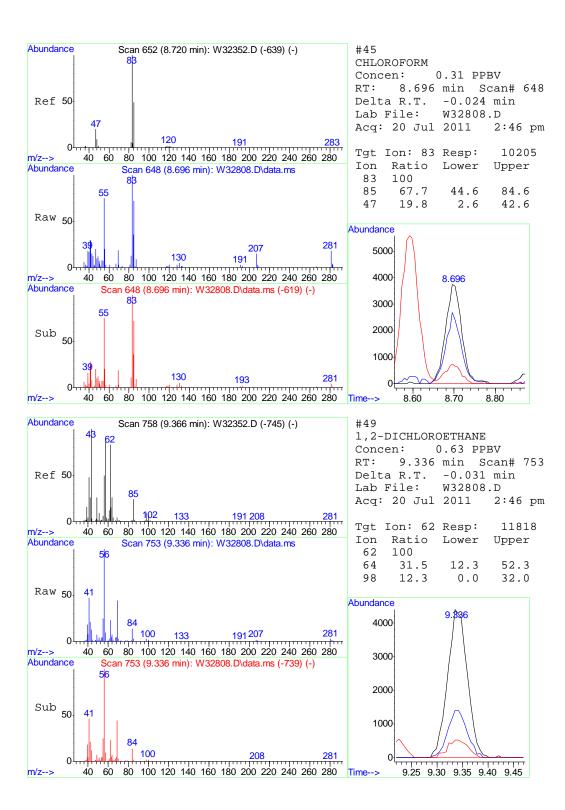


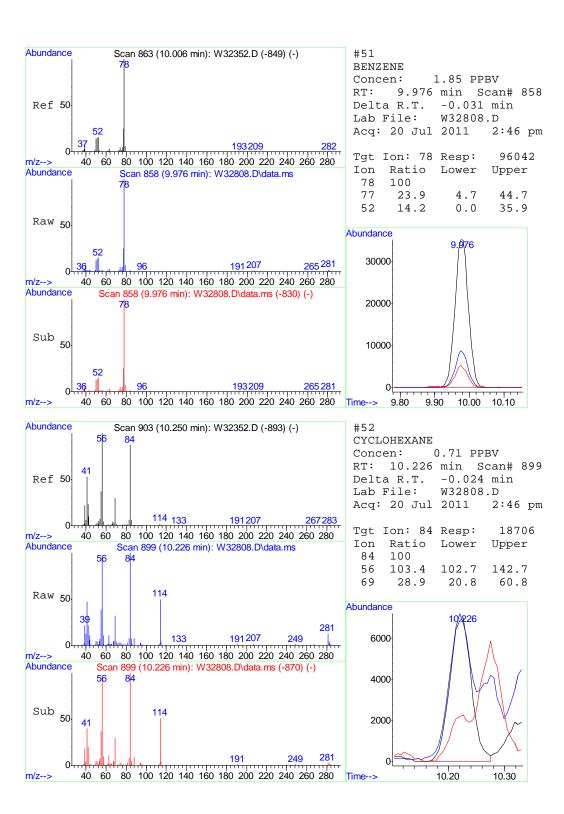


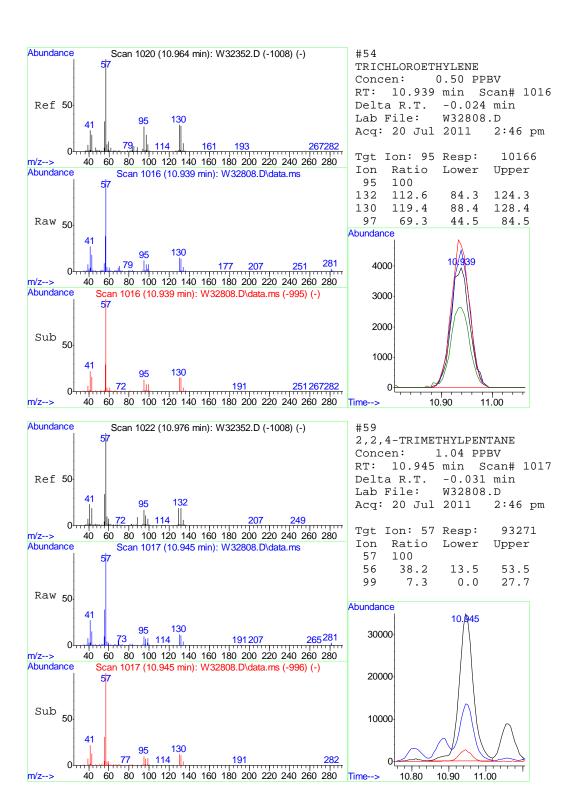


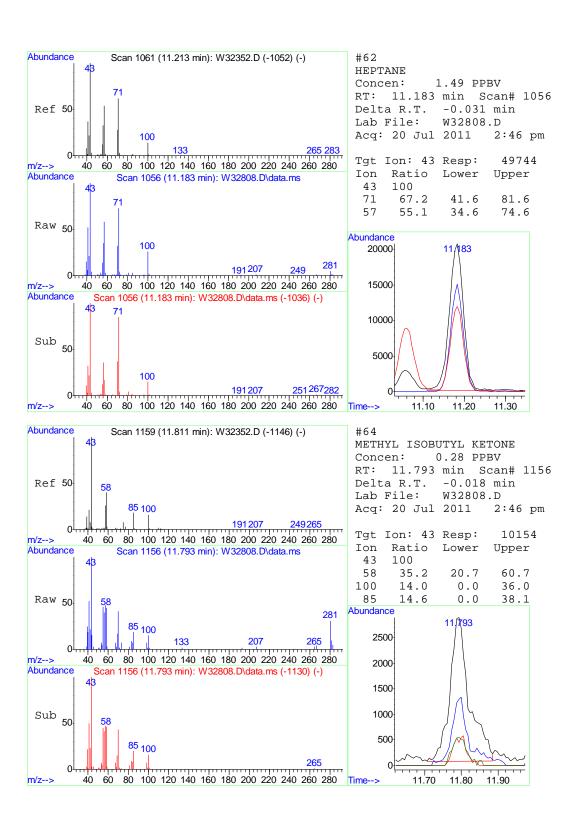


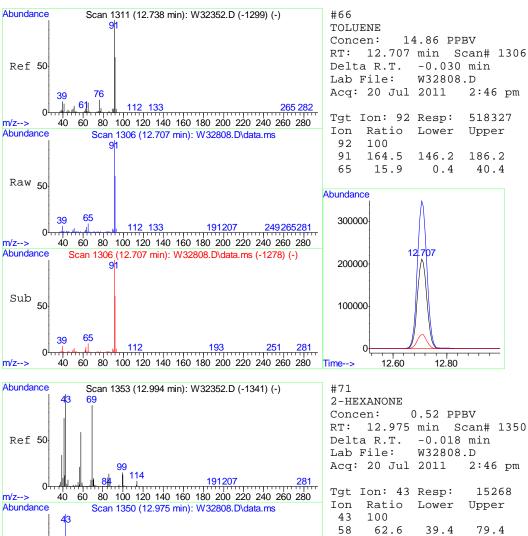


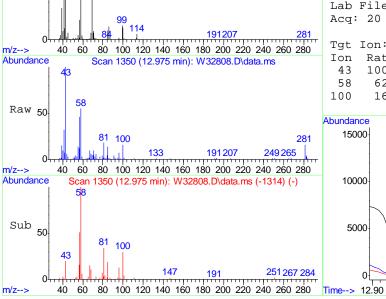


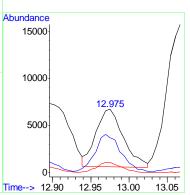












0.0

33.6

100

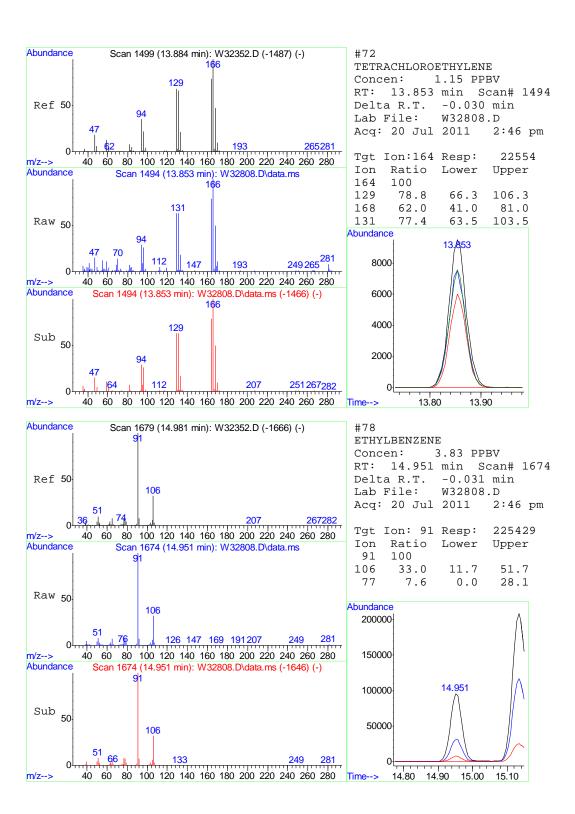
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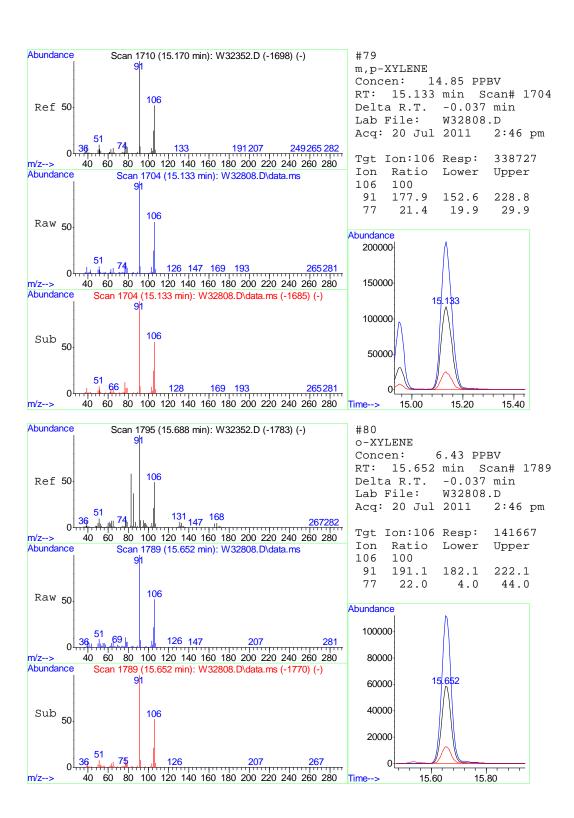
W32808.D MW1322.M

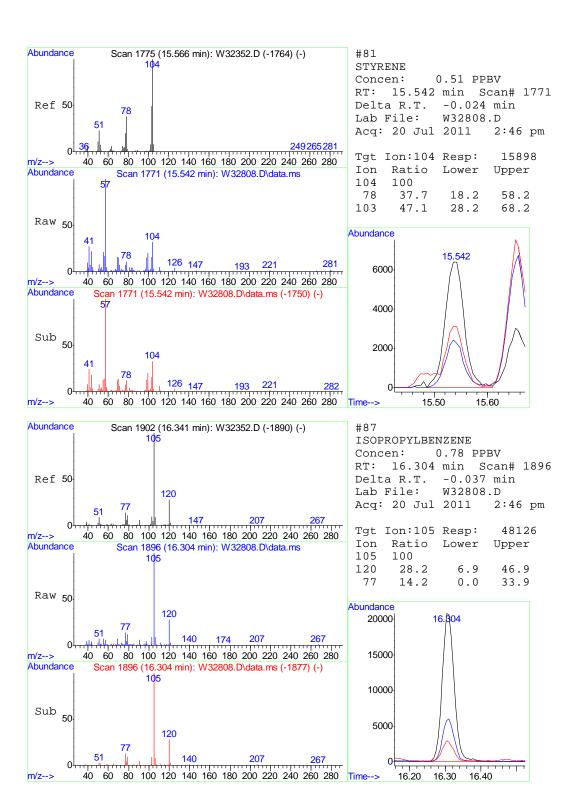
Wed Aug 17 00:24:44 2011

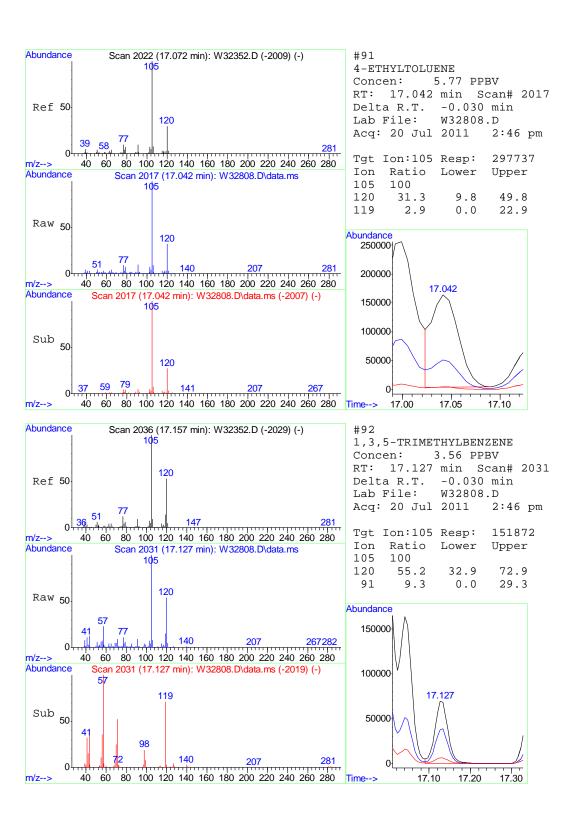
ACC-VOA-DESK1

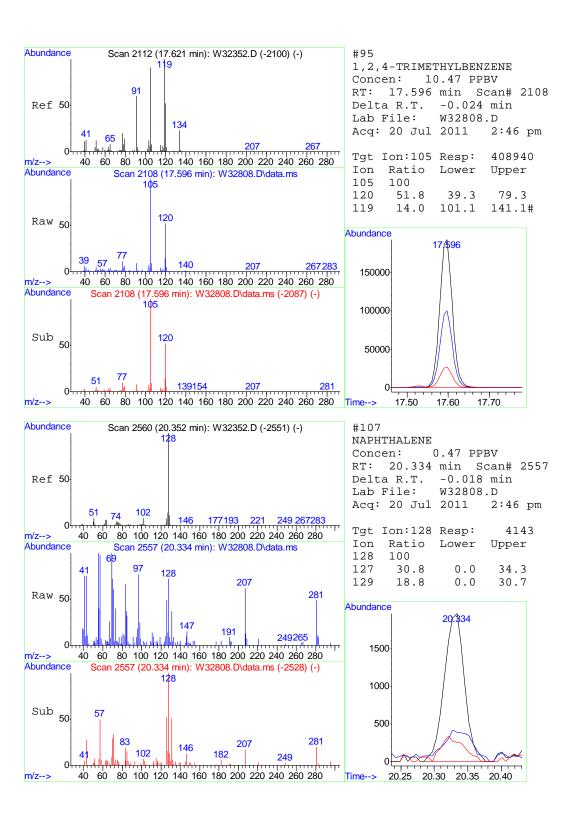












Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32817.D

Acq On : 20 Jul 2011 8:56 pm Operator : YOUMINH

Sample : JA81330-2 Misc : MS15514,VW1341,50,,,,,1 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 17 00:25:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response		nits I	)ev	(Min)
Internal Standards							
1) BROMOCHLOROMETHANE	8.592	128	150553	10.00	PPBV	-	-0.02
50) 1,4-DIFLUOROBENZENE	10.269	114	769571	10.00	PPBV	-	-0.03
69) CHLOROBENZENE-D5	14.518	82	329229	10.00	PPBV	-	-0.03
106) Chlorobenzene-d5(a)	14.518	82	328325	10.00	PPBV	-	-0.03
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE	16.164	95	171885	4.83	PPBV	-	-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	96.6	50%	
Target Compounds						Qva	alue
6) PROPYLENE	4.910			0.62	PPBV		84
19) ISOPROPYL ALCOHOL	6.349	45	92254	2.51	PPBV		
20) ACETONE	6.160	58	166577	17.29			
27) ETHANOL	5.806	45	266674	27.68			99
30) METHYLENE CHLORIDE	6.855	84	4537	0.25			98
34) TERTIARY BUTYL ALCOHOL	6.806	59	94621		PPBV		93
36) TETRAHYDROFURAN	9.098	72	1475 12017		PPBV		80
37) HEXANE	8.598	57	12017		PPBV		84
40) METHYL ETHYL KETONE	8.092	72	7649		PPBV		57
43) ETHYL ACETATE	8.616	61	3925		PPBV		1
51) BENZENE	9.976	78	15676		PPBV		98
54) TRICHLOROETHYLENE			1540		PPBV		90
59) 2,2,4-TRIMETHYLPENTANE		57	14279		PPBV		85
62) HEPTANE	11.183		9350		PPBV		97
66) TOLUENE	12.707		79290		PPBV		98
72) TETRACHLOROETHYLENE	13.847		3330		PPBV		98
78) ETHYLBENZENE	14.951	91	33768		PPBV		99
79) m,p-XYLENE	15.133		48798		PPBV		94
80) o-XYLENE	15.658				PPBV		99
91) 4-ETHYLTOLUENE	17.042				PPBV		98
92) 1,3,5-TRIMETHYLBENZENE					PPBV		99
95) 1,2,4-TRIMETHYLBENZENE	17.596				PPBV	#	32
107) NAPHTHALENE	20.334	128	2486	0.25	PPBV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32817.D

Acq On : 20 Jul 2011 8:56 pm

Operator : YOUMINH Sample : JA81330-2

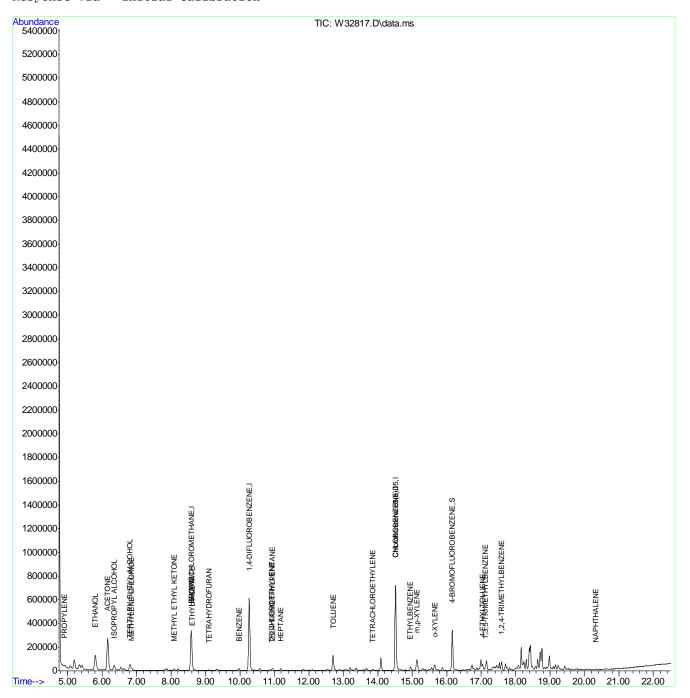
Misc : MS15514,VW1341,50,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 17 00:25:36 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

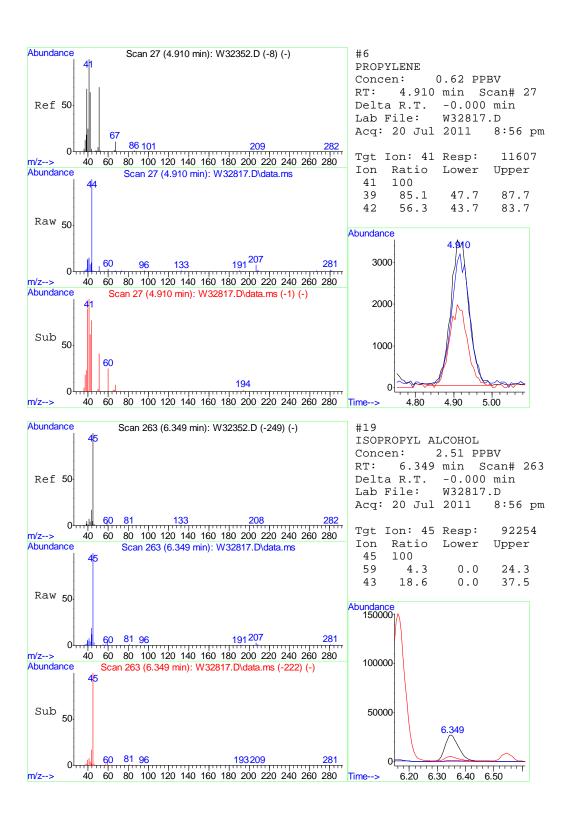
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

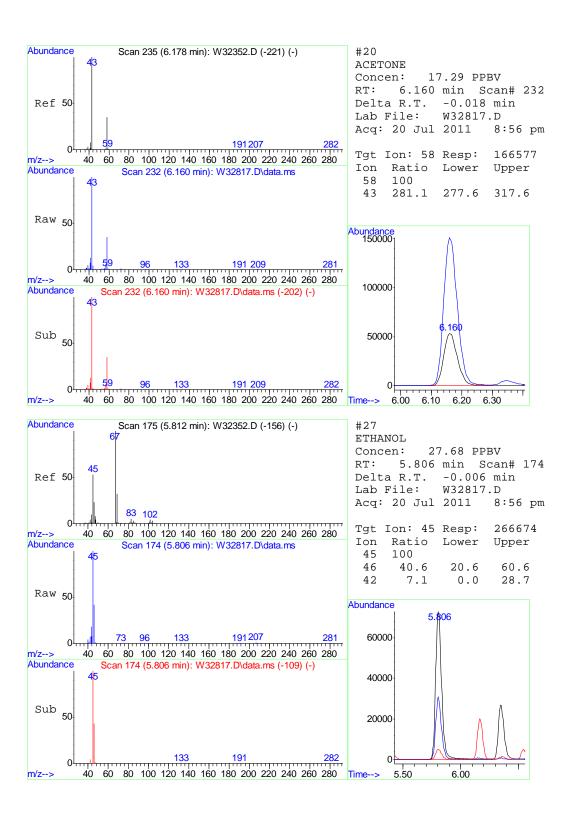


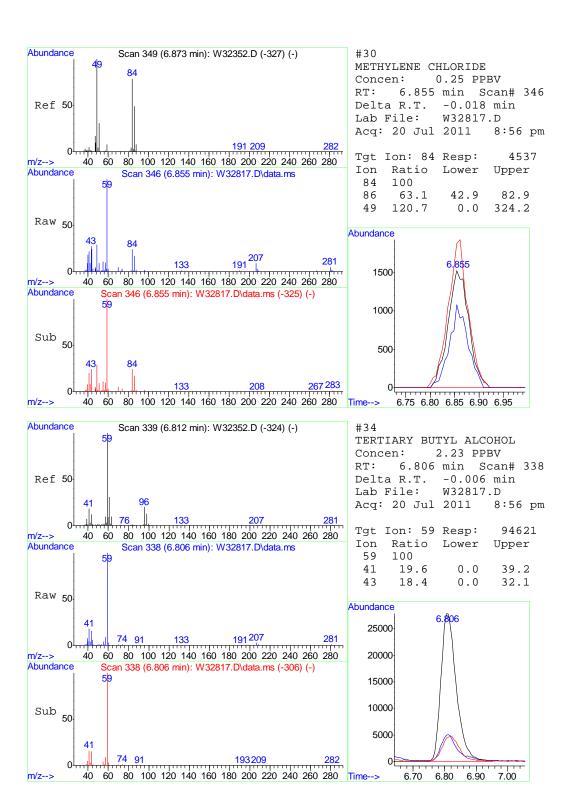
MW1322.M Wed Aug 17 00:25:36 2011 ACC-VOA-DESK1

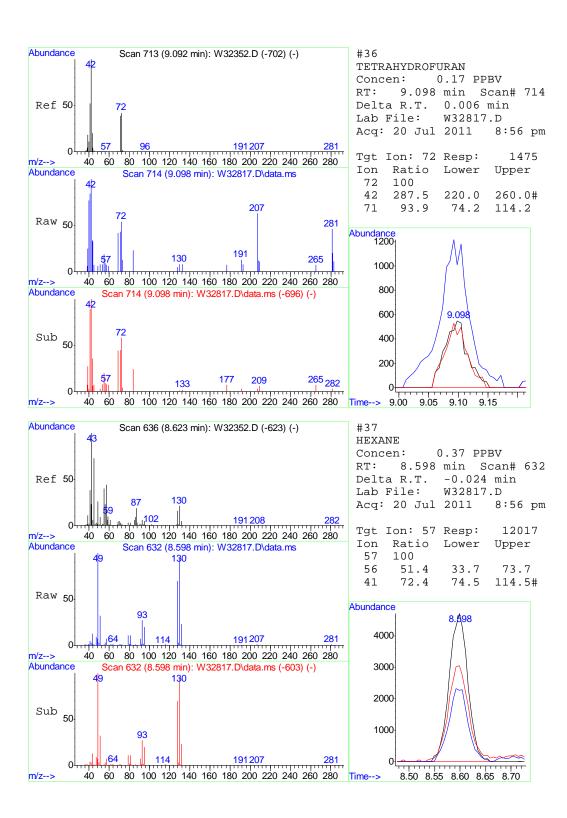
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ACCUTEST

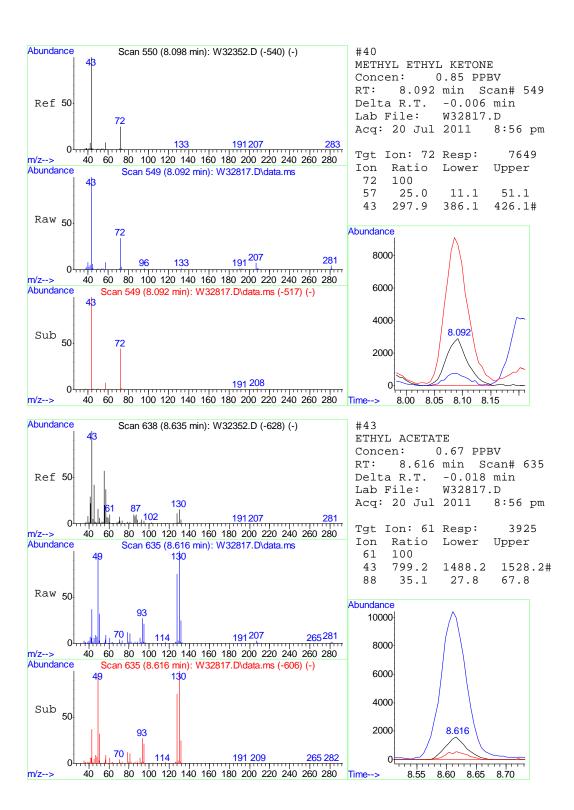
JA81330
LABORATORIES

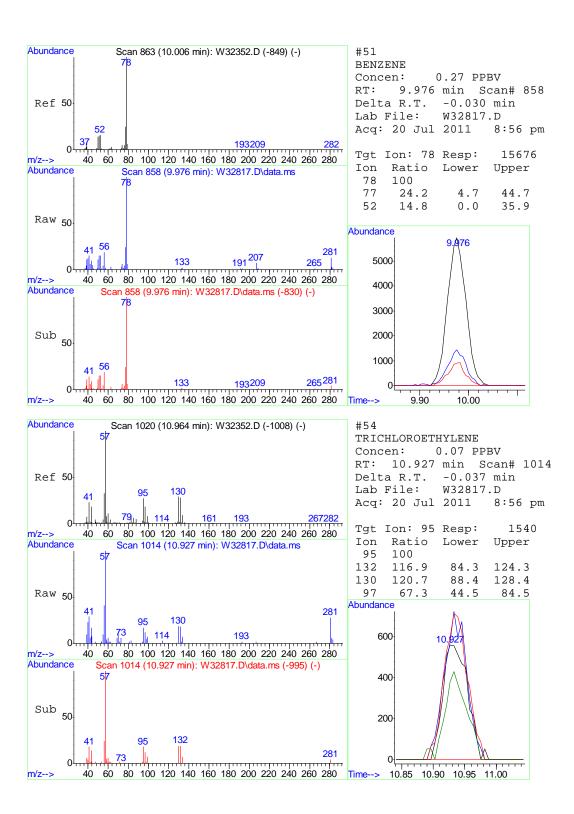


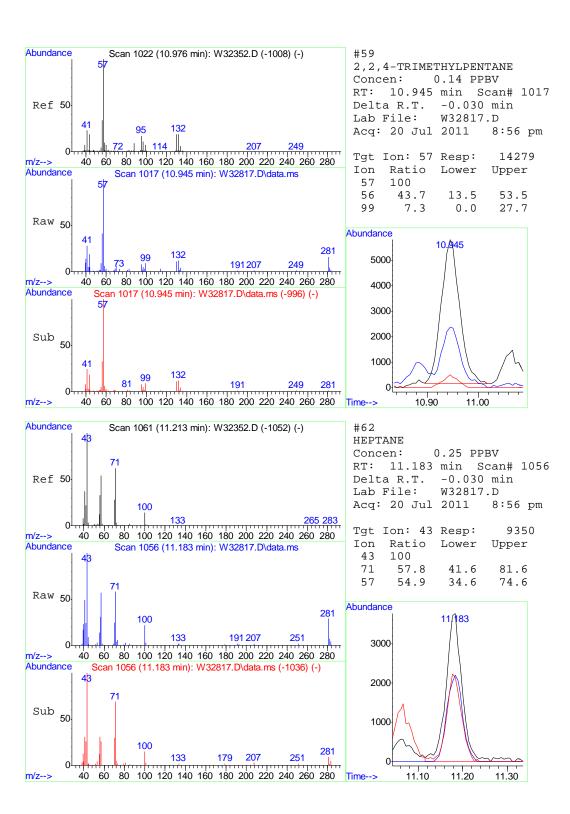


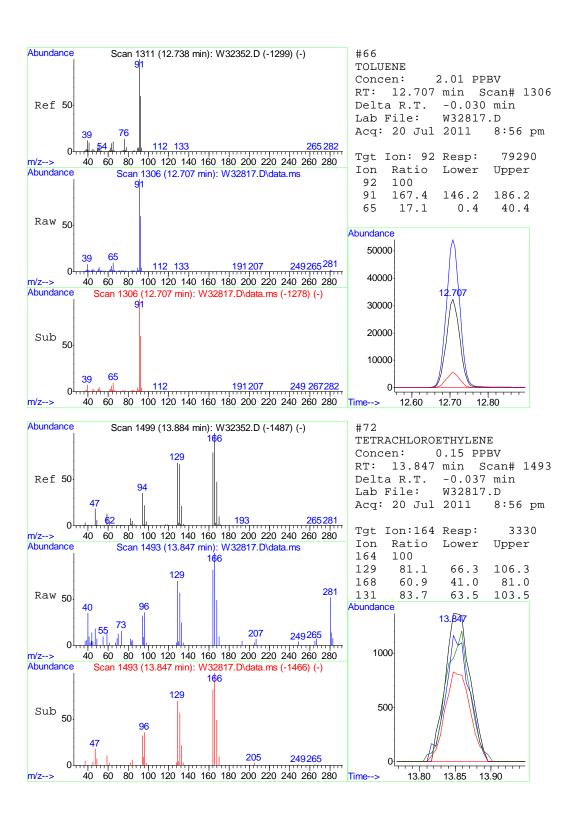


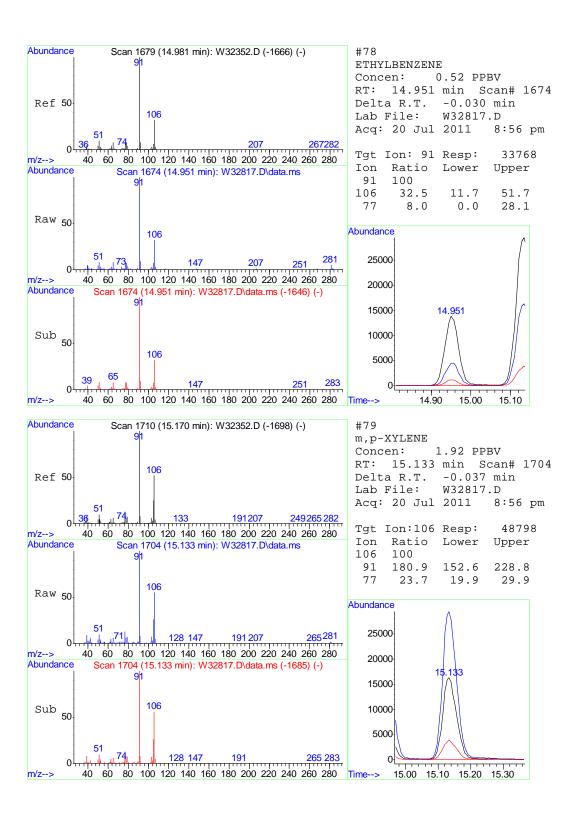


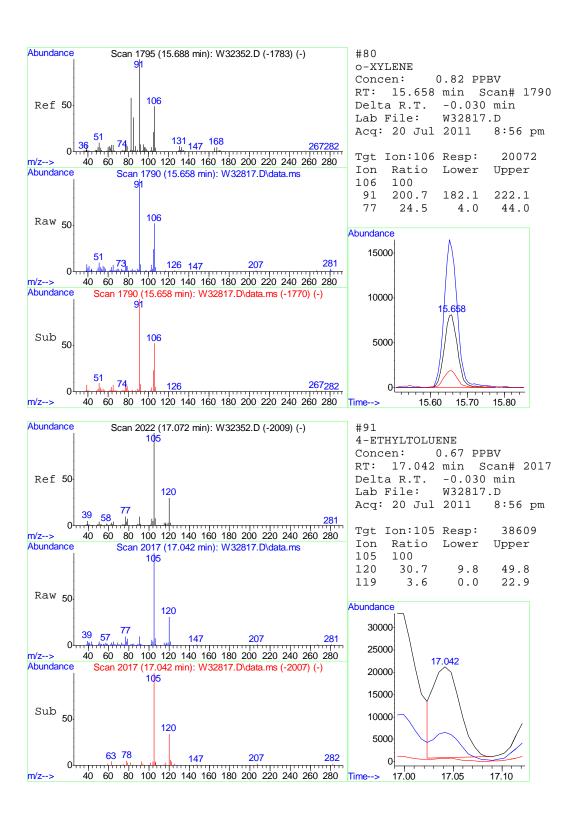


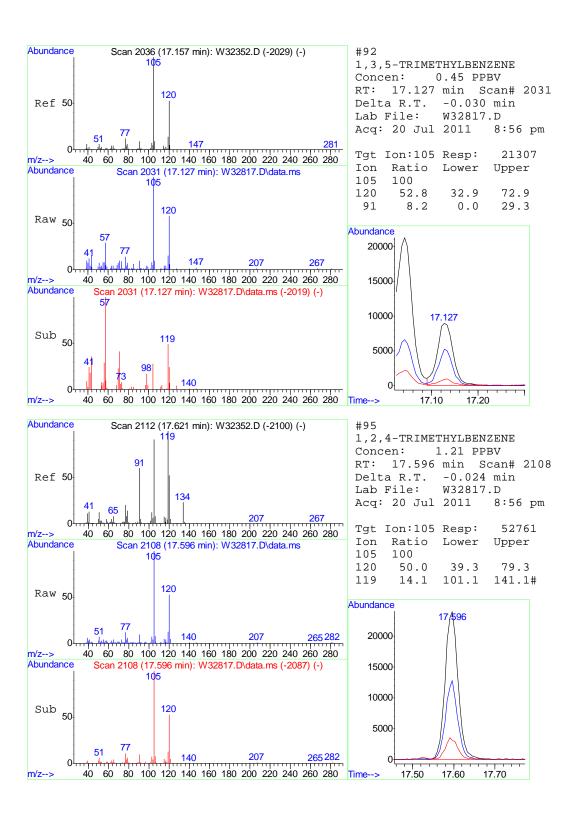


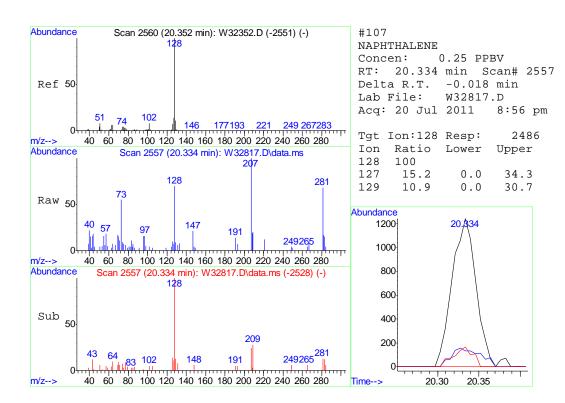












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JA81330

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32809.D

Acq On : 20 Jul 2011 3:28 pm

Operator : YOUMINH Sample : JA81330-3

Misc : MS15514,VW1341,400,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 17 00:24:47 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	8.598	128	132243	10.00	PPBV	-0.02
50) 1,4-DIFLUOROBENZENE	10.275	114	645218	10.00	PPBV	-0.02
50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	14.518	82	280698	10.00	PPBV	-0.03
106) Chlorobenzene-d5(a)	14.518	82	278049	10.00	PPBV	-0.03
System Monitoring Compounds						
85) 4-BROMOFLUOROBENZENE	16.164	95	155736			-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	102.	60%
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE	4.959			0.46		
6) PROPYLENE	4.910	41	82018	4.96	PPBV	86
8) CHLOROMETHANE	5.093	52	3951	0.79	PPBV	91
18) TRICHLOROFLUOROMETHANE	6.300		10732			
19) ISOPROPYL ALCOHOL	6.349	45	845048 836028	26.22	PPBV	99
20) ACETONE	6.160					
26) CARBON DISULFIDE	7.135	76	10922	0.27	PPBV	84
27) ETHANOL	5.812	45	1114147			
30) METHYLENE CHLORIDE	6.861	84	4334	0.27	PPBV	99
34) TERTIARY BUTYL ALCOHOL		59	702782 8182	18.83	PPBV	94
36) TETRAHYDROFURAN	9.074	72	8182	1.06	PPBV	99
37) HEXANE	8.598	57	71308 38041	2.48	PPBV	# 82
40) METHYL ETHYL KETONE	8.086	72	38041	4.80	PPBV	# 63
43) ETHYL ACETATE	8.610	61	18281	3.56		
45) CHLOROFORM	8.702	83	24075 113248	0.78		
51) BENZENE	9.976	78	113248	2.30		
52) CYCLOHEXANE	10.226	84	20388 2442	0.82	PPBV	86
54) TRICHLOROETHYLENE	10.733	95	2442	0.13		
59) 2,2,4-TRIMETHYLPENTANE	10.945	57	116706	1.38		
62) HEPTANE	11.183	43	50685 7167	1.60	PPBV	94
64) METHYL ISOBUTYL KETONE	11.793	43	7167	0.21	PPBV	96
66) TOLUENE	12.707	92	538161 14055	16.30	PPBV	98
71) 2-HEXANONE	12.975	43	14055	0.51	PPBV	91
72) TETRACHLOROETHYLENE			23331			
78) ETHYLBENZENE	14.951	91	232737 362274	4.17	PPBV	97
79) m,p-XYLENE						
80) O-XYLENE	15.652	106	154393 17941	7.39	PPBV	93
81) STYRENE	15.536	104	17941	0.61	LLRA.	96
87) ISOPROPYLBENZENE	16.310	105	50657	0.86	PPBV	98
91) 4-ETHYLTULUENE	17.042	105	364600	/.45	LLR.	97
92) 1,3,5-TKIMETHYLBENZENE	17.133	105	193700	4.79	LLRRA	96 33
91) 4-ETHYLTOLUENE 92) 1,3,5-TRIMETHYLBENZENE 95) 1,2,4-TRIMETHYLBENZENE 107) NAPHTHALENE	17.596	105	011508	16.50	LLB.	# 33
107) NAPHTHALENE			26937 			

<sup>(#)</sup> = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File: W32809.D

Acq On : 20 Jul 2011 3:28 pm

Operator : YOUMINH Sample : JA81330-3

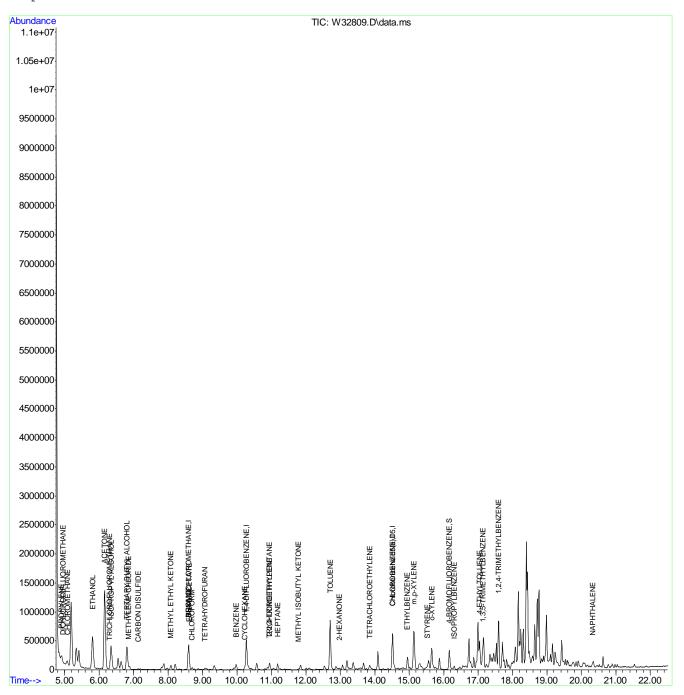
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 17 00:24:47 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m  $\times$  0.32mm ID  $\times$  1.0 um

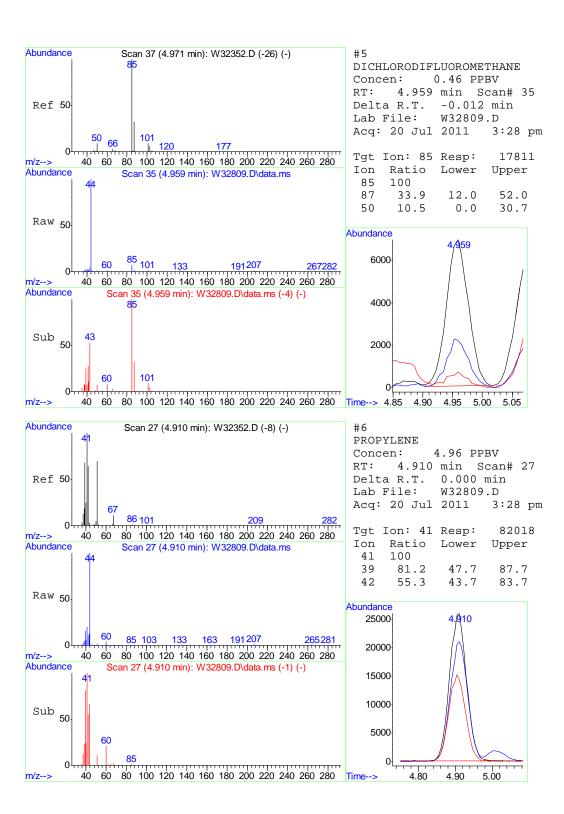
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

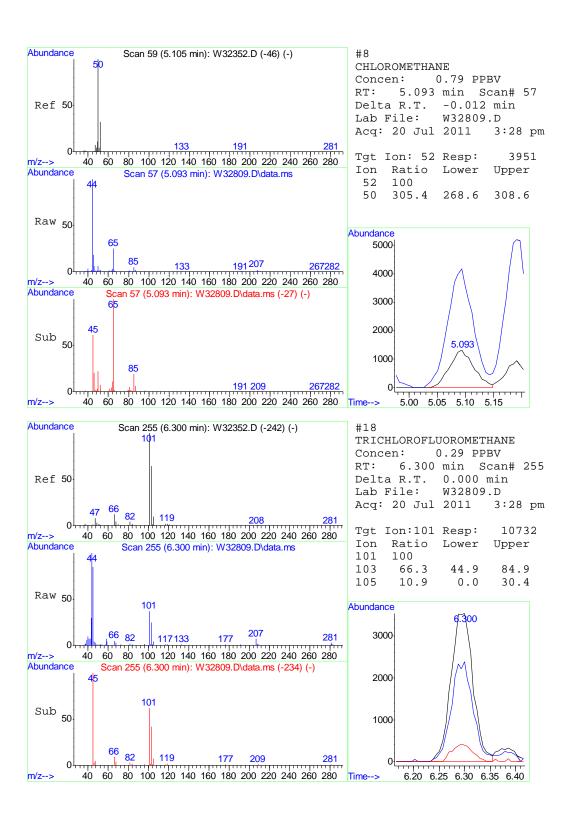


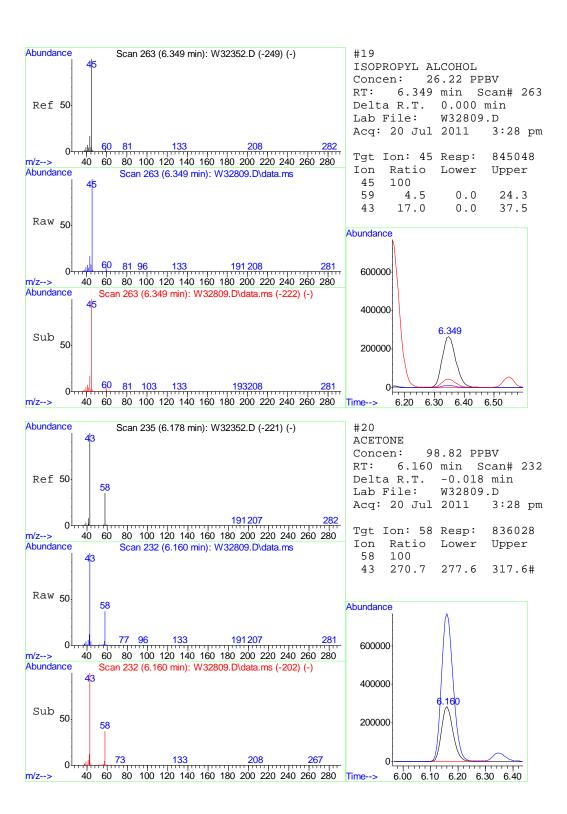
MW1322.M Wed Aug 17 00:24:47 2011 ACC-VOA-DESK1

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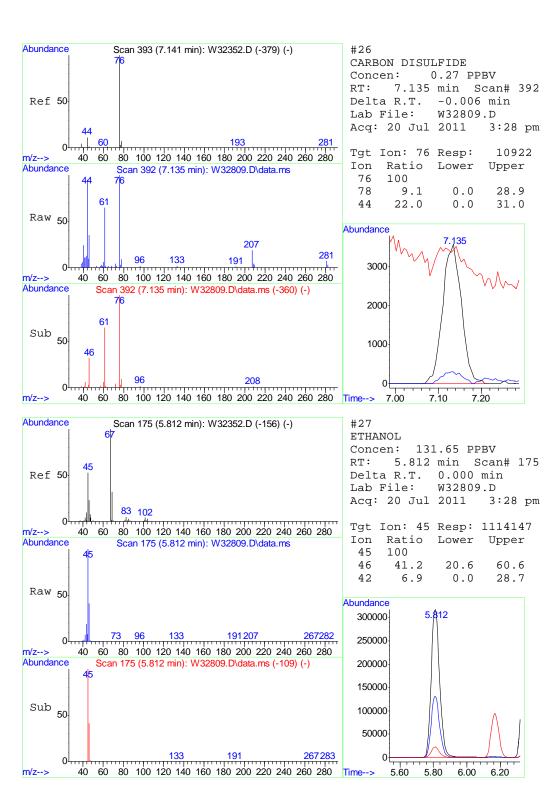
JA81330
LABORATORIES



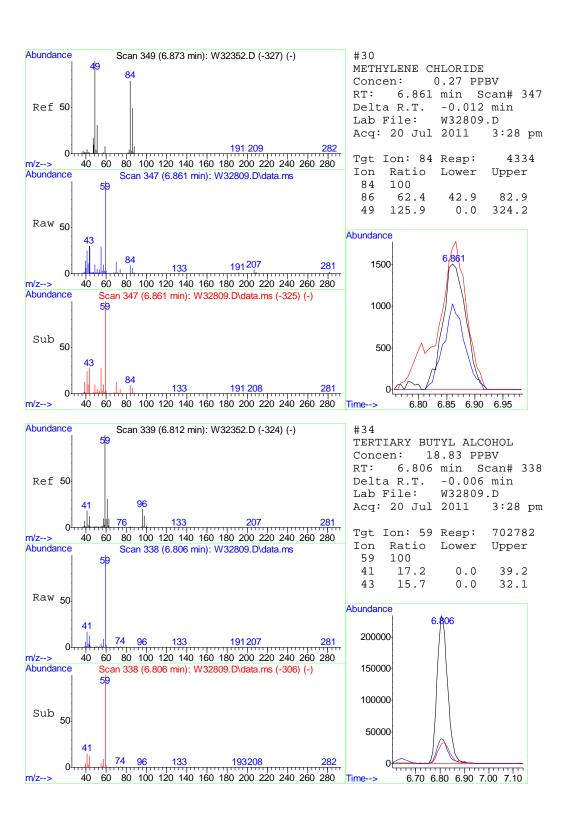


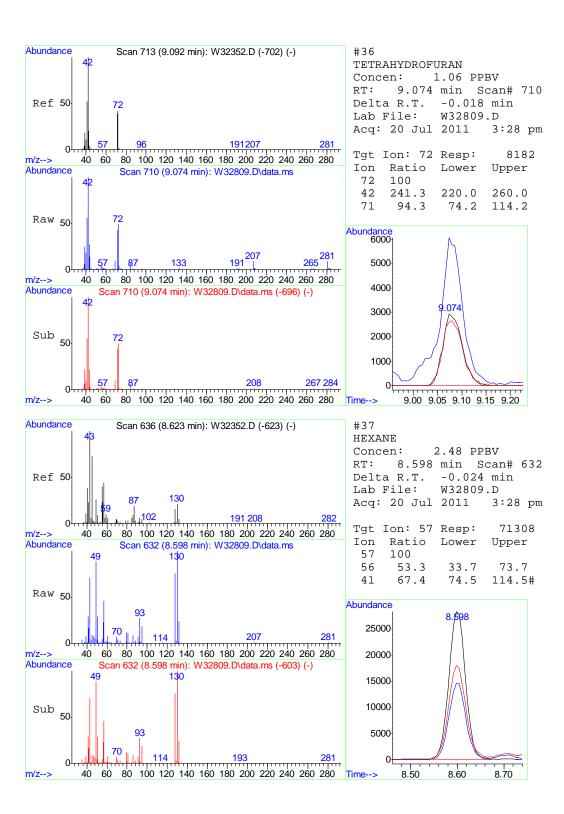


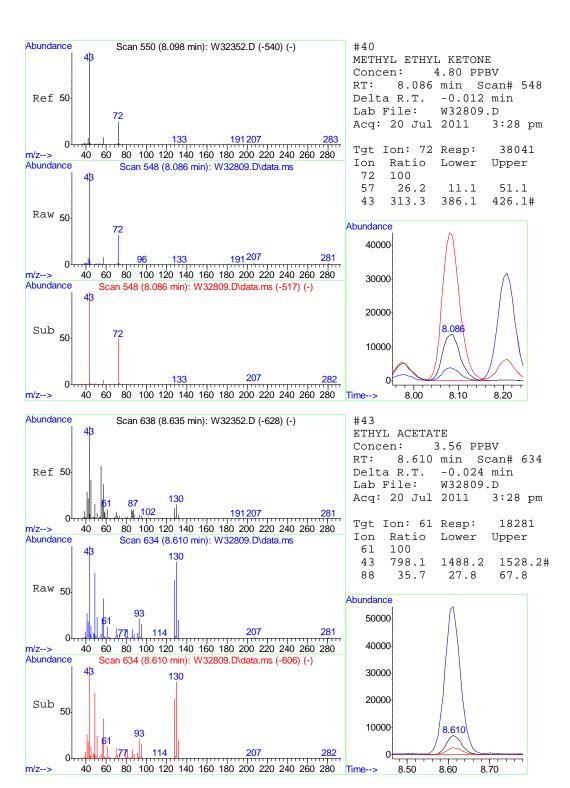
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ACCUTEST.
JA81330



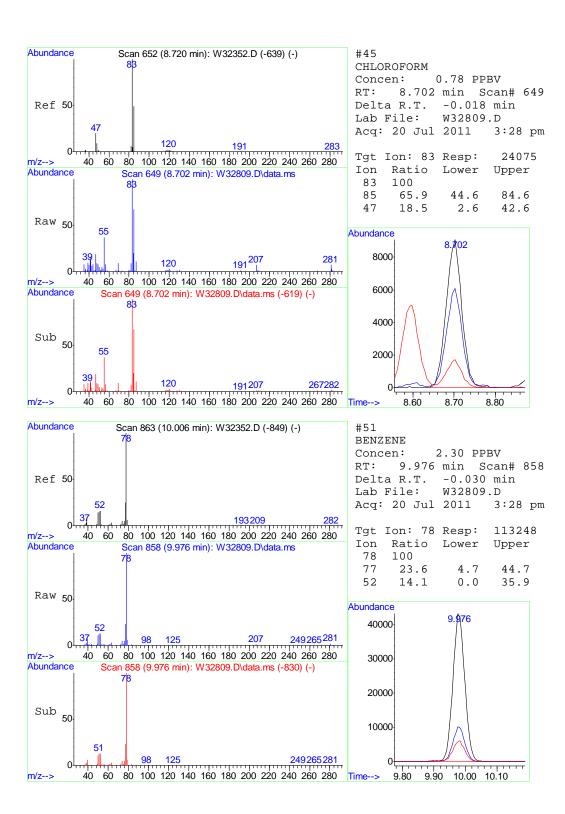
234 of 685
ACCUTEST.
JA81330

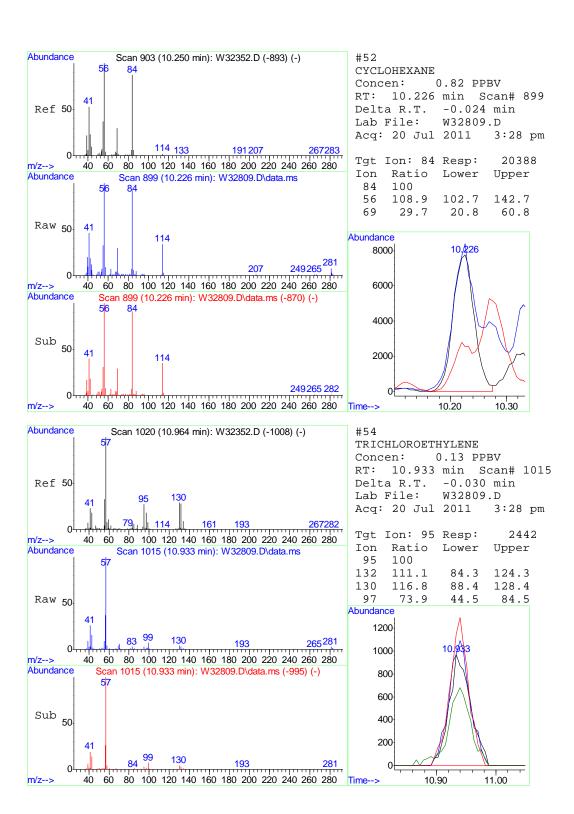


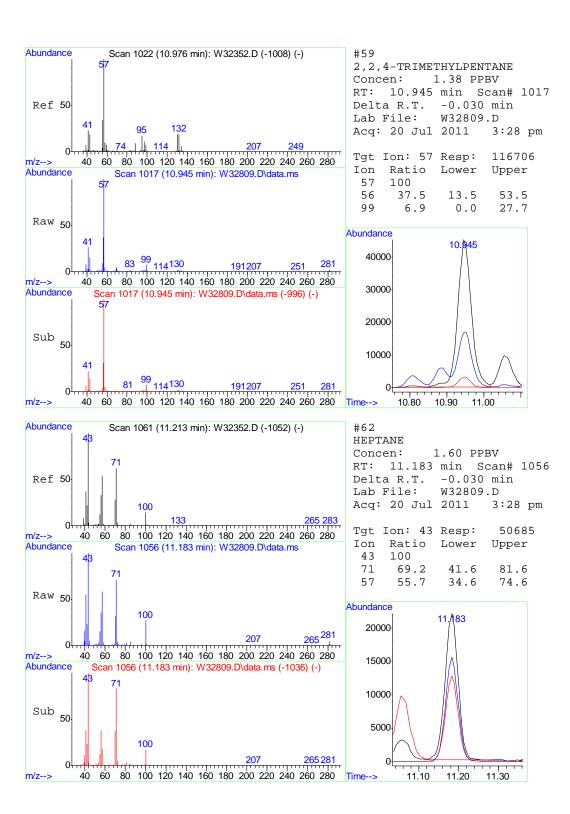


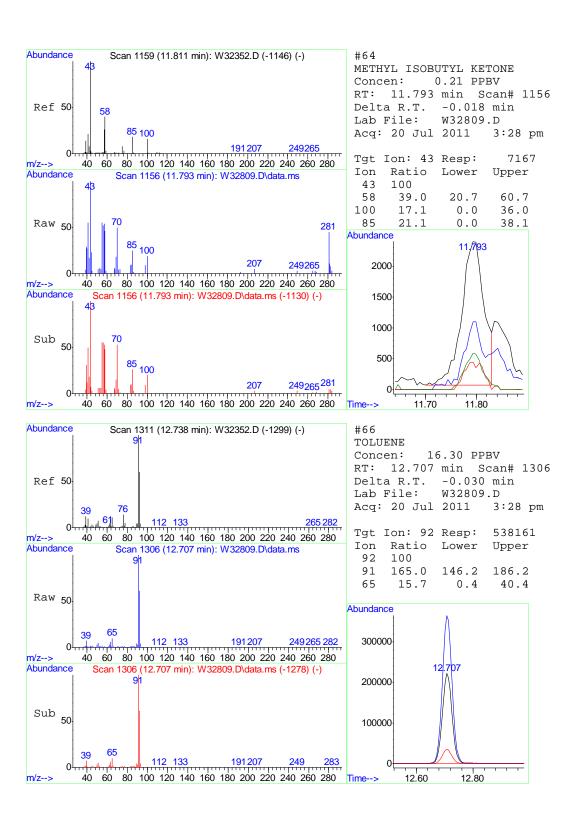


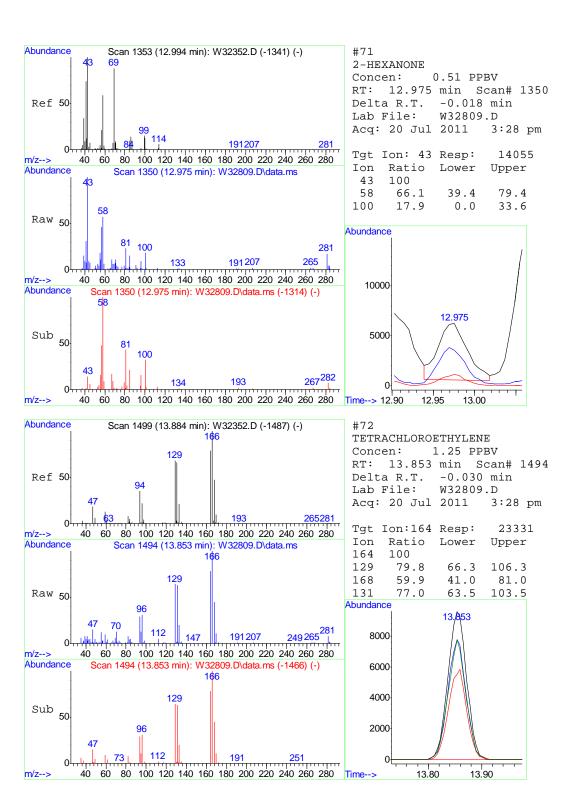
237 of 685
ACCUTEST.
JA81330

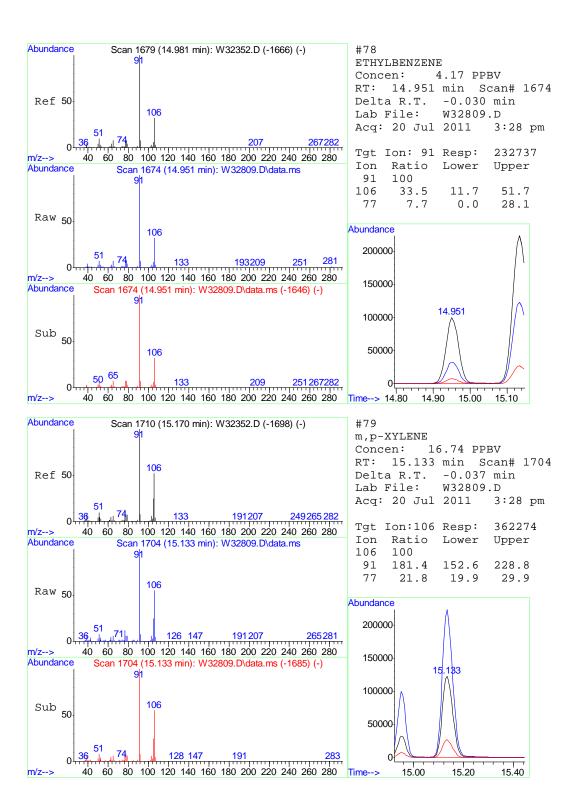


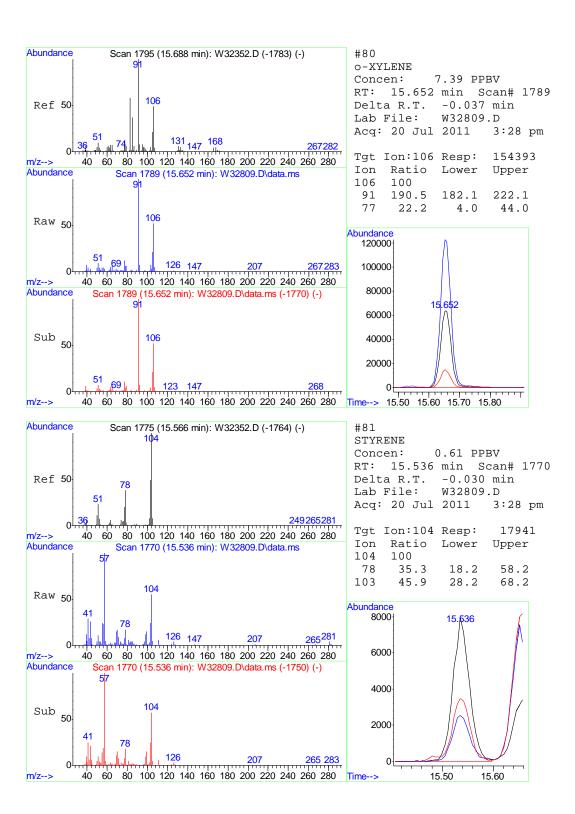


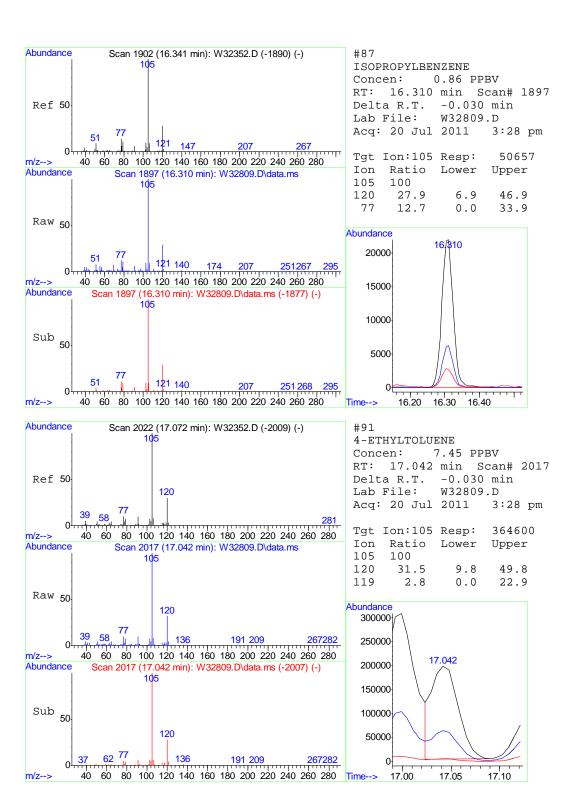


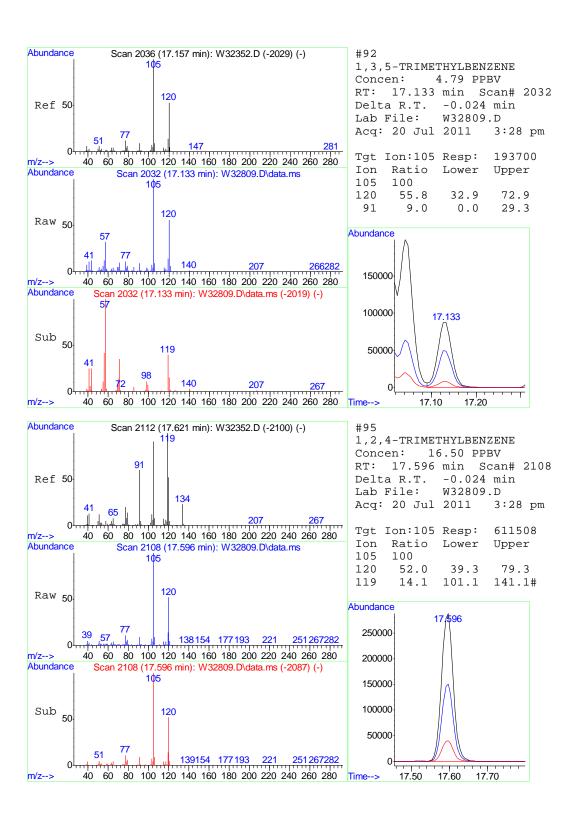


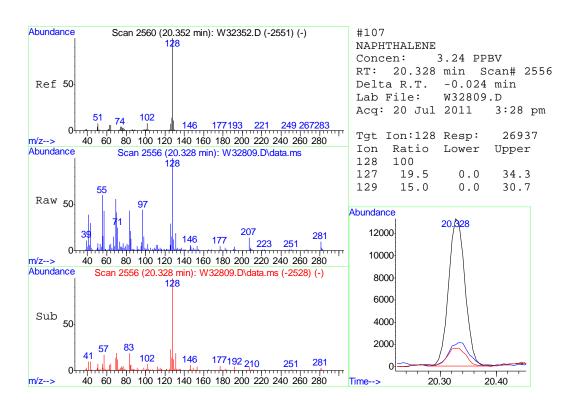












Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32818.D

Acq On : 20 Jul 2011 9:37 pm Operator : YOUMINH

Sample : JA81330-3 Misc : MS15514,VW1341,100,,,,1 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 17 00:25:41 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

1) 50) 69) 106) Syste	rnal Standards BROMOCHLOROMETHANE 1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a) m Monitoring Compounds 4-BROMOFLUOROBENZENE .ked Amount 5.000	10.275 14.518	114 82	160219 816030 358248 357248	10.00 10.00	PPBV PPBV		
50) 69) 106) Syste	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a) m Monitoring Compounds 4-BROMOFLUOROBENZENE	10.275 14.518 14.518	114 82	816030 358248	10.00 10.00	PPBV PPBV		-0.02
69) 106) Syste	CHLOROBENZENE-D5 Chlorobenzene-d5(a) m Monitoring Compounds 4-BROMOFLUOROBENZENE	14.518 14.518	82	358248	10.00	PPBV		
106) Syste	Chlorobenzene-d5(a) m Monitoring Compounds 4-BROMOFLUOROBENZENE	14.518	82 82	358248 357248				-0.03
Syste	m Monitoring Compounds 4-BROMOFLUOROBENZENE	14.518	82	357248	10.00	PPBV		0.00
85)	4-BROMOFLUOROBENZENE	16 164						-0.03
		16 164						
	ked Amount 5.000					PPBV		-0.03
Spi		Range 65	- 128	Recove	ery =	93.8	80%	
Targe	et Compounds							alue
5)	DICHLORODIFLUOROMETHANE	4.958	85	6020	0.13	PPBV		98
	PROPYLENE	4.910	41	28732	1.43	PPBV		89
18)	TRICHLOROFLUOROMETHANE	6.294	101	4751	0.11	PPBV		96
19)	ISOPROPYL ALCOHOL	6.348	45	307763	7.88	PPBV		99
20)	ACETONE	6.159	58	285239 399320	27.83	PPBV		91
	ETHANOL	5.806	45	399320	38.95	PPBV		98
30)	METHYLENE CHLORIDE	6.861	84	8088	0.42	PPBV		98
34)	TERTIARY BUTYL ALCOHOL	6.806	59	257304	5.69	PPBV		95
36)	TETRAHYDROFURAN	9.092 8.598	72	3132 29715	0 22	זזמממ	11	70
37)	HEXANE	8.598	57	29715	0.85	PPBV	#	83
40)	METHYL ETHYL KETONE	8.086	72	13207	1.37	PPBV		
43)	ETHYL ACETATE	8.610		6962		PPBV	#	1
45)	CHLOROFORM	8 689	83	8279		PPBV		96
51)	BENZENE	9.982	78	41951	0.67	PPBV		98
52)	CYCLOHEXANE	10.220	84	7450		PPBV		
59)	2,2,4-TRIMETHYLPENTANE	10.945	57	44677		PPBV		91
62)	2,2,4-TRIMETHYLPENTANE HEPTANE	11.183	43	21008		PPBV		99
	TOLUENE	12.707	92	177069	4.24	PPBV		98
71)	2-HEXANONE	12.981	43	5302		PPBV		
72)	TETRACHLOROETHYLENE	13.853		6408		PPBV		98
78)	ETHYLBENZENE	14.950	91	6408 73761	1.04	PPBV		99
79)	m,p-XYLENE	15.133	106	106567	3.86	PPBV		97
80)	O-XYLENE	15.652	106	45230	1.70	PPBV		99
81)	STYRENE	15.536	104	5023	0.13	PPBV		97
87)	ISOPROPYLBENZENE	16.304	105	5023 15234	0.20	PPBV		100
91)	4-ETHYLTOLUENE	17.041	105	98367	1.58	PPBV		99
92)	1,3,5-TRIMETHYLBENZENE	17.127	105	54992	1.07	PPBV		99
95)	1,3,5-TRIMETHYLBENZENE 1,2,4-TRIMETHYLBENZENE NAPHTHALENE	17.590	105	163145	3.45	PPBV	#	32
107)	NAPHTHALENE	20.327	128	6277	0.59	PPBV		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32818.D

Acq On : 20 Jul 2011 9:37 pm

Operator : YOUMINH Sample : JA81330-3

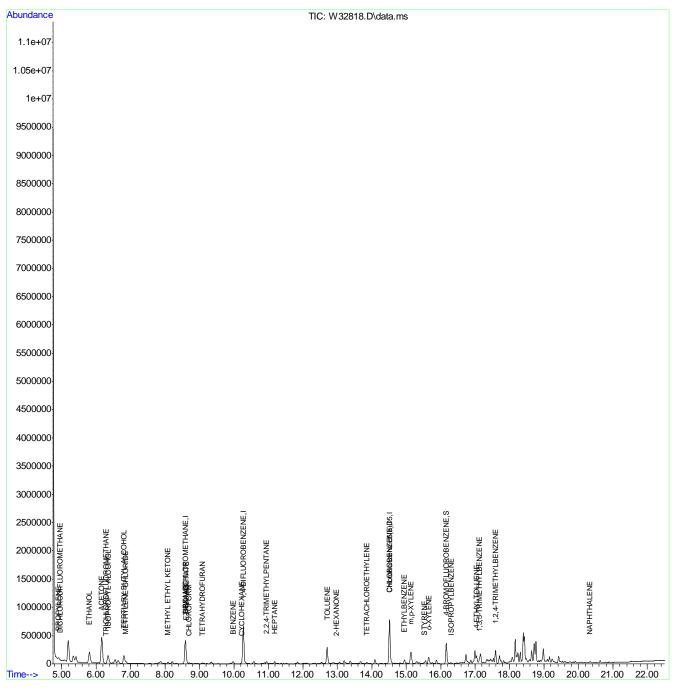
Misc : MS15514,VW1341,100,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 17 00:25:41 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

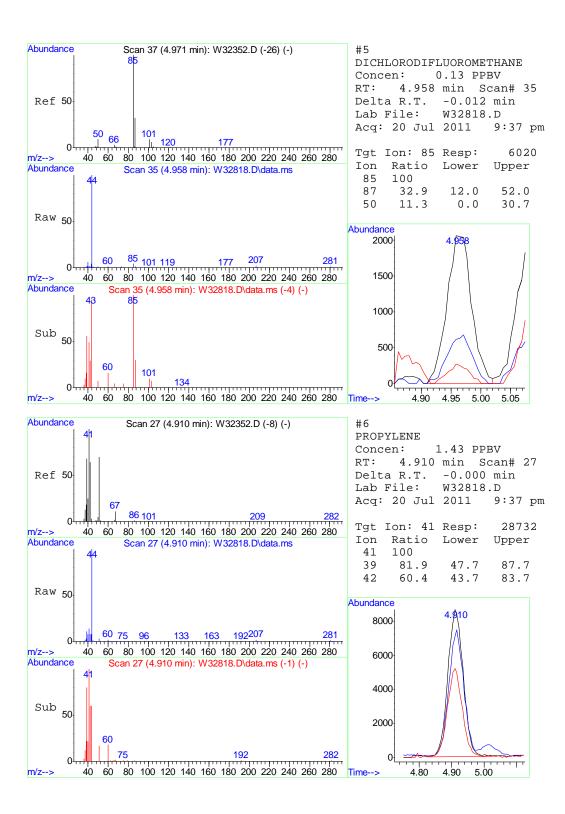
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



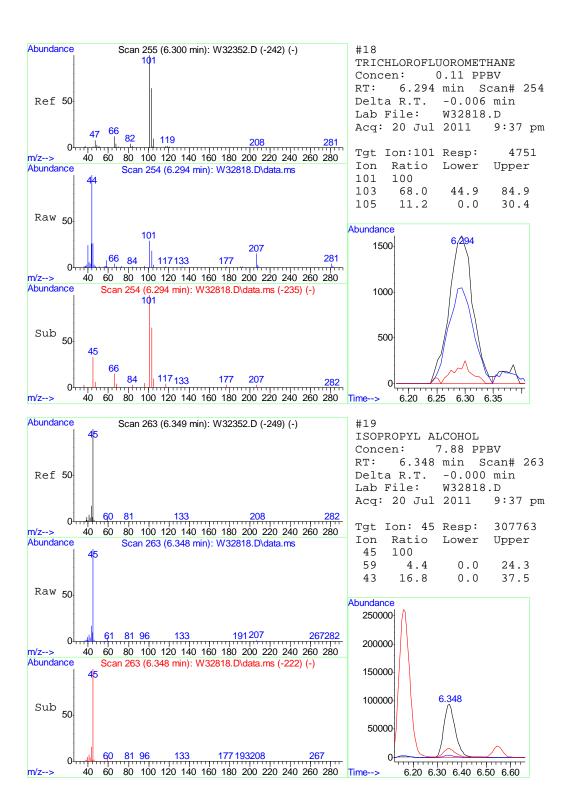
MW1322.M Wed Aug 17 00:25:48 2011 ACC-VOA-DESK1

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ACCUTEST

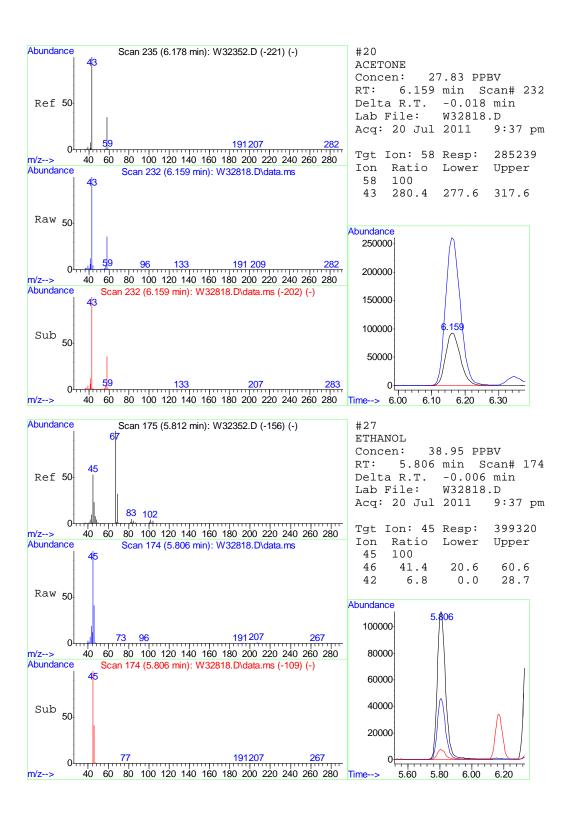
JA81330
LABORATORIES

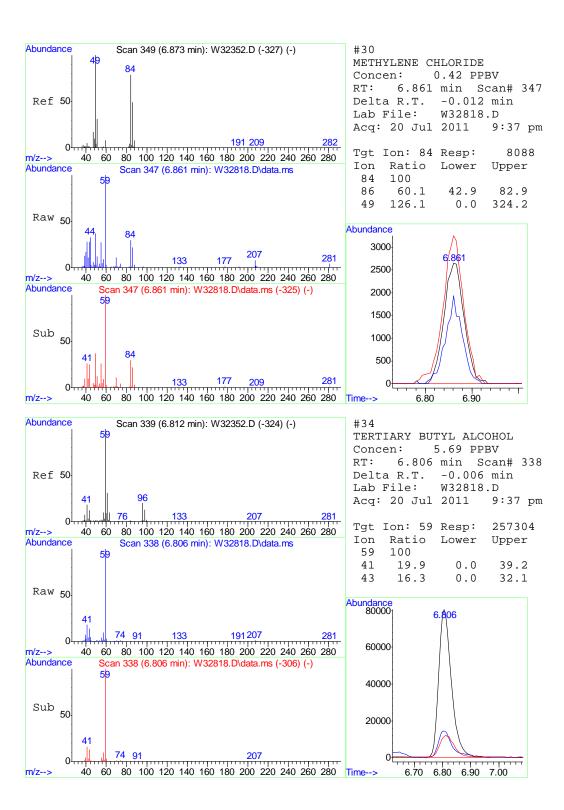


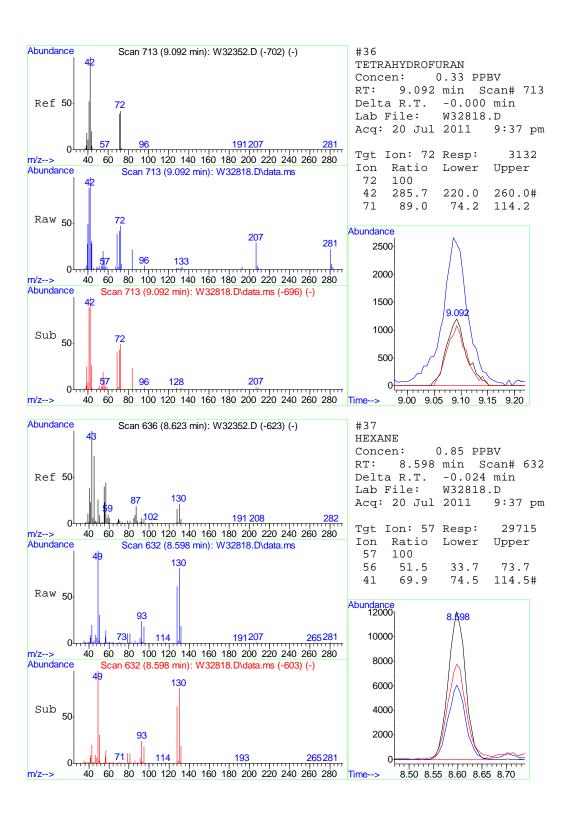
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ACCUTEST
JA81330

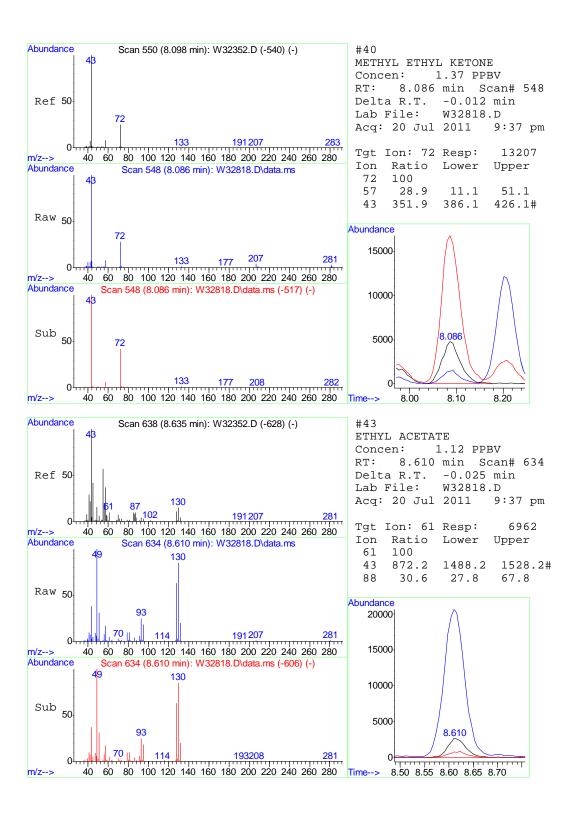


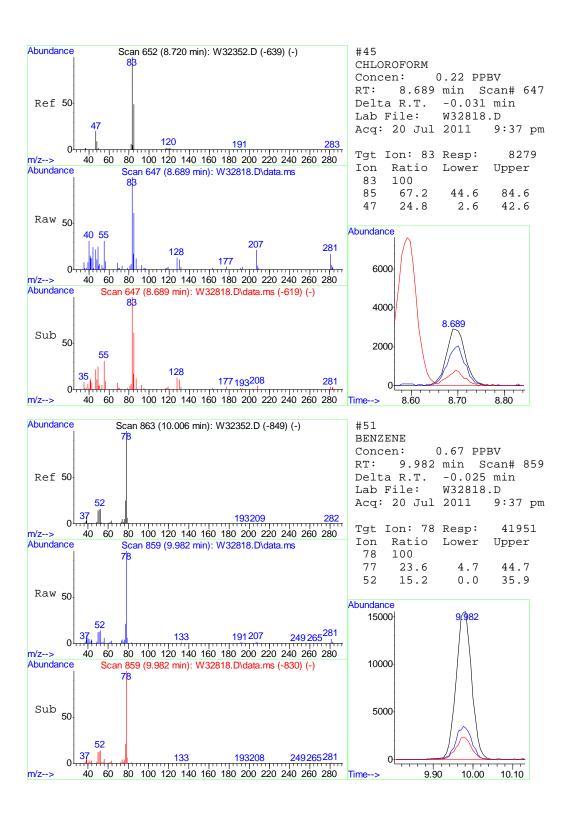
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ACCUTEST.
JA81330

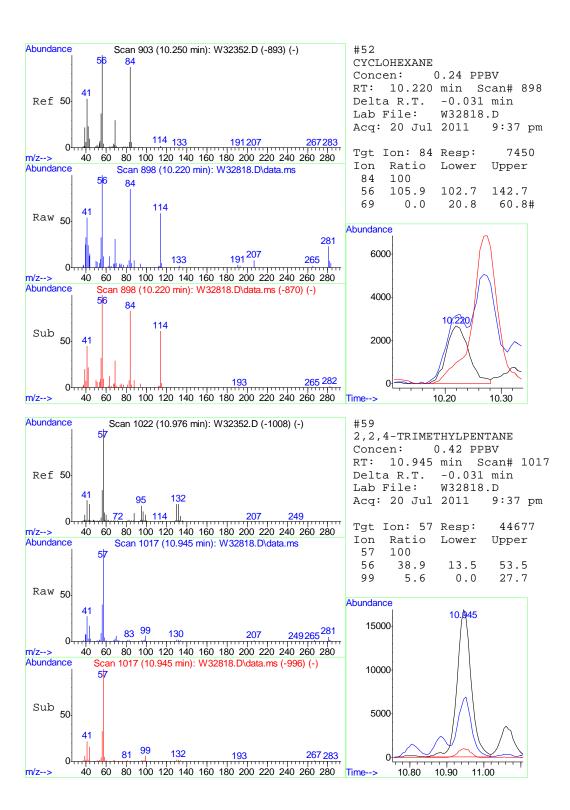


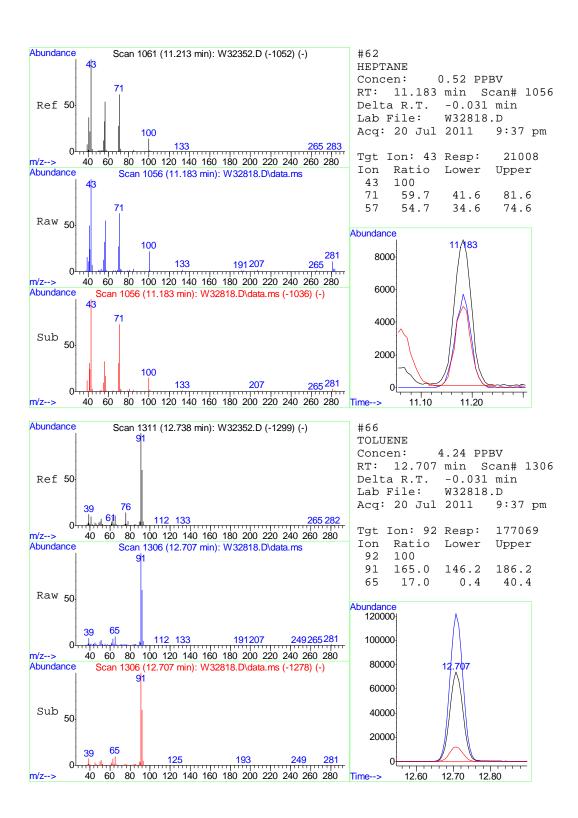


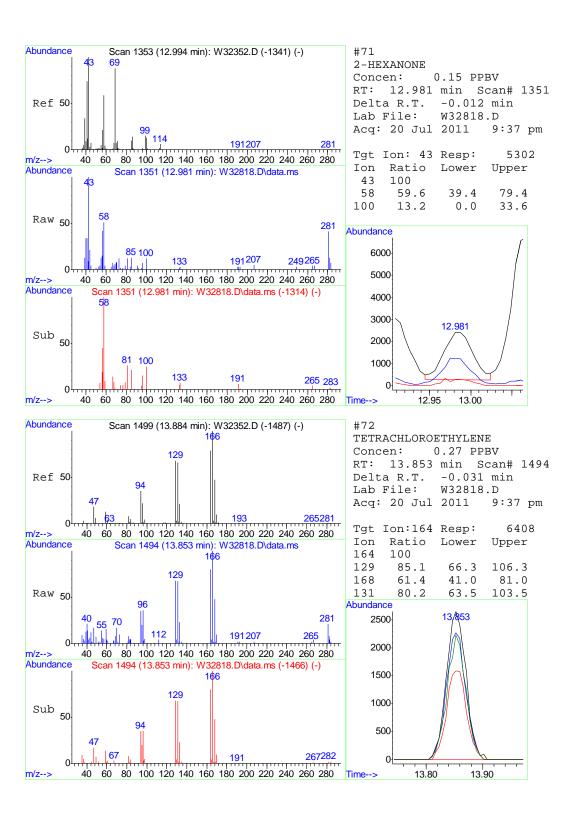


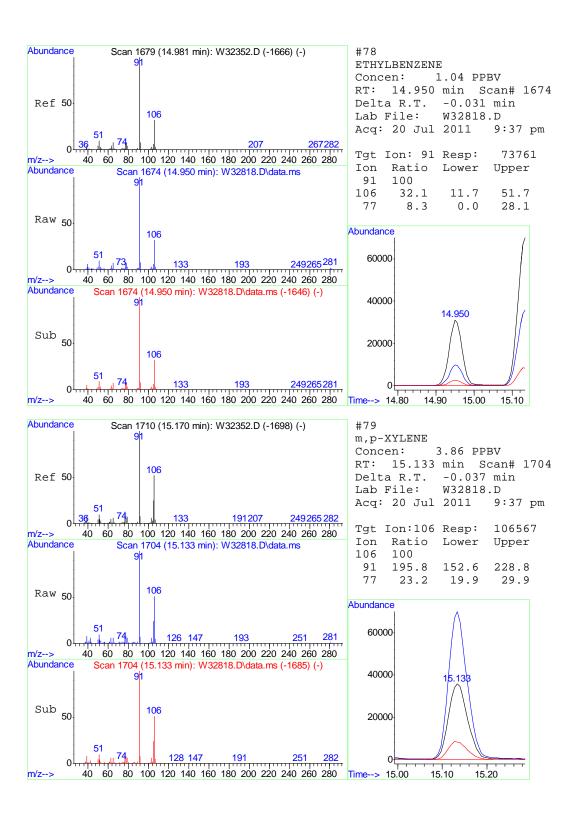


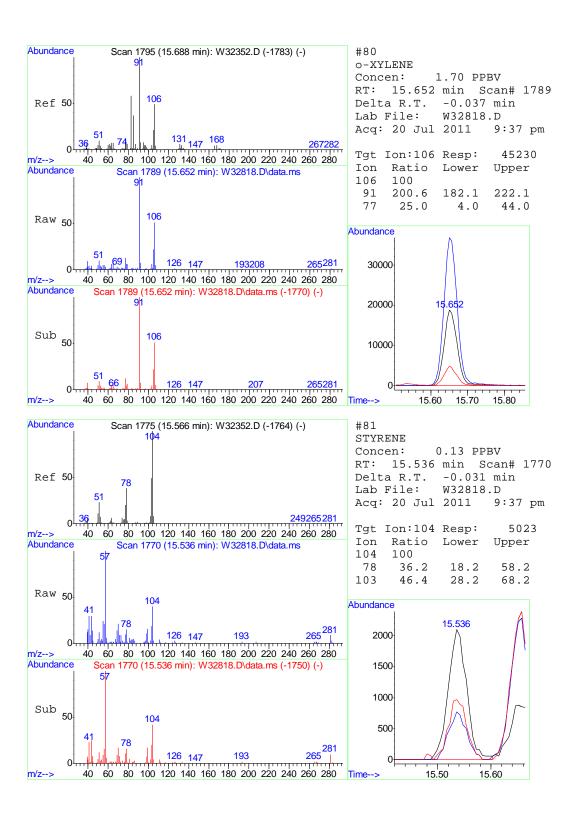


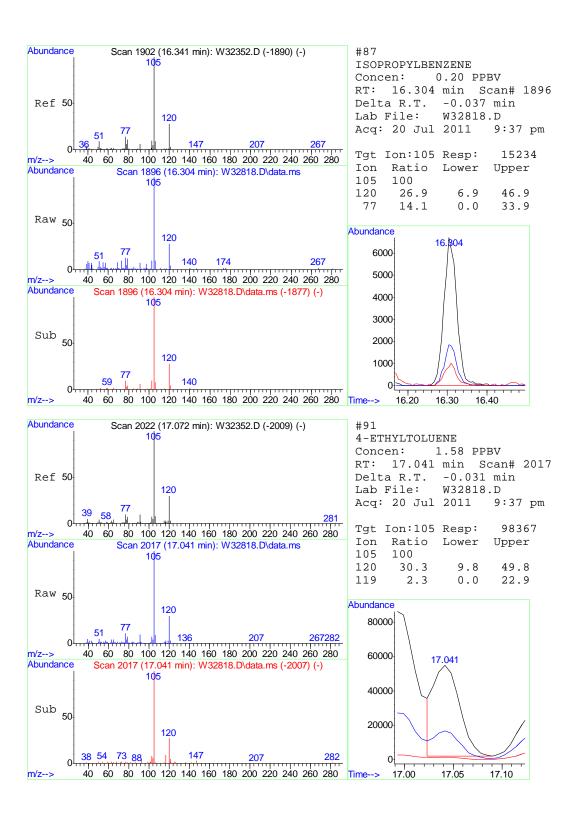


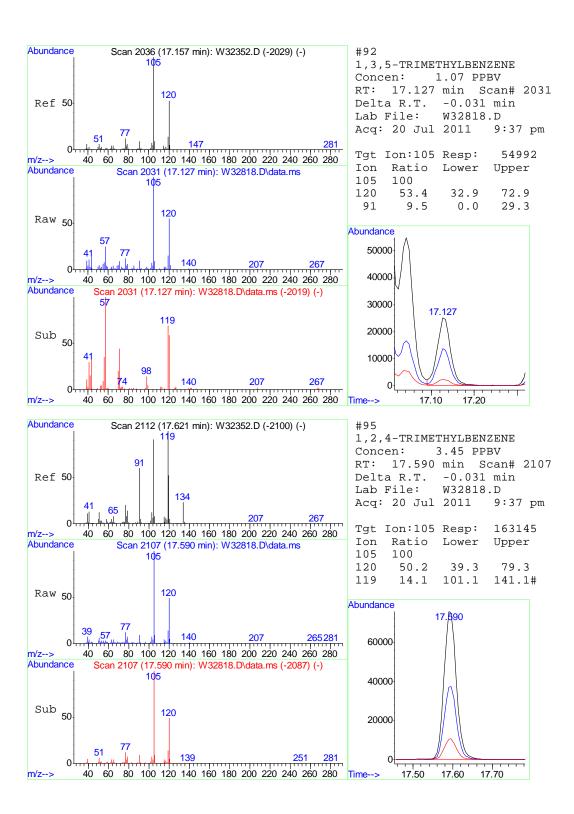


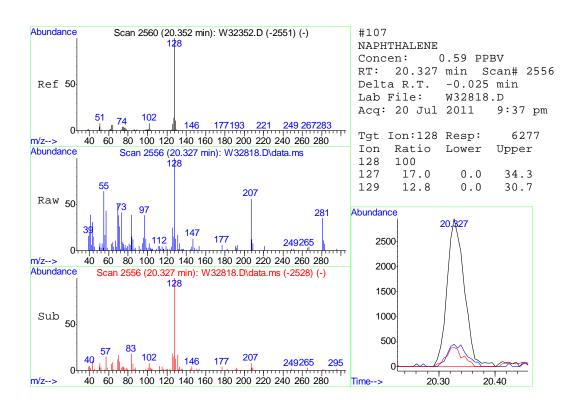












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JA81330

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32810.D

Acq On : 20 Jul 2011 4:09 pm

Operator : YOUMINH Sample : JA81330-4

Sample : JA81330-4
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 17 00:24:54 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update: Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
Inte	rnal Standards							
	BROMOCHLOROMETHANE	8.598		129595	10.00			-0.02
50)	1,4-DIFLUOROBENZENE	10.275 14.518	114	621770 263181	10.00			-0.02
	CHLOROBENZENE-D5							-0.03
106)	Chlorobenzene-d5(a)	14.518	82	261224	10.00	PPBV		-0.03
	em Monitoring Compounds							
	4-BROMOFLUOROBENZENE	16.164						-0.03
Sp	iked Amount 5.000	Range 65	- 128	Recovery =		: 104.60%		
Targ	et Compounds						Qva	alue
5)	DICHLORODIFLUOROMETHANE	4.959	85	17697	0.46	PPBV	,	97
6)	PROPYLENE	4.916	41	169507	10.46	PPBV	,	81
18)	TRICHLOROFLUOROMETHANE	6.300	101	9662				97
19)	ISOPROPYL ALCOHOL	6.367	45	2035558	64.45	PPBV	,	99
20)	ACETONE	6.160	58	970460	117.05			86
26)	CARBON DISULFIDE	7.141	76	15522 1928765	0.39	PPBV	,	92
27)	ETHANOL	5.830	45	1928765	232.56	PPBV	,	99
30)	METHYLENE CHLORIDE	6.867	84	5257	0.34	PPBV	,	96
34)	TERTIARY BUTYL ALCOHOL	6.830	59	355121	9.71	PPBV	,	89
36)	TETRAHYDROFURAN	9.080	72	355121 7005 50923	0.92	PPBV	#	1
37)	HEXANE	8.604	57	50923	1.80	PPBV	#	83
40)	METHYL ETHYL KETONE	8.086	72	29911	3.85	PPBV	#	57
43)	ETHYL ACETATE	8.616	61	27061	5.38	PPBV	#	1
45)	CHLOROFORM	8.702	83	11050	0.37	PPBV	,	95
48)	CARBON TETRACHLORIDE	10.110	117	10108	0.33	PPBV	,	99
49)	1,2-DICHLOROETHANE	9.342	62	11695	0.67	PPBV	,	98
51)	BENZENE	9.982	78	81726	1.72	PPBV	,	98
52)	CYCLOHEXANE	10.226	84	17155	0.72	PPBV	,	82
54)	TRICHLOROETHYLENE	10.951	95	1626	0.09	PPBV	,	89
59)	2,2,4-TRIMETHYLPENTANE	10.945	57	99890	1.22			94
62)	HEPTANE	11.183	43	43450	1.42	PPBV	,	92
64)	METHYL ISOBUTYL KETONE	11.793	43	22558	0.69	PPBV	,	98
66)	TOLUENE	12.707	92	425960	13.39	PPBV	,	98
71)	2-HEXANONE	12.975	43	8152	0.31	PPBV	,	85
72)	TETRACHLOROETHYLENE	13.853	164	29759	1.70	PPBV	,	93
78)	ETHYLBENZENE	14.951	91	198154	3.79	PPBV	,	98
79)	m,p-XYLENE	15.133	106	308792	15.22	PPBV	,	91
80)	O-XYLENE	15.658	106	131087	6.69	PPBV	,	92
81)	STYRENE	15.536	104	24978	0.90	PPBV	,	95
87)	ISOPROPYLBENZENE	16.310	105	24978 41712	0.76	PPBV	,	98
	4-ETHYLTOLUENE	17.042		304423		PPBV	·	97
92)	1,3,5-TRIMETHYLBENZENE	17.133		158310	4.17	PPBV	·	97
95)	1,2,4-TRIMETHYLBENZENE	17.596	105	499038	14.36	PPBV	#	33
	p-DICHLOROBENZENE	17.596 17.852	146	2810	14.36 0.14 3.44	PPBV	,	82
	NAPHTHALENE	20.334	128	26895	3.44	PPBV	,	91

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed

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ACCUTEST

JA81330
LABORATORIES

MW1322.M Wed Aug 17 00:24:55 2011 ACC-VOA-DESK1

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32810.D

Acq On : 20 Jul 2011 4:09 pm

Operator : YOUMINH

Sample : JA81330-4

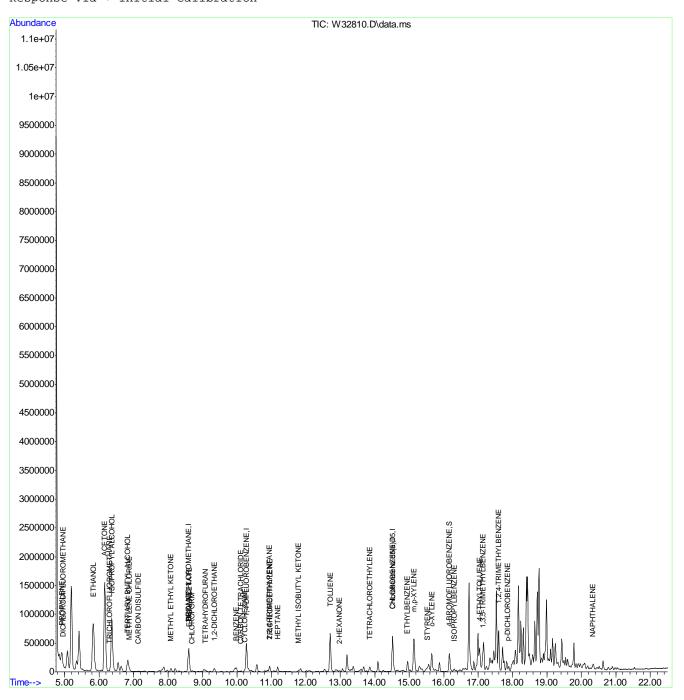
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 17 00:24:54 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m  $\times$  0.32mm ID  $\times$  1.0 um

QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



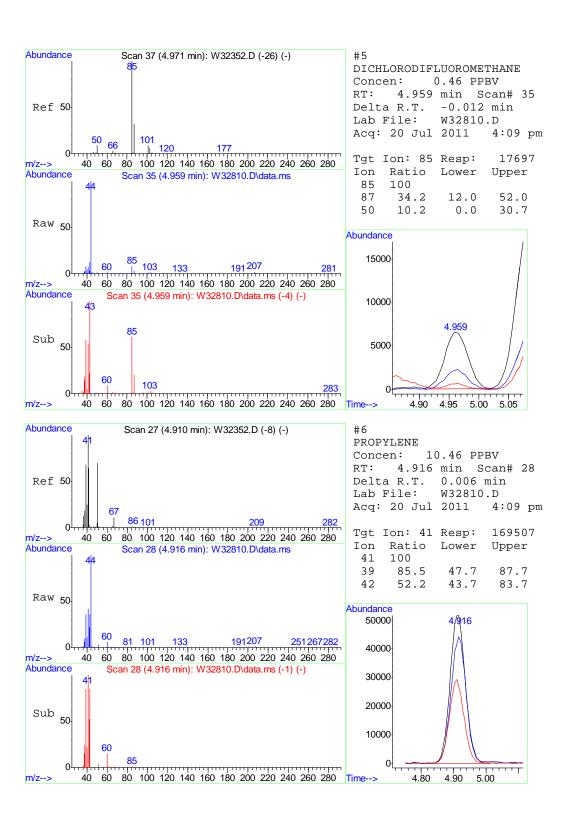
MW1322.M Wed Aug 17 00:24:55 2011 ACC-VOA-DESK1

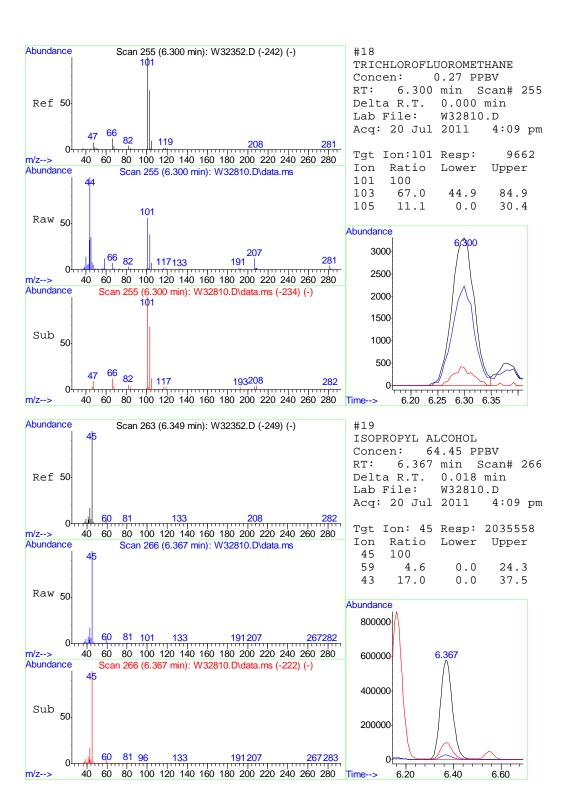
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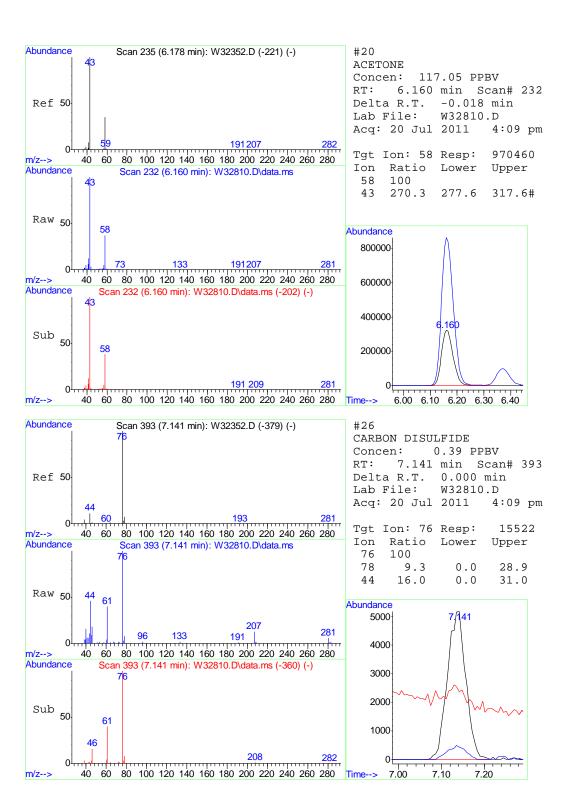
ACCUTEST

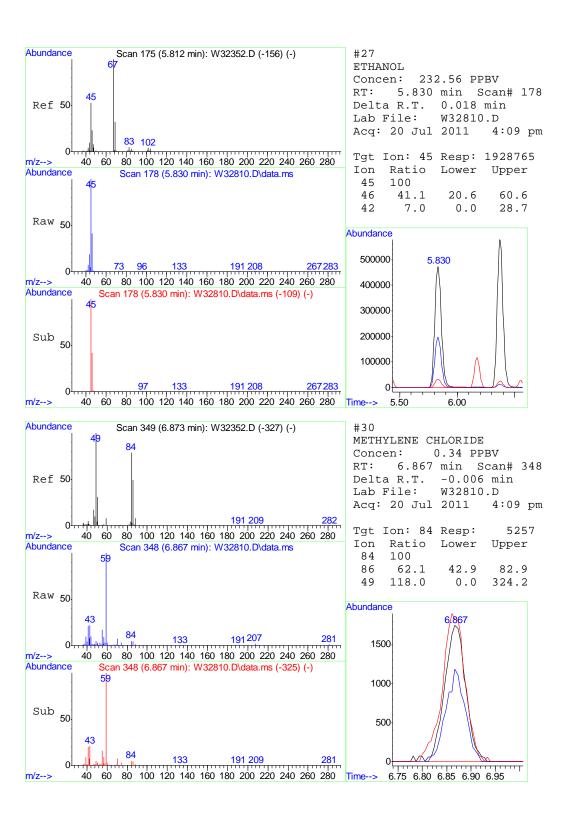
JA81330

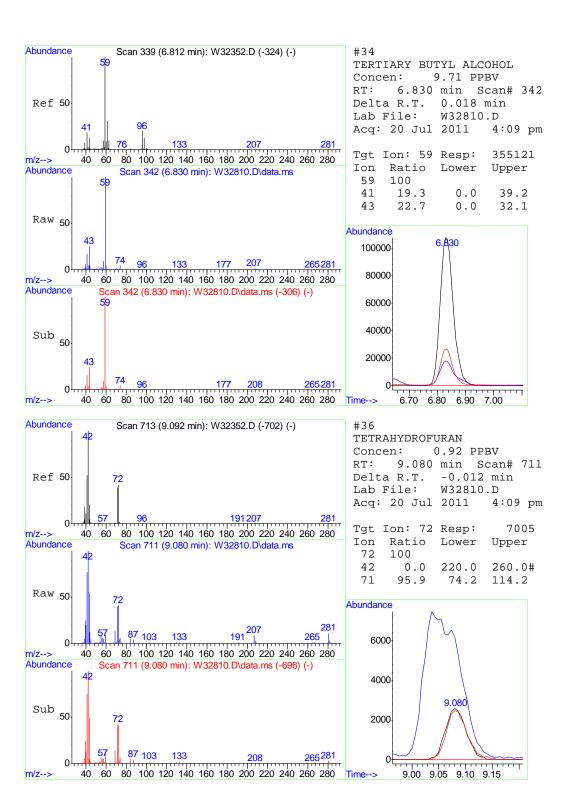
LABORATORIES

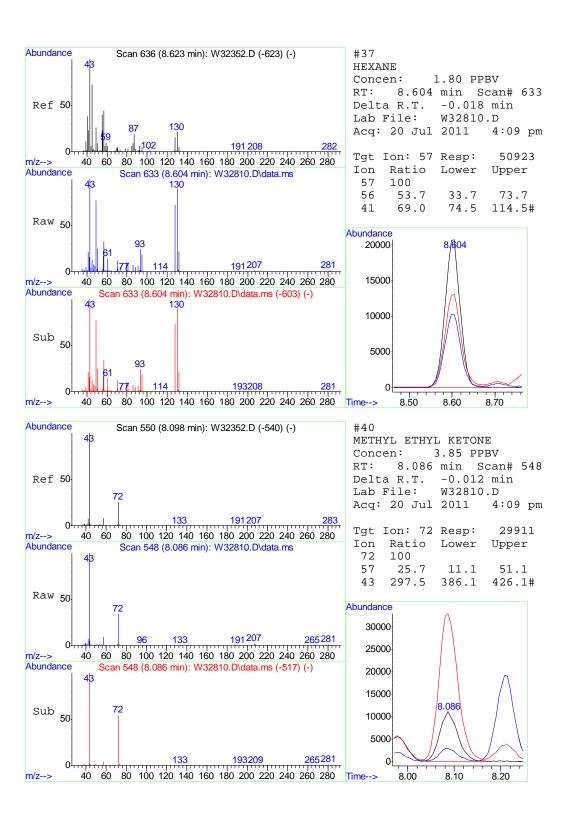


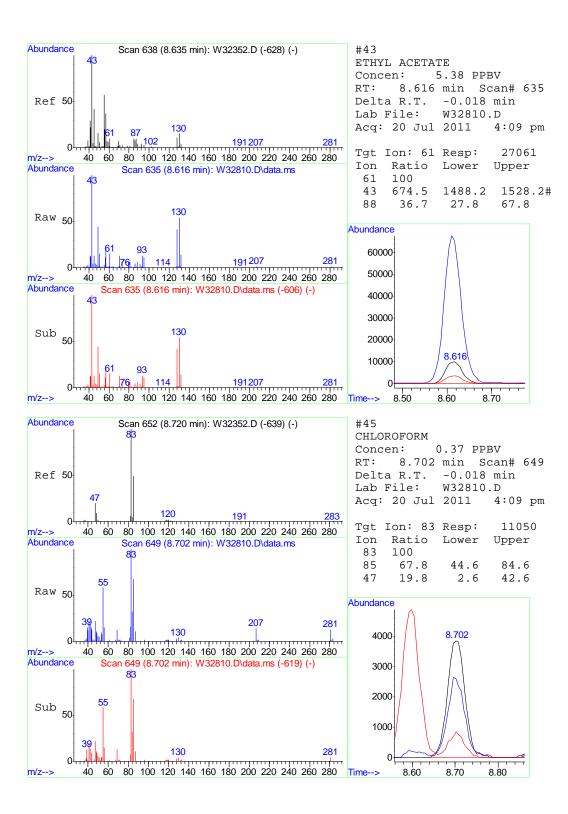


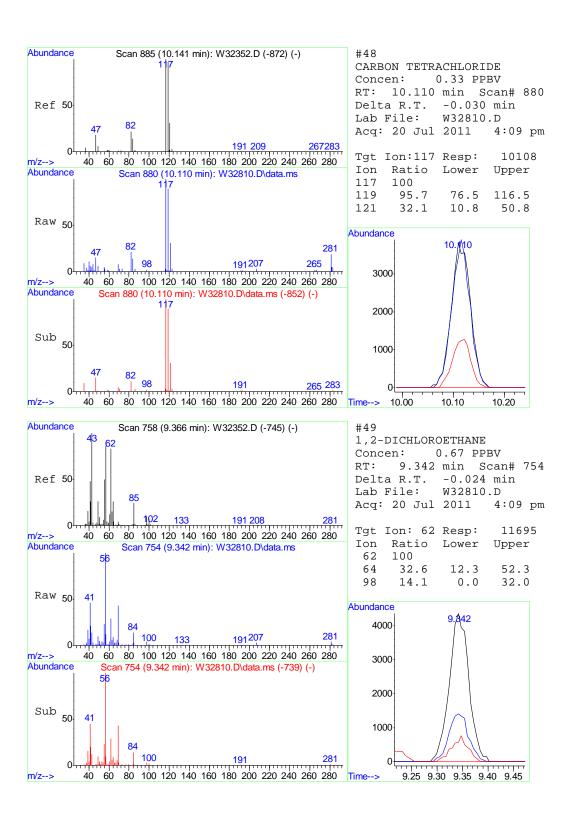


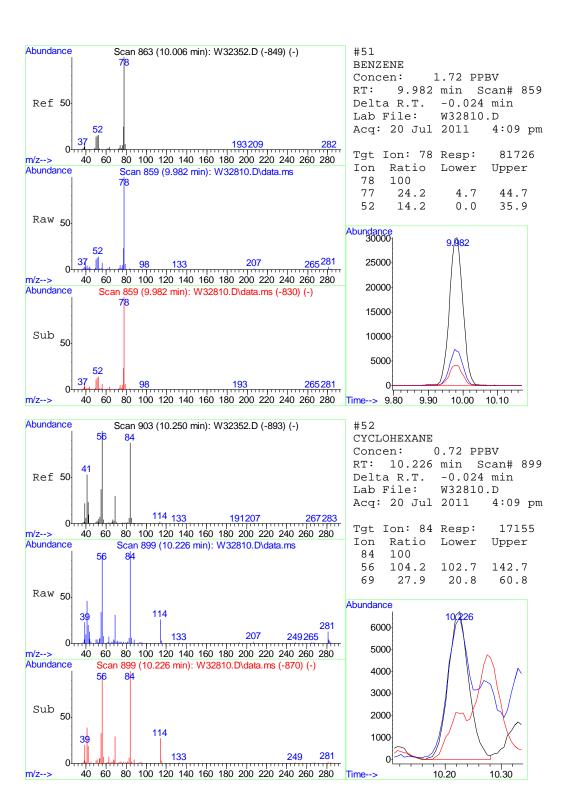


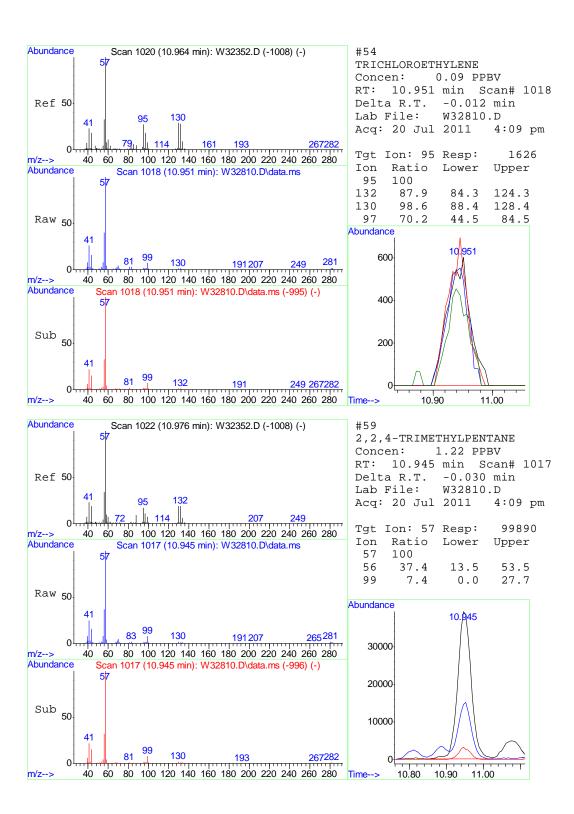


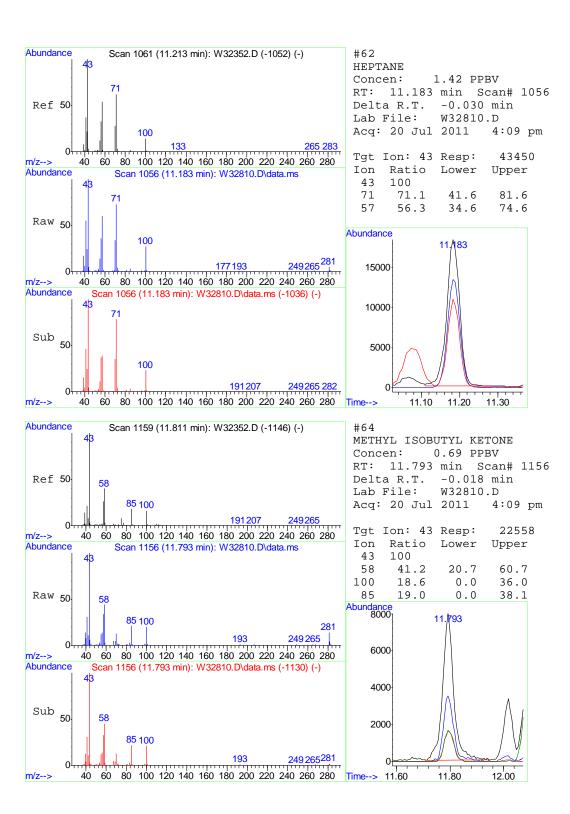


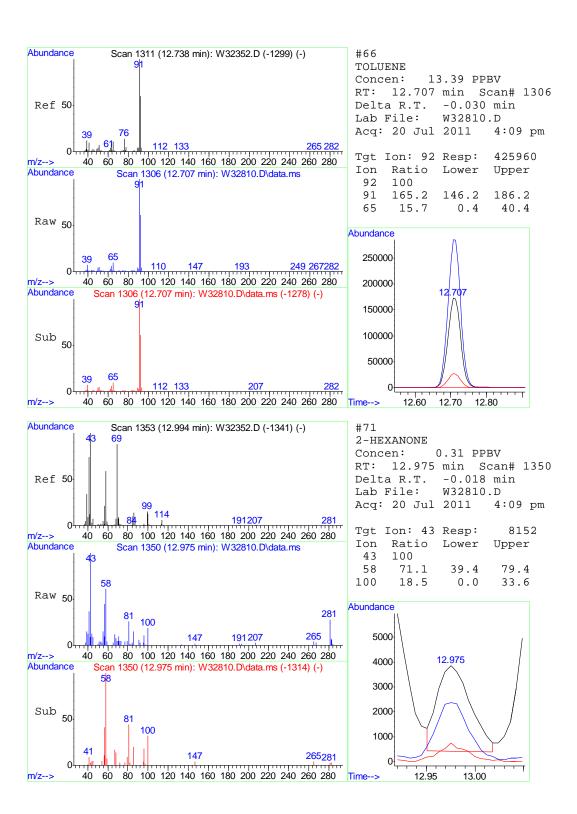


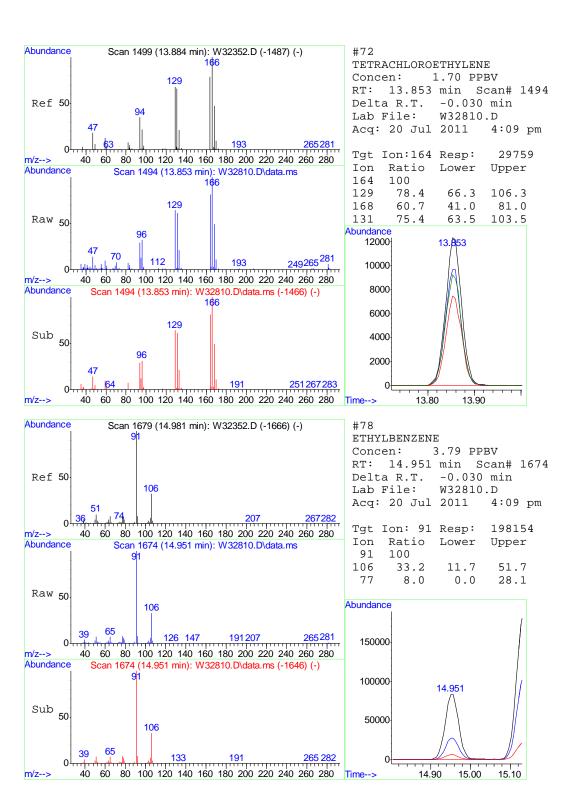


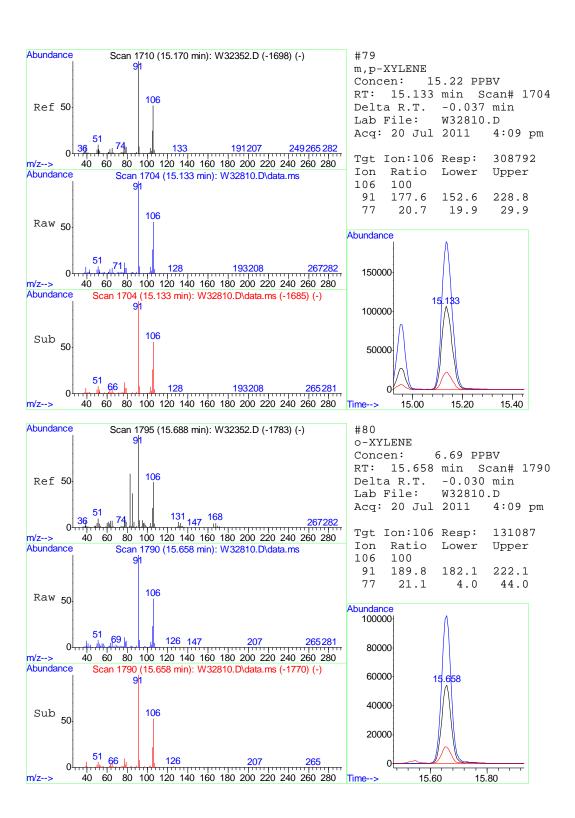


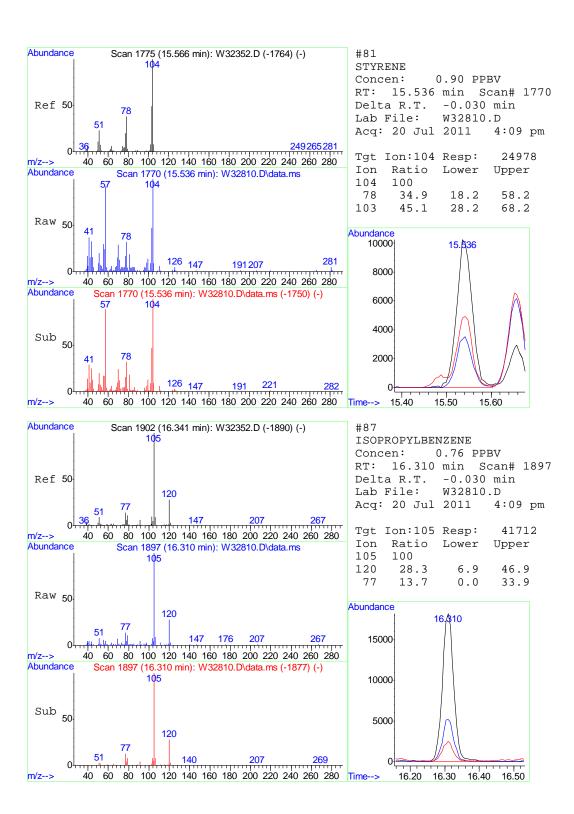


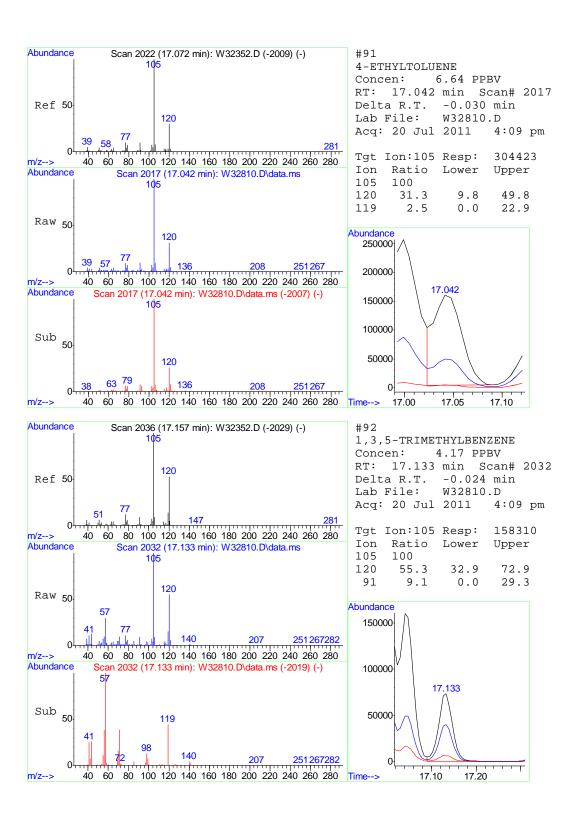


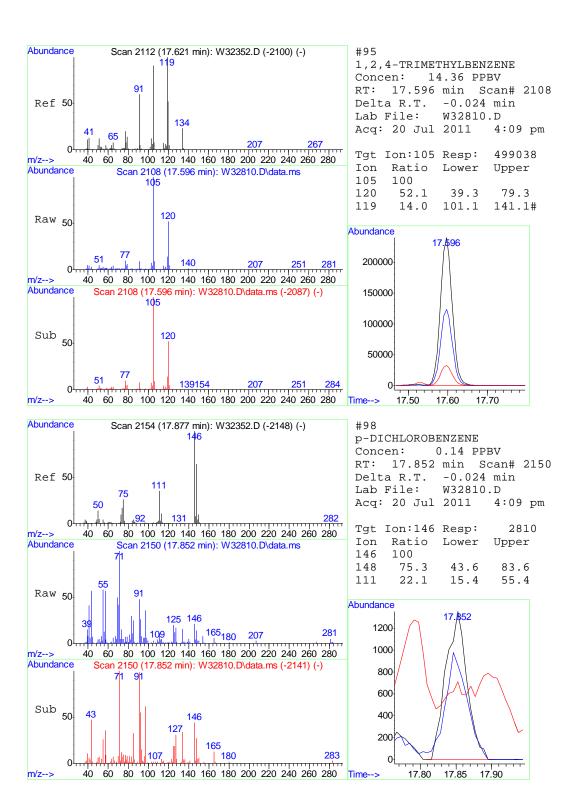


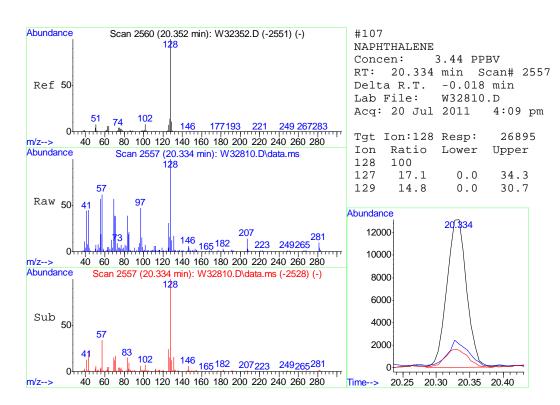












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ACCUTEST.
JA81330

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32819.D

Acq On : 20 Jul 2011 10:17 pm Operator : YOUMINH

Sample : JA81330-4 Misc : MS15514,VW1341,50,,,,,1 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 17 00:25:53 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
Inte	rnal Standards							
1)	BROMOCHLOROMETHANE	8.592	128	158434	10.00	PPBV	,	-0.02
50)	1,4-DIFLUOROBENZENE	10.274	114	810651	10.00	PPBV	,	-0.02
69)	CHLOROBENZENE-D5	14.518	82	355904	10.00	PPBV	,	-0.03
106)	Chlorobenzene-d5(a)	14.518	82	354641	10.00	PPBV	·	-0.03
Syst	em Monitoring Compound	ls						
85)	4-BROMOFLUOROBENZENE	16.164	95	178138	4.63	PPBV	,	-0.03
Sp	iked Amount 5.000	Range 65	- 128	Recove	ery =	92.	60%	Š
Targ	et Compounds							alue
- ,	PROPYLENE	4.910		32258	1.63	PPBV	,	86
19)	ISOPROPYL ALCOHOL	6.342	45	513827	13.31	PPBV	,	98
20)	ACETONE	6.165	58	196022	19.34 42.79	PPBV	,	93
	ETHANOL	5.806	45	433801	42.79	PPBV	,	99
34)	TERTIARY BUTYL ALCOHO	L 6.812	59	79015	1.77			
36)	TETRAHYDROFURAN	9.092	72	1511		PPBV	#	69
37)	HEXANE	8.604	57	13618	0.39	PPBV	#	84
40)	METHYL ETHYL KETONE			6282	0.66	PPBV	#	70
	ETHYL ACETATE	8.616	61	6011	0.98	PPBV	#	1
49)	1,2-DICHLOROETHANE	9.348	62	2455	0.11	PPBV	,	93
51)	BENZENE	9.982	78	17153	0.28	PPBV	,	99
52)	CYCLOHEXANE	10.226	84	4125	0.13	PPBV	#	2
59)	2,2,4-TRIMETHYLPENTAN	IE 10.951	57	17153 4125 24461	0.23			
62)	HEPTANE	11.183	43	11008	0.29	PPBV	,	97
64)	METHYL ISOBUTYL KETON	IE 11.799	43	5856	0.14	PPBV	,	88
66)	TOLUENE	12.707	92	85130	2.05	PPBV	,	98
72)	TETRACHLOROETHYLENE	13.853	164	4953	0.21	PPBV	,	93
78)	ETHYLBENZENE	14.950	91	36544	0.52			99
79)	m,p-XYLENE	15.133	106	54580 22491 4116	1.99	PPBV	r	100
80)	O-XYLENE	15.658	106	22491	0.85			98
81)	STYRENE	15.536	104	4116	0.11			97
87)	ISOPROPYLBENZENE	16.304	105	7452	0.10	PPBV	,	97
	4-ETHYLTOLUENE	17.041	105	45024	0.73			
92)	1,3,5-TRIMETHYLBENZEN					PPBV	,	99
	1,2,4-TRIMETHYLBENZEN					PPBV	#	32
	NAPHTHALENE	20.333		3957		PPBV		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32819.D

Acq On : 20 Jul 2011 10:17 pm

Operator : YOUMINH

Sample : JA81330-4

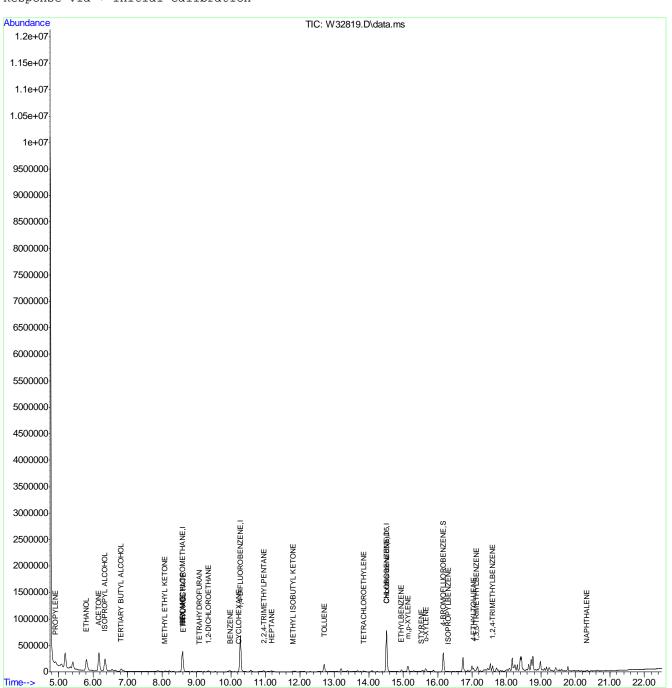
Misc : MS15514,VW1341,50,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 17 00:25:53 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

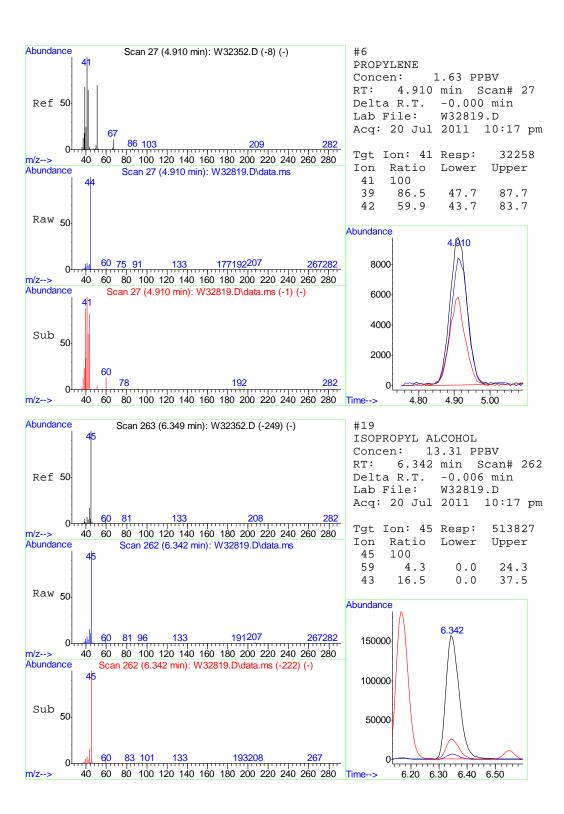


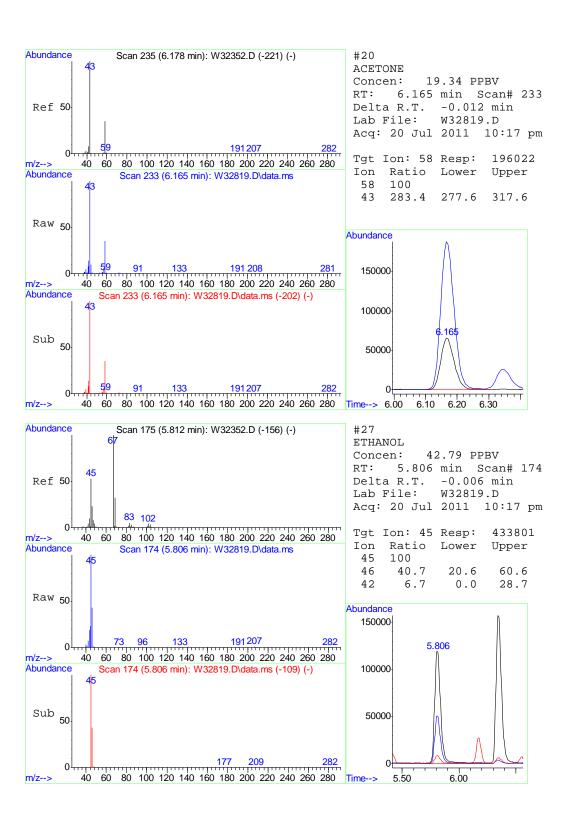
MW1322.M Wed Aug 17 00:25:54 2011 ACC-VOA-DESK1

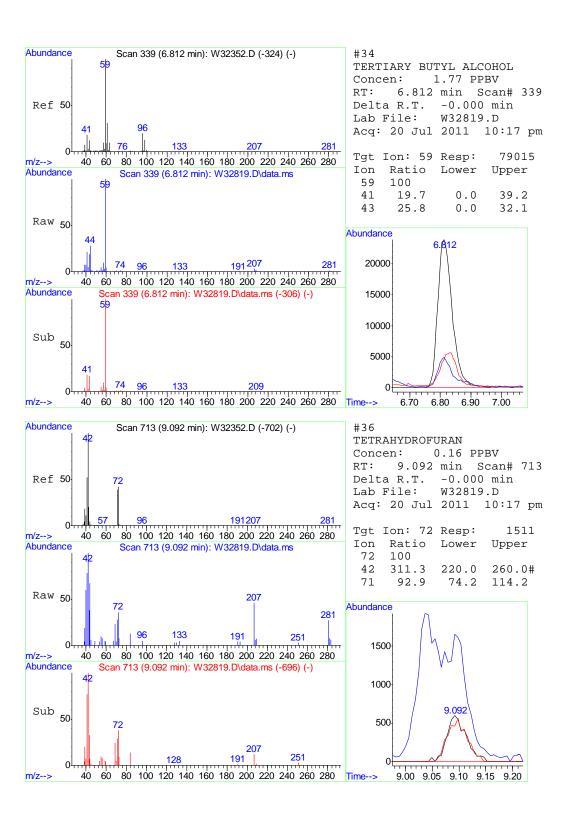
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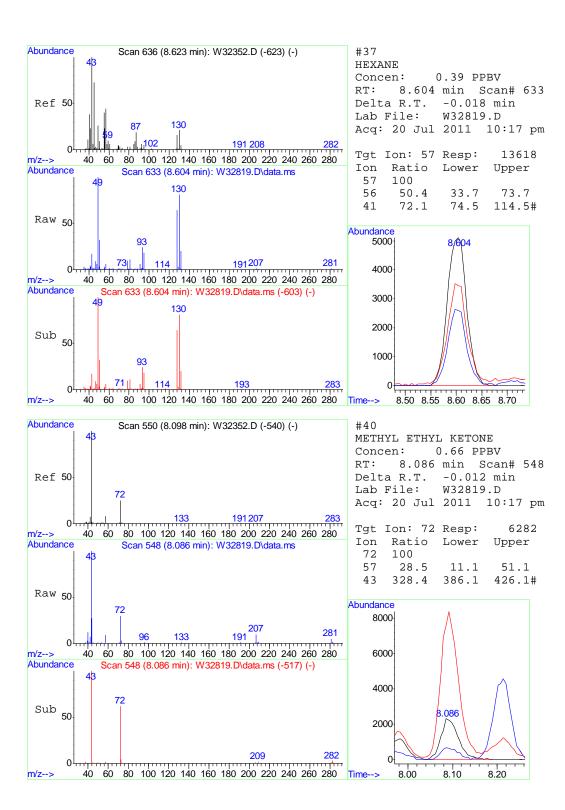
JA81330
LABORATORIES

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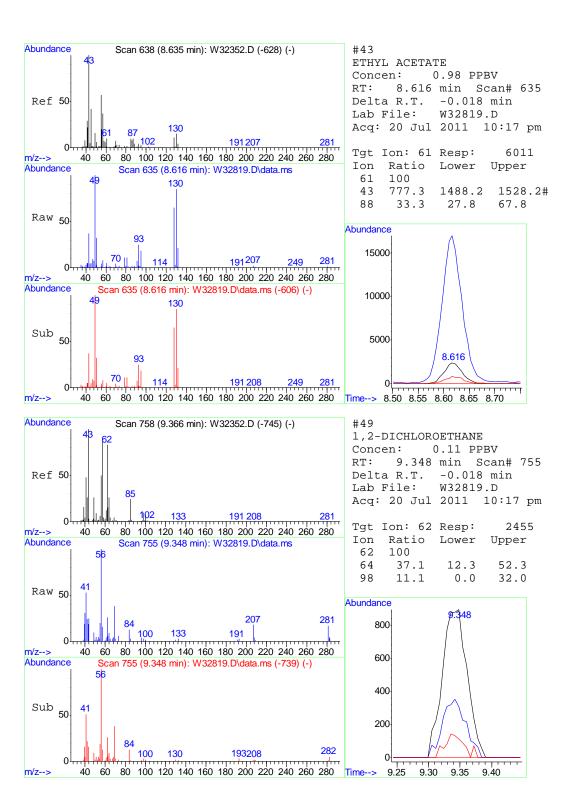


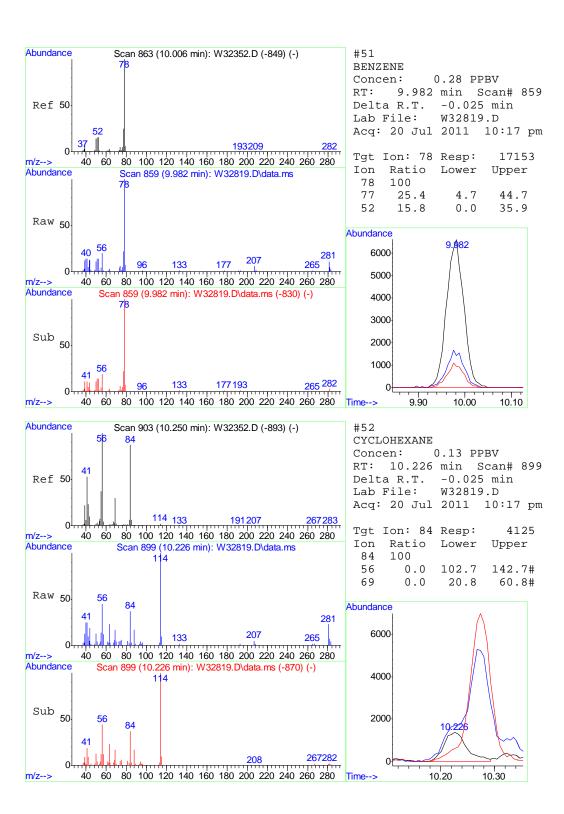


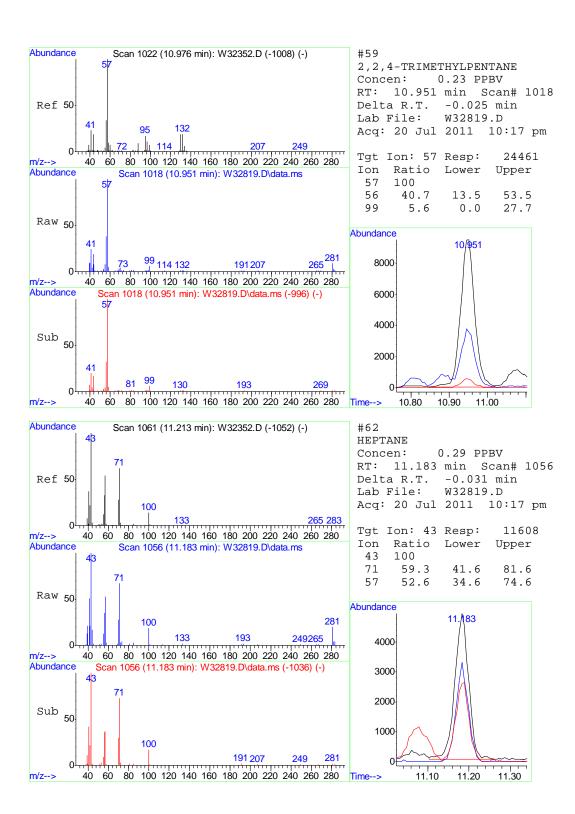


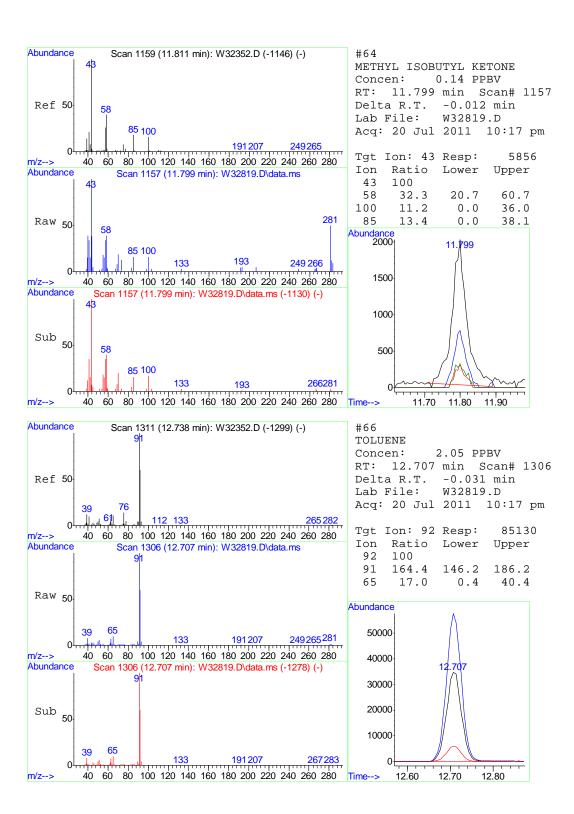


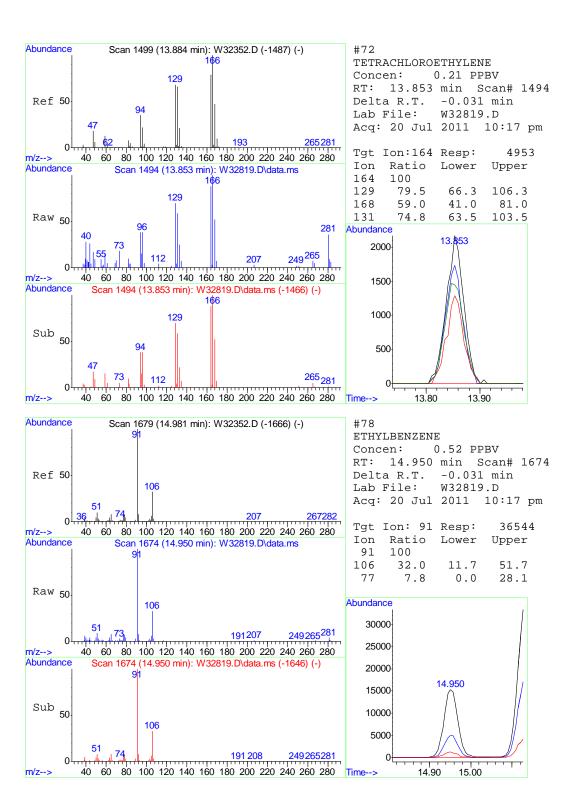
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JA81330

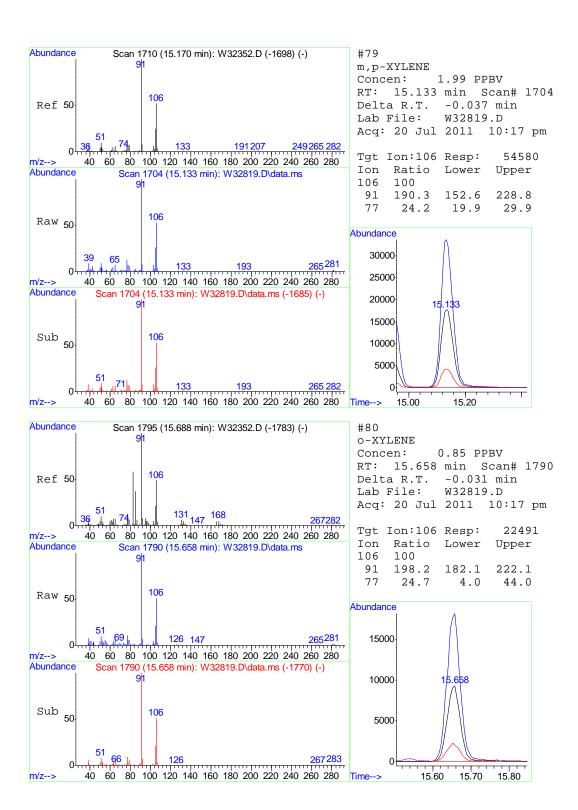


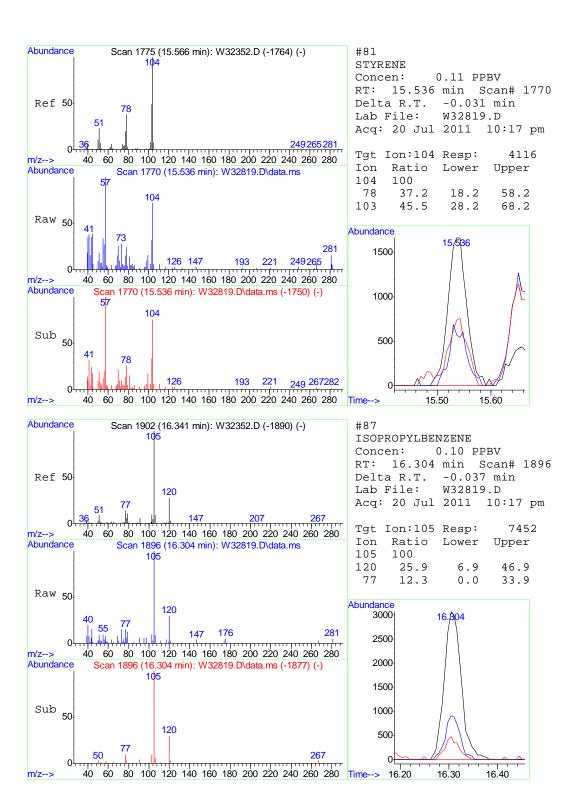


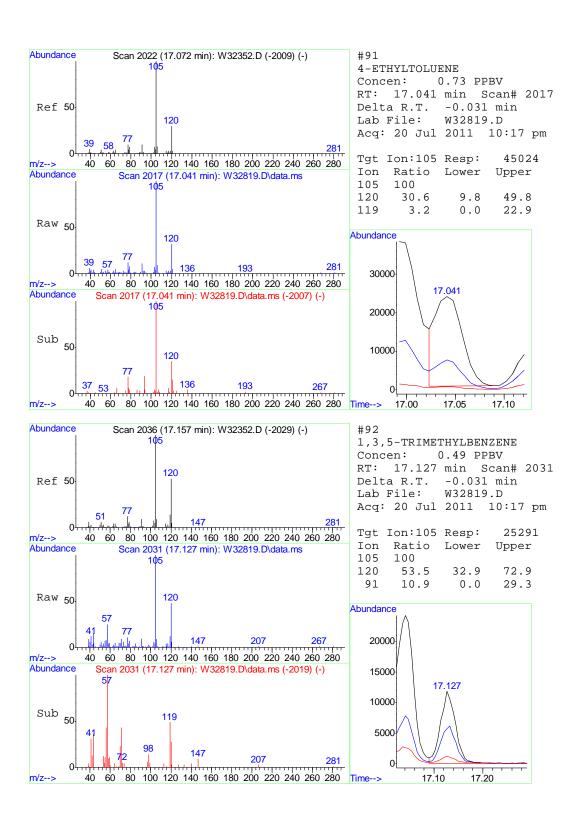


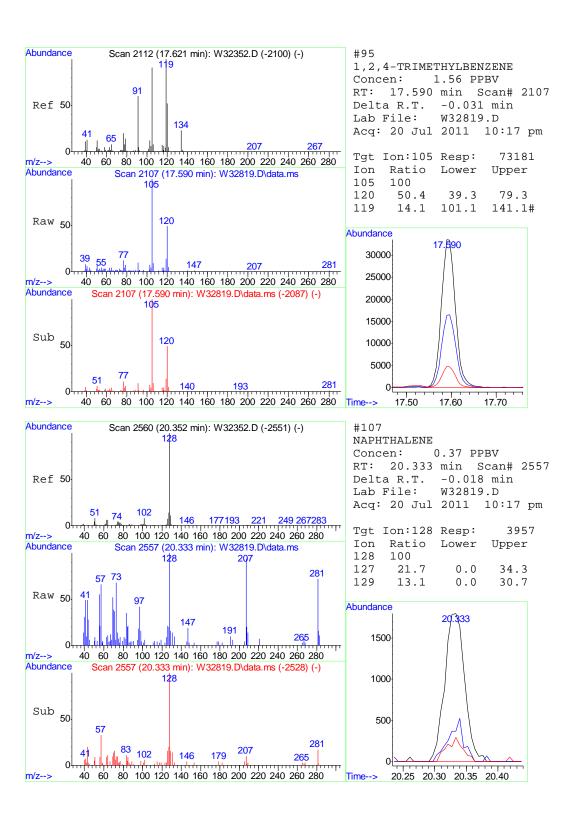












Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32811.D

Acq On : 20 Jul 2011 4:50 pm Operator : YOUMINH

: JA81330-5

Sample : MS15514,VW1341,400,,,,1 Misc ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 17 00:25:01 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits I	ev(	Min)
Internal Standards							
1) BROMOCHLOROMETHANE	8.598	128	117296 569724	10.00	PPBV	-	0.02
50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5	10.281	114	569724	10.00	PPBV	-	0.02
	14.518	82	241545	10.00	PPDM	_	0.03
106) Chlorobenzene-d5(a)	14.518	82	238996	10.00	PPBA	_	0.03
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE							0.02
Spiked Amount 5.000	Range 65	- 128	Recov	ery =	104.6	50%	
Target Compounds						Qva	lue
5) DICHLORODIFLUOROMETHANE	4.965	85		2.37	PPBV		98
8) CHLOROMETHANE	5.099			1.22	PPBV		91
18) TRICHLOROFLUOROMETHANE	6.312	101	35464 1940533	1.08	PPBV		99
19) ISOPROPYL ALCOHOL	6.434	45	1940533	67.89	PPBV		99
20) ACETONE	6.166	58	707416 5158	94.27	PPBV	#	84
26) CARBON DISULFIDE	7.153	76	5158	0.14	PPBV	#	59
27) ETHANOL	5.885	45	12766511	1700.75	PPBV		98
30) METHYLENE CHLORIDE	6.867	84	4111 3358	0.29	PPBV		89
36) TETRAHYDROFURAN	9.086	72	3358	0.49	PPBV	#	78
37) HEXANE	8.604	57	3358 13426 16723 26578 24079	0.53	PPBV	#	86
40) METHYL ETHYL KETONE	8.092	72	16723	2.38	PPBV	#	62
43) ETHYL ACETATE	8.616	61	26578	5.84	PPBV	#	1
45) CHLOROFORM	8.708	83	24079	0.88	PPBV		98
48) CARBON TETRACHLORIDE	10.116	117	5193	0.19	PPBV		98
49) 1,2-DICHLOROETHANE	9.348	62	2779 26803	0.18	PPBV		99
51) BENZENE	9.982	78	26803	0.62	PPBV		97
52) CYCLOHEXANE	10.226	84	6354 677	0.29	PPBV		68
54) TRICHLOROETHYLENE	10.951	95	17020	0.04	PPBV		84 91
59) 2,2,4-TRIMETHYLPENTANE 62) HEPTANE	10.951	5 / 4 2	1/239	0.23	DDD77		82
64) METHYL ISOBUTYL KETONE	11.163	43	10346	0.00	PPBV		96
66) TOLUENE	12.707				PPBV		99
71) 2-HEXANONE	12.707	43	4470	0 19	PPBV		91
72) TETRACHLOROETHYLENE	13 853	164	3215	0.10	PPBV		94
78) ETHYLBENZENE	14 957	91	3215 27097	0.20	PPBV		97
79) m,p-XYLENE	15.133	106	33988		PPBV		91
80) o-XYLENE	15.133 15.658	106	11000		PPBV		96
81) STYRENE	15.542	104	21001	0.82	PPBV		98
	17.048	105	9263	0.22	PPBV		98
91) 4-ETHYLTOLUENE 92) 1,3,5-TRIMETHYLBENZENE	17.127	105	9542	0.27	PPBV		97
95) 1,2,4-TRIMETHYLBENZENE	17.596	105	35582	1.12	PPBV	#	33
95) 1,2,4-TRIMETHYLBENZENE 98) p-DICHLOROBENZENE	17.852	146	19768	1.06	PPBV		97
107) NAPHTHALENE			4157801				98

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed



Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32811.D

Acq On : 20 Jul 2011 4:50 pm

Operator : YOUMINH

Sample : JA81330-5

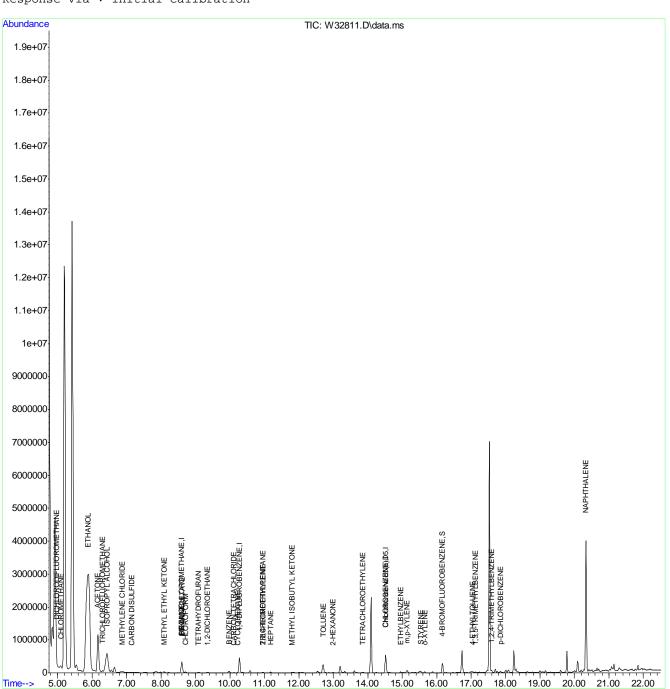
Misc : MS15514,VW1341,400,,,,1 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 17 00:25:01 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

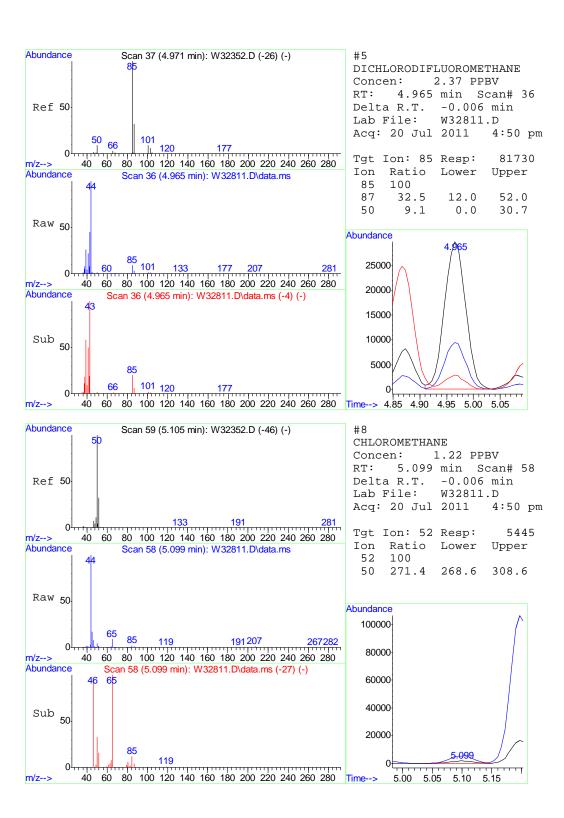


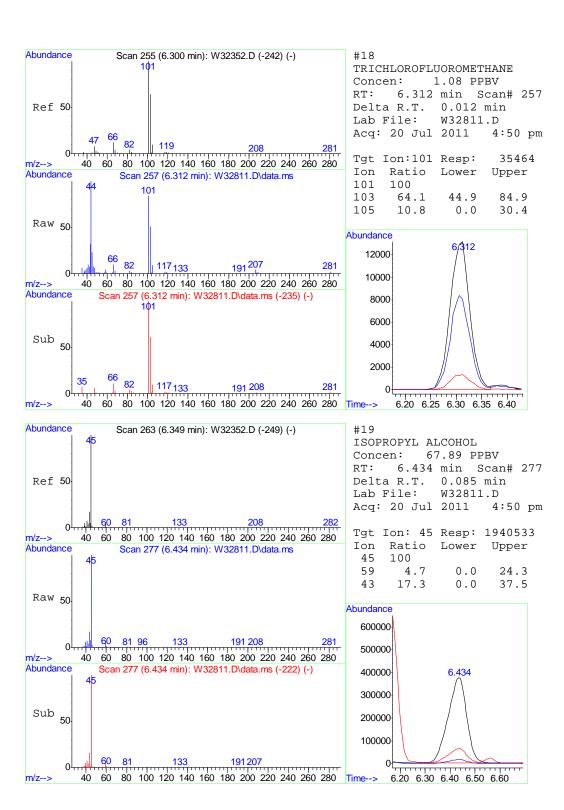
MW1322.M Wed Aug 17 00:25:01 2011 ACC-VOA-DESK1

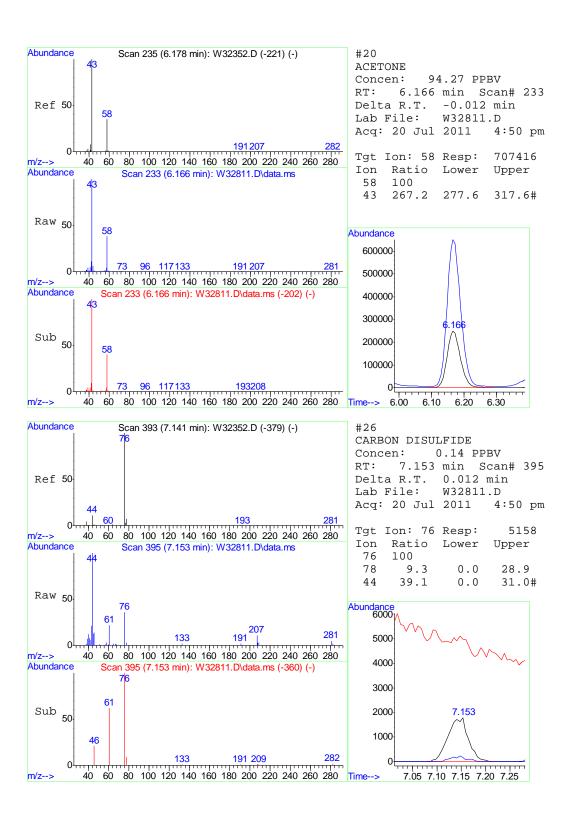
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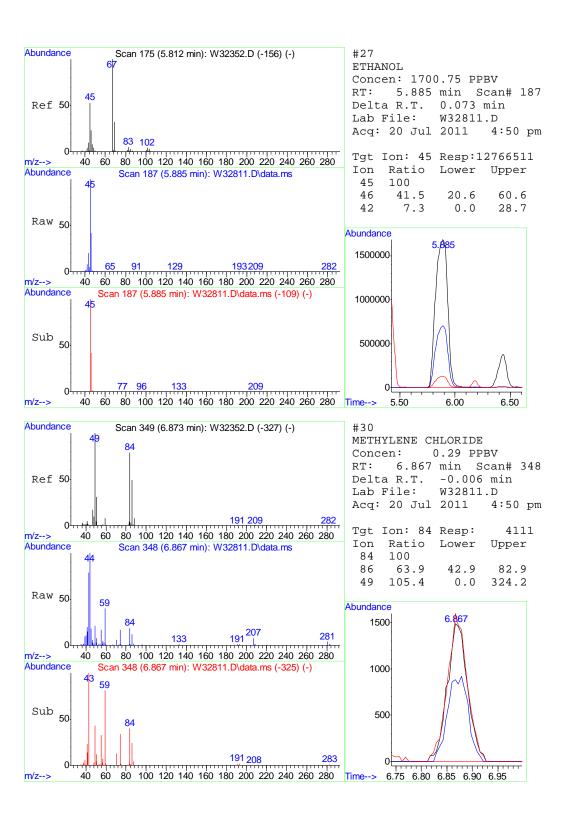
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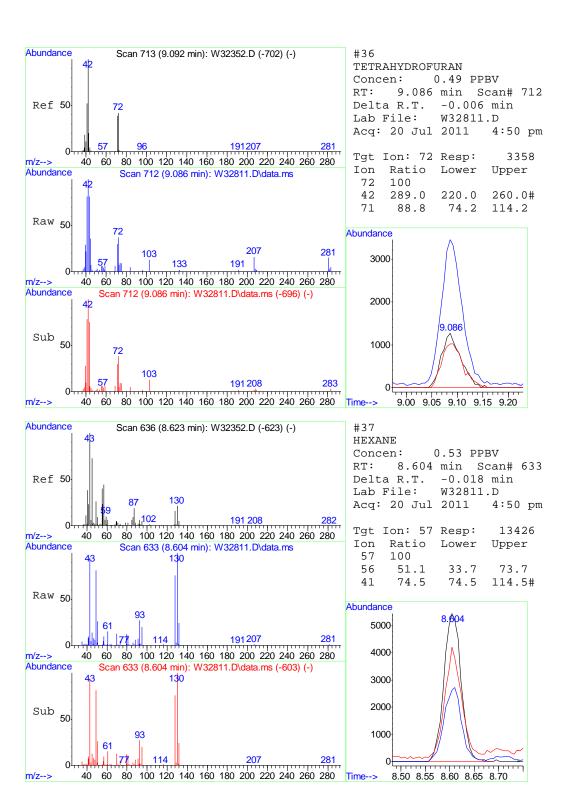


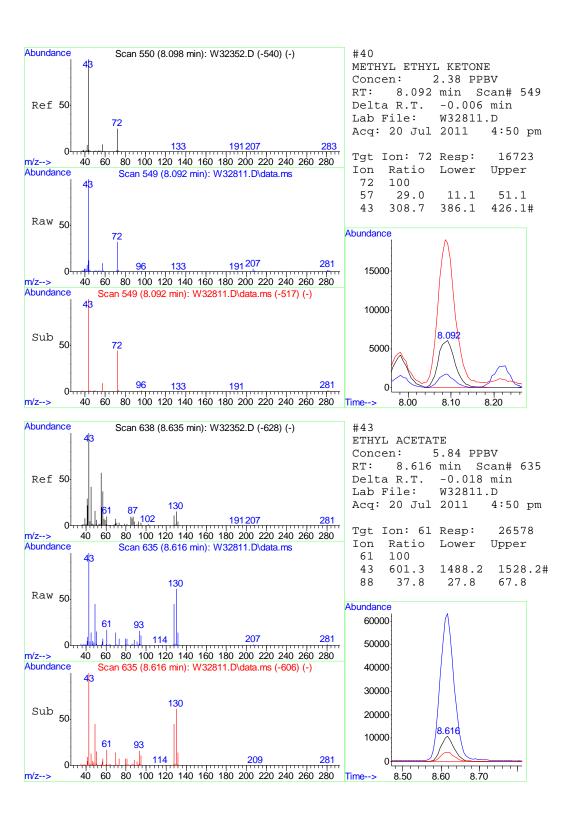


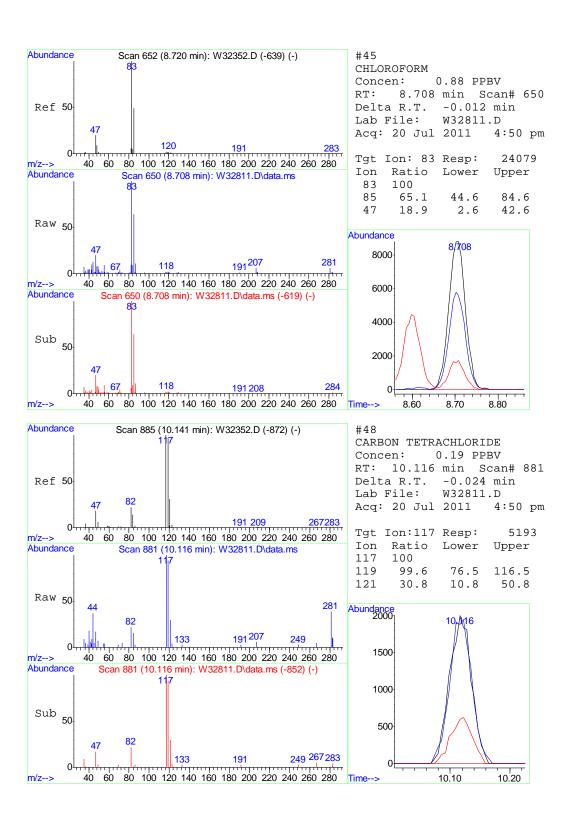


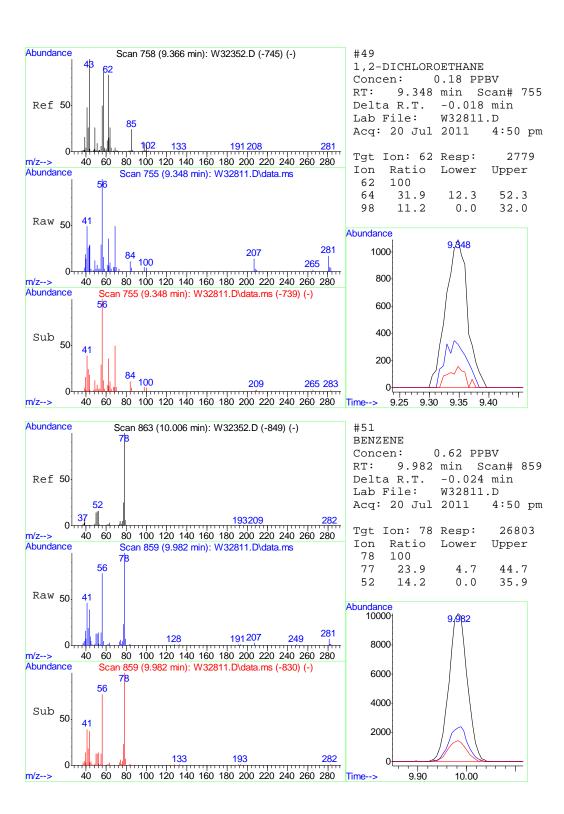
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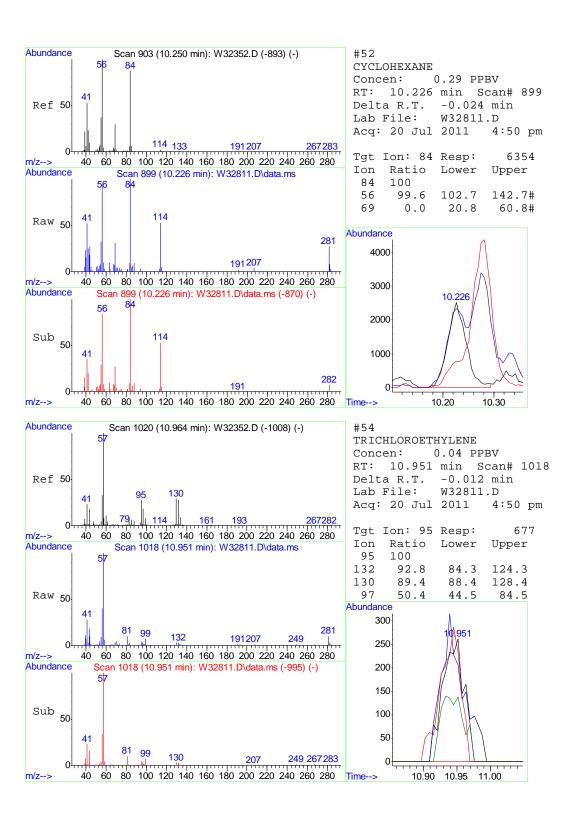


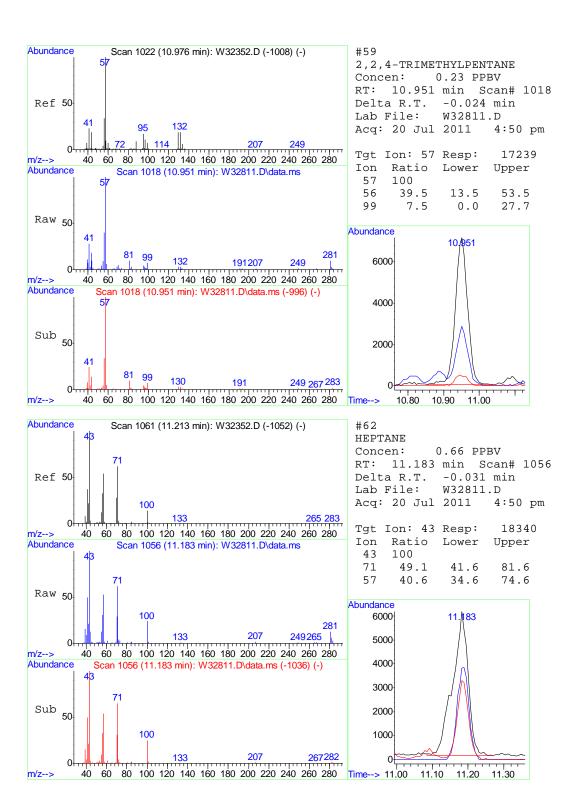


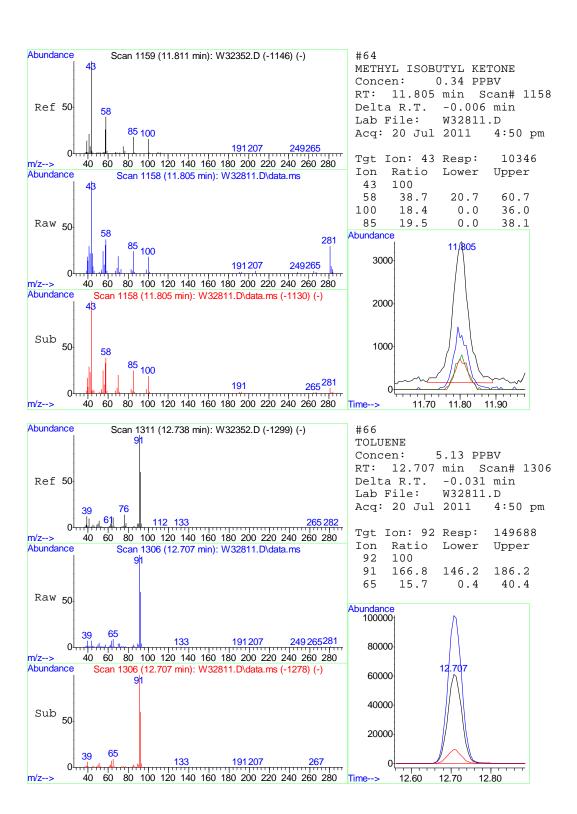


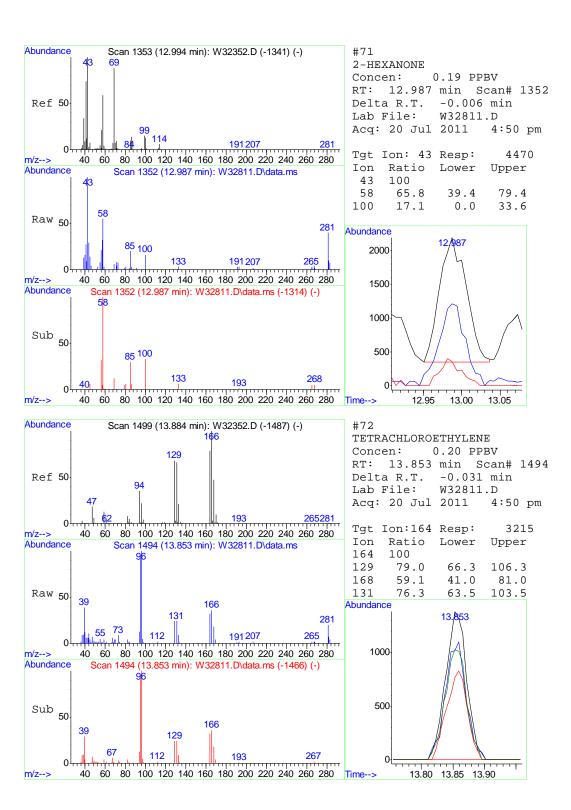


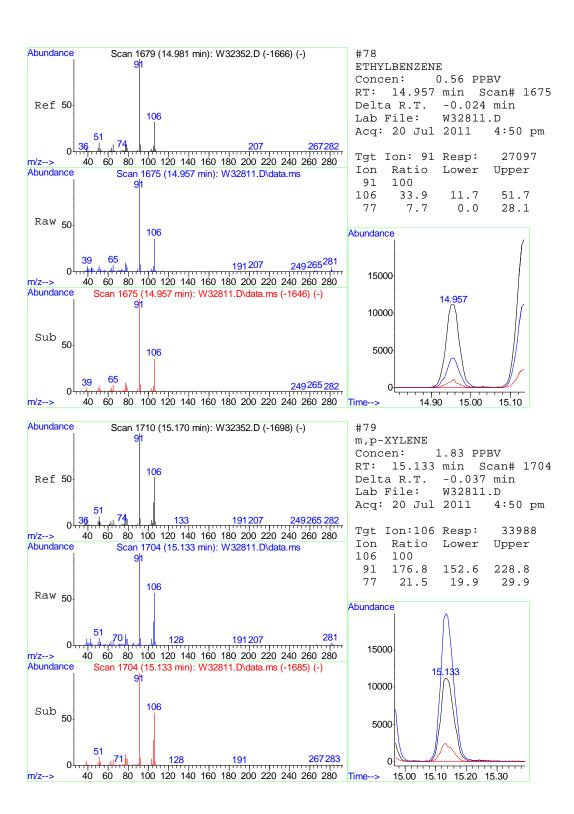




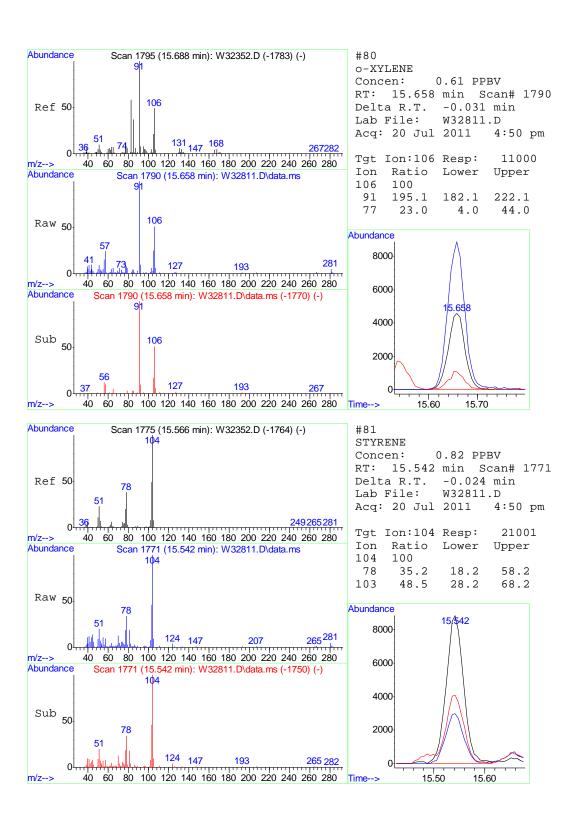


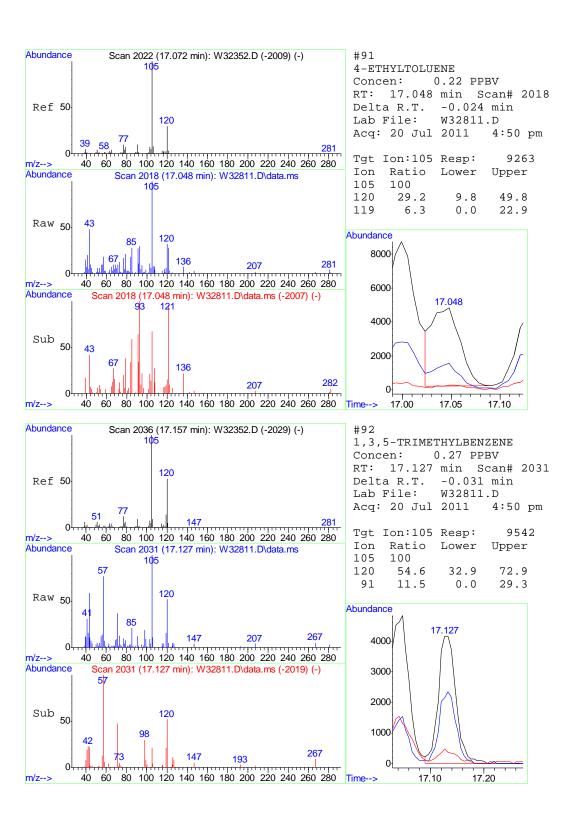


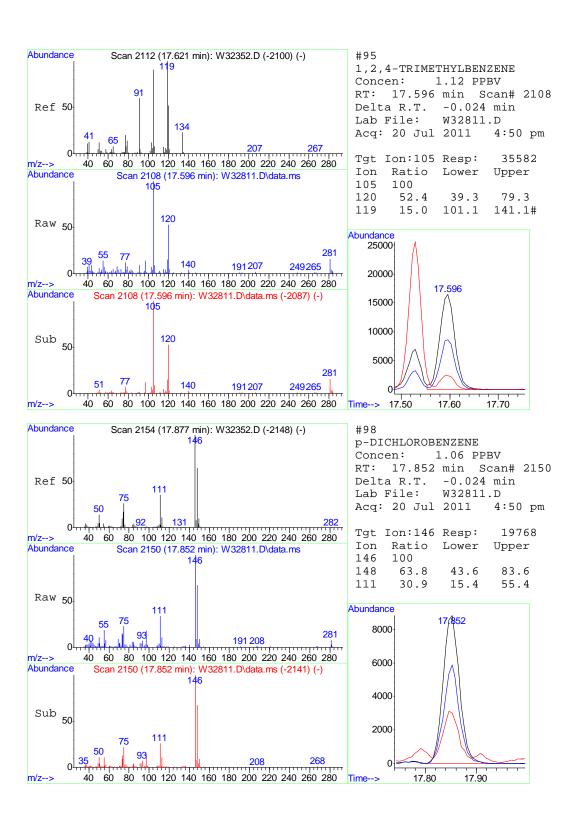


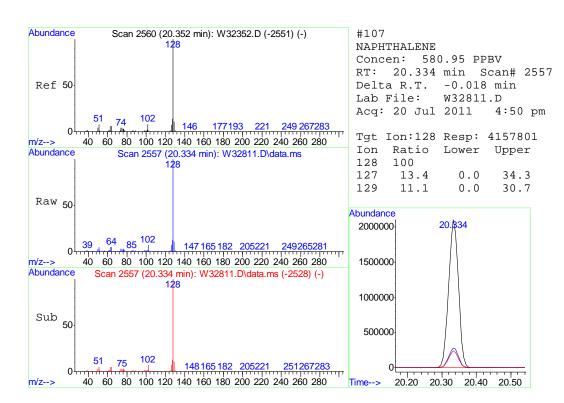


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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32833.D

Acq On : 21 Jul 2011 12:53 pm Operator : YOUMINH

Sample : JA81330-5 Misc : MS15514,VW1342,40,,,,,1 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 17 00:26:33 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits I	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	8.586	128	168155	10.00	PPBV	-0.03
50) 1,4-DIFLUOROBENZENE	10.269	114	884260	10.00	PPBV	-0.03
69) CHLOROBENZENE-D5	14.518	82	414296	10.00	PPBV	-0.03
106) Chlorobenzene-d5(a)	14.518	82	409887	10.00	PPBV	-0.03
System Monitoring Compounds						
85) 4-BROMOFLUOROBENZENE	16.164	95	201973	4.51	PPBV	-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	90.2	20%
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE	4.965	85	11487	0.23	PPBV	97
18) TRICHLOROFLUOROMETHANE	6.288	101	5478	0.12	PPBV	95
19) ISOPROPYL ALCOHOL	6.349					
20) ACETONE	6.160		106284		PPBV	
27) ETHANOL	5.806		2232407			
37) HEXANE	8.592		4848		PPBV	
,	8.098		2726		PPBV	
43) ETHYL ACETATE	8.610		4932		PPBV	
45) CHLOROFORM			3848		PPBV	94
66) TOLUENE			21414		PPBV	
79) m,p-XYLENE	15.134				PPBV	
107) NAPHTHALENE	20.328	128	261975 	21.34	PPBV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32833.D

Acq On : 21 Jul 2011 12:53 pm

Operator : YOUMINH Sample : JA81330-5

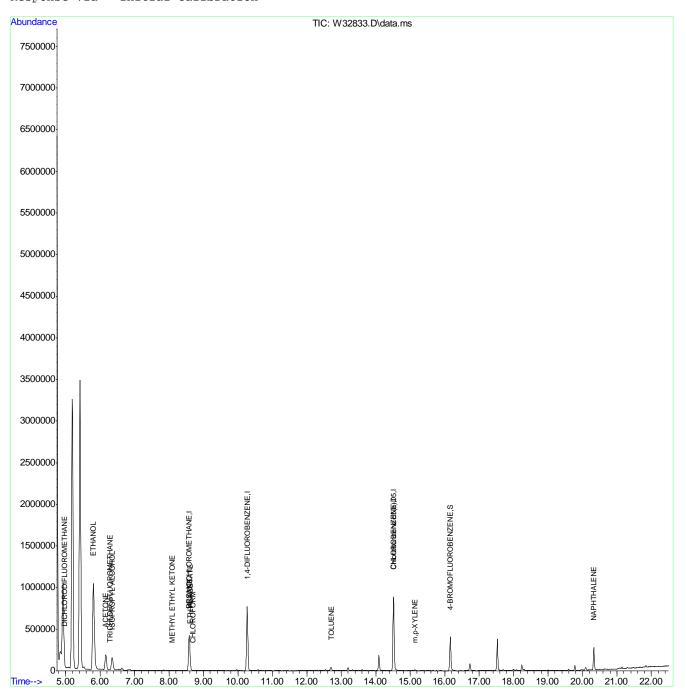
Misc : MS15514,VW1342,40,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 17 00:26:33 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

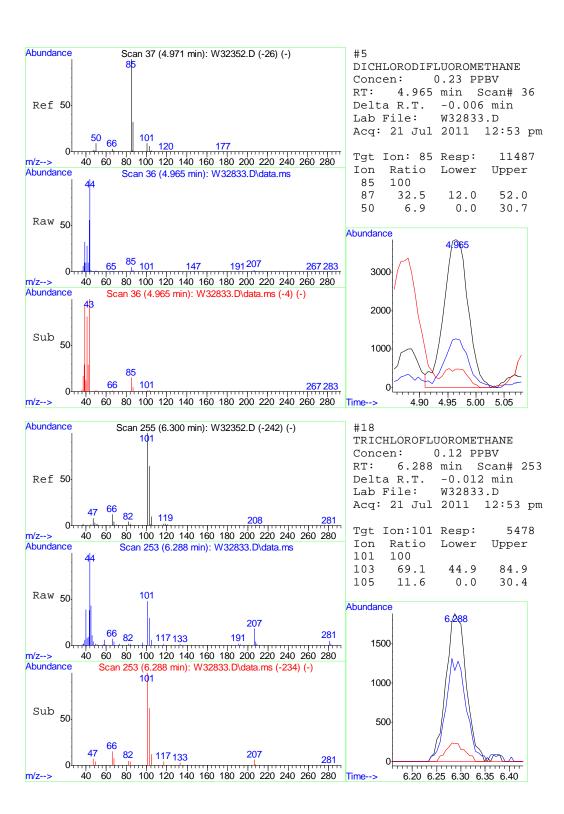


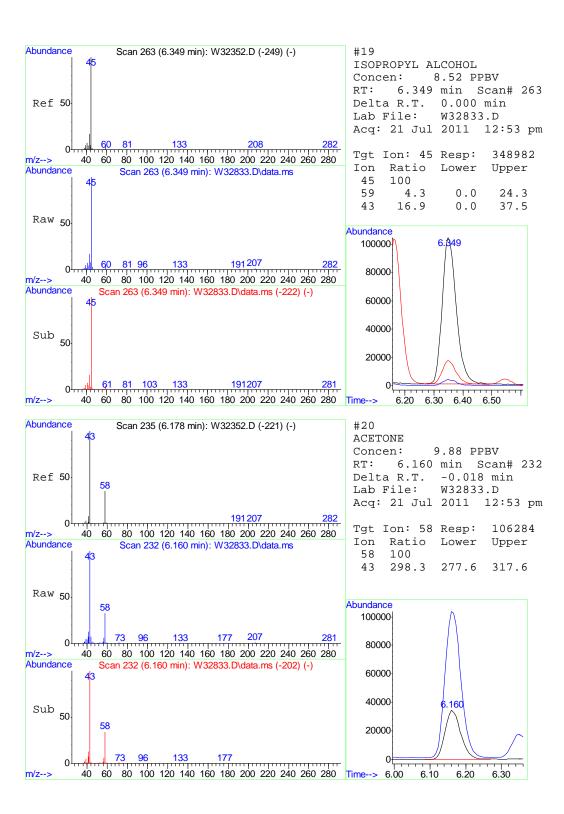
MW1322.M Wed Aug 17 00:26:33 2011 ACC-VOA-DESK1

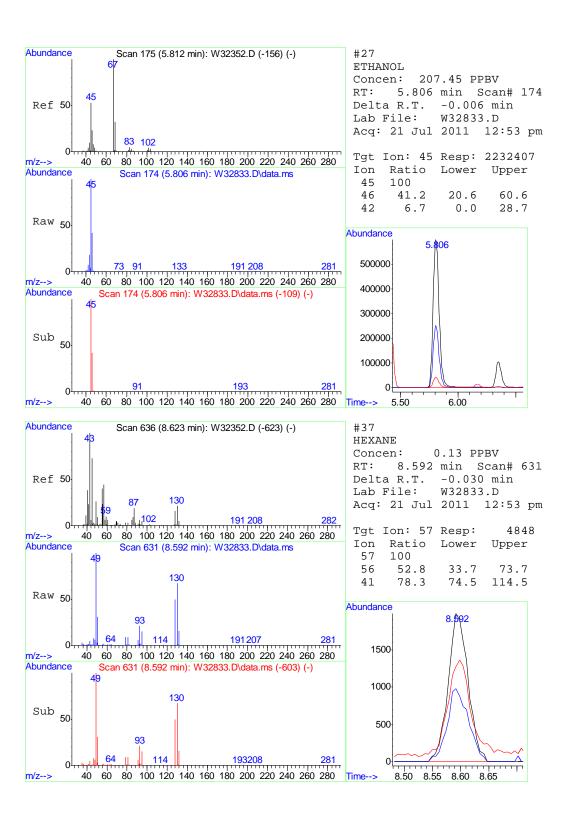
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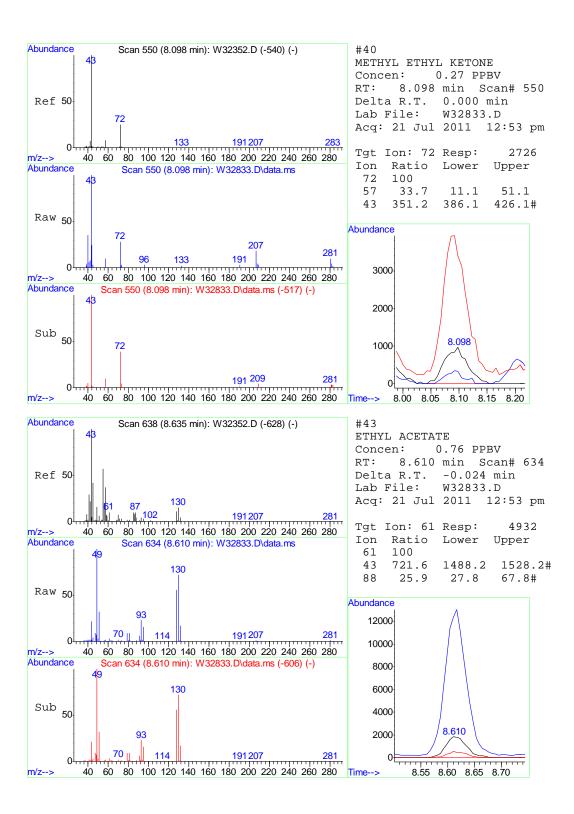
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LABORATORIES

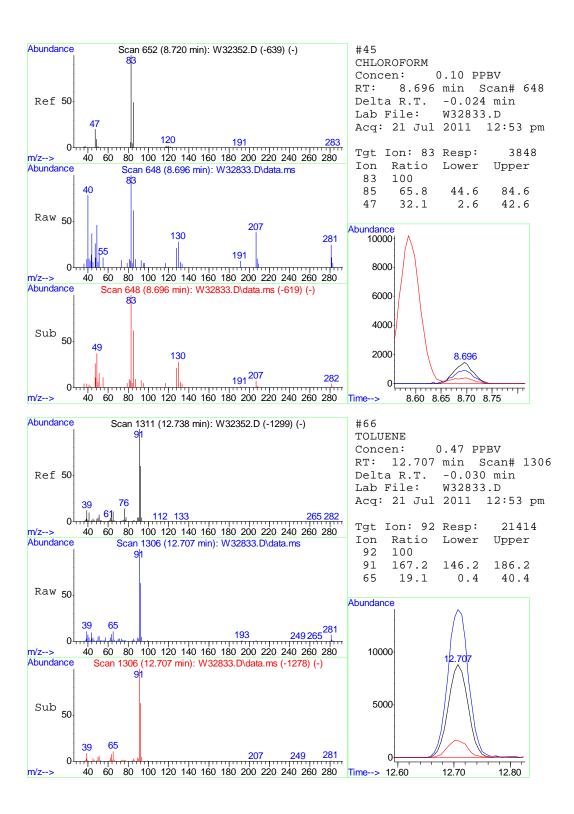
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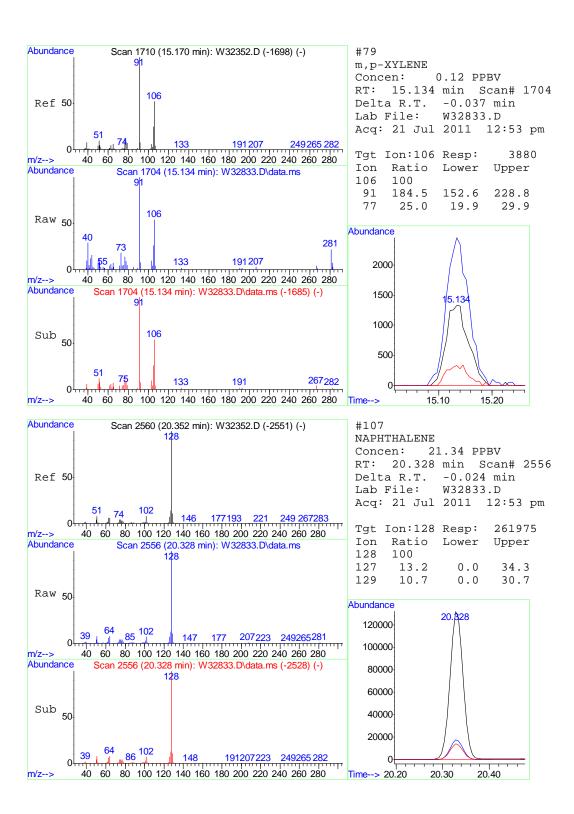








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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32813.D

Acq On : 20 Jul 2011 6:12 pm

Operator : YOUMINH Sample : JA81330-6

Sample : JA81330-6
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 17 00:25:13 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update: Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
	rnal Standards							
	BROMOCHLOROMETHANE	8.592						-0.02
	1,4-DIFLUOROBENZENE	10.275	114	629032 265389	10.00	PPBV		-0.02
,	CHLOROBENZENE-D5							
106)	Chlorobenzene-d5(a)	14.518	82	263082	10.00	PPBV		-0.03
Syst	em Monitoring Compounds							
85)	4-BROMOFLUOROBENZENE	16.164				PPBV		-0.03
Sp	iked Amount 5.000	Range 65	- 128	Recove	ery =	100.	80%	
Targ	et Compounds						Qv	ralue
5)	DICHLORODIFLUOROMETHANE	4.959	85		0.46			97
6)	PROPYLENE	4.916	41	72917	4.42	PPBV	#	73
18)	TRICHLOROFLUOROMETHANE	6.294	101	10663	0.29			98
19)	ISOPROPYL ALCOHOL	6.367		486347	15.11	PPBV		99
20)	ACETONE	6.166	58	176915	20.93	PPBV	#	84
27)	ETHANOL	5.824	45	176915 3047157	360.46	PPBV		98
30)	METHYLENE CHLORIDE	6.861		3799	0.24	PPBV		91
34)	TERTIARY BUTYL ALCOHOL	6.842	59			PPBV	#	1
36)	TETRAHYDROFURAN	9.086	72	2369	0.31	PPBV	#	83
37)	HEXANE	8.604 8.086	57	2369 10280 9641 10094	0.36	PPBV		87
40)	METHYL ETHYL KETONE	8.086	72	9641	1.22	PPBV	#	57
43)	ETHYL ACETATE	8.616	61	10094	1.97	PPBV	#	1
45)	CHLOROFORM	8.696	83	5931	0.19	PPBV		97
48)	CARBON TETRACHLORIDE	10.110		3048	0.10	PPBV		99
51)	BENZENE	9.982	78	23496	0.49	PPBV		98
52)	CYCLOHEXANE	10.226		4274	0.18	PPBV	#	71
54)	TRICHLOROETHYLENE	10.939	95	1583	0.08	PPBV		94
59)	2,2,4-TRIMETHYLPENTANE	10.945 11.183	57	1583 18911 9840 18806	0.23	PPBV		93
62)	HEPTANE	11.183	43	9840	0.32	PPBV		97
64)	METHYL ISOBUTYL KETONE	11.793	43	18806	0.57	PPBV		97
66)	TOLUENE	12.707	92	104977	3.26	PPBV		98
71)	2-HEXANONE	12.975	43	3300	0.13	PPBV		85
72)	TETRACHLOROETHYLENE	13.859	164	5699	0.32	PPBV		94
78)	ETHYLBENZENE	14.951	91	3300 5699 24209	0.46	PPBV		98
79)	m,p-XYLENE	15.133	106	30948	1.51	PPBV		92
80)	O-XYLENE	15.133 15.652	106	10566	0.53	PPBV		96
81)	STYRENE	15.542	104	8902	0.32	PPBV		95
91)	4-ETHYLTOLUENE	17.042	105	5511	0.12	PPBV		97
92)	1,3,5-TRIMETHYLBENZENE	1/.12/	T 0 2	4058	0.12	PPBV		98
		17.590	105	16497	0.47	PPBV	#	33
	p-DICHLOROBENZENE	17.852	146	5798	0.28	PPBV		98
	NAPHTHALENE	20.328	128	30042	3.81	PPBV		97

<sup>(#)</sup> = qualifier out of range (m) = manual integration (+) = signals summed

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JA81330
LABORATORIES

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32813.D

Acq On : 20 Jul 2011 6:12 pm

Operator : YOUMINH

Sample : JA81330-6

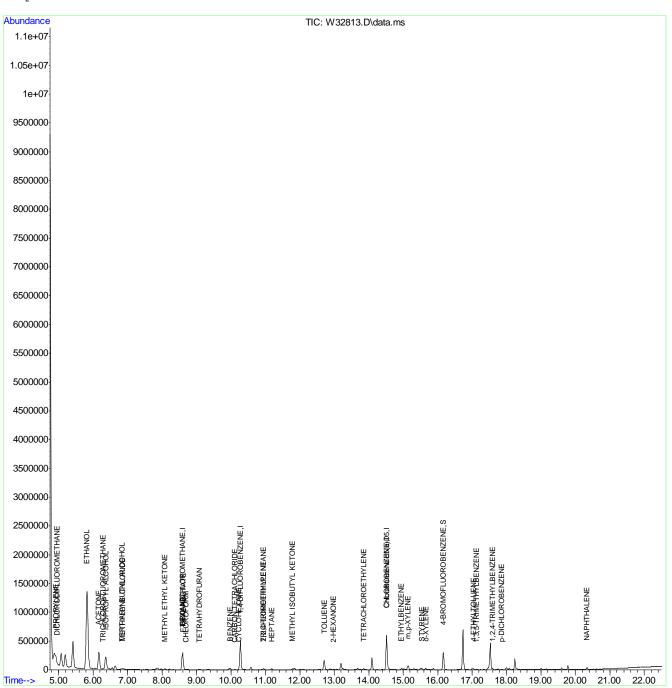
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 17 00:25:13 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

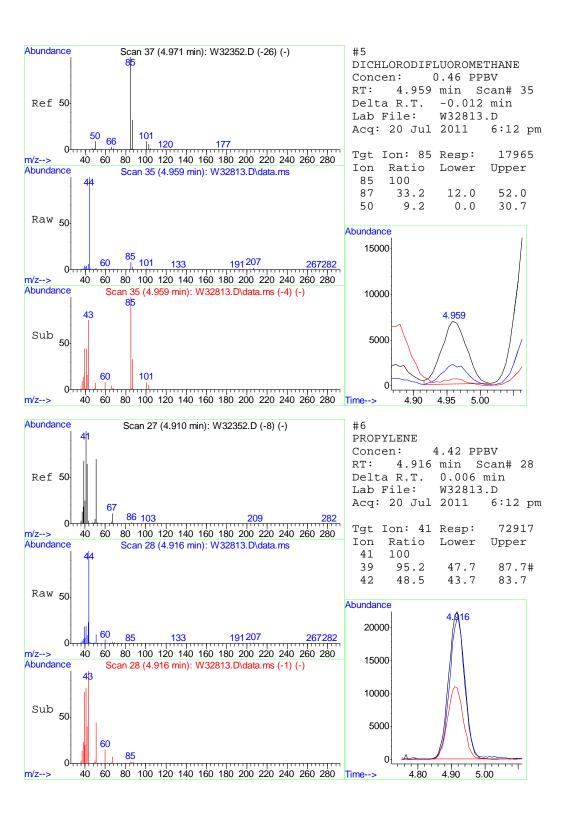
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

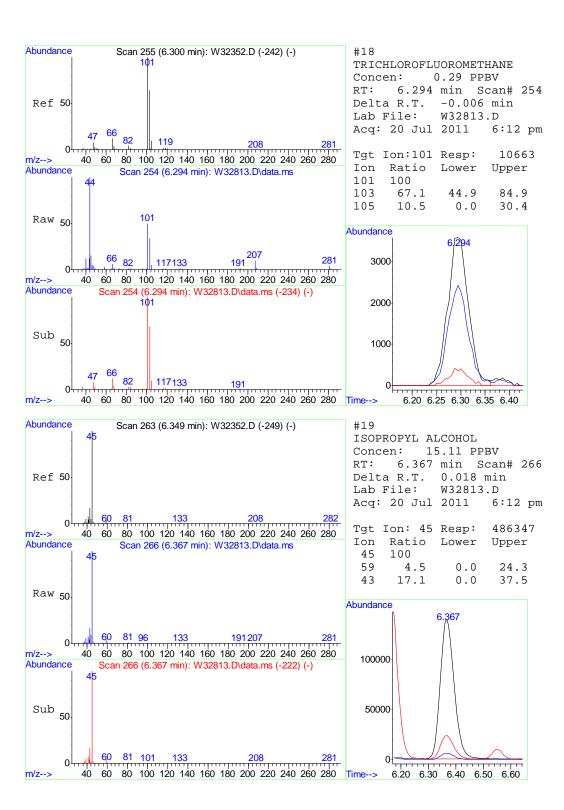


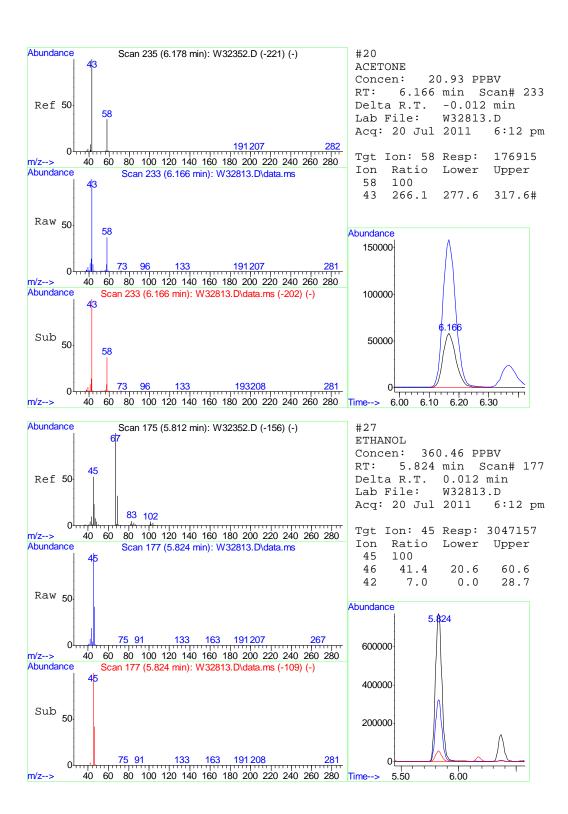
MW1322.M Wed Aug 17 00:25:13 2011 ACC-VOA-DESK1

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ACCUTEST.

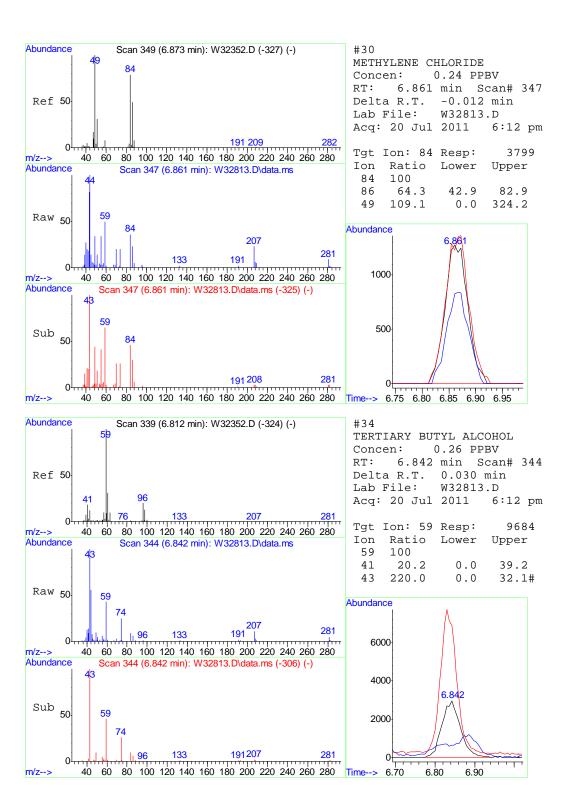
JA81330
LABORATORIES

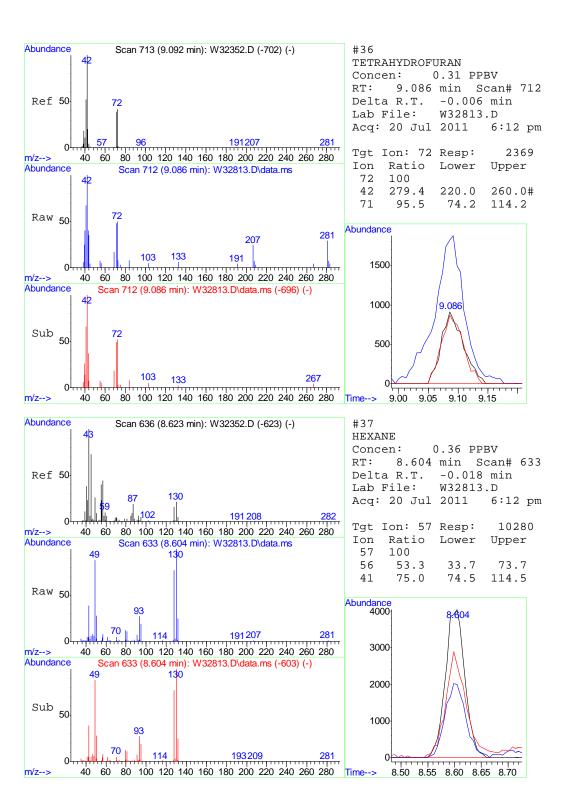


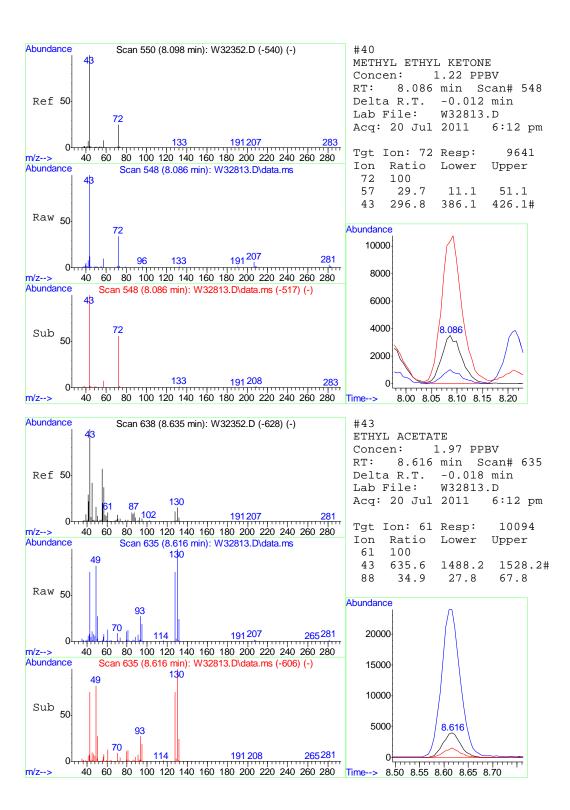


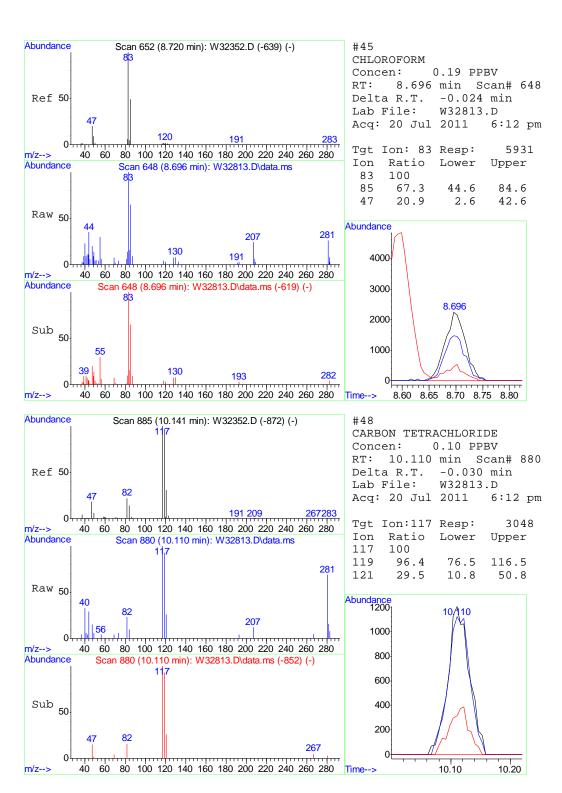


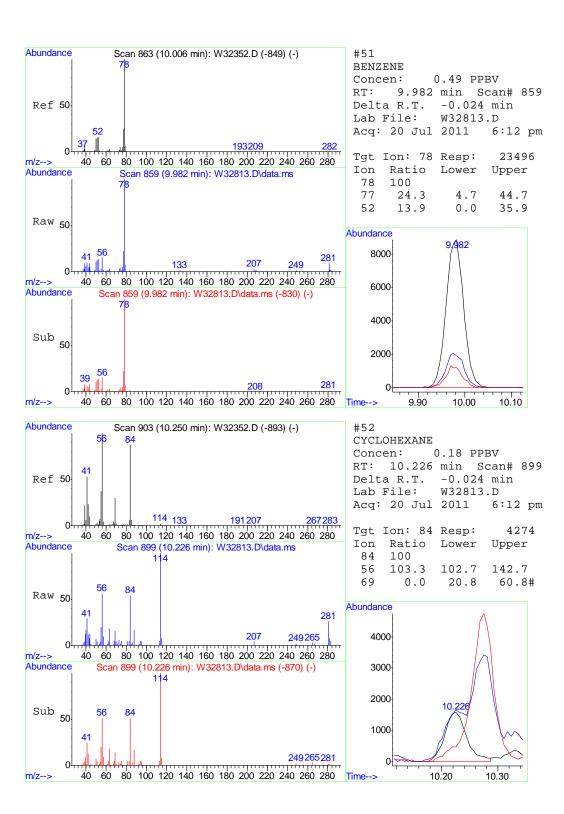
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ACCUTEST.
JA81330

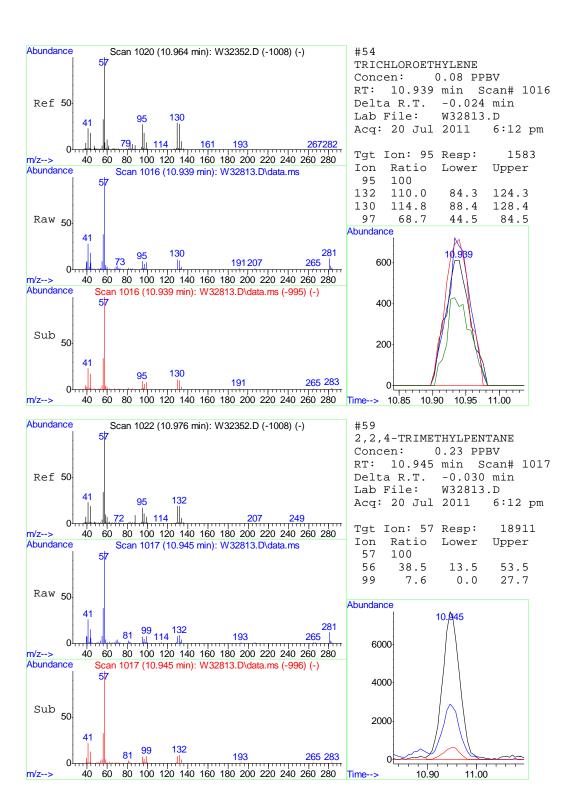


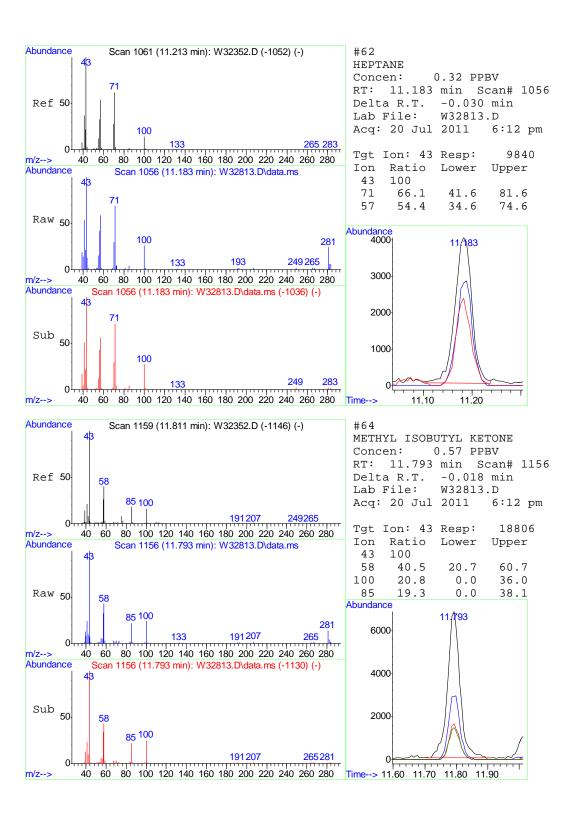


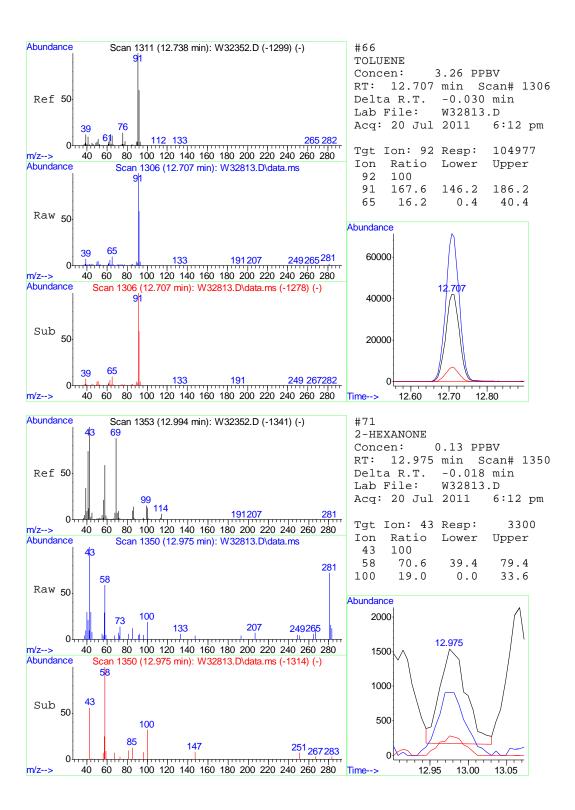




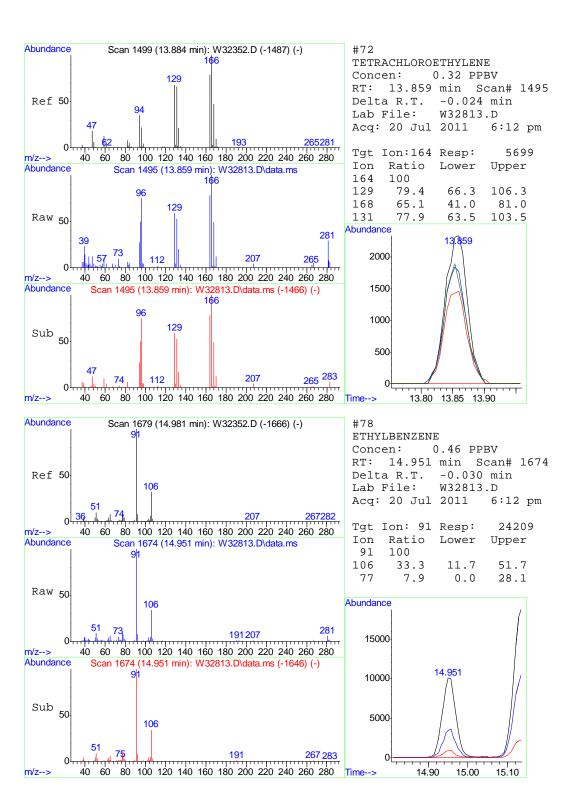


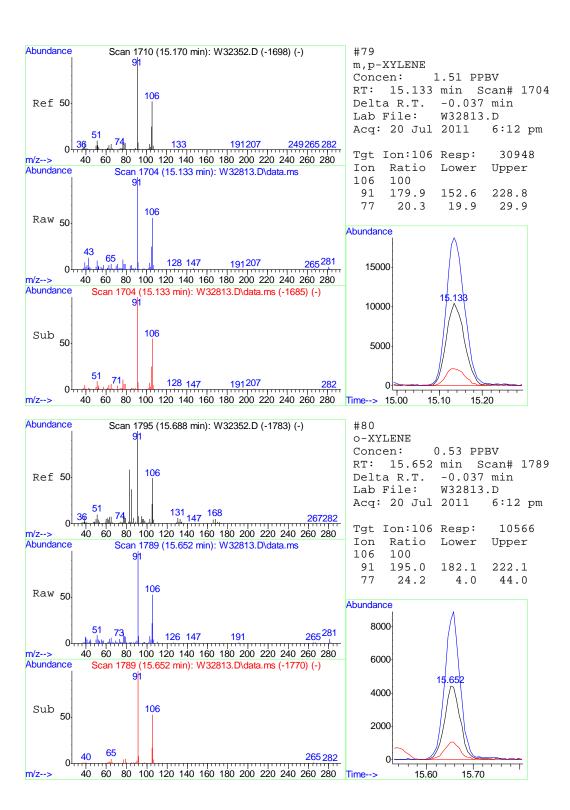


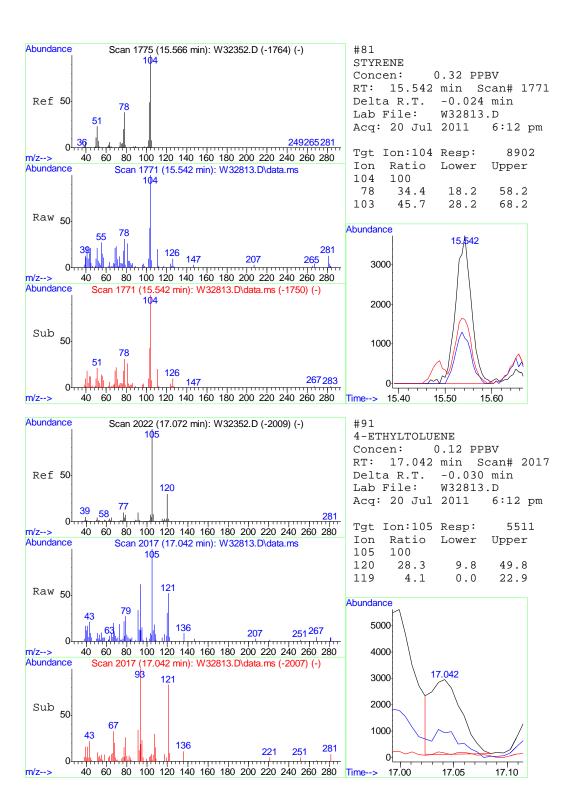


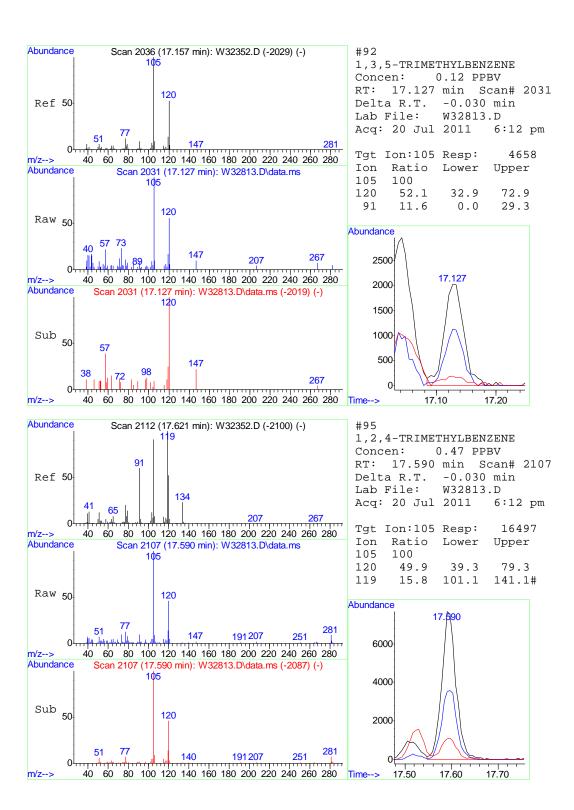


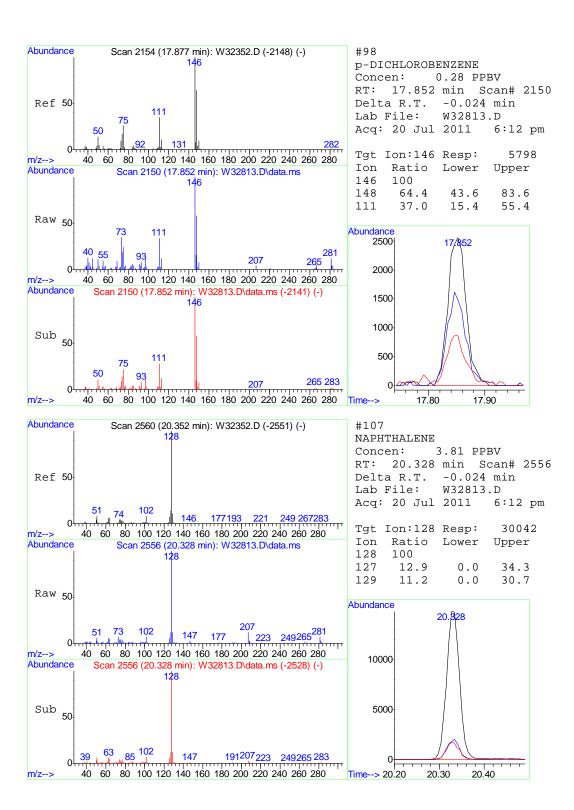
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ACCUTEST.
JA81330











Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32834.D

Acq On : 21 Jul 2011 1:34 pm Operator : YOUMINH

Sample : JA81330-6 Misc : MS15514,VW1342,100,,,,1 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 17 00:26:37 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	8.586	128	155182	10.00	PPBV	-0.03
50) 1,4-DIFLUOROBENZENE						
69) CHLOROBENZENE-D5	14.518	82	366979	10.00	PPBV	-0.03
106) Chlorobenzene-d5(a)	14.518	82	366122	10.00	PPBV	-0.03
System Monitoring Compounds						
85) 4-BROMOFLUOROBENZENE	16.164	95	175503	4.43	PPBV	-0.03
Spiked Amount 5.000						
Target Compounds						Qvalue
18) TRICHLOROFLUOROMETHANE	6.288	101	4736	0.11	PPBV	99
19) ISOPROPYL ALCOHOL	6.342	45	217739	5.76	PPBV	99
20) ACETONE	6.166	58	70766	7.13	PPBV	7 99
27) ETHANOL	5.806	45	1300440	130.95	PPBV	98
37) HEXANE	8.592	57	6001	0.18	PPBV	94
40) METHYL ETHYL KETONE	8.086	72	3693	0.40	PPBV	94
43) ETHYL ACETATE	8.616	61	4332	0.72	PPBV	7 # 1
51) BENZENE	9.970	78	9106	0.15	PPBV	99
62) HEPTANE	11.183		5080		PPBV	86
64) METHYL ISOBUTYL KETONE	11.793	43	9178	0.22	PPBV	89
66) TOLUENE	12.707	92	35134	0.88	PPBV	99
72) TETRACHLOROETHYLENE	13.859	164	1563	0.06	PPBV	95
78) ETHYLBENZENE			7419		PPBV	99
79) m,p-XYLENE	15.133					95
80) o-XYLENE	15.658	106	3152	0.12	PPBV	99
107) NAPHTHALENE	20.334	128	7683	0.70	PPBV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32834.D

Acq On : 21 Jul 2011 1:34 pm

Operator : YOUMINH Sample : JA81330-6

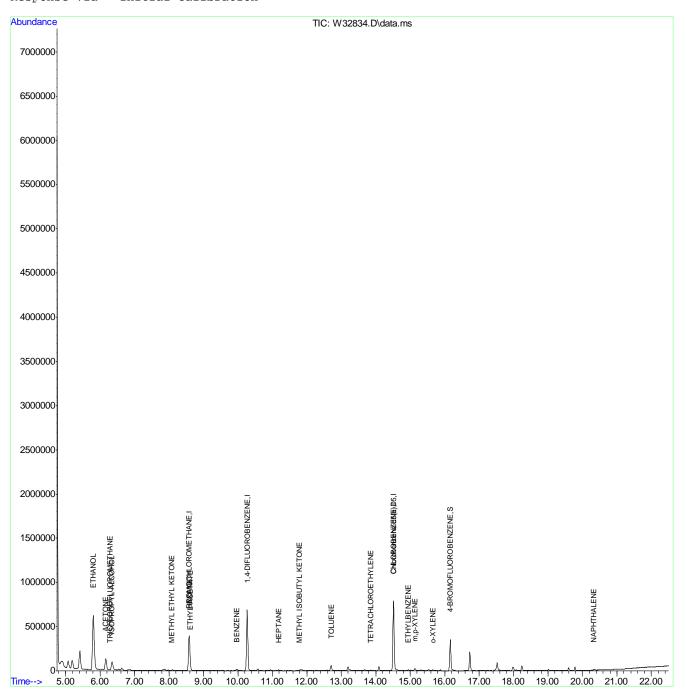
Misc : MS15514,VW1342,100,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 17 00:26:37 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



MW1322.M Wed Aug 17 00:26:37 2011 ACC-VOA-DESK1

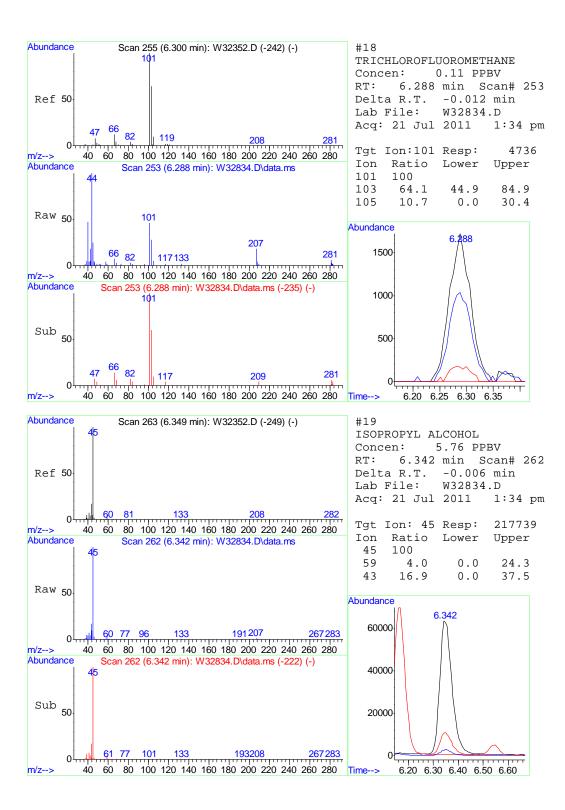
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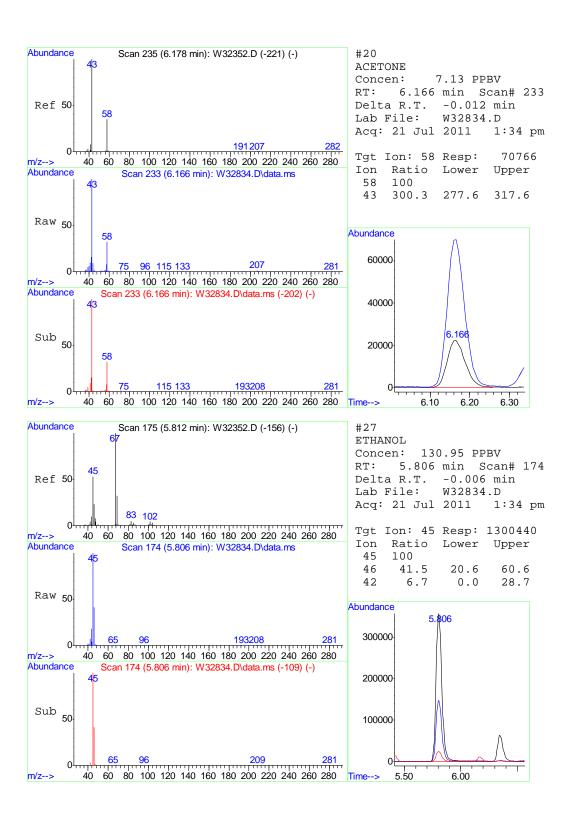
ACCUTEST

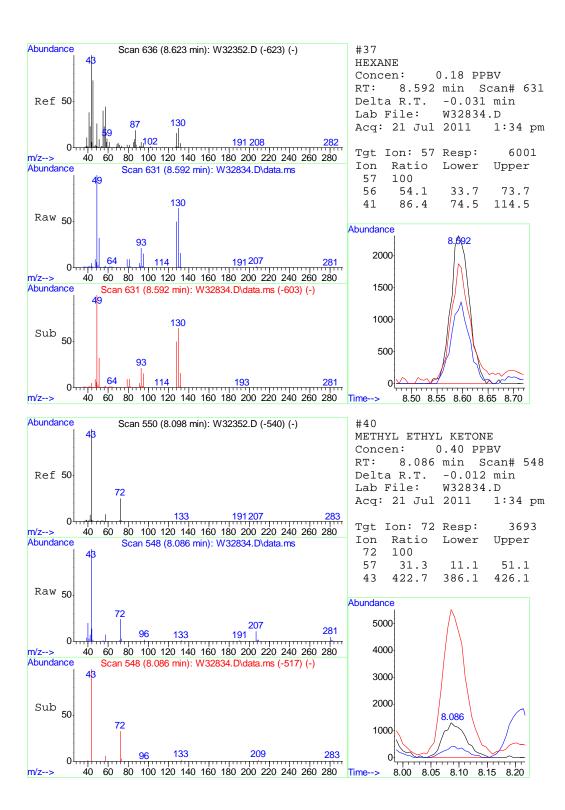
JA81330

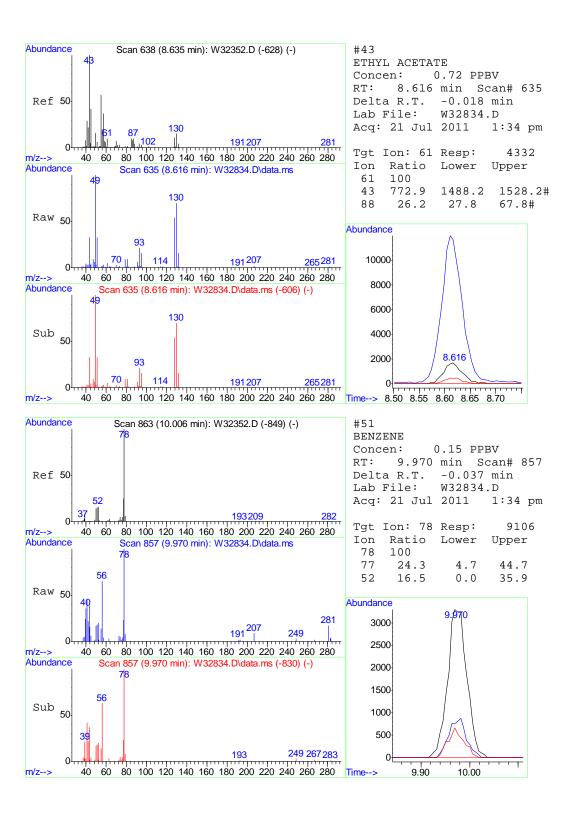
LABORATORIES

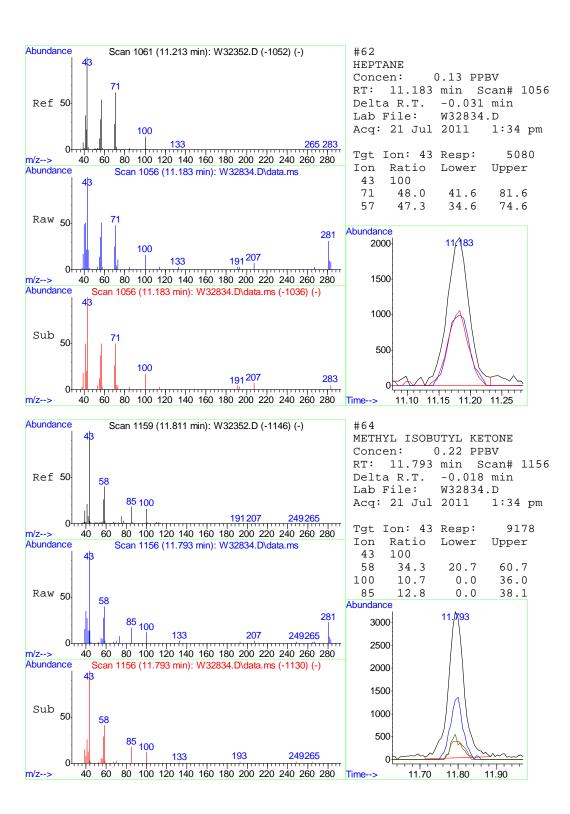
Page: 2

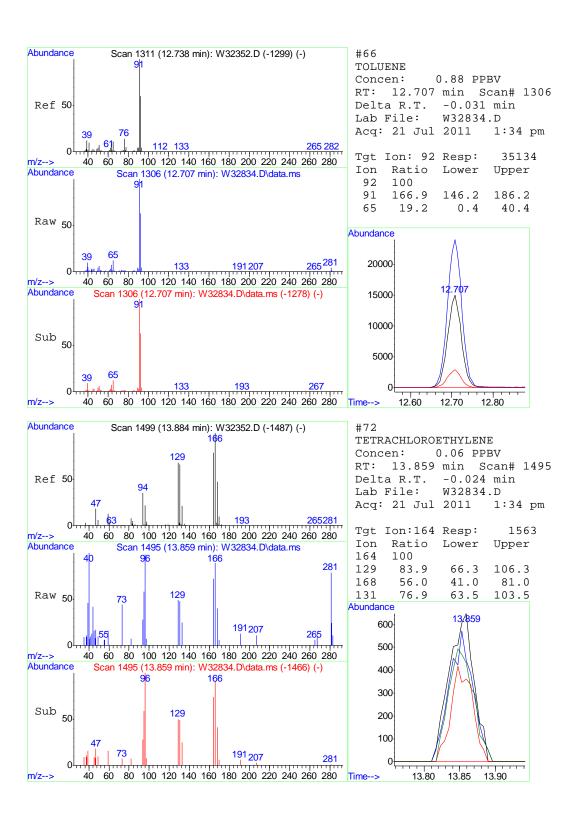


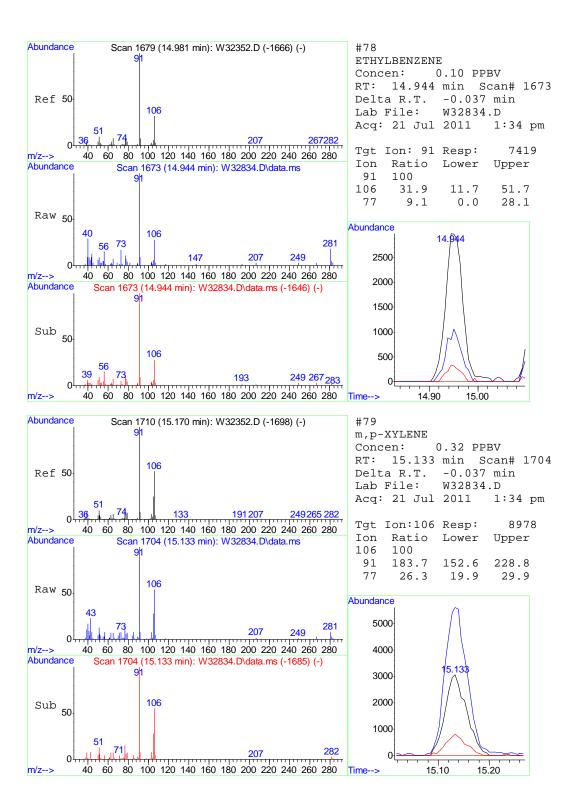


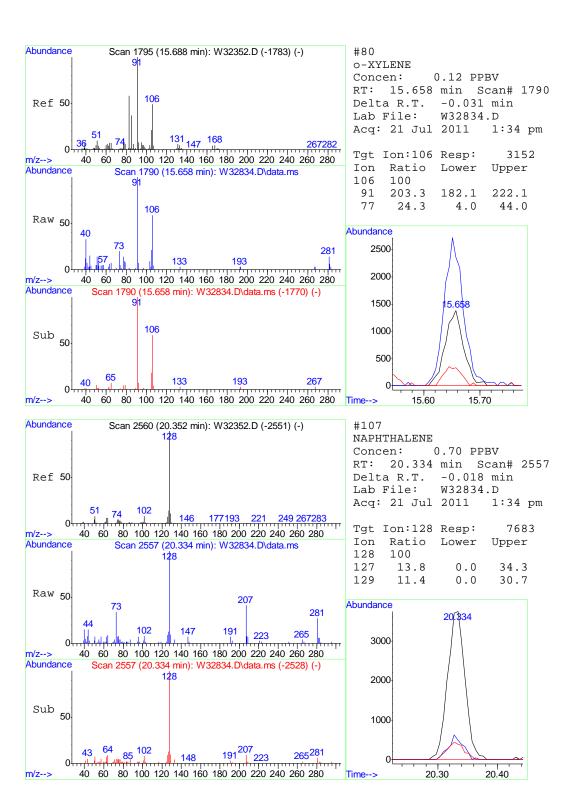












## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32814.D

Acq On : 20 Jul 2011 6:53 pm Operator : YOUMINH

Sample : JA8133U-/
Misc : MS15514,VW1341,400,,,,1 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 17 00:25:19 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	8.598					
50) 1,4-DIFLUOROBENZENE	10.281 14.518	114	766789	10.00	PPBV	-0.02
69) CHLOROBENZENE-D5	14.518	82	333407	10.00	PPBV	-0.03
106) Chlorobenzene-d5(a)	14.518	82	330092	10.00	PPBV	-0.03
System Monitoring Compounds						
85) 4-BROMOFLUOROBENZENE	16.164	95	174493	4.84	PPBV	-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	96.	80%
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE	4.953	85	21876	0.49	PPBV	99
8) CHLOROMETHANE	5.087	52	4857	0.83	PPBV	96
13) CHLOROETHANE	5.715	64	1115			
18) TRICHLOROFLUOROMETHANE	6.300		13109			
19) ISOPROPYL ALCOHOL	6.373	45	920008 797650	24.62	PPBV	99
20) ACETONE	6.172	58	797650	81.30	PPBV	
26) CARBON DISULFIDE	7.141	76	13193	0.28	PPBV	# 83
27) ETHANOL	5.830	45	4022237			
30) METHYLENE CHLORIDE	6.873	84	4819		PPBV	96
34) TERTIARY BUTYL ALCOHOL	6.836	59	357046 8718	8.25		
36) TETRAHYDROFURAN	9.086	72	8718	0.97		
37) HEXANE	8.604		85783	2.57		
40) METHYL ETHYL KETONE	8.086		30056	3.27		
43) ETHYL ACETATE	8.616	61	30667	5.15		
45) CHLOROFORM	8.714	83	7883 15784	0.22	PPBV	
49) 1,2-DICHLOROETHANE	9.348					
51) BENZENE	9.982		138588	2.37		
52) CYCLOHEXANE	10.226		25847			
59) 2,2,4-TRIMETHYLPENTANE	10.951		117072			
62) HEPTANE	11.189		63655			
64) METHYL ISOBUTYL KETONE	11.793		8931			
66) TOLUENE	12.713		619074	15.77		
71) 2-HEXANONE	12.975		13126			
72) TETRACHLOROETHYLENE	13.859		24357	1.10	PPBV	95
78) ETHYLBENZENE	14.957		254491	3.84	PPBV	99
79) m,p-XYLENE	15.133		367419	1.10 3.84 14.29 5.96	PPBV	95
80) o-XYLENE	15.658		11/210	3.70		20
81) STYRENE	15.542	104	14741	0.42		
87) ISOPROPYLBENZENE		105	50472	0.72		
91) 4-ETHYLTOLUENE	17.042	105	304742 139684	5.24		
92) 1,3,5-TRIMETHYLBENZENE	17.133	105	139684	2.91		
95) 1,2,4-TRIMETHYLBENZENE	17.596	105	373909	8.49		
107) NAPHTHALENE	20.328		11917			

<sup>(#)</sup> = qualifier out of range (m) = manual integration (+) = signals summed



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32814.D

: 20 Jul 2011 Acq On

: YOUMINH Operator : JA81330-7 Sample

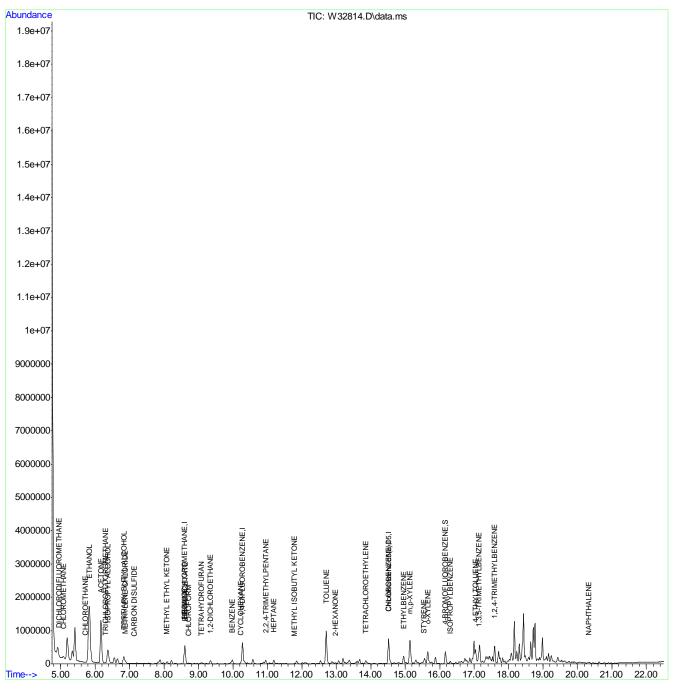
: MS15514,VW1341,400,,,,1 Misc ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 17 00:25:19 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

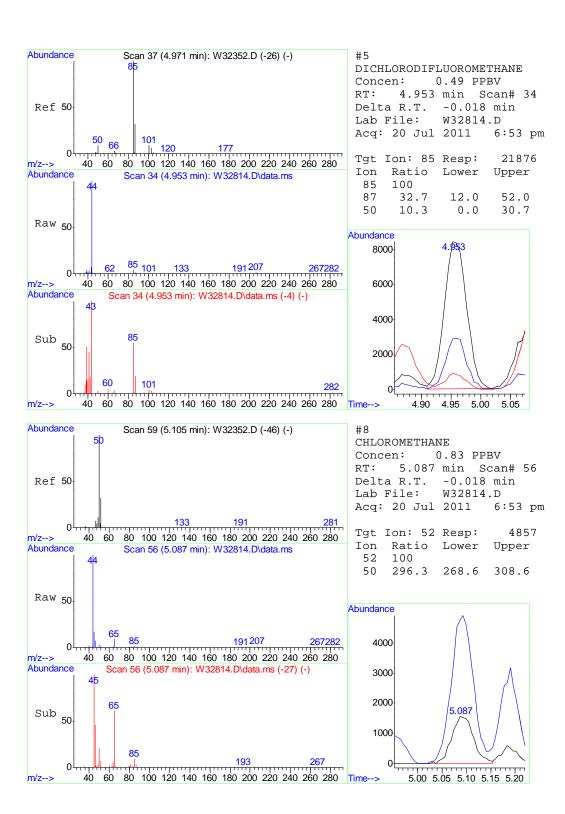
Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

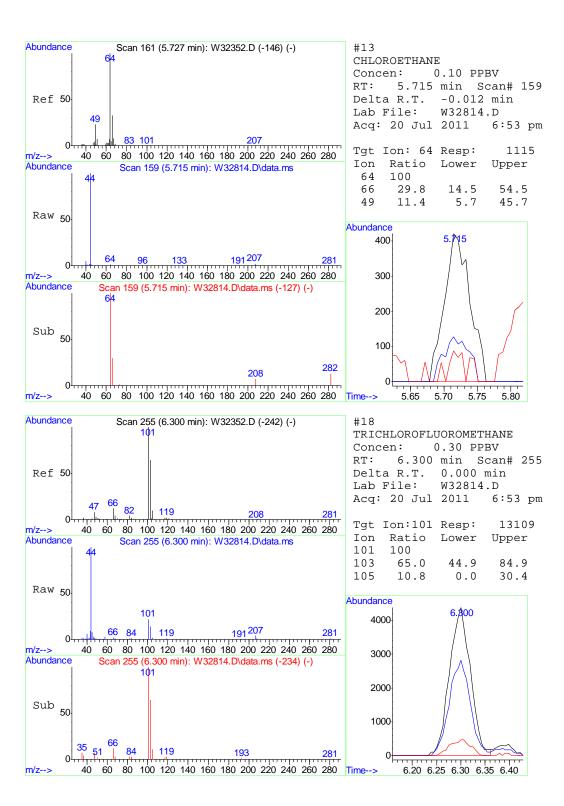
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

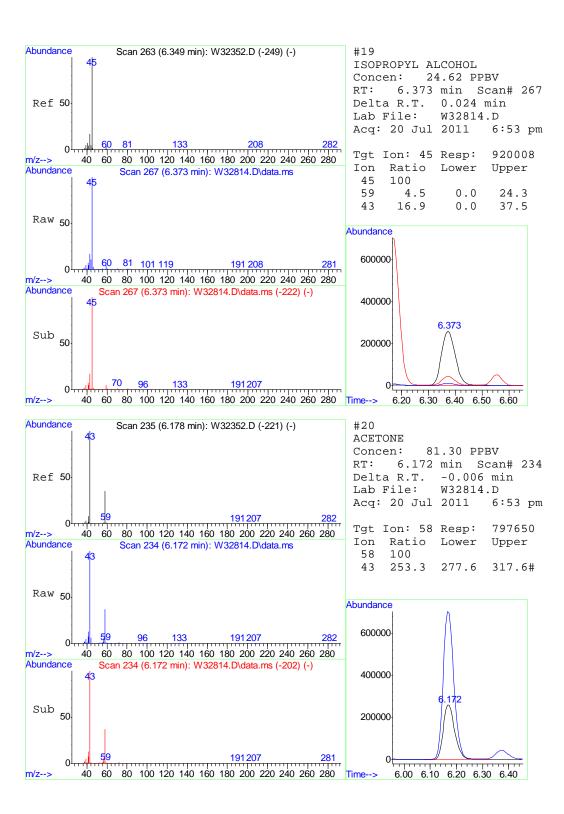


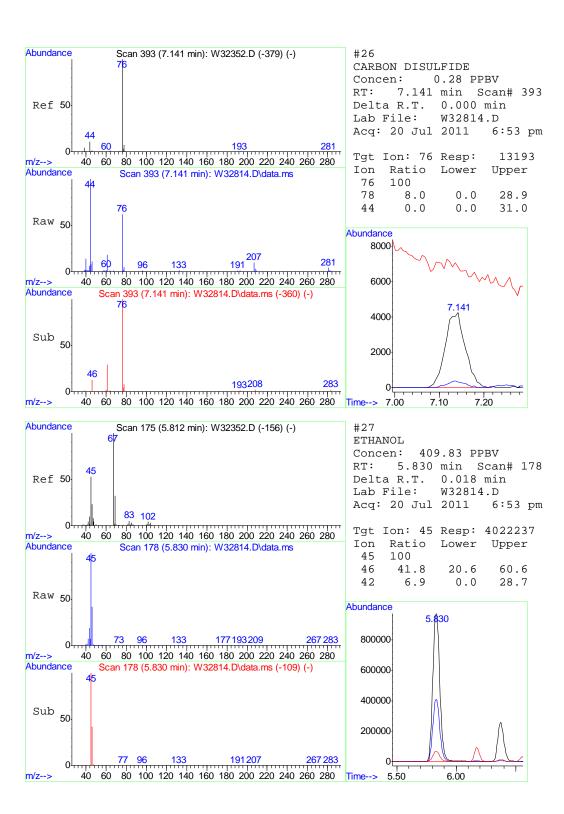
MW1322.M Wed Aug 17 00:25:19 2011 ACC-VOA-DESK1

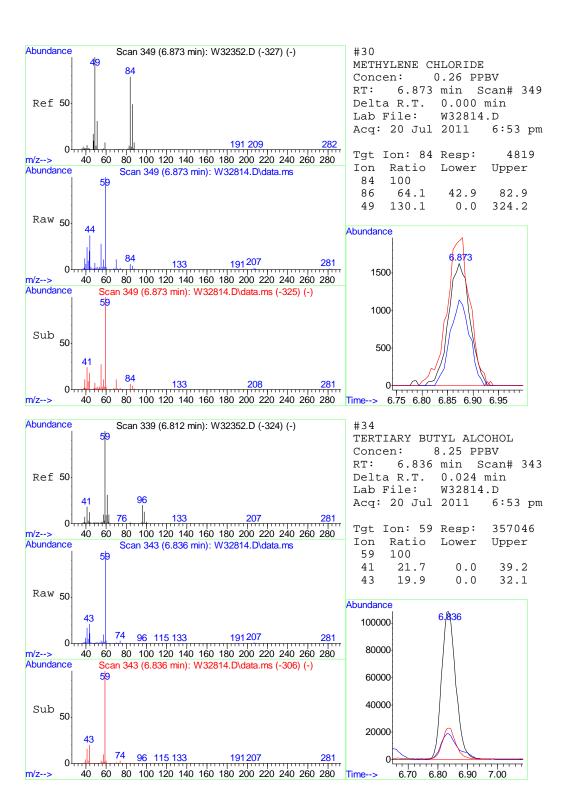
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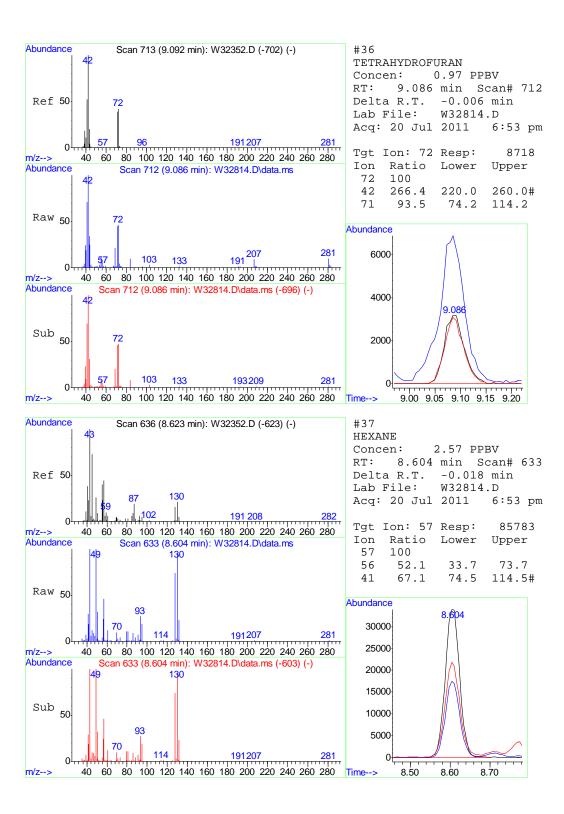


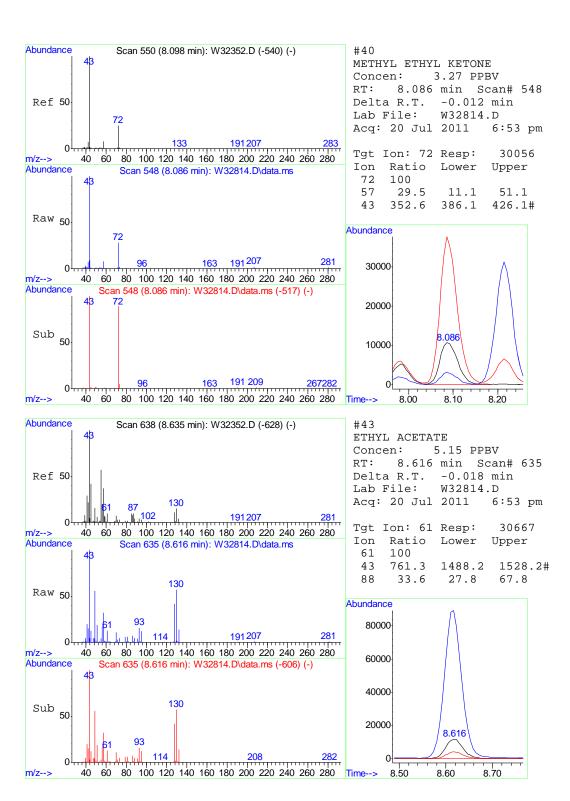


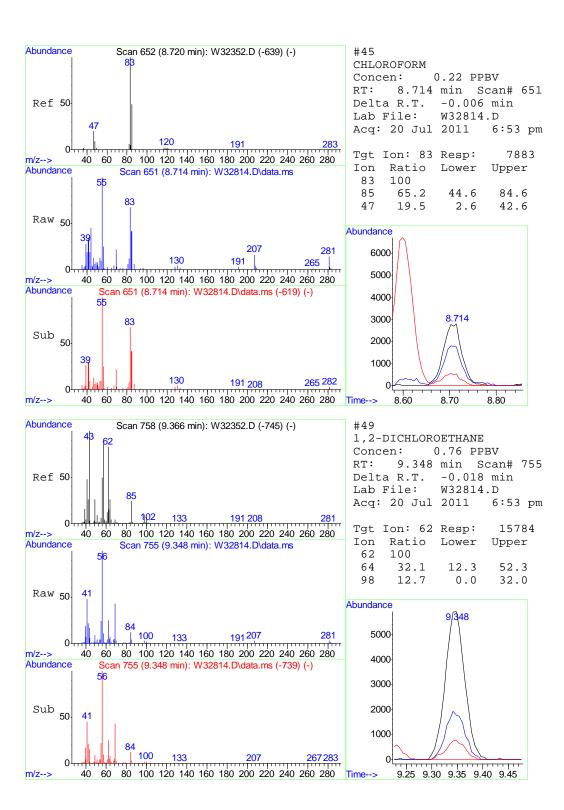


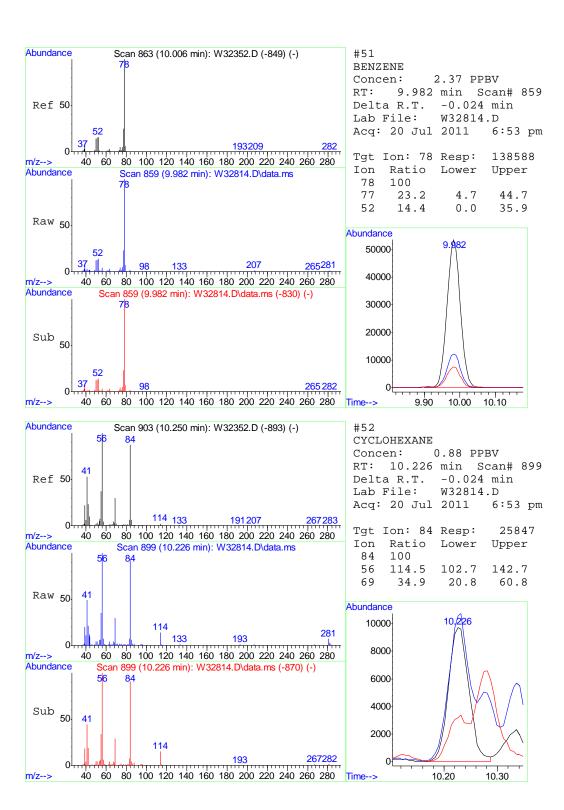


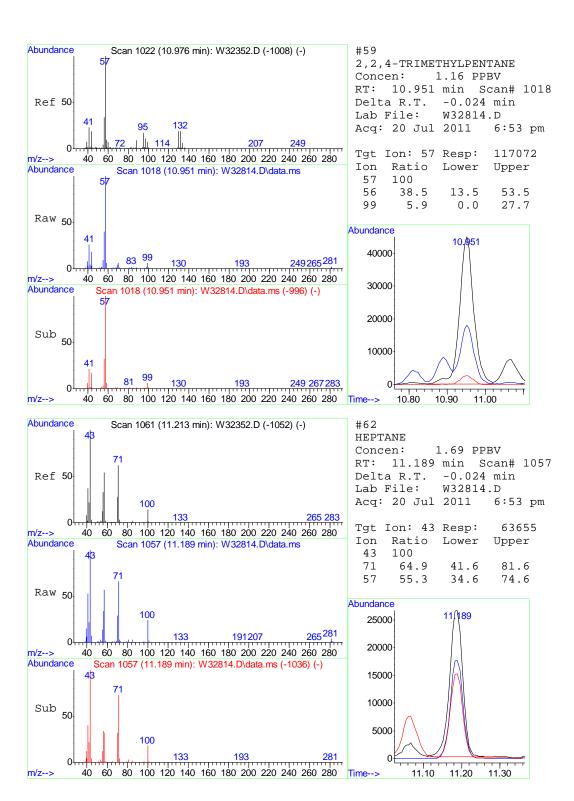


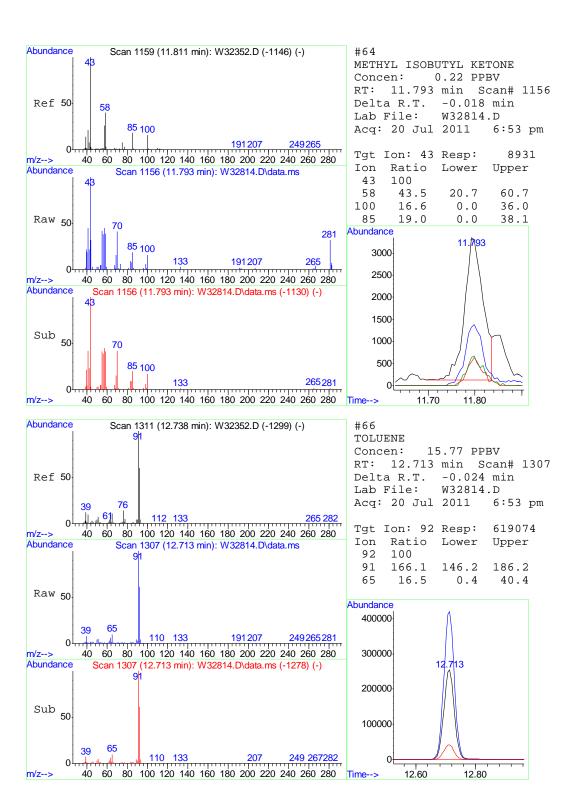


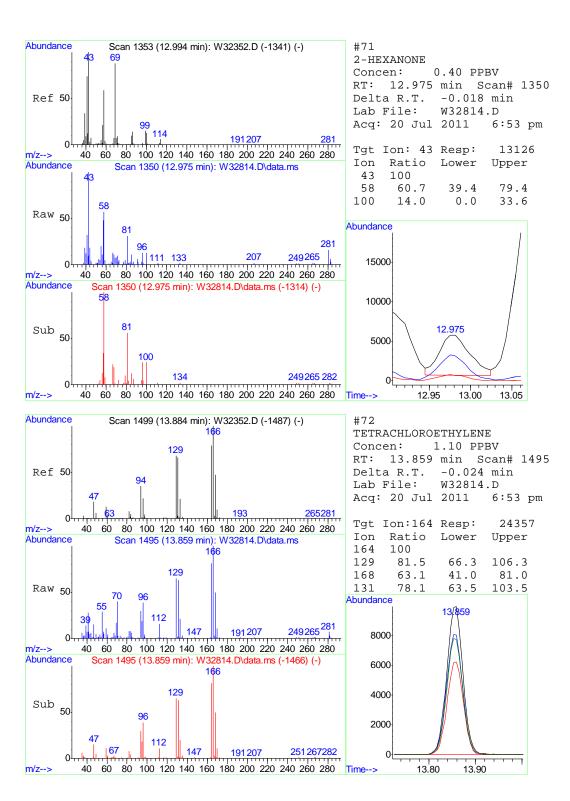


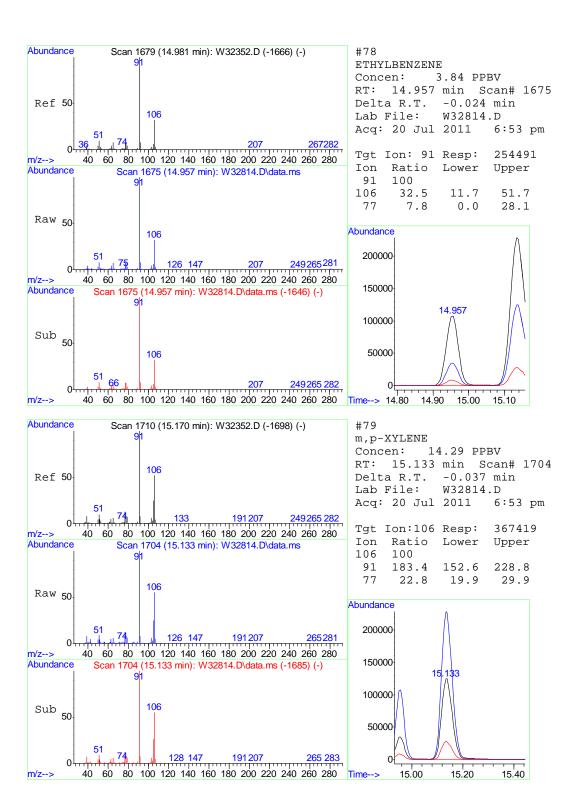


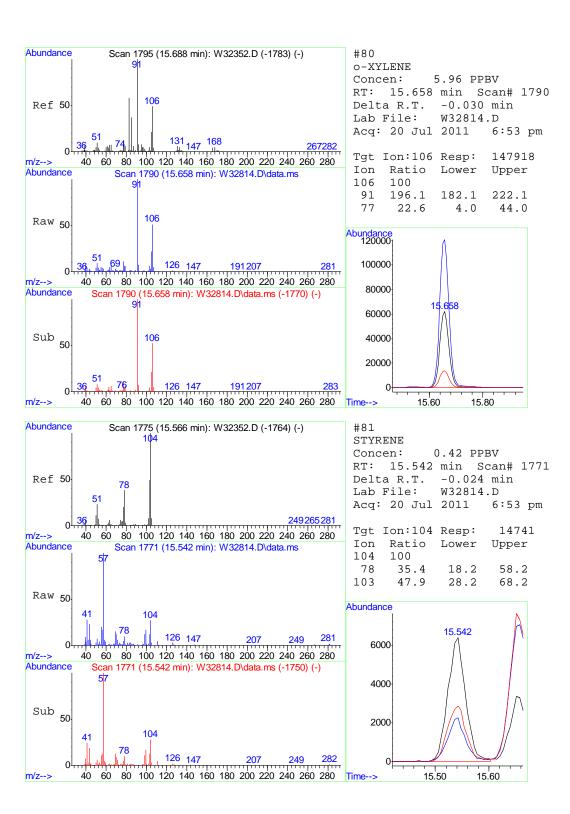


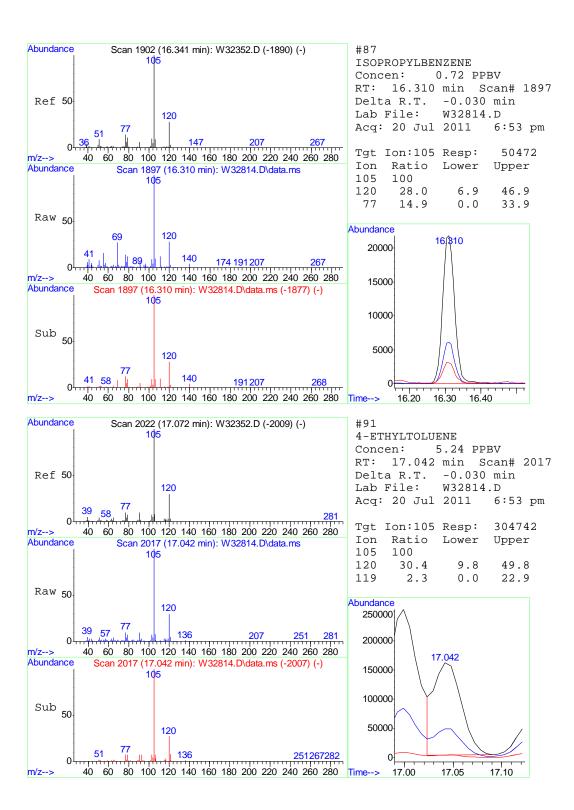




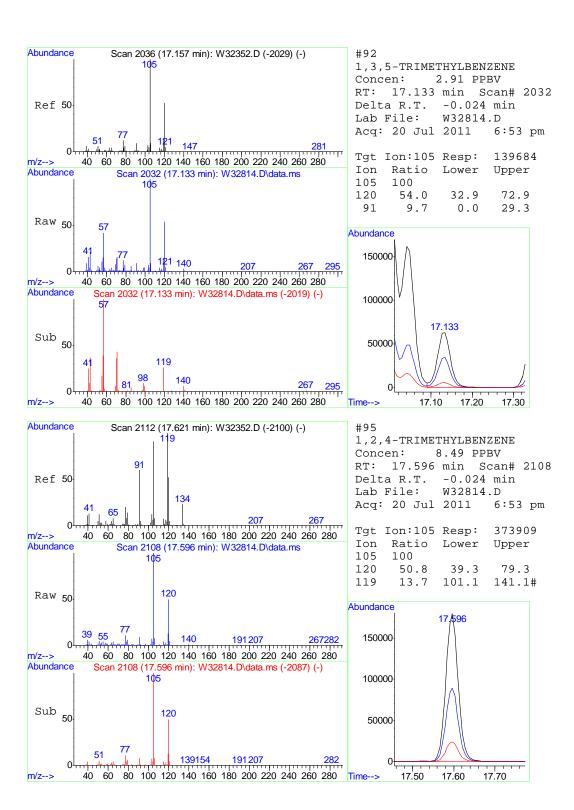




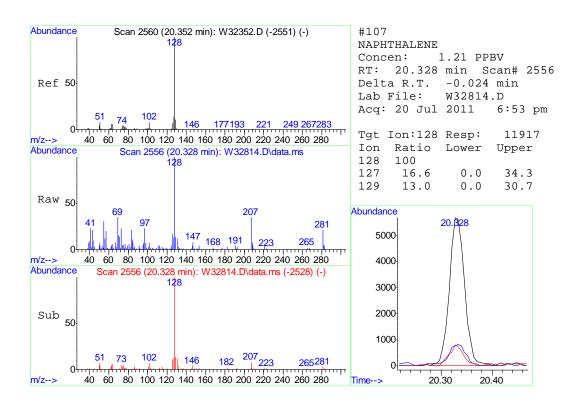








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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32835.D

Acq On : 21 Jul 2011 2:15 pm Operator : YOUMINH

Sample : JA81330-7 Misc : MS15514,VW1342,100,,,,1 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 17 00:26:41 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
Internal Standards							
1) BROMOCHLOROMETHANE	8.592	128	169517	10.00	PPBV	r .	-0.02
50) 1,4-DIFLUOROBENZENE	10.274	114	845559	10.00	PPBV	,	-0.02
69) CHLOROBENZENE-D5	14.518	82	402138	10.00	PPBV	r .	-0.03
106) Chlorobenzene-d5(a)	14.518	82	401206	10.00	PPBV	•	-0.03
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE	16.164	95	194800	4.48	PPBV	•	-0.03
Spiked Amount 5.000	Range 65		Recove	ery =	89.	60%	
Target Compounds						Qv	alue
5) DICHLORODIFLUOROMETHANE	4.965	85	7173	0.14	PPBV	F	97
8) CHLOROMETHANE	5.099	52	2020	0.31	PPBV	F	98
18) TRICHLOROFLUOROMETHANE		101		0.11			
19) ISOPROPYL ALCOHOL	6.348		339310				
20) ACETONE	6.159	58	263867	24.33	PPBV	•	91
27) ETHANOL	5.806	45	1474952	135.96	PPBV	•	98
34) TERTIARY BUTYL ALCOHOL			236846				
36) TETRAHYDROFURAN	9.086		2910				
37) HEXANE	8.598	57	31469	0.85	PPBV	•	87
40) METHYL ETHYL KETONE		72	9364	0.92			
43) ETHYL ACETATE	8.616	61	10302	1.57			1
49) 1,2-DICHLOROETHANE	9.342	62	5310 41927	0.23			98
51) BENZENE	9.976	78	41927	0.65			97
52) CYCLOHEXANE	10.220	84	8045	0.25			78
59) 2,2,4-TRIMETHYLPENTANE	10.945	57	39471	0.36			88
62) HEPTANE	11.183	43	23388	0.56			
66) TOLUENE	12.707		169600	3.92			
· ·	12.981			0.12			
72) TETRACHLOROETHYLENE							
	14.950			0.84			98
	15.133	106	91970	2.97			96
80) o-XYLENE	15.658	106	36686	1.23			98
91) 4-ETHYLTOLUENE 92) 1,3,5-TRIMETHYLBENZENE 95) 1,2,4-TRIMETHYLBENZENE	17.041	105	68139	0.97	PPBV	•	99
92) 1,3,5-TRIMETHYLBENZENE	17.127	105	33671	0.58			
95) 1,2,4-TRIMETHYLBENZENE	17.590	105	85818	1.62	PPBV	#	31

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32835.D

Acq On : 21 Jul 2011 2:15 pm

Operator : YOUMINH Sample : JA81330-7

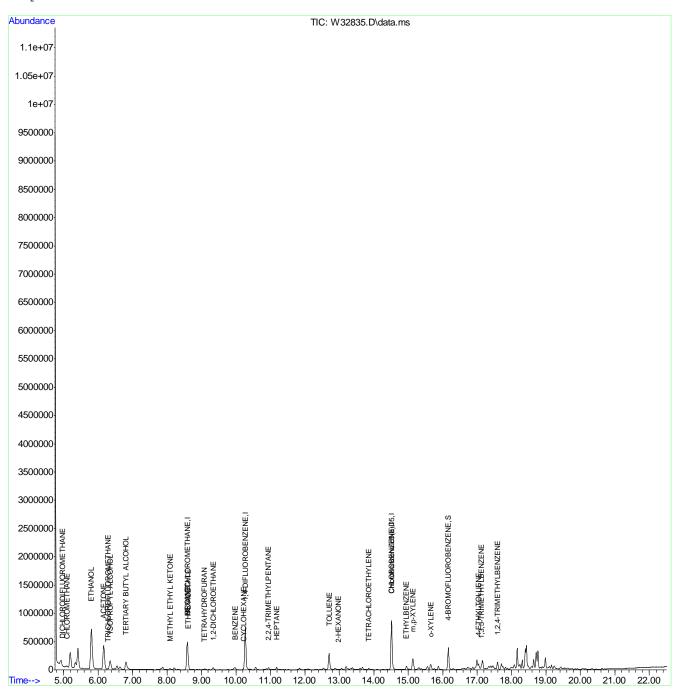
Misc : MS15514,VW1342,100,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 17 00:26:41 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

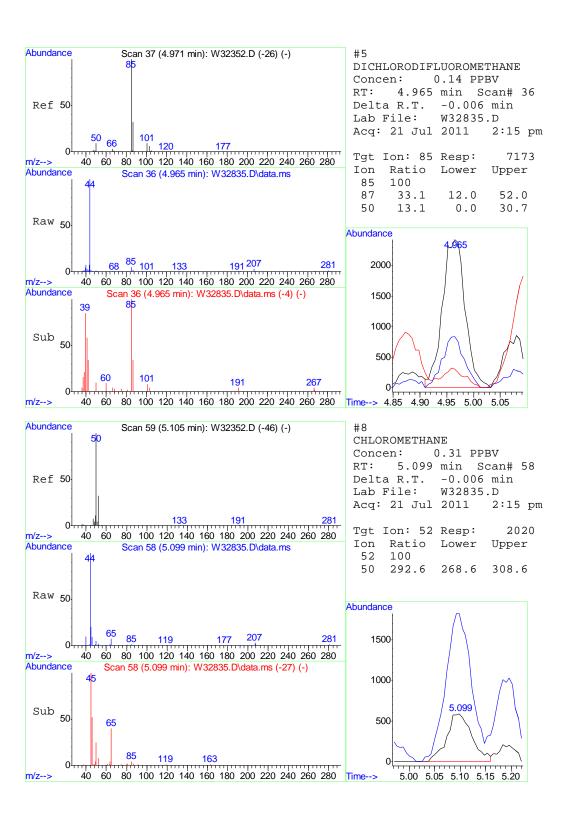
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

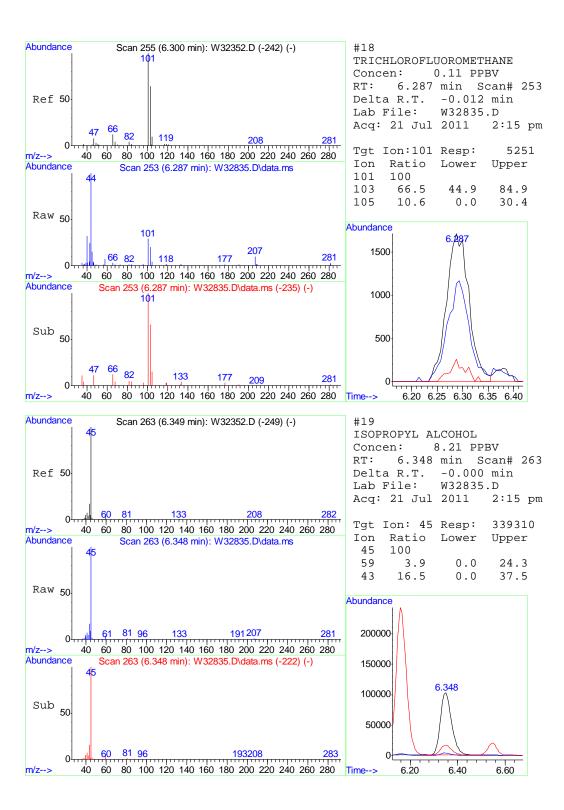


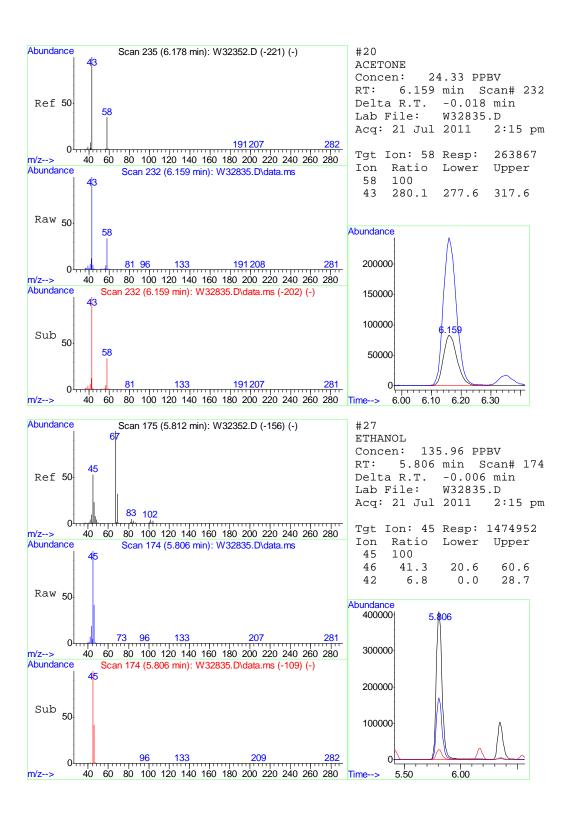
MW1322.M Wed Aug 17 00:26:41 2011 ACC-VOA-DESK1

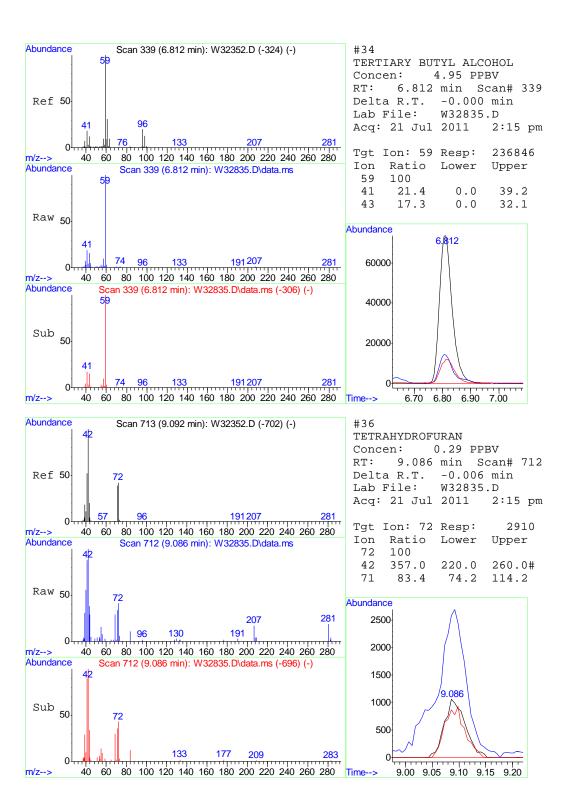
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ACCUTEST.

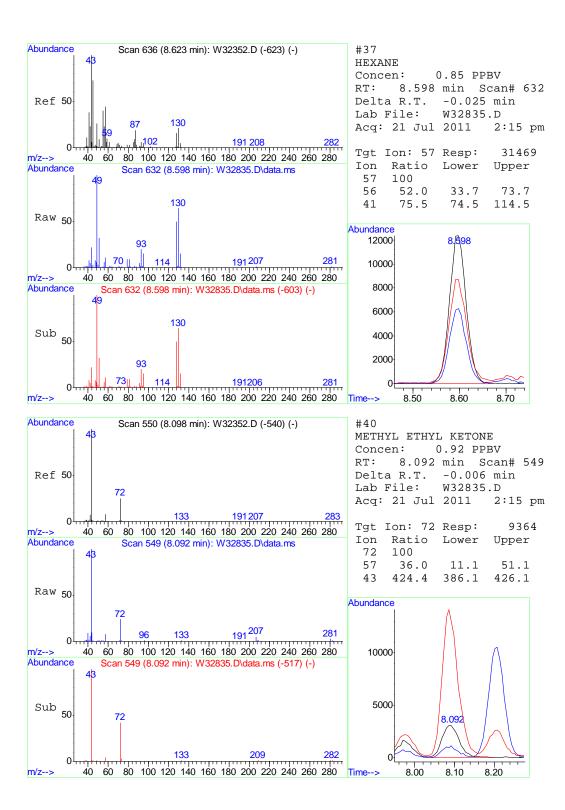
JA81330
LABORATORIES

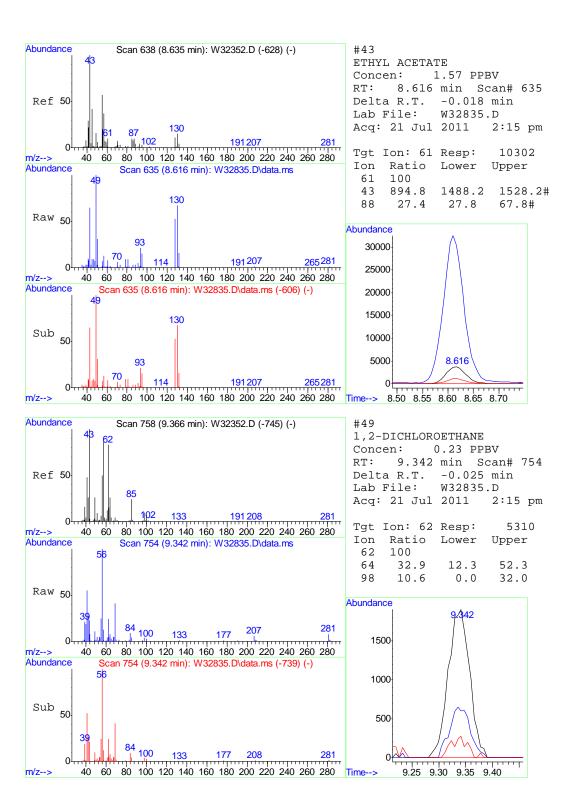


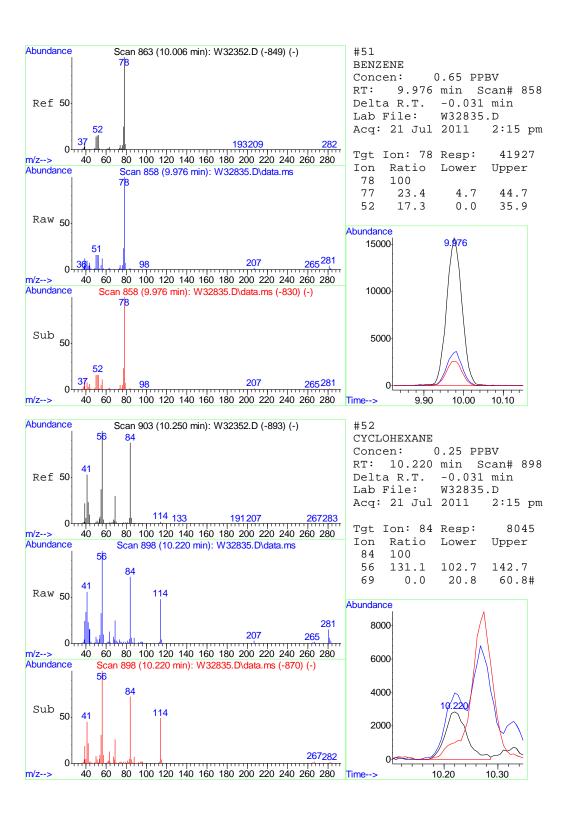


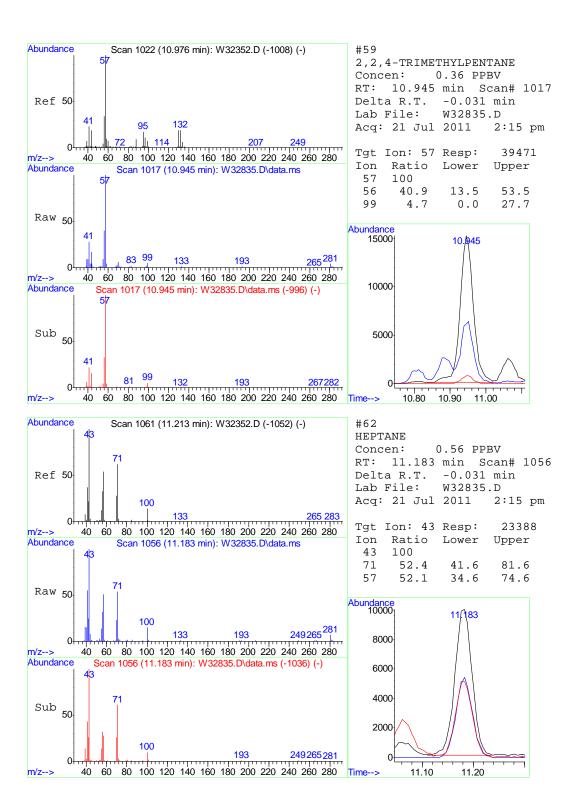


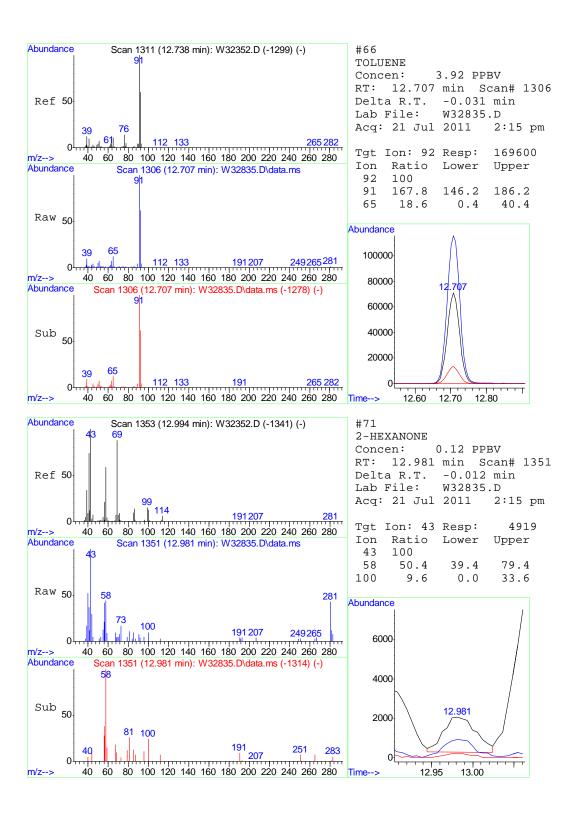


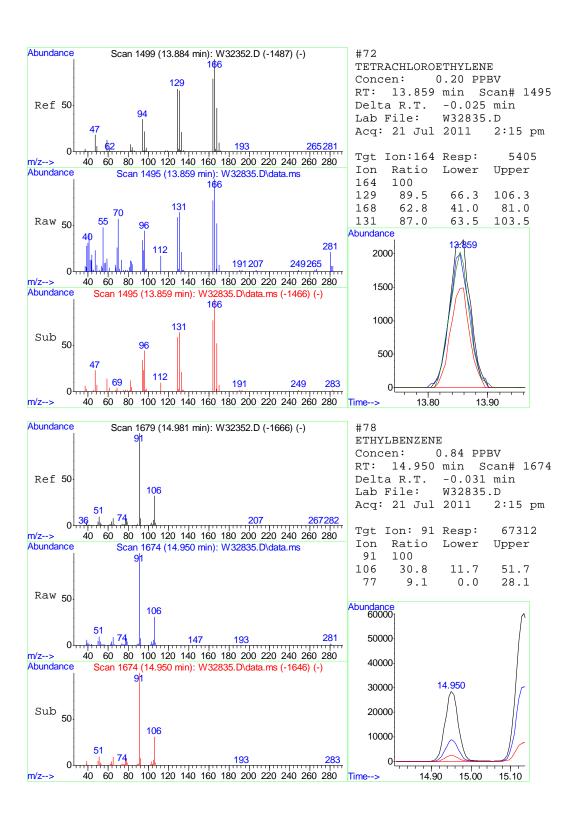


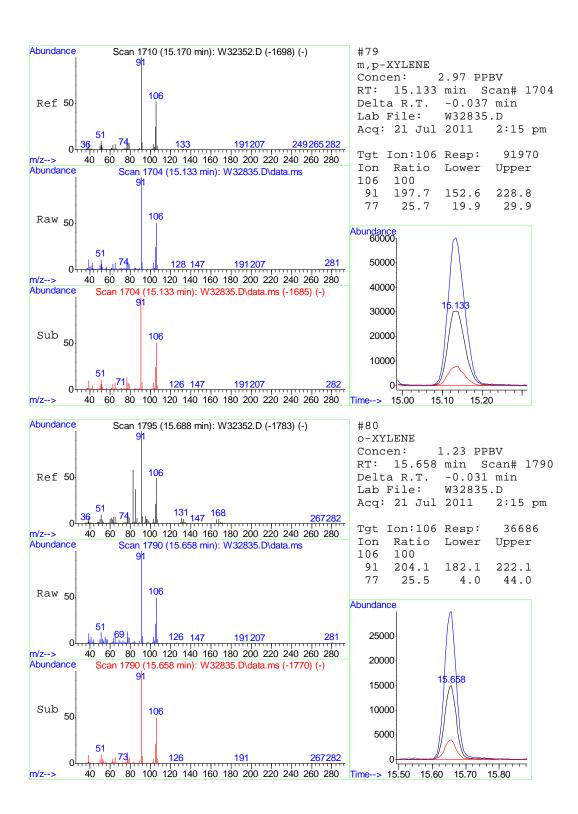


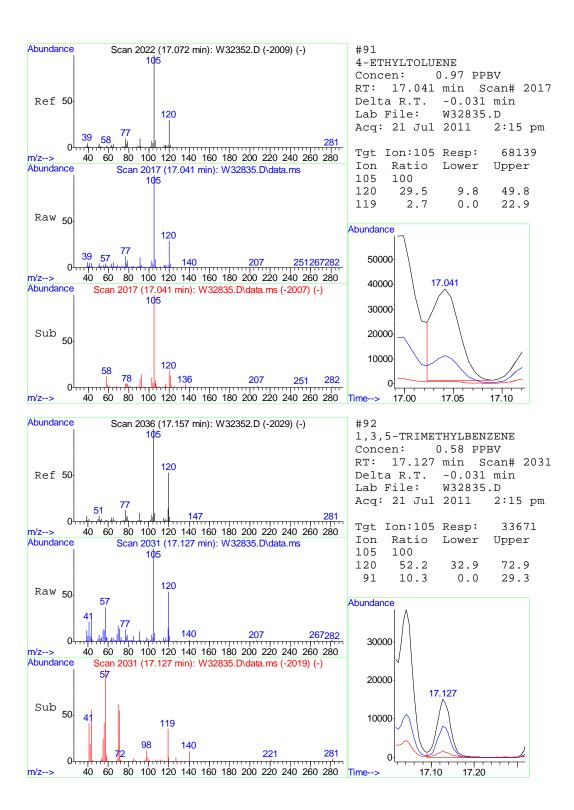




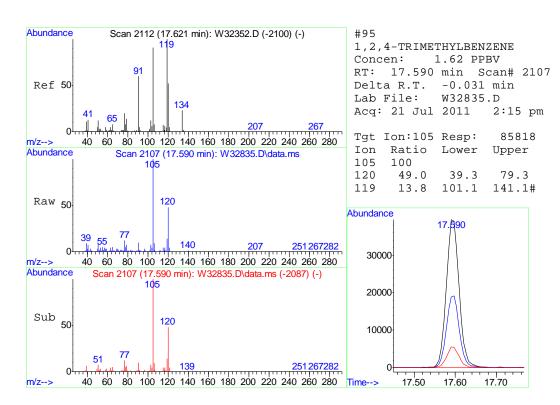








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JA81330



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32815.D

Acq On : 20 Jul 2011 7:34 pm

Operator : YOUMINH
Sample : JA81330-8

Sample . UA01330-0
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 17 00:25:25 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update: Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Ur	nits	Dev	Min)
Inte	rnal Standards							
1)	BROMOCHLOROMETHANE	8.598	128	150463	10.00	PPBV	-	-0.02
50)	1,4-DIFLUOROBENZENE	10.275	114	754436 328081	10.00	PPBV	-	-0.02
69)	CHLOROBENZENE-D5	14.518	82	328081	10.00	PPBV	-	-0.03
106)	Chlorobenzene-d5(a)	14.518		325678	10.00	PPBV	-	-0.03
Syst	em Monitoring Compounds							
85)	4-BROMOFLUOROBENZENE	16.164	95	177149	5.00	PPBV	-	-0.03
	iked Amount 5.000	Range 65	- 128	Recove	ery =	100.	00%	
Targ	et Compounds						Qva	alue
5)	DICHLORODIFLUOROMETHANE	4.965	85	20130	0.46	PPBV	7	98
8)	CHLOROMETHANE	5.093	52	20130 3588	0.63	PPBV	7	90
18)	TRICHLOROFLUOROMETHANE		101	15383	0.36	PPBV	7	99
19)	ISOPROPYL ALCOHOL	6.349	45	15383 314780	8.58	PPBV	7	99
	ACETONE	6.166	58	470996	48.93	PPBV	7 #	89
26)	CARBON DISULFIDE	7.135	76	470996 7350 440093	0.16	PPBV	7	91
27)	ETHANOL	5.812	45	440093	45.71	PPBV	7	98
30)	METHYLENE CHLORIDE	6.873	84	13315 148804	0.73	PPBV	7	96
34)	TERTIARY BUTYL ALCOHOL	6.806	59	148804	3.50	PPBV	7 #	87
36)	TETRAHYDROFURAN	9.068	72	39748	4.52	PPBV	7 #	88
37)	HEXANE	8.604	57	39748 52090	1.59	PPBV	#	81
40)	METHYL ETHYL KETONE	8.080	72	65831	7.30	PPBV	#	74
43)	ETHYL ACETATE	8.610	61	65831 12710 7917	2.18	PPBV	#	1
45)	CHLOROFORM	8.702	83	7917	0.23	PPBV	7	97
47)	1,1,1-TRICHLOROETHANE	9.567	97	5801	0.17	PPBV	7	96
49)	1,2-DICHLOROETHANE	9.342	62	5801 3731	0.18			99
51)	BENZENE	9.982	78 84	60936	1.06 0.51	PPBV	7	98
52)	CYCLOHEXANE	10.232	84	14789	0.51	PPBV	#	74
59)	2,2,4-TRIMETHYLPENTANE	10.951	57	49274	0.50	PPBV	7	83
62)	HEPTANE	11.183	43	66776	1.80	PPBV	7	95
64)	METHYL ISOBUTYL KETONE	11.793	43	7524	0.19	PPBV	7	95
66)	TOLUENE	12.707	92	49274 66776 7524 470002 8221	12.17	PPBV	7	99
71)	2-HEXANONE	12.981	43	8221	0.25	PPBV	7	92
72)	TETRACHLOROETHYLENE	13.859	164	25600 206474	1.17	PPBV	7	96
78)	ETHYLBENZENE	14.951	91	206474	3.17	PPBV	7	99
79)	m,p-XYLENE	15.133	106	337761 141551	13.35	PPBV	7	95
	O-XYLENE	15.658	106	141551	5.79	PPBV	7	96
81)	STYRENE	15.536	104	20728	0.60	PPBV	7	98
071	TOODDODYT DENGENE	16.310	105	20728 46725	0.68	PPBV	7	99
91)	4-ETHYLTOLUENE	17.042	105	367946	6.43	PPBV	7	98
92)	1,3,5-TRIMETHYLBENZENE	17.127	105	190692	4.03	PPBV	7	99
95)	1,2,4-TRIMETHYLBENZENE	17.596	105	587491	13.56	PPBV	#	32
98)	4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE 1,2,4-TRIMETHYLBENZENE p-DICHLOROBENZENE NAPHTHALENE	17.846	146	4626	0.18	PPBV	7	95
107)	NAPHTHALENE	20.328	128	32877	3.37	PPBV	7	90

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed



MW1322.M Wed Aug 17 00:25:25 2011 ACC-VOA-DESK1

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32815.D

: 20 Jul 2011 Acq On

: YOUMINH Operator : JA81330-8 Sample

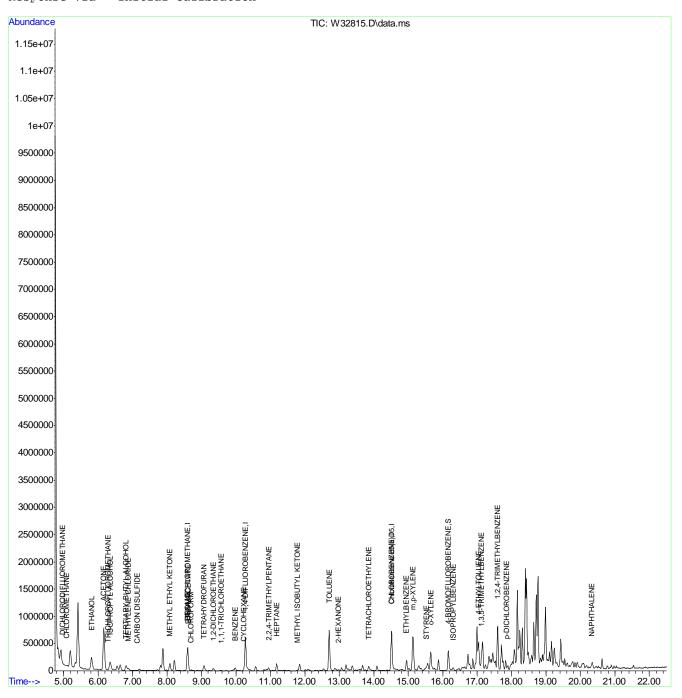
: MS15514,VW1341,400,,,,1 Misc ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 17 00:25:25 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

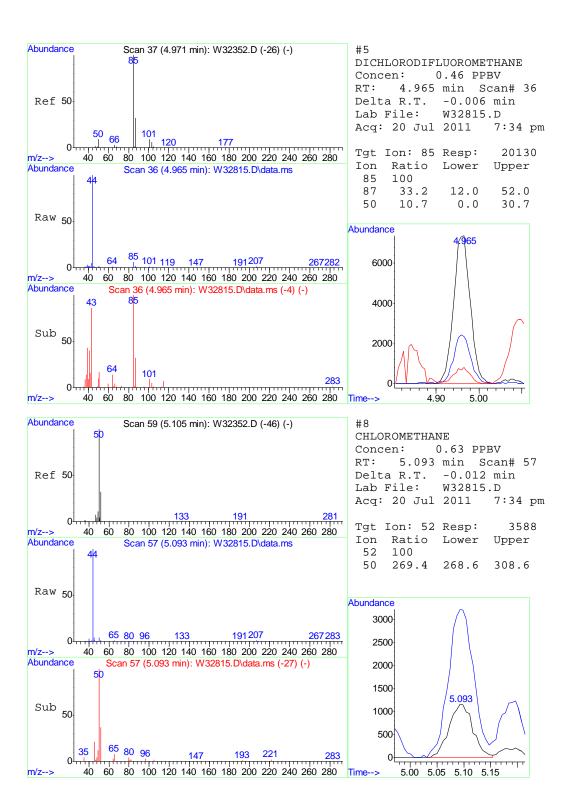
Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

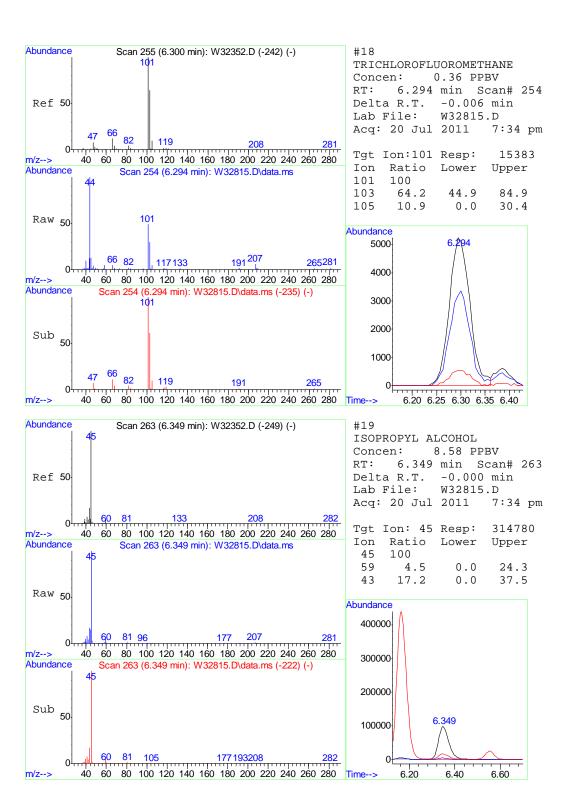
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



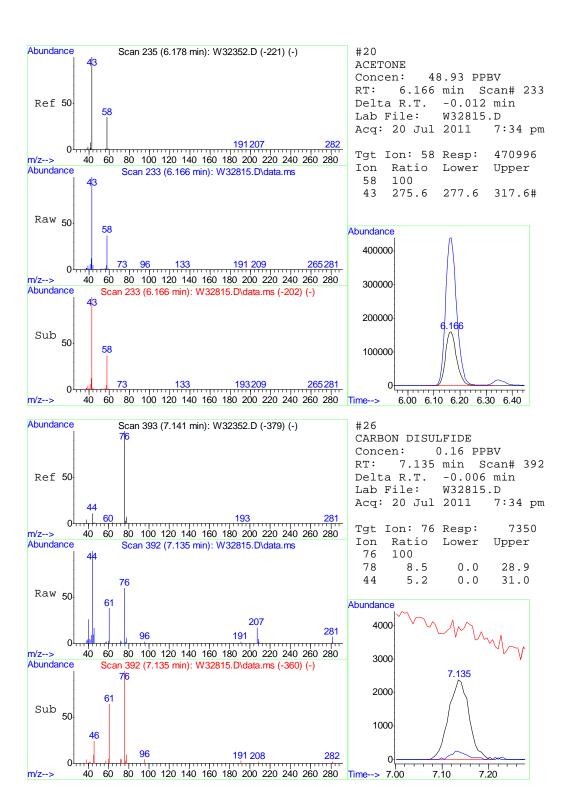
MW1322.M Wed Aug 17 00:25:25 2011 ACC-VOA-DESK1







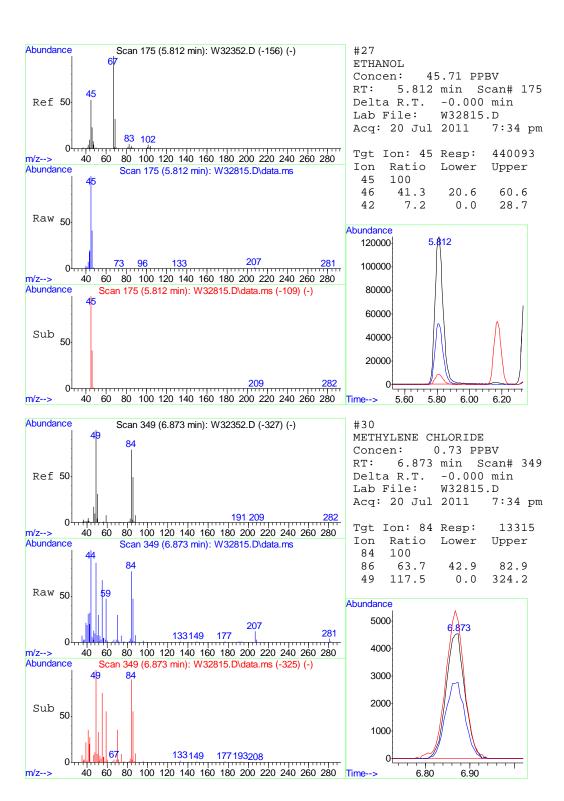


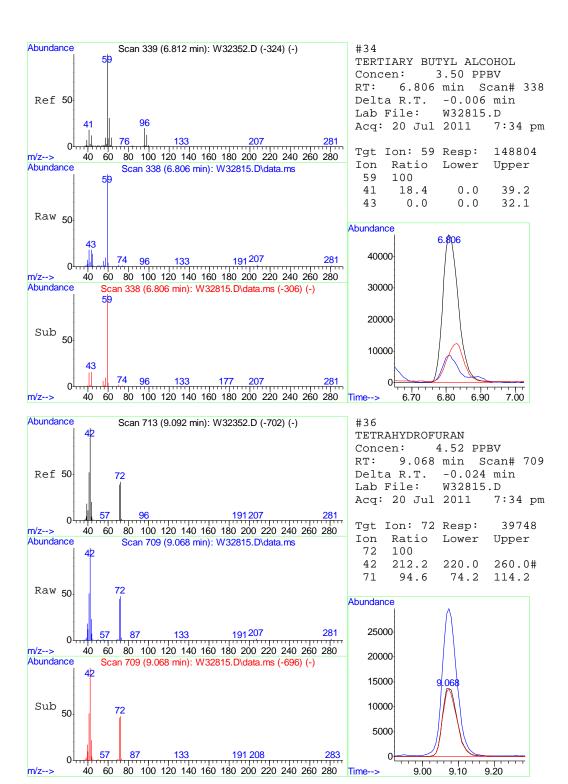


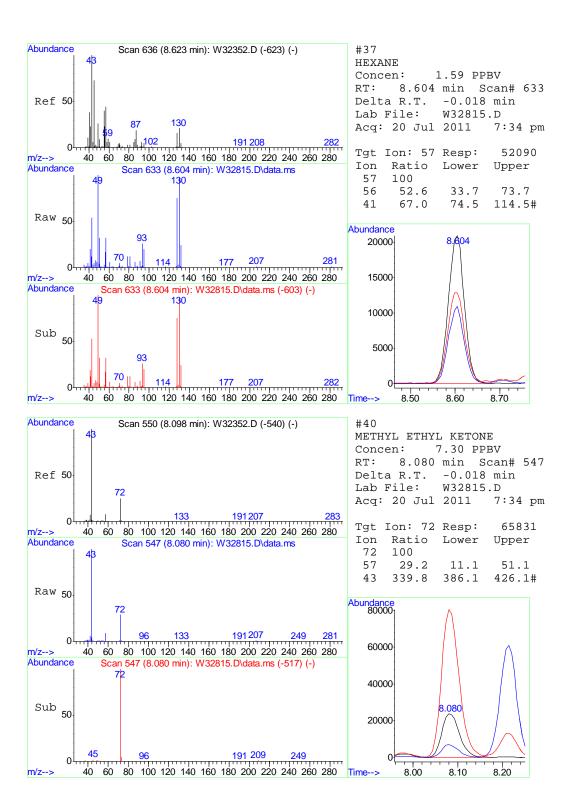
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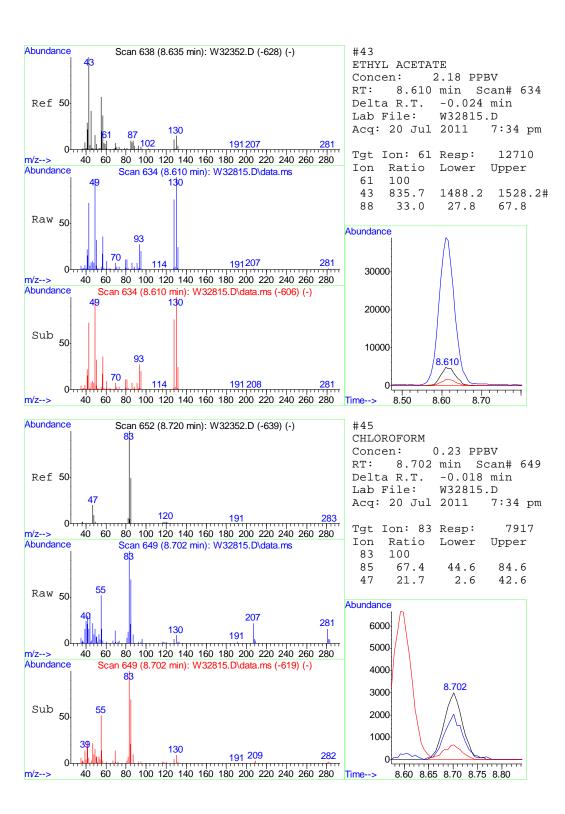
Page 5

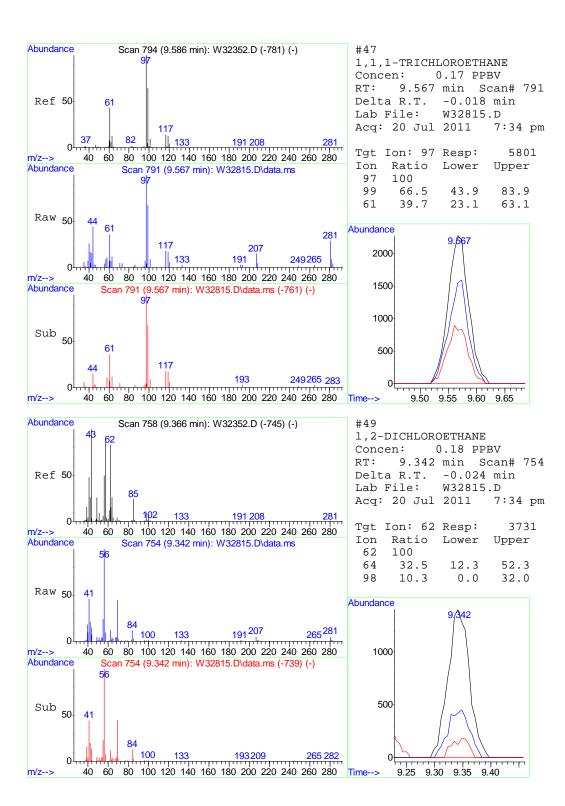
JA81330

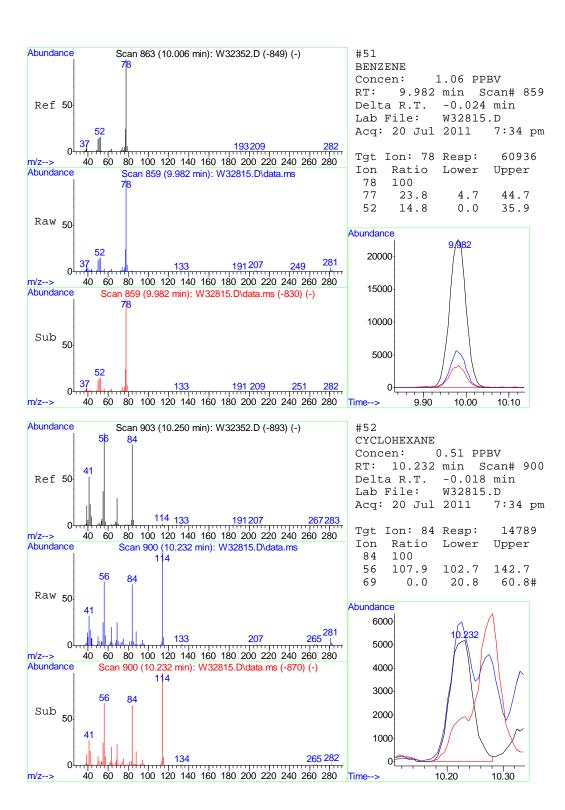










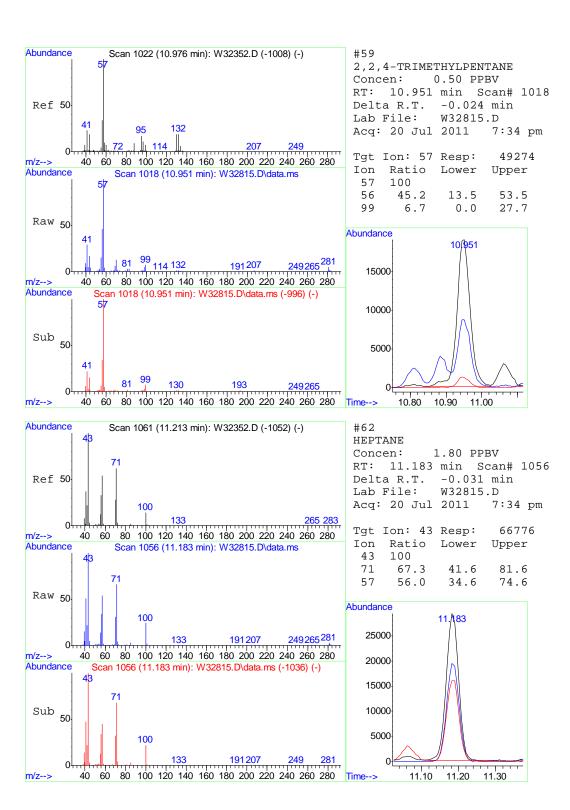


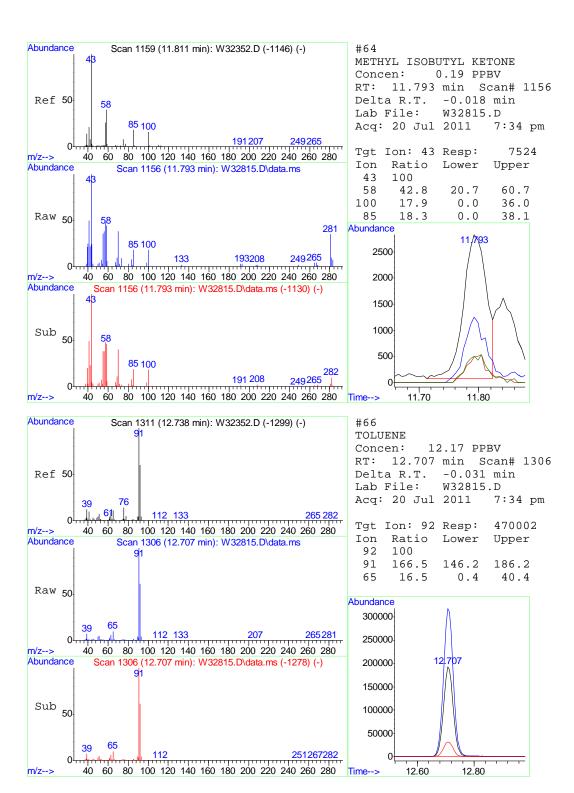
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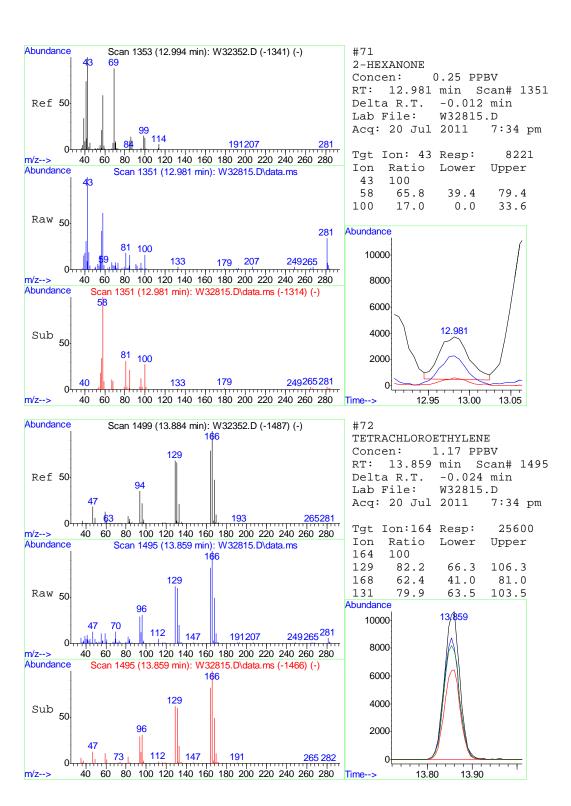
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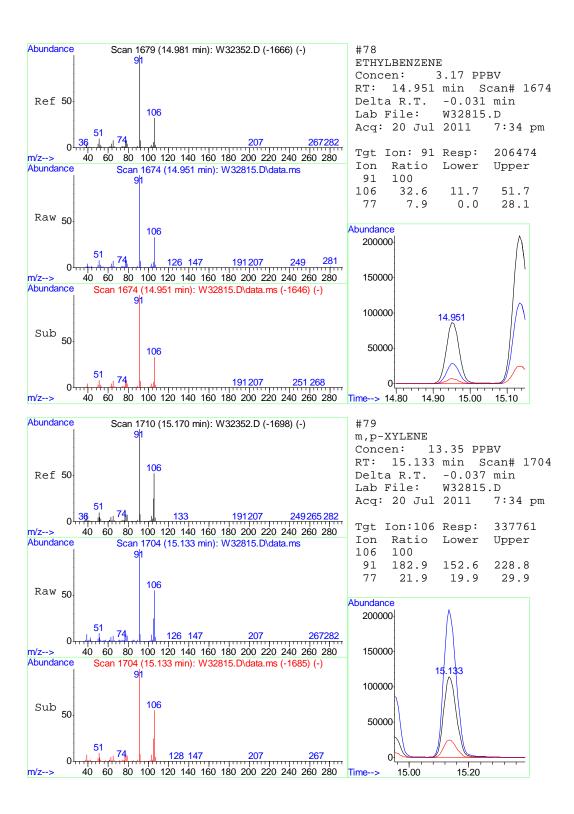
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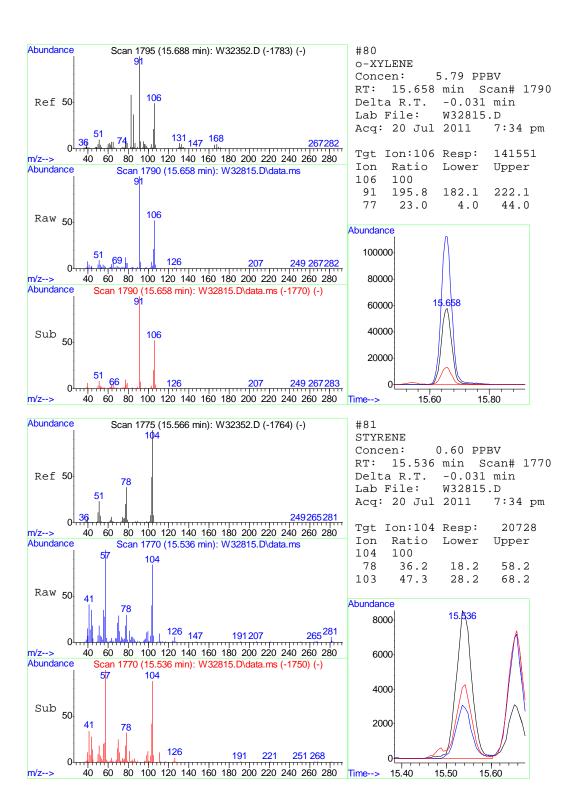




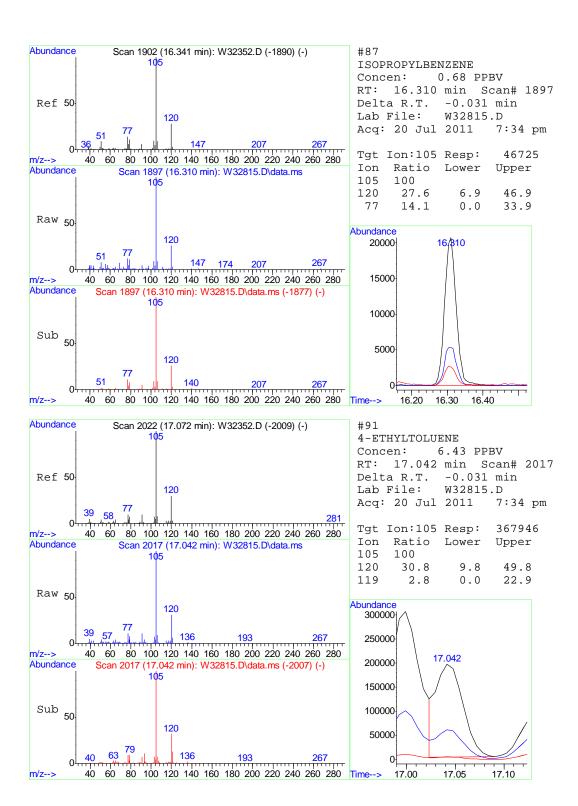


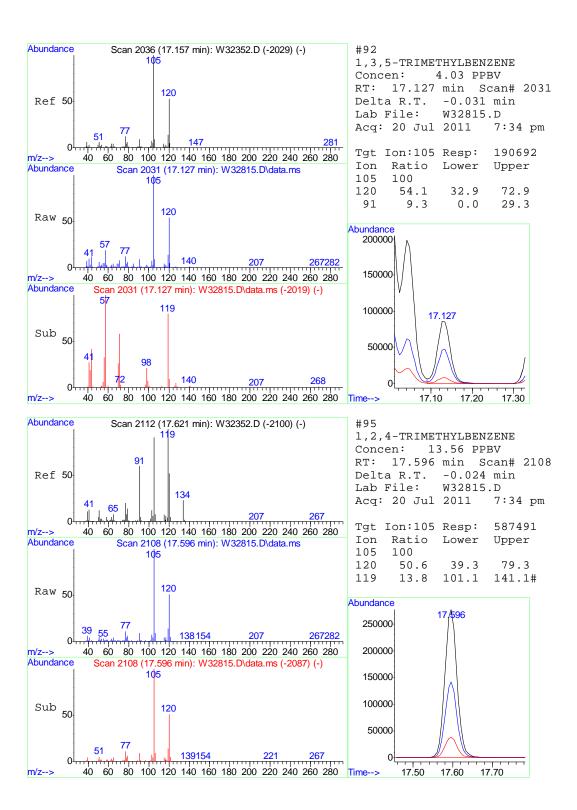
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JA81330

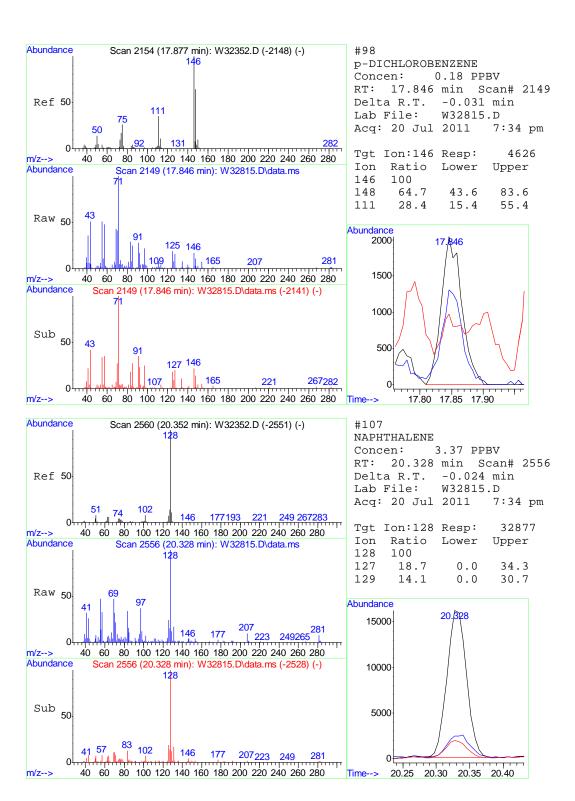




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ACCUTEST.
JA81330







Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32836.D

Acq On : 21 Jul 2011 2:57 pm Operator : YOUMINH

Sample : JA81330-8 Misc : MS15514,VW1342,200,,,,1 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 17 00:26:46 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits I	ev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	8.592	128	155800	10.00	PPBV	-0.02
50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	10.275	114	781416	10.00	PPBV	-0.02
69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	14.518	82	374827	10.00	PPBV	-0.03
106) Chlorobenzene-d5(a)	14.518	82	372809	10.00	PPBV	-0.03
System Monitoring Compounds						
85) 4-BROMOFLUOROBENZENE						
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	92.2	20%
Target Compounds						Qvalue
5) DICHLORODIFLUOROMETHANE	4.959	85	11365	0.25	PPBV	96
8) CHLOROMETHANE	5.093	52	2500	0.42	PPBV	# 80
18) TRICHLOROFLUOROMETHANE	6.294	101	2500 9677	0.22	PPBV	99
19) ISOPROPYL ALCOHOL	6.343	4.5	272818	7.19	PPBV	99
20) ACETONE 27) ETHANOL 30) METHYLENE CHLORIDE	6.160	58	309616	31.06	PPBV	99
27) ETHANOL	5.806	45	359969	36.10	PPBV	99
30) METHYLENE CHLORIDE	6.861	84	8332	0.44	PPBV	87
34) TERTIARY BUTYL ALCOHOL	6.806	59	151084	3.44	PPBV	83
36) TETRAHYDROFURAN	9.074	72	24831 37290	2.73	PPBV	# 86
37) HEXANE	8.598	57	37290	1.10	PPBV	# 84
40) METHYL ETHYL KETONE	8.080	72	41063	4.39	PPBV	98
43) ETHYL ACETATE	8.610	61	8456 4914	1.40	PPBV	# 14
45) CHLOROFORM	8.690	83	4914	0.14	PPBV	92
47) 1,1,1-TRICHLOROETHANE	9.561	97	3571	0.10	PPBV	99
51) BENZENE	9.976	78	37905 9031	0.64	PPBV	98
52) CYCLOHEXANE	10.220	84	9031	0.30	PPBV	# 81
59) 2,2,4-TRIMETHYLPENTANE	10.945	57	32444	0.32	PPBV	
62) HEPTANE	11.183	43	49842 262177	1.30	PPBV	93
66) TOLUENE	12.707	92	262177	6.56	PPBV	99
71) 2-HEXANONE			6240		PPBV	96
72) TETRACHLOROETHYLENE	13.853	164	11860 112706	0.48	PPBV	98
78) ETHYLBENZENE	14.951	91	112706	1.51	PPBV	
79) m,p-XYLENE			172875		PPBV	99
80) o-XYLENE	15.652	106	71120 10312	2.55	PPBV	99
81) STYRENE	15.536	104	10312	0.26	PPBV	94
87) ISOPROPYLBENZENE	16.304	105	23153	0.29	PPBV	98
91) 4-ETHYLTOLUENE	17.042	105	175137	2.68	PPBV	99
91) 4-ETHYLTOLUENE 92) 1,3,5-TRIMETHYLBENZENE 95) 1,2,4-TRIMETHYLBENZENE	17.127	105	93586	1.73	PPBV	99
95) 1,2,4-TRIMETHYLBENZENE	17.590	105	287145	5.80	PPBV	
107) NAPHTHALENE	20.334	128	11486	1.03	PPBV	91

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed



Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32836.D

Acq On : 21 Jul 2011 2:57 pm

Operator : YOUMINH

Sample : JA81330-8

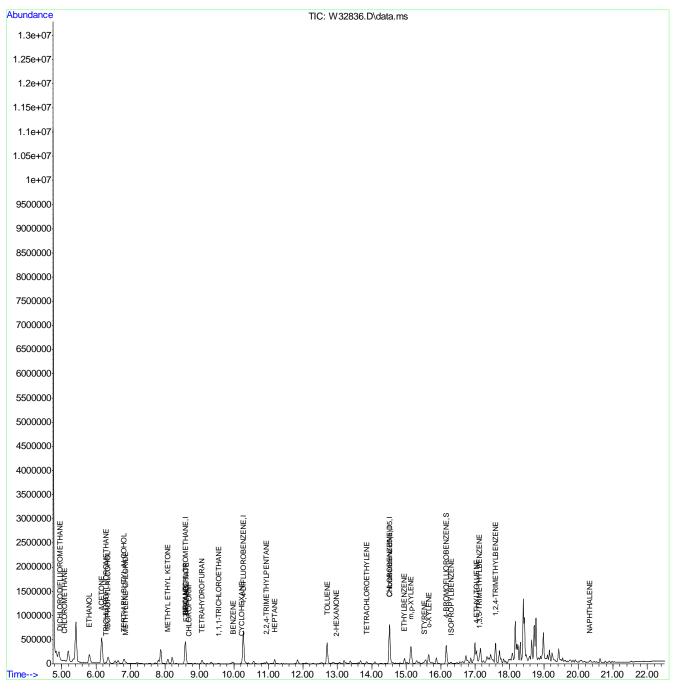
Misc : MS15514,VW1342,200,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 17 00:26:46 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

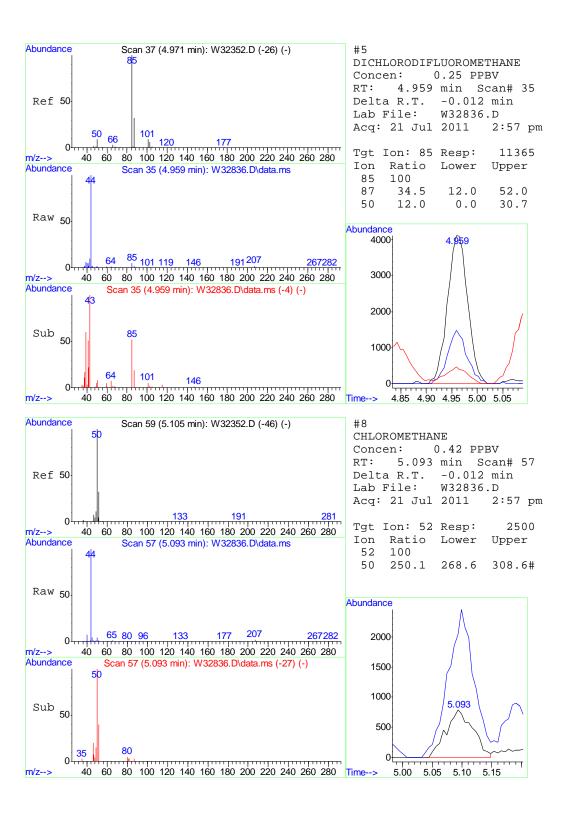
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

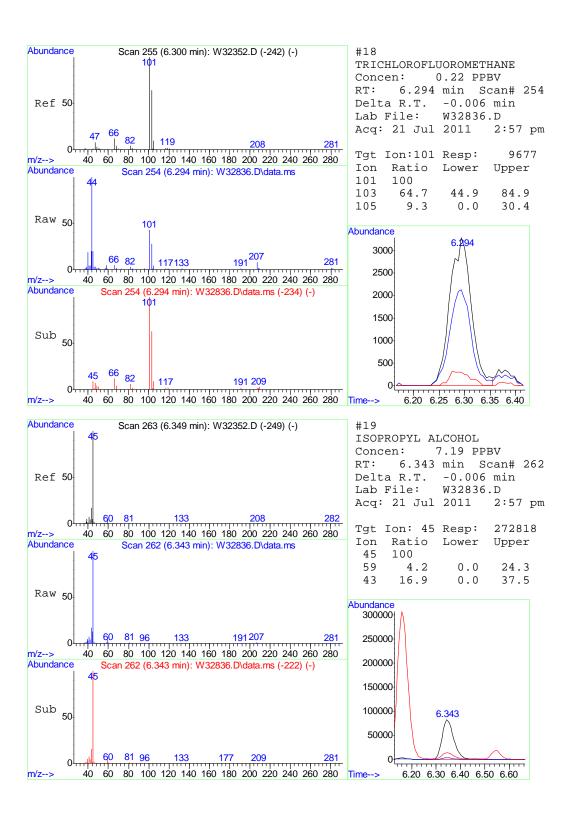


MW1322.M Wed Aug 17 00:26:46 2011 ACC-VOA-DESK1

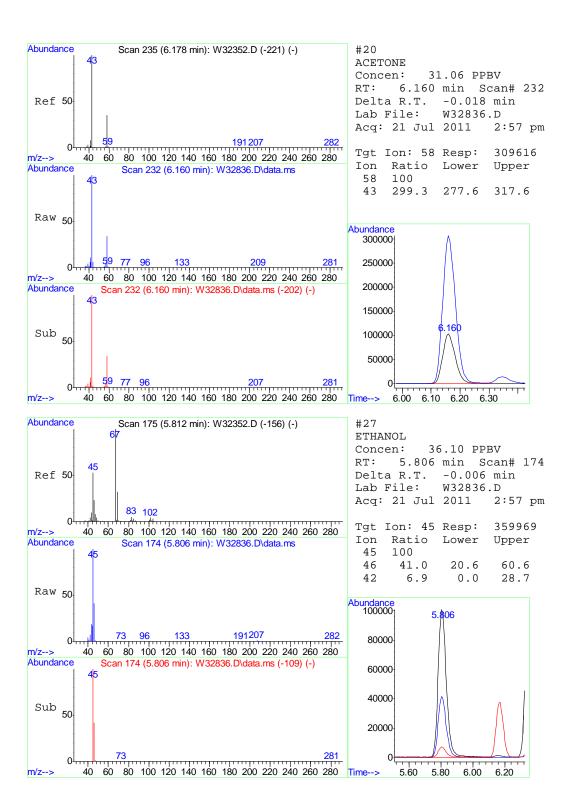
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ACCUTEST

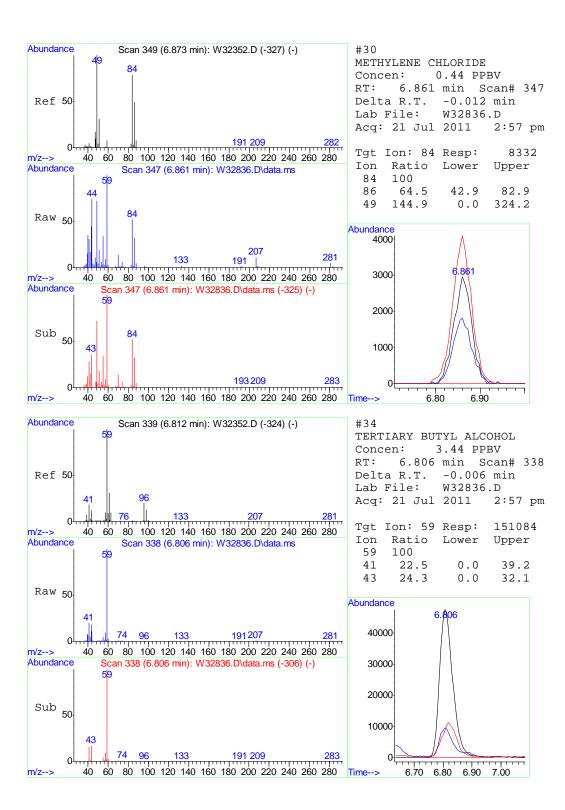
JA81330
LABORATORIES

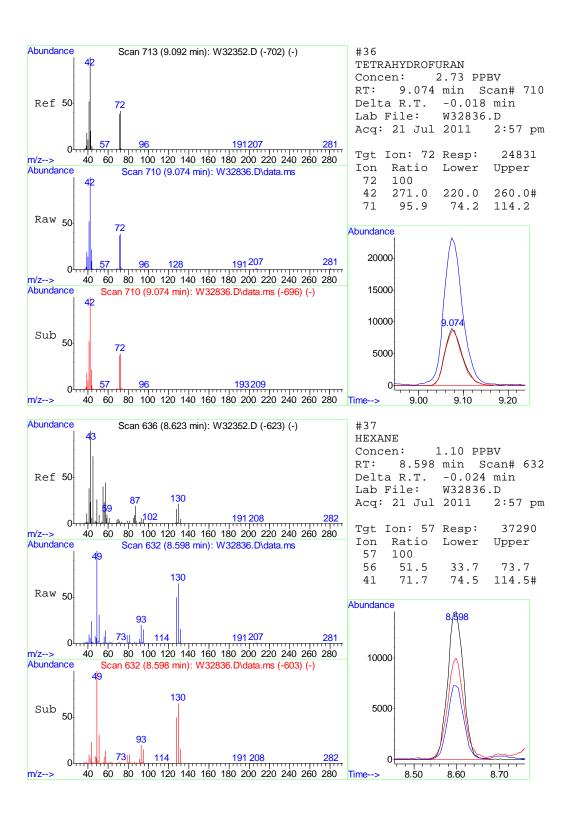


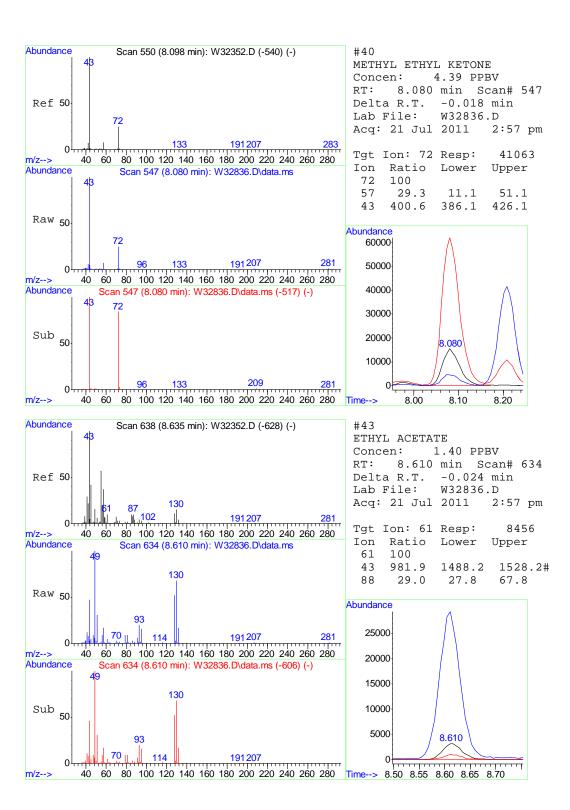


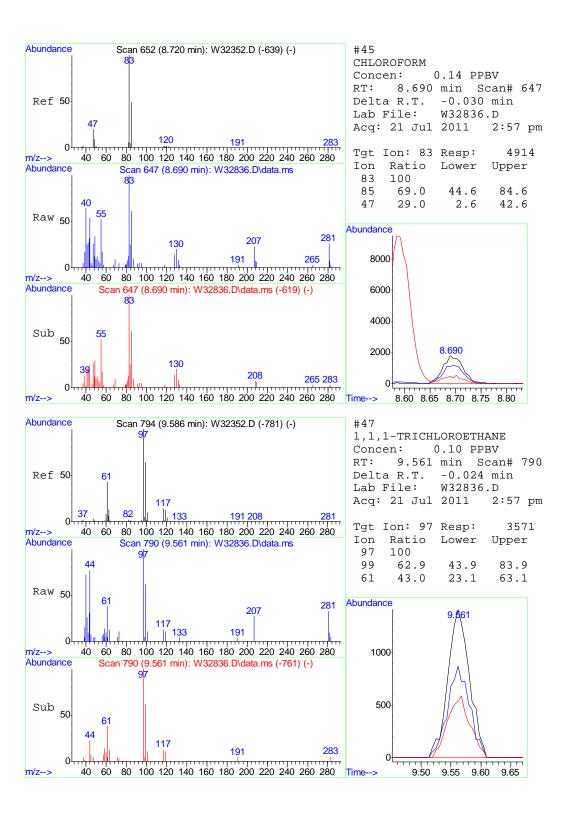
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ACCUTEST
JA81330

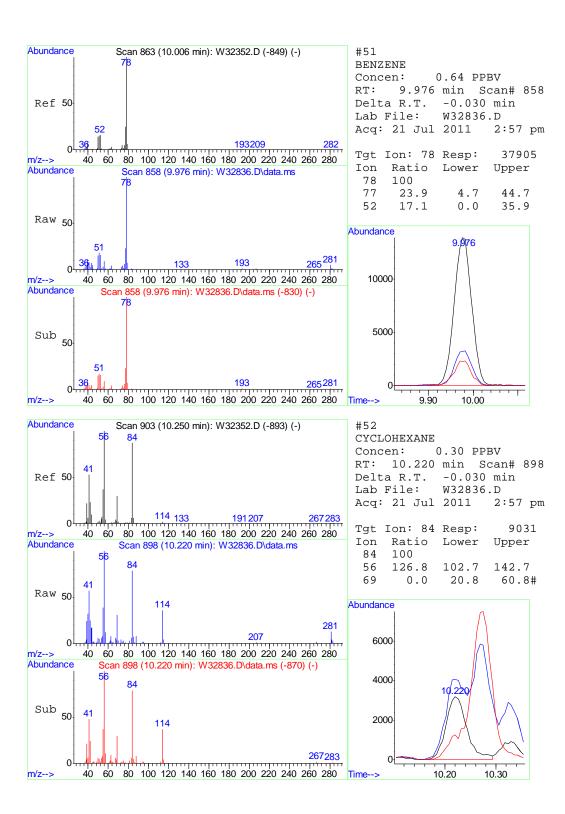


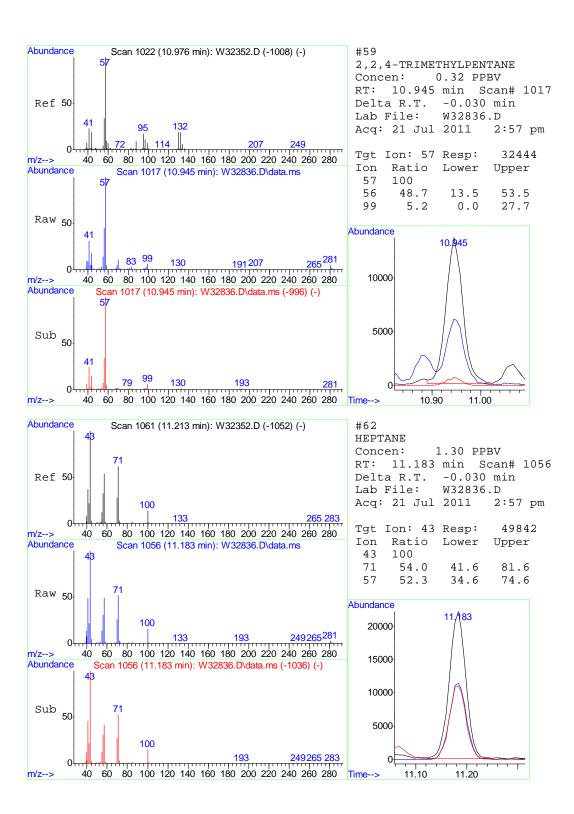


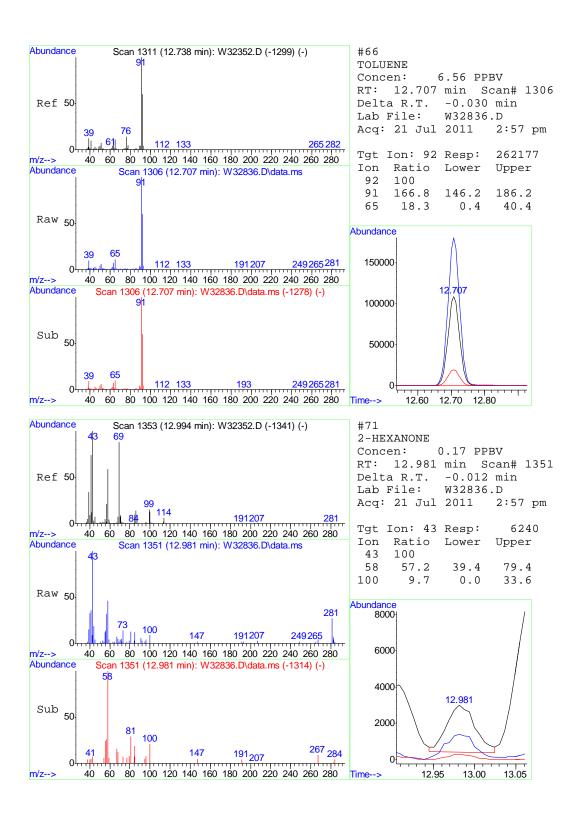


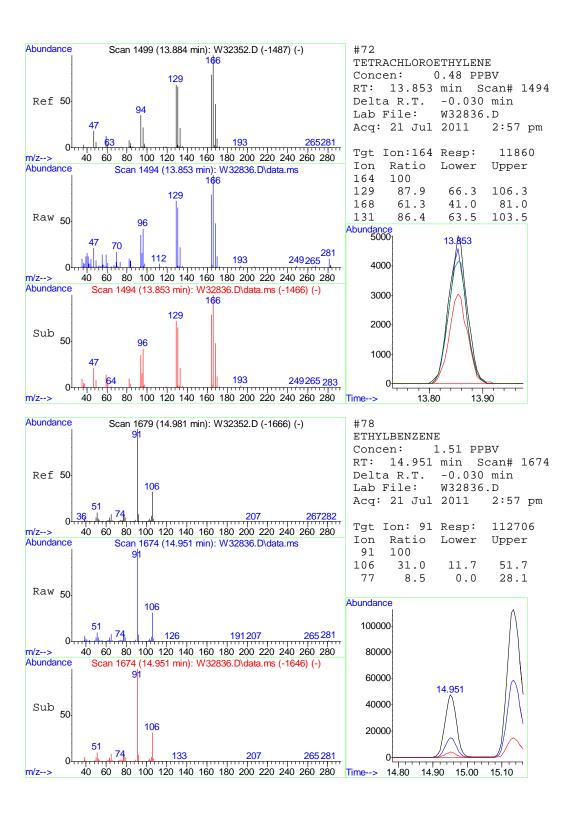




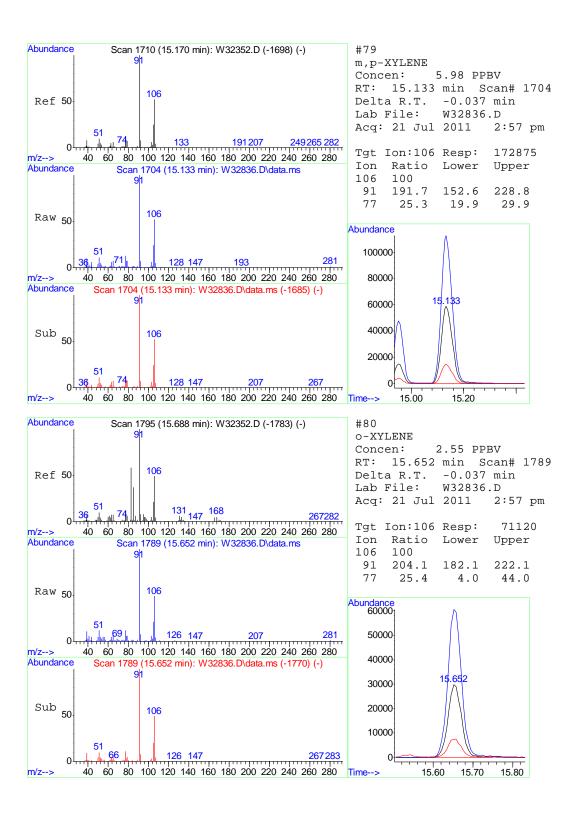


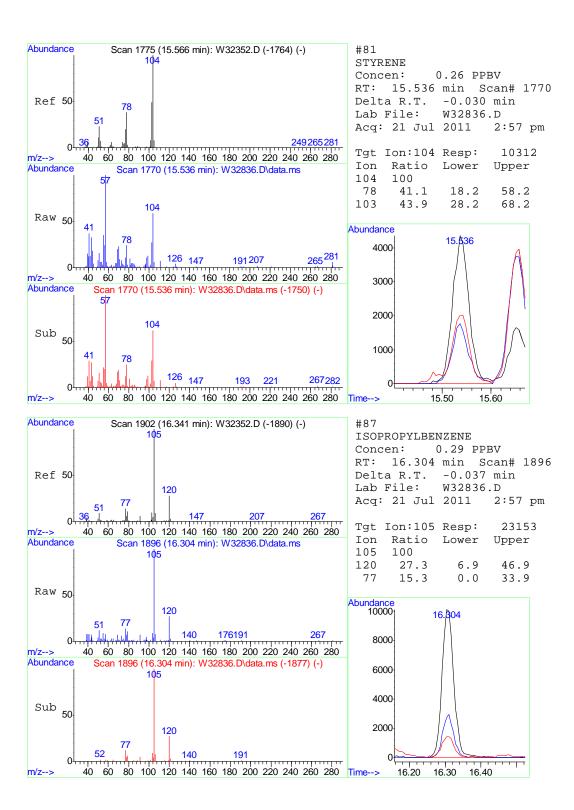


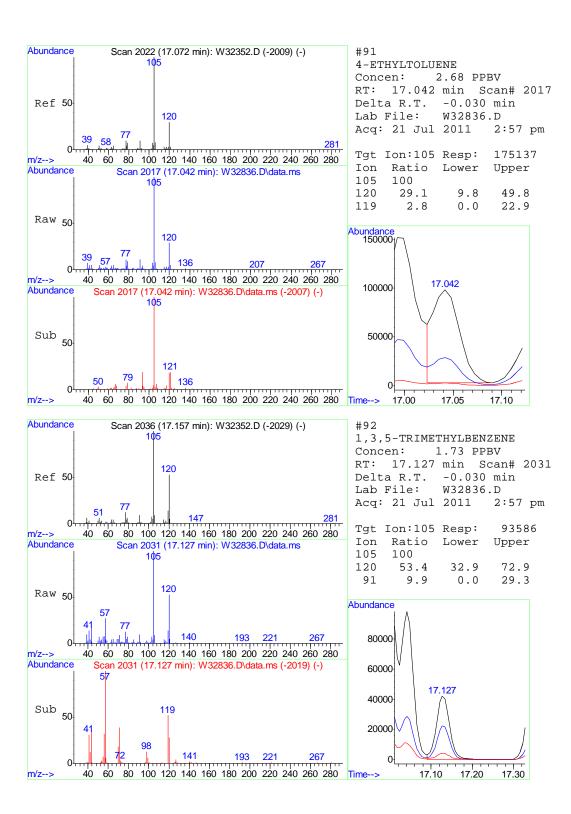


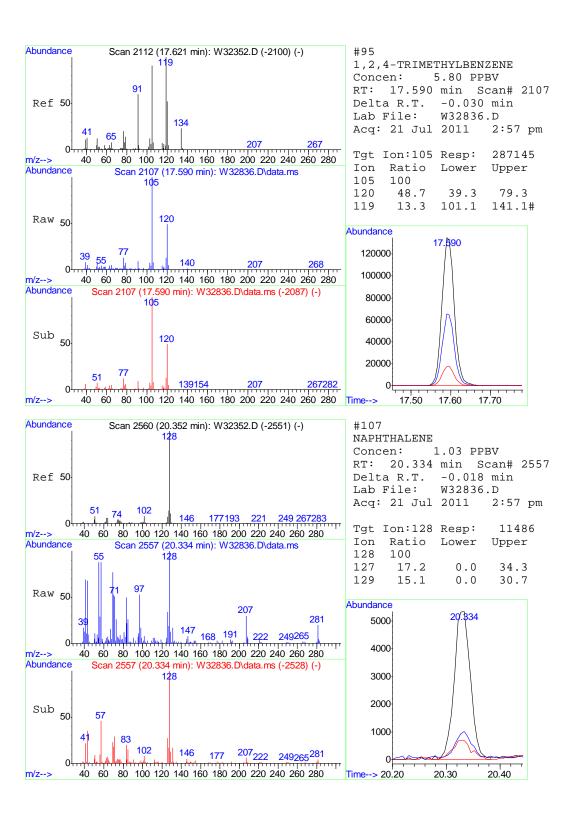


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ACCUTEST.
JA81330









Vial: 5

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32803.D

Acq On : 20 Jul 2011 11:11 am Operator: YOUMINH Sample : MB Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:11:04 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	8.59 128 10.27 114 14.51 82 14.51 82	742738	10.00 PPBV -0.03 10.00 PPBV -0.03 10.00 PPBV -0.04 10.00 PPBV -0.04
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	16.16 95 Range 65 - 12		4.44 PPBV -0.03 ery = 88.80%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32803.D MW1322.M Wed Aug 17 12:48:59 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32803.D Vial: 5

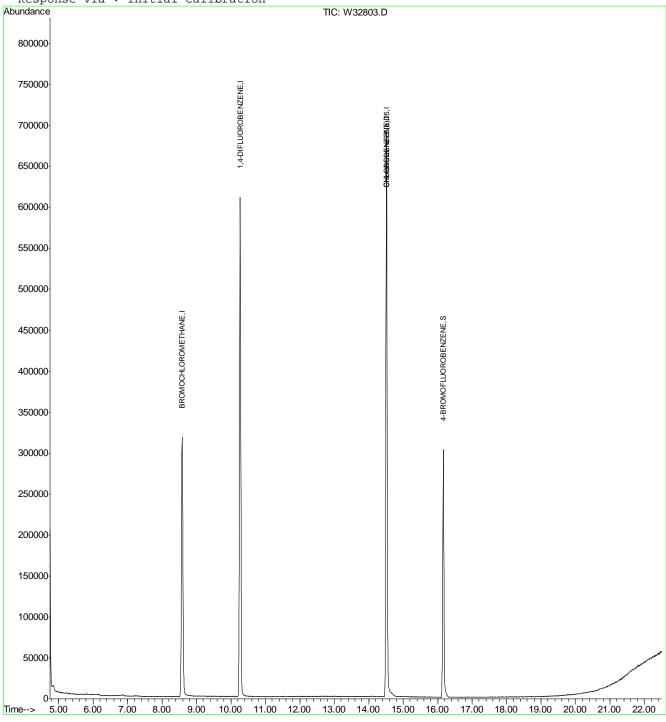
Acq On : 20 Jul 2011 11:11 am Operator: YOUMINH Sample : MB Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:05 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



W32803.D MW1322.M

Wed Aug 17 12:49:00 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32832.D Vial: 5

 Acq On
 : 21 Jul 2011 12:12 pm
 Operator: YOUMINH

 Sample
 : MB
 Inst : MSW

 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:20:00 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	8.59 128 10.27 114 14.52 82 14.52 82	163529 817019 363113 361872	10.00 PPBV -0.03 10.00 PPBV -0.03 10.00 PPBV -0.03 10.00 PPBV -0.03
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	16.16 95 Range 65 - 128	175500 Recove	4.47 PPBV -0.03 ry = 89.40%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32832.D MW1322.M Wed Aug 17 12:49:10 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32832.D Vial: 5

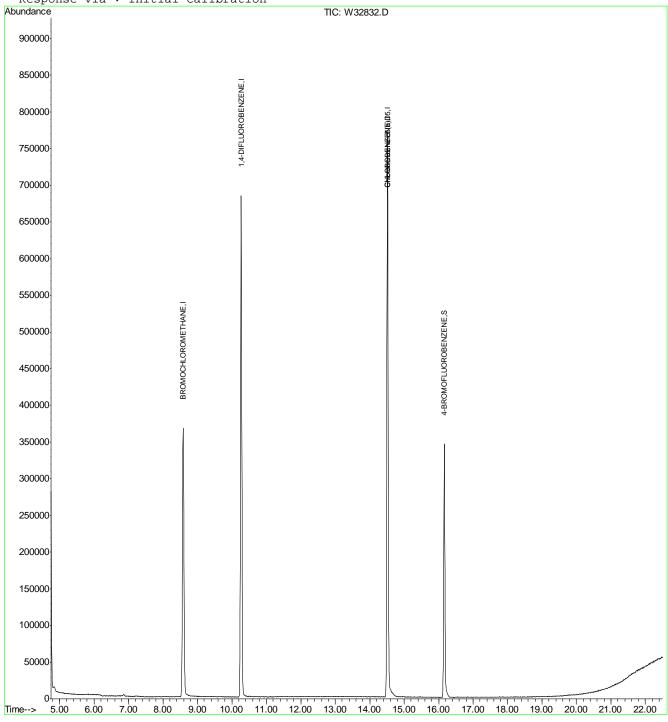
: 21 Jul 2011 12:12 pm Operator: YOUMINH Acq On Sample : MB : MSW Inst Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:51 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : T015 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



W32832.D MW1322.M

Wed Aug 17 12:49:11 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32389.D Vial: 5

 Acq On
 : 23 Jun 2011 12:33 pm
 Operator: YOUMINH

 Sample
 : MB
 Inst : MSW

 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:34 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T. QIo	n Response	Conc Units De	ev(Min)
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	8.61 12 10.29 11 14.54 8 14.54 8	4 854854 2 384904	10.00 PPBV 10.00 PPBV 10.00 PPBV 10.00 PPBV	0.00 0.00 0.00 0.00
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	16.19 9 Range 65 - 1		4.69 PPBV ery = 93.80	0.00

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32389.D MW1322.M Tue Aug 16  $08:56:11\ 2011$  MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32389.D Vial: 5

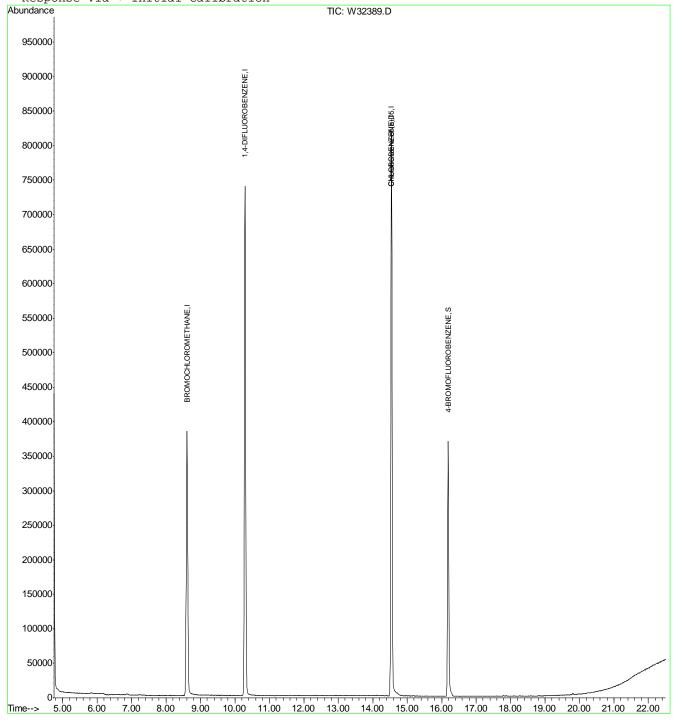
: 23 Jun 2011 12:33 pm Acq On Operator: YOUMINH Sample : MB Inst : MSW Misc : MS14299,VW1324,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



W32389.D MW1322.M

Tue Aug 16 08:56:11 2011



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23021.D Vial: 5

 Acq On
 : 24 Jun 2011 12:41 pm
 Operator: yunxiac

 Sample
 : MB
 Inst : MS3W

 Misc
 : MS14246,V3W910,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:42 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T. Ç	lon	Response	Conc Ur	nits D	ev(Min)
1) BROMOCHLOROMETHANE	7.30	128	102357	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	9.01	114	494500	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	13.30	82	233826	10.00	PPBV	-0.02
105) CHLOROBENZENE-D5 (a)	13.30	82	233826	10.00	PPBV	-0.02
System Monitoring Compounds						
83) 4-BROMOFLUOROBENZENE	14.96	95	117738	4.77	PPBV	-0.03
Spiked Amount 5.000	Range 65 -	- 128	Recove	ry =	95.4	0%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W23021.D M3W886.M Tue Aug 16 09:03:29 2011 MS3W

431 of 685
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JA81330

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23021.D Vial: 5

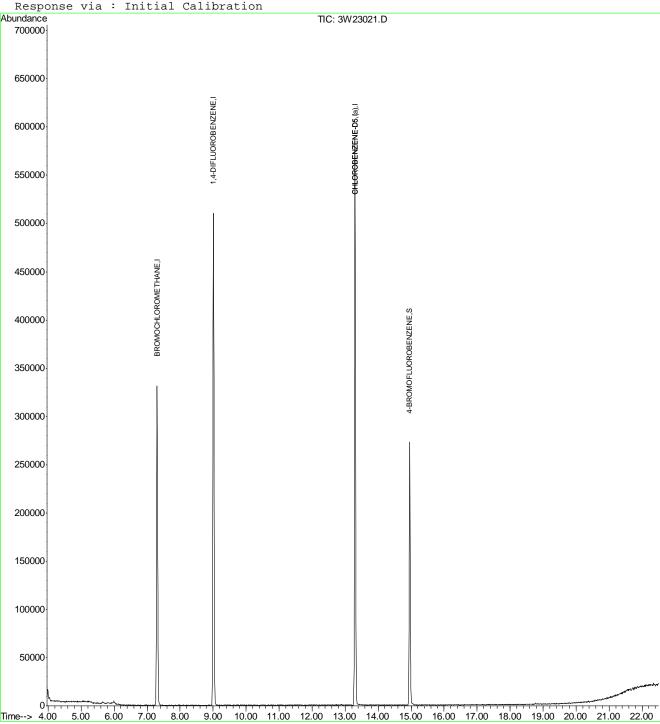
: 24 Jun 2011 12:41 pm Acq On Operator: yunxiac Sample : MB Inst : MS3W Misc : MS14246,V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011



3W23021.D M3W886.M

Tue Aug 16 09:03:29 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32801.D Vial: 3

 Acq On
 : 20 Jul 2011 8:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:10:57 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : T015W

				Response			
	BROMOCHLOROMETHANE	0. 50	100	155060	10 00		0.00
		10.09	120	155968 781273 372869 371354	10.00	PPBV	-0.02
50)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	10.47	114	7014/3	10.00	PPBV	-0.02
106)	CHLOROBENZENE-D5	14.52	82	3/2809 271254	10.00	PPDM	-0.03
106)	Chlorobenzene-d5(a)	14.52	82	3/1354	10.00	PPBV	-0.03
Syst	em Monitoring Compounds						
85)	4-BROMOFLUOROBENZENE	16.16	95	187486	4.65	PPBV	-0.03
Sp	iked Amount 5.000	Range 65	- 128	Recove	rv =	93.0	N%
Tarq	et Compounds CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE						Qvalue
4)	CHLORODIFLUOROMETHANE	4.88	67	37143	8.16	PPBV	99
5)	DICHLORODIFLUOROMETHANE	4.96	85	396244	8.65	PPBV	100
6)	PROPYLENE	4.90	41	161249	8.27	PPBV	97
7)	FREON 114	5.17	85	444368	8.28	PPBV	95
8)	CHLOROMETHANE	5.10	52	58855	9.92	PPBV	92
9)	VINYL CHLORIDE	5.28	62	210660	10.26	PPBV	99
10)	1,3-BUTADIENE	5.37	54	164599	9.57	PPBV	97
11)	n-BUTANE	5.42	43	335482	9.86	PPBV	99
12)	BROMOMETHANE	5.59	94	172142	9.79	PPBV	99
13)	CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN EREON 123	5.71	64	117945	10.01	PPBV	94
15)	ACROLEIN	6.06	56	78086	9.27	PPBV	99
16)	FREON 123 FREON 123A	6.07	83	445801	9.96	PPBV	# 100
17)	FREON 123A	6.11	117	246201	9.19	PPBV	93
18)	TRICHLOROFLUOROMETHANE	6.29	101	401651	9.18	PPBV	99
19)	ISOPROPYL ALCOHOL ACETONE PENTANE	6.34	45	374355	9.85	PPBV	98
20)	ACETONE	6.16	58	90900	9.11	PPBV	91
22)	PENTANE	6.54	57	62980	9.79	PPBV	97
23)	TVHC as EQUIV PENTANE	6.54	TIC	1118899m	9.60	PPBV	
24)	IODOMETHANE	6.73	142	462401	9.95	PPBV	98
25)	1,1-DICHLOROETHYLENE	6.77	96	187836	9.55	PPBV	97
26)	CARBON DISULFIDE	7.13	76	532857	11.21	PPBV	99
27)	ETHANOL	5.81	45	86378	8.65	PPBV	98
29)	BROMOETHENE	5.98	106	179111	9.80	PPBV	99
30)	METHYLENE CHLORIDE	6.85	84	179313	9.50	PPBV	96
31)	3-CHLOROPROPENE	6.95	76	98399	10.40	PPBV	96
32)	FREON 113	7.05	151	268217	8.30	PPBV	94
33)	TRANS-1,2-DICHLOROETHYLE	NE 7.59	96	183314	9.93	PPBV	99
34)	TERTIARY BUTYL ALCOHOL	6.80	59	454549	10.33	PPBV	99
35)	METHYL TERTIARY BUTYL ET	HE 7.80	73	459520	8.73	PPBV	98
36)	TETRAHYDROFURAN	9.07	72	88862	9.74	PPBV	95
37)	HEXANE	8.60	57	359876	10.59	PPBV	94
38)	VINYL ACETATE	7.85	86	46962	9.20	PPBV	# 89
39)	1,1-DICHLOROETHANE	7.76	63	351638	9.84	PPB11	100
40)	METHYL ETHYL KETONE	8.08	12	88762	9.49	PPD11	98
41)	C1S-I, Z-DICHLOROETHYLENE	8.45	96	194267	9.28	PPD11	100
4Z)	DI-ISORKORIT ELHEK	8.59	45 61	000U/9	9.77	LLRA LLRA	94 # 05
45)	CALODOLODM	0.01	0 J D T	248026	9.72	PPD01	# 25 00
45)	2 A_DIMETUVI DENTANE	0.70	03 E7	121220 121206	9.58 10 E4	PPDM	00
40)	2, ==DIMEIDIDENIANE 1 1 1_TDICHIODOFTUNKE	9.30 0 F 6	5 / 07	424200 327790	10.54 a n4	DDDM	90
	IODOMETHANE  1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE DI-ISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE	٠.50	<i>э I</i> 		J. U4		



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32801.D MW1322.M Wed Aug 17 12:48:51 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32801.D Vial: 3

Acq On : 20 Jul 2011 8:52 am Operator: YOUMINH Sample : BS Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:10:57 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	:	Qva	alue
48)	CARBON TETRACHLORIDE	10.11	117	327945	8.82 PF	BV		99
	1,2-DICHLOROETHANE	9.34			9.57 PF			100
	BENZENE	9.98	78	605372	10.16 PF			98
52)	CYCLOHEXANE	10.22	84	605372 288062	9.58 PF	BV		96
53)	2,3-DIMETHYLPENTANE	10.41	71	153564	10.34 PF	BV		97
54)	TRICHLOROETHYLENE	10.41 10.94	95	234226	10.34 PF 10.11 PF	BV		96
56)	1,2-DICHLOROPROPANE	10.72	63	218369	9.73 PF			97
	BROMODICHLOROMETHANE	10.91	83	366936	9.97 PF	BV		100
59)	2,2,4-TRIMETHYLPENTANE	10.95	57	1137630	11.10 PF			99
60)	1,4-DIOXANE	10.96	88	121542	10.04 PF 9.45 PF	PBV		98
61)	METHYL METHACRYLATE	11.10	69	192255				97
62)	HEPTANE	11.18		411994				96
	TVHC as EQUIV HEPTANE	11.18			10.23 PF			
	METHYL ISOBUTYL KETONE	11.78		447983	10.88 PF			97
	cis-1,3-DICHLOROPROPENE	11.75		293973	9.84 PF			98
	TOLUENE	12.71		385941	9.65 PF			99
	trans-1,3-DICHLOROPROPENE	12.26	75	267941	9.67 PF 10.11 PF	PBV		99
	1,1,2-TRICHLOROETHANE		83	175388		PBV		98
	2-HEXANONE	12.97						97
	TETRACHLOROETHYLENE	13.85		239668	9.66 PF			98
	DIBROMOCHLOROMETHANE	13.15		327052	9.78 PF			100
,	1,2-DIBROMOETHANE	13.39		277800	9.99 PF 11.12 PF	PBV		100
	OCTANE	13.68		525343	11.12 PF	PBV		95
	1,1,1,2-TETRACHLOROETHANE		131	237325	9.61 PF 9.76 PF	PBV	#	99
	CHLOROBENZENE	14.57						99
	ETHYLBENZENE	14.95	91		10.12 PF			99
	m,p-XYLENE	15.15			20.18 PF			97
	O-XYLENE	15.66			9.91 PF			99
	STYRENE	15.54	104	405652	10.30 PF			98
	1,2,3-TRICHLOROPROPANE	15.80	75	261266	9.63 PF			98
,	NONANE	15.88	43	460579	11.21 PF 9.77 PF	BV		97
,	BROMOFORM	15.24	173			BV		100
	1,1,2,2-TETRACHLOROETHANE			353313				99
,	ISOPROPYLBENZENE			762647	9.76 PF			
	2-CHLOROTOLUENE	16.85						100
	n-PROPYLBENZENE	16.88	120	191923 655467	9.96 PF			92
,	4-ETHYLTOLUENE	17.04	105	655467	10.09 PF			100
	1,3,5-TRIMETHYLBENZENE	17.13	105 134	513497 132343	9.56 PF 9.33 PF			100 99
	TERT-BUTYLBENZENE	17.59	134	132343				
	1,2,4-TRIMETHYLBENZENE	17.60		487189	9.89 PF			99 99
	m-DICHLOROBENZENE BENZYL CHLORIDE	17.77 17.75			10.17 PF 10.54 PF	DV		99
	p-DICHLOROBENZENE	17.75			10.54 PF			99
	SEC-BUTYLBENZENE	17.83	124	290097 149160	9.75 PF			94
	p-ISOPROPYLTOLUENE	10 00	124	149100	10.21 PF			98
	o-DICHLOROBENZENE	10.00	1/16	148416 256781	9.78 PF			99
	n-BUTYLBENZENE	18 57	134	113966	9.54 PF			94
	HEXACHLOROBUTADIENE	20.37	225	00017	0 60 55	DIT		99
	1,2,4-TRICHLOROBENZENE	20.72	180	88217 67421	9.60 PF 10.72 PF	BM		99



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32801.D MW1322.M Wed Aug 17 12:48:51 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32801.D Vial: 3

 Acq On
 : 20 Jul 2011 8:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:10:57 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

Response via : Initial Calibi

DataAcq Meth : T015W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32801.D MW1322.M Wed Aug 17 12:48:51 2011 MSW

435 of 685
ACCUTEST

JA81330
LABORATORIES

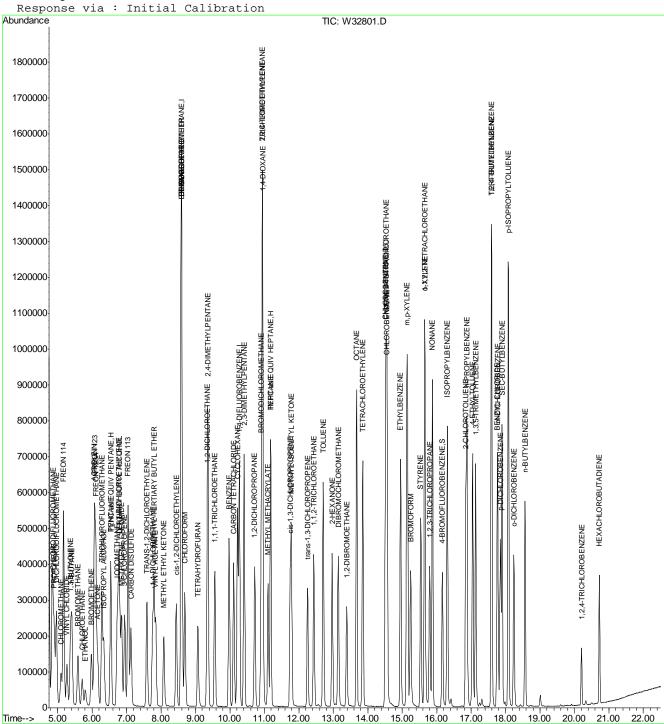
Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32801.D Vial: 3

Acq On : 20 Jul 2011 8:52 am Operator: YOUMINH Sample : BS Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:04 2011 Quant Results File: MW1322.RES

Last Update : Wed Jun 22 11:25:24 2011



W32801.D MW1322.M

Wed Aug 17 12:48:52 2011



## Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32801.D Vial: 3

 Acq On
 : 20 Jul 2011 8:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

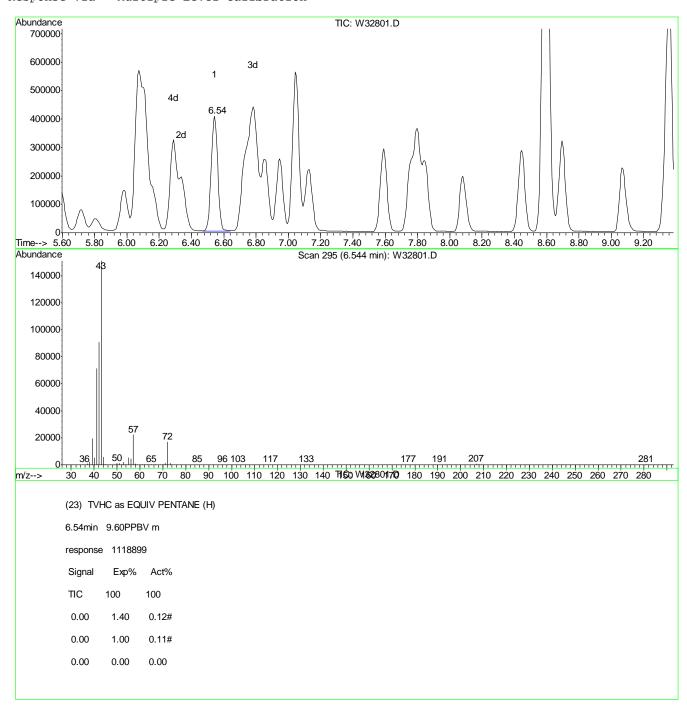
 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:04 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32801.D MW1322.M

Wed Aug 17 14:39:11 2011



## Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32801.D Vial: 3

 Acq On
 : 20 Jul 2011 8:52 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

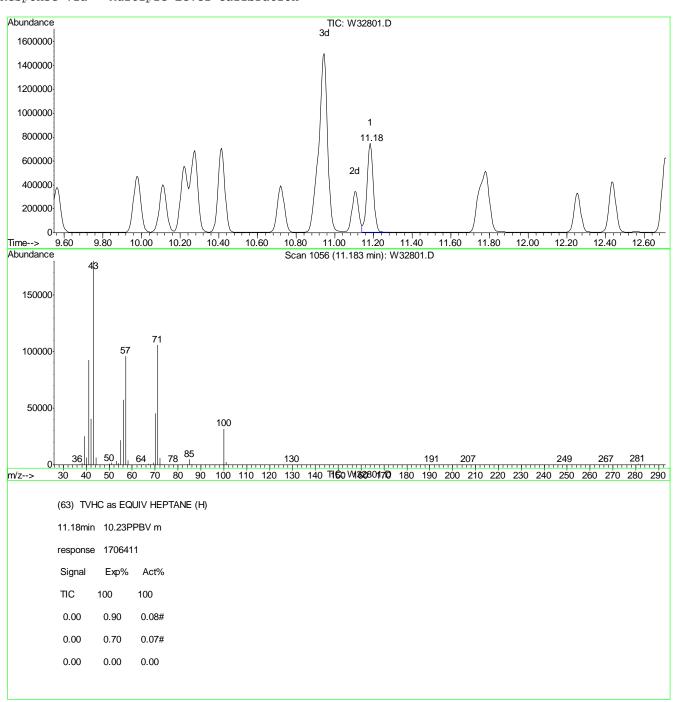
 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:04 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32801.D MW1322.M

Wed Aug 17 14:39:17 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32802.D Vial: 3

 Acq On
 : 20 Jul 2011 9:32 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:11:00 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
1) BROMOCHLOROMETHANE	8.59	128	153068	10.00	PPRV	-0.02
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	10.27	114	758678	10.00	PPBV	-0.02
69) CHLOROBENZENE-D5	14.52	82	350941	10.00	PPBV	-0.03
106) Chlorobenzene-d5(a)	14 52	82	350267	10.00	PPRV	-0.03
100) enforcement us (u)	11.52	02	330207	10.00	1121	0.03
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE						
85) 4-BROMOFLUOROBENZENE	16.16	95	178416	4.70	PPBV	-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	94.0	0%
Target Compounds						Ovalue
4) GIII ODOD TET IIODOM ERII III	4.88	67	35759	8.01		~
5) DICHLORODIFLUOROMETHANE	4 96	85	383893	8 54	PPRV	100
4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 12) BROMOMETHANE 13) CHLOROETHANE 15) ACROLEIN 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 22) PENTANE 23) TVHC as EQUIV PENTANE 24) IODOMETHANE 25) 1,1-DICHLOROETHYLENE	4.88 4.96 4.91	41	152621	7 98	PPRV	98
7) FREON 114	5 17	85	427315	8 11	PPRV	94
8) CHLOROMETHANE	5 10	52	55712	9 57	PPRV	92
9) VINVI, CHLORIDE	5 27	62	201965	10 02	DDBV	99
10) 1 3-RITADIENE	5.27	54	156164	9 25	DDRV	97
11) n-RITTANE	5.37	43	314246	9.41	DDRV	# 99
12) BROMOMETHANE	5 59	94	166300	9.41	DDRV	99
13) CHIODOFTHANE	5.32 5.71	64	112412	9.72	DDRV	95
15) ACDOTETN	5.71	56	70222	9.72	זמממ	99
16) FDFON 122	6.00	20	125035	9.40	DDDM	# 99
17) FREON 123	6 11	117	2/2/2/2	9.92	DDDM	# 99
10) TOTCUI ODORI HODOMETUNNE	6 20	101	292470	9.23	DDDM	100
10) TRICHLOROF BOOROMETHANE	6 3/	101	360169	9.07	DDDM	100
20) ACETONE	6 16	40	01021	9.00	DDDM	90
20) ACEIONE	6.10	50	91021	9.49	PPDV	91
22) PENIANE	6.54	D 7	10E0202m	9.50	PPBV	97
24) TODOMETHANE	6.34	142	1059363111	10 06	PPBV	0.0
25) 1 1 DIGHT ODORGHUM ENE	6.73	142	101020	10.06	PPBV	90
25) 1,1-DICHLOROETHYLENE 26) CARBON DISULFIDE	0.//	96 76	181938 508577 85322 175632 177199	9.43	DDD11	98
26) CARBON DISULFIDE	7.13	/ b	508577	10.90	PPD77	99
27) ETHANOL 29) BROMOETHENE	5.81	106	85322	8.71	PPD77	98
20 \ MEDITAL DATE CITE OF THE	5.98	106	175032	9.79	PPD77	99
30) METHYLENE CHLORIDE	6.85	84	1//199	9.5/	PPBV	9 /
31) 3-CHLOROPROPENE	6.95	76	95987	10.34	PPBV	97
30) METHYLENE CHLORIDE 31) 3-CHLOROPROPENE 32) FREON 113 33) TRANS-1,2-DICHLOROETHYLE 34) TERTIARY BUTYL ALCOHOL 35) METHYL TERTIARY BUTYL ET 36) TETRAHYDROFURAN 37) HEXANE 38) VINYL ACETATE	7.04	151	266940	8.42	PPBV	95
33) TRANS-1,2-DICHLOROETHYLE	ENE 7.59	96	178150	9.83	PPB/	98
34) TERTIARY BUTYL ALCOHOL	6.79	59	440429	10.20	PPBV	99
35) METHYL TERTIARY BUTYL ET	THE 7.80	73	467024	9.05	PPBV	99
36) TETRAHYDROFURAN	9.07	72	90288	10.09	PPBV	100
37) HEXANE 38) VINYL ACETATE	8.60	57	344114	10.32	PPBV	94
38) VINYL ACETATE	7.85	86	47616	9.51	PPBV	9.7
39) 1,1-DICHLOROETHANE	7.76	63	332107	9.47	PPBV	100
40) METHYL ETHYL KETONE	8.08	72	90744	9.89	PPBV	# 91
41) cis-1,2-DICHLOROETHYLENE	E 8.45	96	189622	9.23	PPBV	97
42) DI-ISOPROPYL ETHER	8.59	45	674059	9.78	PPBV	94
43) ETHYL ACETATE	8.61	61	58847	9.91	PPBV	98
45) CHLOROFORM	8.70	83	336533	9.41	PPBV	99
46) 2,4-DIMETHYLPENTANE	9.36	57	399988	10.13	PPBV	99
37) HEXANE 38) VINYL ACETATE 39) 1,1-DICHLOROETHANE 40) METHYL ETHYL KETONE 41) cis-1,2-DICHLOROETHYLENE 42) DI-ISOPROPYL ETHER 43) ETHYL ACETATE 45) CHLOROFORM 46) 2,4-DIMETHYLPENTANE 47) 1,1,1-TRICHLOROETHANE	9.56	97	315740 	8.87	PPBV	99

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W32802.D MW1322.M Wed Aug 17 12:48:55 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32802.D Vial: 3

Acq On : 20 Jul 2011 9:32 am Operator: YOUMINH Sample : BSD Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:11:00 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	CARBON TETRACHLORIDE	10.11	117	317820	8.71 PPBV	100
	1,2-DICHLOROETHANE	9.34			9.42 PPBV	
	BENZENE	9.98	78	588695	10.17 PPBV	98
52)	CYCLOHEXANE	10.22	84	588695 279756	9.58 PPBV	99
53)	2,3-DIMETHYLPENTANE	10.41	71	147158	10.20 PPBV	99
	TRICHLOROETHYLENE	10.94	71 95	147158 230345	10.24 PPBV	98
56)	1,2-DICHLOROPROPANE	10.72	63	214046	9.82 PPBV	
	BROMODICHLOROMETHANE	10.91	83	357239	10.00 PPBV	100
59)	2,2,4-TRIMETHYLPENTANE	10.95	57	1083733	10.89 PPBV	99
60)	1,4-DIOXANE	10.96	88	122221	10.40 PPBV 9.82 PPBV 10.47 PPBV	# 82
61)	METHYL METHACRYLATE	11.10		194049	9.82 PPBV	99
62)	HEPTANE	11.18				
	TVHC as EQUIV HEPTANE	11.18		1624256m		
	METHYL ISOBUTYL KETONE	11.78		430055	10.76 PPBV	
	cis-1,3-DICHLOROPROPENE	11.75		296169	10.21 PPBV	97
	TOLUENE	12.71	92	391902	10.09 PPBV	99
	trans-1,3-DICHLOROPROPENE	12.26	75 83	266454 174999	9.90 PPBV	
	1,1,2-TRICHLOROETHANE	12.43				
	2-HEXANONE	12.97			10.88 PPBV	
	TETRACHLOROETHYLENE	13.85		241567	10.34 PPBV	
	DIBROMOCHLOROMETHANE	13.15		328874	10.45 PPBV	
,	1,2-DIBROMOETHANE	13.39		285024	10.89 PPBV	
	OCTANE	13.68		498424	11.21 PPBV	
	1,1,1,2-TETRACHLOROETHANE		131	240406 457962	10.35 PPBV	
	CHLOROBENZENE	14.57			10.58 PPBV	
	ETHYLBENZENE	14.95	91	755666	10.84 PPBV	
	m,p-XYLENE	15.15		590167	21.81 PPBV	
	O-XYLENE	15.66		282375	10.81 PPBV	
	STYRENE	15.54	104	414065	11.17 PPBV	
	1,2,3-TRICHLOROPROPANE	15.80		266928	10.46 PPBV	
,	NONANE	15.88		442318	11.44 PPBV	
,	BROMOFORM	15.25		290642	10.77 PPBV	
	1,1,2,2-TETRACHLOROETHANE	15.66		359683	11.74 PPBV	
,	ISOPROPYLBENZENE	16.31		778822	10.59 PPBV	
	2-CHLOROTOLUENE	16.85		175160	10.67 PPBV 10.98 PPBV	
	n-PROPYLBENZENE 4-ETHYLTOLUENE	16.88 17.04	105	199110 676444	10.96 PPBV 11.06 PPBV	
,	1,3,5-TRIMETHYLBENZENE	17.13	105	533453	10.55 PPBV	
	TERT-BUTYLBENZENE	17.13		138120	10.35 PPBV	
	1,2,4-TRIMETHYLBENZENE	17.60	105	506583	10.93 PPBV	
	m-DICHLOROBENZENE	17.77		314521	11.46 PPBV	
	BENZYL CHLORIDE	17.75		376317	11.51 PPBV	
	p-DICHLOROBENZENE	17.85			11.10 PPBV	
	SEC-BUTYLBENZENE	17.90	146 134	157041	10.90 PPBV	
	p-ISOPROPYLTOLUENE	18.08	134		11.46 PPBV	
	o-DICHLOROBENZENE	18.24	146	268896	10.89 PPRV	98
	n-BUTYLBENZENE	18.57	134	118507	10.89 PPBV 10.54 PPBV	98
	HEXACHLOROBUTADIENE	20.72	225	96576	11.17 PPBV	98
	1,2,4-TRICHLOROBENZENE	20.21	180	73888	11.17 PPBV 12.49 PPBV	99



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32802.D MW1322.M Wed Aug 17 12:48:55 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32802.D Vial: 3

 Acq On
 : 20 Jul 2011 9:32 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:11:00 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32802.D MW1322.M Wed Aug 17 12:48:55 2011 MSW

441 of 685
ACCUTEST

JA81330
LABORATORIES

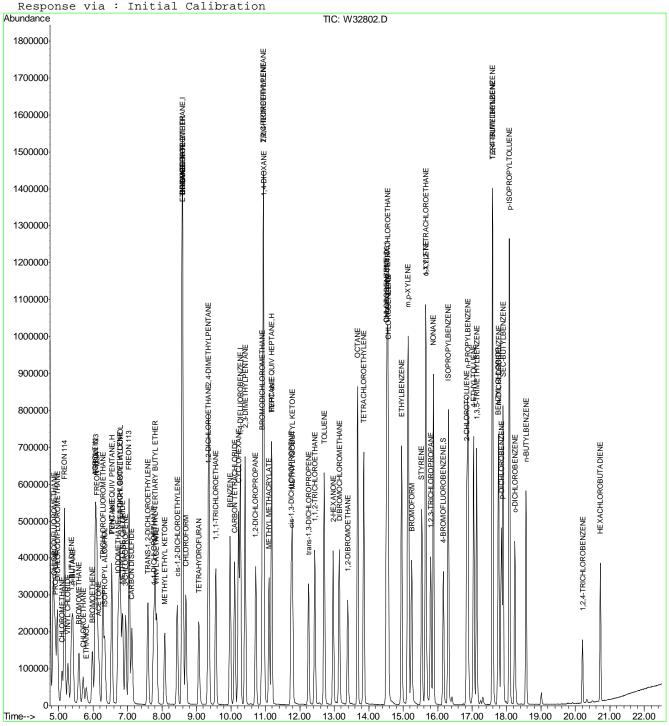
Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32802.D Vial: 3

Acq On : 20 Jul 2011 9:32 am Operator: YOUMINH Sample : BSD Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:05 2011 Quant Results File: MW1322.RES

Last Update : Wed Jun 22 11:25:24 2011



W32802.D MW1322.M

Wed Aug 17 12:48:56 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32802.D Vial: 3

 Acq On
 : 20 Jul 2011
 9:32 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst
 : MSW

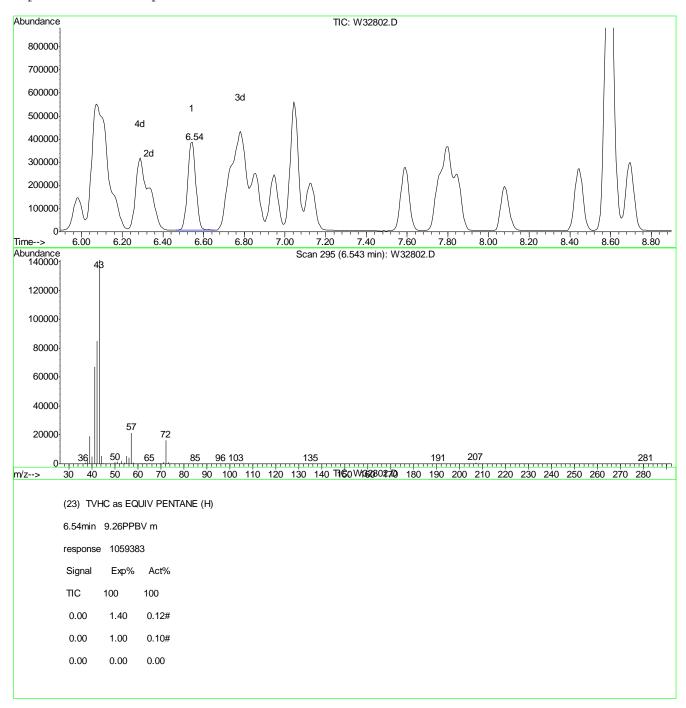
 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:05 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32802.D MW1322.M

Wed Aug 17 14:39:25 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32802.D Vial: 3

 Acq On
 : 20 Jul 2011
 9:32 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst
 : MSW

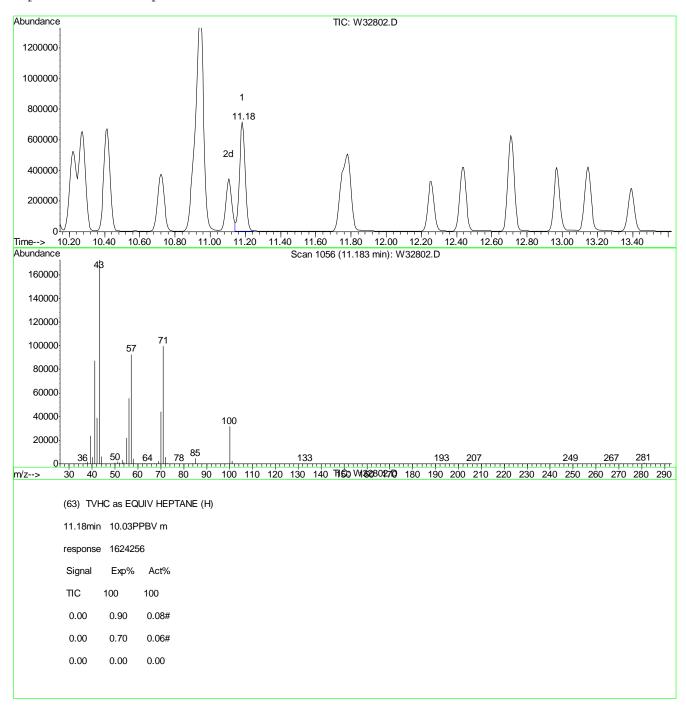
 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:05 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32802.D MW1322.M

Wed Aug 17 14:39:32 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32830.D Vial: 3

 Acq On
 : 21 Jul 2011 10:05 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:52 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Inte	rnal Standards	R.T.	QIon	Response	Conc U	nits D	ev(Min)
1)	BROMOCHLOROMETHANE	8.59	128	151273	10.00	PPBV	-0.02
50)	BROMOCHLOROMETHANE 1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a)	10.27	114	749351	10.00	PPBV	-0.02
69)	CHLOROBENZENE-D5	14.52	82	362293	10.00	PPBV	-0.03
106)	Chlorobenzene-d5(a)	14 52	82	361561	10.00	PPRV	-0.03
		11.32	02	301301	10.00	112	0.03
Syst	em Monitoring Compounds						
	4-BROMOFLUOROBENZENE						
Sp	iked Amount 5.000	Range 65	- 128	Recove	ery =	92.2	0%
Targ	et Compounds						Qvalue
4)	CHLORODIFLUOROMETHANE	4.88	67	35985	8.15	PPBV	99
		4.96	85	380380	8.56	PPBV	100
6)	DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123	4.91	41	380380 156377 419051 55421 198911 157019 323532 160602 112500 79140 428641 235004 386205 370397 93318 60786 1083221m	8.27	PPBV	98
7)	FREON 114	5.17	85	419051	8.05	PPBV	95
8)	CHLOROMETHANE	5.10	52	55421	9.63	PPBV	# 87
9)	VINYL CHLORIDE	5.27	62	198911	9.99	PPBV	99
10)	1,3-BUTADIENE	5.37	54	157019	9.41	PPBV	99
11)	n-BUTANE	5.42	43	323532	9.80	PPBV	99
12)	BROMOMETHANE	5.59	94	160602	9.41	PPBV	99
13)	CHLOROETHANE ACROLEIN FREON 123 FREON 123A	5.71	64	112500	9.85	PPBV	95
15)	ACROLEIN	6.07	56	79140	9.69	PPBV	99
16)	FREON 123	6.07	83	428641	9.87	PPBV	# 99
17)	FREON 123A	6.11	117	235004	9.05	PPBV	92
18)	TRICHLOROFLUOROMETHANE	6.29	101	386205	9.10	PPBV	100
		6.34	45	370397	10.05	PPBV	97
20)	ISOPROPYL ALCOHOL ACETONE PENTANE	6.17	58	93318	9.64	PPBV	93
22)	PENTANE	6.54	57	60786	9.74	PPBV	97
231	TVHC as ECULTY DENTANE	6.54	TIC	1083221m	9.58	PPBV	
24)	IODOMETHANE	6.73	142	1083221m 437733	9.71	PPBV	99
25)	1,1-DICHLOROETHYLENE	6.77	96	178934	9.38	PPBV	96
26)	CARBON DISULFIDE	7.13	76	502959	10.91	PPBV	100
27)	ETHANOL	5.81	45	87127	9.00	PPBV	98
29)	BROMOETHENE	5.98	106	167545	9.45	PPBV	100
30)	METHYLENE CHLORIDE	6.86	84	167706	9.17	PPBV	92
31)	3-CHLOROPROPENE	6.95	76	93784	10.22	PPBV	95
32)	FREON 113	7.04	151	254745	8.13	PPBV	93
33)	TRANS-1.2-DICHLOROETHYLE	NE 7.59	96	175102	9.78	PPBV	99
34)	TERTIARY BUTYL ALCOHOL	6.80	59	443693	10.39	PPBV	99
35)	METHYL TERTIARY BUTYL ET	HE 7.80	73	466971	9.15	PPBV	98
36)	TETRAHYDROFURAN	9.07	72	89181	10.08	PPBV	93
37)	HEXANE	8 60	57	343238	10 42	PPRV	96
38)	VINYL ACETATE	7.85	86	47652	9.63	PPBV	# 86
39)	1 1-DICHLOROETHANE	7.05	63	340315	9 81	PPRV	99
40)	METHYL ETHYL KETONE	8 08	72	89108	9 82	PPRV	100
41)	cig-1 2-DICHLOROETHVLENE	8 45	96	185530	9 14	DDRV	99
42 N	DI-IGODRODVI FTHER	Ω 50.43	45	698874	10 26	DDDM	# 02
42)	ETHVI. ACETATE	8 61	4.5 6.1	58969	10.20	DDBN	<sub>т</sub> эз
45) 45)	CHI.OROFORM	Q 70	83	335786	9 50	DDDM	т <u>20</u>
45)	2 A-DIMETUVI DENTANE	0.70	63 57	333700	10 24	בבסע סחם <i>וו</i>	99
/17\	2, = DIMEILLE DE NIAME  1 1 1_TDTCUT ODOUTUNNE	9.30 0 56	<i>31</i>	318607	0 06	DDD11	20
<del>1</del> / )	IODOMETHANE  1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE cis-1,2-DICHLOROETHYLENE DI-ISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE	9.50	<i>ਹ।</i> 	JI0031	<i>و</i>	V	



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32830.D MW1322.M Wed Aug 17 12:49:04 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32830.D Vial: 3

Acq On : 21 Jul 2011 10:05 am Operator: YOUMINH Sample : BS Inst : MSW Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:52 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Unit 8.73 PPBV 9.73 PPBV 10.31 PPBV 9.56 PPBV 10.32 PPBV 10.09 PPBV 10.15 PPBV	Qvalue
48)	CARBON TETRACHLORIDE	10.11	117	314682	8.73 PPBV	99
49)	1,2-DICHLOROETHANE	9.34	62	198623	9.73 PPBV	100
	BENZENE	9.98	78	589482	10.31 PPBV	98
52)	CYCLOHEXANE	10.22	84	275718	9.56 PPBV	95
	2,3-DIMETHYLPENTANE	10.41	71	147125	10.32 PPBV	96
54)	TRICHLOROETHYLENE	10.94	95	224337	10.09 PPBV	96
56)	1,2-DICHLOROPROPANE	10.72	63	218404	10.15 PPBV 10.09 PPBV 11.12 PPBV 10.07 PPBV 9.83 PPBV	97
58)	BROMODICHLOROMETHANE	10.91	83	356045	10.09 PPBV	100
	2,2,4-TRIMETHYLPENTANE	10.95	57	1093609	11.12 PPBV	99
	1,4-DIOXANE	10.96	88	116860	10.07 PPBV	# 50
	METHYL METHACRYLATE	11.11	69	191843	9.83 PPBV	96
,	HEPTANE	11.18	43	396905	10.79 PPBV 10.11 PPBV	95
	TVHC as EQUIV HEPTANE	11.18	TIC	1616761m	10.11 PPBV	
	METHYL ISOBUTYL KETONE	11.79	4.3	439315	11.13 PPBV	97
	cis-1,3-DICHLOROPROPENE	11.75	75	291332	10.17 PPBV 10.04 PPBV	98
	TOLUENE	12.71	92	385092	10.04 PPBV	99
67)	trans-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	12.26	75	267474	10.07 PPBV 10.43 PPBV	99
68)	1,1,2-TRICHLOROETHANE	12.43	83	173508	10.43 PPBV	98
	2-HEXANONE	12.97	43	387298	10.81 PPBV 9.44 PPBV 9.81 PPBV 10.17 PPBV 11.28 PPBV	96
	TETRACHLOROETHYLENE	13.85	164	227758	9.44 PPBV	99
,	DIBROMOCHLOROMETHANE	13.15	129	318652	9.81 PPBV	100
,	1,2-DIBROMOETHANE	13.39	107	274930	10.17 PPBV	100
	OCTANE	13.68	43	517811	11.28 PPBV	93
76)	1,1,1,2-TETRACHLOROETHANE	14.55	131	236611	9.86 PPBV 9.92 PPBV	# 99
,	CHLOROBENZENE	14.57	112	443316		
,	ETHYLBENZENE	14.95	91	750814	10.43 PPBV	99
	m,p-XYLENE	15.15	106	578255	20.70 PPBV	98
,	O-XYLENE	15.66	106	277764	10.30 PPBV	99
,	STYRENE	15.54	104	406556	10.43 PPBV 20.70 PPBV 10.30 PPBV 10.63 PPBV 10.18 PPBV 11.64 PPBV 9.93 PPBV	98
,	1,2,3-TRICHLOROPROPANE	15.80	/5	268294	10.18 PPBV	97
,	NONANE	15.88 15.25	172	464612	11.64 PPBV	97
	BROMOFORM		1/3	2/0090	11 20 PPBV	100 99
	1,1,2,2-TETRACHLOROETHANE ISOPROPYLBENZENE	16.31	105	359778 760721	10.14 PPBV	. 99
,			105	16973I	11.38 PPBV 10.14 PPBV 10.01 PPBV 10.46 PPBV 10.66 PPBV	. # 98
	2-CHLOROTOLUENE	16.85 16.88	120	105000	10.01 PPBV	. 93
90)	n-PROPYLBENZENE 4-ETHYLTOLUENE	17.04	105	672829	10.40 PPBV	99
/	1,3,5-TRIMETHYLBENZENE	17.13	105	524773	10.00 FFBV	100
	TEDT DITTYI DENIZENE	17 EO	134	136191	10.05 PPBV 9.89 PPBV	100
	1,2,4-TRIMETHYLBENZENE	17.60 17.77	105	500502	10.46 PPBV	98
001	m-DICHLOROBENZENE	17.77	146	297077	10.48 PPBV	. 00
97)	RENZYL CHLORIDE	17 75	91	500502 297077 373898	11 08 PPBV	98
98)	p-DICHLOROBENZENE	17 85	146	290567	10 40 PPBV	99
99)	SEC-BUTYLBENZENE	17.90	134	152774	10.10 FFBV	93
100)	p-ISOPROPYLTOLUENE	18.08	134	150321	10.64 PPBV	98
101)	o-DICHLOROBENZENE	18.24	146	258080	10.12 PPBV	. 99
102)	n-BUTYLBENZENE	18.57	134	114390	9.85 PPBV	92
104)	HEXACHLOROBUTADIENE	20.72	225	88218	9.88 PPBV	99
105)	m-DICHLOROBENZENE BENZYL CHLORIDE p-DICHLOROBENZENE SEC-BUTYLBENZENE p-ISOPROPYLTOLUENE o-DICHLOROBENZENE n-BUTYLBENZENE HEXACHLOROBUTADIENE 1,2,4-TRICHLOROBENZENE	20.21	180	64598	10.58 PPBV	99



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32830.D Vial: 3

Acq On : 21 Jul 2011 10:05 am Operator: YOUMINH Sample : BS Inst : MSW Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:52 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32830.D MW1322.M Wed Aug 17 12:49:05 2011 MSW

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ACCUTEST
JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32830.D Vial: 3

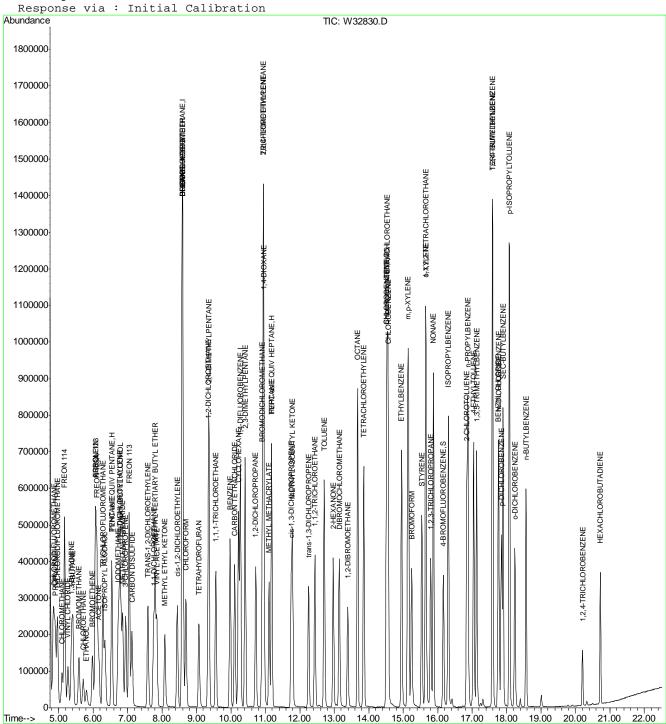
: 21 Jul 2011 10:05 am Operator: YOUMINH Acq On Sample : BS : MSW Misc : MS15431,VW1342,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:50 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32830.D MW1322.M

Wed Aug 17 12:49:05 2011

MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32830.D Vial: 3

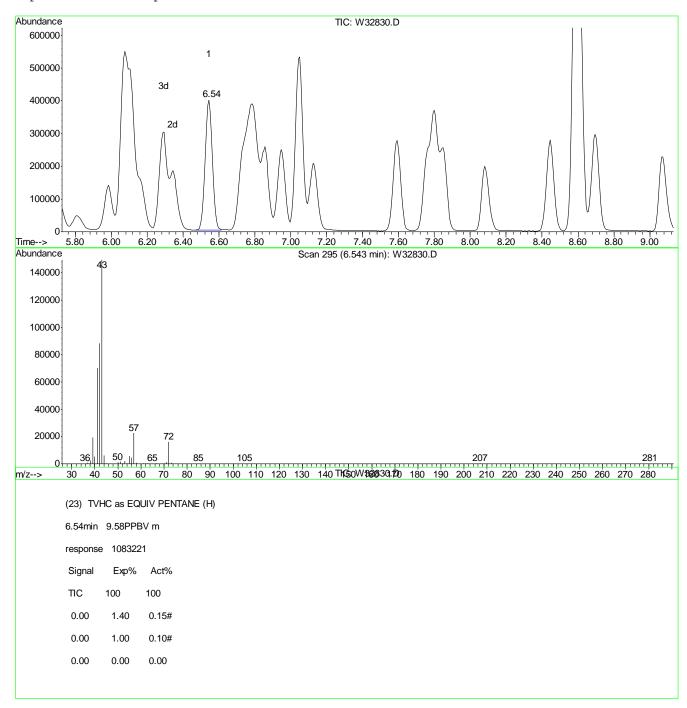
: 21 Jul 2011 10:05 am Operator: YOUMINH Acq On Sample : BS : MSW Inst Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:50 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Wed Aug 17 14:36:23 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32830.D Vial: 3

 Acq On
 : 21 Jul 2011 10:05 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

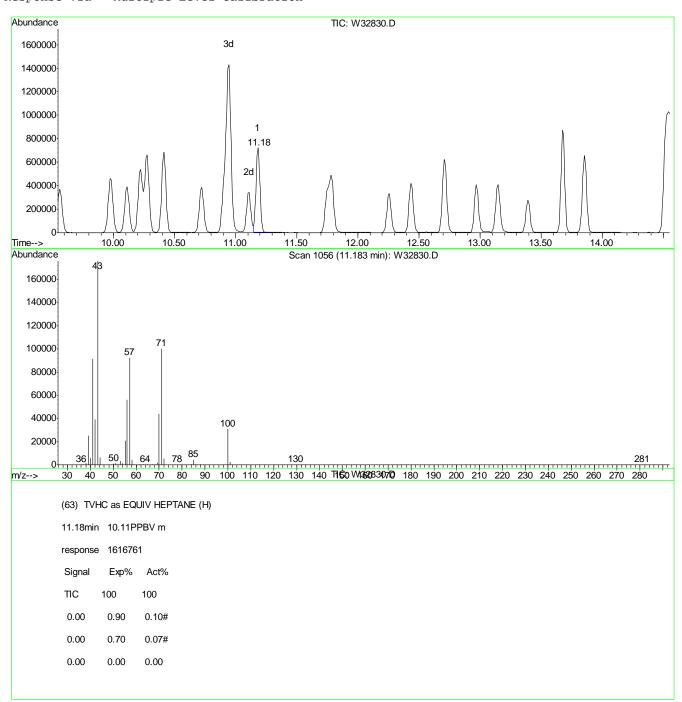
 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:50 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32830.D MW1322.M

Wed Aug 17 14:36:31 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32831.D Vial: 3

 Acq On
 : 21 Jul 2011 10:46 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:56 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	rnal Standards	R.T.	QIon	Response	Conc U	nits D	ev(Min)	)
1 \	BROMOCHLOROMETHANE	Ω 50	128	 157996	10 00	DDRV	-0.03	-
50)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 Chlorobenzene-d5(a)	10.33	114	157996 803542 382780 380687	10.00	DDRV	-0.02	2
69)	CHLOROBENZENE-D5	14 52	82	382780	10.00	PPRV	-0.02	3
106)	Chlorobenzene-d5(a)	14 52	82	380687	10.00	PPRV	-0.03	3
100)	enrorobenzene as(a)	11.52	02	300007	10.00	IIDV	0.05	,
Syst	em Monitoring Compounds							
85)	em Monitoring Compounds 4-BROMOFLUOROBENZENE	16.16	95	191039	4.62	PPBV	-0.03	3
Tarq	et Compounds						Qvalue	
4)	CHLORODIFLUOROMETHANE	4.88	67	35716	7.75	PPBV	97	7
5)	DICHLORODIFLUOROMETHANE	4.96	8.5	369448	7.96	PPBV	100	)
6)	PROPYLENE	4.90	41	149274	7.56	PPBV	9.8	3
7)	FREON 114	5.17	85	408886	7.52	PPBV	95	5
8)	CHLOROMETHANE	5.10	52	53751	8.95	PPBV	98	3
9)	VINYL CHLORIDE	5.27	62	193359	9.29	PPBV	99	)
10)	1.3-BUTADIENE	5.37	54	153234	8.79	PPBV	97	7
11)	n-BUTANE	5.42	43	308337	8.95	PPBV	# 99	)
12)	BROMOMETHANE	5.59	94	158072	8.87	PPBV	99	)
13)	CHLOROETHANE	5.71	64	110929	9.30	PPBV	94	1
15)	ACROLEIN	6.06	56	78719	9.23	PPBV	100	)
16)	FREON 123	6.07	83	423325	9.33	PPBV	# 99	)
17)	FREON 123A	6.11	117	233911	8.62	PPBV	94	1
18)	TRICHLOROFLUOROMETHANE	6.29	101	378494	8.54	PPBV	100	)
19)	ISOPROPYL ALCOHOL	6.34	45	363309	9.44	PPBV	97	7
20)	ACETONE	6.16	58	95382	9.44	PPBV	90	)
22)	PENTANE	6.54	57	58494	8.97	PPBV	97	7
23)	TVHC as EQUIV PENTANE	6.54	TIC	1040590m	8.81	PPBV		
24)	IODOMETHANE	6.73	142	434063	9.22	PPBV	99	)
25)	1,1-DICHLOROETHYLENE	6.77	96	175222	8.79	PPBV	97	7
26)	CARBON DISULFIDE	7.13	76	491437	10.21	PPBV	100	)
27)	ETHANOL	5.81	45	83270	8.24	PPBV	98	3
29)	BROMOETHENE	5.98	106	166777	9.01	PPBV	100	)
30)	METHYLENE CHLORIDE	6.85	84	170049	8.90	PPBV	95	5
31)	3-CHLOROPROPENE	6.95	76	91355	9.53	PPBV	95	5
32)	FREON 113	7.05	151	253563	7.75	PPBV	94	1
33)	TRANS-1,2-DICHLOROETHYLE	:NE 7.59	96	173104	9.26	PPBV	99	)
34)	TERTIARY BUTYL ALCOHOL	6.80	59	441726	9.91	PPBV	99	)
35)	METHYL TERTIARY BUTYL ET	THE 7.80	73	474559	8.90	PPBV	99	)
36)	TETRAHYDROFURAN	9.07	72	90560	9.80	PPBV	96	5
37)	HEXANE	8.60	57	337197	9.80	PPBV	96	5
38)	VINYL ACETATE	7.85	86	48338	9.35	PPBV	# 94	ł
39)	1,1-DICHLOROETHANE	7.76	63	333016	9.19	PPBV	99	)
40)	METHYL ETHYL KETONE	8.08	72	89417	9.44	PPBV	97	7
41)	cis-1,2-DICHLOROETHYLENE	8.45	96	184845	8.72	PPBV	99	)
42)	DI-ISOPROPYL ETHER	8.59	45	692471	9.73	PPBV	94	ł
43)	ETHYL ACETATE	8.61	61	58949	9.62	PPBV	98	3
45)	CHLOROFORM	8.70	83	328625	8.91	PPBV	99	)
46)	2,4-DIMETHYLPENTANE	9.36	57	391889	9.61	PPBV	98	3
4'/)	et Compounds CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TETTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE DI-ISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE 1,1,1-TRICHLOROETHANE	9.56	9 <sup>.</sup> /	314737 	8.57		99	1

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LABORATORIES

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32831.D MW1322.M Wed Aug 17 12:49:07 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32831.D Vial: 3

Acq On : 21 Jul 2011 10:46 am Operator: YOUMINH Sample : BSD Inst : MSW : MS15431,VW1342,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:56 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Ur	nit	Qva	alue
48)	CARBON TETRACHLORIDE	10.11	117	311328	8.27	PPBV		99
	1,2-DICHLOROETHANE	9.34				PPBV		100
	BENZENE	9.98	78	585532	9.55	PPBV		98
	CYCLOHEXANE	10.22	84	585532 270958	8.76	PPBV		96
53)	2,3-DIMETHYLPENTANE	10.41				PPBV		99
54)	TRICHLOROETHYLENE	10.41 10.94	95	144321 222121	9.32	PPBV		97
56)	1,2-DICHLOROPROPANE	10.72	63	217987	9.45	PPBV		97
	BROMODICHLOROMETHANE	10.91	83	353943 1060782	9.35	PPBV		100
59)	2,2,4-TRIMETHYLPENTANE	10.95	57	1060782	10.06	PPBV		99
60)	1,4-DIOXANE	10.96	88	120370	9.67	PPBV	#	44
61)	METHYL METHACRYLATE	11.11		194161	9.28			99
62)	HEPTANE	11.18		382466				96
	TVHC as EQUIV HEPTANE	11.18						
	METHYL ISOBUTYL KETONE	11.79		437534				98
	cis-1,3-DICHLOROPROPENE	11.75		290413				98
	TOLUENE	12.71		389812	9.48			99
	trans-1,3-DICHLOROPROPENE	12.26	75	265327 175198	9.31	PPBV		99
	1,1,2-TRICHLOROETHANE							97
	2-HEXANONE	12.97		384669				97
	TETRACHLOROETHYLENE	13.85		229415				99
	DIBROMOCHLOROMETHANE	13.15		323238				99
,	1,2-DIBROMOETHANE	13.39	107	279385 498948	9.79	PPBV		100
	OCTANE	13.68	43	498948	10.29	PPBV		95
	1,1,1,2-TETRACHLOROETHANE		131	238076 449119	9.39			
	CHLOROBENZENE	14.57						99
	ETHYLBENZENE	14.96	91	756654	9.95	PPBV		99
	m,p-XYLENE	15.14	106	584728	19.82	PPBV		97
	O-XYLENE	15 66	106	280156	9 83	DDRV		99
	STYRENE	15.54	104	410853 268227	10.16	PPBV		98
	1,2,3-TRICHLOROPROPANE	15.80	75	268227	9.63	PPBV		98
,	NONANE	15.88	43	456153 282274	10.81	PPBV		97
,	BROMOFORM	15.25		282274	9.59	PPBV		100
	1,1,2,2-TETRACHLOROETHANE			358415	10.73			99
•	ISOPROPYLBENZENE	16.31	105	779887	9.72			99
	2-CHLOROTOLUENE	16.85			9.54			99
	n-PROPYLBENZENE	16.88	120	197061 680246	9.96			94
,	4-ETHYLTOLUENE	17.04						100
	1,3,5-TRIMETHYLBENZENE	17.13		530654	9.62			100
	TERT-BUTYLBENZENE	17.59		137757				99
	1,2,4-TRIMETHYLBENZENE	17.60		505886	10.01			99
	m-DICHLOROBENZENE	17.77		299564	10.01			99
	BENZYL CHLORIDE	17.75		372214	10.44			99
	p-DICHLOROBENZENE	17.85	146	294423 154727	9.97			99
	SEC-BUTYLBENZENE	17.90			9.85	PDD!!		94
	p-ISOPROPYLTOLUENE	18.08	134	152612	10.22			98
	O-DICHLOROBENZENE			262100				99
	n-BUTYLBENZENE	10.5/	134 225	115255	9.39			93
	HEXACHLOROBUTADIENE 1,2,4-TRICHLOROBENZENE	20.72	∠∠⊃ 10∩	88110 62513	9.34 9.69			100 100
	T,Z,T-IKICHUKUDENZENE			02313	9.09 			

(#) = qualifier out of range (m) = manual integration W32831.D MW1322.M Wed Aug 17 12:49:07 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32831.D Vial: 3

Acq On : 21 Jul 2011 10:46 am Operator: YOUMINH Sample : BSD Inst : MSW Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:56 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

 ${\tt Response \ via : Initial \ Calibration}$ 

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32831.D MW1322.M Wed Aug 17 12:49:08 2011 MSW

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ACCUTEST

JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32831.D Vial: 3

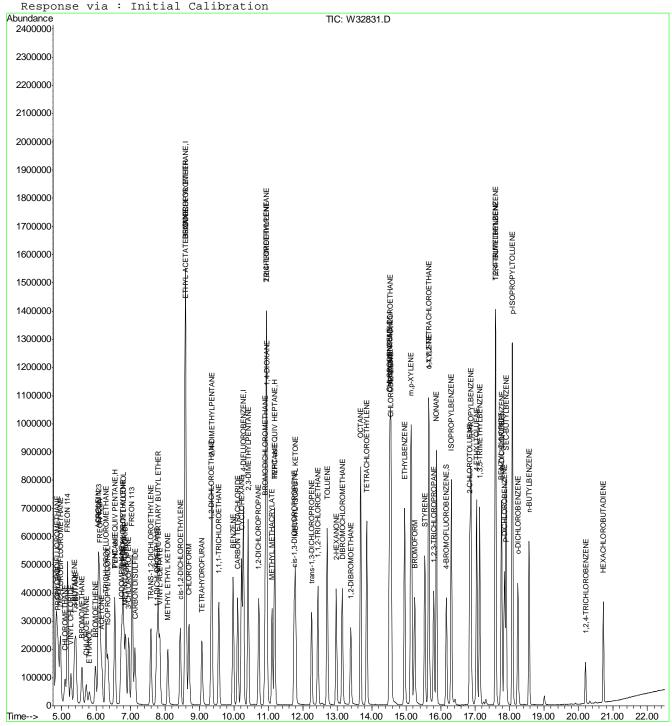
: 21 Jul 2011 10:46 am Operator: YOUMINH Acq On Sample : BSD : MSW : MS15431,VW1342,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:51 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32831.D MW1322.M

Wed Aug 17 12:49:08 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32831.D Vial: 3

 Acq On
 : 21 Jul 2011 10:46 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

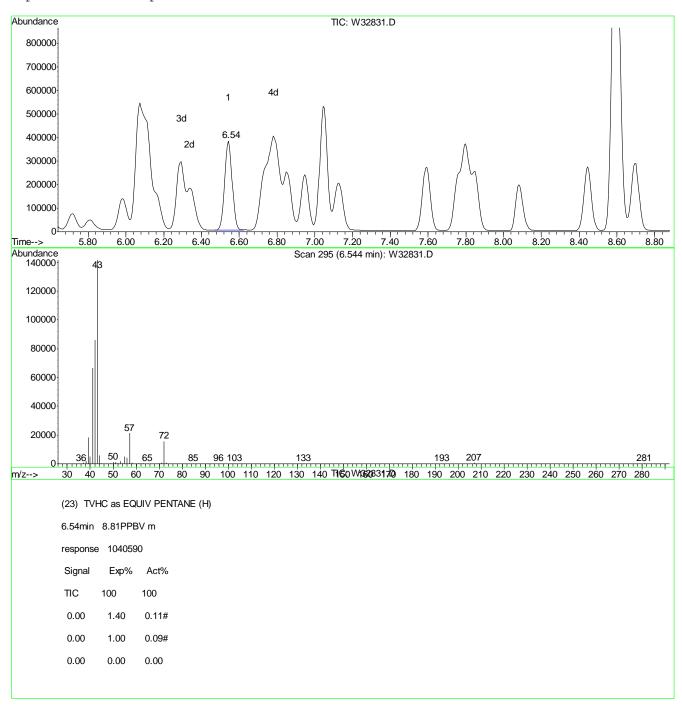
 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:51 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32831.D MW1322.M

Wed Aug 17 14:36:40 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32831.D Vial: 3

 Acq On
 : 21 Jul 2011 10:46 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

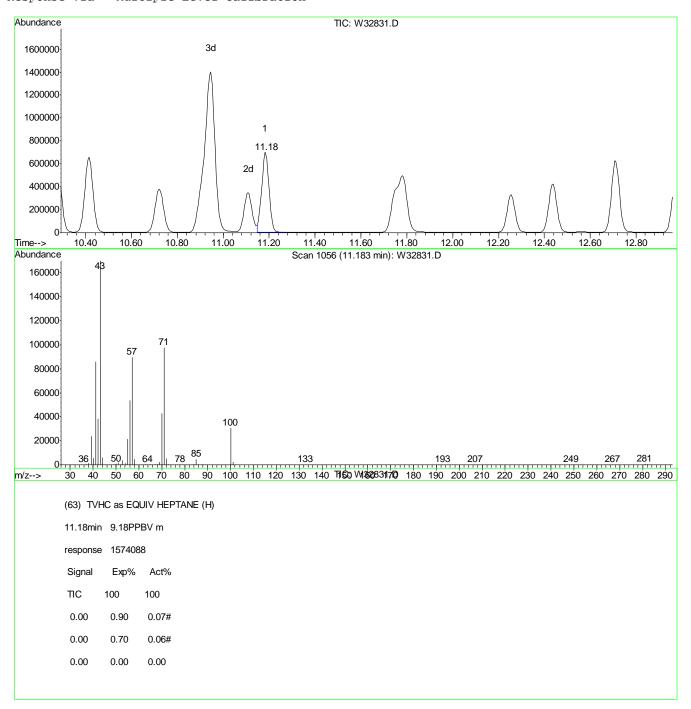
 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:51 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32831.D MW1322.M

Wed Aug 17 14:36:46 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32387.D Vial: 3

 Acq On
 : 23 Jun 2011
 9:43 am
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:28 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Inte	rnal Standards			Response	Conc Units Dev(Min	)
1)	BROMOCHLOROMETHANE	8.62	128	149420	10.00 PPBV 0.0	0
	1,4-DIFLUOROBENZENE	10.30	114	762301	10.00 PPBV 0.0	0
	CHLOROBENZENE-D5	14.55	82	370524	10.00 PPBV 0.0	0
106)	Chlorobenzene-d5(a)	14.55	82	369497	10.00 PPBV 0.0 10.00 PPBV 0.0 10.00 PPBV 0.0 10.00 PPBV 0.0	0
Svet	em Monitorina Compounds					
85)	4-BROMOFLUOROBENZENE	16.19	95	209143	5.22 PPBV 0.0	Ω
gS	iked Amount 5.000	Range 65	- 128	Recove	erv = 104.40%	•
Targ	et Compounds	4 00		40001	Qvalue	_
4)	CHLORODIFLUOROMETHANE	4.89	67	40001	9.18 PPBV 9	./
5)	DICHLORODIFLUOROMETHANE	4.97	85	400507	9.12 PPBV 9	9
6)	PROPYLENE	4.91	41	161407	8.64 PPBV 10	0
./)	FREON 114	5.18	85	419009	8.15 PPBV 9	6
8)	CHLOROMETHANE	5.10	52	53504	9.42 PPBV 9	Τ
9)	VINYL CHLORIDE	5.28	62	186813	9.49 PPBV 9	9
10)	1,3-BUTADIENE	5.39	54	149758	9.09 PPBV 9	9
11)	n-BUTANE	5.42	43	304691	9.35 PPBV 9	9
12)	BROMOMETHANE	5.60	94	151254	8.98 PPBV 9	9
13)	CHLOROETHANE	5.73	64	105915	9.38 PPBV 9	6
15)	ACROLEIN	6.07	56	73817	9.15 PPBV 10	0
16)	FREON 123	6.08	83	394688	9.20 PPBV # 9	9
17)	FREON 123A	6.12	117	224230	8.74 PPBV 9	3
18)	TRICHLOROFLUOROMETHANE	6.30	101	369635	8.82 PPBV 10	0
19)	ISOPROPYL ALCOHOL	6.35	45	316995	8.71 PPBV 9	8
20)	ACETONE	6.18	58	81512	8.53 PPBV 9	7
22)	PENTANE	6.56	57	53439	8.67 PPBV 9	7
23)	TVHC as EQUIV PENTANE	6.56	TIC	963730m	8.63 PPBV	_
24)	IODOMETHANE	6.74	142	402204	9.04 PPBV 9	8
25)	1,1-DICHLOROETHYLENE	6.79	96	156189	8.29 PPBV 9	4
26)	CARBON DISULFIDE	7.14	76	444199	9.75 PPBV 9	9
27)	ETHANOL	5.81	45	78284	8.19 PPBV 9	8
29)	BROMOETHENE	5.99	106	156851	8.96 PPBV 10	0
30)	METHYLENE CHLORIDE	6.87	84	144521	8.00 PPBV 9	5
31)	3-CHLOROPROPENE	6.96	76	85264	9.41 PPBV 9	5
32)	FREON 113	7.06	151	254367	8.22 PPBV 9	7
33)	TRANS-1, 2-DICHLOROETHYLE	NE 7.61	96	160734	9.09 PPBV 9	7
34)	TERTIARY BUTYL ALCOHOL	6.81	59	3/1515	8.81 PPBV 9	9
35)	METHYL TERTIARY BUTYL ET	HE 7.82	7.3	45/612	9.08 PPBV 9	9
36)	TETRAHYDROFURAN	9.09	/ 2	82102	9.40 PPBV 9	/
37)	HEXANE	8.62	57	295193	9.07 PPBV 9	8
38)	VINYL ACETATE	7.87	86	44592	9.12 PPBV # 9	Τ
39)	I, I-DICHLOROETHANE	7.77	63	312236	9.12 PPBV 10	0
40)	METHYL ETHYL KETONE	8.10	72	79285	8.85 PPBV 9	9
41)	CIS-I,Z-DICHLOROETHYLENE	8.47	96	109157	8.44 PPBV 9	1
42)	DI-ISOPROPYL ETHER	8.61	45	622157	9.24 PPBV 9	4
43)	ETHYL ACETATE	8.63	ρŢ	51313	0.05 PPD77	4
45)	CHLUKUFUKM	8.72	83 57	31Z914	0.9/ PPBV 9	9
46)	2,4-DIMETHILPENTANE	9.38	5 / 0.7	30∠38⊥ 313740	9.40 PPBV 9	9
4/)	CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE cis-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE	9.59	91	312/4U 	9.00 PPBV 9	9

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W32387.D MW1322.M Tue Aug 16 08:56:07 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32387.D Vial: 3

Acq On : 23 Jun 2011 9:43 am Operator: YOUMINH Sample : BS Inst : MSW : MS14299,VW1324,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:28 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Ur	nit	Qva	alue
48)	CARBON TETRACHLORIDE	10.14	117	316655	8.89	PPBV		100
	1,2-DICHLOROETHANE	9.36				PPBV		100
	BENZENE	10.01				PPBV		99
,	CYCLOHEXANE	10.24	84	534226 252959	8.62			96
53)	2,3-DIMETHYLPENTANE	10.44	71			PPBV		99
	TRICHLOROETHYLENE	10.96	95	133825 201551	8.92	PPBV		98
56)	1,2-DICHLOROPROPANE	10.75		198473		PPBV		100
	BROMODICHLOROMETHANE	10.93	83	331533	9.23	PPBV		99
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	962576	9.62	PPBV		100
60)	1,4-DIOXANE	10.99	88	97089 172083	8.22	$\mathtt{PPBV}$	#	85
61)	METHYL METHACRYLATE	11.13	69	172083	8.67	$\mathtt{PPBV}$		96
62)	HEPTANE	11.21	43	340916	9.11	$\mathtt{PPBV}$		98
	TVHC as EQUIV HEPTANE	11.21	TIC	1454683m	8.94	PPBV		
64)	METHYL ISOBUTYL KETONE	11.81	43	346057	8.62	PPBV		99
65)	cis-1,3-DICHLOROPROPENE	11.77	75	269828	9.26	PPBV		100
	TOLUENE	12.74	92	363780	9.32			99
	trans-1,3-DICHLOROPROPENE	12.28 12.46	75	254043 158976	9.40			99
	1,1,2-TRICHLOROETHANE							100
	2-HEXANONE	12.99						97
	TETRACHLOROETHYLENE	13.88		213704				98
,	DIBROMOCHLOROMETHANE	13.17						100
,	1,2-DIBROMOETHANE	13.42	107	258826	9.37			99
,	OCTANE	13.71		449411	9.58			98
	1,1,1,2-TETRACHLOROETHANE		131	235467 424630	9.60		#	100
,	CHLOROBENZENE	14.59			9.30			100
,	ETHYLBENZENE	14.98	91	719488		PPBV		100
	m,p-XYLENE	15.17	106	554128	19.40	PPBV		98
,	O-XYLENE	15.68		268063	9.72			99
,	STYRENE	15.57		391983	10.02			99
	1,2,3-TRICHLOROPROPANE	15.83		262630	9.74			98
,	NONANE	15.90	43	421171 275583	10.31	PPBV		99
,	BROMOFORM	15.27						99
	1,1,2,2-TETRACHLOROETHANE			329520	10.19			99
,	ISOPROPYLBENZENE			765226	9.85			
	2-CHLOROTOLUENE	16.87		170208	9.82			98
	n-PROPYLBENZENE 4-ETHYLTOLUENE	16.91 17.07	105	196986 670978	10.29 10.39			98 100
,					10.39			99
	1,3,5-TRIMETHYLBENZENE TERT-BUTYLBENZENE	17.16 17.61	105 134	540180 139513	9.90	PPBV		98
	1,2,4-TRIMETHYLBENZENE	17.61		511339	10.45			99
	m-DICHLOROBENZENE	17.80		291829				99
	BENZYL CHLORIDE	17.78		360412	10.44			99
	p-DICHLOROBENZENE							99
	SEC-BUTYLBENZENE	17.00	134	284955 159097	10.46			99
	p-ISOPROPYLTOLUENE	18.10			10.40			98
	o-DICHLOROBENZENE	18.27	146	256723	9.84			100
	n-BUTYLBENZENE	18.59	134	116355				98
	HEXACHLOROBUTADIENE	20.74	225	116355 91239 53773	10.00	PPBV		100
	1,2,4-TRICHLOROBENZENE	20.23	180	53773	8.61	PPBV		99



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32387.D Vial: 3

Acq On : 23 Jun 2011 9:43 am Operator: YOUMINH Sample : BS Inst : MSW Misc : MS14299,VW1324,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:28 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : T015W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32387.D MW1322.M Tue Aug 16 08:56:07 2011 MSW

459 of 685
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JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32387.D Vial: 3

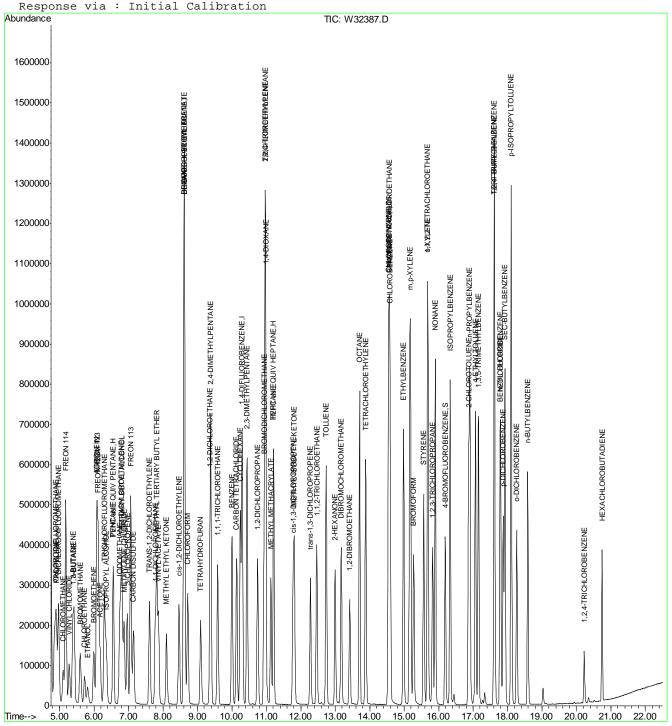
: 23 Jun 2011 9:43 am Operator: YOUMINH Acq On Sample : BS Inst : MSW : MS14299, VW1324, , , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32387.D MW1322.M

Tue Aug 16 08:56:08 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32387.D Vial: 3

 Acq On
 : 23 Jun 2011
 9:43 am
 Operator: YOUMINH

 Sample
 : BS
 Inst
 : MSW

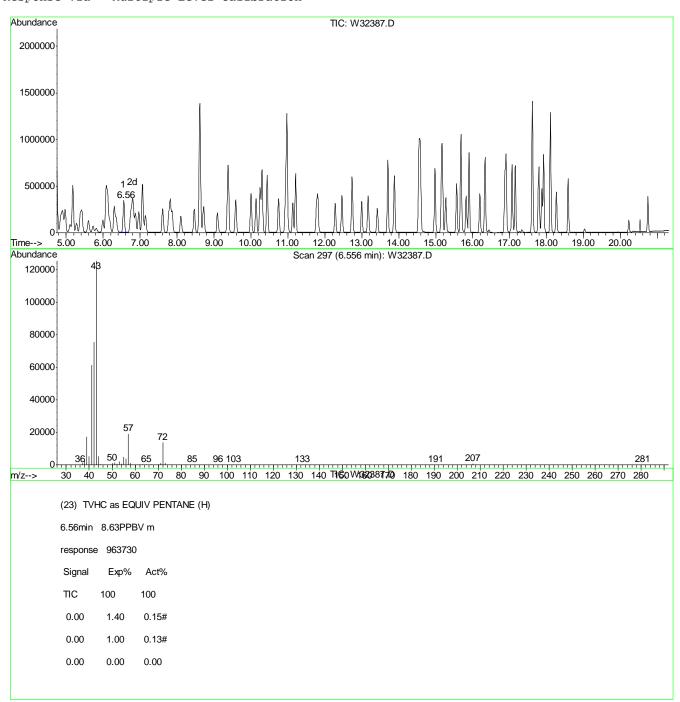
 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32387.D MW1322.M

Tue Aug 16 09:10:26 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32387.D Vial: 3

 Acq On
 : 23 Jun 2011
 9:43 am
 Operator: YOUMINH

 Sample
 : BS
 Inst
 : MSW

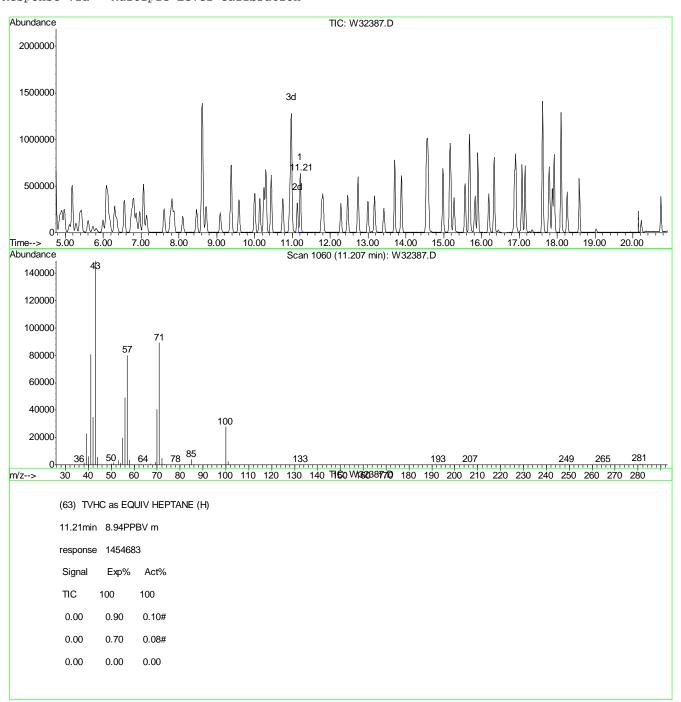
 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32387.D MW1322.M

Tue Aug 16 09:10:37 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32388.D Vial: 3

Acq On : 23 Jun 2011 11:14 am Operator: YOUMINH Sample : BSD Inst : MSW : MS14299,VW1324,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:31 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : T015W

Inte	rnal Standards	R.T.	QIon	Response	Conc U	nits De	ev(Min)
1)	BROMOCHLOROMETHANE	8.62	128	151288	10.00	PPBV	0.00
50)	1,4-DIFLUOROBENZENE	10.30	114	765275	10.00	PPBV	0.00
	CHLOROBENZENE-D5	14.55	82	373517	10.00	PPBV	0.00
106)	Chlorobenzene-d5(a)	14.55	82	151288 765275 373517 372969	10.00	PPBV	0.00
Svet	em Monitorina Compounds						
85)	4-BROMOFLUOROBENZENE	16.19	95	209874	5.20	PPBV	0.00
				Recove			
Tarq	et Compounds					(	Ovalue
	CHLORODIFLUOROMETHANE	4.89	67	46097	10.44	PPBV	99
	DICHLORODIFLUOROMETHANE	4.97	85	464274 185996 491184 62075 219625 176221 355993 178284 123919 86407 462829 264094 434089 388452 97634 61972 1120092m	10.45	PPBV	99
	PROPYLENE	4.91	41	185996	9.84	PPBV	99
		5.18	85	491184	9.43	PPBV	95
8)	FREON 114 CHLOROMETHANE	5.10	52	62075	10.79	PPBV :	# 88
9)	CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE	5.28	62	219625	11.02	PPBV	99
10)	1.3-BUTADIENE	5.39	54	176221	10.56	PPBV	98
11)	n-BUTANE	5.42	43	355993	10.79	PPBV	99
12)	BROMOMETHANE	5.60	94	178284	10.45	PPBV	99
13)	CHLOROETHANE	5.73	64	123919	10.84	PPBV	95
15)	ACROLEIN	6.07	56	86407	10.58	PPBV	100
16)	FREON 123	6.08	83	462829	10.66	PPBV :	# 100
17)	FREON 123A	6.12	117	264094	10.17	PPBV	94
18)	TRICHLOROFLUOROMETHANE	6.30	101	434089	10.23	PPBV	100
	ISOPROPYL ALCOHOL	6.35	45	388452	10.54	PPBV	100
201	A CERONE	6.17	58	97634	10.09	PPBV	98
22)	PENTANE	6.56	57	61972	9.93	PPBV	95
23)	TVHC as EQUITY PENTANE	6 56	TTC	1120092m	9 90	PPRV	2.0
24)	TODOMETHANE	6.74	142	476341	10.57	PPBV	99
25)	1.1-DICHLOROETHYLENE	6.79	96	183933	9.64	PPBV	95
26)	CARBON DISHLETDE	7 14	76	522673	11 34	PPRV	100
27)	ETHANOL	5 81	45	91782	9 48	PPRV	98
29)	BROMOETHENE	6 00	106	184836	10 42	PPRV	100
30)	METHYLENE CHLORIDE	6 87	84	169548	9 27	PPRV	96
31)	3-CHLOROPROPENE	6 96	76	101673	11 08	PPRV	97
32)	FREON 113	7 06	151	298707	9 53	PPRV	97
33)	TRANS-1 2-DICHLOROETHYLE	NE 7 61	96	190166	10 62	PPRV	98
34)	TERTIARY BUTYL ALCOHOL	6.81	59	460535	10.79	PPBV	99
35)	METHYL TERTIARY BUTYL ET	HE 7.82	73	555418	10.88	PPBV	99
36)	TETRAHYDROFIIRAN	9 09	72	99709	11 27	PPRV	96
37)	HEXANE	8 62	57	343748	10 43	PPRV	97
38)	VINYL ACETATE	7.87	86	53322	10.77	PPBV :	± 91
39)	1 1-DICHLOROETHANE	7.78	63	366047	10.77	PPRV	100
40)	METHYL ETHYL KETONE	8 10	72	98803	10.30	PPRV	96
41)	cis-1 2-DICHLOROETHVIENE	8 46	96	199578	9 83	PPRV	97
42)	DI-ISODPODVI. FTHEP	8 61	45	749316	11 00	DDRV	94
43)	ETHYL ACETATE	8 63	61	63304	10 79	PPRV	100
451	CHLOROFORM	g 72	83	367578	10.75	DDBM	99
461	2 4-DIMETHYLDENTANE	0.72	5 <i>7</i>	425881	10.40	DDBM	100
47)	1 1 1-TRICHLOROETHANE	9 59	97	368208	10.51	PPRV	99
	PENTANE TVHC as EQUIV PENTANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE					·	



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32388.D MW1322.M Tue Aug 16 08:56:09 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32388.D Vial: 3

Acq On : 23 Jun 2011 11:14 am Operator: YOUMINH Sample : BSD Inst : MSW Misc : MS14299,VW1324,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:31 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	CARBON TETRACHLORIDE	10.13		372960	10.35 PPBV	100
49)	1,2-DICHLOROETHANE	9.36	62	225319	11.03 PPBV	99
	BENZENE	10.00	78	631067	10.81 PPBV	99
52)	CYCLOHEXANE	10.25	84	299207 157655	10.16 PPBV	98
53)	2,3-DIMETHYLPENTANE	10.44	71	157655	10.83 PPBV	99
54)	TRICHLOROETHYLENE	10.96	95	236863	10.44 PPBV	99
56)	1,2-DICHLOROPROPANE	10.74		233801	10.64 PPBV	100
58)	BROMODICHLOROMETHANE	10.93	83 57	389806	10.81 PPBV	100
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	1126954	11.22 PPBV	100
60)	1,4-DIOXANE	10.99		124989	10.55 PPBV	# 62
61)	METHYL METHACRYLATE	11.13	69	213644	10.72 PPBV	97
62)	HEPTANE	11.21	43	398159		99
63)	TVHC as EQUIV HEPTANE	11.21	TIC	1704159m	10.43 PPBV	
64)	METHYL ISOBUTYL KETONE	11.81	43	439039	10.89 PPBV	99
65)	cis-1,3-DICHLOROPROPENE	11.77	75	439039 320912 430041	10.97 PPBV	100
66)	TOLUENE	12.74	92	430041	10.98 PPBV	99
67)	trans-1,3-DICHLOROPROPENE	12.28		302680	11.15 PPBV	100
68)	1,1,2-TRICHLOROETHANE	12.46	83	190181	11.19 PPBV	99
71)	2-HEXANONE	12.99	43	390165	10.57 PPBV	97
72)	TETRACHLOROETHYLENE	13.88	164	251759	10.13 PPBV	98
73)	DIBROMOCHLOROMETHANE	13.17	129	369949	11.04 PPBV	100
74)	1,2-DIBROMOETHANE	13.42	107	308888	11.09 PPBV	100
75)	OCTANE	13.71	43	308888 525410	11.10 PPBV	99
76)	1,1,1,2-TETRACHLOROETHANE	14.57	131	278358 503447	11.26 PPBV	# 100
	CHLOROBENZENE	14.59	112	503447	10.93 PPBV	99
78)	ETHYLBENZENE	14.98	91	858374	11.57 PPBV	
79)	m,p-XYLENE	15.17	106	659875	22.92 PPBV	98
80)	O-XYLENE	15.68		320012	11.51 PPBV	100
81)	STYRENE	15.57	104	470975 315597	11.94 PPBV	100
82)	1,2,3-TRICHLOROPROPANE	15.83	75	315597	11.62 PPBV	99
83)	NONANE	15.90	43	495329	12.03 PPBV	99
84)	BROMOFORM	15.27	173	330427	11.50 PPBV	100
86)	1,1,2,2-TETRACHLOROETHANE	15.68		396600	12.16 PPBV	
87)	ISOPROPYLBENZENE	16.33	105	919512	11.75 PPBV	99
89)	2-CHLOROTOLUENE	16.87		203839	11.67 PPBV	# 98
90)	n-PROPYLBENZENE	16.91	120	235386	12.19 PPBV	98
91)	4-ETHYLTOLUENE	17.07	105	806560	12.39 PPBV	100
92)	1,3,5-TRIMETHYLBENZENE	17.16	105	649936	12.07 PPBV	100
94)	TERT-BUTYLBENZENE	17.61	134	167195	11.77 PPBV	
95)	1,2,4-TRIMETHYLBENZENE	17.62		617697	12.52 PPBV	
96)	m-DICHLOROBENZENE	17.80	146	352108	12.05 PPBV	99
97)	BENZYL CHLORIDE	17.78		447957	12.87 PPBV	99
98)	p-DICHLOROBENZENE	17.88	146	347880	12.08 PPBV	100
99)	SEC-BUTYLBENZENE	17.92		191484	12.49 PPBV	
100)	p-ISOPROPYLTOLUENE	18.10	134	188076 311109	12.91 PPBV	99
	o-DICHLOROBENZENE	18.27			12.91 PPBV 11.83 PPBV	100
	n-BUTYLBENZENE	18.59	134	144689	12.09 PPBV	98
	HEXACHLOROBUTADIENE	20.74			12.13 PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.22		69101 	10.97 PPBV	99



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32388.D MW1322.M Tue Aug 16 08:56:10 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32388.D Vial: 3

Acq On : 23 Jun 2011 11:14 am Operator: YOUMINH Sample : BSD Misc : MS14299,VW1324,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:31 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue \_\_\_\_\_\_

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32388.D MW1322.M Tue Aug 16 08:56:10 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32388.D Vial: 3

 Acq On
 : 23 Jun 2011 11:14 am
 Operator: YOUMINH

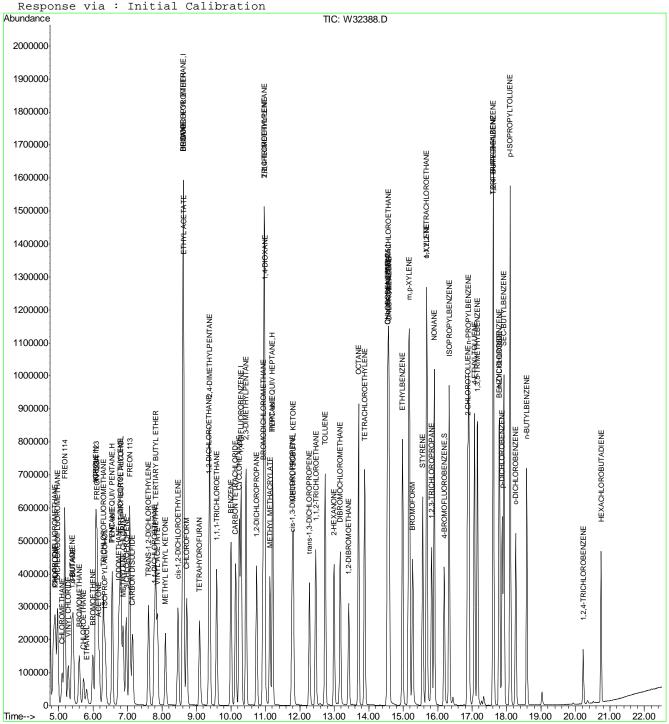
 Sample
 : BSD
 Inst : MSW

 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: MW1322.RES

Last Update : Wed Jun 22 11:25:24 2011



W32388.D MW1322.M

Tue Aug 16 08:56:10 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32388.D Vial: 3

 Acq On
 : 23 Jun 2011 11:14 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

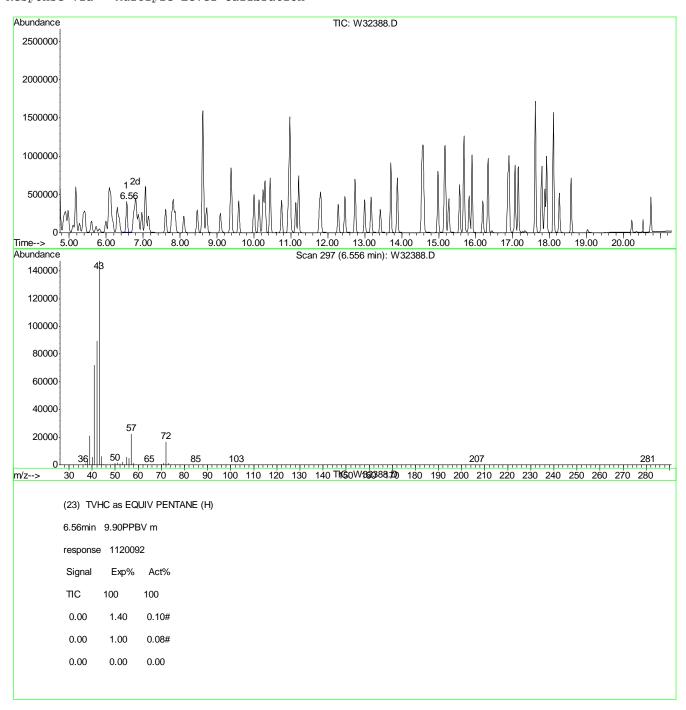
 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32388.D MW1322.M

Tue Aug 16 09:10:48 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32388.D Vial: 3

 Acq On
 : 23 Jun 2011 11:14 am
 Operator: YOUMINH

 Sample
 : BSD
 Inst : MSW

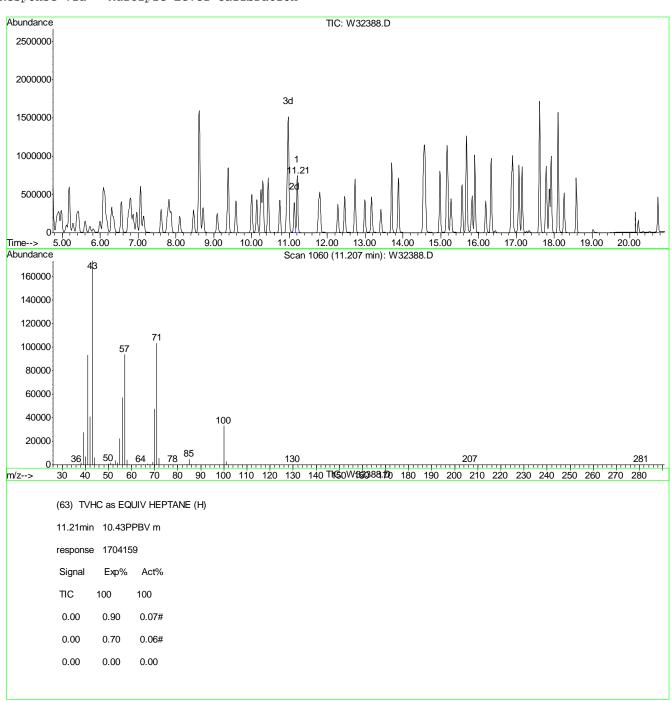
 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32388.D MW1322.M

Tue Aug 16 09:10:54 2011



MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:37 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	rnal Standards			Response			
	BROMOCHLOROMETHANE	7 31	128	98736	10 00	DDBV	0 00
	1 4-DIFIJIOROBENZENE	9 02	114	98736 421198 206932 206932	10.00	PPRV	0.00
68)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5 CHLOROBENZENE-D5 (a)	13 31	82	206932	10.00	PPRV	-0.02
105)	CHLOROBENZENE-D5 (a)	13.31	82	206932	10.00	PPRV	-0.02
105/	CIIIONODENZENE D3 (a)	13.31	02	200932	10.00	IIDV	0.02
Syst	em Monitoring Compounds						
83)	em Monitoring Compounds 4-BROMOFLUOROBENZENE	14.96	95	108147	4.95	PPBV	-0.02
Tarq	et Compounds CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE Cis-1,2-DICHLOROETHYLENE DISOPROPYL ETHER ETHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE						Qvalue
4)	CHLORODIFLUOROMETHANE	4.01	67	33469	8.32	PPBV	98
5)	DICHLORODIFLUOROMETHANE	4.08	8.5	302737	8.17	PPBV	98
6)	PROPYLENE	4.03	41	139669	8.50	PPBV	99
7)	FREON 114	4.23	85	293823	7.24	PPBV	99
8)	CHLOROMETHANE	4.18	50	145995	8.80	PPBV	99
9)	VINYL CHLORIDE	4.31	62	145907	9.25	PPBV	100
10)	1,3-BUTADIENE	4.39	54	109652	9.20	PPBV	95
11)	n-BUTANE	4.41	43	236200	8.40	PPBV	98
12)	BROMOMETHANE	4.56	94	115871	7.94	PPBV	100
13)	CHLOROETHANE	4.66	64	73261	9.40	PPBV	98
16)	FREON 123	4.95	83	278965	9.13	PPBV	100
17)	FREON 123A	4.99	117	143285	8.80	PPBV	87
18)	TRICHLOROFLUOROMETHANE	5.14	101	279673	8.12	PPBV	100
19)	ISOPROPYL ALCOHOL	5.19	45	214910	8.93	PPBV	99
20)	ACETONE	5.03	58	48455	8.35	PPBV	# 87
21)	PENTANE	5.33	42	166289	8.54	PPBV	98
22)	TVHC as EQUIV PENTANE	5.33	TIC	741938m	7.70	PPBV	
23)	IODOMETHANE	5.52	142	294800	8.12	PPBV	96
24)	1,1-DICHLOROETHYLENE	5.57	96	103938	7.71	PPBV	91
25)	CARBON DISULFIDE	5.87	76	327844	8.94	PPBV	98
26)	ETHANOL	4.74	45	53102	7.74	PPBV	98
27)	BROMOETHENE	4.88	106	112690	8.27	PPBV	99
29)	METHYLENE CHLORIDE	5.66	84	103352	7.38	PPBV	91
30)	3-CHLOROPROPENE	5.72	76	57749	9.90	PPBV	# 84
31)	FREON 113	5.81	151	162052	7.22	PPBV	96
32)	TRANS-1,2-DICHLOROETHYLE	NE 6.30	96	111681	8.92	PPBV	93
33)	TERTIARY BUTYL ALCOHOL	5.57	59	238006	10.00	PPBV	97
34)	METHYL TERTIARY BUTYL ET	'HE 6.48	73	247591	8.67	PPBV	96
35)	TETRAHYDROFURAN	7.73	72	46873	9.46	PPBV	# 90
36)	HEXANE	7.24	57	204252	9.20	PPBV	96
37)	VINYL ACETATE	6.58	86	23595	10.82	PPBV	# 69
38)	1,1-DICHLOROETHANE	6.47	63	229900	9.61	PPBV	99
39)	METHYL ETHYL KETONE	6.77	72	45488	9.53	PPBV	98
40)	CIS-1, Z-DICHLOROETHYLENE	7.19	96	120059	9.62	PPBM	93
41)	DIISOPKOPYL ETHEK	7.24	45	305200	9.87	FFRA	щ 99 ш
42)	ETHYL ACETATE	7.31 7.40	ο 3 ρΤ	30855 244245	9.77	LLRA.	# 89
44)		7.40	0 3 E 7	244243 255126	9.55	LLBA	99
45)	2,4-DIMBIRILPENIANE	7.98	5 / 0.7	222130 227604	9.95	DDD11	00
/17 \	CARRON TETRACULOROGITANE	0.45 Q Q 1	<i>פו</i> כ 117	22/004	9.34 9 an	DDDM	30 100
		0.02	<i> </i>		0.90		

3W23019.D M3W886.M Tue Aug 16 09:03:25 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23019.D Vial: 3
Acq On : 24 Jun 2011 10:13 am Operator: yunxiac
Sample : BS Inst : MS3W
Misc : MS14246,V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:37 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Un	it	Qva	alue
48)	1,2-DICHLOROETHANE	8.03	62	154919	10.23	PPBV		99
50)	BENZENE	8.68	78	363108	9.79	PPBV		99
51)	CYCLOHEXANE	8.87	69	58862	8.65	PPBV		95
52)	2,3-DIMETHYLPENTANE	9.05	71	58862 86400	8.80	PPBV		92
53)	TRICHLOROETHYLENE	9.65	95	148952	9.38	PPBV		96
54)	1,2-DICHLOROPROPANE	9.41	63	147112	10.61	PPBV		99
57)	BROMODICHLOROMETHANE	9.63	83	247204	10.12	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	9.58	57	660634	10.30	PPBV		100
	1,4-DIOXANE	9.69	88	60463	9.79	PPBV		97
60)	HEPTANE	9.85	43	280213	10.52	PPBV		94
61)	TVHC as EQUIV HEPTANE	9.85	TIC	1539755m	9.95	PPBV		
62)	METHYL METHACRYLATE	9.86	69	96501	9.74	PPBV	#	87
63)	METHYL ISOBUTYL KETONE	10.49	58	93129	11.34	PPBV		91
64)	cis-1,3-DICHLOROPROPENE	10.51	75	195401	10.55	PPBV		96
65)	TOLUENE	11.46	92	230116	9.88	PPBV		99
66)	trans-1,3-DICHLOROPROPENE	11.03	75	185080	10.47	PPBV		97
	1,1,2-TRICHLOROETHANE	11.19	83	118903	10.25	PPBV		97
69)	2-HEXANONE	11.71	58	115217	10.58	PPBV		87
71)	TETRACHLOROETHYLENE	12.62	164	148592	8.35	PPBV		99
72)	DIBROMOCHLOROMETHANE	11.91	129	227988	9.34	PPBV		100
73)	1,2-DIBROMOETHANE	12.12	107	192079	9.96	PPBV		99
74)	OCTANE	12.40	43	358167	11.01	PPBV		92
75)	1,1,1,2-TETRACHLOROETHANE	13.32	131	154608	9.52	PPBV		98
	CHLOROBENZENE	13.35	112	271189	8.84	PPBV		97
77)	ETHYLBENZENE	13.73	91	459512	9.47	PPBV		99
78)	m,p-XYLENE	13.92	106	331329	18.64	PPBV		100
79)	O-XYLENE	14.43	106	160817	9.60	PPBV		98
80)	STYRENE	14.33	104	234823	9.61	PPBV		99
81)	NONANE	14.63	43	341189	12.07	PPBV		94
82)	BROMOFORM	14.02	173	196152	9.31	PPBV		99
84)	1,1,2,2-TETRACHLOROETHANE	14.45	83	227361	10.43	PPBV		99
85)	1,2,3-TRICHLOROPROPANE	14.58	75	179055	10.10	PPBV		96
86)	ISOPROPYLBENZENE	15.08	105	455257	9.67	PPBV		99
88)	2-CHLOROTOLUENE	15.65	126	109592	9.47	PPBV		100
89)	n-PROPYLBENZENE	15.68	120	110258	9.21	PPBV		99
90)	4-ETHYLTOLUENE	15.86	105	383155	10.22	PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	15.95	105	307656	10.13	PPBV		99
93)	tert-BUTYLBENZENE	16.44		70998	9.91	PPBV		96
94)	1,2,4-TRIMETHYLBENZENE	16.45	105	284934	10.43	PPBV		99
95)	m-DICHLOROBENZENE	16.65	146	194540	9.56	PPBV		99
96)	BENZYL CHLORIDE	16.65	91	227933	10.13	PPBV		98
97)	p-DICHLOROBENZENE	16.74	146	190348	9.84	PPBV		99
98)	sec-BUTYLBENZENE	16.77	134	82320	9.30	PPBV		94
99)	p-ISOPROPYLTOLUENE	16.97		83707	9.26	PPBV		99
100)	o-DICHLOROBENZENE	17.16						99
101)	n-BUTYLBENZENE	17.49	134	68642	9.34	PPBV	#	91
	HEXACHLOROBUTADIENE	19.77	225	98920	10.06			99
104)	1,2,4-TRICHLOROBENZENE	19.21	180	60352	9.09	PPBV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W23019.D M3W886.M Tue Aug 16 09:03:25 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23019.D Vial: 3

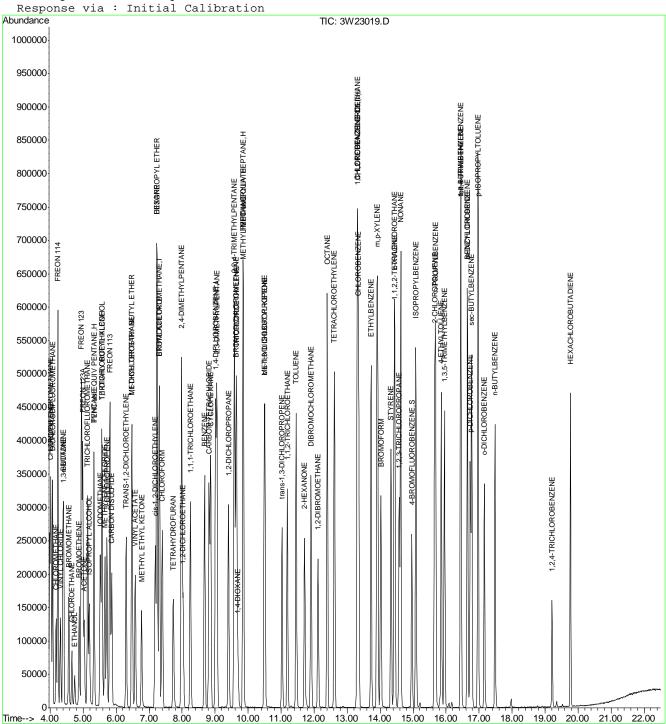
Acq On : 24 Jun 2011 10:13 am Operator: yunxiac Sample : BS Inst : MS3W Misc : MS14246,V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011



3W23019.D M3W886.M

Tue Aug 16 09:03:26 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23019.D Vial: 3

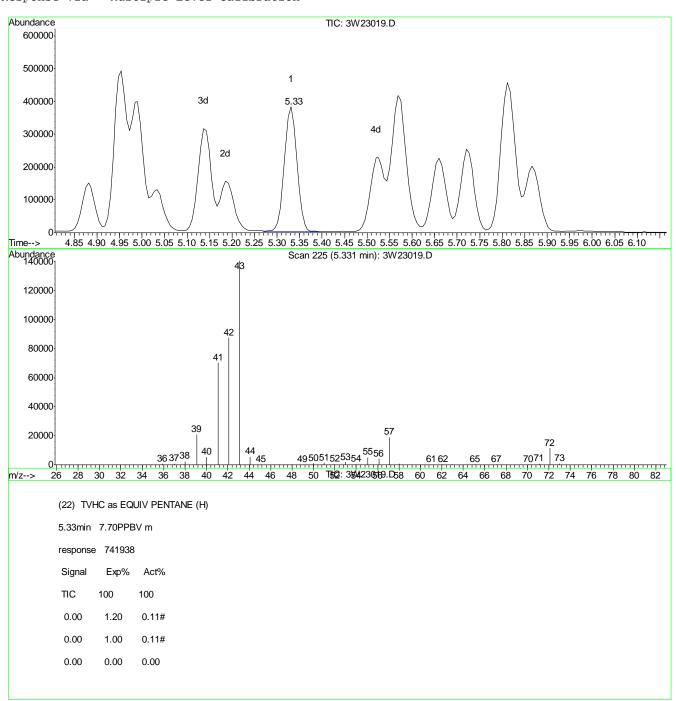
Acq On : 24 Jun 2011 10:13 am Operator: yunxiac Sample : BS Inst : MS3W Misc : MS14246, V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W23019.D M3W886.M

Tue Aug 16 09:31:36 2011

MS3W

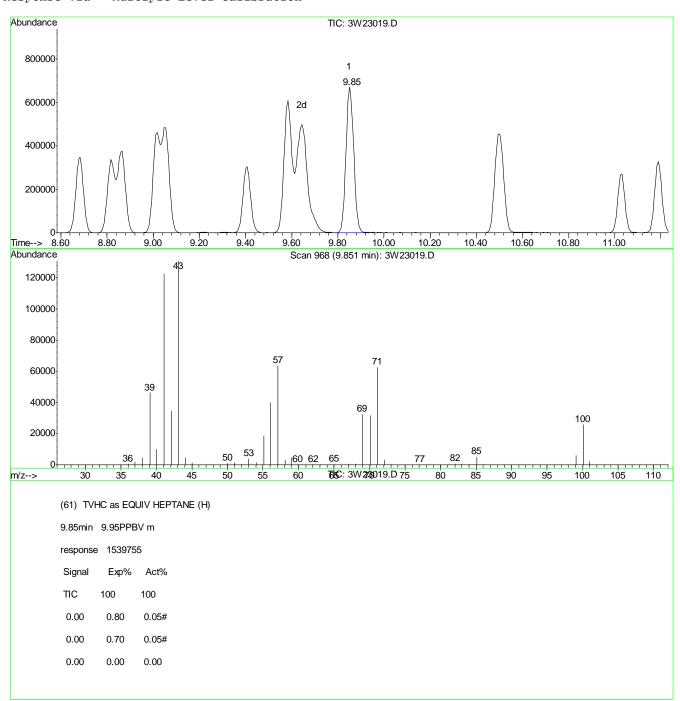


MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W23019.D M3W886.M

Tue Aug 16 09:31:44 2011

MS3W



MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:40 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

	rnal Standards 	R.T.		Response	Conc U			
1)	BROMOCHLOROMETHANE	7.31	128	97677 393223 196200 196200	10.00	PPBV		0.00
49)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	9.01	114	393223	10.00	PPBV		0.00
68)	CHLOROBENZENE-D5	13.31	82	196200	10.00	PPBV		-0.02
105)	CHLOROBENZENE-D5 (a)	13.31	82	196200	10.00	PPBV		-0.02
Syst	em Monitoring Compounds							
83)	4-BROMOFLUOROBENZENE	14.96	95	103695	5.01	PPBV		-0.02
Sp	4-BROMOFLUOROBENZENE iked Amount 5.000 H	Range 65	- 128	Recove	ery =	100.	20%	
Tarq	CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROETHYLENE CARBON DISULFIDE ETHANOL BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLENE TETTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ETH TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE Cis-1,2-DICHLOROETHYLENE DIISOPROPYL ETHER ETHYL ACETATE 1,1-DICHLOROETHANE METHYL ACETATE CHLOROFORM 2,4-DIMETHYLPENTANE 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE						Οv	alue
4)	CHLORODIFLUOROMETHANE	4.01	67	33039	8.31	PPBV	~	99
5)	DICHLORODIFLUOROMETHANE	4.01 4.07	85	295137	8.05	PPBV		99
6)	PROPYLENE	4.03	41	136832	8.42	PPBV		99
7)	FREON 114	4.23	85	283165	7.06	PPBV		99
8)	CHLOROMETHANE	4.18	50	138848	8.46	PPBV		99
9)	VINYL CHLORIDE	4.31	62	138730	8.89	PPBV		99
10)	1.3-BUTADIENE	4.39	54	106179	9.01	PPBV		95
11)	n-BUTANE	4.41	43	229663	8.25	PPBV		97
12)	BROMOMETHANE	4.56	94	113020	7.83	PPBV		100
13)	CHLOROETHANE	4.66	64	69155	8.97	PPBV		97
16)	FREON 123	4.95	83	273647	9.06	PPBV		99
17)	FREON 123A	4 99	117	138248	8 58	PPRV		87
18)	TRICHLOROFILIOROMETHANE	5 14	101	273454	8 02	PPRV		99
19)	TSOPROPYL ALCOHOL	5 19	45	208991	8 78	PPRV		99
20)	ACETONE	5 03	58	45415	7 91	PPRV	. н	88
21)	DENTANE:	5 33	42	160922	8 35	DDBW	. π	9.8
22)	TVHC ac FOULV DENTANE	5 33	TTC	720455m	7 56	DDBM		70
22)	TODOMETHANE	5 52	142	286982	7.30	DDBM		96
24)	1 1-DICHLOROFTHVLENE	5 56	96	102882	7.22	DDBM		93
25)	CAPRON DIGILETOR	5.30	76	323697	8 92	DDBM		9.8
26)	ETUANOI	1 71	15	50007	7 /10	וזמממ		9.0
20)	DDOMO FTUTNE	1 00	106	100707	γ. το	DDDM		90
20)	METUVI THE CUI ODIDE	5 66	2/	99276	7 17	DDDM		99
201	3_CUI ODODDODENE	5.00	76	55006	9 70	DDDM	. #	02
211	FDFON 112	5.72 5.91	151	155790	7 02	DDDM	. #	0.1
37)	TREON IIS	J.OI	131	100001	0 06	DDDM	,	0.4
221	TERTIARY DITTY ALCOHOL	NE 0.30	50 50	220002	0.00	PPDV	,	07
2/1	METHAL BUILL ALCOHOL	J. J. J.	72	223032	9.73	PPDV	,	97
251	MEINIL IEKIIAKI BUILL EII	1E 0.40	73	421E7	0.20	PPDV	- 4	90
35)	IEIRAHIDROFURAN	7.73	/ <u>Z</u>	43137 20160E	0.00	PPDV	. #	07
30)	TEXANE	/.43 6 E0	06	201095	9.19	PPDV	- ш	9 <i>1</i>
3/)	VINIL ACETATE	6.58	63	214/0	9.96	PDDM	. #	ρ1
30)	I,I-DICHLORUEIHANE	0.47	7.0	420007	9.59	PPDV		99
39)	METHYL ETHYL KETONE	0.//	7.2	42800	9.06	PPDM		94
4U)	CIS-I,Z-DICHLOROETHYLENE	7.18	9 b	11/049	9.48	FFR/		93
41)	DIISOPKOPYL ETHEK	7.24	45	34516/	9.43	LLR.	ال -	98
42)	ETHYL ACETATE	7.31	θŢ	29955	9.58	LLRA.	. #	92
44)	CHLOROFORM	7.40	83	236378	9.32	PPBV		98
45)	2,4-DIMETHYLPENTANE	7.98	57	251436	9.91	PPBV		98
46)	1,1,1-TRICHLOROETHANE	8.25	9.7	223456	9.47	PPBV		98
47)	CARBON TETRACHLORIDE	8.82	117	231886	8.87	PPBV		100

(#) = qualifier out of range (m) = manual integration

3W23020.D M3W886.M Tue Aug 16 09:03:27 2011 MS3W



MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:40 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Ç	value
48)	1,2-DICHLOROETHANE	8.03	 62	150709	10.06 PPBV	 J	99
	BENZENE	8.68	78	353170	10.20 PPBV 9.10 PPBV 9.17 PPBV 9.80 PPBV	J	99
51)	CYCLOHEXANE	8.86	69	57766	9.10 PPB	J	95
52)	2,3-DIMETHYLPENTANE	9.05	71	84046	9.17 PPB	J	92
53)	TRICHLOROETHYLENE	9.65	95	145192	9.80 PPB	J	97
54)	1,2-DICHLOROPROPANE	9.41	63	142121	10.98 PPB	/	97
57)	BROMODICHLOROMETHANE	9.63	83	240573	10.98 PPBV	J	100
58)	2,2,4-TRIMETHYLPENTANE	9.58	57	646812 58871	10.80 PPBV		99
59)	1,4-DIOXANE	9.69	88	58871	10.21 PPB	J	94
60)	HEPTANE	9.85	43	279698	11.25 PPBV	J	93
61)	TVHC as EQUIV HEPTANE	9.85	TIC	279698 1502487m	10.40 PPB		
62)	METHYL METHACRYLATE	9.86	69	91831	9.93 PPB	<i>7</i> #	84
63)	METHYL ISOBUTYL KETONE	10.49	58	89942	11.73 PPB		
64)	cis-1,3-DICHLOROPROPENE	10.51	75	190692	11.03 PPBV	J	95
	TOLUENE	11.46	92 75	223064 183974	10.26 PPB	J	99
66)	trans-1,3-DICHLOROPROPENE	11.03	75	183974	11.15 PPB	J	98
	1,1,2-TRICHLOROETHANE	11.19	83	117104	10.82 PPB	J	96
69)	2-HEXANONE	11.71	83 58	117104 112501	10.90 PPBV	<i>7</i> #	86
71)	TETRACHLOROETHYLENE	12.61	164	145229	8.60 PPBV 9.56 PPBV	J	98
72)	DIBROMOCHLOROMETHANE	11.91	129	221152	9.56 PPB	J	98
73)	1,2-DIBROMOETHANE	12.12	107	187300	10.24 PPBV 11.37 PPBV	J	99
74)	OCTANE	12.40	43	350534	11.37 PPBV	J	93
75)	1,1,1,2-TETRACHLOROETHANE	13.32	131	150273	9.75 PPBV	J	97
76)	CHLOROBENZENE	13.35	112	264709	9.10 PPB	J	97
77)	ETHYLBENZENE	13.73	91	447837	9.74 PPB	J	100
78)	m,p-XYLENE	13.92	106	321362	9.74 PPBV	J	99
79)	O-XYLENE	14.43	106	154496	9.73 PPB	J	98
80)	STYRENE	14.33	104	228774	9.73 PPBY 9.88 PPBY 12.43 PPBY 9.65 PPBY 10.37 PPBY	J	99
81)	NONANE	14.62	43	333074	12.43 PPB	J	95
82)	BROMOFORM	14.02	173	192764	9.65 PPB	J	99
84)	1,1,2,2-TETRACHLOROETHANE	14.45	83	214379	10.37 PPB	J	99
85)	1,2,3-TRICHLOROPROPANE	14.58	75	168354	10.02 PPBV 9.60 PPBV	J	96
	ISOPROPYLBENZENE	15.08	105	428752	9.60 PPB	J	99
88)	2-CHLOROTOLUENE n-PROPYLBENZENE	15.65	126	107264	9.77 PPBV 9.20 PPBV	J	98
89)	n-PROPYLBENZENE	15.68	120	104378	9.20 PPB	J	99
,	4-ETHYLTOLUENE	15.86	105	360206	10.14 PPB 9.93 PPB	J	99
	1,3,5-TRIMETHYLBENZENE	15.95	105	285953	9.93 PPB	J	100
93)	tert-BUTYLBENZENE	16.44	134	64751	9.53 PPBV 9.53 PPBV 10.40 PPBV 9.85 PPBV	J	98
,	1,2,4-TRIMETHYLBENZENE	16.45	105	269238	10.40 PPB	J	99
95)	m-DICHLOROBENZENE	16.65	146	189909	9.85 PPBV 10.15 PPBV 10.10 PPBV	J	100
96)	BENZYL CHLORIDE	16.65	91	216484	10.15 PPB	J	97
	p-DICHLOROBENZENE	16.73	146	185222	10.10 PPB		99
	sec-BUTYLBENZENE	16.77			9.28 PPB		94
99)	p-ISOPROPYLTOLUENE	16.97		80350	9.37 PPB	J	99
100)	o-DICHLOROBENZENE	17.16 17.49 19.77	146	166980	10.18 PPBV 9.36 PPBV	J	99
	n-BUTYLBENZENE	17.49	134	65187	9.36 PPB	<i>J</i> #	89
103)	HEXACHLOROBUTADIENE	19.77	225	94588	10.15 PPBV 9.08 PPBV	J	99
104)	1,2,4-TRICHLOROBENZENE	19.21	180	57152	9.08 PPB	J	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W23020.D M3W886.M Tue Aug 16 09:03:27 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23020.D Vial: 3

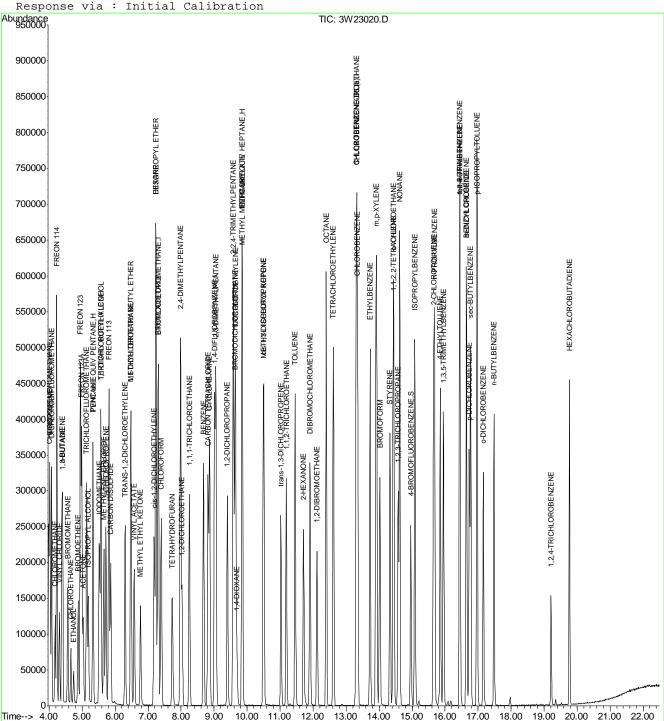
: 24 Jun 2011 11:06 am Acq On Operator: yunxiac Sample : BSD Inst : MS3W : MS14246, V3W910,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011



3W23020.D M3W886.M

Tue Aug 16 09:03:28 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23020.D Vial: 3

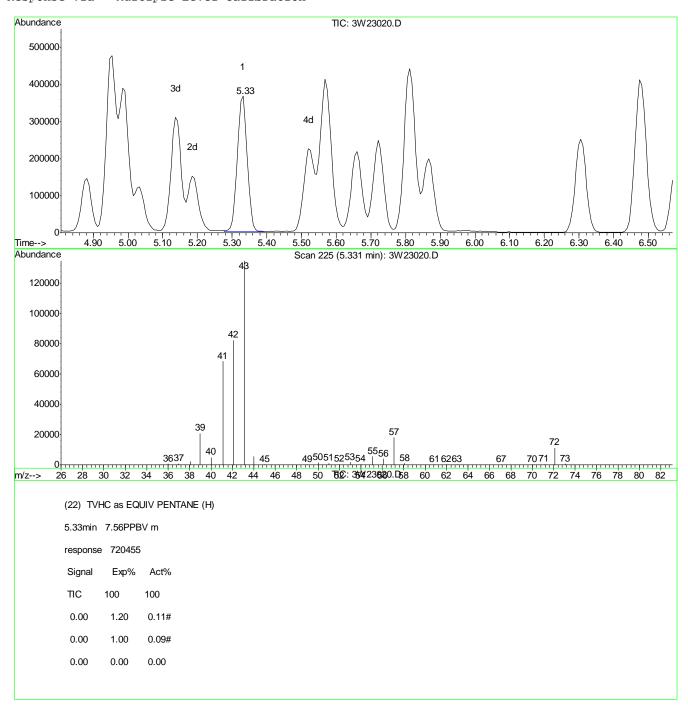
: 24 Jun 2011 11:06 am Acq On Operator: yunxiac Sample : BSD Inst : MS3W Misc : MS14246, V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W23020.D M3W886.M

Tue Aug 16 09:32:04 2011

MS3W

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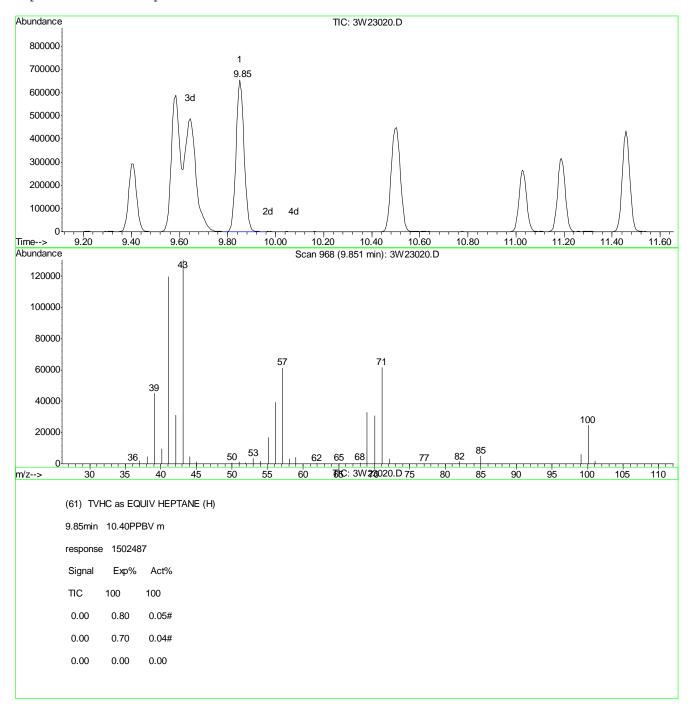
Misc : MS14246, V3W910, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W23020.D M3W886.M

Tue Aug 16 09:32:12 2011

MS3W



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32812.D

Acq On : 20 Jul 2011 5:31 pm Operator : YOUMINH

Sample : JA81330-סטפר Misc : MS15514,VW1341,400,,,,1 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 17 00:25:07 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Ur	nits D	ev(Min)
Internal Standards  1) BROMOCHLOROMETHANE  50) 1,4-DIFLUOROBENZENE  69) CHLOROBENZENE-D5  106) Chlorobenzene-d5(a)	8.598 10.275 14.518 14.518	128 114 82 82	126295 600877 251938 251347	10.00 10.00 10.00	PPBV PPBV PPBV PPBV	-0.02 -0.02 -0.03 -0.03
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE Spiked Amount 5.000				5.23 rery =		
49) 1,2-DICHLOROETHANE 51) BENZENE 52) CYCLOHEXANE 54) TRICHLOROETHYLENE 59) 2,2,4-TRIMETHYLPENTANE 62) HEPTANE 64) METHYL ISOBUTYL KETONE 66) TOLUENE 71) 2-HEXANONE 72) TETRACHLOROETHYLENE 78) ETHYLBENZENE 79) m,p-XYLENE 80) o-XYLENE	5.099 6.300 6.434 6.160 7.129 5.885 6.867 9.086 8.598 8.086 8.610 8.702 10.116 9.342 9.982 10.226 10.945 11.183 11.799 12.707 12.994 13.853 14.957 15.140 15.652	52 101 45 58 76 45 84 72 57 72 61 83 117 62 78 84 95 57 43 43 92 43 106 106	6035 36710 2204052 760495 5501 14148911 3812 3706 14337 18576 28996 25009 5498 2946 29001 6839 657 18870 20136 10917 157346 5331 3155 28898 35314 11745	94.12 0.14 1750.61 0.25 0.50 0.52 2.45 5.92 0.85 0.18 0.17 0.63 0.30 0.04 0.24 0.68 0.34 5.12 0.21 0.19 0.58	PPBV PPBV PPBV PPBV PPBV PPBV PPBV PPBV	99 100 99 85 87 98 93 # 73 # 60 # 1 97 99 97 71 84 90 82 98 99 98 98 98 98
91) 4-ETHYLTOLUENE 92) 1,3,5-TRIMETHYLBENZENE 95) 1,2,4-TRIMETHYLBENZENE 98) p-DICHLOROBENZENE	17.048 17.133	105 105 105 146	35524 20366	0.18 0.27 1.07 1.05	PPBV PPBV PPBV PPBV PPBV PPBV	94 96 # 34 96

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed



Page: 1

MW1322.M Wed Aug 17 00:25:07 2011 ACC-VOA-DESK1

W32812.D: JA81330-5DUP Duplicate page 1 of 19

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1341\

Data File : W32812.D

Acq On : 20 Jul 2011 5:31 pm

Operator : YOUMINH

Sample : JA81330-5DUP

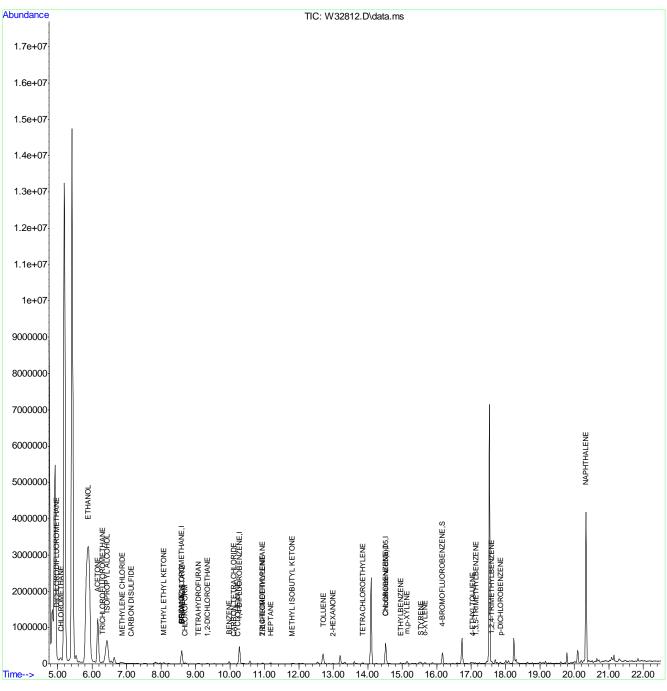
Misc : MS15514,VW1341,400,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 17 00:25:07 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

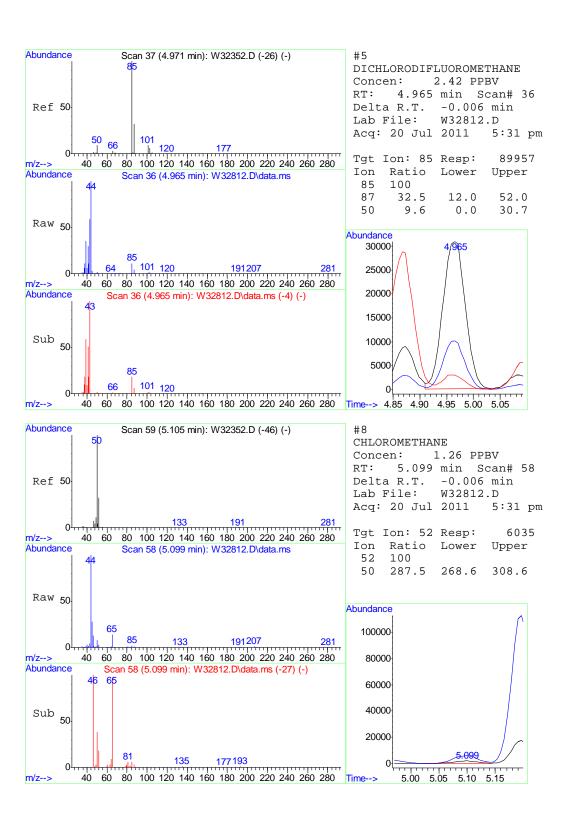
Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

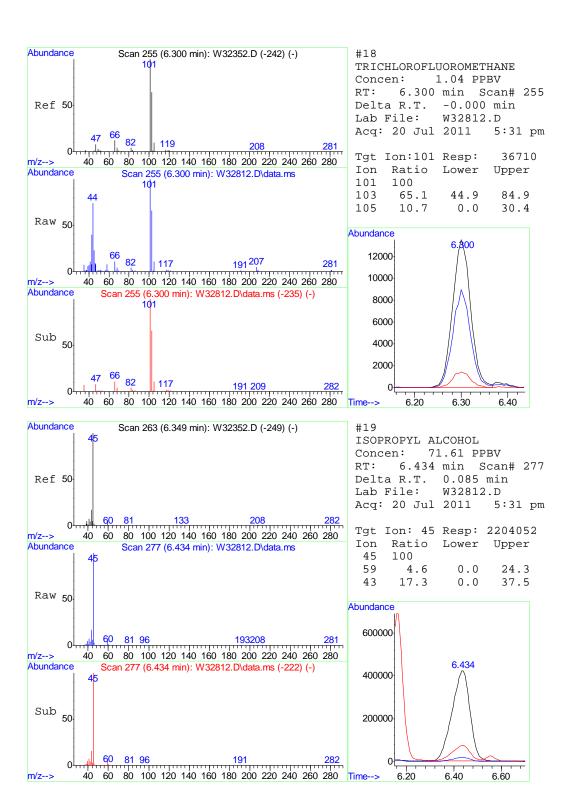
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

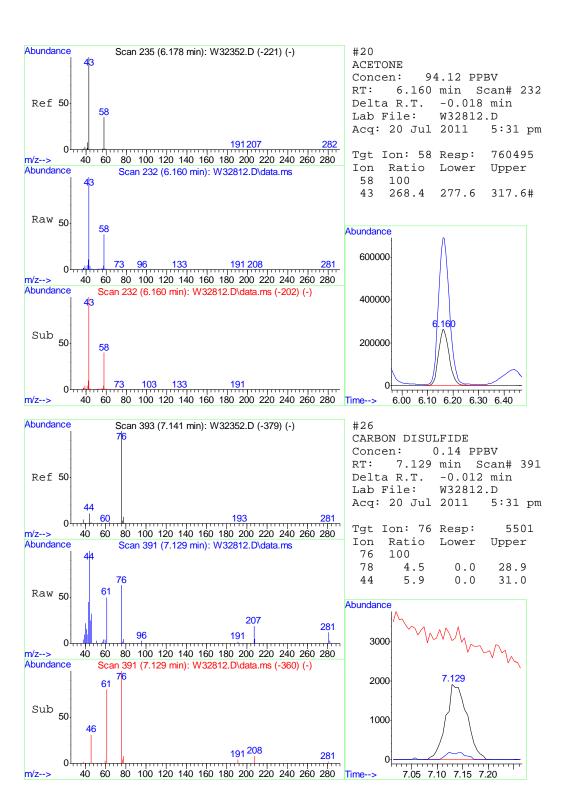


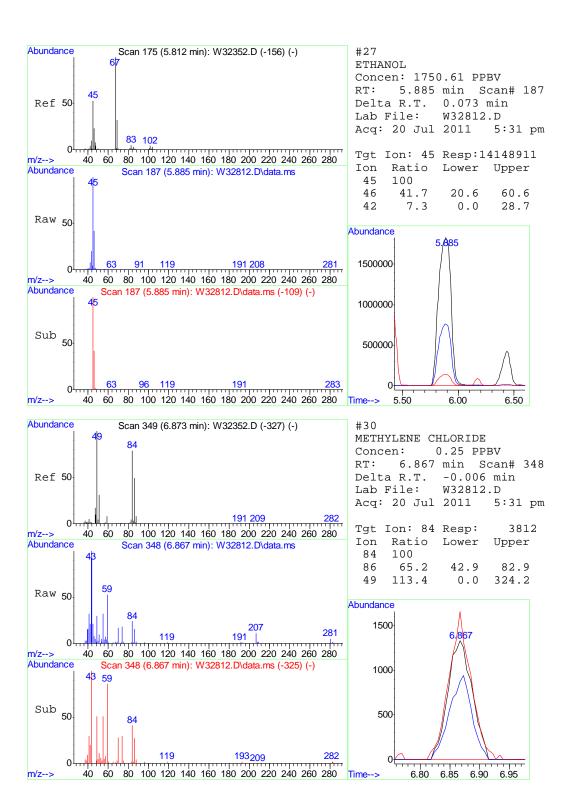
MW1322.M Wed Aug 17 00:25:07 2011 ACC-VOA-DESK1

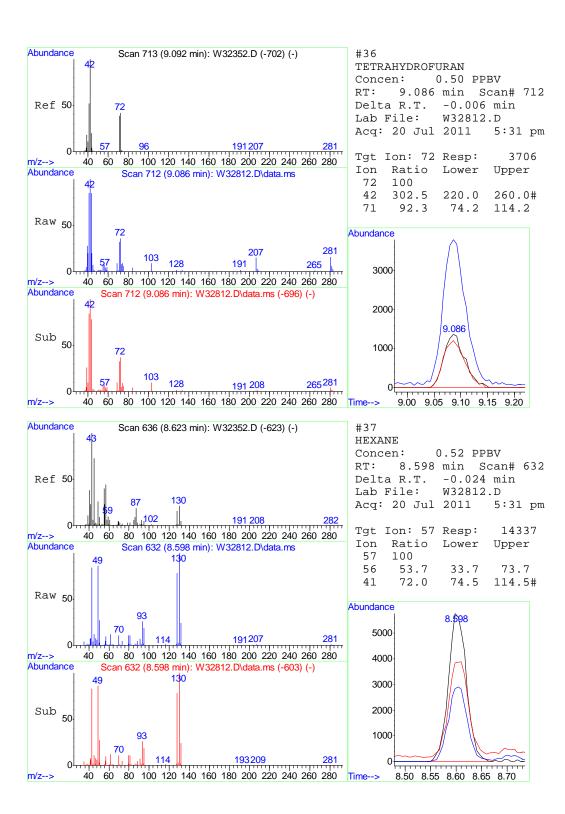


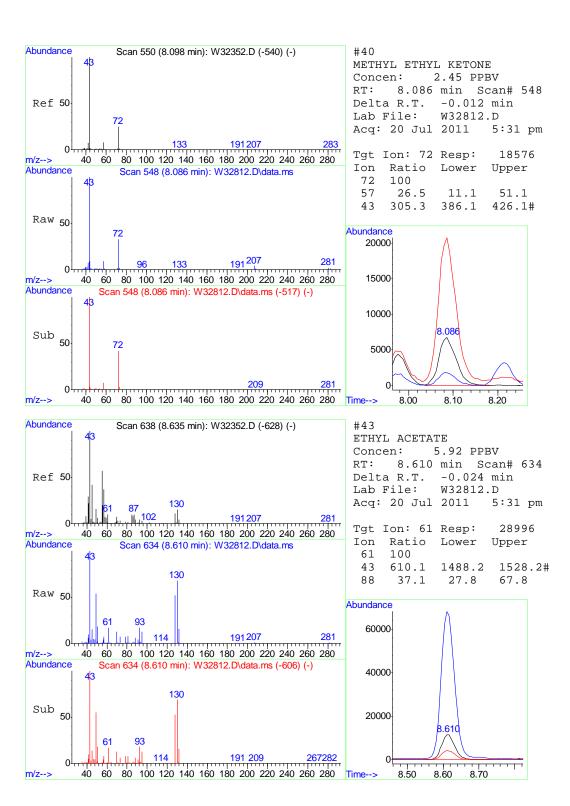


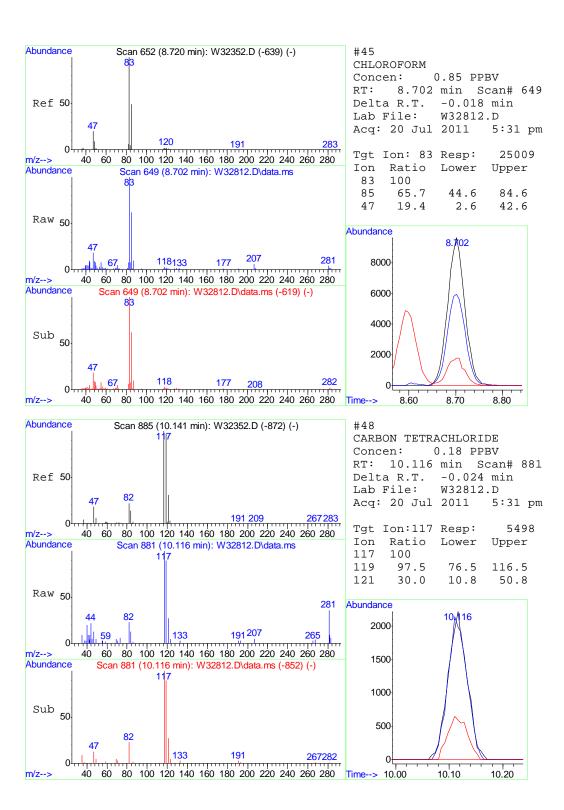


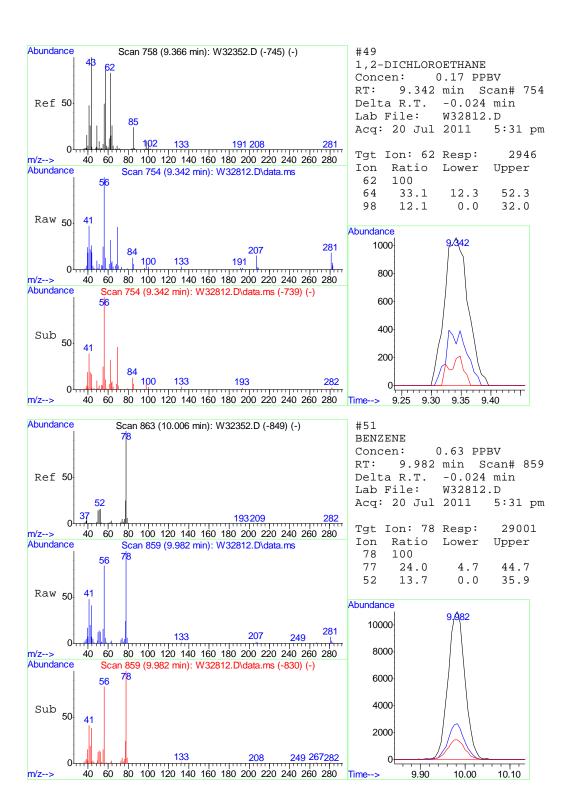


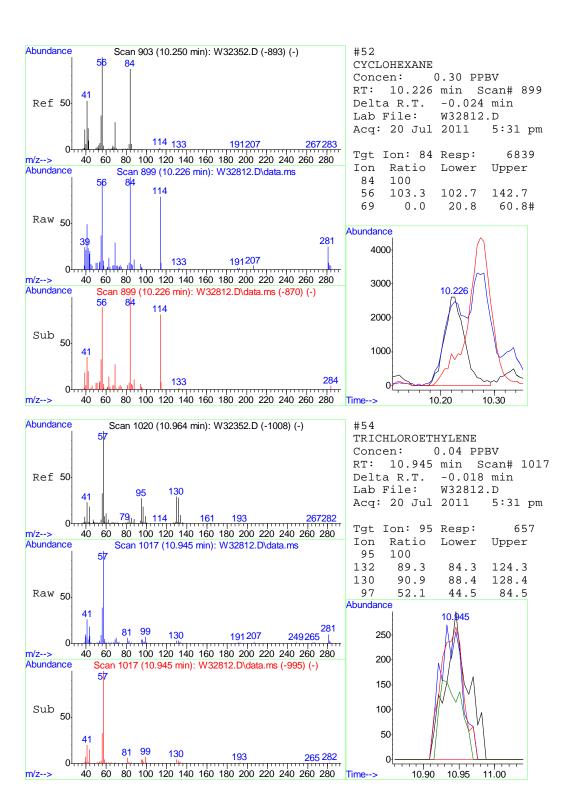


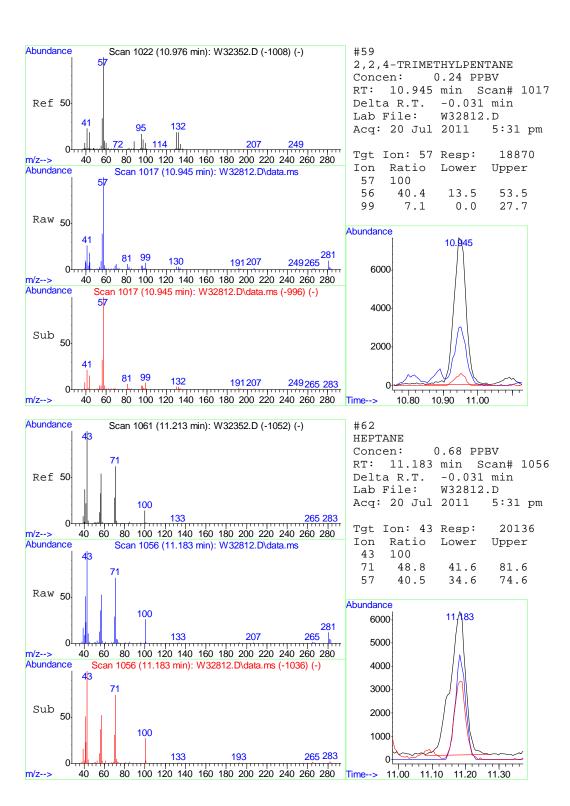


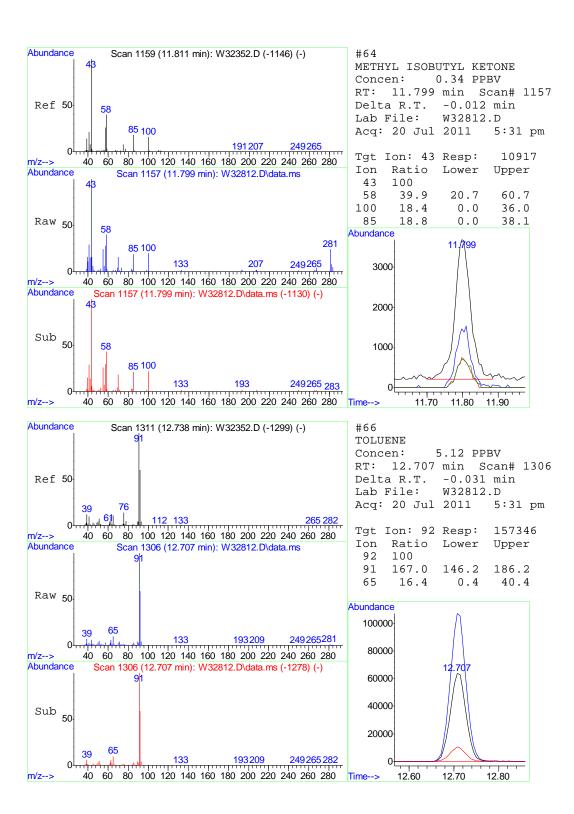


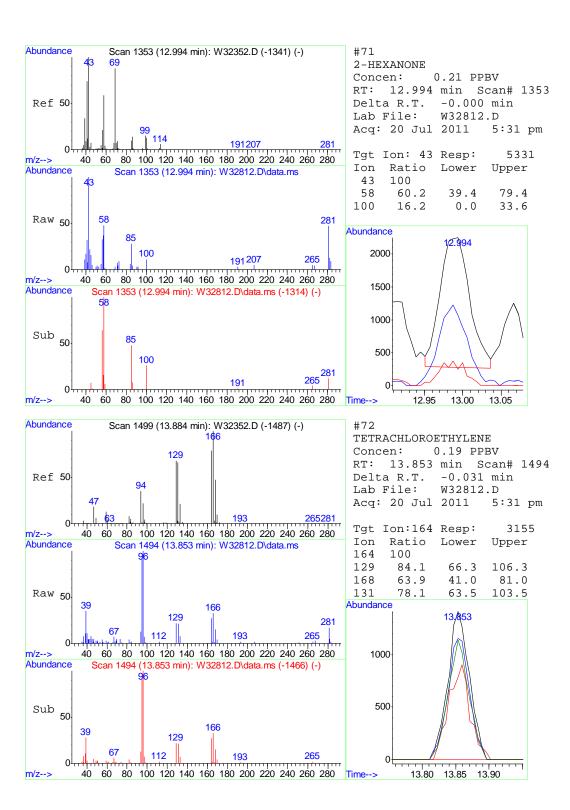


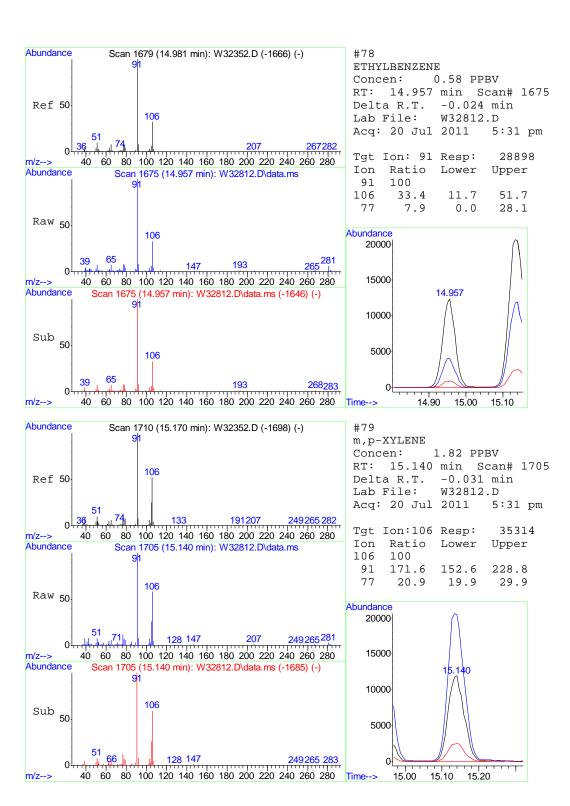


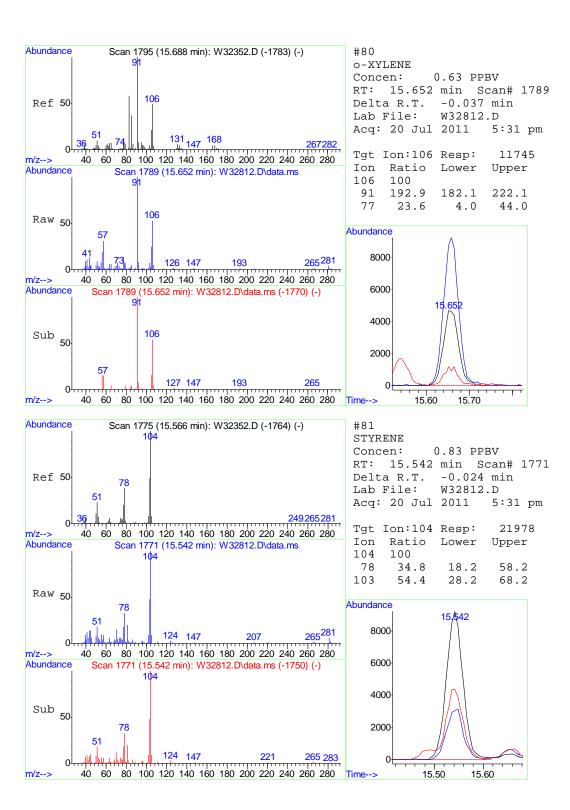


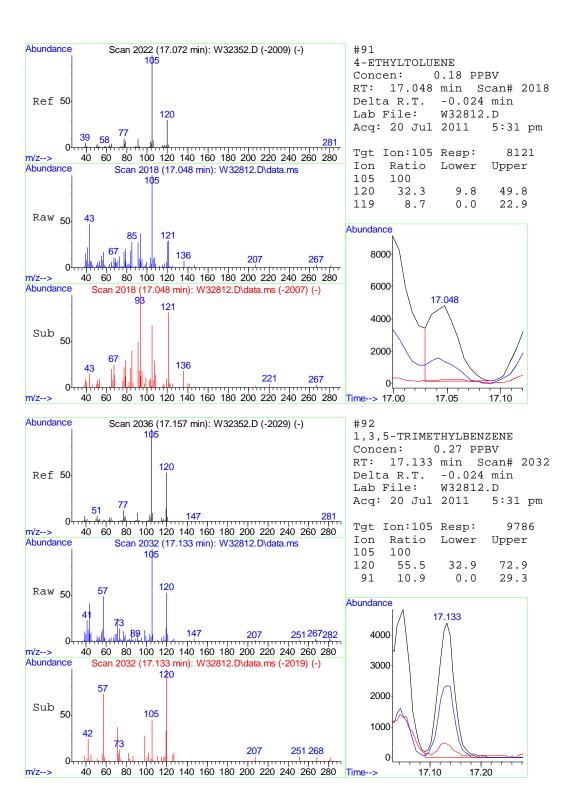


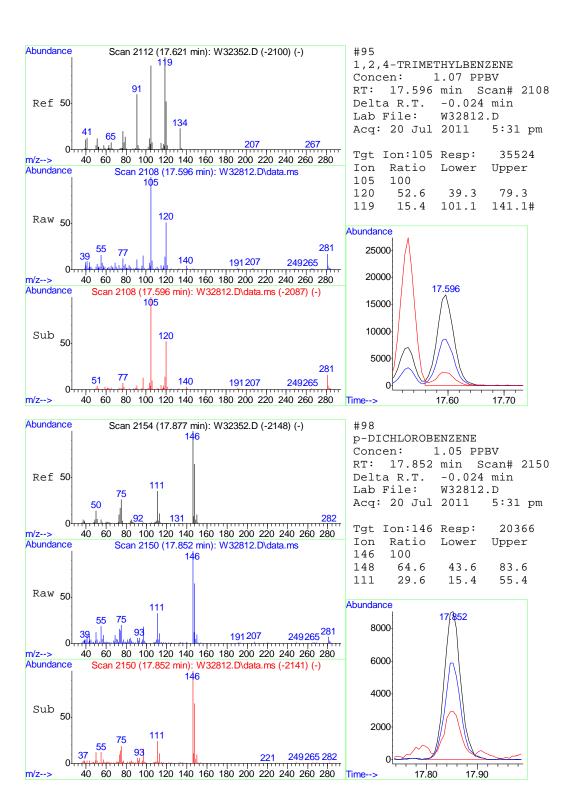


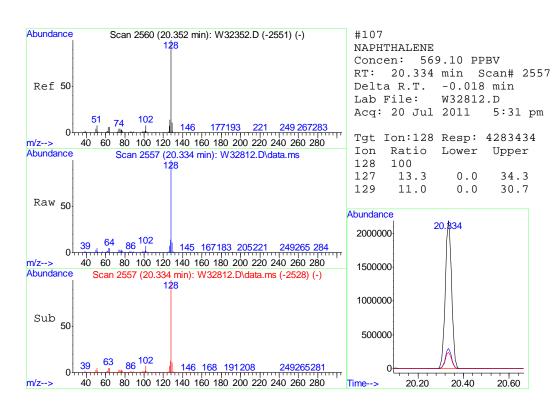












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JA81330

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32841.D

Acq On : 21 Jul 2011 6:25 pm

Operator : YOUMINH
Sample : JA81054-3DU

Sample : JA81054-3טר Misc : MS15341,VW1342,100,,,,,1 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 17 00:27:20 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

QLast Update: Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc U	nits	Dev	(Min)
Internal Standards							
1) BROMOCHLOROMETHANE	8.592	128	139645	10.00	PPBV		-0.02
50) 1,4-DIFLUOROBENZENE	10.275	114	139645 687273 326982	10.00	PPBV		-0.02
69) CHLOROBENZENE-D5	14.518	82	326982	10.00	PPBV		-0.03
106) Chlorobenzene-d5(a)	14.518	82	327294	10.00	PPBV		-0.03
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE		95	163604	4.63	PPBV		-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	92.	60%	
Target Compounds							alue
5) DICHLORODIFLUOROMETHANE	4.958	85	5650	0.14	PPBV		99
6) PROPYLENE	4.910	41	7610 1119	0.44	PPBV		92
8) CHLOROMETHANE	5.105	52	1119	0.21	PPBV	#	80
18) TRICHLOROFLUOROMETHANE	6.287	101	9841	0.25	PPBV		97
19) ISOPROPYL ALCOHOL	6.373	45	1074064	31.56	PPBV		99
20) ACETONE	6.166	58	82799	9.27	PPBV	#	71
26) CARBON DISULFIDE	7.129	76	5294	0.12	PPBV		91
27) ETHANOL	5.830	45	5583141	624.75	PPBV		98
30) METHYLENE CHLORIDE	6.861		20036		PPBV		96
34) TERTIARY BUTYL ALCOHOL	6.842	59	117992		PPBV		65
36) TETRAHYDROFURAN	9.067	72	56684	6.94	PPBV		89
37) HEXANE	8.598	57	211480 22344	6.95	PPBV	#	82
40) METHYL ETHYL KETONE	8.086	72		2.67	PPBV		67
51) BENZENE		78	212830	4.06	PPBV		97
52) CYCLOHEXANE	10.220	84	84860 944170	3.21	PPBV		97
59) 2,2,4-TRIMETHYLPENTANE	10.945						93
62) HEPTANE	11.183		286171	8.49			95
64) METHYL ISOBUTYL KETONE	11.799			0.57			97
66) TOLUENE	12.713		1555271	44.22	PPBV		99
72) TETRACHLOROETHYLENE	13.853		2539		PPBV		98
78) ETHYLBENZENE	14.957			9.91			98
79) m,p-XYLENE	15.133	106	924039 282371	36.66			95
80) o-XYLENE	15.658			11.60			95
81) STYRENE	15.542		3400				98
87) ISOPROPYLBENZENE	16.310		36387		PPBV		100
91) 4-ETHYLTOLUENE	17.041	105	152308	2.67	PPBV		99
92) 1,3,5-TRIMETHYLBENZENE	17.133	105	124584	2.64	PPBV		97
95) 1,2,4-TRIMETHYLBENZENE	17.596			8.55	PPBV		32
98) p-DICHLOROBENZENE	17.846		9378 9858	0.37			96
107) NAPHTHALENE	20.327		9858 		PPBV		87

<sup>(#)</sup> = qualifier out of range (m) = manual integration (+) = signals summed



Data Path : C:\msdchem\1\DATA\VW1342\

Data File : W32841.D

Acq On : 21 Jul 2011 6:25 pm

Operator : YOUMINH

Sample : JA81054-3DUP

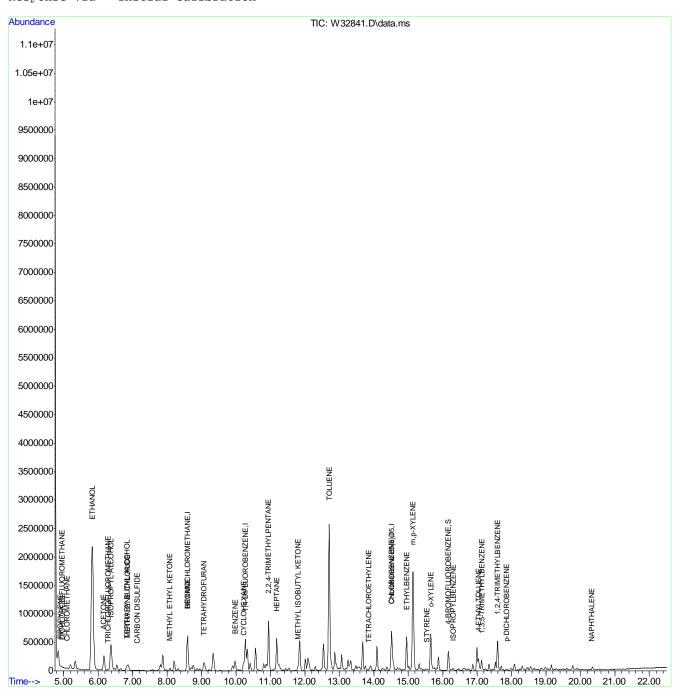
Misc : MS15341,VW1342,100,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 17 00:27:20 2011

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M

Quant Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

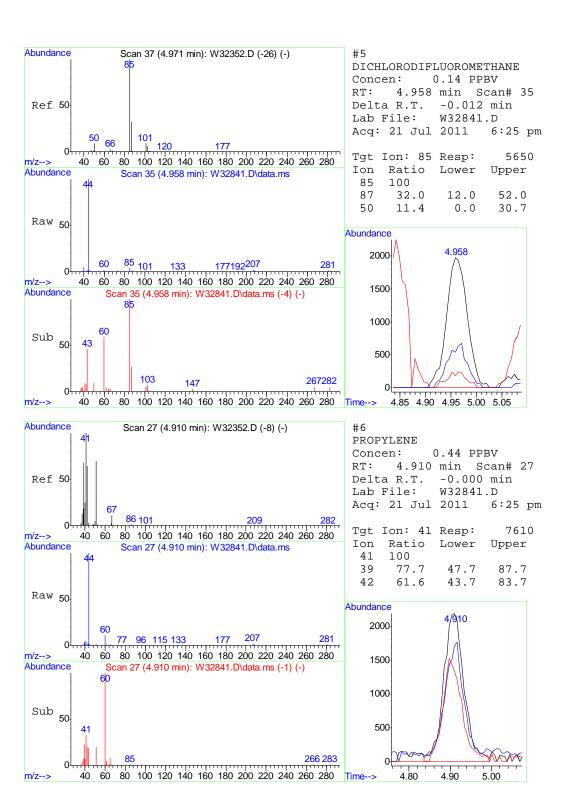
QLast Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

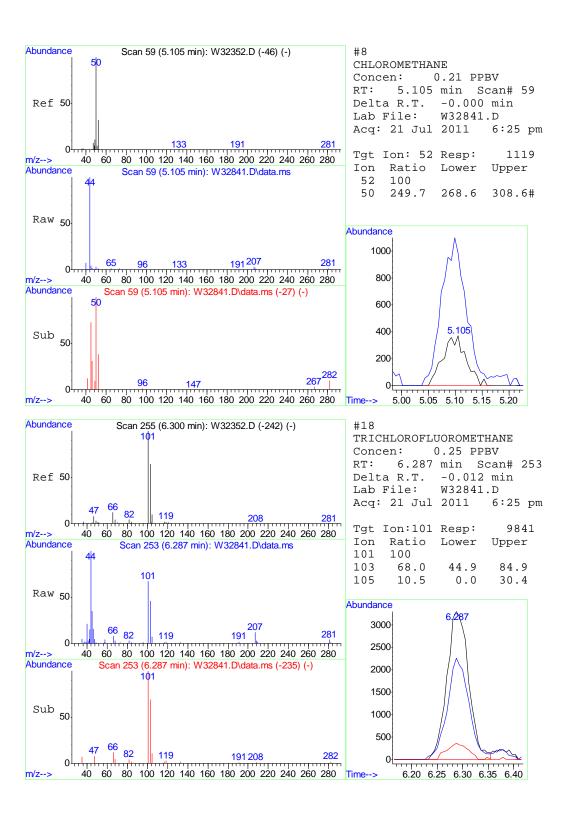


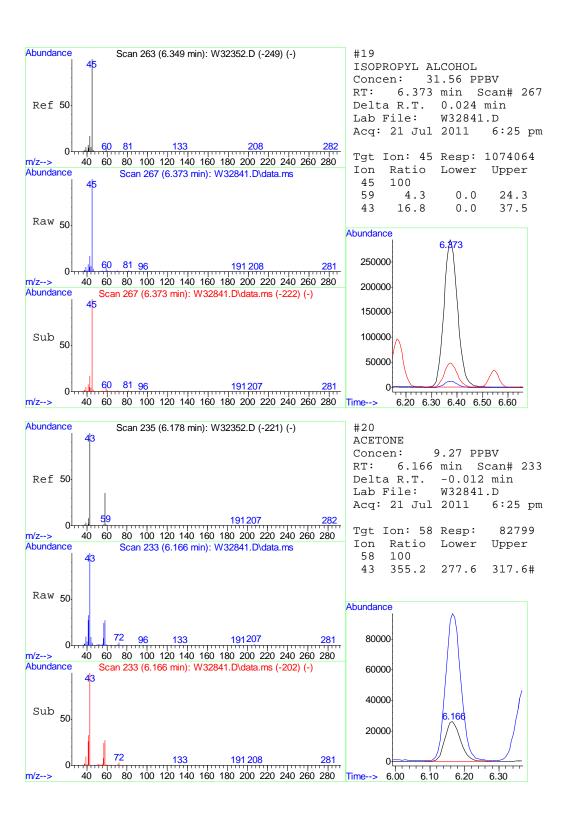
MW1322.M Wed Aug 17 00:27:20 2011 ACC-VOA-DESK1

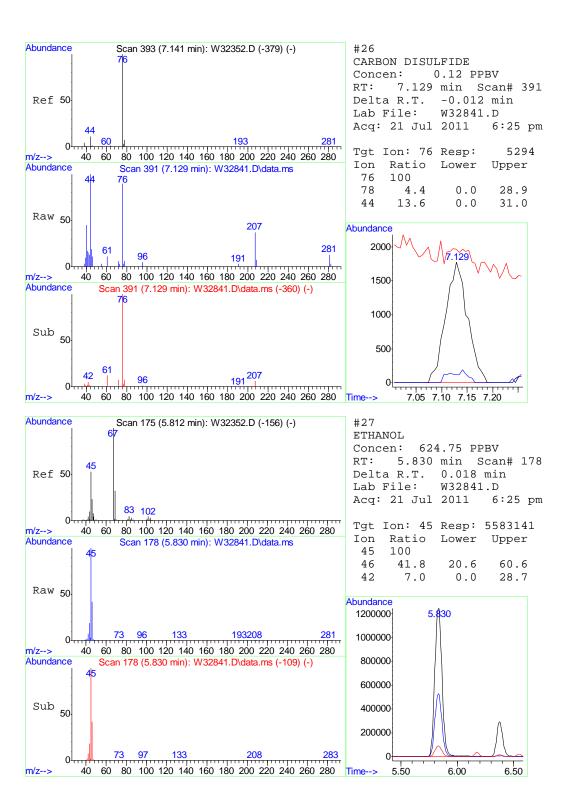
499 of 685
ACCUTEST.

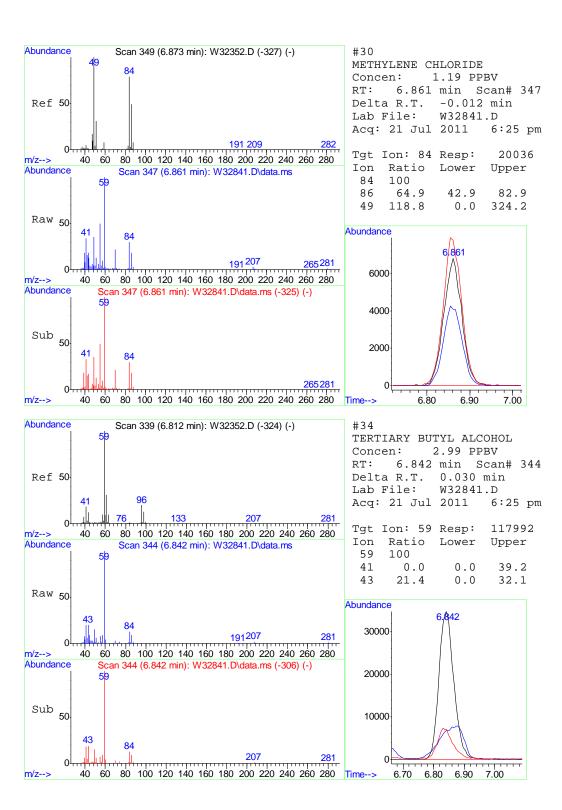
JA81330
LABORATORIES

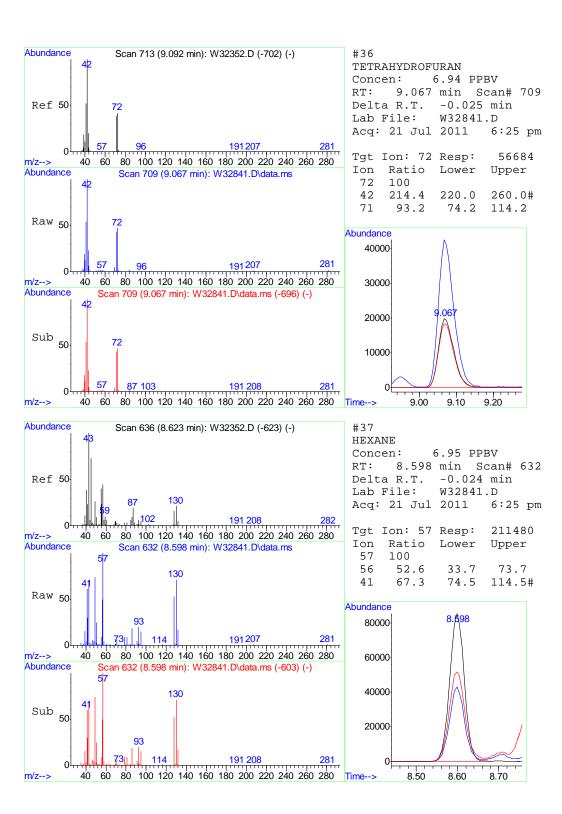


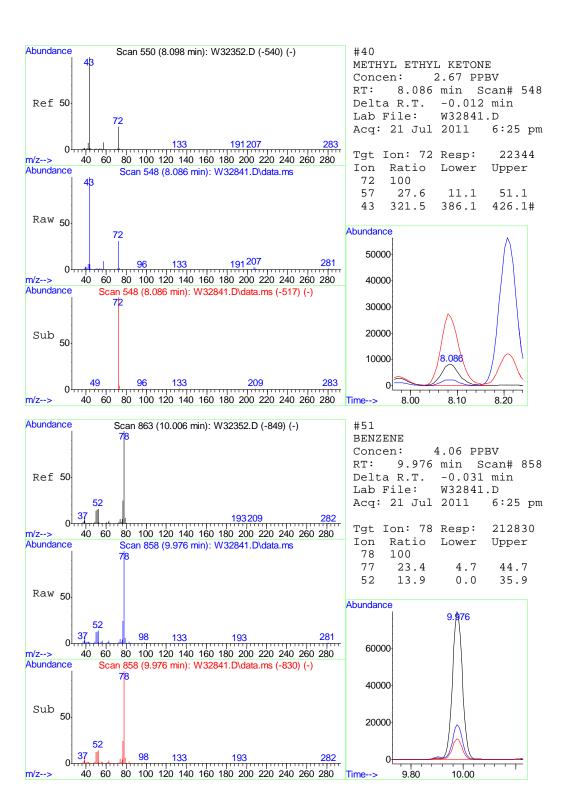


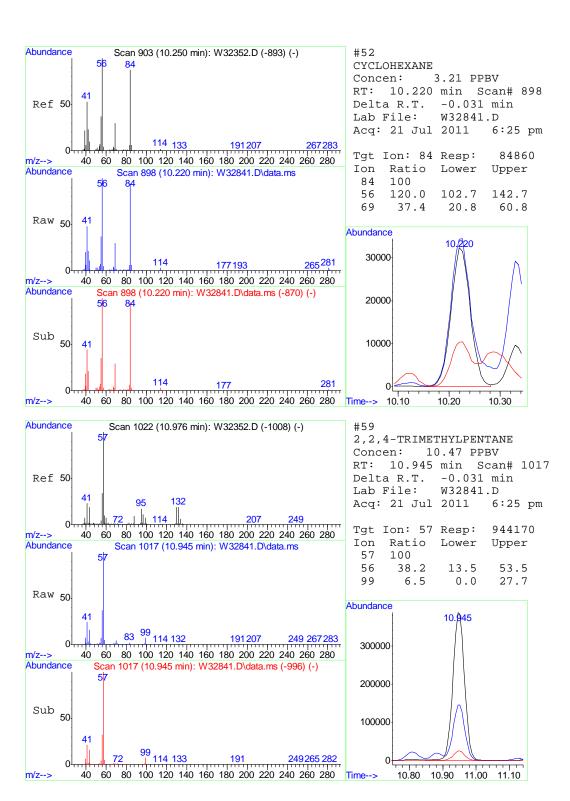


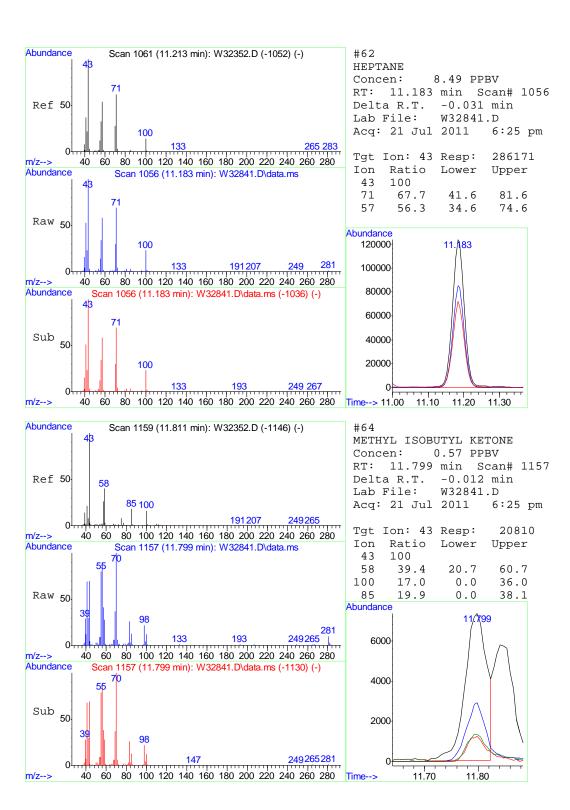


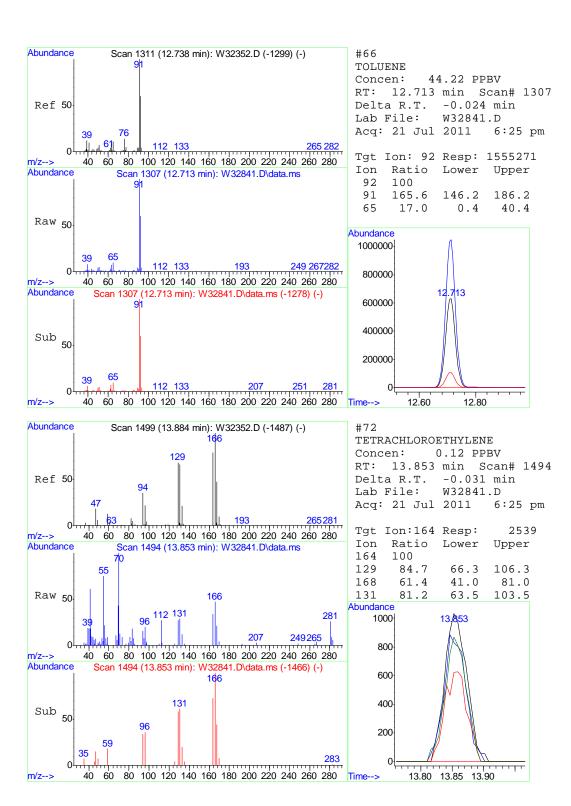


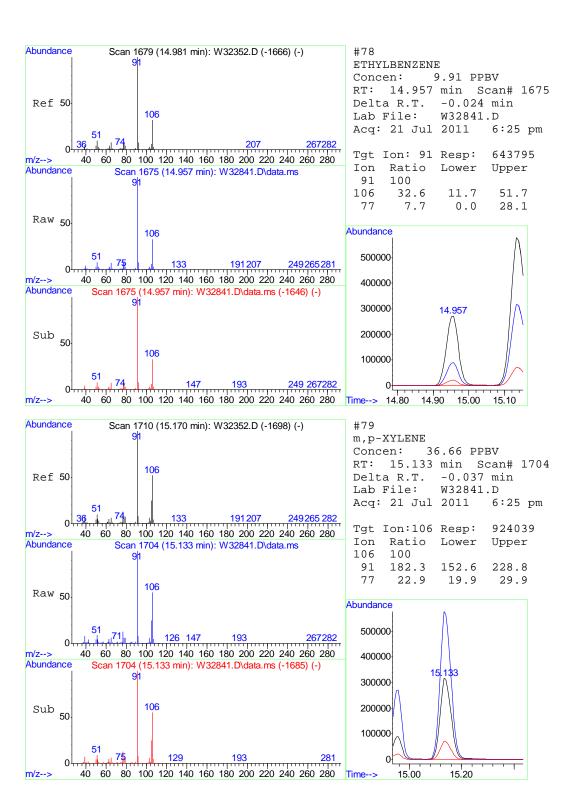


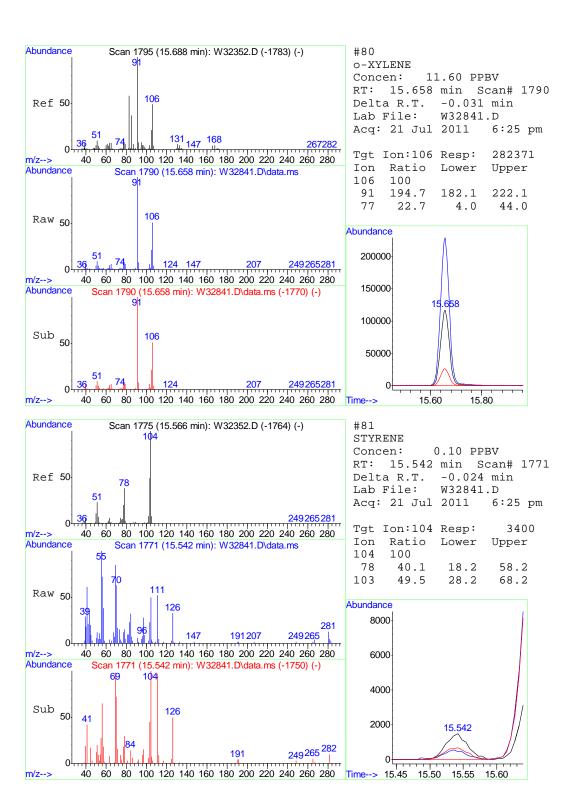


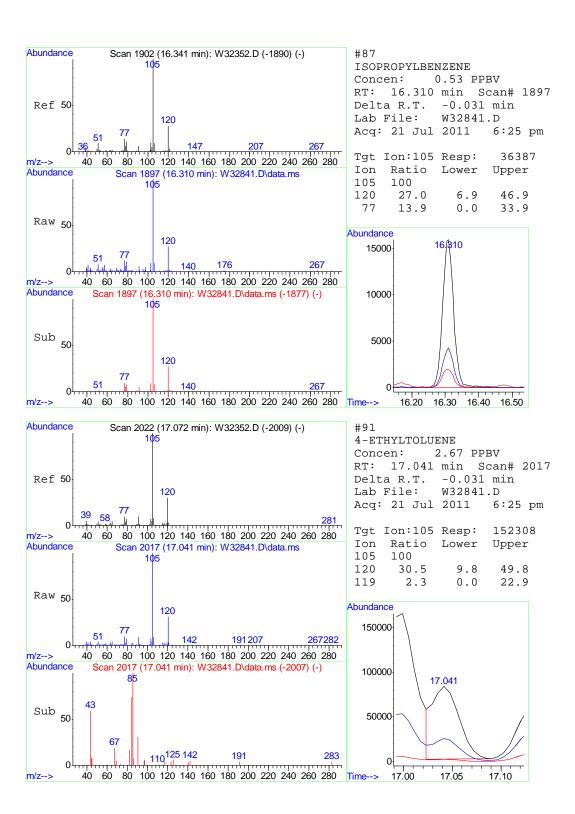


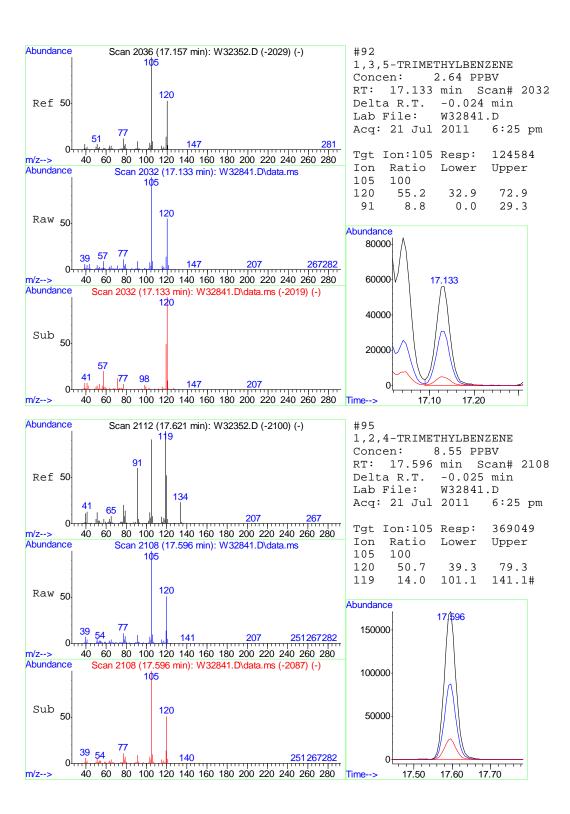


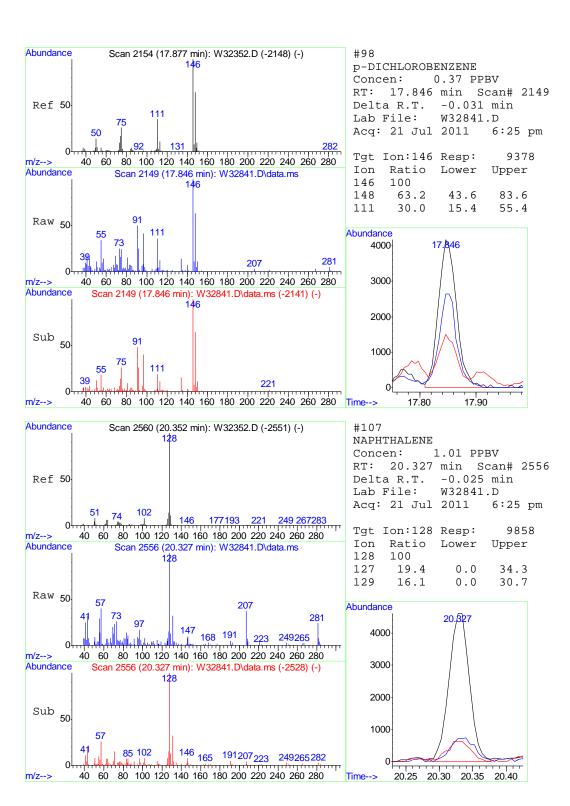












Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32412.D Vial: 5

Acq On : 24 Jun 2011 5:12 am Operator: YOUMINH Sample : SCC(A255) Inst : MSW Misc : MS14369,VW1324,400,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:08:34 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T. QIon	Response	Conc Units Dev	(Min)
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	8.61 128 10.29 114 14.54 82 14.54 82	156154 790929 354391 353094	10.00 PPBV 10.00 PPBV 10.00 PPBV 10.00 PPBV	0.00 0.00 0.00 0.00
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	16.19 95 Range 65 - 12	175366 8 Recove	4.58 PPBV ery = 91.60%	0.00

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32412.D MW1322.M Tue Aug 16  $08:56:12\ 2011$  MSW

515 of 685
ACCUTEST

JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32412.D Vial: 5

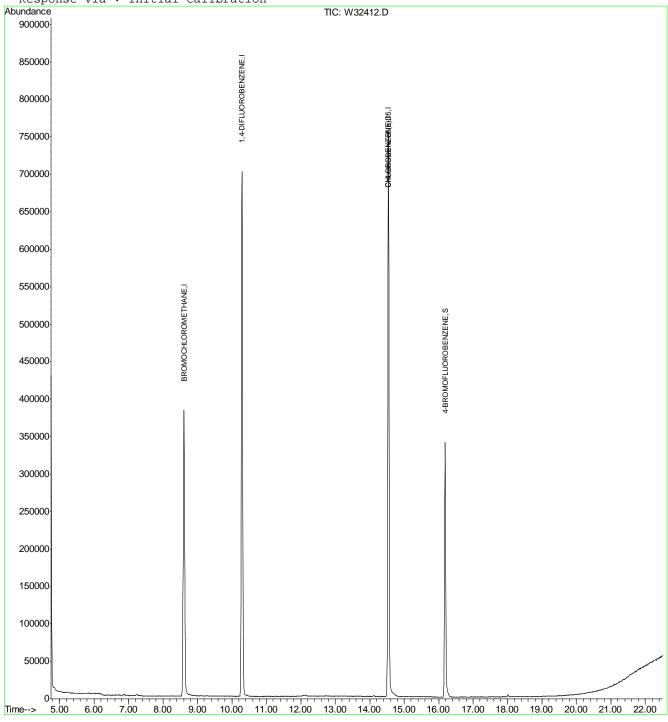
: 24 Jun 2011 5:12 am Acq On Operator: YOUMINH Sample : SCC(A255) Inst : MSW Misc : MS14369, VW1324, 400, , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : T015 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



W32412.D MW1322.M

Tue Aug 16 08:56:13 2011

MSW



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23024.D Vial: 8

Acq On : 24 Jun 2011 2:44 pm Operator: yunxiac Sample : SCC(A377) Inst : MS3W Misc : MS14246, V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:49 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

Internal Standards	R.T. QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE 49) 1,4-DIFLUOROBENZENE 68) CHLOROBENZENE-D5 105) CHLOROBENZENE-D5 (a)	7.30 128 9.01 114 13.30 82 13.30 82	393541 182132	10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV -0.02 10.00 PPBV -0.02
System Monitoring Compounds 83) 4-BROMOFLUOROBENZENE Spiked Amount 5.000	14.96 95 Range 65 - 12		4.07 PPBV -0.03 ery = 81.40%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W23024.D M3W886.M Tue Aug 16 09:16:07 2011 MS3W

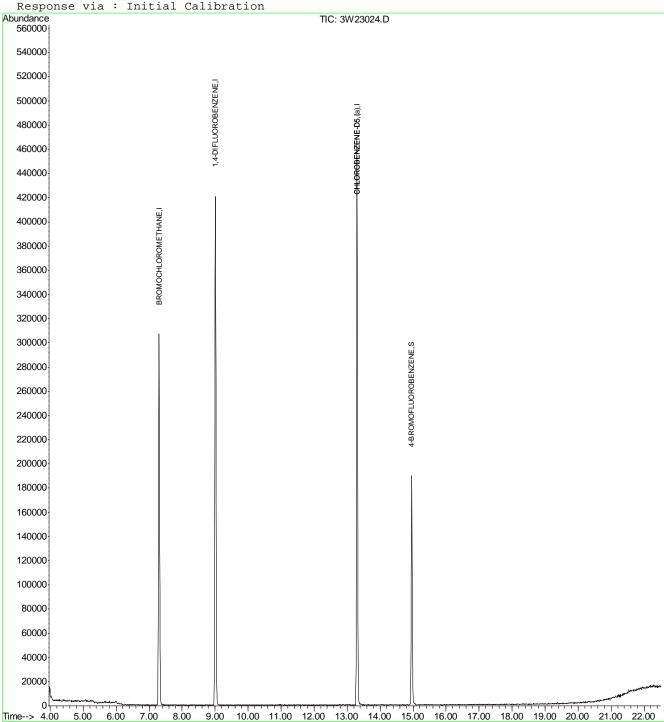
> 517 of 685 ACCUTEST JA81330

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011



3W23024.D M3W886.M

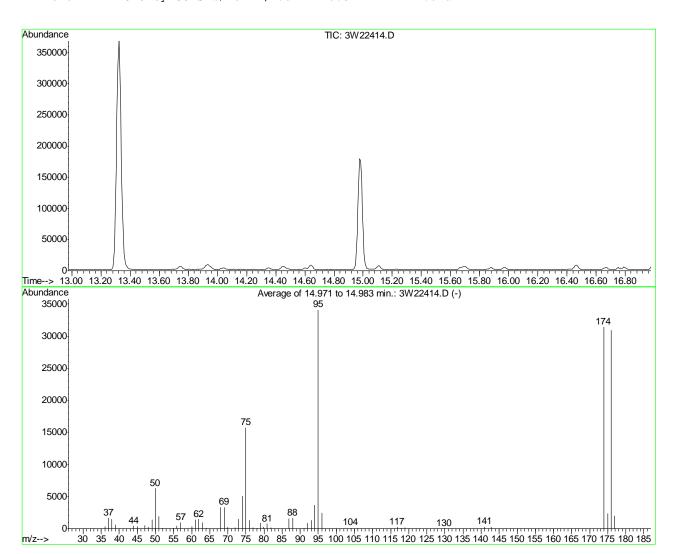
Tue Aug 16 09:16:08 2011



Data File : C:\MSDCHEM\1\DATA\3W22414.D Vial: 5

Acq On : 13 May 2011 9:13 am Operator: yunxiac : bfb Inst : MS3W Sample : MS12271, V3W886, , , , , 1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um



AutoFind: Scans 1815, 1816, 1817; Background Corrected with Scan 1806

Target   Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw Abn	Result     Pass/Fail
50	   95	8	40	18.4	6263	PASS
75	95	30	66	46.1	15734	PASS
95	95	100	100	100.0	34112	PASS
96	95	5	9	7.3	2481	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.1	31432	PASS
175	174	4	9	7.5	2371	PASS
176	174	93	101	98.4	30914	PASS
177	176	5	9	6.5	2014	PASS
•	•	'		•		



Average of 14.971 to 14.983 min.: 3W22414.D Modified:subtracted abund. m/z abund. m/z m/z abund. abund. m/z 70.00 36.00 370 51.90 53 231 81.90 169 55.00 72.00 37.00 59 1548 1654 135 86.95 55.95 1504 73.00 1621 38.00 456 1498 87.95 74.00 592 400 39.05 57.05 954 5099 66 91.00 60.00 75.00 44.00 338 15734 92.00 850 45.05 372 61.00 1445 76.00 1328 93.00 1276 47.00 536 62.00 1464 77.00 193 94.00 3706 47.95 225 63.05 986 78.00 109 95.00 34112 58 1435 64.10 78.90 96.00 49.00 852 2481 6263 50.00 68.00 79.85 272 104.05 109 3327 51.00 1936 69.00 3358 80.90 782 105.90 63 Average of 14.971 to 14.983 min.: 3W22414.D Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 116.85 222 117.90 56 118.95 184 129.90 52 140.95 308 142.80 252 173.90 31432 174.95 2371 175.90 30914 176.95 2014

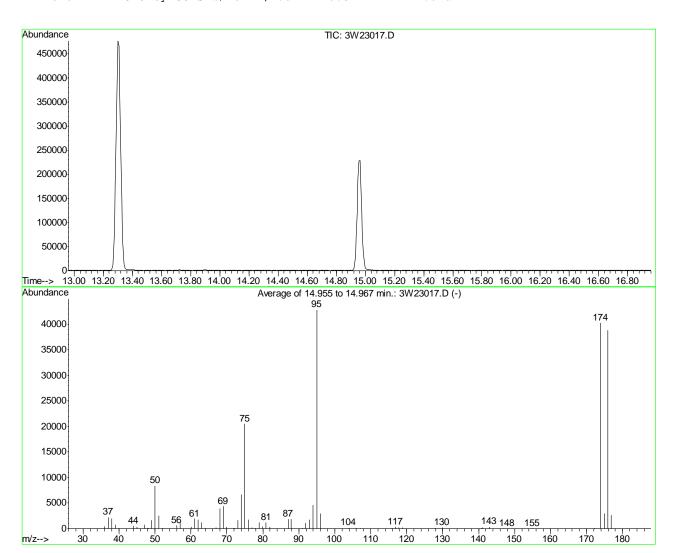


#### BFB

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23017.D Vial: 5

Acq On : 24 Jun 2011 8:46 am Operator: yunxiac Sample : BFB Inst : MS3W : MS14246, V3W910,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um



AutoFind: Scans 1807, 1808, 1809; Background Corrected with Scan 1797

	Target Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.	Raw   Abn	Result     Pass/Fail
Ī	50	95	8	40	   19.5	8359	PASS
ĺ	75	95	30	66	47.8	20474	PASS
ĺ	95	95	100	100	100.0	42848	PASS
ĺ	96	95	5	9	7.0	3006	PASS
ĺ	173	174	0.00	2	0.0	0	PASS
ĺ	174	95	50	120	93.9	40234	PASS
ĺ	175	174	4	9	7.3	2935	PASS
ĺ	176	174	93	101	96.5	38826	PASS
ĺ	177	176	5	9	6.7	2598	PASS
-					· 		

3W23017.D M3W886.M Tue Aug 16 09:30:54 2011 MS3W



abund.

Average	of	14.955	to	14.967	min.:	3W23017.D		
BFB								
Manager and the second and the secon								

Modified:sul	otracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	392	50.00	8359	68.00	3943	78.90	1166
37.05	2245	51.05	2551	69.00	4339	79.95	426
38.00	1986	52.10	60	69.95	280	80.90	1170
39.05	783	56.05	622	71.90	138	82.00	285
39.95	123	57.00	1202	72.10	82	87.00	1915
44.00	546	60.05	377	73.00	1689	87.90	1848
45.05	309	61.00	1928	74.00	6751	90.95	166
47.00	719	62.00	1740	75.00	20474	91.95	1057
47.95	168	63.00	1252	76.05	1735	93.00	1787
48.20	89	64.05	132	77.00	266	94.00	4652
49.00	1661	66.95	203	77.95	154	95.00	42848

Average of 14.955 to 14.967 min.: 3W23017.D

BFB

Modi	fice	:sub	+ ~ ~ ~	+ ~ ~
MODI	T1ec	เรเบก	rrac	теа

m/z	abund.	m/z	abund.	m/z	abund.	m/z
96.00	3006	141.00	269			
103.90	124	142.95	359			
105.90	117	146.90	54			
107.00	52	148.00	50			
115.85	157	154.90	53			
116.90	311	172.10	72			
117.85	175	173.90	40234			
118.90	242	174.95	2935			
127.85	129	175.90	38826			
129.90	184	176.90	2598			
140.80	93	177.90	55			



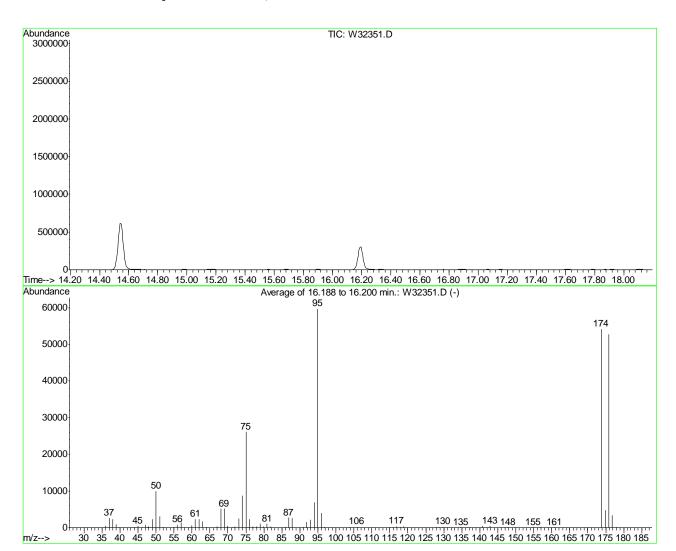
#### BFB

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32351.D Vial: 5

Acq On : 21 Jun 2011 4:40 pm Operator: YOUMINH : BFB Sample Inst : MSW : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1877, 1878, 1879; Background Corrected with Scan 1865

	Target   Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
Ī	50	95	8	40	16.7	9991	PASS
İ	75	95	30	66	43.7	26117	PASS
İ	95	95	100	100	100.0	59717	PASS
İ	96	95	5	9	6.6	3967	PASS
İ	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	90.8	54200	PASS
ĺ	175	174	4	9	8.8	4795	PASS
İ	176	174	93	101	97.3	52714	PASS
İ	177	176	5	9	6.5	3429	PASS

Tue Aug 16 08:49:47 2011 MSW W32351.D MW1322.M



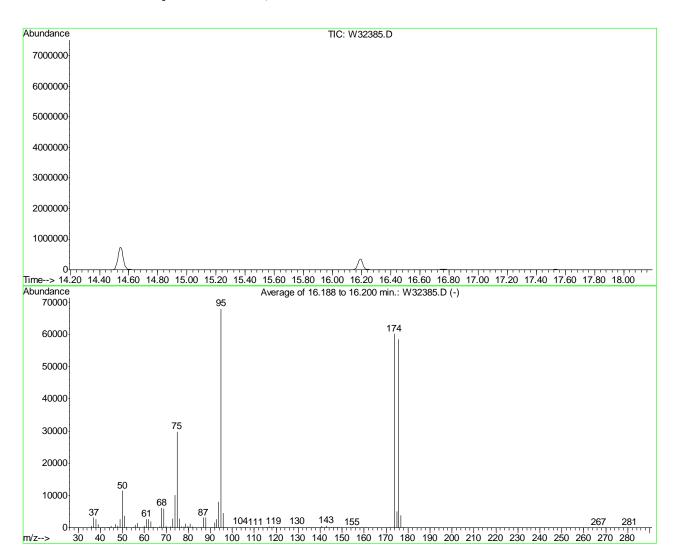
Average of BFB	16.188 to	16.200 mi	n.: W3235	l.D			
Modified:su	btracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	536	48.00	245	62.00	2325	75.00	26117
37.00	2604	49.00	2320	62.95	1690	76.00	2274
38.00	2239	50.00	9991	63.95	194	76.95	357
39.00	885	51.00	3044	67.00	239	77.85	279
39.90	13	51.95	145	68.00	5135	78.90	1045
42.95	32	54.95	199	68.95	5191	79.90	356
43.95	191	55.95	771	69.90	440	80.90	1071
45.00	439	57.00	1353	71.20	17	81.85	251
46.10	16	57.90	30	71.95	315	86.00	114
47.00	824	59.95	565	73.00	2423	86.90	2700
47.80	147	60.95	2356	74.00	8789	87.90	2573
Average of	16.188 to	16.200 mi	n.: W32351	l.D			
BFB							
Modified:su							
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.90	185	115.80	152	141.90	67	174.90	4795
91.90	1495	116.85	309	142.85	439	175.80	52714
92.95	2164	117.85	184	145.75	79	176.80	3429
94.00	6866	118.80	290	146.80	16	177.85	85
94.90	59717	127.85	160	147.85	120		
95.90	3967	128.75	90	149.75	42		
96.95	136	129.75	196	154.85	127		
103.85	188	130.80	57	156.80	85		
104.85	73	134.80	87	158.80	37		
105.85	200	136.85	75	160.75	57		

114.90 43 140.80 436 173.80 54200

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32385.D Vial: 5

Acq On : 23 Jun 2011 8:24 am Operator: YOUMINH : BFB Sample Inst : MSW : MS14299,VW1324,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1877, 1878, 1879; Background Corrected with Scan 1865

	Target Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
Ī	50	   95	8	40	16.9	11481	PASS
j	75	95	30	66	43.9	29853	PASS
j	95	95	100	100	100.0	67986	PASS
İ	96	95	5	9	6.7	4538	PASS
İ	173	174	0.00	2	0.0	0	PASS
İ	174	95	50	120	88.5	60200	PASS
j	175	174	4	9	8.5	5109	PASS
j	176	174	93	101	97.2	58517	PASS
İ	177	176	5	9	6.4	3752	PASS

Tue Aug 16 09:10:01 2011 MSW W32385.D MW1322.M



281.00

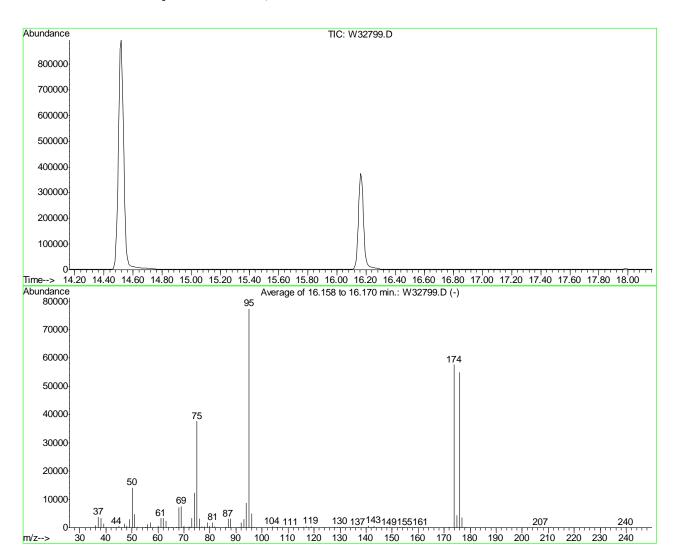
18

Average of 16.188 to 16.200 min.: W32385.D Modified:subtracted abund. m/z abund. m/z m/z abund. m/z abund. 36.00 613 49.00 2686 62.95 1939 75.90 2718 37.00 3108 50.00 11481 63.90 204 76.95 437 51.00 38.00 3675 64.90 77.90 2561 22 324 51.90 78.85 1007 67.05 1250 38.95 181 286 54.95 41.00 33 233 67.90 6043 79.90 476 43.05 85 55.95 835 68.95 5999 80.90 1247 43.90 252 56.95 1465 69.90 446 81.85 44.95 532 57.90 66 71.95 422 82.90 35 59.95 72.95 2818 85.80 93 56 602 46.10 1019 60.95 73.95 39 46.95 2692 10048 86.00 449 61.95 2679 74.90 29853 86.90 3104 47.95 Average of 16.188 to 16.200 min.: W32385.D Modified:subtracted abund. m/z abund. m/zm/z abund. m/zabund. 106.90 130.75 70 147.85 87.90 3094 16 132 110.85 101 148.75 90.85 246 44 134.80 42 136.75 91.95 1612 113.80 18 88 149.75 62 92.90 2661 114.80 74 140.10 27 153.80 19 93.95 7964 115.75 190 140.85 469 154.80 157 94.90 67986 116.80 290 141.95 42 155.90 21 95.90 142.85 547 4538 117.80 201 156.85 116 20 96.95 156 118.85 307 144.80 158.75 71 204 127.75 186 21 17 103.85 145.00 160.60 104.85 83 128.85 84 145.80 88 160.90 40 105.85 146.90 20 194 129.75 232 171.80 57 Average of 16.188 to 16.200 min.: W32385.D BFB Modified:subtracted m/z abund. m/z abund. m/z abund. m/z abund. 173.80 60200 174.90 5109 175.80 58517 3752 176.80 177.75 89 267.00 20

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32799.D Vial: 5

Acq On : 20 Jul 2011 7:29 am Operator: YOUMINH : BFB Sample Inst : MSW : MS15431,VW1341,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1872, 1873, 1874; Background Corrected with Scan 1861

	Target Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.	Raw   Abn	Result     Pass/Fail
ī	50	   95	8	40	18.3	14172	PASS
j	75	95	30	66	48.6	37602	PASS
j	95	95	100	100	100.0	77381	PASS
j	96	95	5	9	6.4	4981	PASS
j	173	174	0.00	2	0.0	0	PASS
j	174	95	50	120	74.4	57605	PASS
j	175	174	4	9	7.6	4396	PASS
j	176	174	93	101	95.4	54973	PASS
İ	177	176	5	9	6.6	3629	PASS

Wed Aug 17 14:37:17 2011 MSW W32799.D MW1322.M



Average of	16.158 to	16.170 mi	in.: W32799	9.D			
BFB							
Modified:su	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	736	48.05	505	60.10	698	70.05	638
37.10	3739	49.05	3057	61.10	3369	71.00	17
38.10	3451	50.10	14172	62.00	3292	71.95	424
39.10	1467	51.10	4735	63.05	2467	72.30	133
40.00	32	52.05	214	64.05	263	73.00	3323
42.15	52	54.10	42	65.00	85	74.05	12197
42.95	6	55.10	190	65.20	35	75.00	37602
44.00	298	55.30	37	67.00	234	76.00	3125
45.05	647	56.05	1100	67.30	81	76.95	406
46.00	41	57.05	1885	68.00	7237	77.95	432
47.05	1472	58.15	65	69.00	7624	79.00	1831
Average of	16.158 to	16.170 mi	in.: W32799	9.D			
BFB							
Modified:su	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.00	699	93.00	2946	111.90	19	129.95	263
81.00	1890	94.00	8795	113.05	39	130.95	114
81.90	375	95.00	77381	114.05	38	131.20	22
82.95	43	96.00	4981	114.90	89	134.90	130
85.85	52	97.00	157	115.95	260	135.75	37
86.00	22	103.95	305	117.00	379	136.90	157
86.20	51	105.00	81	117.90	229	139.95	85
86.95	3140	105.80	193	118.90	403	140.95	668
87.95	3120	106.00	72	123.90	37	141.80	72
90.95	294	106.85	69	127.85	232	142.30	47
92.00	1880	111.05	70	128.95	125	142.95	669
Average of	16.158 to	16.170 mi	in.: W32799	9.D			
BFB							
Modified:su							
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.90	40	153.00	18	175.90	54973		
144.80	31	153.90	16	176.90	3629		
145.00	73	154.20	34	177.85	86		
146.00	118	154.90	145	178.30	26		
146.90	45	155.90	35	207.05	41		
147.90	217	156.85	140	239.90	17		
148.90	28	158.85	121				
149.10	18	160.95	71				
149.90	23	171.85	166				
151.80	23	173.90	57605				
152.70	19	174.95	4396				

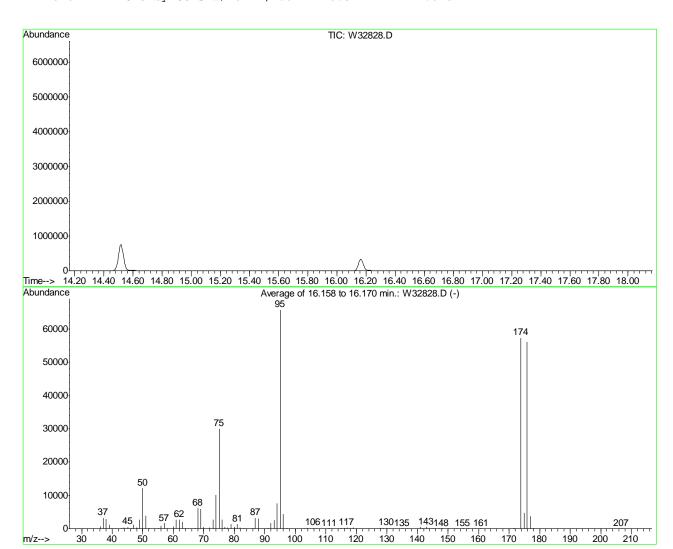


#### BFB

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32828.D Vial: 5

Acq On : 21 Jul 2011 8:33 am Operator: YOUMINH : BFB Sample Inst : MSW : MS15431,VW1342,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um



AutoFind: Scans 1872, 1873, 1874; Background Corrected with Scan 1861

Target   Mass	Rel. to	Lower Limit%	Upper Limit%	Rel.   Abn%	Raw   Abn	Result     Pass/Fail
50	   95	8	40	18.5	12192	PASS
75	95	30	66	45.7	30080	PASS
95	95	100	100	100.0	65802	PASS
96	95	5	9	6.6	4340	PASS
173	174	0.00	2	0.0	j 0	PASS
174	95	50	120	87.1	57301	PASS
175	174	4	9	8.2	4706	PASS
176	174	93	101	98.0	56128	PASS
177	176	5	9	6.6	3695	PASS
	!			!		



Average of	16.158 to	16.170 mi	in.: ₩32828	3.D			
BFB Modified:s	uhtraated						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	644	46.30	26	57.95	56	71.95	334
37.05	3228	47.00	1203	59.95	610	73.00	2770
38.00	2848	47.95	376	61.00	2694	74.00	10092
39.05	1153	48.20	89	62.00	2753	75.00	30080
39.90	17	49.00	2675	63.00	2045	76.00	2665
41.05	41	50.00	12192	64.05	195	76.90	449
42.90	21	51.00	3874	65.05	72	77.90	354
43.20	17	52.05	173	67.15	239	78.90	1327
43.90	324	55.00	200	68.00	6207	79.95	525
45.05	556	56.00	897	69.00	5961	80.95	1353
46.00	24	57.00	1653	70.00	532	81.90	379
Average of	16.158 to	16.170 mi		B.D			
BFB							
Modified:s	ubtracted						
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.90	21	96.00	4340	115.00	16	136.80	67
83.20	16	96.90	31	115.95	193	140.90	477
85.80	36	97.20	86	116.90	321	141.75	74
86.10	64	103.00	16	117.90	170	142.90	501
86.90	3241	103.85	207	118.85	316	143.90	18
87.90	3106	104.75	83	127.80	98	144.70	43
90.95	196	105.90	214	128.00	45	145.10	27
92.00	1711	106.80	41	128.90	127	145.80	62
93.00	2551	110.90	23	129.90	207	146.00	30
94.00	7516	111.10	24	130.95	78	147.00	34
95.00	65802	114.75	41	134.95	83	147.90	106
Average of	16.158 to	16.170 mi	in.: W32828	B.D			
BFB							
Modified:s		,	, ,	,		,	
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
148.10	40	174.90	4706				
149.90	30	175.90	56128				
152.80	23	176.90	3695				
154.90	141	177.85	123				
156.85	112	206.80	17				
158.90 160.50	84 19						
160.85	56						
171.20	17						
171.20	121						
173.90	57301						
173.90	3/301						



Quant Time: May 13 13:58:52 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:58:46 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Inte	rnal Standards	R.T.	QIon	Response	Conc Un	its D	ev(Min)
1)	BROMOCHLOROMETHANE	7.30	128	89922	10.00	PPRV	-0.01
	1,4-DIFLUOROBENZENE	9.01	114	396390	10.00	PPBV	0.00
	CHLOROBENZENE-D5	13.32	82	186567	10.00	PPBV	0.00
	CHLOROBENZENE-D5 (a)	13.32	82	89922 396390 186567 186567	10.00	PPBV	0.00
Svst	em Monitoring Compounds						
83)	4-BROMOFLUOROBENZENE	14.98	95	111032	5.25	PPBV	0.00
Sp	iked Amount 5.000	Range 65					
Tarq	et Compounds						Ovalue
	CHLORODIFLUOROMETHANE	3.98	67	19610	5.79	PPBV	99
	DICHLORODIFLUOROMETHANE	4.05	85	187980	6.07	PPBV	99
	PROPYLENE	4.00	41	72009	5.51	PPBV	97
		4.21	8.5	208902	5.93	PPBV	100
8)	FREON 114 CHLOROMETHANE	4.15	50	76607	5.75	PPBV	100
9)	VINYL CHLORIDE	4.29	62	83131	5.93	PPBV	100
10)	VINYL CHLORIDE 1,3-BUTADIENE	4.37	54	62595	5.89	PPBV	98
11)	n-BUTANE	4.39	43	130876	5.82	PPBV	100
12)	BROMOMETHANE CHLOROETHANE	4.54	94	73544	5.78	PPBV	98
13)	CHLOROETHANE	4.64	64	43254	5.91	PPRV	99
,	DICHLOROFLUOROMETHANE	4 69	67	168133	5 95	PPRV	99
	ACETONITRILE	4 88	41	57192	4 96	PPRV	99
101	EDEON 100	4 93	83	170682	6 08	DDRV	100
17)	FREON 123A	4 97	117	94187	6 26	PPRV	99
18)	TRICHLOROFLUOROMETHANE	5 12	101	176756	5 96	DDRV	99
	ISOPROPYL ALCOHOL	5 17	45	112698	5 30	DDBW	98
,	ACETONE	5.17	58	25076	4 89	DDBW	98
	PENTANE	5 31	42	90547	5 83	DDBM	100
,	TVHC as EQUIV PENTANE	5 31	TTC	516096m	5.03	DDRV	100
	IODOMETHANE	5 50	142	196475	6.06	DDBW	99
24)	1,1-DICHLOROETHYLENE	5 55	96	71878	5 98	DDBW	98
	CARBON DISULFIDE	5.95	76	188984	5 99	DDBM	100
	ETHANOL	4 73	45	29294	4 75	DDBM	99
,	BROMOETHENE	4 86	106	73258	5 93	DDBM	99
,	ACRYLONITRILE	5 33	52	39907	5 53	DDBW	98
	METHYLENE CHLORIDE	5.55	84	67585	6.02	DDBM	99
	3-CHLOROPROPENE	5.04	76	33803	6 13	MODU	99
,	FREON 113	5.71	151	120495	6 10	DDBM	100
	TRANS-1,2-DICHLOROETHYLE	5.00 NE 6.20	96	120400	6.10	MODU	98
	TERTIARY BUTYL ALCOHOL	INE 0.29	50 E0	120670	0.03 E 07	DDDM	98
2/11	METHYL TERTIARY BUTYL ET	יטדי אורי	72	122662	5.07	DDDM	98
	TETRAHYDROFURAN	7 72	73	24621	5.43	DDDM	99
,	HEXANE	7.73	7 Z	110106	5.42	DDDM	100
		7.23 6 57	06	12270	0.09 E 71	PPDV	97
3/) 20\	VINYL ACETATE 1,1-DICHLOROETHANE METHYL ETHYL KETONE	6.57	62	126011	6 20	DDD11	97
20)	T, T-DICUDOROBINAND	0.47	72	130344 24740	0.39		# 88
		0./6	06	∠4/49 72500	5.03 6 11	DDD11	# 88
	cis-1,2-DICHLOROETHYLENE	7.18	9 b	/ 3500 1001FF	6.TT	LLD.	98
	DIISOPROPYL ETHER	7.24	45 C1	16000	5.45	LLRA	100
	ETHYL ACETATE	7.31	ρŢ	10202 01706	5.59	LLRA	99 99
43)	METHYL ACRYLATE	7.32	55 	19610 187980 72009 208902 76607 83131 62595 130876 73544 43254 168133 57192 170682 94187 176756 112698 25076 90547 516096m 196475 71878 188984 29294 73258 33907 67585 33803 120495 69300 130679 133663 24621 118106 12278 136944 24749 73588 180155 16202 91706	5.39 	 FFRA	99

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(#) = qualifier out of range (m) = manual integration

3W22416.D M3W886.M Mon May 16 12:43:28 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W22416.D Vial: 2 Acq On : 13 May 2011 10:33 am Operator: yunxiac Inst : MS3W : ic886-5 Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 13:58:52 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:58:46 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Un	nit	Qvalue
44)	CHLOROFORM	7.39	83	144087	6.16	PPBV	99
,	2,4-DIMETHYLPENTANE	7.98	57	147335	6.30		99
	1,1,1-TRICHLOROETHANE	8.25	97	138398 150040	6.37	PPBV	99
47)	CARBON TETRACHLORIDE	8.82	117	150040	6.20	PPBV	99
48)	1,2-DICHLOROETHANE	8.03	62	87512	6.34		
50)	BENZENE	8.68	78	87512 211543	6.01	PPBV	100
51)	CYCLOHEXANE	8.86	69	35446 50639 92593	5.98	PPBV	99
52)	2,3-DIMETHYLPENTANE	9.06	71	50639	5.74	PPBV	97
53)	TRICHLOROETHYLENE	9.66	95	92593	5.97	$\mathtt{PPBV}$	98
54)	1,2-DICHLOROPROPANE	9.41	63	80346 83325	5.90		
55)	DIBROMOMETHANE	9.43	174	83325	5.97	PPBV	100
56)	ETHYL ACRYLATE	9.43	55			PPBV	100
57)	BROMODICHLOROMETHANE	9.64	83	147188	5.96	PPBV	99
58)	2,2,4-TRIMETHYLPENTANE	9.59		367056		PPBV	100
59)	1,4-DIOXANE	9.71	88	36145	6.04		
60)	HEPTANE	9.85	43	145808	5.93		
	TVHC as EQUIV HEPTANE	9.85			6.00		
	METHYL METHACRYLATE	9.87					
	METHYL ISOBUTYL KETONE	10.50	58	48523	6.06		
	cis-1,3-DICHLOROPROPENE	10.52	75	110472			
	TOLUENE	11.47	92	137025			
	trans-1,3-DICHLOROPROPENE		75	102344 70539	5.92		
	1,1,2-TRICHLOROETHANE	11.20	83	70539	5.93		
,	2-HEXANONE	11.73	58	62142 84849	5.77		
	ETHYL METHACRYLATE						
	TETRACHLOROETHYLENE	12.63	164	96083	5.96		
	DIBROMOCHLOROMETHANE	11.92	129	141071	6.08		
,	1,2-DIBROMOETHANE			115765	5.93		
	OCTANE	12.42	43	185952 93147	6.25		
	1,1,1,2-TETRACHLOROETHANE		131	93147	5.98	PPBV	100
	CHLOROBENZENE	13.36	112	169749 258116 189456	5.98	PPBV	99
,	ETHYLBENZENE	13.74	91	258116	5.61	PPBV	100
	m,p-XYLENE	13.93	106	189456	11.07	PPBV	100
,	O-XYLENE	14.45	106	91309 135484	5.42	PPBV	99
	STYRENE	14.35	104	135484			
- ,	NONANE	14.64 14.04	43	169311	6.28		
,	BROMOFORM						
	1,1,2,2-TETRACHLOROETHANE	14.47	83	122560	5.63		
	1,2,3-TRICHLOROPROPANE	14.60	75	92633	5.37		
	ISOPROPYLBENZENE	15.10	105	251791	5.30		
	BROMOBENZENE	15.23		122293			
	2-CHLOROTOLUENE	15.67	126	64563	5.60		
	n-PROPYLBENZENE	15.70	120	62744 215664	5.55		
	4-ETHYLTOLUENE	15.88					
	1,3,5-TRIMETHYLBENZENE	15.97			5.69		
	ALPHA-METHYLSTYRENE	16.19	118	71932	5.82		
	tert-BUTYLBENZENE	16.46	134	39524	5.46		
	1,2,4-TRIMETHYLBENZENE	16.47	105	163089 116430	6.04		
95) 	m-DICHLOROBENZENE	то.оо		110430	5.82	 	99

3W22416.D M3W886.M Mon May 16 12:43:28 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22416.D Vial: 2

Acq On : 13 May 2011 10:33 am Operator: yunxiac Sample : ic886-5 Inst : MS3W Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 13:58:52 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:58:46 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96) BENZYL CHLORIDE	16.67	91	121256	5.30 PPBV	99
97) p-DICHLOROBENZENE	16.75	146	110885	5.62 PPBV	99
98) sec-BUTYLBENZENE	16.80	134	48024	5.61 PPBV	99
99) p-ISOPROPYLTOLUENE	16.98	134	49920	5.95 PPBV	97
100) o-DICHLOROBENZENE	17.18	146	101492	5.66 PPBV	99
101) n-BUTYLBENZENE	17.50	134	40410	5.94 PPBV	100
102) HEXACHLOROETHANE	17.99	117	73926	5.92 PPBV	98
103) HEXACHLOROBUTADIENE	19.79	225	55565	5.42 PPBV	99
104) 1,2,4-TRICHLOROBENZENE	19.23	180	32329	5.71 PPBV	99
106) NAPHTHALENE	19.37	128	43673	6.17 PPBV	99

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W22416.D M3W886.M Mon May 16 12:43:28 2011 MS3W



Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W22416.D

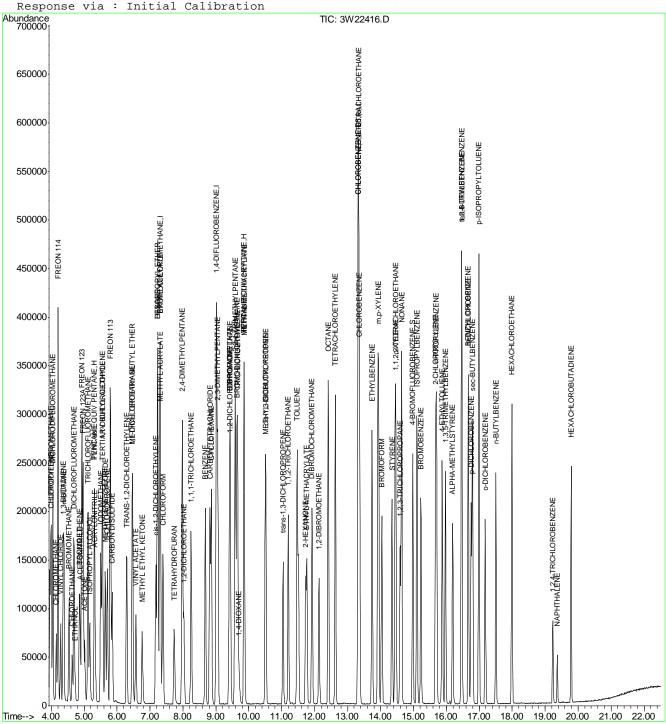
: 13 May 2011 10:33 am Operator: yunxiac Acq On : ic886-5 : MS3W Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:09 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011



3W22416.D M3W886.M

Mon May 16 12:43:28 2011



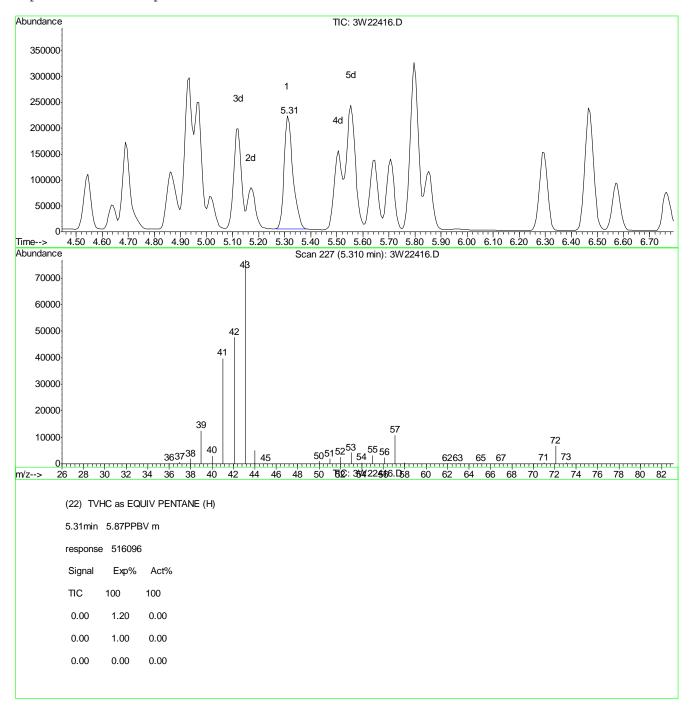
## Quantitation Report (Qedit)

MS Integration Params: rteint.p

Quant Time: May 16 10:09 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22416.D M3W886.M

Mon May 16 10:58:45 2011



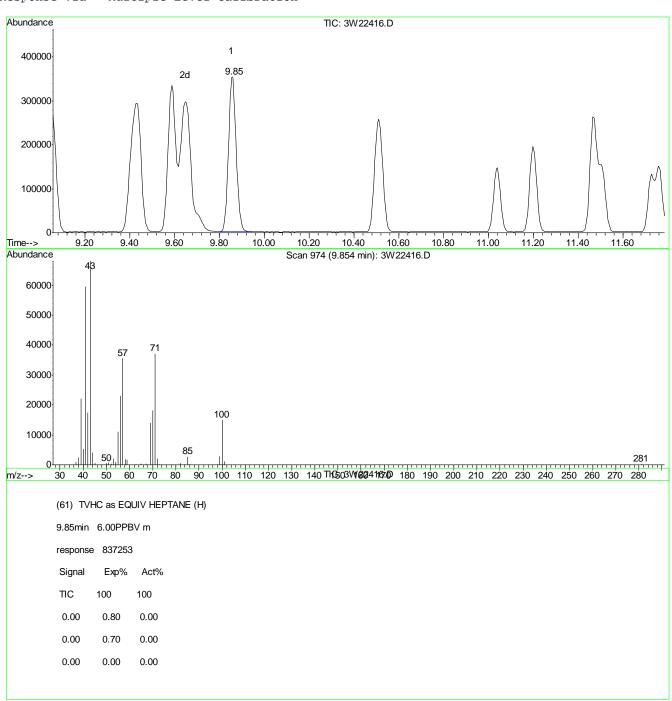
## Quantitation Report (Qedit)

MS Integration Params: rteint.p

Quant Time: May 16 10:09 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22416.D M3W886.M

Mon May 16 10:58:51 2011



MS Integration Params: rteint.p

Quant Time: May 13 13:58:07 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:58:00 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

			Response			
1) PROMOGUI OROMETUANT			02201			
1) BROMOCHLOROMETHANE	7.31	128	93381	10.00	PPDM	0.00
49) 1,4-DIFLUOROBENZENE 68) CHLOROBENZENE-D5	9.02	114	408962 205066 205066	10.00	PPDM	0.00
	13.32	82	205066	10.00	PPBV	0.00
105) CHLOROBENZENE-D5 (a)	13.32	82	205066	10.00	PPBA	0.00
System Monitoring Compounds						
83) 4-BROMOFLUOROBENZENE	14.98	95	117985	4.95	PPBV	0.00
			Recove			
Managah Campanada						01
Target Compounds 4) CHLORODIFLUOROMETHANE	2 00	67	64129 599982 233496 676967 256471 279520 212043 428987 248671 147346 560241 229807 572873 315872 584784 406696 106072 299364	10 60	ממממ	Qvalue
5) DICHLORODIFLUOROMETHANE	3.90 4 NE	07	600000	10.00	PPDV	99
6) PROPYLENE	4.05	4 1	022406	10.33	PPDV	99
7) EDEON 114	4.00	41	433490	19.33	PPDV	99
7) FREON 114 8) CHLOROMETHANE	4.21	85	0/090/	19.18	PPDM	100
8) CHLOROMETHANE	4.15	50	256471	19.90	PPBV	100
9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE	4.29	62	279520	19.38	PPBV	100
10) 1,3-BUTADIENE	4.37	54	212043	19.28	PPBV	100
11) n-BUTANE	4.39	43	428987	19.20	PPBV	99
12) BROMOMETHANE 13) CHLOROETHANE	4.54	94	248671	19.39	PPBV	99
13) CHLOROETHANE	4.64	64	147346	19.54	PPBV	100
14) DICHLOROFLUOROMETHANE	4.69	67	560241	19.32	PPBV	100
15) ACETONITRILE	4.88	41	229807	21.90	PPBV	97
16) FREON 123	4.93	83	572873	19.30	PPBV	99
16) FREON 123 17) FREON 123A	4.97	117	315872	19.59	PPBV	99
18) TRICHLOROFLUOROMETHANE	5.12	101	584784	19.46	PPBV	100
19) ISOPROPYL ALCOHOL	5.17	45	406696	20.12	PPBV	100
20) ACETONE	5.01	58	106072	22.83	PPBV	97
21) PENTANE	5.31	42	299364 1811859m	19.08	PPRV	99
	5.32	TTC	1811859m	19.84	PPBV	
23) TODOMETHANE	5.50	142	651642	19.47	PPBV	100
24) 1 1-DICHLOROETHYLENE	5 55	96	239922	19 88	PPRV	98
25) CAPRON DIGHT.FIDE	5 85	76	625843	19.60	DDBW	100
26) ETHANOI.	4 73	45	106659	20 64	DDBM	98
27) DDOMOFTURNE	1.75	106	246291	10 22	זוםמת	98
20) ACDVIONITEDITE	E 2/	100	162071	21 57	LLDV	90
20) METHYLENE CHIODIDE	5.54	0.4	202504	10 /2	DDDM	100
29) MEIHILENE CHLORIDE	5.04	76	117060	19.43	PPDV	100
22) TVHC as EQUIV PENTANE 23) IODOMETHANE 24) 1,1-DICHLOROETHYLENE 25) CARBON DISULFIDE 26) ETHANOL 27) BROMOETHENE 28) ACRYLONITRILE 29) METHYLENE CHLORIDE 30) 3-CHLOROPROPENE 31) FREON 113 32) TRANS-1,2-DICHLOROETHYLENE 33) TERTIARY BUTYL ALCOHOL 34) METHYL TERTIARY BUTYL ETHE 35) TETRAHYDROFURAN 36) HEXANE	5./1	76	11/260	19.99	PPBM	99
31) FREUN 113	5.80	121	393886	19.60	PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	6.30	96	235938	19.93	PPBV	99
33) TERTIARY BUTYL ALCOHOL	5.56	59	455799	19.69	PPBV	99
34) METHYL TERTIARY BUTYL ETHE	6.47	73	560149	23.90	PPBV	100
35) TETRAHYDROFURAN	7.73	72	104684	24.23	PPBV	98
36) HEXANE 37) VINYL ACETATE	7.23	57	392078	19.87	PPBV	98
37) VINYL ACETATE	6.58	86	52436	22.96	PPBV	100
38) 1,1-DICHLOROETHANE 39) METHYL ETHYL KETONE	6.47	63	459294	19.95	PPBV	99
39) METHYL ETHYL KETONE	6.76	72	96768	22.83	PPBV	93
40) cis-1,2-DICHLOROETHYLENE	7.18	96	255653	20.13	PPBV	99
41) DIISOPROPYL ETHER	7.24	45	719394	23.40	PPBV	99
42) ETHYL ACETATE	7.31	61	66383	23.54	PPBV	# 94
43) METHYL ACRYLATE	7.32	55	392078 52436 459294 96768 255653 719394 66383 403610	24.38	PPBV	99

(#) = qualifier out of range (m) = manual integration 3W22418.D M3W886.M Mon May 16 12:42:25 2011 MS3W

537 of 685
ACCUTEST

JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\3W22418.D Vial: 2 Acq On : 13 May 2011 12:34 pm Operator: yunxiac Inst : MS3W Sample : ic886-20
Misc : MS12271,V3W886,,,,,1 : ic886-20 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 13:58:07 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:58:00 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	CHLOROFORM	7.40	83	489369	20.07 PPBV	100
45)	2,4-DIMETHYLPENTANE	7.98	57	490383	19.95 PPBV	100
46)	1,1,1-TRICHLOROETHANE	8.25	97	466201	20.23 PPBV	100
47)	CARBON TETRACHLORIDE	8.82	117	501776	19.98 PPBV	99
48)	1,2-DICHLOROETHANE	8.03	62	305449	20.80 PPBV	99
50)	BENZENE	8.69	78	742632	20.28 PPBV	100
51)	CYCLOHEXANE	8.86	69	118802	19.76 PPBV	99
52)	2,3-DIMETHYLPENTANE	9.06	71	173302	19.96 PPBV	97
	TRICHLOROETHYLENE	9.66	95	316674	20.31 PPBV	99
54)	1,2-DICHLOROPROPANE	9.41	63	291867	20.78 PPBV	99
55)	DIBROMOMETHANE	9.44	174	292230	20.50 PPBV	99
56)	ETHYL ACRYLATE	9.43	55	441948	22.44 PPBV	100
	BROMODICHLOROMETHANE	9.64	83	508237	20.20 PPBV	
58)	2,2,4-TRIMETHYLPENTANE	9.59	57	1238603	19.99 PPBV	100
	1,4-DIOXANE	9.70	88	130516	21.15 PPBV	
60)	HEPTANE	9.85	43	497266	19.91 PPBV	99
,	TVHC as EQUIV HEPTANE	9.86	TIC	3035818m		
	METHYL METHACRYLATE	9.87	69	222256	23.50 PPBV	
,	METHYL ISOBUTYL KETONE	10.49		179418	21.01 PPBV	
	cis-1,3-DICHLOROPROPENE	10.52	75	404785	20.87 PPBV	
	TOLUENE	11.47		499674	20.83 PPBV	
,	trans-1,3-DICHLOROPROPENE			400505	21.45 PPBV	
	1,1,2-TRICHLOROETHANE	11.20		254111	20.77 PPBV	
	2-HEXANONE	11.72		246056	20.22 PPBV	
	ETHYL METHACRYLATE	11.76	69	320256	20.71 PPBV	
	TETRACHLOROETHYLENE	12.63			19.32 PPBV	
	DIBROMOCHLOROMETHANE	11.92		515057	20.11 PPBV	
	1,2-DIBROMOETHANE	12.14		439207	20.38 PPBV	
	OCTANE	12.42			19.39 PPBV	
	1,1,1,2-TETRACHLOROETHANE	13.34	131	638790 347141	20.43 PPBV	
	CHLOROBENZENE	13.37		621192	20.08 PPBV	
	ETHYLBENZENE	13.74		1011645	20.44 PPBV	
	m,p-XYLENE	13.94		768407	42.28 PPBV	
	O-XYLENE	14.45		376898	21.42 PPBV	
	STYRENE	14.35	104	581003	21.59 PPBV	
,	NONANE	14.64		624247	20.26 PPBV	
,	BROMOFORM	14.04		479467	21.13 PPBV	
,	1,1,2,2-TETRACHLOROETHANE	14.47		510262	21.92 PPBV	
	1,2,3-TRICHLOROPROPANE	14.60		411674	22.97 PPBV	
	ISOPROPYLBENZENE	15.10		1061698	21.87 PPBV	
,	BROMOBENZENE	15.23		478605	20.86 PPBV	
	2-CHLOROTOLUENE	15.68			20.79 PPBV	
,	n-PROPYLBENZENE	15.70		263224 274808	20.79 PPBV 22.48 PPBV	
,	4-ETHYLTOLUENE	15.88	105	963511	23.02 PPBV	
	1,3,5-TRIMETHYLBENZENE	15.00		765915	23.32 PPBV	
	ALPHA-METHYLSTYRENE	16.19		350520	24.24 PPBV	
	tert-BUTYLBENZENE	16.19		179330	23.88 PPBV	95
,	1,2,4-TRIMETHYLBENZENE	16.45		711020	23.29 PPBV	99
	m-DICHLOROBENZENE	16.47	146		23.29 PPBV 21.84 PPBV	
20)	III-DICHLOROBENZENE	10.07			21.04 PPBV	100

3W22418.D M3W886.M Mon May 16 12:42:25 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22418.D Vial: 2

 Acq On
 : 13 May 2011 12:34 pm
 Operator: yunxiac

 Sample
 : ic886-20
 Inst : MS3W

 Misc
 : MS12271,V3W886,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 13:58:07 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:58:00 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96)	BENZYL CHLORIDE	16.67	91	579985	24.29 PPBV	100
97)	p-DICHLOROBENZENE	16.75	146	484051	22.14 PPBV	99
98)	sec-BUTYLBENZENE	16.80	134	215724	23.77 PPBV	95
99)	p-ISOPROPYLTOLUENE	16.99	134	218982	24.23 PPBV	96
100)	o-DICHLOROBENZENE	17.19	146	442803	22.44 PPBV	99
101)	n-BUTYLBENZENE	17.50	134	185907	24.34 PPBV	96
102)	HEXACHLOROETHANE	17.99	117	299730	21.53 PPBV	100
103)	HEXACHLOROBUTADIENE	19.79	225	249024	22.74 PPBV	99
104)	1,2,4-TRICHLOROBENZENE	19.23	180	163242	24.22 PPBV	99
106)	NAPHTHALENE	19.37	128	215691	24.53 PPBV	100



Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W22418.D

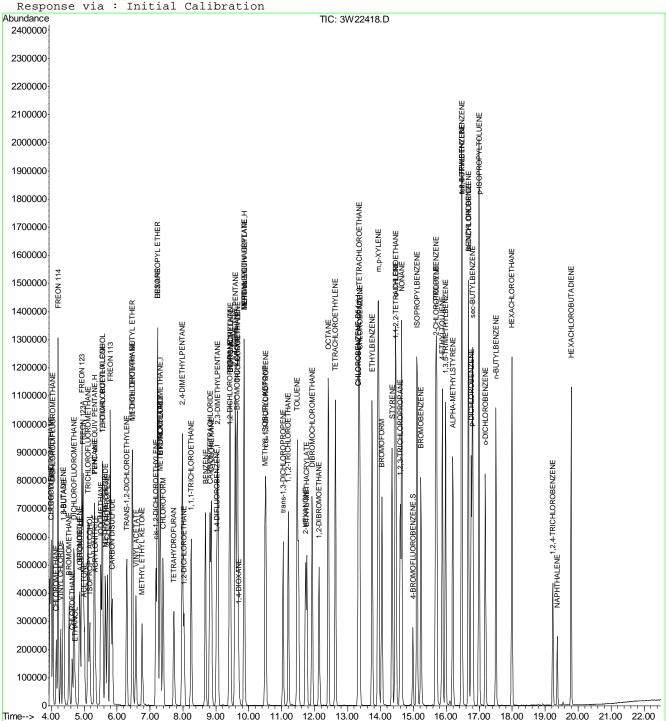
: 13 May 2011 12:34 pm Operator: yunxiac Acq On : ic886-20 : MS3W Sample Misc : MS12271, V3W886, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:11 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011



3W22418.D M3W886.M

Mon May 16 12:42:26 2011



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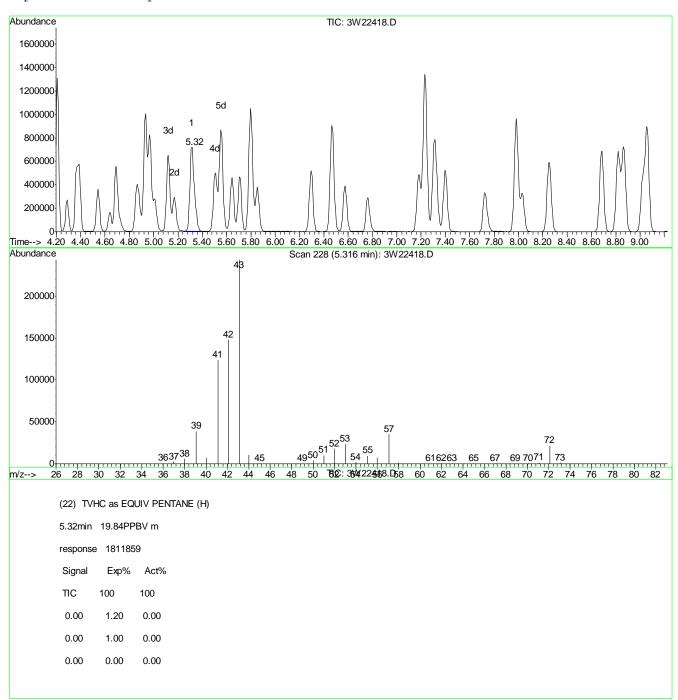
## Quantitation Report (Qedit)

MS Integration Params: rteint.p

Quant Time: May 16 10:11 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22418.D M3W886.M

Mon May 16 10:59:12 2011



## Quantitation Report (Qedit)

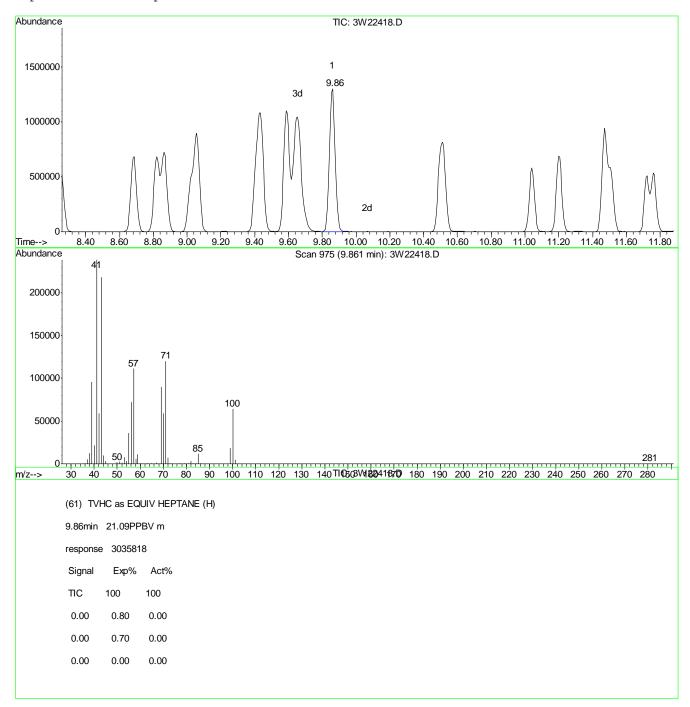
Data File : C:\MSDCHEM\1\DATA\3W22418.D Vial: 2

MS Integration Params: rteint.p

Quant Time: May 16 10:11 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22418.D M3W886.M

Mon May 16 10:59:19 2011



MS Integration Params: rteint.p

Quant Time: May 13 13:57:19 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:57:16 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

1   BROMOCHLOROMETHANE	
System Monitoring Compounds 83) 4-RPOMORIJOPORENZENE 14 98 95 118622 5 00 DRN 0	0.0
System Monitoring Compounds 83) 4-BROMORIJOROBENZENE 14 98 95 118622 5 00 DRN 0	0.0
System Monitoring Compounds 83) 4-BROMORIJOROBENZENE 14 98 95 118622 5 00 DRN 0	0.0
System Monitoring Compounds 83) 4-BROMORIJOROBENZENE 14 98 95 118622 5 00 DRN 0	0.0
System Monitoring Compounds 83) 4-BROMOFLUOROBENZENE 14.98 95 118622 5.00 PPBV 0. Spiked Amount 5.000 Range 65 - 128 Recovery = 100.00%  Target Compounds Qvalue 4) CHLORODIFLUOROMETHANE 3.99 67 33964 10.00 PPBV 1 5) DICHLORODIFLUOROMETHANE 4.05 85 323187 10.00 PPBV 1 6) PROPYLENE 4.00 41 125875 10.00 PPBV 1 7) FREON 114 4.21 85 367810 10.00 PPBV 1 8) CHLOROMETHANE 4.16 50 134307 10.00 PPBV 1 9) VINYL CHLORIDE 4.29 62 150291 10.00 PPBV 1 10) 1,3-BUTADIENE 4.37 54 114613 10.00 PPBV 1 11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 13) CHLOROFLUOROMETHANE 4.64 64 78587 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123 4.93 83 309396 10.00 PPBV 1	00
83) 4-BROMOFLUOROBENZENE 14.98 95 118622 5.00 PPBV 0. Spiked Amount 5.000 Range 65 - 128 Recovery = 100.00%  Target Compounds Qvalue 4) CHLORODIFLUOROMETHANE 3.99 67 33964 10.00 PPBV 15) DICHLORODIFLUOROMETHANE 4.05 85 323187 10.00 PPBV 16) PROPYLENE 4.00 41 125875 10.00 PPBV 17) FREON 114 4.21 85 367810 10.00 PPBV 18) CHLOROMETHANE 4.16 50 134307 10.00 PPBV 19) VINYL CHLORIDE 4.29 62 150291 10.00 PPBV 10) 1,3-BUTADIENE 4.37 54 114613 10.00 PPBV 11) n-BUTANE 4.39 43 232882 10.00 PPBV 11) n-BUTANE 4.39 43 232882 10.00 PPBV 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 12) BROMOMETHANE 4.64 64 78587 10.00 PPBV 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 11) DICHLOROFLUOROMETHANE 4.64 64 78587 10.00 PPBV 11) DICHLOROFLUOROMETHANE 4.64 64 78587 10.00 PPBV 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 16) FREON 123 4.93 83 309396 10.00 PPBV 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	
Target Compounds  4) CHLORODIFLUOROMETHANE 5) DICHLOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 12) BROMOMETHANE 13) CHLOROFLUOROME 14) DICHLORODETHANE 15) ACETONITRILE 16) FREON 123 17) FREON 123 4.98 117) FREON 123 4.98 117 167991 10.00 PPBV 10.00 PPBV 10.00 PPBV 11.00 PPBV 12.00 PPBV 13.00 PPBV 14.00 PPBV 15.00 PPBV 16.00 PPBV 17.00 PPBV 18.00 PPBV 19.00	00
Target Compounds 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 4.21 85 367810 10.00 PPBV 130 CHLOROMETHANE 4.16 50 134307 10.00 PPBV 10) 1,3-BUTADIENE 4.29 62 150291 10.00 PPBV 11) n-BUTANE 4.37 54 114613 10.00 PPBV 11) n-BUTANE 4.39 43 232882 10.00 PPBV 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 13) CHLOROFLUOROMETHANE 4.64 64 78587 10.00 PPBV 14) DICHLOROFLUOROMETHANE 4.69 41 109368 10.00 PPBV 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 16) FREON 123 4.93 83 309396 10.00 PPBV 17) FREON 123A 4.98 117 167991 10.00 PPBV	
4) CHLORODIFLUOROMETHANE 3.99 67 33964 10.00 PPBV 1 5) DICHLORODIFLUOROMETHANE 4.05 85 323187 10.00 PPBV 1 6) PROPYLENE 4.00 41 125875 10.00 PPBV 1 7) FREON 114 4.21 85 367810 10.00 PPBV 1 8) CHLOROMETHANE 4.16 50 134307 10.00 PPBV 1 9) VINYL CHLORIDE 4.29 62 150291 10.00 PPBV 1 10) 1,3-BUTADIENE 4.37 54 114613 10.00 PPBV 1 11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 13) CHLOROFLUOROMETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV	
1 CHLORODIFLUOROMETHANE       3.99       67       33964       10.00       PPBV       1         5 DICHLORODIFLUOROMETHANE       4.05       85       323187       10.00       PPBV       1         6) PROPYLENE       4.00       41       125875       10.00       PPBV       1         7) FREON 114       4.21       85       367810       10.00       PPBV       1         8) CHLOROMETHANE       4.16       50       134307       10.00       PPBV       1         9) VINYL CHLORIDE       4.29       62       150291       10.00       PPBV       1         10) 1,3-BUTADIENE       4.37       54       114613       10.00       PPBV       1         11) n-BUTANE       4.39       43       232882       10.00       PPBV       1         12) BROMOMETHANE       4.55       94       133644       10.00       PPBV       1         13) CHLOROETHANE       4.64       64       78587       10.00       PPBV       1         14) DICHLOROFLUOROMETHANE       4.70       67       302154       10.00       PPBV       1         15) ACETONITRILE       4.89       41       109368       10.00       PPBV       1	e nn
6) PROPYLENE 4.00 41 125875 10.00 PPBV 1 7) FREON 114 4.21 85 367810 10.00 PPBV 1 8) CHLOROMETHANE 4.16 50 134307 10.00 PPBV 1 9) VINYL CHLORIDE 4.29 62 150291 10.00 PPBV 1 10) 1,3-BUTADIENE 4.37 54 114613 10.00 PPBV 1 11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	00
7) FREON 114	00
8) CHLOROMETHANE 4.16 50 134307 10.00 PPBV 1 9) VINYL CHLORIDE 4.29 62 150291 10.00 PPBV 1 10) 1,3-BUTANE 4.37 54 114613 10.00 PPBV 1 11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	00
9) VINYL CHLORIDE 4.29 62 150291 10.00 PPBV 1 10) 1,3-BUTADIENE 4.37 54 114613 10.00 PPBV 1 11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	00
10) 1,3-BUTADIENE 4.29 02 130291 10.00 PPBV 1 11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	00
11) n-BUTANE 4.39 43 232882 10.00 PPBV 1 12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	0 O
12) BROMOMETHANE 4.55 94 133644 10.00 PPBV 1 13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	0 0 0 0
13) CHLOROETHANE 4.64 64 78587 10.00 PPBV 1 14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	0 O
14) DICHLOROFLUOROMETHANE 4.70 67 302154 10.00 PPBV 1 15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	nn
15) ACETONITRILE 4.89 41 109368 10.00 PPBV 1 16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	nn
16) FREON 123 4.93 83 309396 10.00 PPBV 1 17) FREON 123A 4.98 117 167991 10.00 PPBV 1	nn
17) FREON 123A 4.98 117 167991 10.00 PPBV 1	nn
1,71,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	0.0
18) TRICHLOROFLUOROMETHANE 5.12 101 313147 10.00 PPBV 1	0.0
19) ISOPROPY, ALCOHOL. 5 19 45 210693 10 00 PPRV 1	00
20) ACETONE 5.02 58 48413 10.00 PPRV 1	0.0
21) PENTANE 5.32 42 163479 10.00 PPRV 1	0.0
22) TVHC as EQUIV PENTANE 5.32 TIC 951798m 10.00 PPBV	
23) IODOMETHANE 5.51 142 348722 10.00 PPBV 1	00
24) 1,1-DICHLOROETHYLENE 5.55 96 125790 10.00 PPBV 1	00
25) CARBON DISULFIDE 5.86 76 332584 10.00 PPBV 1	00
26) ETHANOL 4.74 45 53847 10.00 PPBV 1	00
27) BROMOETHENE 4.87 106 133438 10.00 PPBV 1	00
28) ACRYLONITRILE 5.35 52 79222 10.00 PPBV 1	00
29) METHYLENE CHLORIDE 5.65 84 119997 10.00 PPBV 1	00
30) 3-CHLOROPROPENE 5.71 76 61125 10.00 PPBV 1	00
31) FREON 113 5.80 151 209444 10.00 PPBV 1	00
32) TRANS-1,2-DICHLOROETHYLENE 6.30 96 123393 10.00 PPBV 1	00
33) TERTIARY BUTYL ALCOHOL 5.58 59 241263 10.00 PPBV 1	00
34) METHYL TERTIARY BUTYL ETHE 6.48 73 244234 10.00 PPBV 1	00
35) TETRAHYDROFURAN 7.74 72 45023 10.00 PPBV 1	00
36) HEXANE 7.23 57 205604 10.00 PPBV 1	00
37) VINYL ACETATE 6.58 86 23804 10.00 PPBV 1	00
38) 1,1-DICHLOROETHANE 6.47 63 239962 10.00 PPBV 1	00
39) METHYL ETHYL KETONE 6.77 72 44175 10.00 PPBV 1	00
40) cis-1,2-DICHLOROETHYLENE 7.18 96 132337 10.00 PPBV 1	00
41) DIISOPROPYL ETHER 7.24 45 320362 10.00 PPBV 1	00
42) ETHYL ACETATE 7.32 61 29392 10.00 PPBV 1	00
43) METHYL ACRYLATE 7.34 55 172520 10.00 PPBV 1	υ0

3W22419.D M3W886.M Mon May 16 12:42:27 2011 MS3W



Page 1

<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22419.D Vial: 2 Acq On : 13 May 2011 1:14 pm Operator: yunxiac Inst : MS3W : icc886-10 Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 13:57:19 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:57:16 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	CHLOROFORM	7.40	83	254141	10.00 PPBV	100
45)	2,4-DIMETHYLPENTANE	7.99	57	256111	10 00 PPRV	100
46)	1,1,1-TRICHLOROETHANE	8.25	97	240191 261755	10.00 PPBV 10.00 PPBV	100
	CARBON TETRACHLORIDE		117	261755	10.00 PPBV	100
48)	1,2-DICHLOROETHANE	8.04	62	153027	10.00 PPBV	100
	BENZENE	8.69	78	153027 379508	10.00 PPBV	
	CYCLOHEXANE	8.87	69	62335	10.00 PPBV	
52)	2,3-DIMETHYLPENTANE	9.06	71	62335 90004 161612	10.00 PPBV	100
53)	TRICHLOROETHYLENE	9.66	95	161612	10.00 PPBV	100
54)	1,2-DICHLOROPROPANE	9.42		145568	10.00 PPBV	100
55)	DIBROMOMETHANE	9.44	174	147796	10.00 PPBV	100
56)	ETHYL ACRYLATE	9.45	55	204107	10.00 PPBV	100
57)	BROMODICHLOROMETHANE	9.64	83	260791	10.00 PPBV	100
	2,2,4-TRIMETHYLPENTANE	9.59	57	6/12222	10.00 PPBV	100
59)	1,4-DIOXANE	9.71	88	63960	10.00 PPBV	100
60)	HEPTANE	9.86	43	258883	10.00 PPBV	100
61)	TVHC as EQUIV HEPTANE	9.86	TIC			
	METHYL METHACRYLATE	9.87	69	98049	10.00 PPBV	100
63)	METHYL ISOBUTYL KETONE	10.51	58	88518	10.00 PPBV	100
	cis-1,3-DICHLOROPROPENE	10.52	75	201068	10.00 PPBV	100
65)	TOLUENE	11.47	92	248638	10.00 PPBV	100
66)	trans-1,3-DICHLOROPROPENE	11.04	75	193525	10.00 PPBV	100
	1,1,2-TRICHLOROETHANE	11.20	83	126842	10.00 PPBV	100
69)	2-HEXANONE	11.73	58	121188	10.00 PPBV	
70)	ETHYL METHACRYLATE	11.76	69	154003	10.00 PPBV	100
71)	TETRACHLOROETHYLENE	12.63		172313	10.00 PPBV	100
	DIBROMOCHLOROMETHANE	11.92	129	255058	10.00 PPBV	100
	1,2-DIBROMOETHANE	12.14	107	214534	10.00 PPBV	100
74)	OCTANE	12.42	43	327943	10.00 PPBV	100
75)	1,1,1,2-TETRACHLOROETHANE	13.35	131	327943 169213	10.00 PPBV	100
76)	CHLOROBENZENE	13.37		307964	10.00 PPBV	100
	ETHYLBENZENE	13.75	91	492839	10.00 PPBV	100
78)	m,p-XYLENE	13.93	106	361879	20.00 PPBV	100
79)	O-XYLENE	14.45	106	175198	10.00 PPBV	100
80)	STYRENE	14.35		267910	10.00 PPBV	100
81)	NONANE	14.64	43	306857	10.00 PPBV	100
82)	BROMOFORM	14.04	173	225908	10.00 PPBV	100
84)	1,1,2,2-TETRACHLOROETHANE	14.47		231769	10.00 PPBV	100
85)	1,2,3-TRICHLOROPROPANE	14.60	75	178486	10.00 PPBV	100
86)	ISOPROPYLBENZENE	15.10	105	483346	10.00 PPBV	100
87)	BROMOBENZENE	15.23	77	228437	10.00 PPBV	100
88)	2-CHLOROTOLUENE	15.68		126065	10.00 PPBV	100
89)	n-PROPYLBENZENE	15.70	120	121691	10.00 PPBV	100
90)	4-ETHYLTOLUENE	15.88	105	416751	10.00 PPBV	100
91)	1,3,5-TRIMETHYLBENZENE	15.97	105	327084	10.00 PPBV	100
92)	ALPHA-METHYLSTYRENE	16.19	118	327084 143991 74762	10.00 PPBV	100
93)	tert-BUTYLBENZENE	16.46	134	74762	10.00 PPBV	100
94)	1,2,4-TRIMETHYLBENZENE	16.47	105	304023	10.00 PPBV	100
95)	m-DICHLOROBENZENE	16.67	146	223102	10.00 PPBV 10.00 PPBV 10.00 PPBV 10.00 PPBV	100

3W22419.D M3W886.M Mon May 16 12:42:27 2011 MS3W

544 of 685 ACCUTEST JA81330

<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22419.D Vial: 2

MS Integration Params: rteint.p

Quant Time: May 13 13:57:19 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 13:57:16 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
061	DENEMI GULODIDE	16 67	91	237739	10.00 PPBV	100
96)	BENZYL CHLORIDE	16.67	91		10.00 PPBV	100
97)	p-DICHLOROBENZENE	16.75	146	217705	10.00 PPBV	100
98)	sec-BUTYLBENZENE	16.80	134	90346	10.00 PPBV	100
99)	p-ISOPROPYLTOLUENE	16.99	134	89995	10.00 PPBV	100
100)	o-DICHLOROBENZENE	17.18	146	196436	10.00 PPBV	100
101)	n-BUTYLBENZENE	17.50	134	76043	10.00 PPBV	100
102)	HEXACHLOROETHANE	17.99	117	138642	10.00 PPBV	100
103)	HEXACHLOROBUTADIENE	19.79	225	109035	10.00 PPBV	100
104)	1,2,4-TRICHLOROBENZENE	19.23	180	67096	10.00 PPBV	100
106)	NAPHTHALENE	19.37	128	87533	10.00 PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22419.D M3W886.M Mon May 16 12:42:27 2011 MS3W

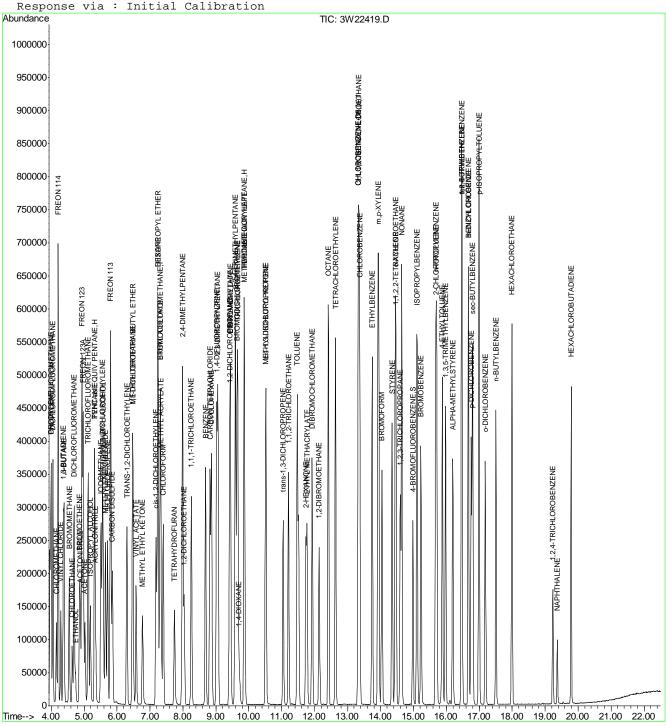


Data File : C:\MSDCHEM\1\DATA\3W22419.D Vial: 2

MS Integration Params: rteint.p

Quant Time: May 16 10:59 2011 Quant Results File: M3W886.RES

Last Update : Mon May 16 11:05:58 2011



3W22419.D M3W886.M

Mon May 16 12:42:28 2011



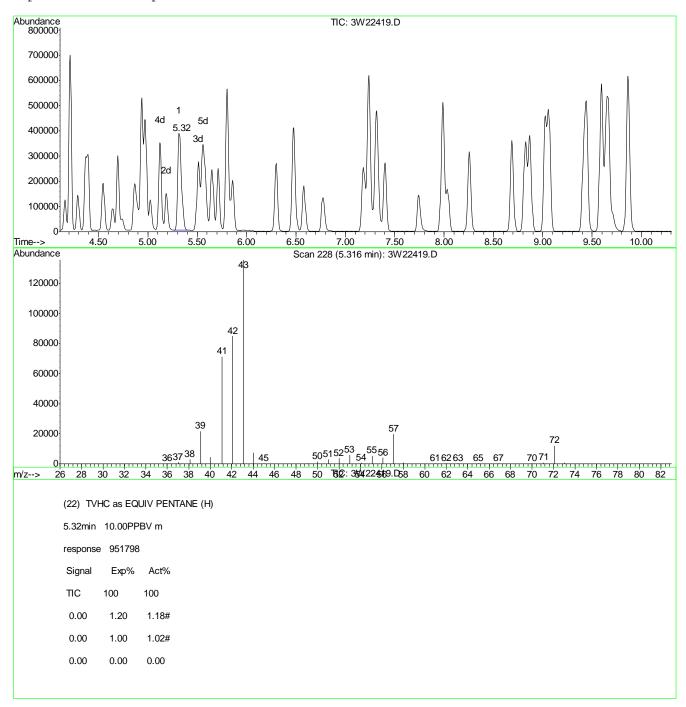
## Quantitation Report (Qedit)

MS Integration Params: rteint.p

Quant Time: May 16 9:24 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22419.D M3W886.M

Mon May 16 10:59:34 2011



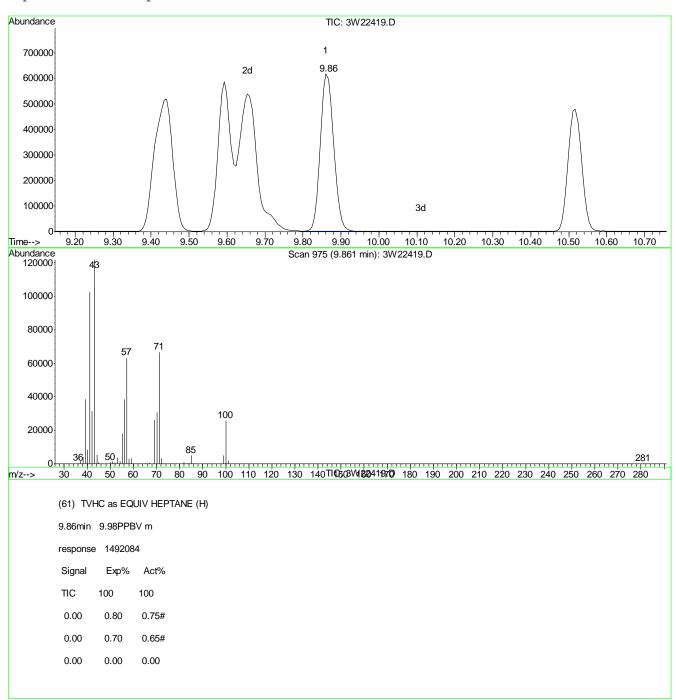
## Quantitation Report (Qedit)

MS Integration Params: rteint.p

Quant Time: May 16 10:59 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22419.D M3W886.M

Mon May 16 11:00:20 2011



MS Integration Params: rteint.p

Quant Time: May 13 14:46:02 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 14:00:46 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Inter	rnal Standards	R.T.	QIon	Response	Conc Units D	ev(Min)
1)	BROMOCHLOROMETHANE	7.30	128	92995	10.00 PPBV	-0.01
	1,4-DIFLUOROBENZENE	9.01	114	381632	10.00 PPBV	0.00
	CHLOROBENZENE-D5	13.32	82	163050	10.00 PPBV	0.00
	CHLOROBENZENE-D5 (a)	13.32	82	163050	10.00 PPBV 10.00 PPBV 10.00 PPBV 10.00 PPBV	0.00
Syste	em Monitoring Compounds					
83)	4-BROMOFLUOROBENZENE	14.98	95	89754	4.85 PPBV	0.00
Spi	iked Amount 5.000	Range 65			ery = 97.0	
Targe	et Compounds				0.97 PPBV 0.95 PPBV 1.00 PPBV 1.00 PPBV 1.00 PPBV 1.00 PPBV 1.00 PPBV 1.00 PPBV 0.96 PPBV 0.93 PPBV 0.97 PPBV 0.98 PPBV 0.99 PPBV 0.99 PPBV 0.99 PPBV 0.99 PPBV 0.99 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 1.06 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.97 PPBV 0.98 PPBV 0.99 PPBV 0.99 PPBV 0.91 PPBV 0.92 PPBV 0.93 PPBV 0.94 PPBV 0.95 PPBV 0.96 PPBV 0.96 PPBV 0.96 PPBV 0.96 PPBV	Ovalue
	CHLORODIFLUOROMETHANE	3.98	67	4185	0.97 PPBV	93
	DICHLORODIFLUOROMETHANE	4.05	85	37013	0.97 PPBV	99
6)	PROPYLENE	4.00	41	15579	0.95 PPBV	97
7)	FREON 114	4.21	85	42176	1.00 PPBV	99
8)	FREON 114 CHLOROMETHANE	4.15	50	15879	0.99 PPBV	100
9)	VINYL CHLORIDE 1,3-BUTADIENE	4.29	62	16815	1.00 PPBV	99
10)	1,3-BUTADIENE	4.36	54	12260	0.96 PPBV	91
11)	n-BIITANE	4.39	43	27658	1.00 PPBV	95
12)	BROMOMETHANE CHLOROETHANE	4.54	94	14234	0.93 PPBV	96
13)	CHLOROETHANE	4.63	64	8271	0.97 PPBV	100
	DICHLOROFLUOROMETHANE	4.69	67	33250	0.98 PPBV	99
	ACETONITRILE	4.88	41	12134	0.87 PPBV	# 32
1 ( )	EDEOM 100	4.93	83	30496	0.90 PPBV	99
17)	FREON 123A	4.97	117	16386	0.89 PPBV	96
18)	TRICHLOROFLUOROMETHANE	5.12	101	35450	0.99 PPBV	98
	ISOPROPYL ALCOHOL	5.19	45	26162	0.99 PPBV	94
	ACETONE	5.02	58	5938	0.93 PPBV	93
	PENTANE	5.31	42	18227	0.97 PPBV	97
	TVHC as EQUIV PENTANE	5.31	TIC	96492m	1.06 PPBV	
	IODOMETHANE	5.50	142	37108	0.95 PPBV	99
	1,1-DICHLOROETHYLENE	5.55	96	14074	0.97 PPBV	95
	CARBON DISULFIDE	5.85	76	37195	0.97 PPBV	91
	ETHANOL	4.73	45	8619	0.95 PPBV	97
	BROMOETHENE	4.86	106	14046	0.95 PPBV	99
	ACRYLONITRILE	5.34	52	7116	0.86 PPBV	99
	METHYLENE CHLORIDE	5.64	84	13546	0.93 PPBV	98
	3-CHLOROPROPENE	5.70	76	5880	0.90 PPBV	# 92
	FREON 113	5.80	151	22866	0.97 PPBV	99
32)	TRANS-1,2-DICHLOROETHYLE	NE 6.29	96	12889	0.94 PPBV	99
	TERTIARY BUTYL ALCOHOL	5.58	59	25881	0.98 PPBV	91
34)	METHYL TERTIARY BUTYL ET	HE 6.48	73	28649	0.93 PPBV	98
	TETRAHYDROFURAN	7.76	72	4798	0.92 PPBV	# 89
36)	HEXANE	7.22	57	22199	0.95 PPBV	95
37)	VINYL ACETATE	6.58	86	1955	0.81 PPBV	# 62
		6.46	63	23150	0.89 PPBV	98
391	1,1-DICHLOROETHANE METHYL ETHYL KETONE	6.78	72	4837	0.93 PPRV	# 82
	cis-1,2-DICHLOROETHYLENE	7.17	96	12555	0.88 PPRV	99
		7.24	45	37355	0.94 PPRV	99
42)	DIISOPROPYL ETHER ETHYL ACETATE	7 32	61	3293	0.96 PPRV	# 91
	METHYL ACRYLATE	7.32	55	17612	0.89 PPBV	96
,				<b></b>		

(#) = qualifier out of range (m) = manual integration

3W22420.D M3W886.M Mon May 16 12:42:29 2011 MS3W



MS Integration Params: rteint.p

Quant Time: May 13 14:46:02 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 14:00:46 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	CHLOROFORM	7.38	83	24890	0.88 PPBV	100
	2,4-DIMETHYLPENTANE	7.97	57	25919	0.93 PPBV	99
	1,1,1-TRICHLOROETHANE	8.25	97	23300 26898 13788 33652 7012	0.88 PPBV	98
	CARBON TETRACHLORIDE	8.81	117	26898	0.93 PPBV	
	1,2-DICHLOROETHANE	8.02	62	13788	0.83 PPBV	
	BENZENE	8.68	78	33652	0.85 PPBV	
,	CYCLOHEXANE	8.86	69	33652 7012	1.05 PPBV	
	2,3-DIMETHYLPENTANE	9.06	71	9255	0.94 PPBV	
	TRICHLOROETHYLENE	9.65	71 95	9255 15969	0.91 PPBV	
	1,2-DICHLOROPROPANE	9.40	63	12682	0.86 PPBV	
	DIBROMOMETHANE	9.43		13415	0.87 PPBV	
	ETHYL ACRYLATE	9.44	55	19064		
	BROMODICHLOROMETHANE	9.63	83	23685		
	2,2,4-TRIMETHYLPENTANE	9.59	57	23685 60995	0.91 PPBV	
	1,4-DIOXANE	9.73	88	5857	0.96 PPBV	
	HEPTANE	9.85		5857 25176	0.91 PPBV	
	TVHC as EQUIV HEPTANE	9.85		148190m	1.10 PPBV	
	METHYL METHACRYLATE	9.87		10477	0.99 PPBV	
	METHYL ISOBUTYL KETONE	10 50	г о	148190m 10477 7382	0.89 PPBV	
	cis-1,3-DICHLOROPROPENE	10.52	75	16878 20895	0.86 PPBV	97
,	TOLUENE	11.47	92	20895	0.78 PPBV	
c c \	1 2 DIGII ODODDODENIE	10.52 10.52 11.47 11.03 11.20	75	14427	0.79 PPBV	
67)	1,1,2-TRICHLOROETHANE	11.20	83	14427 11078	0.86 PPBV	
69)	2-HEXANONE	11.75	58	9441	0 97 DDBW	98
70)	1,1,2-TRICHLOROPROPENE 1,1,2-TRICHLOROETHANE 2-HEXANONE ETHYL METHACRYLATE TETRACHLOROETHYLENE DIBROMOCHLOROMETHANE 1,2-DIBROMOETHANE 0CTANE 1,1,1,2-TETRACHLOROETHANE CHLOROBENZENE ETHYLBENZENE m,p-XYLENE O-XYLENE STYRENE NONANE BROMOFORM 1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE ISOPROPYLBENZENE BROMOBENZENE ETHOROTOLUENE n-PROPYLBENZENE 4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE	11.77	69	11752	0.90 PPBV	
71)	TETRACHLOROETHYLENE	12.63	164	15946	0.96 PPBV	
72)	DIBROMOCHLOROMETHANE	11.92	129	20159 17230	0.85 PPBV	
73)	1,2-DIBROMOETHANE	12.13	107	17230	0.89 PPBV	
74)	OCTANE	12.42	43	28090	0.90 PPBV	98
75)	1,1,1,2-TETRACHLOROETHANE	13.34	131	28090 14408	0.91 PPBV	96
76)	CHLOROBENZENE	13.36	112	26652	0.91 PPBV	91
77)	ETHYLBENZENE	13.74	91	26652 42684	0.92 PPBV	99
78)	m,p-XYLENE	13.93	106	31454	1.84 PPBV	95
79)	O-XYLENE	14.45	106	15694	0.95 PPBV	98
80)	STYRENE	14.34	104	19848	0.86 PPBV	99
81)	NONANE	14.64	43	23233	0.84 PPBV	99
82)	BROMOFORM	14.04	173	23233 17562	0.88 PPBV	99
84)	1,1,2,2-TETRACHLOROETHANE	14.47	83	21239	0 99 DDBW	
85)	1,2,3-TRICHLOROPROPANE	14.60	75	16579	0.98 PPBV	99
86)	ISOPROPYLBENZENE	15.10	105	44963		99
87)	BROMOBENZENE	15.23	77	18066	0.90 PPBV	100
88)	2-CHLOROTOLUENE	15.67	126	10255	0.91 PPBV	
89)	n-PROPYLBENZENE	15.69	120	10439	0.97 PPBV	97
90)	4-ETHYLTOLUENE	15.87	105	10439 35709	0.96 PPBV	100
91)	1,3,5-TRIMETHYLBENZENE	15.97	105	26705	0.93 PPBV	99
92)	ALPHA-METHYLSTYRENE	16.19	118	26705 8160	0.75 PPBV	
	tert-BUTYLBENZENE	1 ( 1 )	1 2 4	6704	0.97 PPBV	99
94)	1,2,4-TRIMETHYLBENZENE	16.47	105	22670	0.90 PPBV	# 85
	m-DICHLOROBENZENE	16.45 16.47 16.67	146	18193	0.97 PPBV	97

3W22420.D M3W886.M Mon May 16 12:42:29 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22420.D Vial: 1

 Acq On
 : 13 May 2011 1:57 pm
 Operator: yunxiac

 Sample
 : ic886-1
 Inst : MS3W

 Misc
 : MS12271,V3W886,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 14:46:02 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 14:00:46 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
				10004		
96)	BENZYL CHLORIDE	16.66	91	19984	0.98 PPBV	99
97)	p-DICHLOROBENZENE	16.75	146	17007	0.94 PPBV	99
98)	sec-BUTYLBENZENE	16.80	134	7405	0.91 PPBV	# 92
99)	p-ISOPROPYLTOLUENE	16.98	134	6875	0.89 PPBV	100
100)	o-DICHLOROBENZENE	17.18	146	15418	0.94 PPBV	99
101)	n-BUTYLBENZENE	17.50	134	5061	0.86 PPBV	99
102)	HEXACHLOROETHANE	17.99	117	10375	0.84 PPBV	99
103)	HEXACHLOROBUTADIENE	19.79	225	8357	0.90 PPBV	96
104)	1,2,4-TRICHLOROBENZENE	19.24	180	3969	0.85 PPBV	96
106)	NAPHTHALENE	19.37	128	4298	0.76 PPBV	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22420.D M3W886.M Mon May 16 12:42:29 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W22420.D Vial: 1

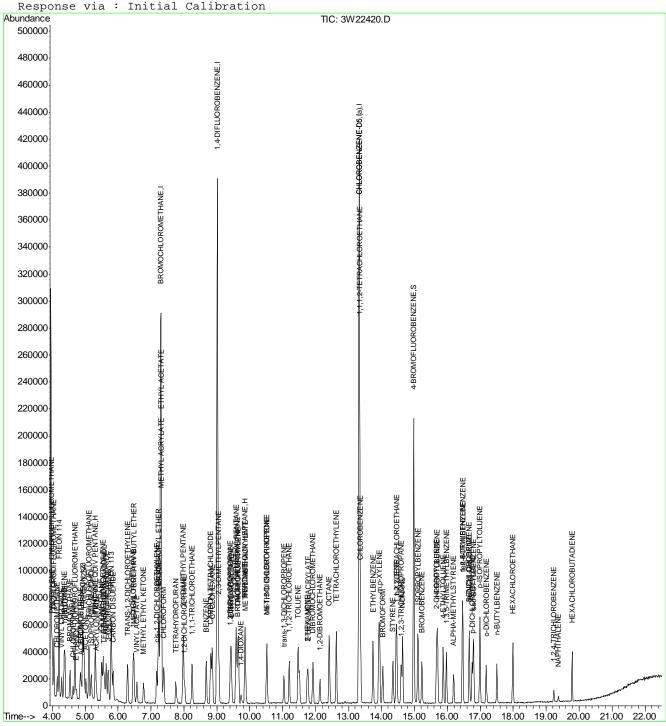
: 13 May 2011 Operator: yunxiac Acq On 1:57 pm Sample : ic886-1 : MS3W Misc : MS12271, V3W886, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:13 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011



3W22420.D M3W886.M

Mon May 16 12:42:30 2011

MS3W



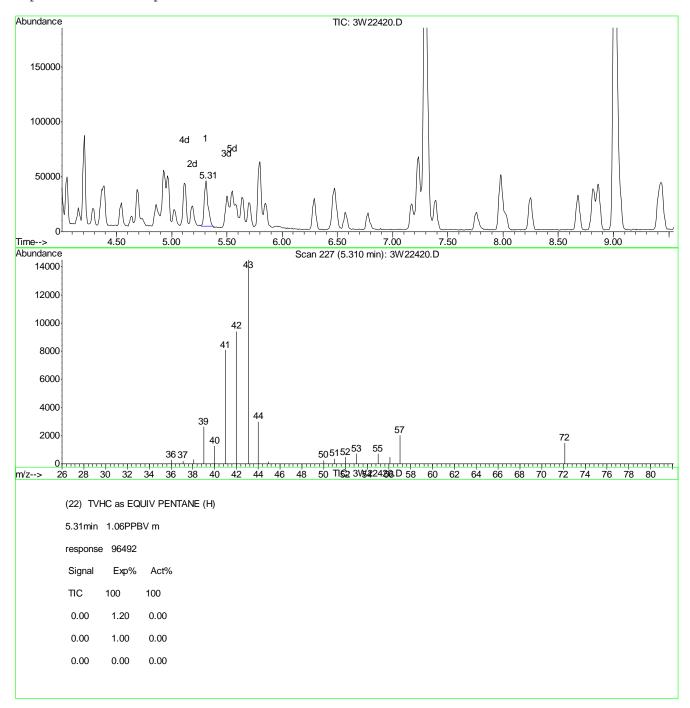
Data File : C:\MSDCHEM\1\DATA\3W22420.D Vial: 1

MS Integration Params: rteint.p

Quant Time: May 16 10:13 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22420.D M3W886.M

Mon May 16 11:00:41 2011



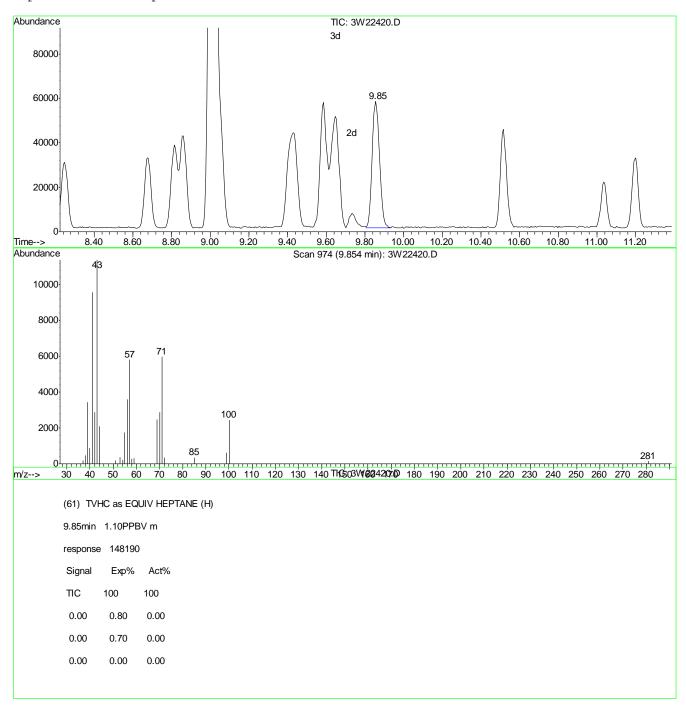
Data File : C:\MSDCHEM\1\DATA\3W22420.D Vial: 1

MS Integration Params: rteint.p

Quant Time: May 16 10:13 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22420.D M3W886.M

Mon May 16 11:00:48 2011



MS Integration Params: rteint.p

Quant Time: May 16 10:20:28 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:18:19 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Units Dev(Min)
1) BROMOCHLOROMETHANE	7.29	128	89260	10.00 PPBV -0.02
49) 1,4-DIFLUOROBENZENE	9.01	114	371068	10.00 PPBV 0.00
68) CHLOROBENZENE-D5	13.32	82	155295	10.00 PPBV 0.00
105) CHLOROBENZENE-D5 (a)	13.32	82	155295	10.00 PPBV -0.02 10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00
System Monitoring Compounds				
83) 4-BROMOFLUOROBENZENE	14 98	95	74895	4 52 PPBV 0 00
Spiked Amount 5.000	Range 65	- 128	Recove	arv = 90.40%
Target Compounds 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) DICHLOROFLUOROMETHANE 15) ACETONITRILE 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 21) PENTANE 22) TVHC as EQUIV PENTANE 23) IODOMETHANE 24) 1,1-DICHLOROETHYLENE 25) CARBON DISULFIDE 26) ETHANOL 27) BROMOETHENE 28) ACRYLONITRILE 29) METHYLENE CHLORIDE 30) 3-CHLOROPROPENE 31) FREON 113 32) TRANS-1,2-DICHLOROETHY 33) TERTIARY BUTYL ALCOHOR 34) METHYL TERTIARY BUTYL 35) TETRAHYDROFURAN 36) HEXANE 37) VINYL ACETATE 38) 1,1-DICHLOROETHANE 39) METHYL ETHYL KETONE 40) cis-1,2-DICHLOROETHYLE 41) DIISOPROPYL ETHER 42) ETHYL ACETATE				Qvalue
4) CHLORODIFLUOROMETHANE	3.99	67	849	0.24 PPBV 70
5) DICHLORODIFLUOROMETHAN	IE 4.05	85	7331	0.22 PPBV 96
6) PROPYLENE	4.00	41	4968	0.33 PPBV 95
7) FREON 114	4.21	85	8036	0.22 PPBV 98
8) CHLOROMETHANE	4.16	50	3312	0.22 PPBV 84
9) VINYL CHLORIDE	4.29	62	3012	0.21 PPBV 90
10) 1,3-BUTADIENE	4.37	54	2249	0.21 PPBV # 57
11) n-BUTANE	4.39	43	6131	0.23 PPBV 91
12) BROMOMETHANE	4.54	94	2754	0.21 PPBV 94
13) CHLOROETHANE	4.64	64	1450	0.21 PPBV 90
14) DICHLOROFLUOROMETHANE	4.69	67	6283	0.21 PPBV 96
15) ACETONITRILE	4.89	41	3223	0.25 PPBV # 91
16) FREON 123	4.93	83	5501	0.20 PPBV 97
17) FREON 123A	4.97	117	2955	0.20 PPBV 99
18) TRICHLOROFLUOROMETHANE	5.12	101	6503	0.21 PPBV 99
19) ISOPROPYL ALCOHOL	5.19	45	4996	0.23 PPBV 86
20) ACETONE	5.04	58	1375	0.27 PPBV # 71
21) PENTANE	5.31	42	3847	0.22 PPBV 90
22) TVHC as EQUIV PENTANE	5.30	TIC	12530m	0.14 PPBV
23) IODOMETHANE	5.50	142	6940	0.21 PPBV 94
24) 1,1-DICHLOROETHYLENE	5.55	96	2708	0.23 PPBV 98
25) CARBON DISULFIDE	5.85	76	6966	0.21 PPBV # 59
26) ETHANOL	4.74	45	2555	0.35 PPBV 91
27) BROMOETHENE	4.86	106	2755	0.23 PPBV 92
28) ACRYLONITRILE	5.34	52	1224	0.18 PPBV 94
29) METHYLENE CHLORIDE	5.63	84	2815	0.23 PPBV 100
30) 3-CHLOROPROPENE	5.71	76	874	0.16 PPBV # 1
31) FREON 113	5.80	151	4360	0.22 PPBV 98
32) TRANS-1,2-DICHLOROETHY	LENE 6.29	96	2316	0.21 PPBV 98
33) TERTIARY BUTYL ALCOHOL	5.59	59	4027	0.19 PPBV # 44
34) METHYL TERTIARY BUTYL	ETHE 6.49	73	4994	0.19 PPBV 89
35) TETRAHYDROFURAN	7.79	72	632	0.15 PPBV # 51
36) HEXANE	7.22	57	4358	0.22 PPBV 94
37) VINYL ACETATE	6.58	86	132	0.06 PPBV # 1
38) 1,1-DICHLOROETHANE	6.46	63	4198	0.19 PPBV 94
39) METHYL ETHYL KETONE	6.79	72	533	0.12 PPBV # 41
40) cis-1,2-DICHLOROETHYLE	ENE 7.17	96	2081	0.18 PPBV 95
41) DIISOPROPYL ETHER	7.25	45	6601	0.20 PPBV 93
42) ETHYL ACETATE	7.34	61	361	0.06 PPBV # 1
43) METHYL ACRYLATE	7.34	55	2867	0.18 PPBV # 80

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(#) = qualifier out of range (m) = manual integration 3W22421.D M3W886.M Mon May 16 12:42:31 2011 MS3W



Vial: 1 Data File : C:\MSDCHEM\1\DATA\3W22421.D

Acq On : 13 May 2011 2:37 pm Operator: yunxiac Inst : MS3W : ic886-0.2 Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:20:28 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:18:19 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

44) CHLOROFORM 7.38 83 4508 0.19 PPEV 98 45) 2,4-DIMETHYLPENTANE 7.97 57 4793 0.21 PPBV 198 46) 1,1-TRICHLOROETHANE 8.24 97 3953 0.18 PPBV 98 47) CARBON TETRACHLORIDE 8.82 117 5024 0.21 PPBV 98 48) 1,2-DICHLOROETHANE 8.02 62 2342 0.18 PPBV #89 50) BENZENE 8.67 78 5980 0.18 PPBV #99 51) CYCLOHEXANE 8.87 69 1300 0.04 PPBV #99 51) CYCLOHEXANE 9.05 71 1978 0.20 PPBV #15 52) 2,3-DIMETHYLPENTANE 9.05 71 1978 0.20 PPBV #15 53) TRICHLOROETHALENE 9.66 95 2624 0.19 PPBV #89 54) 1,2-DICHLOROPROPANE 9.40 63 2234 0.18 PPBV 88 55) DIEROMOMETHANE 9.40 63 2234 0.18 PPBV 88 55) DIEROMOMETHANE 9.40 63 2234 0.18 PPBV 88 56) ETHYL ACRYLATE 9.46 55 2885 0.17 PPBV #80 57) BROMODICHLOROMETHANE 9.63 83 4094 0.19 PPBV 95 58) 2,2-4-TRIMETHYLPENTANE 9.59 57 10631 0.19 PPBV 95 58) 2,2-4-TRIMETHYLPENTANE 9.59 57 10631 0.19 PPBV 95 58) 1,4-DIOXANE 9.85 43 4439 0.19 PPBV 98 61) TUHC AS EQUIV HEPTANE 9.85 43 4439 0.19 PPBV 98 61) TUHC AS EQUIV HEPTANE 9.85 43 4439 0.19 PPBV 98 64) cis-1,3-DICHLOROPROPENE 10.54 58 1239 0.17 PPBV #80 64) cis-1,3-DICHLOROPROPENE 11.47 92 3610 0.17 PPBV #70 66) THANKL ISOBUTYL KETONE 10.54 58 1239 0.17 PPBV #80 67) THYL ASSIGNMENT 11.19 83 1894 0.19 PPBV 97 66) THANKL 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-						Conc Unit		
Solution	44)	CHLOROFORM	7.38	83	4508	0.19 PPBV		98
Solution	45)	2,4-DIMETHYLPENTANE	7.97	57	4793	0.21 PPBV		100
Solution	46)	1,1,1-TRICHLOROETHANE	8.24	97	3953	0.18 PPBV		98
Solution	47)	CARBON TETRACHLORIDE	8.82	117	5024	0.21 PPBV		96
Solution	48)	1,2-DICHLOROETHANE	8.02	62	2342	0.18 PPBV	#	89
Solution	50)	BENZENE	8.67	78	5980	0.18 PPBV		99
Solution		CYCLOHEXANE	8.87	69	1300	0.04 PPBV	#	85
Solution	52)	2,3-DIMETHYLPENTANE	9.05	71	1978	0.20 PPBV	#	1
Solution	53)	TRICHLOROETHYLENE	9.66	95	2624	0.19 PPBV		94
Solution		1,2-DICHLOROPROPANE	9.40	63	2234	0.18 PPBV		88
Solution	55)	DIBROMOMETHANE	9.43	174	2263	0.18 PPBV		96
Solution	56)	ETHYL ACRYLATE	9.46	55	2885	0.17 PPBV	#	80
Solution		BROMODICHLOROMETHANE	9.63	83	4094	0.19 PPBV		95
Solution		2,2,4-TRIMETHYLPENTANE	9.59	57	10631	0.19 PPBV		95
61) TVHC AS EQUIV HEPTANE 9.85 TIC 24648m 0.18 PPBV 62) METHYL METHACRYLATE 9.88 69 1423 0.16 PPBV # 1 63) METHYL ISOBUTYL KETONE 10.54 58 1239 0.17 PPBV # 80 64) cis-1,3-DICHLOROPROPENE 10.51 75 2589 0.16 PPBV 87 65) TOLUENE 11.47 92 3610 0.17 PPBV 97 66) trans-1,3-DICHLOROPROPENE 11.04 75 2085 0.14 PPBV 97 67 1,1,2-TRICHLOROETHANE 11.19 83 1894 0.18 PPBV 94 69) 2-HEXANONE 11.76 58 1503 0.18 PPBV # 79 71) TETRACHLOROETHYLENE 11.78 69 1899 0.19 PPBV # 79 71) TETRACHLOROETHYLENE 12.62 164 2579 0.19 PPBV 93 72) DIBROMOCHLOROMETHANE 11.92 129 3312 0.18 PPBV 98 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV # 97 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 92 79 0-XYLENE 14.45 106 2277 0.18 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV 95 86) 1,2,3-TRICHLOROETHANE 15.60 75 2417 0.18 PPBV 96 87 BROMOFORM 14.03 173 2547 0.16 PPBV 97 82 BROMOFORM 14.03 173 2547 0.16 PPBV 98 88 1,1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 98 88 1.1,1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 88 1.1,1,2,3-TRICHLOROPROPANE 15.60 120 0.17 PPBV 96 87 BROMOFORM 15.60 120 0.17 PPBV 96 87 BROMOFORD 15.60 120 0.17 PPBV 96 87 BROMOFORD 15.60 120 0.17 PPBV 96 89 n-PROPYLBENZENE 15.60 120 1297 0.16 PPBV 48 89 n-PROPYLBENZENE 15.60 120 1297 0.16 PPBV 48 91 1.3,5-TRIMETHYLBENZENE 15.69 120 1297 0.16 PPBV 49 91 1.3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 97 91 11,3,5-TRIMETHYLBENZENE 15.19 118 1108 0.12 PPBV 95 95 120 12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 110		I, I DIOMANE	9.75	88	932	0.17 PPBV	#	75
61) TVHC AS EQUIV HEPTANE 9.85 TIC 24648m 0.18 PPBV 62) METHYL METHACRYLATE 9.88 69 1423 0.16 PPBV # 1 63) METHYL ISOBUTYL KETONE 10.54 58 1239 0.17 PPBV # 80 64) cis-1,3-DICHLOROPROPENE 10.51 75 2589 0.16 PPBV 87 65) TOLUENE 11.47 92 3610 0.17 PPBV 97 66) trans-1,3-DICHLOROPROPENE 11.04 75 2085 0.14 PPBV 97 67 1,1,2-TRICHLOROETHANE 11.19 83 1894 0.18 PPBV 94 69) 2-HEXANONE 11.76 58 1503 0.18 PPBV # 79 71) TETRACHLOROETHYLENE 11.78 69 1899 0.19 PPBV # 79 71) TETRACHLOROETHYLENE 12.62 164 2579 0.19 PPBV 93 72) DIBROMOCHLOROMETHANE 11.92 129 3312 0.18 PPBV 98 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV # 97 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 92 79 0-XYLENE 14.45 106 2277 0.18 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV 95 86) 1,2,3-TRICHLOROETHANE 15.60 75 2417 0.18 PPBV 96 87 BROMOFORM 14.03 173 2547 0.16 PPBV 97 82 BROMOFORM 14.03 173 2547 0.16 PPBV 98 88 1,1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 98 88 1.1,1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 88 1.1,1,2,3-TRICHLOROPROPANE 15.60 120 0.17 PPBV 96 87 BROMOFORM 15.60 120 0.17 PPBV 96 87 BROMOFORD 15.60 120 0.17 PPBV 96 87 BROMOFORD 15.60 120 0.17 PPBV 96 89 n-PROPYLBENZENE 15.60 120 1297 0.16 PPBV 48 89 n-PROPYLBENZENE 15.60 120 1297 0.16 PPBV 48 91 1.3,5-TRIMETHYLBENZENE 15.69 120 1297 0.16 PPBV 49 91 1.3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 97 91 11,3,5-TRIMETHYLBENZENE 15.19 118 1108 0.12 PPBV 95 95 120 12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 12 ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95 110	60)	HEPTANE	9.85	43	4439	0.19 PPBV		98
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	61)	TVHC as EQUIV HEPTANE	9.85	TIC	24648m	0.18 PPBV		
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	62)	METHYL METHACRYLATE	9.88	69	1423	0.16 PPBV	#	1
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	63)	METHYL ISOBUTYL KETONE	10.54	58	1239	0.17 PPBV	#	80
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	64)	cis-1,3-DICHLOROPROPENE	10.51	75	2589	0.16 PPBV		87
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	65)	TOLUENE	11.47	92	3610	0.17 PPBV		97
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	66)	trans-1,3-DICHLOROPROPENE	11.04	75	2085	0.14 PPBV		91
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	67)	1,1,2-TRICHLOROETHANE	11.19	83	1894	0.18 PPBV		94
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	69)	2-HEXANONE	11.76	58	1503	0.18 PPBV	#	66
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	70)	ETHYL METHACRYLATE	11.78	69	1899	0.19 PPBV	#	79
72) BIRKMMOETHANE 11.92 129 3312 0.16 PFBV 97 73) 1,2-DIBROMOETHANE 12.13 107 2506 0.17 PPBV # 97 74) OCTANE 12.42 43 4767 0.19 PPBV 92 75) 1,1,1,2-TETRACHLOROETHANE 13.35 131 2233 0.18 PPBV 95 76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 99 78) m,p-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 98 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 96 87) BROMOBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	71)	TETRACHLOROETHYLENE	12.62	164	2579	0.19 PPBV		93
76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 92 79) o-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 94 88) 1-PROPYLBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	72)	DIBROMOCHLOROMETHANE	11.92	129	3312	0.18 PPBV		98
76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 92 79) o-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 94 88) 1-PROPYLBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	73)	1,2-DIBROMOETHANE	12.13	107	2506	0.17 PPBV	#	97
76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 92 79) o-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 94 88) 1-PROPYLBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	74)	OCTANE	12.42	43	4767	0.19 PPBV		92
76) CHLOROBENZENE 13.37 112 4279 0.18 PPBV 92 77) ETHYLBENZENE 13.74 91 6555 0.18 PPBV 99 78) m,p-XYLENE 13.92 106 4841 0.36 PPBV 92 79) o-XYLENE 14.45 106 2277 0.18 PPBV 88 80) STYRENE 14.34 104 2458 0.15 PPBV 95 81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 93 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 94 88) 1-PROPYLBENZENE 15.69 120 1297 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV	75)	1,1,1,2-TETRACHLOROETHANE	13.35	131	2233	0.18 PPBV		95
81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 88 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	70)	CHLOROBENZENE	13.37	112	4279	0.18 PPBV		92
81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 88 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95			13.74	91	6555	0.18 PPBV		99
81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 88 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95			13.92	106	4841	0.36 PPBV		92
81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 88 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95			14.45	106	2277	0.18 PPBV		88
81) NONANE 14.64 43 3575 0.17 PPBV # 97 82) BROMOFORM 14.03 173 2547 0.16 PPBV # 92 84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 88 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95			14.34	104	2458	0.15 PPBV		95
84) 1,1,2,2-TETRACHLOROETHANE 14.47 83 2832 0.17 PPBV 93 85) 1,2,3-TRICHLOROPROPANE 14.60 75 2417 0.18 PPBV 88 86) ISOPROPYLBENZENE 15.10 105 6102 0.17 PPBV 96 87) BROMOBENZENE 15.23 77 2733 0.18 PPBV 94 88) 2-CHLOROTOLUENE 15.68 126 1429 0.16 PPBV 78 89) n-PROPYLBENZENE 15.69 120 1297 0.16 PPBV # 62 90) 4-ETHYLTOLUENE 15.88 105 4531 0.16 PPBV # 94 91) 1,3,5-TRIMETHYLBENZENE 15.97 105 3904 0.17 PPBV 91 92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95			14.64	43	3575	0.17 PPBV	#	9.7
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	82)	BROMOFORM	14.03	173	2547	0.16 PPBV	#	
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	84)	1,1,2,2-TETRACHLOROETHANE	14.47	83	2832	0.17 PPBV		
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	85)	1,2,3-TRICHLOROPROPANE	14.60	75	2417	0.18 PPBV		
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	86)	ISOPROPYLBENZENE	15.10	105	6102	0.17 PPBV		96
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	87)	BROMOBENZENE	15.23	106	2733	0.18 PPBV		94
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	88)	2-CHLOROTOLUENE	15.68	126	1429	0.16 PPBV		78
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	89)	n-PROPYLBENZENE	15.69	120	1297	0.16 PPBV	Ħ	62
92) ALPHA-METHYLSTYRENE 16.19 118 1108 0.12 PPBV 95	90)	4-ETHYLTOLUENE	15.88	105	4531	0.16 PPBV	Ħ	94
93) tert-BUTYLBENZENE 16.19 118 1108 0.12 PPBV 95 93) tert-BUTYLBENZENE 16.46 134 752 0.13 PPBV # 74 94) 1,2,4-TRIMETHYLBENZENE 16.47 105 3435 0.16 PPBV 96 95) m-DICHLOROBENZENE 16.66 146 2532 0.17 PPBV 93	71/	T, 5, 5-TRIMETHYLBENZENE	15.97	110	3904 1100	0.17 PPBV		9 T
94) 1,2,4-TRIMETHYLBENZENE 16.47 105 3435 0.16 PPBV 96 95) m-DICHLOROBENZENE 16.66 146 2532 0.17 PPBV 93	94)	ALPHA-METHYLSTYKENE	16.19	1 2 4 T T Q	1108	0.12 PPBV	ш	95 74
95) m-DICHLOROBENZENE 16.66 146 2532 0.17 PPBV 93	93)	LELU-BUTYLBENZENE	16.45	105	/5∠ 242⊑	0.13 PPBV	Ħ	74
93) III-DICHLOROBENZENE 10.00 140 2532 U.1/ PPBV 93	94)	T, Z, 4-TKIMETHYLBENZENE	16.67	105	3435	0.10 PPBV		96
	95) 	""-DICUDOROBENZENE	то.оо		4534 	U.I/ PPBV		93

3W22421.D M3W886.M Mon May 16 12:42:31 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Vial: 1 Data File : C:\MSDCHEM\1\DATA\3W22421.D

Acq On : 13 May 2011 2:37 pm Operator: yunxiac Inst : MS3W : ic886-0.2 Sample : ic886-0.2
Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:20:28 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:18:19 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96)	BENZYL CHLORIDE	16.66	91	2933	0.17 PPBV	85
97)	p-DICHLOROBENZENE	16.75	146	2537	0.17 PPBV	95
98)	sec-BUTYLBENZENE	16.79	134	827	0.13 PPBV	# 63
99)	p-ISOPROPYLTOLUENE	16.98	134	881	0.14 PPBV	# 76
100)	o-DICHLOROBENZENE	17.18	146	2146	0.16 PPBV	94
101)	n-BUTYLBENZENE	17.50	134	694	0.13 PPBV	# 77
102)	HEXACHLOROETHANE	17.99	117	1250	0.13 PPBV	95
103)	HEXACHLOROBUTADIENE	19.78	225	1267	0.17 PPBV	95
104)	1,2,4-TRICHLOROBENZENE	19.23	180	758	0.15 PPBV	# 82
106)	NAPHTHALENE	19.38	128	961	0.15 PPBV	# 69

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22421.D M3W886.M Mon May 16 12:42:31 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W22421.D Vial: 1

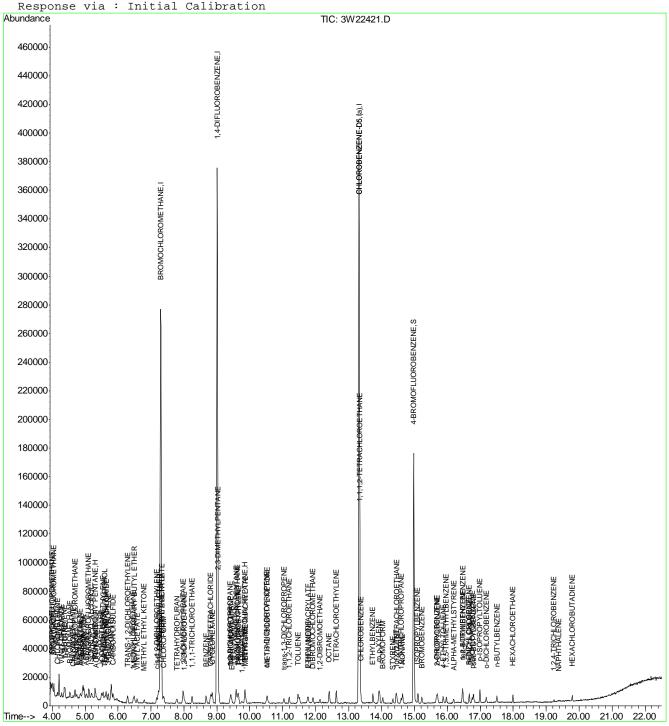
: 13 May 2011 2:37 pm Operator: yunxiac Acq On Sample : ic886-0.2 : MS3W Misc : MS12271, V3W886, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:20 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011



3W22421.D M3W886.M

Mon May 16 12:42:32 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\3W22421.D Vial: 1

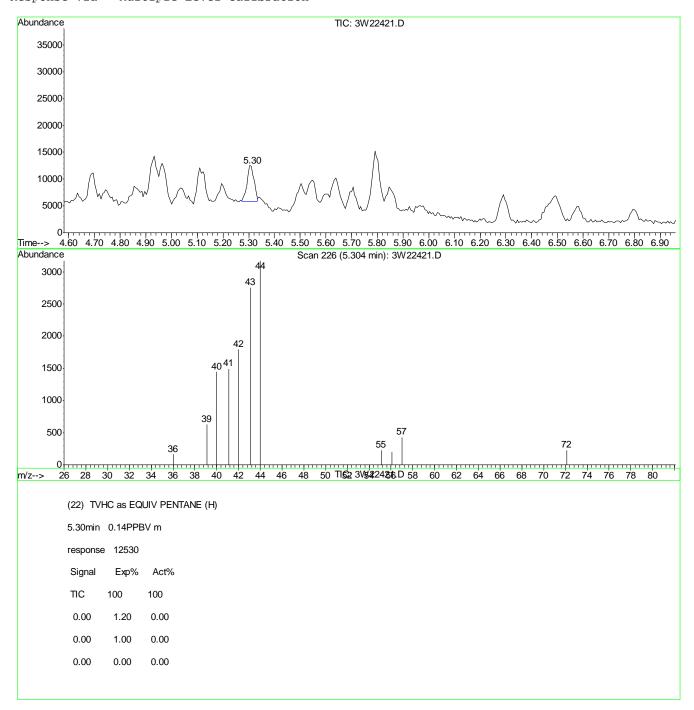
Acq On : 13 May 2011 2:37 pm Operator: yunxiac Sample : ic886-0.2 Inst : MS3W Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:20 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22421.D M3W886.M

Mon May 16 11:01:11 2011



Data File : C:\MSDCHEM\1\DATA\3W22421.D Vial: 1

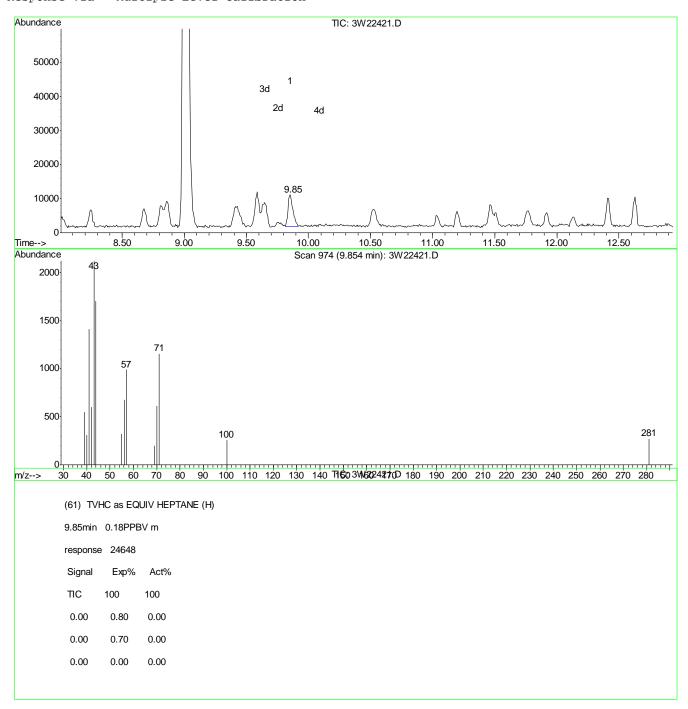
: 13 May 2011 2:37 pm Operator: yunxiac Acq On Sample : ic886-0.2 Inst : MS3W Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:20 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22421.D M3W886.M

Mon May 16 11:01:18 2011

MS3W

560 of 685 ACCUTEST: JA81330

MS Integration Params: rteint.p

Quant Time: May 13 16:34:52 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 15:37:38 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	7.29	128	92731	10.00	PPBV	7	-0.02
49) 1,4-DIFLUOROBENZENE	9.01	114	397164	10.00	PPBV	7	0.00
68) CHLOROBENZENE-D5	13.32	82	162939	10.00	PPBV	7	0.00
105) CHLOROBENZENE-D5 (a)	13.32	82	92731 397164 162939 162939	10.00	PPBV	7	0.00
System Monitoring Compounds							
83) 4-BROMOFLUOROBENZENE	14.98	95	74756	4.20	PPBV	7	0.00
	Range 65						
Target Compounds						Ova	alue
5) DICHLORODIFLUOROMETHANE	4.06	85	1540	0.04	PPBV	7	92
6) PROPYLENE	4.01	41	1540 2138	0.11	PPBV	7 #	77
7) FREON 114	4.21	85	1547 872 484 440 1635	0.04			87
8) CHLOROMETHANE	4.16	50	872	0.05	PPBV	7 #	41
9) VINYL CHLORIDE	4.29	62	484	0.03			91
10) 1,3-BUTADIENE	4.37	54	440	0.03			26
11) n-BUTANE	4.39	43	1635	0.06			38
12) BROMOMETHANE	4.54	94	1635 613 206 1398 1582 890 458 1464 1604	0.04			81
13) CHLOROETHANE	4.64	64	206	0.02			45
14) DICHLOROFLUOROMETHANE	4.70	67	1398	0.04			92
15) ACETONITRILE	4.90	41	1582	0.12			49
16) FREON 123	4.93	83	890	0.03			81
17) FREON 123A	4 96	117	458	0.03			54
18) TRICHLOROFLUOROMETHANE	5.11	101	1464	0.04			90
19) ISOPROPYL ALCOHOL	5 21	45	1604 331 951 1268 452	0.06			70
20) ACETONE	5 04	58	331	0.05			1
21) DEMTANE	5 31	42	951	0.05			15
23) IODOMETHANE	5 50	142	1268	0.03			93
24) 1,1-DICHLOROETHYLENE	5.56	96	452	0.03			92
	5.85	76	1497	0.04			2
25) CARBON DISULFIDE 26) ETHANOL 27) BROMOETHENE 29) METHYLENE CHLORIDE 31) FREON 113 32) TRANS-1,2-DICHLOROETHYLEI 33) TERTIARY BUTYL ALCOHOL 34) METHYL TERTIARY BUTYL ETI 36) HEXANE 38) 1,1-DICHLOROETHANE 40) cis-1,2-DICHLOROETHYLENE	4 74	45	1558	0.15			73
27) DDOMOFTURNE	1 96	106	1330	0.03			76
21) BROMOEINENE 20) METUVIENE CUIODIDE	5.64	ΩΛ	1260	0.03			96
21) FDFON 112	5 70	151	771	0.03			92
22) TREON IIS	J. / J	131	112	0.03			70
22) TERMS-1,2-DICHLOROEIHILLEI	NE 0.30	50 E0	724	0.03			1
24) MEMILYI MEDMIADA DIMAN EMI	3.00 TE 6 E1	72	1077	0.03			72
34) MEIHIL IERIIARI BUIIL EII	7 72	/ 3 E 7	10// 705	0.04			83
20 1 1 DIGILODOFFILANT	7.43	63	703	0.03			68
40) - 1 - DICHLOROETHANE	7 10	0.5	242	0.03			
·		96	342 1372	0.03			57 71
41) DIISOPROPYL ETHER	7.26	45	13/2	0.04			
42) ETHYL ACETATE	7.17	61	5/3	0.20			1
43) METHYL ACRYLATE	7.35 7.38	55	457	0.03			66
44) CHLOROFORM	7.38	83	859	0.03			79
45) 2,4-DIMETHYLPENTANE	7.97 8.25	57	748	0.03			83
46) 1,1,1-TRICHLOROETHANE	8.25	97	789	0.03			52
47) CARBON TETRACHLORIDE	8.81	11.7	573 457 859 748 789	0.03			73
48) 1,2-DICHLOROETHANE	8.04	62	360 1418	0.02			49
50) BENZENE	8.68	78					67
51) CYCLOHEXANE	9.01		10023	1.38			1

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3W22422.D M3W886.M Mon May 16 12:42:33 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22422.D Vial: 4

MS Integration Params: rteint.p

Quant Time: May 13 16:34:52 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 15:37:38 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
52)	2,3-DIMETHYLPENTANE	9.01	71	760	0.07 PPBV	# 1
53)	TRICHLOROETHYLENE	9.66		499	0.03 PPBV	# 60
54)	1,2-DICHLOROPROPANE	9.41	63	430	0.03 PPBV	# 41
55)	DIBROMOMETHANE	9.43	174	451	0.03 PPBV	# 64
57)	BROMODICHLOROMETHANE	9.63	83	719	0.03 PPBV	86
58)	2,2,4-TRIMETHYLPENTANE	9.59	57	2311	0.03 PPBV	# 94
	HEPTANE	9.85		1068		# 70
64)	cis-1,3-DICHLOROPROPENE	10.52	75	475	0.02 PPBV	# 72
,	TOLUENE	11.47				# 75
66)	trans-1,3-DICHLOROPROPENE	11.03	75	462	0.03 PPBV	# 60
70)	ETHYL METHACRYLATE	11.78	69	275	0.02 PPBV	# 51
71)	TETRACHLOROETHYLENE	12.63	164	545	0.03 PPBV	# 75
72)	DIBROMOCHLOROMETHANE	11.92	129	647	0.03 PPBV	# 77
73)	1,2-DIBROMOETHANE	12.14	107	401	0.02 PPBV	# 98
		12.41		910		# 67
75)	1,1,1,2-TETRACHLOROETHANE	13.34	131	364	0.02 PPBV	# 39
76)	CHLOROBENZENE	13.36	112	887	0.03 PPBV	# 29
77)	ETHYLBENZENE	13.74		1499		# 82
78)	m,p-XYLENE	13.93	106	977		# 79
79)	O-XYLENE	14.45	106	333		# 52
80)	STYRENE	14.34	104	415	0.02 PPBV	# 56
81)	NONANE	14.64	43	856	0.03 PPBV	# 59
	BROMOFORM	14.04		422	0.02 PPBV	# 36
84)	1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE	14.48	83	480	0.02 PPBV	# 70
85)	1,2,3-TRICHLOROPROPANE	14.61	75	474	0.03 PPBV	# 42
86)	ISOPROPYLBENZENE	15.10	105	1170	0.03 PPBV	# 54
87)	BROMOBENZENE	15.23	77	372	0.02 PPBV	# 70
90)	4-ETHYLTOLUENE	15.88	105	778	0.02 PPBV	# 76
91)	1,3,5-TRIMETHYLBENZENE	15.97	105	744	0.03 PPBV	# 66
94)	1,2,4-TRIMETHYLBENZENE	16.48	105	548	0.02 PPBV	# 16
95)		16.67		543	0.03 PPBV	# 45
96)	BENZYL CHLORIDE	16.67	91	586	0.03 PPBV	# 60
97)	p-DICHLOROBENZENE	16.75	146	449	0.03 PPBV	# 60
100)	o-DICHLOROBENZENE	17.19		339	0.02 PPBV	# 70

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed 3W22422.D M3W886.M Mon May 16 12:42:33 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W22422.D Vial: 4

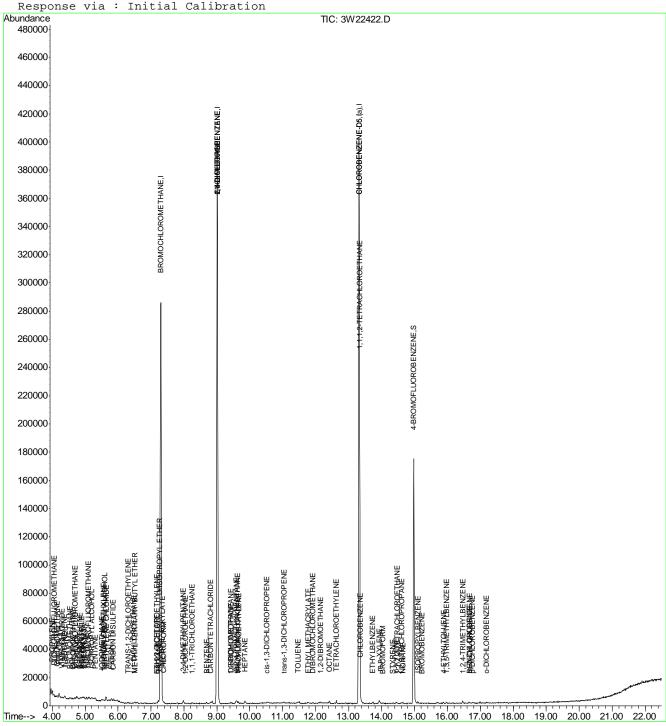
Operator: yunxiac : 13 May 2011 Acq On 3:57 pm : ic886-0.04 : MS3W Sample : MS12271,V3W886,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:05 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011



3W22422.D M3W886.M

Mon May 16 12:42:33 2011

MS3W



Jessica Reitan-Chu 05/23/11 16:41

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\3W22423.D Vial: 4 Acq On : 13 May 2011 4:38 pm Operator: yunxiac Inst : MS3W Sample : ic886-0.1 : MS12271,V3W886,,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: May 13 17:08:38 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 16:35:24 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc U			
1) BROMOCHLOROMETHANE	7.30	128	92117 378846 158581 158581	10.00	PPBV	7	-0.01
49) 1,4-DIFLUOROBENZENE	9.01	114	378846	10.00	PPBV	7	0.00
68) CHLOROBENZENE-D5	13.32	82	158581	10.00	PPBV	7	0.00
105) CHLOROBENZENE-D5 (a)	13.32	82	158581	10.00	PPBV	7	0.00
System Monitoring Compounds							
83) 4-BROMOFLUOROBENZENE Spiked Amount 5.000 Rar	14.98	95	74706	4.35	PPBV	7	0.00
-	_			-			
Target Compounds 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROFLUOROMETHANE 14) DICHLOROFLUOROMETHANE 15) ACETONITRILE 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 21) PENTANE 23) IODOMETHANE 24) 1,1-DICHLOROETHYLENE 25) CARBON DISULFIDE 26) ETHANOL 27) BROMOETHENE 28) ACRYLONITRILE 29) METHYLENE CHLORIDE 30) 3-CHLOROPROPENE 31) FREON 113 32) TRANS-1,2-DICHLOROETHYLENE 33) TERTIARY BUTYL ALCOHOL 34) METHYL TERTIARY BUTYL ETHE 35) TETRAHYDROFURAN 36) HEXANE 38) 1,1-DICHLOROETHANE 40) cis-1,2-DICHLOROETHYLENE 41) DIISOPROPYL ETHER 42) ETHYL ACETATE 43) METHYL ACETATE 44) CHLOROFORM 45) 2,4-DIMETHYLPENTANE 46) 1,1,1-TRICHLOROETHANE						Qv	alue
4) CHLORODIFLUOROMETHANE	3.98	67	393	0.10	PPBV	7 #	41
5) DICHLORODIFLUOROMETHANE	4.05	85	3524	0.10	PPBV	7	92
6) PROPYLENE	4.01	41	2685	0.13	PPBV	7 #	56
7) FREON 114	4.21	85	3582	0.09	PPBV	7	96
8) CHLOROMETHANE	4.16	50	1603	0.10	PPBV	7	98
9) VINYL CHLORIDE	4.29	62	1430	0.10	PPBV	7 #	86
10) 1,3-BUTADIENE	4.37	54	984	0.09	PPBV	7 #	37
11) n-BUTANE	4.39	43	3412	0.12	PPBV	7	86
12) BROMOMETHANE	4.55	94	1298	0.09	PPBV	7 #	89
13) CHLOROETHANE	4.63	64	668	0.09	PPBV	7 #	60
14) DICHLOROFLUOROMETHANE	4.70	67	2794	0.09	PPBV	7 #	85
15) ACETONITRILE	4.89	41	2340	0.14	PPBV	7 #	16
16) FREON 123	4.93	8.3	2822	0.10	PPBI	7 #	74
17) FREON 123A	4.97	117	1263	0.08	PPBV	7 #	75
18) TRICHLOROFLUOROMETHANE	5.12	101	2991	0.09	PPBI	7	98
19) ISOPROPYL ALCOHOL	5.20	4.5	2854	0.11	PPBI	7	71
20) ACETONE	5.04	58	484	0.08	PPBV	7 #	1
21) PENTANE	5.30	42	2159	0.12	PPBI	7 #	60
23) IODOMETHANE	5.50	142	3040	0.09	PPBV	7	97
24) 1 1-DICHLOROETHYLENE	5 54	96	1122	0.09	PPRI	7	94
25) CARBON DISHLETDE	5 85	76	3305	0.09	PPRI	, 7 ±	48
26) ETHANOI.	4 74	45	1428	0.05	DDRI	7	90
27) BROMOETHENE	4 86	106	1143	0.12	PPRI	, 7 ±	94
28) ACRVIONITRILE	5 35	52	383	0.05	DDRI	7 H	4(
29) METHYLENE CHLORIDE	5 64	84	1811	0.03	DDRI	, π 7	93
30) 3-CHIODODPODENE	5 71	76	429	0.12	DDBI	, 7 ++	16
31) FPFON 113	5 79	151	1932	0.00	DDBI	, π 7	95
32) TRANG_1 2_DICHLOPOFTHYLENE	6 29	96	969	0.05	DDBI	7	95
32) TEPTIARY RITYI, ALCOHOL	5 61	50	1864	0.00	DDBI	7	77
2/ METUVI TEPTIAN DIITVI ETUE	6 50	72	2456	0.00	ומממ	7	79
25) TETRILL TERTIARI DOTTE ETHE	7 79	73	121	0.03	ומממ	, 7 ++	1
36) HEYANE	7.73	7 Z	1972	0.03	DDBI	7 H	82
28 \ 1 1_DTCUIODOFTUNE	6 16	63	1972	0.09	חחחו	/ # 7 #	86
40) at a 1 2 DICHLOROETHANE	7 10	0.5	1903	0.09	חחחו	7	85
41) DIICODDODVI ETHED	7.10	<i>1</i> E	2105	0.08	ומממ	7	88
47) ELEAN VOELVEE  41) DITOORKOLID FIUUK	7.20	4:5 6:1	3133 1201	0.09	ימממ	, 7 H	1
43) WEARAL VODALVAE 47) FIUIT WCFIWIF	7 2 1	2 E E	⊥39 <del>1</del> 1107	0.31	בבמן	/ # / #	66
11) CHIODORODM	7 20	9 9 9 9	7701 TTU/	0.07	ימחם	' # 7	93
44) CHLORUFURM	7.39	03 E7	2224	0.09	LLR/	, ,	93
45) 2,4-DIMETHYLPENTANE	7.98	5 / 0.7	∠∪88 1044	0.09	PPD:	/ 7	92
40) I,I,I-TRICHLOROETHANE	8.25	97	1944	0.09	LLR/	/	97

3W22423.D M3W886.M Mon May 16 16:44:00 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22423.D Vial: 4 Acq On : 13 May 2011 4:38 pm Operator: yunxiac Inst : MS3W Sample : ic886-0.1 Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 17:08:38 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 16:35:24 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound			Response	Conc Unit	Qva	alue
47)	CARBON TETRACHLORIDE	8.81		2150	0.09 PPBV		92
	1,2-DICHLOROETHANE	8.03	62	1150	0.08 PPBV		73
	BENZENE	8.67	78	2962	0.09 PPBV		94
53)	TRICHLOROETHYLENE	9.65	95	2962 1207	0.08 PPBV		97
54)	1,2-DICHLOROPROPANE	9.40	63	1121	0.09 PPBV	#	62
55)	DIBROMOMETHANE	9.43	174	1121 1106 1162	0.08 PPBV		94
56)	ETHYL ACRYLATE	9.47	55	1162	0.07 PPBV	#	72
57)	BROMODICHLOROMETHANE	9.62	83	1798 5303	0.08 PPBV		99
58)	2,2,4-TRIMETHYLPENTANE	9.59	57	5303	0.09 PPBV	#	92
59)	1,4-DIOXANE	9.76	88 43	340 2340	0.06 PPBV	#	29
,	HEPTANE	9.85	43	2340	0.10 PPBV		90
62)	METHYL METHACRYLATE	9.88	69	508 452 1282 1971 935 928 338	0.05 PPBV	#	1
63)	METHYL ISOBUTYL KETONE	10.54	58	452	0.06 PPBV	#	24
64)	cis-1,3-DICHLOROPROPENE	10.51	75	1282	0.08 PPBV		85
	TOLUENE	11.47	92	1971	0.09 PPBV		94
	trans-1,3-DICHLOROPROPENE	11.04	75	935	0.06 PPBV		69
67)	1,1,2-TRICHLOROETHANE	11.19	83	928	0.09 PPBV		84
69)	2-HEXANONE	11.76	58	338	0.04 PPBV	#	1
70)	ETHYL METHACRYLATE	11.//	69	3 / 1	U. U. PPBV		1
71)	TETRACHLOROETHYLENE	12.62	164	1321 1667	0.09 PPBV		86
72)	DIBROMOCHLOROMETHANE	11.92	129	1667	0.09 PPBV		81
73)	1,2-DIBROMOETHANE	12.13	107	1117 2290	0.07 PPBV	#	91
,	OCTANE	12.41	43	2290	0.09 PPBV		88
75)	1,1,1,2-TETRACHLOROETHANE	13.34	131	1072 2118	0.08 PPBV		96
,	CHLOROBENZENE	13.36	112	2118			89
77)	ETHYLBENZENE	13.74	91	3159	0.08 PPBV		91
	m,p-XYLENE	13.94	106	2339 1093	0.16 PPBV		72
,	O-XYLENE	14.45	106	1093	0.08 PPBV		90
,	STYRENE	14.34	104	1093 942 1559	0.05 PPBV		78
,	NONANE	14.64	43	1559	0.07 PPBV		75
,	BROMOFORM	14.04	173	1087 1244	0.07 PPBV		88
	1,1,2,2-TETRACHLOROETHANE	14.47	83	1244	0.07 PPBV		93
	1,2,3-TRICHLOROPROPANE	14.59	75	997	0.07 PPBV		74
,	ISOPROPYLBENZENE	15.10	105	997 2817 1052	0.07 PPBV		93
	BROMOBENZENE	15.23	77	1052	0.06 PPBV		95
	2-CHLOROTOLUENE	15.67			0.06 PPBV		
,	n-PROPYLBENZENE	15.70					62
	4-ETHYLTOLUENE	15.88	105	1778	0.06 PPBV		93
	1,3,5-TRIMETHYLBENZENE	15.97	105	1538	0.06 PPBV		82
	ALPHA-METHYLSTYRENE	16.19	118	322	0.03 PPBV		59
	tert-BUTYLBENZENE	16.46	134	296 1365	0.05 PPBV		54
	1,2,4-TRIMETHYLBENZENE	16.47	105	1365	0.06 PPBV		91
	m-DICHLOROBENZENE	16.66	146	1112m 905	0.07 PPBV		
	BENZYL CHLORIDE	16.66	91	905			60
	p-DICHLOROBENZENE	16.75 16.79	146	903	0.06 PPBV		84
	sec-BUTYLBENZENE	16.79	134	284	0.04 PPBV		1
	p-ISOPROPYLTOLUENE	16.98	134	149	0.02 PPBV		1
	o-DICHLOROBENZENE	17.19	146	149 837 124	0.06 PPBV		86
TOT)							1

3W22423.D M3W886.M Mon May 16 16:44:00 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22423.D

Vial: 4 Acq On : 13 May 2011 4:38 pm Operator: yunxiac Inst : MS3W : ic886-0.1 Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 13 17:08:38 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Fri May 13 16:35:24 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102)	HEXACHLOROETHANE	17.99	117	463	0.05 PPBV	88
103)	HEXACHLOROBUTADIENE	19.78	225	313	0.04 PPBV	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22423.D M3W886.M Mon May 16 16:44:00 2011 MS3W

> 566 of 685 ACCUTEST JA81330

Vial: 4 Data File : C:\MSDCHEM\1\DATA\3W22423.D

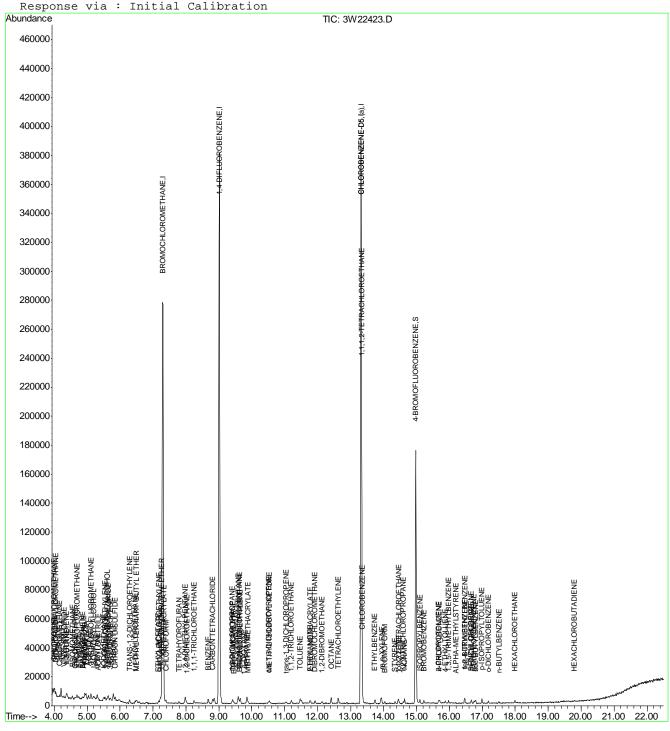
: 13 May 2011 Operator: yunxiac Acq On 4:38 pm Sample : ic886-0.1 : MS3W Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 16:23 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011



3W22423.D M3W886.M

Mon May 16 16:44:00 2011



# **Manual Integration Approval Summary**

Sample Number: V3W886-IC886 Method: TO-15

 Lab FileID:
 3W22423.D
 Analyst approved:
 05/16/11 16:41
 Yunxia Chen

 Injection Time:
 05/13/11 16:38
 Supervisor approved:
 05/23/11 16:41
 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
m-Dichlorobenzene	541-73-1		16.66	Missed peak

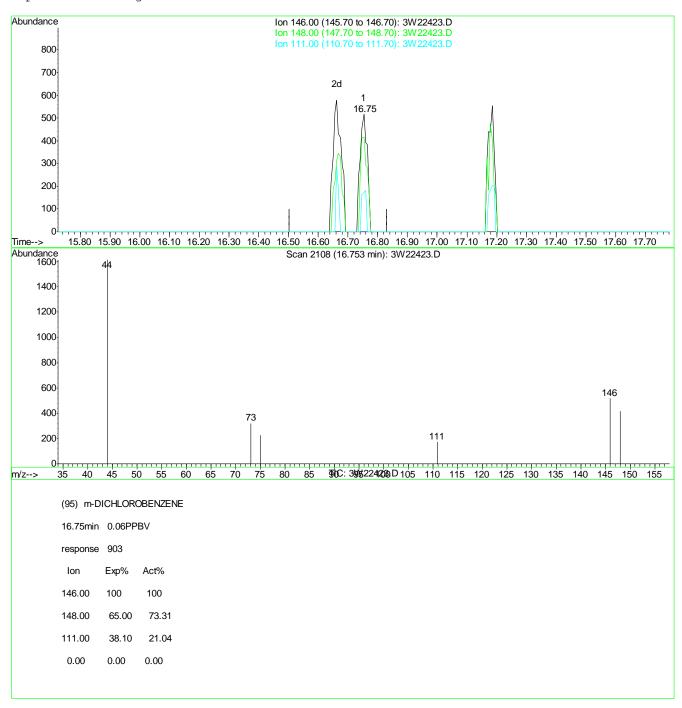
Data File : C:\MSDCHEM\1\DATA\3W22423.D Vial: 4 : 13 May 2011 Operator: yunxiac Acq On 4:38 pm Sample : ic886-0.1 : MS3W Inst Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 12:46 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 12:46:28 2011 Response via : Single Level Calibration



3W22423.D M3W886.M

Mon May 16 16:23:15 2011

MS3W

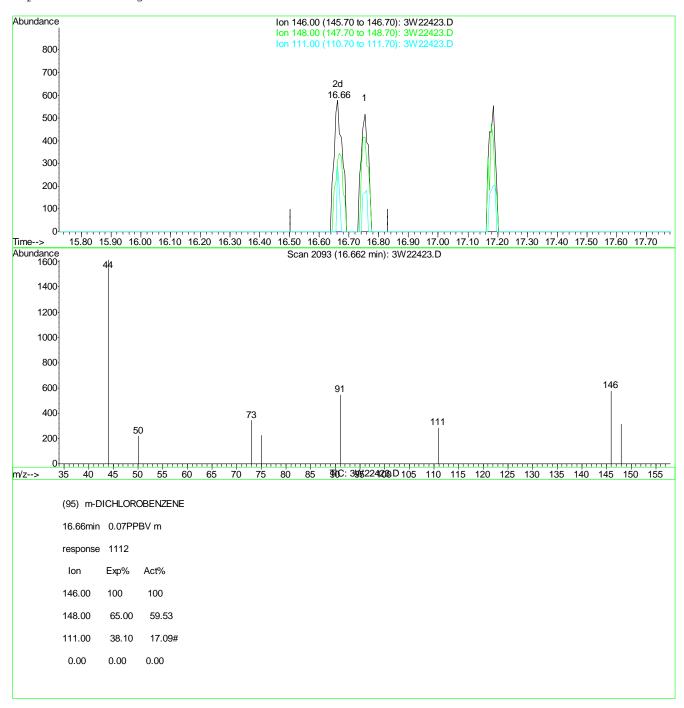
569 of 685

MS Integration Params: rteint.p

Quant Time: May 16 16:23 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 12:46:28 2011 Response via : Single Level Calibration



3W22423.D M3W886.M

Mon May 16 16:23:21 2011

MS3W

570 of 685
ACCUTEST
JA81330

MS Integration Params: rteint.p

Quant Time: May 16 09:33:20 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 09:33:09 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ur	nits	Dev(Min)
1) BROMOCHLOROMETHANE	7.31	128	97922	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	9.03	114	423926	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	13.33	82	233680	10.00	PPBV	0.00
1) BROMOCHLOROMETHANE 49) 1,4-DIFLUOROBENZENE 68) CHLOROBENZENE-D5 105) CHLOROBENZENE-D5 (a)	13.33	82	233680	10.00	PPBV	0.00
System Monitoring Compounds						
83) 4-BROMOFLUOROBENZENE	14.98	95	124662	5.05	PPBV	0.00
Spiked Amount 5.000	Range 65	- 128	Recov	ery =	101.	00%
Target Compounds						Qvalue
4) CHLORODIFLUOROMETHANE	3.99	67	128802 1173456	32.30	PPBV	99
5) DICHLORODIFLUOROMETHANE		85	1173456	31.94	PPBV	98
6) PROPYLENE	4.00	41	462129 1298225 527762 559479 422589	28.36	PPBV	99
7) FREON 114	4.21	85	1298225	32.27	PPBV	98
8) CHLOROMETHANE	4.16	50	527762	32.09	PPBV	98
9) VINYL CHLORIDE 10) 1,3-BUTADIENE	4.29	62	559479	35.76	PPBV	99
10) 1,3-BUTADIENE	4.37	54	422589	35.77	PPBV	99
	4.39	43	843878 491205 291969 1097313 474263	28.51	PPBV	99
12) BROMOMETHANE 13) CHLOROETHANE	4.54	94	491205	33.95	PPBV	99
13) CHLOROETHANE	4.64	64	291969	37.77	PPBV	98
14) DICHLOROFLUOROMETHANE	4.70	67	1097313	33.63	PPBV	99
15) ACETONITRILE	4.88	41	474263	42.38	PPBV	97
16) FREON 123	4.93	83	1111413	36.69	PPBV	98
17) FDFON 122X	4.97	117	1111413 622069	38.52	PPBV	98
17) FREON 125A  18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 21) PENTANE 22) TVHC as EQUIV PENTANE 23) LODOMETHANE	5.12	101	1133363	33.17	PPBV	98
19) ISOPROPYL ALCOHOL	5.18	45	875367	36.66	PPBV	100
20) ACETONE	5.01	5.8	227988	39.63	PPBV	98
21) PENTANE	5.32	42	586720	30.37	PPBV	100
22) TVHC as EQUIV PENTANE	5.32	TIC	3596651m	37.55	PPBV	
23) IODOMETHANE	5.51	142	1280249	35.55	PPBV	99
24) 1,1-DICHLOROETHYLENE	5.51 5.55 5.86 4.73 4.86	96	470282	35.17	PPBV	97
25) CARBON DISULFIDE	5 86	76	1225771	33 69	PPRV	99
26) ETHANOL	4 73	45	229907	33.09	PPRV	98
27) BROMOETHENE	4 86	106	490610	36 29	PPRV	99
28) ACRYLONITRILE	5 34	52	336481	45 74	PPRV	. 99
29) METHYLENE CHLORIDE	5 65	84	440970	33 62	DDBV	. 99
30) 3-CHIOROPROPENE	5.03	76	234333	40 51	DDBV	99
31) FREON 113	5 80	151	770687	34 64	DDBV	99
32) TRANS-1 2-DICHLOROETHYLE	VE 6 30	96	474810	38 22	DDBV	. 99
27) BROMOETHENE 28) ACRYLONITRILE 29) METHYLENE CHLORIDE 30) 3-CHLOROPROPENE 31) FREON 113 32) TRANS-1,2-DICHLOROETHYLEI 33) TERTIARY BUTYL ALCOHOL	5 57	50	951070	40.22	DDBM	. 99
2/ METUVI TEDTIADV DITTVI ETI	3.37 TF 6.47	72	1215020	10.31	DDDM	100
35) TETTE AHVER FILL BUILD EI	7 73	72	232280	47 24	DDBM	97
36) HEYANE	7.73	57	781484	35 51	DDBM	98
27) MINNI ACETATE	7.23	06	110545	53.JI E1 10	DDDM	# 96
20 1 1_DICUIODOFTUNE	6.30	63	910710	38 30	DDDM	99
30   I,I-DICHDOROFIDANE	676	77	370/TO	30.39 17 10	DDDU	. # 88
10) did-1 2-DICHIODOETHY ENE	7 10	0.6	443444 516125	4:/.19 //1 70	PDDDA	# 88 99
41) DIICODDODVI ETUED	7.10	∌ U /I ⊑	1551010	41./3	DDDU	99
41) DIISUPKUPIL EIHEK	7.24	45 61	151100	44.48	LLRA	98 # 92
42) METINI ACETATE	7.31	ĒΕ	72TT\70	40.23	LLRA	# 92 99
32) TRANS-1,2-DICHLOROETHYLES 33) TERTIARY BUTYL ALCOHOL 34) METHYL TERTIARY BUTYL ETS 35) TETRAHYDROFURAN 36) HEXANE 37) VINYL ACETATE 38) 1,1-DICHLOROETHANE 39) METHYL ETHYL KETONE 40) cis-1,2-DICHLOROETHYLENE 41) DIISOPROPYL ETHER 42) ETHYL ACETATE 43) METHYL ACRYLATE	7.32		0058U4 	50.42		99

(#) = qualifier out of range (m) = manual integration

3W22424.D M3W886.M Mon May 16 12:42:36 2011 MS3W



MS Integration Params: rteint.p

Quant Time: May 16 09:33:20 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 09:33:09 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	CHLOROFORM	7.40	83	982457	38.64 PPBV	99
	2,4-DIMETHYLPENTANE	7.99	57	980498	38.55 PPBV	99
	1,1,1-TRICHLOROETHANE	8.25	97	943704	39.90 PPBV	99
	CARBON TETRACHLORIDE		117	1007823	39.90 PPBV 38.43 PPBV	99
48)	1,2-DICHLOROETHANE	8.04	62	627574	43.58 PPBV	100
50)	BENZENE	8.69	78	1506046	40.34 PPBV	100
51)	CYCLOHEXANE	8.87	69	241982	43.58 PPBV 40.34 PPBV 35.34 PPBV	99
	2,3-DIMETHYLPENTANE	9.06	71	350478	33.75 PPBV 39.88 PPBV	94
53)	TRICHLOROETHYLENE	9.67	95	637084	39.88 PPBV	99
54)	1,2-DICHLOROPROPANE	9.41	63	599954	42.98 PPBV 41.61 PPBV	100
55)	DIBROMOMETHANE	9.44	174	590891	41.61 PPBV	99
56)	ETHYL ACRYLATE	9.44		1007311	50.66 PPBV 41.77 PPBV	100
57)	BROMODICHLOROMETHANE	9.64	83	1027043	41.77 PPBV	98
58)	2,2,4-TRIMETHYLPENTANE	9.59	57	2453976	38.02 PPBV	100
59)	1,4-DIOXANE	9.70	88	290117	46.65 PPBV	98
60)	HEPTANE	9.86		980243		97
61)	TVHC as EQUIV HEPTANE	9.86	TIC	6312229m	42.30 PPBV	
62)	METHYL METHACRYLATE	9.87		511660	51.31 PPBV	# 77
63)	METHYL ISOBUTYL KETONE	10.50	58	408612	49.41 PPBV 46.31 PPBV	97
64)	cis-1,3-DICHLOROPROPENE	10.52	75	832666	46.31 PPBV	100
65)	TOLUENE	11.47	92	1034044	44.13 PPBV	9.7
66)	trans-1,3-DICHLOROPROPENE	11.05	75	850778	51.96 PPBV 45.26 PPBV	99
67)	1,1,2-TRICHLOROETHANE	11.21	83	528262	45.26 PPBV	99
69)	2-HEXANONE	11.72	58	569869	46.34 PPBV 43.13 PPBV	98
70)	ETHYL METHACRYLATE	11.76	69	740751	43.13 PPBV	99
71)	TETRACHLOROETHYLENE	12.63	164	683341	33.99 PPBV	99
72)	DIBROMOCHLOROMETHANE	11.93	129	1080099	33.99 PPBV 39.19 PPBV	99
73)	1,2-DIBROMOETHANE	12.14	107	925543	42.48 PPBV	99
,	OCTANE	12.42	43	1293466	35.21 PPBV 39.80 PPBV	98
75)	1,1,1,2-TETRACHLOROETHANE	13.35	131	730214	39.80 PPBV	100
	CHLOROBENZENE	13.37		1281092	36.96 PPBV 37.74 PPBV	99
77)	ETHYLBENZENE	13.75		2067187	37.74 PPBV	97
78)	m,p-XYLENE	13.94	106	1606334	80.02 PPBV 41.93 PPBV	90
79)	O-XYLENE	14.45	106	793188	41.93 PPBV	94
	STYRENE	14.36	104	1226038	44.44 PPBV	100
,	NONANE	14.65		1259219	39.45 PPBV 44.79 PPBV	98
82)	BROMOFORM	14.05		1022683	44.79 PPBV	99
84)	BROMOFORM  1,1,2,2-TETRACHLOROETHANE  1,2,3-TRICHLOROPROPANE	14.48		1064637	43.26 PPBV 43.82 PPBV 40.96 PPBV	98
				877015	43.82 PPBV	99
	ISOPROPYLBENZENE	15.11		2177847	40.96 PPBV	98
	BROMOBENZENE	15.23			44.03 PPBV	
	2-CHLOROTOLUENE	15.68	126			
	n-PROPYLBENZENE	15.71	120	586139	46.02 PPBV 47.68 PPBV	99
	4-ETHYLTOLUENE	15.88	105	2017631	47.68 PPBV	97
	1,3,5-TRIMETHYLBENZENE	15.98	105	1608134	46.88 PPBV 52.36 PPBV	97
	ALPHA-METHYLSTYRENE	16.19	118	763278	52.36 PPBV	99
	tert-BUTYLBENZENE	16.47	134	392287	48.48 PPBV 49.27 PPBV	# 89
	1,2,4-TRIMETHYLBENZENE	16.48	105	1519819	49.27 PPBV	98
95)	m-DICHLOROBENZENE	16.67		1039777 	45.95 PPBV	100

(#) = qualifier out of range (m) = manual integration

3W22424.D M3W886.M Mon May 16 12:42:36 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W22424.D Vial: 2

MS Integration Params: rteint.p

Quant Time: May 16 09:33:20 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 09:33:09 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Con	npound	R.T.	QIon	Response	Conc Un	it	Qva	lue
96) BEN 97) p-I 98) sec 99) p-I 100) o-I 101) n-E 102) HEX 103) HEX	ZYL CHLORIDE DICHLOROBENZENE C-BUTYLBENZENE SOPROPYLTOLUENE DICHLOROBENZENE BUTYLBENZENE KACHLOROETHANE KACHLOROBUTADIENE	16.67 16.76 16.80 16.99 17.19 17.51 17.99	91 146 134 134 146 134 117 225	1306334 1016666 471581 494976 937771 423919 633938 520986	51.40 46.56 47.19 48.48 48.02 51.09 43.63 46.93	PPBV PPBV PPBV PPBV PPBV PPBV PPBV	###	99 98 86 87 99 88 99
	2,4-TRICHLOROBENZENE PHTHALENE	19.23 19.37	180 128	384378 511882	51.25 54.48			98 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22424.D M3W886.M Mon May 16 12:42:36 2011 MS3W

573 of 685
ACCUTEST.
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LABORATORIES

Vial: 2 Data File : C:\MSDCHEM\1\DATA\3W22424.D

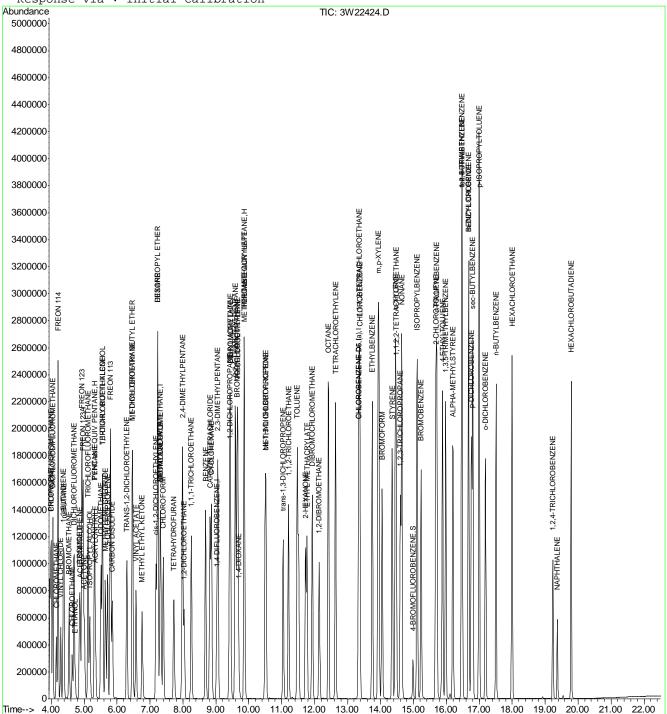
: 13 May 2011 5:20 pm Operator: yunxiac Acq On : ic886-40 : MS3W Sample Inst : MS12271, V3W886,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 10:12 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011 Response via : Initial Calibration



3W22424.D M3W886.M

Mon May 16 12:42:37 2011

MS3W

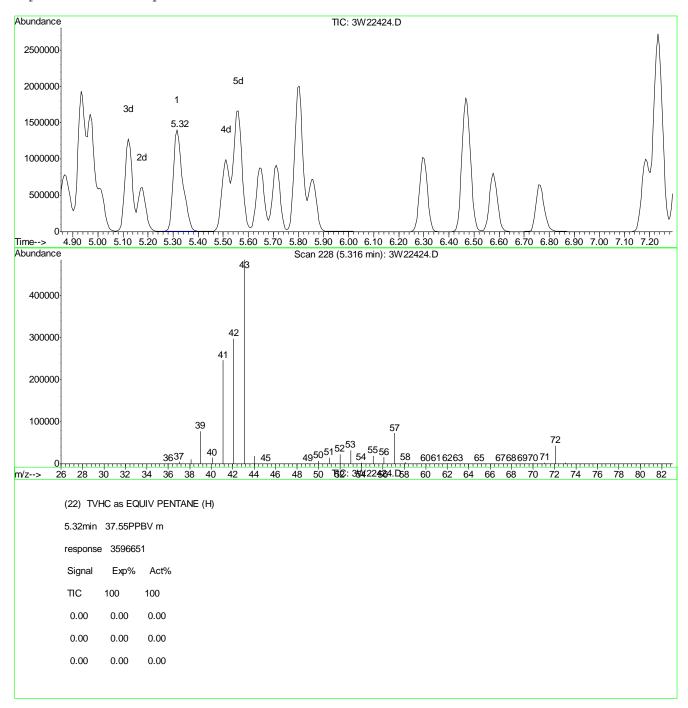


MS Integration Params: rteint.p

Quant Time: May 16 10:12 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22424.D M3W886.M

Mon May 16 11:02:44 2011

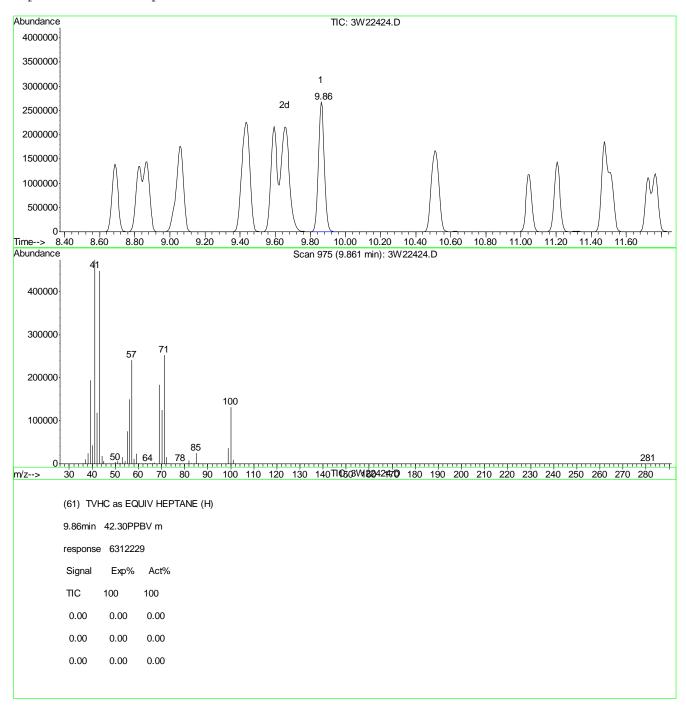


MS Integration Params: rteint.p

Quant Time: May 16 10:12 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22424.D M3W886.M

Mon May 16 11:03:06 2011



Data File : C:\MSDCHEM\1\DATA\3W22425.D Vial: 1 Acq On : 13 May 2011 7:21 pm Operator: yunxiac Inst : MS3W Sample : ic886-0.5
Misc : MS12271,V3W886,,,,,1 : ic886-0.5 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 09:41:19 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 09:41:16 2011 Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Ui	nits D $\epsilon$	ev(Min)
1) BROMOCHLOROMETHANE	7.31	128	91675	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	9.02	114	91675 382259 163378 163378	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	13.32	82	163378	10.00	PPBV	0.00
105) CHLOROBENZENE-D5 (a)	13.32	82	163378	10.00	PPRV	0.00
System Monitoring Compounds 83) 4-BROMOFLUOROBENZENE						
83) 4-BROMOFLUOROBENZENE	14.98	95	82300	4.77	PPBV	0.00
Spiked Amount 5.000	Range 65	- 128	Recove	ry =	95.40	)%
Target Compounds  4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROFLUOROMETHANE 14) DICHLOROFLUOROMETHANE 15) ACETONITRILE 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 21) PENTANE 22) TVHC as EQUIV PENTANE 23) IODOMETHANE 24) 1,1-DICHLOROETHYLENE 25) CARBON DISULFIDE 26) ETHANOL 27) BROMOETHENE 28) ACRYLONITRILE 29) METHYLENE CHLORIDE 30) 3-CHLOROPROPENE 31) FREON 113 32) TRANS-1,2-DICHLOROETHYLE 33) TERTIARY BUTYL ALCOHOL 34) METHYL TERTIARY BUTYL ET 35) TETRAHYDROFURAN 36) HEXANE 37) VINYL ACETATE 38) 1,1-DICHLOROETHANE 39) METHYL ETHYL KETONE 40) cis-1,2-DICHLOROETHYLENE 41) DIISOPROPYL ETHER 42) ETHYL ACETATE 43) METHYL ACRYLATE					(	value
4) CHLORODIFLUOROMETHANE	4.00	67	2053	0.55	PPBV	95
5) DICHLORODIFLUOROMETHANE	4.06	85	18324	0.53	PPBV	99
6) PROPYLENE	4.01	41	8551	0.56	PPBV	87
7) FREON 114	4.22	8.5	20675	0.55	PPBV	9.8
8) CHLOROMETHANE	4.17	5.0	7596	0.49	PPBV	96
9) VINYL CHLORIDE	4.30	62	7830	0.53	PPBV	99
10) 1 3-RUTADIENE	4 37	54	5692	0.53	PPRV ±	± 82
11) n-RIITANE	4 40	43	13414	0.31	DDRV	97
12) BROMOMETHANE	4 56	94	7183	0.13	DDRV	95
13) CHIOROFTHAME	4 65	64	3751	0.53	DDBN	96
14) DICUI ODORI HODOMETUANE	4.05	67	15791	0.52	זמממ	9.8
15) ACETONITE II E	4.70	41	E026	0.52	DDDM 1	JO ↓ 70
16) EDEON 122	4.92	4.7	14267	0.50	PPDV +	1 72
10) FREUN 123	4.95	117	7001	0.51	PPBV	96
10) EDICHI ODOELHODOMEEHAME	4.90	1 / 1	16406	0.52	PPDV	96
10) IRICHLOROFLUOROMETHANE	2.13	101	10420	0.51	PPDV	99
19) ISOPROPIL ALCOHOL	5.23	45	10870	0.49	PPDI	88
20) ACETONE	5.06	58	2570	0.48	PPBV #	Ŧ 58
21) PENTANE	5.32	42	8878	0.49	PPBV	90
22) TVHC as EQUIV PENTANE	5.32	TIC	49374m	0.55	PPBV	
23) IODOMETHANE	5.51	142	17398	0.52	PPBV	99
24) 1,1-DICHLOROETHYLENE	5.55	96	6625	0.53	PPBV	94
25) CARBON DISULFIDE	5.86	76	17463	0.51	PPBV	84
26) ETHANOL	4.77	45	4032	0.63	PPBV	95
27) BROMOETHENE	4.87	106	6457	0.51	PPBV	99
28) ACRYLONITRILE	5.36	52	3228	0.47	PPBV	98
29) METHYLENE CHLORIDE	5.66	84	5882	0.48	PPBV	92
30) 3-CHLOROPROPENE	5.71	76	2439	0.45	PPBV ‡	‡ 65
31) FREON 113	5.80	151	11276	0.54	PPBV	96
32) TRANS-1,2-DICHLOROETHYLE	NE 6.30	96	6015	0.52	PPBV	99
33) TERTIARY BUTYL ALCOHOL	5.64	59	10955	0.50	PPBV	67
34) METHYL TERTIARY BUTYL ET	HE 6.51	73	13812	0.52	PPBV	94
35) TETRAHYDROFURAN	7.80	72	2204	0.53	PPBV	95
36) HEXANE	7.23	57	10586	0.51	PPBV	91
37) VINYL ACETATE	6.59	86	829	0.41	PPBV ‡	‡ <b>4</b> 0
38) 1,1-DICHLOROETHANE	6.47	63	10881	0.49	PPBV	99
39) METHYL ETHYL KETONE	6.81	72	2169	0.49	PPBV	95
40) cis-1,2-DICHLOROETHYLENE	7.18	96	5808	0.50	PPBV	97
41) DIISOPROPYL ETHER	7.26	45	17125	0.50	PPBV	100
42) ETHYL ACETATE	7.35	61	1283	0.30	PPBV ‡	† 61
43) METHYL ACRYLATE	7.35	55	7625	0.47	PPBV ‡	† 71

3W22425.D M3W886.M Mon May 16 12:42:38 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: May 16 09:41:19 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 09:41:16 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	CHLOROFORM	7.40	83	11415	0.48 PPBV	91
,	2,4-DIMETHYLPENTANE			11010	0 50	
	1,1,1-TRICHLOROETHANE	8.25	97	11842 10670 12638	0.48 PPBV	
	CARBON TETRACHLORIDE	8.83	117	12638	0.51 PPBV	99
	1,2-DICHLOROETHANE	8.04	62	6721	0.50 PPBV	97
	BENZENE	8.69	78	15403	0.46 PPBV	98
51)	CYCLOHEXANE	8.88	69	3510	0.50 PPBV 0.46 PPBV 0.57 PPBV 0.48 PPBV 0.50 PPBV	# 86
	2,3-DIMETHYLPENTANE	9.06	71	4503	0.48 PPBV	# 81
	TRICHLOROETHYLENE	9.66	95	7177	0.50 PPBV	96
	1,2-DICHLOROPROPANE	9.42	63	5810	0.46 PPBV	96
55)	DIBROMOMETHANE	9.42 9.44	174	5876	0.46 PPBV 0.46 PPBV	97
56)	ETHYL ACRYLATE	0 17	55	7107	77GGG 01\ 0	# 95
	BROMODICHLOROMETHANE	9.64	55 83	10247 28496 2693 11681	0.46 PPBV	99
	2,2,4-TRIMETHYLPENTANE	9.59	57	28496	0.49 PPBV	100
59)	1,4-DIOXANE	9.79	88	2693	0.48 PPBV	95
60)	HEPTANE	9.85	43	11681	0.48 PPBV	96
61)	TVHC as EQUIV HEPTANE	9.86	TIC	63872m	0.47 PPBV	
	METHYL METHACRYLATE	9.90	69	63872m 3958	0.44 PPBV	# 1
63)	METHYL ISOBUTYL KETONE	10.55	58	11681 63872m 3958 3189	0.43 PPBV	92
64)	cis-1,3-DICHLOROPROPENE	10 52	75	7097	0 44 DDRV	95
	TOLUENE	11.47	92	3189 7097 9099	0.43 PPBV	91
	trans-1,3-DICHLOROPROPENE	11.05	75	6025	0.41 PPBV	92
67)	1,1,2-TRICHLOROETHANE	11.21	83	5155	0.49 PPBV	96
	2-HEXANONE	11.77	58	3797	0.44 PPBV	# 80
70)	ETHYL METHACRYLATE	11.78	69	4703	0.43 PPBV 0.41 PPBV 0.49 PPBV 0.44 PPBV 0.43 PPBV	88
71)	TETRACHLOROETHYLENE	12.63	164	6897	0.49 PPBV	96
72)	DIBROMOCHLOROMETHANE	11.92	129	6897 8949 6985	0.46 PPBV	98
	1,2-DIBROMOETHANE	12.14	107	6985 12326 6328 11648 18105	0.46 PPBV	# 99
	OCTANE	12.42	43	12326 6328	0.48 PPBV	95
75)	1,1,1,2-TETRACHLOROETHANE	13.35	131	6328	0.49 PPBV	94
	CHLOROBENZENE	13.36	112	11648	0.48 PPBV	97
	ETHYLBENZENE	13.74	91	11648 18105	0.47 PPBV	99
78)	m,p-XYLENE	13.94	106	13118 6420	0.93 PPBV	94
79)	O-XYLENE	14.45	106	6420	0.49 PPBV	98
80)	STYRENE	14.34	104	6232 10086 7135	0.34 PPBV	97
81)	NONANE	14.64	43	10086	0.45 PPBV	95
	BROMOFORM					93
84)	1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE	14.47	83	7447	0.43 PPBV	99
85)	1,2,3-TRICHLOROPROPANE	14.60	75	6118	0.44 PPBV	95
86)	ISOPROPYLBENZENE	15.10 15.23	105	17967	0.48 PPBV	
87)	BROMOBENZENE	15.23	77	7055	0.44 PPBV	98
88)	2-CHLOROTOLUENE	15.68	126	3998	0.44 PPBV	
89)	n-PROPYLBENZENE	15.71	120	3472	0.39 PPBV	96
90)	4-ETHYLTOLUENE	15.88	105	12034	0.41 PPBV	# 99
91)	1,3,5-TRIMETHYLBENZENE	15.97	105	3472 12034 9625 2955	0.40 PPBV	
92)	ALPHA-METHYLSTYRENE	16.19	118	2955	0.32 PPBV	
	tert-BUTYLBENZENE	16.46	134	2304	0.41 PPBV	
94)	1,2,4-TRIMETHYLBENZENE			8862		
	m-DICHLOROBENZENE	16.67	146	6005	0.38 PPBV	96

3W22425.D M3W886.M Mon May 16 12:42:38 2011 MS3W

578 of 685
ACCUTEST

JA81330
LABORATORIES

<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\3W22425.D Vial: 1

Acq On : 13 May 2011 7:21 pm Operator: yunxiac Inst : MS3W : ic886-0.5 Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 09:41:19 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 09:41:16 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96)	BENZYL CHLORIDE	16.67	91	7127	0.40 PPBV	95
97)	p-DICHLOROBENZENE	16.75	146	6275	0.41 PPBV	97
98)	sec-BUTYLBENZENE	16.80	134	2330	0.36 PPBV	# 71
99)	p-ISOPROPYLTOLUENE	16.99	134	2564	0.40 PPBV	96
100)	o-DICHLOROBENZENE	17.18	146	5755	0.42 PPBV	97
101)	n-BUTYLBENZENE	17.50	134	1953	0.37 PPBV	# 85
102)	HEXACHLOROETHANE	17.99	117	3536	0.37 PPBV	95
103)	HEXACHLOROBUTADIENE	19.79	225	3174	0.41 PPBV	99
104)	1,2,4-TRICHLOROBENZENE	19.24	180	2245	0.43 PPBV	95
106)	NAPHTHALENE	19.38	128	2213	0.37 PPBV	# 79

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22425.D M3W886.M Mon May 16 12:42:38 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\3W22425.D Vial: 1

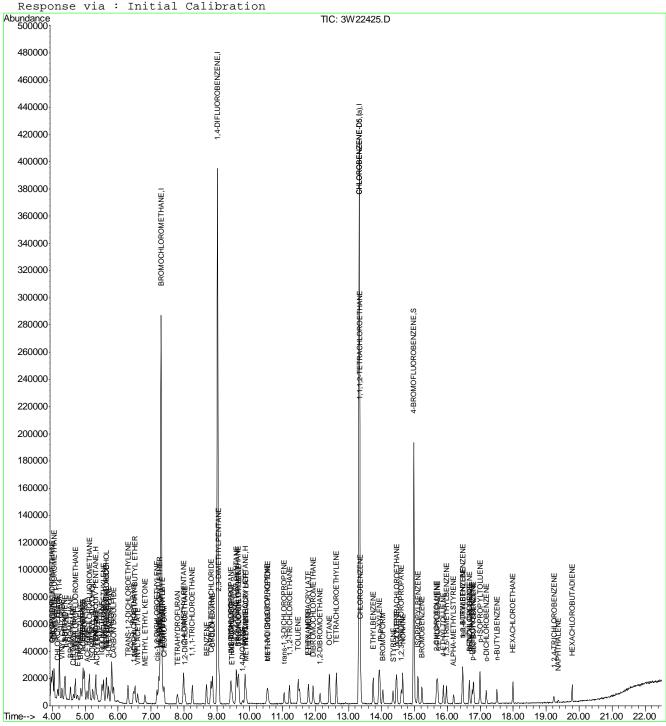
: 13 May 2011 Operator: yunxiac Acq On 7:21 pm : ic886-0.5 : MS3W Sample Misc : MS12271, V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 11:05 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 11:05:58 2011



3W22425.D M3W886.M

Mon May 16 12:42:39 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\3W22425.D Vial: 1

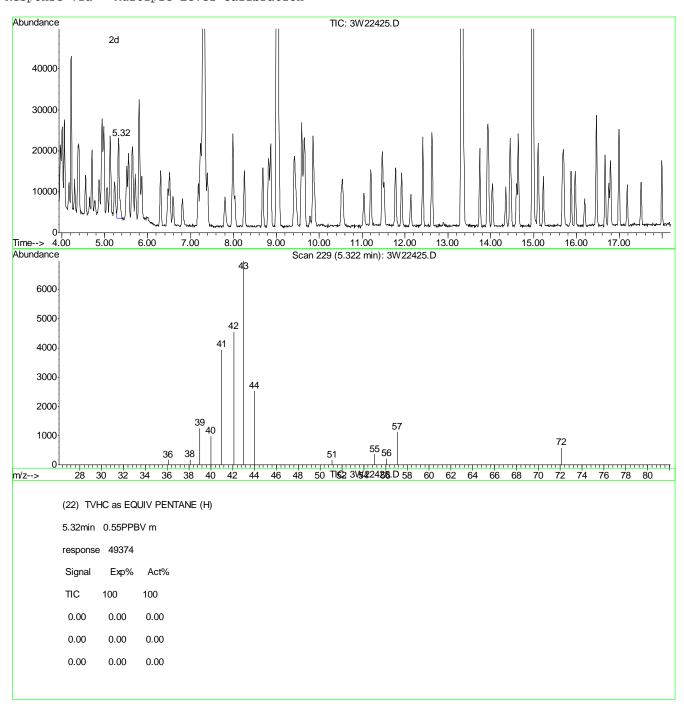
Acq On : 13 May 2011 7:21 pm Operator: yunxiac Sample : ic886-0.5 Inst : MS3W Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 11:05 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22425.D M3W886.M

Mon May 16 11:05:33 2011

MS3W

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ACCLITEST

JA81330

LABBRATORIES

Data File : C:\MSDCHEM\1\DATA\3W22425.D Vial: 1

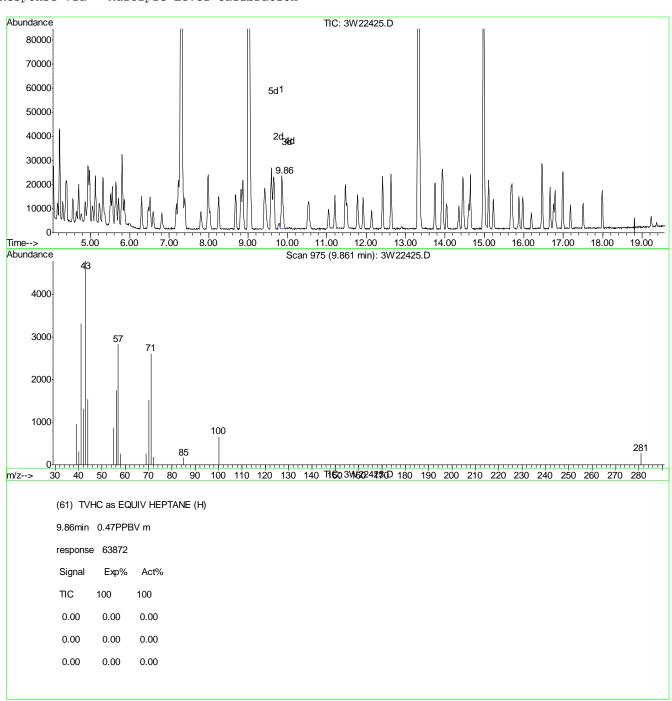
Acq On : 13 May 2011 7:21 pm Operator: yunxiac Sample : ic886-0.5 Inst : MS3W Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 11:05 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 10:55:05 2011 Response via : Multiple Level Calibration



3W22425.D M3W886.M

Mon May 16 11:05:41 2011



Data File : C:\MSDCHEM\1\DATA\3W22426.D Vial: 6 Acq On : 14 May 2011 12:01 am Operator: yunxiac Inst : MS3W Sample : icv886-10 : MS12271,V3W886,,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: May 16 16:34:44 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

Internal Standards				Conc U	nits I	Dev(Min)
1) BROMOCHLOROMETHANE	7.30	128	98948	10.00	PPBV	-0.01
49) 1,4-DIFLUOROBENZENE	9.01	114	443274	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	13.32	82	211323	10.00	PPBV	0.00
1) BROMOCHLOROMETHANE 49) 1,4-DIFLUOROBENZENE 68) CHLOROBENZENE-D5 105) CHLOROBENZENE-D5 (a)	13.32	82	211323	10.00	PPBV	0.00
System Monitoring Compounds 83) 4-BROMOFLUOROBENZENE						
83) 4-BROMOFLUOROBENZENE	14.98	95	121597	5.45	PPBV	0.00
Spiked Amount 5.000 R  Target Compounds 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 21) PENTANE 22) TVHC as EQUIV PENTANE 23) IODOMETHANE 24) 1,1-DICHLOROETHYLENE 25) CARBON DISULFIDE 26) ETHANOL 27) BROMOETHENE 29) METHYLENE CHLORIDE 30) 3-CHLOROPROPENE 31) FREON 113 32) TRANS-1,2-DICHLOROETHYLEN 33) TERTIARY BUTYL ALCOHOL 34) METHYL TERTIARY BUTYL ETH 35) TETRAHYDROFURAN 36) HEXANE 37) VINYL ACETATE 38) 1,1-DICHLOROETHANE 39) METHYL ETHYL KETONE 40) cis-1,2-DICHLOROETHYLENE 41) DIISOPROPYL ETHER 42) ETHYL ACETATE 44) CHLOROFORM 45) 2,4-DIMETHYLPENTANE 46) 1,1,1-TRICHLOROETHANE 47) CARBON TETRACHLORIDE	lange 65	- 128	Recove	ery =	109.0	0%
Target Compounds						Qvalue
4) CHLORODIFLUOROMETHANE	3.99	67	35352	8.77	PPBV	99
5) DICHLORODIFLUOROMETHANE	4.05	85	330884	8.91	PPBV	100
6) PROPYLENE	4.00	41	127385	7.74	PPBV	99
7) FREON 114	4.21	85	327708	8.06	PPBV	94
8) CHLOROMETHANE	4.15	50	142603	8.58	PPBV	98
9) VINYL CHLORIDE	4.29	62	147682	9.34	PPBV	98
10) 1,3-BUTADIENE	4.37	54	110706	9.27	PPBV	97
11) n-BUTANE	4.39	43	227579	8.07	PPBV	100
12) BROMOMETHANE	4.54	94	128400	8.78	PPBV	99
13) CHLOROETHANE	4.64	64	76232	9.76	PPBV	99
16) FREON 123	4.93	83	306251	10.01	PPBV	100
17) FREON 123A	4.97	117	164616	10.09	PPBV	100
18) TRICHLOROFLUOROMETHANE	5.12	101	309984	8.98	PPBV	100
19) ISOPROPYL ALCOHOL	5.17	45	200252	8.30	PPBV	99
20) ACETONE	5.01	58	43524	7.49	PPBV	95
21) PENTANE	5.31	42	163060	8.35	PPBV	99
22) TVHC as EQUIV PENTANE	5.31	TIC	728754m	7.55	PPBV	
23) IODOMETHANE	5.50	142	345269	9.49	PPBV	99
24) 1,1-DICHLOROETHYLENE	5.55	96	118057	8.74	PPBV	99
25) CARBON DISULFIDE	5.85	76	353690	9.62	PPBV	99
26) ETHANOL	4.72	45	51403	7.48	PPBV	99
27) BROMOETHENE	4.86	106	127855	9.36	PPD11	99
29) METHYLENE CHLORIDE	5.64	84	113203	8.07	PDD11	98
30) 3-CHLOROPROPENE	5./1	/ b	105535	10.02	PPDM	98
31) FREUN 113	5.80	121	195536	10.01	PPDM	100
32) TRANS-I, Z-DICHLOROEIHILEN	E 56	90 E0	123029	0.01	PPBV	99
24) METUVI TEDTIADV DIITVI ETU	5.50	72	232003	9.70	PPDV	90
35) TETHIL IEKIIAKI BULLU EIN	7 72	73	4221Q	8.00	DDDM	99
36) HEYANE	7.73	7 Z	208942	9.30	DDBM	99
37) VINVI. ACETATE	7.23 6.57	86	19446	8 90	DDBM	# 93
38) 1 1-DICHLOROETHANE	6 47	63	228354	9 52	PPRV	100
39) METHYL ETHYL KETONE	6 76	72	42902	8 97	DDRV	96
40) cis-1 2-DICHLOROETHYLENE	7 18	96	126044	10.08	PPRV	100
41) DIISOPROPYI, ETHER	7 24	45	312749	8 43	PPRV	100
42) ETHYL ACETATE	7.31	61	28561	9.02	PPRV	95
44) CHLOROFORM	7.39	83	250901	9.77	PPBV	100
45) 2,4-DIMETHYLPENTANE	7.98	57	260890	10.15	PPBV	100
46) 1,1,1-TRICHLOROETHANE	8.25	97	234680	9.82	PPBV	99
47) CARBON TETRACHLORIDE	8.82	117	257856	9.73	PPBV	100

3W22426.D M3W886.M Mon May 16 16:41:52 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

MS Integration Params: rteint.p

Quant Time: May 16 16:34:44 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	1,2-DICHLOROETHANE	8.03	62	146845	9.68 PPBV	100
,	BENZENE	8.68	78	356714	9.14 PPBV	100
51)	CYCLOHEXANE	8.86	69	62250	8.70 PPBV	97
52)	2,3-DIMETHYLPENTANE	9.06	71	62250 90667	8.78 PPBV	98
53)	TRICHLOROETHYLENE	9.66	95	157876	9.45 PPBV	99
54)	1,2-DICHLOROPROPANE	9.41	63	135292	9.27 PPBV	99
57)	BROMODICHLOROMETHANE	9.64	83	243820	9.48 PPBV	100
58)	2,2,4-TRIMETHYLPENTANE	9.59	57	629495	9.33 PPBV	100
	1,4-DIOXANE	9.70	88	62118	9.55 PPBV	
60)	HEPTANE	9.85	43	259094	9.24 PPBV	99
61)	TVHC as EQUIV HEPTANE	9.86	TIC	1453291m	8.92 PPBV	
62)	METHYL METHACRYLATE	9.87	69	88352	8.47 PPBV	# 91
63)	METHYL ISOBUTYL KETONE	10.50	58	85255	9.86 PPBV	98
64)	cis-1,3-DICHLOROPROPENE	10.52	75	183877	9.43 PPBV	99
65)	TOLUENE	11.47	92	224953	9.18 PPBV	99
66)	trans-1,3-DICHLOROPROPENE	11.04	75	174552	9.38 PPBV	99
67)	1,1,2-TRICHLOROETHANE	11.20	83	114372	9.37 PPBV	99
69)	2-HEXANONE	11.72	58	101993	9.17 PPBV	95
71)	TETRACHLOROETHYLENE	12.63	164	162957	8.96 PPBV	99
72)	DIBROMOCHLOROMETHANE	11.92	129	228280	9.16 PPBV	100
73)	1,2-DIBROMOETHANE	12.13	107	192112	9.75 PPBV	100
74)	OCTANE	12.42	43	310017	9.33 PPBV	99
75)	1,1,1,2-TETRACHLOROETHANE	13.34	131	154640	9.32 PPBV	99
76)	CHLOROBENZENE	13.36	112	276998	8.84 PPBV	99
77)	ETHYLBENZENE	13.74	91	421608	8.51 PPBV	100
78)	m,p-XYLENE	13.93	106	301147	16.59 PPBV	98
79)	O-XYLENE	14.45	106	143033	8.36 PPBV	98
80)	STYRENE	14.35	104	216068	8.66 PPBV	99
81)	NONANE	14.64	43	282628	9.79 PPBV	99
82)	BROMOFORM	14.04	173	200983	9.34 PPBV	100
84)	1,1,2,2-TETRACHLOROETHANE	14.47	83	198315	8.91 PPBV	100
85)	1,2,3-TRICHLOROPROPANE	14.60	75	153397	8.47 PPBV	99
86)	ISOPROPYLBENZENE	15.10	105	398518	8.29 PPBV	100
88)	2-CHLOROTOLUENE	15.67	126	105430	8.92 PPBV	99
89)	n-PROPYLBENZENE	15.70	120	99258	8.12 PPBV	
,	4-ETHYLTOLUENE	15.87	105	346071	9.04 PPBV	
	1,3,5-TRIMETHYLBENZENE	15.97	105	278987	8.99 PPBV	
,	tert-BUTYLBENZENE	16.46	134	65179	8.91 PPBV	
	1,2,4-TRIMETHYLBENZENE	16.47	105	267237	9.58 PPBV	
	m-DICHLOROBENZENE	16.67	146	190421	9.17 PPBV	
,	BENZYL CHLORIDE	16.67	91	212342	9.24 PPBV	
	p-DICHLOROBENZENE	16.75		185765	9.41 PPBV	
,	sec-BUTYLBENZENE	16.79	134	76802	8.50 PPBV	
	p-ISOPROPYLTOLUENE	16.98		82468	8.93 PPBV	
	O-DICHLOROBENZENE	17.18	146			
,	n-BUTYLBENZENE	17.50	134	69041		
,	HEXACHLOROBUTADIENE	19.79	225		8.58 PPBV	
104)	1,2,4-TRICHLOROBENZENE	19.23	180	55521	8.19 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W22426.D M3W886.M Mon May 16 16:41:52 2011 MS3W

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ACCUTEST

JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\3W22426.D Vial: 6

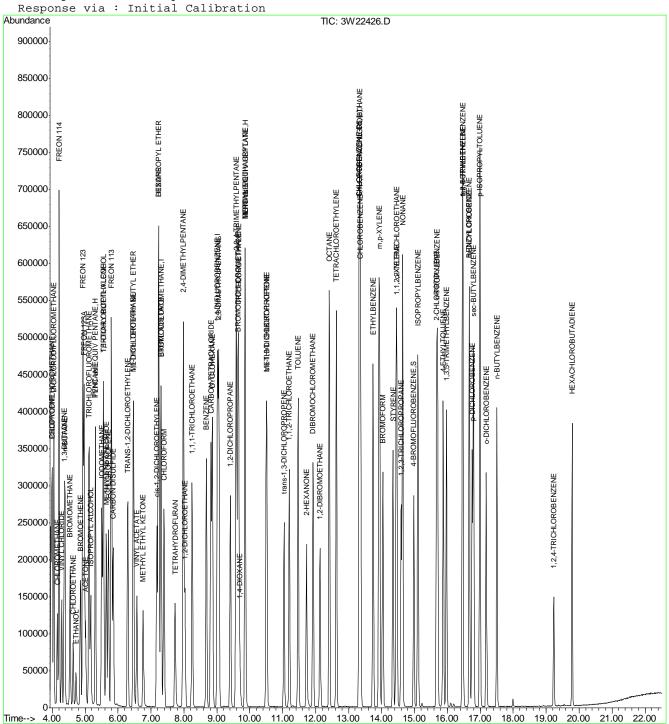
Acq On : 14 May 2011 12:01 am Operator: yunxiac Sample : icv886-10 Inst : MS3W Misc : MS12271,V3W886,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 16:41 2011 Quant Results File: M3W886.RES

 $\label{eq:method} \begin{tabular}{ll} $\tt C:\MSDCHEM\1\METHODS\M3W886.M$ (RTE Integrator) \\ $\tt Title$ &: TO15 by GCMS $w/Rtx-1$, 60 m X 0.32mm ID X 1.0 um \\ \end{tabular}$ 

Last Update : Mon May 16 16:34:23 2011



3W22426.D M3W886.M

Mon May 16 16:41:53 2011

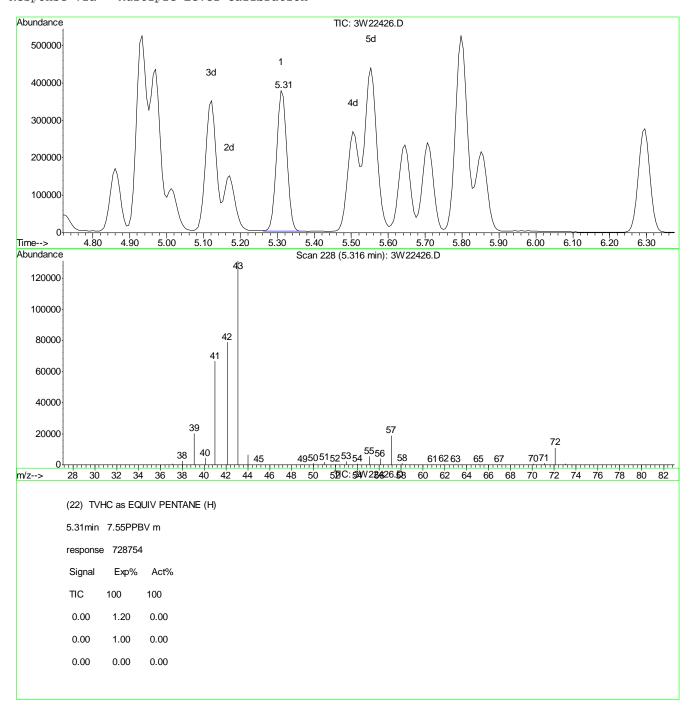


MS Integration Params: rteint.p

Quant Time: May 16 16:39 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W22426.D M3W886.M

Mon May 16 16:40:55 2011



Data File : C:\MSDCHEM\1\DATA\3W22426.D Vial: 6

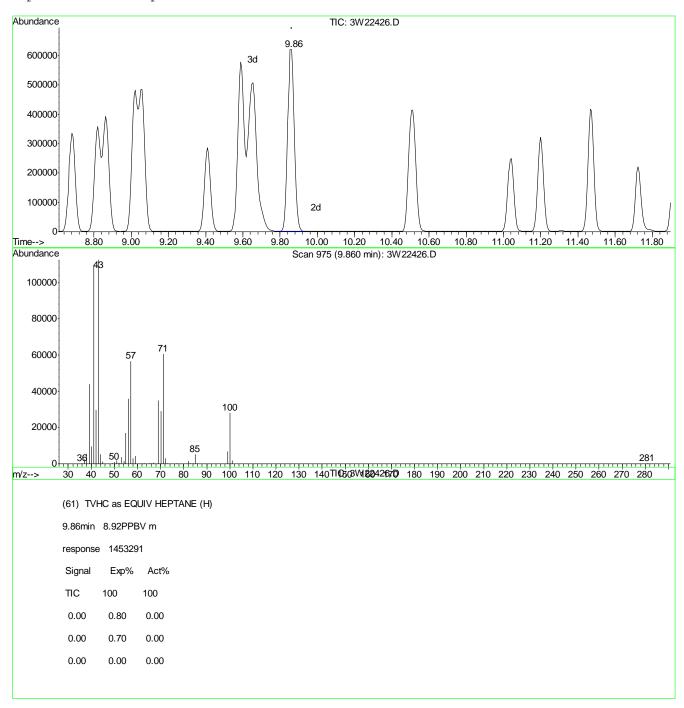
: 14 May 2011 12:01 am Operator: yunxiac Acq On Sample : icv886-10 : MS3W Inst Misc : MS12271, V3W886, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: May 16 16:41 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W22426.D M3W886.M

Mon May 16 16:41:44 2011

587 of 685 ACCUTEST: JA81330

MS3W

MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:34 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Initial Calibration

DataAcq Meth : T0153W

Inte	rnal Standards	R.T.	QIon	Response	Conc U	nits D	ev(Min)
1)	BROMOCHLOROMETHANE	7.31	128	102842	10.00	PPBV	0.00
49)	1,4-DIFLUOROBENZENE	9.02	114	446279	10.00	PPBV	0.00
	CHLOROBENZENE-D5	13.31	82	217987	10.00	PPBV	-0.02
	CHLOROBENZENE-D5 (a)	13.31	82	102842 446279 217987 217987	10.00	PPRV	-0.02
ŕ	, ,	13.31	02	217707	10.00	1121	0.02
Syst	em Monitoring Compounds 4-BROMOFLUOROBENZENE	14.06	٥٦	110004	4 01	DDDII	0 00
Sp	iked Amount 5.000	Range 65	- 128	Recove	ery =	98.2	08
	et Compounds						Qvalue
4)	CHLORODIFLUOROMETHANE	4.02	67	35555	8.49	PPBV	99
5)	DICHLORODIFLUOROMETHANE	4.08	85	312162	8.09	PPBV	99
6)	PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE	4.03	41	35555 312162 146593 340648 151416 146322 114418 245829 122509 76741 300178 132094 296334 155982 299835 236459 55368 173660 1027239m 318384	8.57	PPBV	98
7)	FREON 114	4.24	85	340648	8.06	PPBV	96
8)	CHLOROMETHANE	4.18	50	151416	8.77	PPBV	98
9)	VINYL CHLORIDE	4.32 4.39	62	146322	8.91	PPBV	99
10)	1,3-BUTADIENE	4.39	54	114418	9.22	PPBV	93
11)	n-BUTANE	4.41	43	245829	8.39	PPBV	99
12)	BROMOMETHANE	4.41 4.56	94	122509	8.06	PPBV	98
13)	CHLOROETHANE	4.66	64	76741	9.45	PPBV	99
		4.72	67	300178	8.76	PPBV	99
15)	ACETONITRILE FREON 123	4.91	41	132094	9.75	PPBV	99
16)	FREON 123 FREON 123A	4.95	83	296334	9.32	PPBV	99
17)	FREON 123A	4.99	117	155982	9.20	PPBV	91
18)	TRICHLOROFLUOROMETHANE	5.14	101	299835	8.35	PPBV	100
19)	ISOPROPYL ALCOHOL	5.19	45	236459	9.43	PPBV	100
20)	ACETONE	5.03	58	55368	9.16	PPBV	91
21)	PENTANE	5.33	42	173660	8.56	PPBV	99
22)	TVHC as EQUIV PENTANE	5.33	TIC	1027239m	10.24	PPBV	
	IODOMETHANE	5.53	142	318384	8.42	PPBV	97
24)	1,1-DICHLOROETHYLENE	5.57	96	120095	8.55	PPBV	92
25)	CARBON DISULFIDE	5.87	76	329570	8.63	PPBV	98
26)	ETHANOL	4.75	45	61365	8.59	PPBV	99
27)	BROMOETHENE	4.88	106	121968	8.59	PPBV	100
28)	ACRYLONITRILE	5.36	52	91630	11.86	PPBV	98
29)	METHYLENE CHLORIDE	5.66	84	115168	7.90	PPBV	90
30)	3-CHLOROPROPENE	5.73	76	62071	10.22	PPBV	# 87
31)	FREON 113	5.82	151	189093	8.09	PPBV	95
32)	TRANS-1,2-DICHLOROETHYLE	ENE 6.30	96	119614	9.17	PPBV	96
33)	TERTIARY BUTYL ALCOHOL	5.57	59	258255	10.42	PPBV	98
34)	METHYL TERTIARY BUTYL ET	THE 6.48	73	280676	9.43	PPBV	96
35)	TETRAHYDROFURAN	7.73	72	53096	10.28	PPBV	# 90
36)	HEXANE	7.24	57	219105	9.48	PPBV	96
37)	VINYL ACETATE	6.58	86	27474	12.10	PPBV	# 76
38)	1,1-DICHLOROETHANE	6.47	63	255826	10.27	PPBV	99
39)	1,1-DICHLOROETHANE METHYL ETHYL KETONE	6.77	72	47230	9.50	PPBV	# 84
40)	cis-1,2-DICHLOROETHYLENE	7.19	96	131771	10.14	PPBV	93
41)	DIISOPROPYL ETHER	7.24	45	403627	10.47	PPBV	99
42)	DIISOPROPYL ETHER ETHYL ACETATE	7.31	61	34224	10.40	PPBV	# 85
	METHYL ACRYLATE	5.53 5.53 5.53 5.57 4.75 4.88 5.36 5.66 5.73 5.82 ENE 6.30 5.57 CHE 6.48 7.73 7.24 6.58 6.47 6.77 7.19 7.24 7.31 7.31	55	211735	11.74	PPBV	98

(#) = qualifier out of range (m) = manual integration

3W23018.D M3W886.M Tue Aug 16 09:03:23 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23018.D Vial: 2
Acq On : 24 Jun 2011 9:27 am Operator: yunxiac
Sample : CC886-10 Inst : MS3W
Misc : MS14246,V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:34 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : TO153W

44) CHLOROFORM 7.40 83 263164 9.86 PPBV 99 45) 2.4-DIMETHYLPENTANE 7.98 57 272861 10.21 PPBV 98 46) 1.1.1-TRICHLOROETHANE 8.26 97 246300 9.92 PPBV 98 47) CARBON TETRACHLORIDE 8.82 117 258423 9.38 PPBV 100 48) 1.2-DICHLOROETHANE 8.03 62 167160 10.60 PPBV 99 50) BENZENE 8.87 69 63129 8.76 PPBV 99 51) CYCLOHEXANE 8.87 69 63129 8.76 PPBV 99 52) 2.3-DIMETHYLPENTANE 9.05 71 92646 8.91 PPBV 93 53) TRICHLOROETHALENE 9.66 95 162994 9.69 PPBV 97 54) 1.2-DICHLOROPROPANE 9.41 63 167934 11.43 PPBV 97 55) DIBROMOMETHANE 9.43 174 139365 9.32 PPBV 97 55) DIBROMOMETHANE 9.43 57 326212 11.99 PPBV 98 57) BROMODICHLOROMETHANE 9.63 83 273300 10.56 PPBV 100 58) 2.2.4-TRINETHYLPENTANE 9.58 57 710412 10.45 PPBV 100 59) 1.4-DIOXANE 9.48 302395 10.72 PPBV 94 61) TVHC as EQUIV HEPTANE 9.58 57 TICL 1687683 10.33 PPBV 95 62) METHYL ISOBUTYL KETOME 10.49 58 98193 11.28 PPBV # 90 64) cis-1,3-DICHLOROPROPENE 11.46 92 88193 11.28 PPBV # 90 64) cis-1,3-DICHLOROPROPENE 11.46 92 88193 11.28 PPBV # 90 66) LTAMS-1,3-DICHLOROPROPENE 11.49 95 89193 11.28 PPBV # 90 66) LTAMS-1,3-DICHLOROPROPENE 11.07 59 258732 10.49 PPBV 99 66) LTAMS-1,3-DICHLOROPROPENE 11.07 59 258732 10.49 PPBV 99 66) LTAMS-1,3-DICHLOROPROPENE 11.07 59 216618 11.04 PPBV 99 67) 1,1-2-TRICHLOROPROPENE 11.07 59 258732 10.49 PPBV 99 68) 2-HEXANONE 11.19 83 1355974 11.07 PPBV 98 69) 2-HEXANONE 11.19 83 1355974 11.07 PPBV 98 67) 1,1-2-TRICHLOROPROPENE 11.07 59 164450 10.26 PPBV 99 72) DIBROMOCHLOROMETHANE 12.61 164 161152 8.59 PPBV 99 73) 1.2-DIBROMOCHANE 13.39 106 374899 20.02 PPBV 99 74) OCTANE 13.79 11.19 11.47 PPBV 98 75) CHLOROBENZENE 13.73 10.66 182021 10.31 PPBV 99 76) CHLOROBENZENE 14.43 106 182021 10.31 PPBV 99 77) 0-XYLENE 14.43 106 182021 10.31 PPBV 99 78) NONANE 14.43 106 182021 10.31 PPBV 99 79) 0-XYLENE 14.33 104 262677 10.21 PPBV 99 79) 0-XYLENE 14.33 104 262677 10.21 PPBV 99 79) 0-XYLENE 14.33 104 262677 10.21 PPBV 99 79) 0-XYLENE 14.33 104 262677 10.21 PPBV 99 79) 0-XYLENE 14.33 104 262677 10.21 PPBV 99 79) NEDROMORENZENE 15.69 105 343669 10.74 PPBV 99 79) 1.7.2-TETRACHLO		Compound	R.T.	QIon	Response	Conc Un	it	Qvalue
45   2,4-DIMETHYLIPENTANE	44)	CHLOROFORM	7.40	83	263164	9.86	PPBV	99
46) 1,1,1-TECHLOROETHANE 47) CARBON TETRACHLORIDE 48, 2,2-DICHLOROETHANE 48, 03, 62, 167160 10.60 PPBV 99 50) BENZENE 8.68, 78, 400324 10.19 PPBV 95 51) CYCLOHEXANE 8.67, 69, 63139 8.76 PPBV 95 52) 2,3-DIMETHYLDENTANE 9.05, 71, 92646 8.91 PPBV 97 54) 1,2-DICHLOROFTHANE 9.05, 71, 92646 8.91 PPBV 97 54) 1,2-DICHLOROFTHANE 9.05, 71, 92646 8.91 PPBV 97 54) 1,2-DICHLOROPROPANE 9.41, 63, 167934 11.43 PPBV 97 55) DIBROMOMETHANE 9.43, 174, 139365 9.32 PPBV 98 57) BROMODICHLOROMETHANE 9.43, 174, 139365 9.32 PPBV 98 57) BROMODICHLOROMETHANE 9.63, 83, 273300 10.56 PPBV 100 58) 2,2-4-TRIMETHYLPENTANE 9.68, 83, 273300 10.56 PPBV 100 59) 1,4-DIOXANE 9.69, 88, 67658 10.33 PPBV 95 60) HBPTANE 9.85, 77 10412 10.45 PPBV 100 59) 1,4-DIOXANE 9.85, 81, 83, 83, 83, 83, 83, 83, 83, 83, 83, 83			7.98	57	272861			
48			8.26	97	246300	9.92	PPBV	98
48			8.82	117	258423	9.38	PPBV	100
S2  2,3-DIMETHYLPENTANE	48)	1,2-DICHLOROETHANE		62	167160	10.60	PPBV	99
S2  2,3-DIMETHYLPENTANE	50)	BENZENE	8.68	78	400324	10.19	PPBV	99
541   1,2-DICHLOROPROPANE   9.41   63   167934   11.43   PPBV   97   55   DIBROMOMETHANE   9.43   774   139365   9.32   PPBV   98   57   BROMODICHLOROMETHANE   9.63   83   273300   10.56   PPBV   100   58   2,2.4-TRIMETHYLPENTANE   9.58   57   710412   10.45   PPBV   100   59   1,4-DIOXANE   9.69   88   67658   10.33   PPBV   95   60   HEPTANE   9.85   43   302395   10.72   PPBV   94   61   TVIC as EQUIV HEPTANE   9.85   43   302395   10.72   PPBV   94   62   METHYL METHACRYLATE   9.86   69   112351   10.70   PPBV   93   63   METHYL ISOBUTYL KETONE   10.49   58   98193   11.28   PPBV   97   65   TOLUENE   10.51   75   216618   11.04   PPBV   97   65   TOLUENE   11.46   92   258732   10.49   PPBV   99   66   trans-1,3-DICHLOROPROPENE   11.46   92   258732   10.49   PPBV   99   67   11.2-TRICHLOROFTANE   11.75   69   164450   10.26   PPBV   96   67   1.1,2-TRICHLOROFTANE   11.75   69   164450   10.26   PPBV   99   70   ETHYL METHACRYLATE   11.75   69   164450   10.26   PPBV   99   71   TETRACHLOROFTHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   75   1,1,1,2-TETRACHLOROETHANE   13.32   131   171540   10.02   PPBV   97   76   CHLOROBENZENE   13.35   11.2   304922   9.43   PPBV   98   77   ETHYLBENZENE   13.91   106   374899   20.02   PPBV   97   77   77   77   77   77   77   7	51)	CYCLOHEXANE	8.87	69	63139	8.76	PPBV	95
541   1,2-DICHLOROPROPANE   9.41   63   167934   11.43   PPBV   97   55   DIBROMOMETHANE   9.43   774   139365   9.32   PPBV   98   57   BROMODICHLOROMETHANE   9.63   83   273300   10.56   PPBV   100   58   2,2.4-TRIMETHYLPENTANE   9.58   57   710412   10.45   PPBV   100   59   1,4-DIOXANE   9.69   88   67658   10.33   PPBV   95   60   HEPTANE   9.85   43   302395   10.72   PPBV   94   61   TVIC as EQUIV HEPTANE   9.85   43   302395   10.72   PPBV   94   62   METHYL METHACRYLATE   9.86   69   112351   10.70   PPBV   93   63   METHYL ISOBUTYL KETONE   10.49   58   98193   11.28   PPBV   97   65   TOLUENE   10.51   75   216618   11.04   PPBV   97   65   TOLUENE   11.46   92   258732   10.49   PPBV   99   66   trans-1,3-DICHLOROPROPENE   11.46   92   258732   10.49   PPBV   99   67   11.2-TRICHLOROFTANE   11.75   69   164450   10.26   PPBV   96   67   1.1,2-TRICHLOROFTANE   11.75   69   164450   10.26   PPBV   99   70   ETHYL METHACRYLATE   11.75   69   164450   10.26   PPBV   99   71   TETRACHLOROFTHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   75   1,1,1,2-TETRACHLOROETHANE   13.32   131   171540   10.02   PPBV   97   76   CHLOROBENZENE   13.35   11.2   304922   9.43   PPBV   98   77   ETHYLBENZENE   13.91   106   374899   20.02   PPBV   97   77   77   77   77   77   77   7			9.05	71	92646	8.91	PPBV	93
541   1,2-DICHLOROPROPANE   9.41   63   167934   11.43   PPBV   97   55   DIBROMOMETHANE   9.43   774   139365   9.32   PPBV   98   57   BROMODICHLOROMETHANE   9.63   83   273300   10.56   PPBV   100   58   2,2.4-TRIMETHYLPENTANE   9.58   57   710412   10.45   PPBV   100   59   1,4-DIOXANE   9.69   88   67658   10.33   PPBV   95   60   HEPTANE   9.85   43   302395   10.72   PPBV   94   61   TVIC as EQUIV HEPTANE   9.85   43   302395   10.72   PPBV   94   62   METHYL METHACRYLATE   9.86   69   112351   10.70   PPBV   93   63   METHYL ISOBUTYL KETONE   10.49   58   98193   11.28   PPBV   97   65   TOLUENE   10.51   75   216618   11.04   PPBV   97   65   TOLUENE   11.46   92   258732   10.49   PPBV   99   66   trans-1,3-DICHLOROPROPENE   11.46   92   258732   10.49   PPBV   99   67   11.2-TRICHLOROFTANE   11.75   69   164450   10.26   PPBV   96   67   1.1,2-TRICHLOROFTANE   11.75   69   164450   10.26   PPBV   99   70   ETHYL METHACRYLATE   11.75   69   164450   10.26   PPBV   99   71   TETRACHLOROFTHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   73   1,2-DIBROMOCHLOROMETHANE   11.91   129   255824   9.95   PPBV   99   75   1,1,1,2-TETRACHLOROETHANE   13.32   131   171540   10.02   PPBV   97   76   CHLOROBENZENE   13.35   11.2   304922   9.43   PPBV   98   77   ETHYLBENZENE   13.91   106   374899   20.02   PPBV   97   77   77   77   77   77   77   7	53)	TRICHLOROETHYLENE	9.66	95	162994	9.69	PPBV	97
56)       ETHYL ACRYLATE       9.43       55       236212       11.99       PPBV       100         57)       BROMODICHLOROMETHANE       9.63       83       273300       10.56       PPBV       100         58)       2,2,4-TRIMETHYLEENTANE       9.69       88       67658       10.33       PPBV       95         60)       HEPTANE       9.85       43       302395       10.72       PPBV       94         61)       TVHC as EQUIV HEPTANE       9.85       TIC       1687683m       10.29       PPBV       94         62)       METHYLI METHACRYLATE       9.86       69       11.2351       10.70       PPBV       93         63)       METHYLI METHACRYLATE       9.86       69       11.2351       10.70       PPBV       93         63)       METHYLI METHACRYLATE       10.51       75       216618       11.04       PPBV       97         65)       TOLUENE       11.46       92       258732       10.49       PPBV       99         66)       trans-1,3-DICHLOROPROPENE       11.07       75       216618       11.07       PPBV       96         67)       1,1,2-TETRICHLOROETHANE       11.19       83       135	54)	1,2-DICHLOROPROPANE	9.41	63	167934	11.43	PPBV	97
56)       ETHYL ACRYLATE       9.43       55       236212       11.99       PPBV       100         57)       BROMODICHLOROMETHANE       9.63       83       273300       10.56       PPBV       100         58)       2,2,4-TRIMETHYLEENTANE       9.69       88       67658       10.33       PPBV       95         60)       HEPTANE       9.85       43       302395       10.72       PPBV       94         61)       TVHC as EQUIV HEPTANE       9.85       TIC       1687683m       10.29       PPBV       94         62)       METHYLI METHACRYLATE       9.86       69       11.2351       10.70       PPBV       93         63)       METHYLI METHACRYLATE       9.86       69       11.2351       10.70       PPBV       93         63)       METHYLI METHACRYLATE       10.51       75       216618       11.04       PPBV       97         65)       TOLUENE       11.46       92       258732       10.49       PPBV       99         66)       trans-1,3-DICHLOROPROPENE       11.07       75       216618       11.07       PPBV       96         67)       1,1,2-TETRICHLOROETHANE       11.19       83       135	55)	DIBROMOMETHANE	9.43	174	139365	9.32	PPBV	94
60) HEPTANE         9.69         88         6/658         10.72         PPBV         94           61) TVHC as EQUIV HEPTANE         9.85         TIC         1687683m         10.29         PPBV         94           62) METHYL ISOBUTYL KETONE         10.49         58         98193         11.28         PPBV         93           63) METHYL ISOBUTYL KETONE         10.51         75         216618         11.04         PPBV         97           65) TOLUENE         11.46         92         258732         10.49         PPBV         99           66) trans-1,3-DICHLOROPROPENE         11.03         75         210618         11.07         PPBV         99           67) 1,1,2-TRICHLOROETHANE         11.19         83         135974         11.07         PPBV         98           67) 2-HEXANONE         11.71         58         131591         11.47         PPBV         89           70) ETHYL METHACRYLATE         11.75         69         164450         10.26         PPBV         99           71) TETRACHLOROETHYLENE         12.61         164         161152         8.59         PPBV         99           72) DIBROMOCHLOROMETHANE         11.91         129         255824         9.95	56)	ETHYL ACRYLATE	9.43	55	236212	11.99	PPBV	98
60) HEPTANE         9.69         88         6/658         10.72         PPBV         94           61) TVHC as EQUIV HEPTANE         9.85         TIC         1687683m         10.29         PPBV         94           62) METHYL ISOBUTYL KETONE         10.49         58         98193         11.28         PPBV         93           63) METHYL ISOBUTYL KETONE         10.51         75         216618         11.04         PPBV         97           65) TOLUENE         11.46         92         258732         10.49         PPBV         99           66) trans-1,3-DICHLOROPROPENE         11.03         75         210618         11.07         PPBV         99           67) 1,1,2-TRICHLOROETHANE         11.19         83         135974         11.07         PPBV         98           67) 2-HEXANONE         11.71         58         131591         11.47         PPBV         89           70) ETHYL METHACRYLATE         11.75         69         164450         10.26         PPBV         99           71) TETRACHLOROETHYLENE         12.61         164         161152         8.59         PPBV         99           72) DIBROMOCHLOROMETHANE         11.91         129         255824         9.95	57)	BROMODICHLOROMETHANE	9.63	83	273300	10.56	PPBV	100
60) HEPTANE         9.69         88         6/658         10.72         PPBV         94           61) TVHC as EQUIV HEPTANE         9.85         TIC         1687683m         10.29         PPBV         94           62) METHYL ISOBUTYL KETONE         10.49         58         98193         11.28         PPBV         93           63) METHYL ISOBUTYL KETONE         10.51         75         216618         11.04         PPBV         97           65) TOLUENE         11.46         92         258732         10.49         PPBV         99           66) trans-1,3-DICHLOROPROPENE         11.03         75         210618         11.07         PPBV         99           67) 1,1,2-TRICHLOROETHANE         11.19         83         135974         11.07         PPBV         98           67) 2-HEXANONE         11.71         58         131591         11.47         PPBV         89           70) ETHYL METHACRYLATE         11.75         69         164450         10.26         PPBV         99           71) TETRACHLOROETHYLENE         12.61         164         161152         8.59         PPBV         99           72) DIBROMOCHLOROMETHANE         11.91         129         255824         9.95	58)	2,2,4-TRIMETHYLPENTANE	9.58	57	710412	10.45	PPBV	100
61) TYHC AS EQUIV HEPTANE 9.85 TIC 1687683m 10.29 PPBV 62) METHYL METHACRYLATE 9.86 69 112351 10.70 PPBV 93 63) METHYL ISOBUTYL KETONE 10.49 58 98193 11.28 PPBV # 90 64) cis-1,3-DICHLOROPROPENE 10.51 75 216618 11.04 PPBV 97 65) TOLUENE 11.46 92 258732 10.49 PPBV 99 66) trans-1,3-DICHLOROPROPENE 11.30 75 210094 11.21 PPBV 98 67) 1,1,2-TRICHLOROETHANE 11.19 83 135974 11.07 PPBV 96 69) 2-HEXANONE 11.71 58 131591 11.47 PPBV 89 70 ETHYL METHACRYLATE 11.75 69 164450 10.26 PPBV 99 71) TETRACHLOROETHYLENE 12.61 164 161152 8.59 PPBV 99 72) DIBROMOCHLOROMETHANE 11.91 129 255824 9.95 PPBV 99 73) 1,2-DIBROMOCHANE 12.12 107 216009 10.63 PPBV 100 74) OCTANE 12.40 43 389676 11.37 PPBV 97 75) 1,1,1,2-TETRACHLOROETHANE 12.40 43 389676 11.37 PPBV 97 75) 1,1,1,2-TETRACHLOROETHANE 13.32 131 171540 10.02 PPBV 97 76) CHLOROBENZENE 13.73 91 510456 9.99 PPBV 97 77) ETHYLBENZENE 13.73 91 510456 9.99 PPBV 97 97 90 -XYLENE 13.35 112 304922 9.43 PPBV 98 97 99 O-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 104 262677 10.21 PPBV 99 82) BROMOFORM 14.63 43 375543 12.61 PPBV 99 82) BROMOFORM 14.63 43 375543 12.61 PPBV 99 86) I.2,3-TRICHLOROPROPANE 14.45 83 254617 11.09 PPBV 99 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87 BROMOBENZENE 15.69 105 510572 10.29 PPBV 99 99 90 4-ETHYLTOLUENE 15.65 126 123948 10.16 PPBV 99 99 90 4-ETHYLTOLUENE 15.65 126 123948 10.16 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 510572 10.29 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 543649 10.02 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 543649 10.02 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 543649 10.02 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 544689 10.03 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 343689 10.74 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 343689 10.74 PPBV 99 90 11.3,5-TRIMETHYLBENZENE 15.99 105 327625 11.15 PPBV 99 90 11.2,4-TRIMETHYLBENZENE 15.99 105 327625 11.15 PPBV 99 90 11.2,4-TRIMETHYLBENZENE 16.44 134 77820 10.31 PPBV 99 90 1	59)	1,4-DIOXANE	9.69	88	67658	10.33	PPBV	95
63) METHYL ISOBUTYL KETONE	60)	HEPTANE	9.85	43	302395	10.72	PPBV	94
63) METHYL ISOBUTYL KETONE	61)	TVHC as EQUIV HEPTANE	9.85	TIC	1687683m	10.29	PPBV	
63) METHYL ISOBUTYL KETONE	62)	METHYL METHACRYLATE	9.86	69	112351	10.70	PPBV	93
66) trans-1,3-DICHLOROPROPENE 11.03 75 210094 11.21 PPBV 98 67) 1,1,2-TRICHLOROETHANE 11.19 83 135974 11.07 PPBV 96 69) 2-HEXANONE 11.71 58 131591 11.47 PPBV 89 70) ETHYL METHACRYLATE 11.75 69 164450 10.26 PPBV 91 71) TETRACHLOROETHYLENE 12.61 164 161152 8.59 PPBV 99 72) DIBROMOCHLOROMETHANE 11.91 129 255824 9.95 PPBV 99 73) 1,2-DIBROMOETHANE 12.12 107 216009 10.63 PPBV 100 74) OCTANE 12.40 43 389676 11.37 PPBV 93 75) 1,1,1,2-TETRACHLOROETHANE 13.32 131 171540 10.02 PPBV 97 76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77 ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) o-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 104 262677 10.21 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 95 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 85) 1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87 BROMOBENZENE 15.50 77 232644 9.94 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.02 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 105 343689 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 105 343689 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 16.44 134 77820 10.31 PPBV 99 99 1.2,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 99 1.1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 99 1.1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95 m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99 95 m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	63)	METHYL ISOBUTYL KETONE	10.49	58	98193	11.28	PPBV	# 90
66) trans-1,3-DICHLOROPROPENE 11.03 75 210094 11.21 PPBV 98 67) 1,1,2-TRICHLOROETHANE 11.19 83 135974 11.07 PPBV 96 69) 2-HEXANONE 11.71 58 131591 11.47 PPBV 89 70) ETHYL METHACRYLATE 11.75 69 164450 10.26 PPBV 91 71) TETRACHLOROETHYLENE 12.61 164 161152 8.59 PPBV 99 72) DIBROMOCHLOROMETHANE 11.91 129 255824 9.95 PPBV 99 73) 1,2-DIBROMOETHANE 12.12 107 216009 10.63 PPBV 100 74) OCTANE 12.40 43 389676 11.37 PPBV 93 75) 1,1,1,2-TETRACHLOROETHANE 13.32 131 171540 10.02 PPBV 97 76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77 ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) o-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 104 262677 10.21 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 95 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 85) 1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87 BROMOBENZENE 15.50 77 232644 9.94 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.02 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 105 343689 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 105 343689 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 16.44 134 77820 10.31 PPBV 99 99 1.2,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 99 1.1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 99 1.1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95 m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99 95 m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	64)	cis-1,3-DICHLOROPROPENE	10.51	75	216618	11.04	PPBV	97
66) trans-1,3-DICHLOROPROPENE 11.03 75 210094 11.21 PPBV 98 67) 1,1,2-TRICHLOROETHANE 11.19 83 135974 11.07 PPBV 96 69) 2-HEXANONE 11.71 58 131591 11.47 PPBV 89 70) ETHYL METHACRYLATE 11.75 69 164450 10.26 PPBV 91 71) TETRACHLOROETHYLENE 12.61 164 161152 8.59 PPBV 99 72) DIBROMOCHLOROMETHANE 11.91 129 255824 9.95 PPBV 99 73) 1,2-DIBROMOETHANE 12.12 107 216009 10.63 PPBV 100 74) OCTANE 12.40 43 389676 11.37 PPBV 93 75) 1,1,1,2-TETRACHLOROETHANE 13.32 131 171540 10.02 PPBV 97 76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77 ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) o-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 104 262677 10.21 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 95 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 85) 1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87 BROMOBENZENE 15.50 77 232644 9.94 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.02 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 120 126349 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 105 343689 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 15.69 105 343689 10.74 PPBV 99 99 1.3,3,5-TRIMETHYLBENZENE 16.44 134 77820 10.31 PPBV 99 99 1.2,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 99 1.1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 99 1.1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95 m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99 95 m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	65)	TOLUENE	11.46	92	258732	10.49	PPBV	99
69) 2-HEXANONE       11.71       58       131591       11.47       PPBV       89         70) ETHYL METHACRYLATE       11.75       69       164450       10.26       PPBV       91         71) TETRACHLOROETHYLENE       12.61       164       161152       8.59       PPBV       99         72) DIBROMOCHLOROMETHANE       11.91       129       255824       9.95       PPBV       99         73) 1,2-DIBROMOETHANE       12.12       107       216009       10.63       PPBV       100         74) OCTANE       12.40       43       389676       11.37       PPBV       93         75) 1,1,1,2-TETRACHLOROETHANE       13.35       112       304922       9.43       PPBV       97         76) CHLOROBENZENE       13.35       112       304922       9.43       PPBV       97         77) ETHYLBENE       13.73       91       510456       9.99       PPBV       100         78) m,p-XYLENE       13.91       106       374899       20.02       PPBV       97         80) STYRENE       14.43       106       182021       10.31       PPBV       98         81) NONANE       14.63       43       375543       12.61	66)	trans-1,3-DICHLOROPROPENE	11.03	75	210094	11.21	PPBV	98
69) 2-HEXANONE       11.71       58       131591       11.47       PPBV       89         70) ETHYL METHACRYLATE       11.75       69       164450       10.26       PPBV       91         71) TETRACHLOROETHYLENE       12.61       164       161152       8.59       PPBV       99         72) DIBROMOCHLOROMETHANE       11.91       129       255824       9.95       PPBV       99         73) 1,2-DIBROMOETHANE       12.12       107       216009       10.63       PPBV       100         74) OCTANE       12.40       43       389676       11.37       PPBV       93         75) 1,1,1,2-TETRACHLOROETHANE       13.35       112       304922       9.43       PPBV       97         76) CHLOROBENZENE       13.35       112       304922       9.43       PPBV       97         77) ETHYLBENE       13.73       91       510456       9.99       PPBV       100         78) m,p-XYLENE       13.91       106       374899       20.02       PPBV       97         80) STYRENE       14.43       106       182021       10.31       PPBV       98         81) NONANE       14.63       43       375543       12.61			11.19	83	135974	11.07	PPBV	96
71) TETRACHLOROETHYLENE 12.61 164 161152 8.59 PPBV 99 72) DIBROMOCHLOROMETHANE 11.91 129 255824 9.95 PPBV 99 73) 1,2-DIBROMOETHANE 12.12 107 216009 10.63 PPBV 100 74) OCTANE 12.40 43 389676 11.37 PPBV 93 75) 1,1,1,2-TETRACHLOROETHANE 13.32 131 171540 10.02 PPBV 97 76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77) ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) O-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 99 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 84) 1,1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 98 87) BROMOBENZENE 15.09 105 510572 10.29 PPBV 99 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 90) 4-ETHYLTOLUENE 15.65 126 123948 10.16 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,7-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	69)	2-HEXANONE	11.71	58	131591	11.47	PPBV	89
71) TETRACHLOROETHYLENE 12.61 164 161152 8.59 PPBV 99 72) DIBROMOCHLOROMETHANE 11.91 129 255824 9.95 PPBV 99 73) 1,2-DIBROMOETHANE 12.12 107 216009 10.63 PPBV 100 74) OCTANE 12.40 43 389676 11.37 PPBV 93 75) 1,1,1,2-TETRACHLOROETHANE 13.32 131 171540 10.02 PPBV 97 76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77) ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) O-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.43 106 182021 10.31 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 99 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 84) 1,1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 98 87) BROMOBENZENE 15.09 105 510572 10.29 PPBV 99 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 99 90) 4-ETHYLTOLUENE 15.65 126 123948 10.16 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,7-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	70)	ETHYL METHACRYLATE	11.75	69	164450	10.26	PPBV	91
72) DIBROMOCHLOROMETHANE       11.91       129       255824       9.95       PPBV       99         73) 1,2-DIBROMOETHANE       12.12       107       216009       10.63       PPBV       100         74) OCTANE       12.40       43       389676       11.37       PPBV       93         75) 1,1,1,2-TETRACHLOROETHANE       13.35       112       304922       9.43       PPBV       98         76) CHLOROBENZENE       13.35       112       304922       9.43       PPBV       98         77) ETHYLBENZENE       13.73       91       510456       9.99       PPBV       100         78) m,p-XYLENE       13.91       106       374899       20.02       PPBV       97         79) o-XYLENE       14.43       106       182021       10.31       PPBV       98         80) STYRENE       14.33       104       262677       10.21       PPBV       99         81) NONANE       14.63       43       375543       12.61       PPBV       95         82) BROMOFORM       14.02       173       218944       9.86       PPBV       100         84) 1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67       PPB	71)	TETRACHLOROETHYLENE		164	161152	8.59	PPBV	99
73)       1,2-DIBROMOETHANE       12.12       107       216009       10.63       PPBV       100         74)       OCTANE       12.40       43       389676       11.37       PPBV       93         75)       1,1,1,2-TETRACHLOROETHANE       13.32       131       171540       10.02       PPBV       97         76)       CHLOROBENZENE       13.35       112       304922       9.43       PPBV       98         77)       ETHYLBENZENE       13.73       91       510456       9.99       PPBV       100         78)       m,p-XYLENE       13.91       106       374899       20.02       PPBV       97         79)       o-XYLENE       14.43       106       182021       10.31       PPBV       98         80)       STYRENE       14.33       104       262677       10.21       PPBV       99         81)       NONANE       14.63       43       375543       12.61       PPBV       95         82)       BROMOFORM       14.02       173       218944       9.86       PPBV       100         84)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67       PPBV			11.91	129	255824	9.95	PPBV	99
76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77) ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) o-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.33 104 262677 10.21 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 95 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 85) 1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87) BROMOBENZENE 15.65 126 123948 10.16 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.65 126 123948 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99	73)	1,2-DIBROMOETHANE	12.12	107	216009	10.63	PPBV	100
76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77) ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) o-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.33 104 262677 10.21 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 95 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 85) 1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87) BROMOBENZENE 15.65 126 123948 10.16 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.65 126 123948 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99	74)	OCTANE	12.40	43	389676	11.37	PPBV	93
76) CHLOROBENZENE 13.35 112 304922 9.43 PPBV 98 77) ETHYLBENZENE 13.73 91 510456 9.99 PPBV 100 78) m,p-XYLENE 13.91 106 374899 20.02 PPBV 97 79) o-XYLENE 14.43 106 182021 10.31 PPBV 98 80) STYRENE 14.33 104 262677 10.21 PPBV 99 81) NONANE 14.63 43 375543 12.61 PPBV 95 82) BROMOFORM 14.02 173 218944 9.86 PPBV 100 84) 1,1,2,2-TETRACHLOROETHANE 14.45 83 254617 11.09 PPBV 100 85) 1,2,3-TRICHLOROPROPANE 14.58 75 199181 10.67 PPBV 98 86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87) BROMOBENZENE 15.65 126 123948 10.16 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.65 126 123948 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.45 105 320725 11.15 PPBV 99	75)	1,1,1,2-TETRACHLOROETHANE	13.32	131	171540	10.02	PPBV	97
78) m,p-XYLENE       13.91       106       374899       20.02 PPBV       97         79) o-XYLENE       14.43       106       182021       10.31 PPBV       98         80) STYRENE       14.33       104       262677       10.21 PPBV       99         81) NONANE       14.63       43       375543       12.61 PPBV       95         82) BROMOFORM       14.02       173       218944       9.86 PPBV       100         84) 1,1,2,2-TETRACHLOROETHANE       14.45       83       254617       11.09 PPBV       100         85) 1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86) ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87) BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88) 2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89) n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90) 4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91) 1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV			13.35	112	304922	9.43	PPBV	98
85)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86)       ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87)       BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88)       2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89)       n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90)       4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91)       1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV       99         92)       ALPHA-METHYLSTYRENE       16.17       118       147392       10.84 PPBV       99         93)       tert-BUTYLBENZENE       16.44       134       77820       10.31 PPBV       99         94)       1,2,4-TRIMETHYLBENZENE       16.45       105       320725       11.15 PPBV       99         95)       m-DICHLOROBENZENE       16.65       146       215530       10.06 PPBV       100	77)	ETHYLBENZENE	13.73	91	510456	9.99	PPBV	100
85)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86)       ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87)       BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88)       2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89)       n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90)       4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91)       1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV       99         92)       ALPHA-METHYLSTYRENE       16.17       118       147392       10.84 PPBV       99         93)       tert-BUTYLBENZENE       16.44       134       77820       10.31 PPBV       99         94)       1,2,4-TRIMETHYLBENZENE       16.45       105       320725       11.15 PPBV       99         95)       m-DICHLOROBENZENE       16.65       146       215530       10.06 PPBV       100	78)	m,p-XYLENE	13.91	106	374899	20.02	PPBV	97
85)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86)       ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87)       BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88)       2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89)       n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90)       4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91)       1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV       99         92)       ALPHA-METHYLSTYRENE       16.17       118       147392       10.84 PPBV       99         93)       tert-BUTYLBENZENE       16.44       134       77820       10.31 PPBV       99         94)       1,2,4-TRIMETHYLBENZENE       16.45       105       320725       11.15 PPBV       99         95)       m-DICHLOROBENZENE       16.65       146       215530       10.06 PPBV       100	79)	O-XYLENE	14.43	106	182021	10.31	PPBV	98
85)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86)       ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87)       BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88)       2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89)       n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90)       4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91)       1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV       99         92)       ALPHA-METHYLSTYRENE       16.17       118       147392       10.84 PPBV       99         93)       tert-BUTYLBENZENE       16.44       134       77820       10.31 PPBV       99         94)       1,2,4-TRIMETHYLBENZENE       16.45       105       320725       11.15 PPBV       99         95)       m-DICHLOROBENZENE       16.65       146       215530       10.06 PPBV       100	80)	STYRENE		104	262677	10.21	PPBV	99
85)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86)       ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87)       BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88)       2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89)       n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90)       4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91)       1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV       99         92)       ALPHA-METHYLSTYRENE       16.17       118       147392       10.84 PPBV       99         93)       tert-BUTYLBENZENE       16.44       134       77820       10.31 PPBV       99         94)       1,2,4-TRIMETHYLBENZENE       16.45       105       320725       11.15 PPBV       99         95)       m-DICHLOROBENZENE       16.65       146       215530       10.06 PPBV       100	81)	NONANE	14.63	43	375543	12.61	PPBV	95
85)       1,2,3-TRICHLOROPROPANE       14.58       75       199181       10.67 PPBV       98         86)       ISOPROPYLBENZENE       15.09       105       510572       10.29 PPBV       99         87)       BROMOBENZENE       15.20       77       232644       9.94 PPBV       94         88)       2-CHLOROTOLUENE       15.65       126       123948       10.16 PPBV       100         89)       n-PROPYLBENZENE       15.69       120       126349       10.02 PPBV       99         90)       4-ETHYLTOLUENE       15.86       105       439218       11.13 PPBV       99         91)       1,3,5-TRIMETHYLBENZENE       15.95       105       343689       10.74 PPBV       99         92)       ALPHA-METHYLSTYRENE       16.17       118       147392       10.84 PPBV       99         93)       tert-BUTYLBENZENE       16.44       134       77820       10.31 PPBV       99         94)       1,2,4-TRIMETHYLBENZENE       16.45       105       320725       11.15 PPBV       99         95)       m-DICHLOROBENZENE       16.65       146       215530       10.06 PPBV       100	82)	BROMOFORM		173	218944	9.86	PPBV	100
86) ISOPROPYLBENZENE 15.09 105 510572 10.29 PPBV 99 87) BROMOBENZENE 15.20 77 232644 9.94 PPBV 94 88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.86 105 439218 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	84)	1,1,2,2-TETRACHLOROETHANE	14.45	83	254617	11.09	PPBV	100
88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.86 105 439218 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	85)	1,2,3-TRICHLOROPROPANE	14.58	75	199181	10.67	PPBV	98
88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.86 105 439218 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	86)	ISOPROPYLBENZENE	15.09	105	510572	10.29	PPBV	99
88) 2-CHLOROTOLUENE 15.65 126 123948 10.16 PPBV 100 89) n-PROPYLBENZENE 15.69 120 126349 10.02 PPBV 99 90) 4-ETHYLTOLUENE 15.86 105 439218 11.13 PPBV 99 91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	87)	BROMOBENZENE	15.20	77	232644	9.94	PPBV	94
91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	88)	2-CHLOROTOLUENE	15.65					
91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	89)	n-PROPYLBENZENE	15.69	120	126349	10.02	PPBV	99
91) 1,3,5-TRIMETHYLBENZENE 15.95 105 343689 10.74 PPBV 99 92) ALPHA-METHYLSTYRENE 16.17 118 147392 10.84 PPBV 99 93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	90)	4-ETHYLTOLUENE	15.86	105	439218	11.13	PPBV	99
93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	91)	1,3,5-TRIMETHYLBENZENE	15.95	105	343689	10.74	PPBV	99
93) tert-BUTYLBENZENE 16.44 134 77820 10.31 PPBV 99 94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	92)	ALPHA-METHYLSTYRENE	16.17	118	147392	10.84	PPBV	99
94) 1,2,4-TRIMETHYLBENZENE 16.45 105 320725 11.15 PPBV 99 95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100			16.44	134	77820	10.31	PPBV	99
95) m-DICHLOROBENZENE 16.65 146 215530 10.06 PPBV 100	94)	1,2,4-TRIMETHYLBENZENE	16.45	105	320725	11.15	PPBV	99
	95)	m-DICHLOROBENZENE	16.65	146	215530	10.06	PPBV	100

3W23018.D M3W886.M Tue Aug 16 09:03:23 2011 MS3W



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23018.D Vial: 2 Acq On : 24 Jun 2011 9:27 am Operator: yunxiac Sample : CC886-10 Inst : MS3W : MS14246,V3W910,,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: Jun 27 08:49:34 2011 Quant Results File: M3W886.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011

Response via : Initial Calibration

DataAcq Meth : T0153W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
97) 98)	BENZYL CHLORIDE p-DICHLOROBENZENE sec-BUTYLBENZENE	16.65 16.73 16.77	91 146 134	250490 204435 91640	10.57 PPBV 10.04 PPBV 9.83 PPBV	
100)	p-ISOPROPYLTOLUENE o-DICHLOROBENZENE n-BUTYLBENZENE	16.97 17.16 17.49	134 146 134	91872 190099 74322	9.65 PPBV 10.43 PPBV 9.60 PPBV	98 99 # 88
103)	HEXACHLOROETHANE HEXACHLOROBUTADIENE 1,2,4-TRICHLOROBENZENE NAPHTHALENE	17.97 19.77 19.21 19.35	117 225 180 128	142682 108159 63232 87896	10.53 PPBV 10.44 PPBV 9.04 PPBV 10.03 PPBV	96 100 98 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed 3W23018.D M3W886.M Tue Aug 16 09:03:23 2011 MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23018.D Vial: 2

 Acq On
 : 24 Jun 2011
 9:27 am
 Operator: yunxiac

 Sample
 : CC886-10
 Inst
 : MS3W

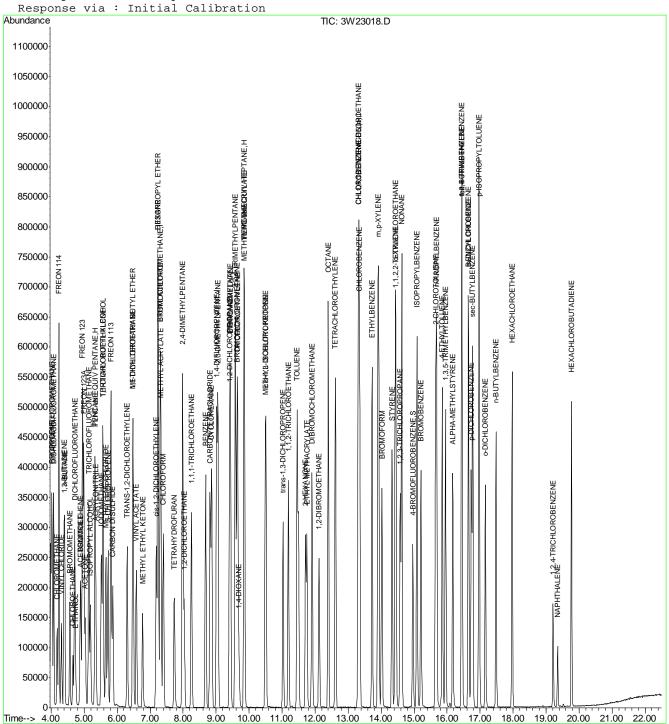
 Misc
 : MS14246,V3W910,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: M3W886.RES

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011



3W23018.D M3W886.M

Tue Aug 16 09:03:24 2011

MS3W



Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23018.D Vial: 2 : 24 Jun 2011 9:27 am Acq On Operator: yunxiac Sample : CC886-10 Inst : MS3W

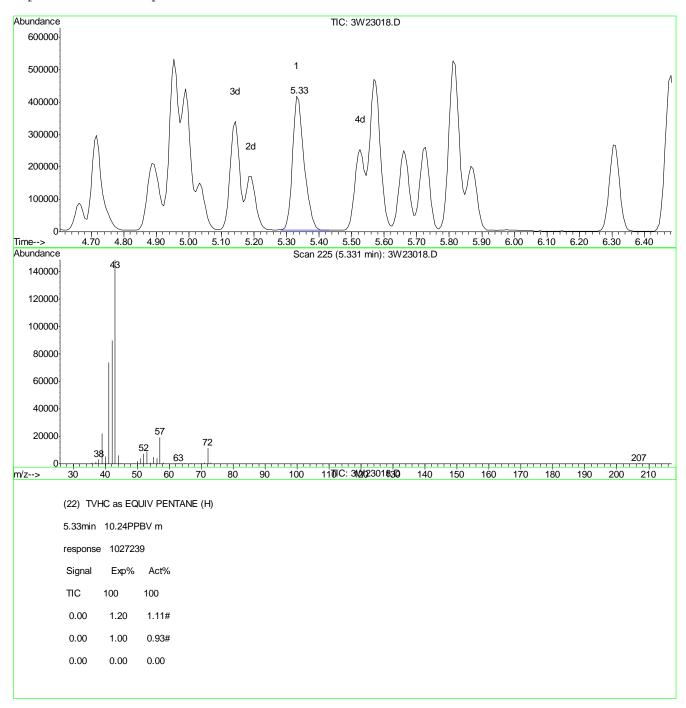
: MS14246, V3W910,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W23018.D M3W886.M

Tue Aug 16 09:31:10 2011

MS3W



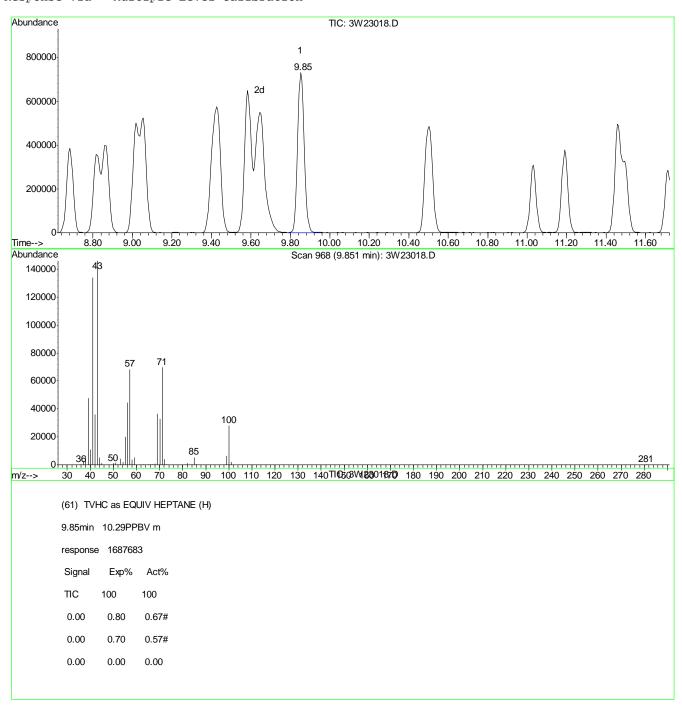
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W908-314\3W23018.D Vial: 2 : 24 Jun 2011 9:27 am Acq On Operator: yunxiac Sample : CC886-10 Inst : MS3W Misc : MS14246, V3W910,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 30 1:38 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W886.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um

Last Update : Mon May 16 16:34:23 2011 Response via : Multiple Level Calibration



3W23018.D M3W886.M

Tue Aug 16 09:31:19 2011

MS3W

593 of 685 ACCUTEST: JA81330

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32352.D Vial: 2

 Acq On
 : 21 Jun 2011 5:20 pm
 Operator: YOUMINH

 Sample
 : ICC1322-10
 Inst : MSW

 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:06 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc Ui	nits	Dev	(Min)
1) BROMOCHLOROMETHANE	8.62	128	144503	10.00	PPBV	7	0.00
50) 1,4-DIFLUOROBENZENE	10.30	114	742920	10.00	PPBV	7	0.00
69) CHLOROBENZENE-D5	14.55	82	363631	10.00	PPBV	7	0.00
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5 106) Chlorobenzene-d5(a)	14.55	82	363154	10.00	PPBV	7	0.00
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE	16.19	95	209210	5.32	PPBV	7	0.00
Spiked Amount 5.000 Ra	ange 65	- 128	Recove	ery =	106.	40%	
Target Compounds						Qva	alue
4) CHLORODIFLUOROMETHANE	4.88	67	42131	9.99	PPBV	7	100
E \ DIGHT ODODIET HODOMERHAND	4.97	85	430953	10.15	PPBV	7	100
6) PROPYLENE	4.91	41	430953 166662 517500 53915 194719 159872 318244 169096 113171 399834 78629 435048 259764 410523 352380 91441 153039 56758 1063039m	9.23	PPBV	7	100
7) FREON 114	5.18	85	517500	10.40	PPBV	7	100
8) CHLOROMETHANE	5.10	52	53915	9.81	PPBV	7	100
8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE	5.28	62	194719	10.23	PPBV	7	100
10) 1,3-BUTADIENE	5.39	54	159872	10.03	PPBV	7	100
11) n-BUTANE	5.42	43	318244	9.35	PPBV	7	100
12) BROMOMETHANE 13) CHLOROETHANE	5.60	94	169096	10.38	PPBV	7	100
13) CHLOROETHANE	5.73	64	113171	10.37	PPBV	7	100
14) DICHLOROFLUOROMETHANE	5.78	67	399834	10.33	PPBV	7	100
15) ACROLEIN	6.07	56	78629	9.51	PPBV	7	100
16) FREON 123	6.08	83	435048	10.49	PPBV	7 #	100
17) FREON 123A	6.12	117	259764	10.47	PPBV	7	100
18) TRICHLOROFLUOROMETHANE	6.30	101	410523	10.13	PPBV	7	100
19) ISOPROPYL ALCOHOL	6.35	45	352380	9.68	PPBV	7	100
20) ACETONE	6.18	58	91441	9.43	PPBV	7	100
21) ACRYLONITRILE	6.52	53	153039	10.84	PPBV	7	100
22) PENTANE	6.56	57	56758	9.52	PPBV	7	100
23) TVHC as EQUIV PENTANE	6.56	TIC	1063039m	9.92	PPBV	7	
24) IODOMETHANE	6.74	142	457974	10.64	PPBV	7	100
25) 1,1-DICHLOROETHYLENE	6.79	96	187259	10.28	PPBV	7	100
26) CARBON DISULFIDE	7.14	76	455314	10.34	PPBV	7	100
27) ETHANOL	5.81	45	87131	9.42	PPBV	7	100
28) ACETONITRILE	5.98	41	155859	10.17	PPBV	7	100
29) BROMOETHENE	5.99	106	1063039m 457974 187259 455314 87131 155859 176632 169171 94692 317055 178753	10.43	PPRV	7	100
30) METHYLENE CHLORIDE	6 87	84	169171	9 68	PPRV	7	100
31) 3-CHLOROPROPENE	6.96	76	94692	10.80	PPRV	7	100
32) FREON 113	7 06	151	317055	10.59	PPRV	7	100
33) TRANS-1 2-DICHLOROETHYLENI	7.60 E 7.61	96	178753	10.35	PPRV	7	100
33) TRANS-1,2-DICHLOROETHYLEN 34) TERTIARY BUTYL ALCOHOL	6 81	59	178753 432369	10.13	DDR	7	100
35) METHYL TERTIARY BUTYL ETH	E 7.82	73	532344	10.32	PPRV	7	100
36) TETRAHYDROFURAN	9.09	72	532344 96198 327320	10.52	DDR	7	100
		57	327320	10.00	DDB	7	100
38) VINYL ACETATE	7 87	86	52622	11 43	DDB	7	100
39) 1,1-DICHLOROETHANE	7.07	63	251/102	10 61	ומממת	7	100
40) METHYL ETHYL KETONE	7.70 8 10	72	95138	10.01	DDB	7	100
41) cis-1,2-DICHLOROETHYLENE	Ω 17	96	196272	10.30	ב ק ב ט	7	100
10) DI_ICODDODVI FTUFP	ο. 4. /	<i>1</i> 5	1902/2 600100	10.12	DDDI	7	100
42) DI-ISOPROPYL ETHER 43) ETHYL ACETATE	0.01	45 61	327320 52622 351498 95138 196272 698180 58698	10./3	אם מם מ	7	100
43) EIHIL ACEIAIE	0.03				V	· 	

(#) = qualifier out of range (m) = manual integration

W32352.D MW1322.M Thu Sep 01 12:10:54 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32352.D Vial: 2

Acq On : 21 Jun 2011 5:20 pm Operator: YOUMINH Sample : ICC1322-10 Inst : MSW Misc : MS14116, VW1322, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:06 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	METHYL ACRYLATE	8.63	55	358803	10.88 PPBV	100
	CHLOROFORM	8.72	83	356158	10.55 PPBV	100
	2,4-DIMETHYLPENTANE	9.38	57	399733	10.72 PPBV 10.68 PPBV	100
	1,1,1-TRICHLOROETHANE	9.59	97	358938	10.68 PPBV	100
	CARBON TETRACHLORIDE	10.14	117	368831	10.71 PPBV	100
	1,2-DICHLOROETHANE	9.37	62	212462	10.71 PPBV 10.89 PPBV	100
	BENZENE	10.01	78	606903	10.71 PPBV	100
52)	CYCLOHEXANE	10.25	84	285076	9.97 PPBV 10.56 PPBV	100
53)	2,3-DIMETHYLPENTANE	10.44	71	149257	10.56 PPBV	100
54)	TRICHLOROETHYLENE	10.96	95	233489	10.60 PPBV	100
	DIBROMOMETHANE	10.73	174	233489 213509 221693	10.66 PPBV	100
56)	1,2-DICHLOROPROPANE	10.75	63	221693	TO.JJ FFDV	100
57)	ETHYL ACRYLATE	10.72	55	410325	11.11 PPBV	100
58)	BROMODICHLOROMETHANE	10.93	83	379018	10.83 PPBV	
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	1050764	10.78 PPBV 10.88 PPBV	100
60)	1,4-DIOXANE	10.98		125138	10.88 PPBV	100
61)	METHYL METHACRYLATE	11.13	69	209731	10.84 PPBV	100
62)	HEPTANE	11.21	43	209731 371508	10.19 PPBV	100
63)	TVHC as EQUIV HEPTANE	11.21	TIC	1625261m	10.30 PPBV	
64)	METHYL ISOBUTYL KETONE	11.81	43	415203	10.61 PPBV	100
65)	cis-1,3-DICHLOROPROPENE	11.77	75	305811	10.77 PPBV	100
66)	TOLUENE	12.74		412957	10.86 PPBV 10.95 PPBV	100
67)	trans-1,3-DICHLOROPROPENE	12.29	75	288348	10.95 PPBV	100
68)	1,1,2-TRICHLOROETHANE	12.46	83	183729 318081	11.14 PPBV	
70)	ETHYL METHACRYLATE	12.99	69	318081	11.35 PPBV	100
	2-HEXANONE	12.99			10.43 PPBV	
	TETRACHLOROETHYLENE	13.88		253235	10.46 PPBV	
	DIBROMOCHLOROMETHANE	13.18	129		11.01 PPBV	
,	1,2-DIBROMOETHANE	13.42		298825 484875	11.02 PPBV	
	OCTANE	13.71				
	1,1,1,2-TETRACHLOROETHANE		131	264223 480650	10.97 PPBV	
	CHLOROBENZENE	14.60	112	480650	10.72 PPBV	
	ETHYLBENZENE	14.98	91	802155	11.10 PPBV	
	m,p-XYLENE			628547	22.42 PPBV	
	O-XYLENE	15.69		302505	11.17 PPBV	
- ,	STYRENE	15.57	104	452151 285882	11.78 PPBV	
,	1,2,3-TRICHLOROPROPANE				10.81 PPBV	
	NONANE	15.91		445710	11.12 PPBV	
	BROMOFORM	15.27		319097	11.41 PPBV	
	1,1,2,2-TETRACHLOROETHANE			356425	11.23 PPBV	
	ISOPROPYLBENZENE	16.34		864332	11.34 PPBV	
	BROMOBENZENE			229160	11.50 PPBV	
	2-CHLOROTOLUENE	16.87	126	190938 221455	11.22 PPBV 11.78 PPBV	# 100
	n-PROPYLBENZENE	10.91	120	221455	11./8 PPBV	100
	4-ETHYLTOLUENE 1,3,5-TRIMETHYLBENZENE	17.07	10E	/539/Z	11.90 PPBV	100 100
	ALPHA-METHYLSTYRENE	17 24	110	070/33 076011	11 QE סיים חח 11 QE	100
	TERT-BUTYLBENZENE	17 61	12/	4/0411 157005	11.78 PPBV 11.90 PPBV 11.43 PPBV 11.85 PPBV	100
	1,2,4-TRIMETHYLBENZENE	17.61	105	563265	11.36 PPBV 11.73 PPBV	100
		17.02			TI./J FFDV	



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32352.D MW1322.M Thu Sep 01 12:10:54 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32352.D Vial: 2

Acq On : 21 Jun 2011 5:20 pm Operator: YOUMINH Sample : ICC1322-10 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:06 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Un	it	Qvalue
96)	m-DICHLOROBENZENE	17.80	146	333023	11.71	 PPBV	100
97)	BENZYL CHLORIDE	17.78	91	401018	11.84	PPBV	100
98)	p-DICHLOROBENZENE	17.88	146	315664	11.26	PPBV	100
99)	SEC-BUTYLBENZENE	17.93	134	178032	11.46	PPBV	100
100)	p-ISOPROPYLTOLUENE	18.11	134	172518	11.66	PPBV	100
101)	o-DICHLOROBENZENE	18.27	146	285653	11.16	PPBV	100
102)	n-BUTYLBENZENE	18.59	134	130848	11.78	PPBV	100
103)	HEXACHLOROETHANE	19.04	201	181302	11.73	PPBV	100
104)	HEXACHLOROBUTADIENE	20.74	225	89211	9.96	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.23	180	56503	9.22	PPBV	100
107)	NAPHTHALENE	20.35	128	104019	9.57	PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32352.D MW1322.M Thu Sep 01 12:10:54 2011 MSW



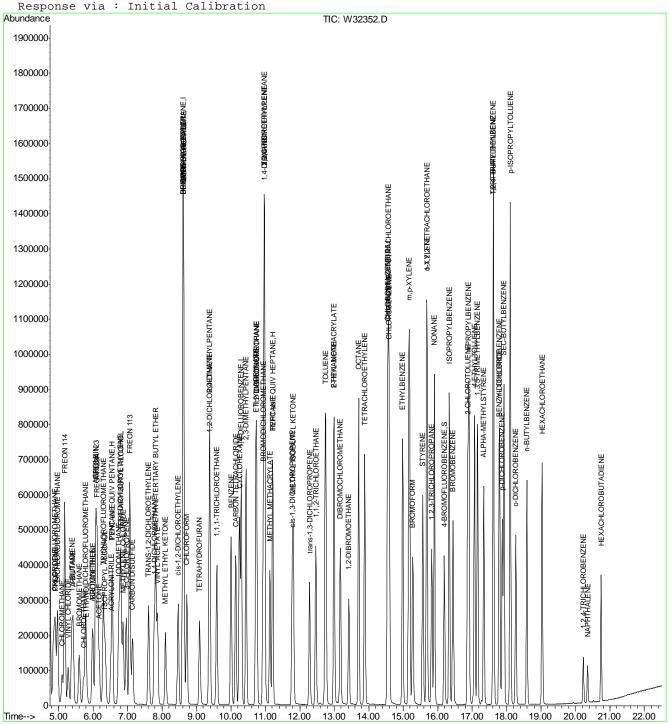
Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32352.D Vial: 2 5:20 pm : 21 Jun 2011 Operator: YOUMINH Acq On : ICC1322-10 : MSW Sample : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32352.D MW1322.M

Thu Sep 01 12:10:55 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32352.D Vial: 2

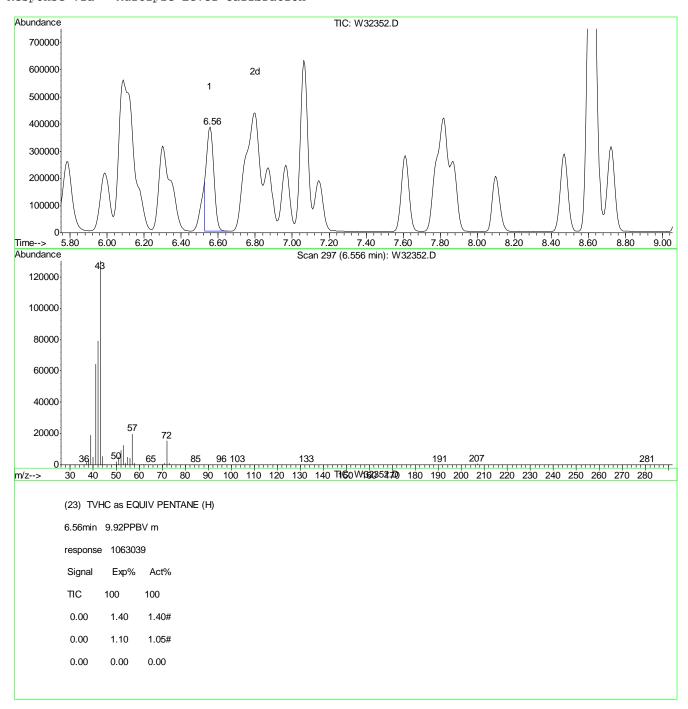
: 21 Jun 2011 5:20 pm Acq On Operator: YOUMINH Sample : ICC1322-10 Inst : MSW : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32352.D MW1322.M

Tue Aug 16 08:51:25 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32352.D Vial: 2

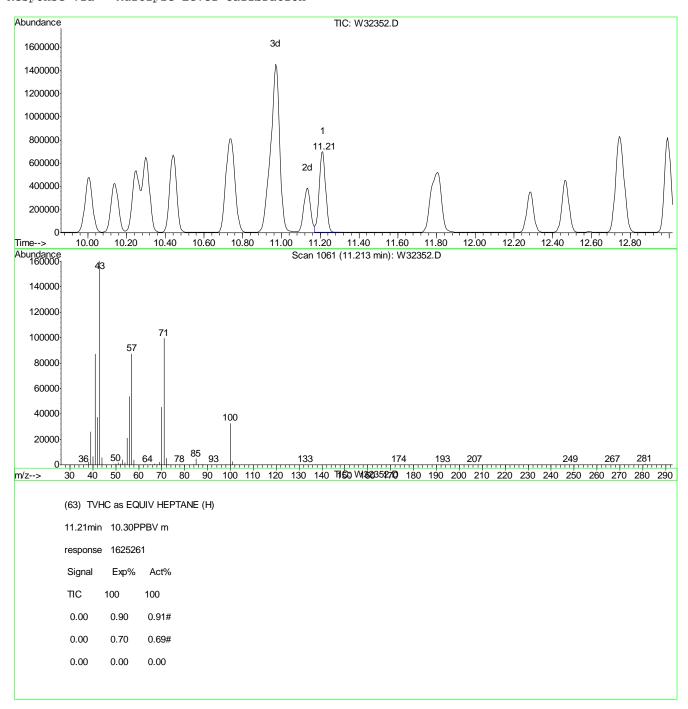
: 21 Jun 2011 5:20 pm Acq On Operator: YOUMINH Sample : ICC1322-10 Inst : MSW : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32352.D MW1322.M

Tue Aug 16 08:51:32 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32352.D Vial: 2

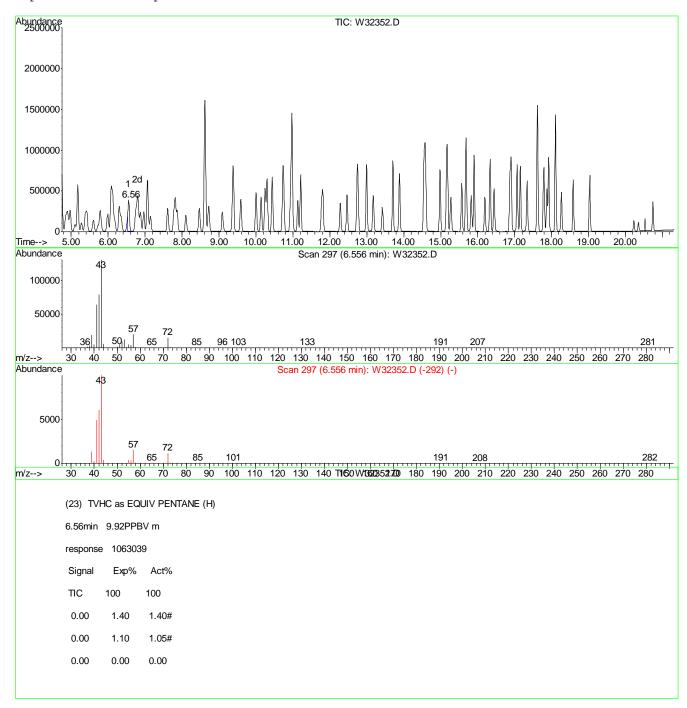
Acq On : 21 Jun 2011 5:20 pm Operator: YOUMINH Sample : ICC1322-10 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32352.D MW1322.M

Thu Sep 01 12:13:20 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32352.D Vial: 2

 Acq On
 : 21 Jun 2011 5:20 pm
 Operator: YOUMINH

 Sample
 : ICC1322-10
 Inst : MSW

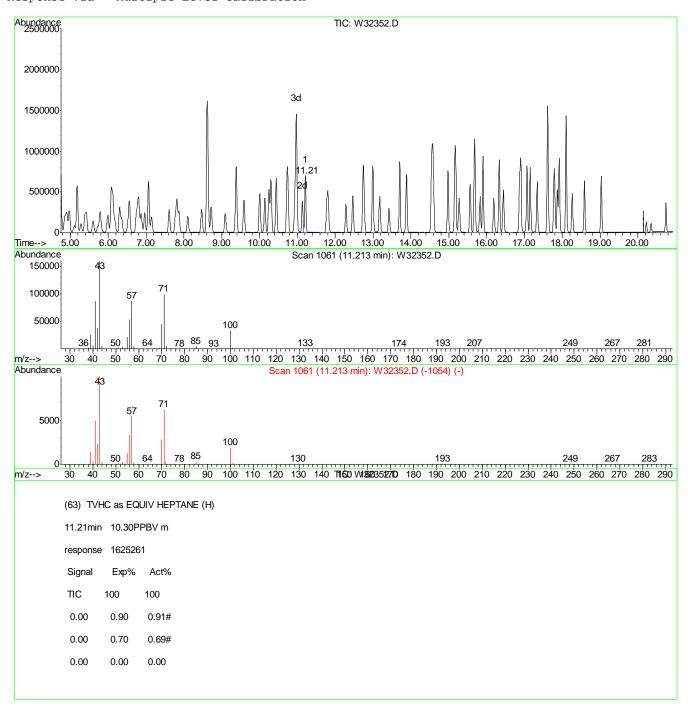
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32352.D MW1322.M

Thu Sep 01 12:13:23 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32353.D Vial: 1

 Acq On
 : 21 Jun 2011 6:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-0.5
 Inst : MSW

 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:09 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

1) BROMOCHLOROMETHANE	Internal Standards	R.T.	QIon	Response	Conc U	nits D	ev(Min)
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE 16.19 95 183702 4.99 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 99.80%  Target Compounds 4) CHLORODIFLUOROMETHANE 4.89 67 2097 0.51 PPBV 94 6) PROPYLENE 4.91 41 8067 0.46 PPBV 94 6) PROPYLENE 4.91 41 8067 0.46 PPBV 94 7) FREON 114 5.18 85 23343 0.48 PPBV 95 8) CHLOROMETHANE 5.11 52 2684 0.50 PPBV # 74 9) VINYL CHLORIDE 5.28 62 9057 0.49 PPBV 96 10) 1,3-BUTADIENE 5.39 54 7613 0.49 PPBV 96 11) n-BUTANE 5.42 43 14887 0.45 PPBV 96 12) BROMOMETHANE 5.73 64 5295 0.50 PPBV # 36 13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 96 14) DICHLOROPELIOROMETHANE 5.79 67 18719 0.49 PPBV 96 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 98 17) FREON 123A 6.12 117 12012 0.49 PPBV 98 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 98 18) TRICHLOROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV 98 23) TVHC as EQUIV PENTANE 6.56 57 2977 0.51 PPBV 98 24) IODOMETHANE 6.79 96 8793 0.49 PPBV 98 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 98 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 99 29) BROMOMETHANE 5.99 106 8228 0.50 PPBV 99 20) ACETONE 6.87 84 8859 0.52 PPBV 99 21) ACHOROETHANE 6.79 96 8793 0.49 PPBV 99 22) PENTANE 6.56 57 2977 0.51 PPBV 99 23) TVHC as EQUIV PENTANE 6.56 57 2977 0.51 PPBV 99 24) IODOMETHANE 6.79 96 8793 0.49 PPBV 100 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 99 26) CARBON DISULFIDE 7.57 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 99 31) 3-CHLOROPOPENE 6.96 76 4272 0.50 PPBV 99 32) RETHANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 99 35) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV	1) BROMOCHLOROMETHANE		128	141430	10.00	PPBV	0.00
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE 16.19 95 183702 4.99 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 99.80%  Target Compounds 4) CHLORODIFLUOROMETHANE 4.89 67 2097 0.51 PPBV 94 6) PROPYLENE 4.91 41 8067 0.46 PPBV 94 6) PROPYLENE 4.91 41 8067 0.46 PPBV 94 7) FREON 114 5.18 85 23343 0.48 PPBV 95 8) CHLOROMETHANE 5.11 52 2684 0.50 PPBV # 74 9) VINYL CHLORIDE 5.28 62 9057 0.49 PPBV 96 10) 1,3-BUTADIENE 5.39 54 7613 0.49 PPBV 96 11) n-BUTANE 5.42 43 14887 0.45 PPBV 96 12) BROMOMETHANE 5.73 64 5295 0.50 PPBV # 36 13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 96 14) DICHLOROPELIOROMETHANE 5.79 67 18719 0.49 PPBV 96 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 98 17) FREON 123A 6.12 117 12012 0.49 PPBV 98 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 98 18) TRICHLOROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV 98 23) TVHC as EQUIV PENTANE 6.56 57 2977 0.51 PPBV 98 24) IODOMETHANE 6.79 96 8793 0.49 PPBV 98 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 98 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 99 29) BROMOMETHANE 5.99 106 8228 0.50 PPBV 99 20) ACETONE 6.87 84 8859 0.52 PPBV 99 21) ACHOROETHANE 6.79 96 8793 0.49 PPBV 99 22) PENTANE 6.56 57 2977 0.51 PPBV 99 23) TVHC as EQUIV PENTANE 6.56 57 2977 0.51 PPBV 99 24) IODOMETHANE 6.79 96 8793 0.49 PPBV 100 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 99 26) CARBON DISULFIDE 7.57 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 99 31) 3-CHLOROPOPENE 6.96 76 4272 0.50 PPBV 99 32) RETHANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 99 35) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV		10.30	114	736420	10.00	PPBV	0.00
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE 16.19 95 183702 4.99 PPBV 0.00 Spiked Amount 5.000 Range 65 - 128 Recovery = 99.80%  Target Compounds 4) CHLORODIFLUOROMETHANE 4.89 67 2097 0.51 PPBV 94 6) PROPYLENE 4.91 41 8067 0.46 PPBV 94 6) PROPYLENE 4.91 41 8067 0.46 PPBV 94 7) FREON 114 5.18 85 23343 0.48 PPBV 95 8) CHLOROMETHANE 5.11 52 2684 0.50 PPBV # 74 9) VINYL CHLORIDE 5.28 62 9057 0.49 PPBV 96 10) 1,3-BUTADIENE 5.39 54 7613 0.49 PPBV 96 11) n-BUTANE 5.42 43 14887 0.45 PPBV 96 12) BROMOMETHANE 5.73 64 5295 0.50 PPBV # 36 13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 96 14) DICHLOROPELIOROMETHANE 5.79 67 18719 0.49 PPBV 96 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 98 17) FREON 123A 6.12 117 12012 0.49 PPBV 98 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 98 18) TRICHLOROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV 98 23) TVHC as EQUIV PENTANE 6.56 57 2977 0.51 PPBV 98 24) IODOMETHANE 6.79 96 8793 0.49 PPBV 98 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 98 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 99 29) BROMOMETHANE 5.99 106 8228 0.50 PPBV 99 20) ACETONE 6.87 84 8859 0.52 PPBV 99 21) ACHOROETHANE 6.79 96 8793 0.49 PPBV 99 22) PENTANE 6.56 57 2977 0.51 PPBV 99 23) TVHC as EQUIV PENTANE 6.56 57 2977 0.51 PPBV 99 24) IODOMETHANE 6.79 96 8793 0.49 PPBV 100 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 99 26) CARBON DISULFIDE 7.57 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 99 31) 3-CHLOROPOPENE 6.96 76 4272 0.50 PPBV 99 32) RETHANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 99 35) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV	•	14.54	82	340904	10.00	PPBV	0.00
### Spiked Amount	106) Chlorobenzene-d5(a)	14.54	82	339799	10.00	PPBV	0.00
Target Compounds 4) CHLORODIFLUOROMETHANE 4) 7 85 19836 0.48 PPBV 94 5) DICHLORODIFLUOROMETHANE 4) 85 19836 0.48 PPBV 95 6) PROPYLENE 4 91 41 8067 0.46 PPBV 95 7) FREON 114 5.18 85 23343 0.48 PPBV 95 8) CHLOROMETHANE 5.11 52 2684 0.50 PPBV 97 10) 1,3-BUTADIENE 5.39 54 7613 0.49 PPBV 97 11) n-BUTANE 5.42 43 14887 0.45 PPBV 97 12) BROMOMETHANE 5.73 64 5295 0.50 PPBV 97 13) CHLOROFILUOROMETHANE 5.73 64 5295 0.50 PPBV 97 14) DICHLOROFILUOROMETHANE 5.79 67 18719 0.49 PPBV 97 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 17) FREON 123 6.09 83 19710 0.49 PPBV 97 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 97 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 97 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 97 20) ACETONE 6.18 58 4364 0.46 PPBV 97 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 97 22) PENTANE 6.56 77 2977 0.51 PPBV 98 23) TVHC as EQUIV PENTANE 6.56 77 2977 0.51 PPBV 98 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 98 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 6.52 53 6682 0.48 PPBV 98 29) EROMOETHANE 6.79 96 8793 0.49 PPBV 98 20) ACETONE 6.79 96 8793 0.49 PPBV 98 21) ENGRANDISULFIDE 7.15 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 99 28) ACETONITRILE 5.99 106 8228 0.50 PPBV 99 31) 3-CHLOROFPOPEN 5.99 106 8228 0.50 PPBV 99 31) 3-CHLOROFPOPEN 6.87 84 8859 0.52 PPBV 99 32) FRON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTARY BUTYL ALCOHOL 8.84 59 20610 0.50 PPBV 99 35) HETRYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 99 36) TETRAHYDROFURAN	System Monitoring Compounds						
Target Compounds 4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) CHLORODIFLUOROMETHANE 4) CHLOROMETHANE 4) CHLOROMETHANE 4, 91	85) 4-BROMOFLUOROBENZENE	16.19	95	183702	4.99	PPBV	0.00
4) CHLORODIFLUOROMETHANE 4) 89 67 2097 0.51 PPBV 94 5) DICHLORODIFLUOROMETHANE 4, 97 85 19836 0.48 PPBV 95 6) PROPYLENE 4, 91 41 8067 0.46 PPBV 94 7) FREON 114 5.18 85 23343 0.48 PPBV 95 8) CHLOROMETHANE 5, 18 85 23343 0.48 PPBV 95 8) CHLOROMETHANE 5, 11 52 2684 0.50 PPBV # 74 9) VINYL CHLORIDE 5, 28 62 9057 0.49 PPBV 95 10) 1, 3-BUTADIENE 5, 39 54 7613 0.49 PPBV 95 11) n-BUTANE 5, 42 43 14887 0.45 PPBV # 95 12) BROMOMETHANE 5, 60 94 8076 0.51 PPBV 96 13) CHLOROFHANE 5, 60 94 8076 0.51 PPBV 96 13) CHLOROFLUOROMETHANE 5, 79 67 18719 0.49 PPBV 96 14) DICHLOROFLUOROMETHANE 5, 79 67 18719 0.49 PPBV 97 15) ACROLEIN 6, 09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 97 17) FREON 123A 6.12 117 12012 0.49 PPBV 97 18) TRICHLOROFLUOROMETHANE 6, 30 101 19399 0.49 PPBV 97 18) TRICHLOROFLUOROMETHANE 6, 30 101 19399 0.49 PPBV 97 19) ISOPROPYL ALCOHOL 6, 37 45 16557 0.46 PPBV 96 20) ACETONE 6, 18 58 4364 0.46 PPBV 96 21) ACRYLONITRILE 6, 52 53 6682 0.48 PPBV 96 22) PENTANE 6, 56 TIC 50694m 0.48 PPBV 96 23) TYHC AS EQUIV PENTANE 6, 56 TIC 50694m 0.48 PPBV 97 24) IODOMETHANE 6, 79 96 8793 0.49 PPBV 97 25) 1,1-DICHLOROFTHYLENE 6, 79 96 8793 0.49 PPBV 97 26) CARBON DISULFIDE 7, 15 76 21896 0.51 PPBV 97 27) ETHANOL 28) ACETONITRILE 5, 98 41 6739 0.45 PPBV 97 28) ACETONITRILE 5, 98 41 6739 0.45 PPBV 97 30) METHYLENE CHLORIDE 6, 87 84 8859 0.52 PPBV 97 31) TRANS-1, 2-DICHLOROETHYLENE 7, 15 76 21896 0.51 PPBV 97 32) FREON 113 7, 06 151 14544 0.50 PPBV 97 33) TRANS-1, 2-DICHLOROETHYLENE 7, 61 96 8376 0.50 PPBV 97 34) TERTIARY BUTYL ETHE 7, 82 73 23776 0.50 PPBV 97 35) TETRAHYDROFURAN 9, 12 72 4159 0.48 PPBV	Spiked Amount 5.000	Range 65	- 128	Recove	ry =	99.8	0%
5) DICHLORODIFLUOROMETHANE	Target Compounds						Qvalue
7) FREON 114	4) CHLORODIFLUOROMETHANE	4.89	67	2097	0.51	PPBV	94
7) FREON 114	5) DICHLORODIFLUOROMETHANE	4.97	85		0.48	PPBV	99
7) FREON 114	6) PROPYLENE	4.91	41	8067	0.46	PPBV	94
9) VINYL CHLORIDE	7) FREON 114	5.18	85	23343	0.48	PPBV	99
9) VINYL CHLORIDE	8) CHLOROMETHANE	5.11	52	2684	0.50	PPBV	# 74
11) n-BUTANE 5.42 43 14887 0.45 PPBV # 99 12) BROMOMETHANE 5.60 94 8076 0.51 PPBV 98 13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 92 14) DICHLOROFLUOROMETHANE 5.79 67 18719 0.49 PPBV 98 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 98 17) FREON 123A 6.12 117 12012 0.49 PPBV 98 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 98 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 20) ACETONE 6.18 58 4364 0.46 PPBV 98 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 TIC 50694m 0.48 PPBV 98 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 99 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 99 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 29) BROMOETHANE 5.99 106 8228 0.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 98 32) FREON 113 7.06 151 14544 0.50 PPBV 98 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 98	9) VINYL CHLORIDE	5.28	62	9057	0.49	PPBV	99
11) n-BUTANE 5.42 43 14887 0.45 PPBV # 99 12) BROMOMETHANE 5.60 94 8076 0.51 PPBV 98 13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 92 14) DICHLOROFLUOROMETHANE 5.79 67 18719 0.49 PPBV 98 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 98 17) FREON 123A 6.12 117 12012 0.49 PPBV 98 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 98 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 98 20) ACETONE 6.18 58 4364 0.46 PPBV 98 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 TIC 50694m 0.48 PPBV 98 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 99 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 99 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 99 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 29) BROMOETHANE 5.99 106 8228 0.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 98 32) FREON 113 7.06 151 14544 0.50 PPBV 98 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 98	10) 1,3-BUTADIENE	5.39	54	7613	0.49	PPBV	92
13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 92 14) DICHLOROFLUOROMETHANE 5.79 67 18719 0.49 PPBV 98 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 99 17) FREON 123A 6.12 117 12012 0.49 PPBV 99 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 99 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 99 20) ACETONE 6.18 58 4364 0.46 PPBV 99 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV 82 23) TVHC as EQUIV PENTANE 6.56 TIC 50694m 0.48 PPBV 99 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 99 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 100 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 29) BROMOETHENE 5.99 106 8228 0.50 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.82 73 23776 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 99 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 99 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	11) n-BUTANE	5.42	43	14887	0.45	PPBV	# 99
13) CHLOROETHANE 5.73 64 5295 0.50 PPBV 92 14) DICHLOROFLUOROMETHANE 5.79 67 18719 0.49 PPBV 98 15) ACROLEIN 6.09 56 3731 0.46 PPBV 97 16) FREON 123 6.09 83 19710 0.49 PPBV 99 17) FREON 123A 6.12 117 12012 0.49 PPBV 99 18) TRICHLOROFLUOROMETHANE 6.30 101 19399 0.49 PPBV 99 19) ISOPROPYL ALCOHOL 6.37 45 16557 0.46 PPBV 99 20) ACETONE 6.18 58 4364 0.46 PPBV 99 21) ACRYLONITRILE 6.52 53 6682 0.48 PPBV 98 22) PENTANE 6.56 57 2977 0.51 PPBV 82 23) TVHC as EQUIV PENTANE 6.56 TIC 50694m 0.48 PPBV 99 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 99 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 100 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV 97 29) BROMOETHENE 5.99 106 8228 0.50 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.82 73 23776 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 99 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 99 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	12) BROMOMETHANE	5.60	94	8076	0.51	PPBV	98
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	13) CHLOROETHANE	5.73	64	5295	0.50		92
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	14) DICHLOROFLUOROMETHANE	5.79	67	18719	0.49	PPBV	98
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	15) ACROLEIN	6.09	56	3731	0.46	PPBV	97
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	16) FREON 123	6.09	83	19710	0.49	PPBV	# 99
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	17) FREON 123A	6.12	117	12012	0.49	PPBV	99
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	18) TRICHLOROFLUOROMETHANE	6.30	101	19399	0.49	PPBV	98
20) ACETONE 21) ACRYLONITRILE 22) PENTANE 22) PENTANE 33) TVHC as EQUIV PENTANE 4.56 57 2977 6.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 57 2977 6.51 PPBV # 82 24) IODOMETHANE 6.56 TIC 50694m 6.48 PPBV  24) IODOMETHANE 6.74 142 21297 6.51 PPBV 95 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 6.49 PPBV 95 26) CARBON DISULFIDE 7.15 76 21896 6.51 PPBV 97 27) ETHANOL 5.82 45 5704 6.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 6.45 PPBV 97 30) METHYLENE CHLORIDE 6.87 84 8859 6.50 PPBV 98 30) METHYLENE CHLORIDE 6.87 84 8859 6.52 PPBV 98 31) 3-CHLOROPROPENE 6.96 76 4272 6.50 PPBV 98 32) FREON 113 7.06 151 14544 7.05 PPBV 98 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 6.50 PPBV 98 36) TETRAHYDROFURAN 9.12 72 4159 6.48 PPBV 98 42 41 41 42 41 41 42 41 41 42 41 41 42 41 41 42 41 43 43 44 44 45 45 46 47 47 47 47 47 47 47 47 47 47 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	19) ISOPROPYL ALCOHOL	6.37	45	16557	0.46	PPBV	95
22) PENTANE 6.56 57 2977 0.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 TIC 50694m 0.48 PPBV 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 99 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 100 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV # 98 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	20) ACETONE	6.18	58	4364	0.46	PPBV	96
22) PENTANE 6.56 57 2977 0.51 PPBV # 82 23) TVHC as EQUIV PENTANE 6.56 TIC 50694m 0.48 PPBV 24) IODOMETHANE 6.74 142 21297 0.51 PPBV 99 25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 100 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV # 98 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	21) ACRYLONITRILE	6.52	53	6682	0.48	PPBV	98
23) TVHC as EQUIV PENTANE 24) IODOMETHANE 25) 1,1-DICHLOROETHYLENE 26) CARBON DISULFIDE 27) ETHANOL 28) ACETONITRILE 29) BROMOETHENE 30) METHYLENE CHLORIDE 30) METHYLENE CHLORIDE 31) 3-CHLOROPROPENE 32) FREON 113 33) TRANS-1,2-DICHLOROETHYLENE 35) METHYL TERTIARY BUTYL ALCOHOL 36. 56. 76. 76. 21896 36. TETRAHYDROFURAN 36. 76. 76. 76. 21896 37. 76. 21896 38. 77. 76. 21896 38. 77. 76. 21896 39. 87. 87. 97. 97. 97. 97. 97. 97. 97. 97. 97. 9	22) PENTANE	6.56	57	2977	0.51	PPBV	# 82
25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 100 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 1 29) BROMOETHENE 5.99 106 8228 0.50 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	23) TVHC as EQUIV PENTANE	6.56	TIC	50694m	0.48	PPBV	
25) 1,1-DICHLOROETHYLENE 6.79 96 8793 0.49 PPBV 100 26) CARBON DISULFIDE 7.15 76 21896 0.51 PPBV 97 27) ETHANOL 5.82 45 5704 0.63 PPBV 97 28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 1 29) BROMOETHENE 5.99 106 8228 0.50 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	24) IODOMETHANE	6.74	142	21297	0.51	PPBV	99
28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 29) BROMOETHENE 5.99 106 8228 0.50 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36		6.79	96	8793	0.49	PPBV	100
28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 29) BROMOETHENE 5.99 106 8228 0.50 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36	26) CARBON DISULFIDE	7.15	76	21896			97
28) ACETONITRILE 5.98 41 6739 0.45 PPBV # 29) BROMOETHENE 5.99 106 8228 0.50 PPBV # 98 30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 99 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 36	27) ETHANOL		45	5704		PPBV	97
30) METHYLENE CHLORIDE 6.87 84 8859 0.52 PPBV 99 31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 96 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	28) ACETONITRILE	5.98	41	6739	0.45	PPBV	# 1
31) 3-CHLOROPROPENE 6.96 76 4272 0.50 PPBV 96 32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	29) BROMOETHENE	5.99	106	8228	0.50	PPBV	# 98
32) FREON 113 7.06 151 14544 0.50 PPBV 99 33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92	30) METHYLENE CHLORIDE			8859			99
32) FREON 113  32) FREON 113  33) TRANS-1,2-DICHLOROETHYLENE  34) TERTIARY BUTYL ALCOHOL  35) METHYL TERTIARY BUTYL ETHE  36) TETRAHYDROFURAN  37) HEXANE  38) VINYL ACETATE  39) 1,1-DICHLOROETHANE  40) METHYL ETHYL KETONE  40) METHYL ETHYL KETONE  41) Cis-1,2-DICHLOROETHYLENE  43) ETHYL ACETATE  38,62  47,76  48,62  48,62  49,63  40,04  40,05	31) 3-CHLOROPROPENE	6.96	76	4272	0.50	PPBV	96
33) TRANS-1,2-DICHLOROETHYLENE 7.61 96 8376 0.50 PPBV 99 34) TERTIARY BUTYL ALCOHOL 6.84 59 20610 0.50 PPBV 98 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 37) HEXANE 8.62 57 15380 0.50 PPBV 98 38) VINYL ACETATE 7.87 86 2121 0.47 PPBV # 81 39) 1,1-DICHLOROETHANE 7.77 63 16081 0.50 PPBV 99 40) METHYL ETHYL KETONE 8.11 72 4293 0.51 PPBV # 75 41) cis-1,2-DICHLOROETHYLENE 8.46 96 10004 0.53 PPBV 88 42) DI-ISOPROPYL ETHER 8.62 45 32780 0.51 PPBV 99 43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83	32) FREON 113	7.06	151	14544	0.50	PPBV	99
34) TERTIARY BUTYL ALCOHOL 35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 37) HEXANE 8.62 57 15380 0.50 PPBV 98 38) VINYL ACETATE 7.87 86 2121 0.47 PPBV 40) METHYL ETHYL KETONE 8.11 72 4293 0.51 PPBV 99 41) cis-1,2-DICHLOROETHYLENE 8.46 96 10004 0.53 PPBV 88 42) DI-ISOPROPYL ETHER 8.62 45 32780 0.51 PPBV 99 43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83	33) TRANS-1,2-DICHLOROETHYLE	NE 7.61	96	8376	0.50		99
35) METHYL TERTIARY BUTYL ETHE 7.82 73 23776 0.50 PPBV 96 36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 37) HEXANE 8.62 57 15380 0.50 PPBV 98 38) VINYL ACETATE 7.87 86 2121 0.47 PPBV # 81 39) 1,1-DICHLOROETHANE 7.77 63 16081 0.50 PPBV 99 40) METHYL ETHYL KETONE 8.11 72 4293 0.51 PPBV # 75 41) cis-1,2-DICHLOROETHYLENE 8.46 96 10004 0.53 PPBV 88 42) DI-ISOPROPYL ETHER 8.62 45 32780 0.51 PPBV 99 43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83		6.84	59	20610	0.50		98
36) TETRAHYDROFURAN 9.12 72 4159 0.48 PPBV 92 37) HEXANE 8.62 57 15380 0.50 PPBV 98 38) VINYL ACETATE 7.87 86 2121 0.47 PPBV # 81 39) 1,1-DICHLOROETHANE 7.77 63 16081 0.50 PPBV 99 40) METHYL ETHYL KETONE 8.11 72 4293 0.51 PPBV # 75 41) cis-1,2-DICHLOROETHYLENE 8.46 96 10004 0.53 PPBV 88 42) DI-ISOPROPYL ETHER 8.62 45 32780 0.51 PPBV 99 43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83		HE 7.82	73	23776	0.50		96
37) HEXANE  38) VINYL ACETATE  7.87  86  2121  0.47 PPBV  98  39) 1,1-DICHLOROETHANE  7.77  63  16081  0.50 PPBV  99  40) METHYL ETHYL KETONE  8.11  72  4293  0.51 PPBV  41) cis-1,2-DICHLOROETHYLENE  42) DI-ISOPROPYL ETHER  8.62  45  32780  0.51 PPBV  99  43) ETHYL ACETATE  8.63  61  2897  0.53 PPBV  83		9.12	72	4159	0.48		
38) VINYL ACETATE 7.87 86 2121 0.47 PPBV # 81 39) 1,1-DICHLOROETHANE 7.77 63 16081 0.50 PPBV 99 40) METHYL ETHYL KETONE 8.11 72 4293 0.51 PPBV # 75 41) cis-1,2-DICHLOROETHYLENE 8.46 96 10004 0.53 PPBV 88 42) DI-ISOPROPYL ETHER 8.62 45 32780 0.51 PPBV 99 43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83	37) HEXANE	8.62	57	15380	0.50		98
39) 1,1-DICHLOROETHANE 7.77 63 16081 0.50 PPBV 99 40) METHYL ETHYL KETONE 8.11 72 4293 0.51 PPBV # 77 41) cis-1,2-DICHLOROETHYLENE 8.46 96 10004 0.53 PPBV 88 42) DI-ISOPROPYL ETHER 8.62 45 32780 0.51 PPBV 99 43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83			86	2121	0.1		
40) METHYL ETHYL KETONE       8.11       72       4293       0.51 PPBV # 77         41) cis-1,2-DICHLOROETHYLENE       8.46       96       10004       0.53 PPBV 88         42) DI-ISOPROPYL ETHER       8.62       45       32780       0.51 PPBV 99         43) ETHYL ACETATE       8.63       61       2897       0.53 PPBV # 83		7.77	63	16081			99
41) cis-1,2-DICHLOROETHYLENE       8.46       96       10004       0.53 PPBV       88         42) DI-ISOPROPYL ETHER       8.62       45       32780       0.51 PPBV       99         43) ETHYL ACETATE       8.63       61       2897       0.53 PPBV #       83		8.11	72	4293	0.51	PPBV	
42) DI-ISOPROPYL ETHER       8.62       45       32780       0.51 PPBV       99         43) ETHYL ACETATE       8.63       61       2897       0.53 PPBV #       83			96	10004	0.53	PPBV	88
43) ETHYL ACETATE 8.63 61 2897 0.53 PPBV # 83			45	32780	0.51	PPBA	99
	43) ETHYL ACETATE	8.63	61	2897	0.53	PPBV	# 83



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32353.D MW1322.M Thu Sep 01 12:10:55 2011 MSW

Vial: 1 Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32353.D

Acq On : 21 Jun 2011 6:00 pm Operator: YOUMINH Sample : IC1322-0.5 Misc : MS14116,VW1322,,,,,1 Inst : MSW Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:09 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	METHYL ACRYLATE CHLOROFORM	8.63	55	16084	0.50 PPBV	99
45)	CHLOROFORM	8.71 9.38 9.59 10.13	83	16429	0.50 PPBV	98
	2,4-DIMETHYLPENTANE	9.38	57	17912	0.49 PPBV	99
47)	1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE	9.59	97	16116	0.49 PPBV 0.49 PPBV	99
48)	CARBON TETRACHLORIDE	10.13	117	16630	0.49 PPBV	98
49)	1,2-DICHLOROETHANE	9.36 10.00	62	9740	0.51 PPBV 0.47 PPBV	99
	BENZENE	10.00	78	26657	0.47 PPBV	99
52)	CYCLOHEXANE	10.24	84	13217	0.47 PPBV	# 80
53)	2,3-DIMETHYLPENTANE	10.43	71	6600	0.47 PPBV	96
54)	TRICHLOROETHYLENE	10.96	95	10689	0.49 PPBV	99
55)	DIBROMOMETHANE	10.73	174	9506	0.48 PPBV	98
56)	1,2-DICHLOROPROPANE	10.75	63	10101	0.47 PPBV 0.47 PPBV 0.49 PPBV 0.48 PPBV 0.48 PPBV	100
57)	ETHYL ACRYLATE	10.73	55	17981	0.49 PPBV	99
58)	BROMODICHLOROMETHANE	10.93	83	16741	0.48 PPBV	99
59)	2,2,4-TRIMETHYLPENTANE	10.97	57	47445	0.49 PPBV 0.48 PPBV 0.49 PPBV 0.46 PPBV	99
	1,4-DIOXANE	11.04	88	5288	0.46 PPBV	# 1
61)	METHYL METHACRYLATE	11.13 11.21 11.21 11.82 11.77	69	9227	0.48 PPBV 0.46 PPBV 0.47 PPBV 0.49 PPBV 0.48 PPBV	97
62)	HEPTANE	11.21	43	16551	0.46 PPBV	98
63)	TVHC as EQUIV HEPTANE	11.21	TIC	73109m	0.47 PPBV	
	METHYL ISOBUTYL KETONE	11.82	43	19109	0.49 PPBV	98
65)	cis-1,3-DICHLOROPROPENE	11.77	75	13408	0.48 PPBV	94
66)	TOLUENE	12.74	92	17552	0.47 PPBV	97
67)	trans-1,3-DICHLOROPROPENE	12.28	75	12376	0.47 PPBV 0.47 PPBV	97
	1,1,2-TRICHLOROETHANE	11.77 12.74 12.28 12.46 12.99 13.01 13.88	83	8017	0.49 PPBV 0.51 PPBV	98
	ETHYL METHACRYLATE	12.99	69	13280	0.51 PPBV	98
	2-HEXANONE	13.01	43	18772	0.56 PPBV	95
	TETRACHLOROETHYLENE	13.88	164	11378	0.51 PPBV 0.56 PPBV 0.50 PPBV 0.49 PPBV 0.50 PPBV	98
	DIBROMOCHLOROMETHANE	13.17	129	15012	0.49 PPBV	99
	1,2-DIBROMOETHANE	13.42	107	12635	0.50 PPBV 0.49 PPBV	98
	OCTANE	13.71	43	21271	0.49 PPBV	97
76)	1,1,1,2-TETRACHLOROETHANE	14.57 14.59	131	11360	0.50 PPBV	# 98
77)	CHLOROBENZENE	14.59	112	21222	0.50 PPBV 0.50 PPBV	# 81
	ETHYLBENZENE	14.97	91	33366	0.49 PPBV	
	m,p-XYLENE	15.17	106	33366 26314	1.00 PPBV	
	O-XYLENE	15.68	106	12624	0.50 PPBV	99
	STYRENE	14.59 14.97 15.17 15.68 15.57 15.83 15.90	104	17476	0.49 PPBV 0.49 PPBV	99
	1,2,3-TRICHLOROPROPANE	15.83	75	12186	0.49 PPBV	98
	NONANE	15.90	43	17658	0.47 PPBV	100
,	BROMOFORM	15.27	173	12828	0.47 PPBV 0.49 PPBV	99
	1,1,2,2-TETRACHLOROETHANE	15.68	83	14531	0.49 PPBV	
87)	ISOPROPYLBENZENE	16.33	105	14531 35340	0.49 PPBV	
	BROMOBENZENE	16.44	156	8915	0.48 PPBV	97
	2-CHLOROTOLUENE	16.87	126	7750	0.49 PPBV 0.48 PPBV 0.49 PPBV 0.49 PPBV	# 100
	n-DRODVI.BENZENE	16.91	120	8694	0.49 PPBV	98
	4-ETHYLTOLUENE	17.07	105	28291	0.48 PPBV	100
	1,3,5-TRIMETHYLBENZENE	17.16	105	24231	0.48 PPBV 0.49 PPBV 0.40 PPBV 0.47 PPBV	98
	ALPHA-METHYLSTYRENE	17.33	118	8768	0.40 PPRV	99
941	ALPHA-METHYLSTYRENE TERT-BUTYLBENZENE	17.61	134	6095	0.47 PPRV	94
951	1,2,4-TRIMETHYLBENZENE	17.62	105	21992	0.49 PPBV	98
		2				



W32353.D MW1322.M Thu Sep 01 12:10:55 2011 MSW

<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32353.D Vial: 1

Acq On : 21 Jun 2011 6:00 pm Operator: YOUMINH Sample : IC1322-0.5 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:09 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Un	it	Qvalue
96)	m-DICHLOROBENZENE	17.80	146	12388	0.46	 PPBV	99
97)	BENZYL CHLORIDE	17.78	91	14297	0.45	PPBV	99
98)	p-DICHLOROBENZENE	17.88	146	11811	0.45	PPBV	95
99)	SEC-BUTYLBENZENE	17.93	134	6822	0.47	PPBV	99
100)	p-ISOPROPYLTOLUENE	18.10	134	6432	0.46	PPBV	94
101)	o-DICHLOROBENZENE	18.27	146	11406	0.48	PPBV	99
102)	n-BUTYLBENZENE	18.59	134	4713	0.45	PPBV	99
103)	HEXACHLOROETHANE	19.03	201	6146	0.42	PPBV	90
104)	HEXACHLOROBUTADIENE	20.74	225	4931	0.59	PPBV	97
105)	1,2,4-TRICHLOROBENZENE	20.23	180	3436	0.60	PPBV	98
107)	NAPHTHALENE	20.35	128	6028	0.59	PPBV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32353.D MW1322.M Thu Sep 01 12:10:55 2011 MSW

604 of 685
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Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32353.D Vial: 1

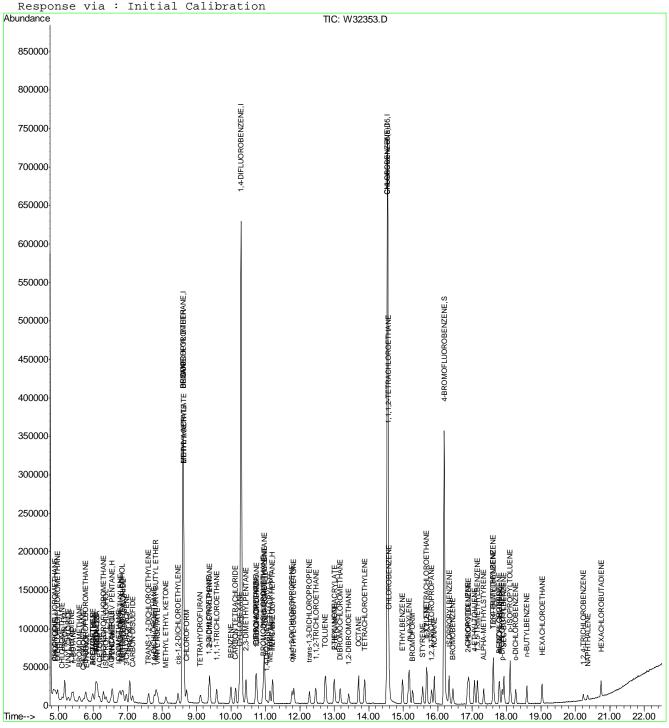
Acq On : 21 Jun 2011 6:00 pm Operator: YOUMINH Sample : IC1322-0.5 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011
Response via : Initial Calibration



W32353.D MW1322.M

Thu Sep 01 12:10:56 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32353.D Vial: 1

 Acq On
 : 21 Jun 2011 6:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-0.5
 Inst : MSW

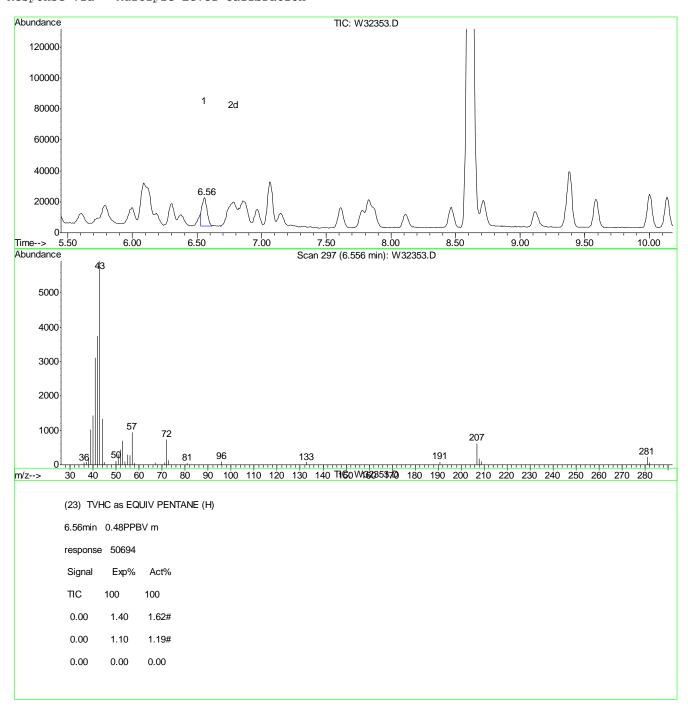
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32353.D MW1322.M

Tue Aug 16 08:51:43 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32353.D Vial: 1

 Acq On
 : 21 Jun 2011 6:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-0.5
 Inst : MSW

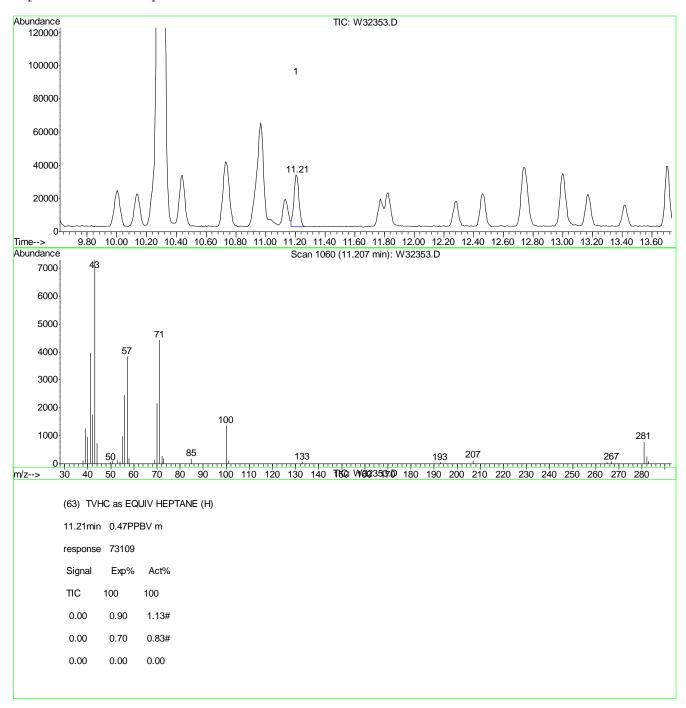
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32353.D MW1322.M

Tue Aug 16 08:51:49 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32353.D Vial: 1

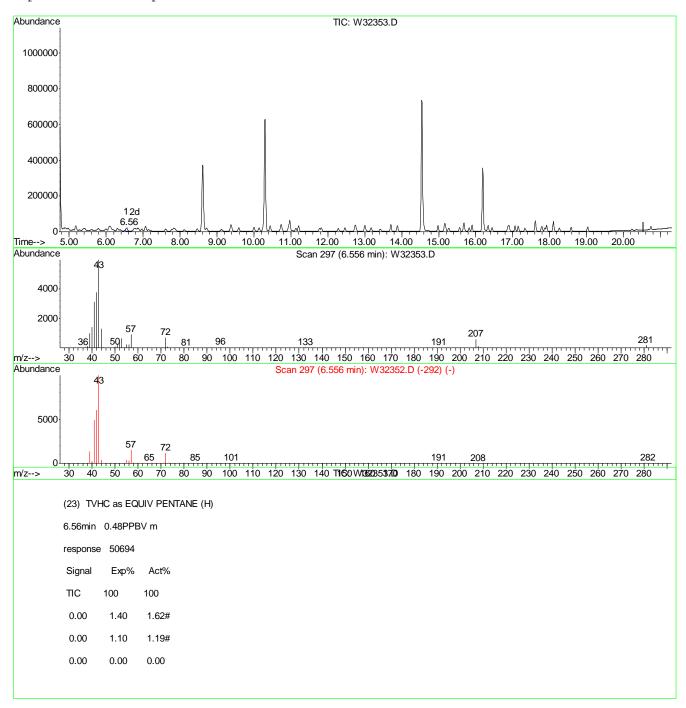
Acq On : 21 Jun 2011 6:00 pm Operator: YOUMINH Sample : IC1322-0.5 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32353.D MW1322.M

Thu Sep 01 12:13:38 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32353.D Vial: 1

 Acq On
 : 21 Jun 2011 6:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-0.5
 Inst : MSW

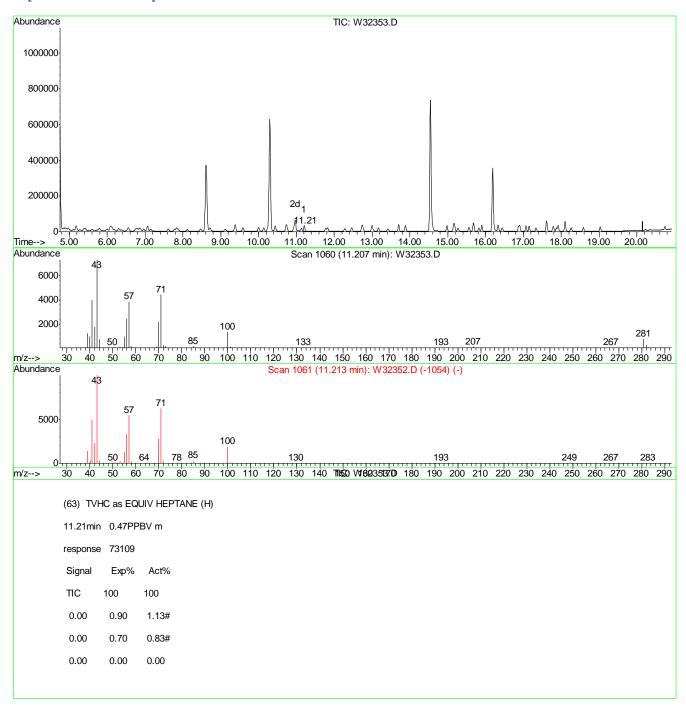
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32353.D MW1322.M

Thu Sep 01 12:13:41 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32356.D Vial: 2

Acq On : 21 Jun 2011 8:00 pm Operator: YOUMINH Sample : IC1322-20 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:19 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T	. QIon	Response	Conc U			
1) BROMOCHLOROMETHANE	8.62		145063	10.00	PPBV	7	0.00
50) 1,4-DIFLUOROBENZENE	10.33	L 114	734372 371606	10.00 10.00	PPBV	7	0.00
69) CHLOROBENZENE-D5			371606	10.00	PPBV	7	0.00
106) Chlorobenzene-d5(a)	14.5	5 82	370853	10.00	PPBV	7	0.00
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE					PPBV		0.00
Spiked Amount 5.000	Range 6!	5 - 128	Recov	ery =	102.	80%	
Target Compounds						~	alue
4) CHLORODIFLUOROMETHANE	4.88		86878				98
5) DICHLORODIFLUOROMETHANE	4.9		881747	20.69			100
6) PROPYLENE	4.91		351212	19.37			98
7) FREON 114	5.18		1046751	20.96			99
8) CHLOROMETHANE	5.10		113042	20.49			89
9) VINYL CHLORIDE	5.28		404579	21.18			100
10) 1,3-BUTADIENE	5.38		330621	20.67			100
11) n-BUTANE	5.42		659220	19.29			99
12) BROMOMETHANE	5.60		341004	20.85			100
13) CHLOROETHANE	5.73		230821	21.07			99
14) DICHLOROFLUOROMETHANE	5.78			20.64			100
15) ACROLEIN	6.0		159847				100
16) FREON 123	6.08		861403 513189	20.68			100
17) FREON 123A	6.13						99
18) TRICHLOROFLUOROMETHANE	6.30 6.35		818610	20.12 19.98			100 99
19) ISOPROPYL ALCOHOL 20) ACETONE	6.1		730025 186945				99
21) ACETONE 21) ACRYLONITRILE	6.52		313511	22.12			99
22) PENTANE	6.5		114897				100
23) TVHC as EQUIV PENTANE	6.5						100
24) IODOMETHANE	6.7		901323				99
25) 1,1-DICHLOROETHYLENE	6.79		372123	20.34			99
26) CARBON DISULFIDE	7.1			20.54			100
27) ETHANOL	5.83		175111	18.86			99
28) ACETONITRILE	5.98		320908	20.86			99
29) BROMOETHENE	6.00		353860	20.81			100
30) METHYLENE CHLORIDE	6.8		334142	19.04			99
31) 3-CHLOROPROPENE	6.9		189266	21.50			99
32) FREON 113		5 151	627259	20.87			99
33) TRANS-1,2-DICHLOROETHYLE			355497	20.71			100
34) TERTIARY BUTYL ALCOHOL	6.8		878019	20.88			100
35) METHYL TERTIARY BUTYL ET			1057483	21.61			100
36) TETRAHYDROFURAN	9.09		191410	21.58			99
37) HEXANE	8.62		638560	20.21			100
38) VINYL ACETATE	7.8		104546	22.62			98
39) 1,1-DICHLOROETHANE	7.78		691237	20.79			100
40) METHYL ETHYL KETONE	8.10						93
41) cis-1,2-DICHLOROETHYLENE	8.4		191205 388995	19.98			100
42) DI-ISOPROPYL ETHER	8.6			20.75			99
43) ETHYL ACETATE	8.63			20.98			92
45) EINIL ACEIAIE						п	72

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W32356.D MW1322.M Thu Sep 01 12:11:02 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32356.D Vial: 2

Acq On : 21 Jun 2011 8:00 pm Operator: YOUMINH : IC1322-20 Sample Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:19 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	METHYL ACRYLATE	8.63	55	707683	21.38 PPBV	100
	CHLOROFORM	8.73	83	700853	20.68 PPBV	100
46)	2,4-DIMETHYLPENTANE	9.38	57	783440 700978	20.93 PPBV	100
	1,1,1-TRICHLOROETHANE	9.59	97	700978	20.93 PPBV 20.78 PPBV	100
48)	CARBON TETRACHLORIDE		117	717417	20.75 PPBV	100
	1,2-DICHLOROETHANE	9.37	62	417254	20.75 PPBV 21.31 PPBV	100
	BENZENE	10.01	78	1191880	21.28 PPBV	100
52)	CYCLOHEXANE	10.25	84	558347	19.76 PPBV	98
53)	2,3-DIMETHYLPENTANE	10.45	71	295467	21.16 PPBV	99
54)	TRICHLOROETHYLENE	10.97	95		21.05 PPBV	100
	DIBROMOMETHANE	10.74	174	418389	21.05 PPBV 21.12 PPBV	99
56)	1,2-DICHLOROPROPANE	10.75				100
57)	ETHYL ACRYLATE	10.73	55	816589	20.51 PPBV 22.37 PPBV	100
58)	BROMODICHLOROMETHANE	10.94		737172	21.31 PPBV	
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	2010939	20.87 PPBV	99
60)	1,4-DIOXANE	10.98	88	252773	20.87 PPBV 22.22 PPBV	97
61)	METHYL METHACRYLATE	11.13	69	418662	21.89 PPBV	99
62)	HEPTANE	11.21	43	731201	21.89 PPBV 20.29 PPBV	100
63)	TVHC as EQUIV HEPTANE	11.21	TIC			
64)	METHYL ISOBUTYL KETONE	11.81	43	825821	21.35 PPBV	99
65)	cis-1,3-DICHLOROPROPENE	11.78	75	603863	21.51 PPBV	100
66)	TOLUENE	12.74	92	808357	21.51 PPBV 21.86 PPBV	100
67)	trans-1,3-DICHLOROPROPENE		75	569202	21.86 PPBV	100
68)	1,1,2-TRICHLOROETHANE	12.47	83	361172	22.15 PPBV	100
70)	ETHYL METHACRYLATE	12.99	69	636739	22.15 PPBV 22.24 PPBV	100
71)	2-HEXANONE	13.00	43	748040	20.36 PPBV	99
	TETRACHLOROETHYLENE	13.89		494502	19.99 PPBV 21.15 PPBV	99
73)	DIBROMOCHLOROMETHANE	13.18	129	704909	21.15 PPBV	100
74)	1,2-DIBROMOETHANE	13.43	107	588548 941940	21.23 PPBV 20.01 PPBV	100
75)	OCTANE	13.71	43	941940	20.01 PPBV	99
76)	1,1,1,2-TETRACHLOROETHANE	14.58	131	517990 947592	21.05 PPBV	# 100
77)	CHLOROBENZENE	14.60	112	947592	21.05 PPBV 20.68 PPBV	100
78)	ETHYLBENZENE	14.99	91	15/080/	ZI.Z8 PPBV	100
79)	m,p-XYLENE	15.18	106	1232966	43.04 PPBV 21.47 PPBV	99
80)	O-XYLENE			593994	21.47 PPBV	99
81)	STYRENE	15.57	104	894434	22.79 PPBV 20.81 PPBV	100
82)	1,2,3-TRICHLOROPROPANE	15.83	75	562462	20.81 PPBV	100
83)	NONANE	15.91		865475	21.13 PPBV	99
	BROMOFORM	15.28	173	628036	21.97 PPBV	100
86)	1,1,2,2-TETRACHLOROETHANE	15.69	83	703602	21.69 PPBV	100
87)	ISOPROPYLBENZENE	16.34	105	1678779	21.56 PPBV 22.12 PPBV	100
88)	BROMOBENZENE	16.45	156	450358	22.12 PPBV	100
89)	2-CHLOROTOLUENE	16.88	126	376142	21.64 PPBV 22.79 PPBV	# 100
	n-PROPYLBENZENE			437698	22.79 PPBV	97
	4-ETHYLTOLUENE	17.07		1480282	22.86 PPBV 21.81 PPBV	100
	1,3,5-TRIMETHYLBENZENE	17.16		1167972	21.81 PPBV	100
	ALPHA-METHYLSTYRENE			553253	23.22 PPBV	100
	TERT-BUTYLBENZENE	17.62	134	308730	21.85 PPBV 22.65 PPBV	99
95)	1,2,4-TRIMETHYLBENZENE	17.63	105	1111411	22.65 PPBV	99

(#) = qualifier out of range (m) = manual integration W32356.D MW1322.M Thu Sep 01 12:11:02 2011 MSW

> 611 of 685 ACCUTEST JA81330

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32356.D Vial: 2

Acq On : 21 Jun 2011 8:00 pm Operator: YOUMINH Sample : IC1322-20 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:19 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96)	m-DICHLOROBENZENE	17.80	146	664455	22.86 PPBV	100
97)	BENZYL CHLORIDE	17.79	91	827829	23.91 PPBV	100
98)	p-DICHLOROBENZENE	17.88	146	640954	22.36 PPBV	100
99)	SEC-BUTYLBENZENE	17.93	134	353374	22.27 PPBV	98
100)	p-ISOPROPYLTOLUENE	18.11	134	344120	22.76 PPBV	99
101)	o-DICHLOROBENZENE	18.27	146	573433	21.92 PPBV	100
102)	n-BUTYLBENZENE	18.59	134	271282	23.89 PPBV	98
103)	HEXACHLOROETHANE	19.04	201	360939	22.85 PPBV	99
104)	HEXACHLOROBUTADIENE	20.74	225	177846	19.43 PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.23	180	125989	20.11 PPBV	99
107)	NAPHTHALENE	20.35	128	236572	21.30 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32356.D MW1322.M Thu Sep 01 12:11:02 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32356.D Vial: 2

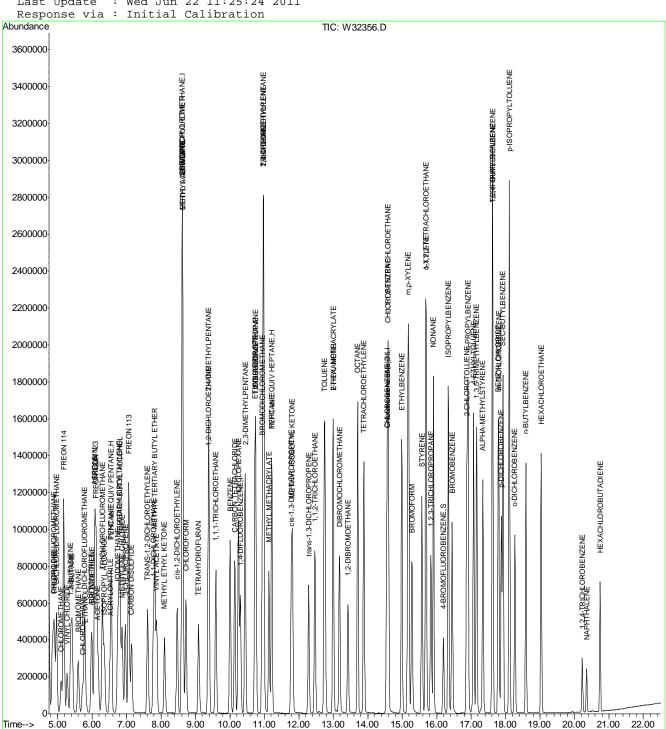
: 21 Jun 2011 8:00 pm Operator: YOUMINH Acq On : IC1322-20 : MSW Sample : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32356.D MW1322.M

Thu Sep 01 12:11:04 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32356.D Vial: 2

 Acq On
 : 21 Jun 2011 8:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-20
 Inst : MSW

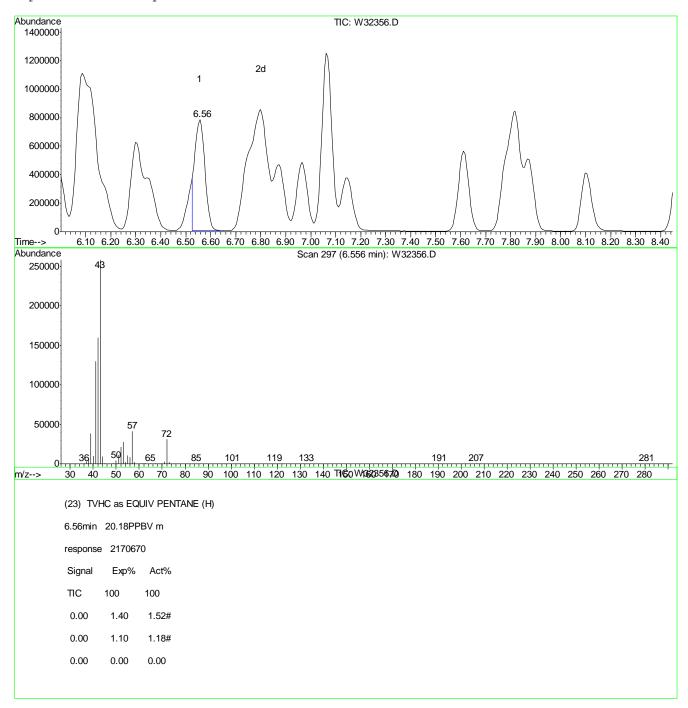
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32356.D MW1322.M

Tue Aug 16 08:52:07 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32356.D Vial: 2

 Acq On
 : 21 Jun 2011 8:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-20
 Inst : MSW

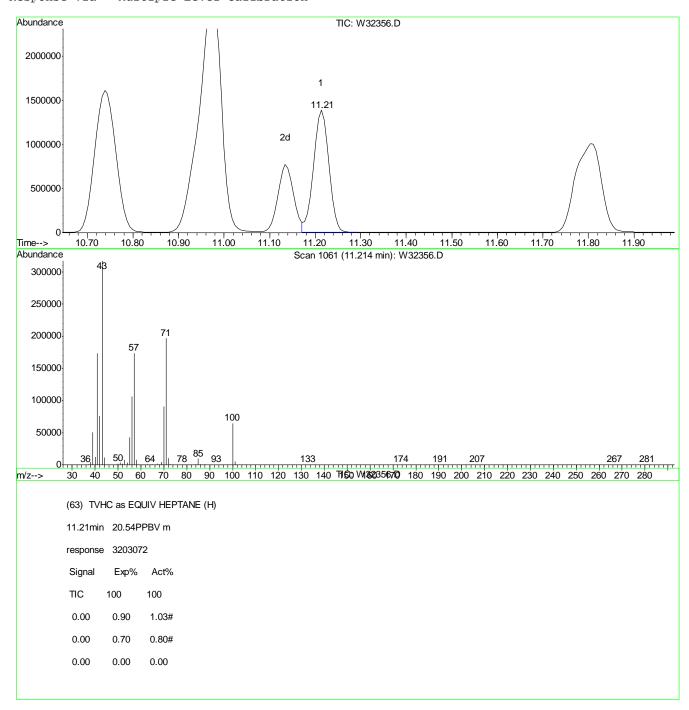
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32356.D MW1322.M

Tue Aug 16 08:52:14 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32356.D Vial: 2

 Acq On
 : 21 Jun 2011 8:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-20
 Inst : MSW

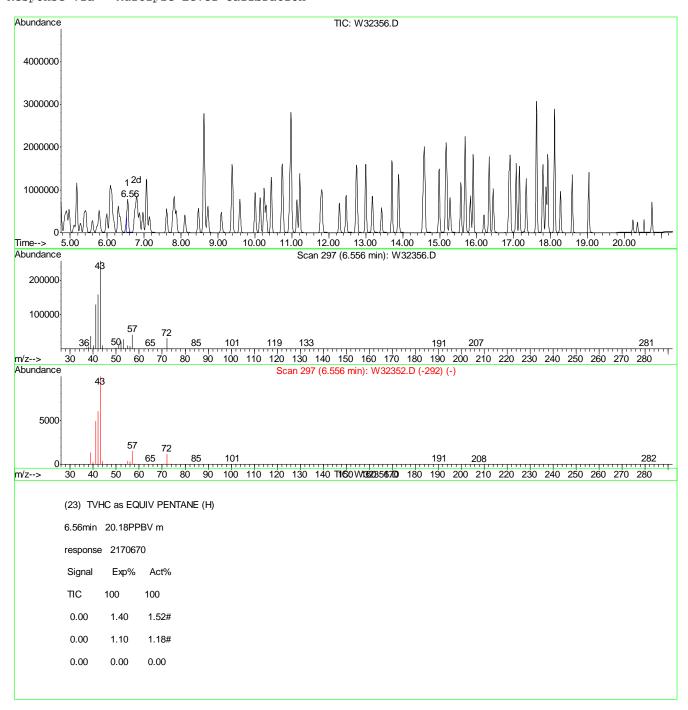
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32356.D MW1322.M

Thu Sep 01 12:13:52 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32356.D Vial: 2

 Acq On
 : 21 Jun 2011 8:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-20
 Inst : MSW

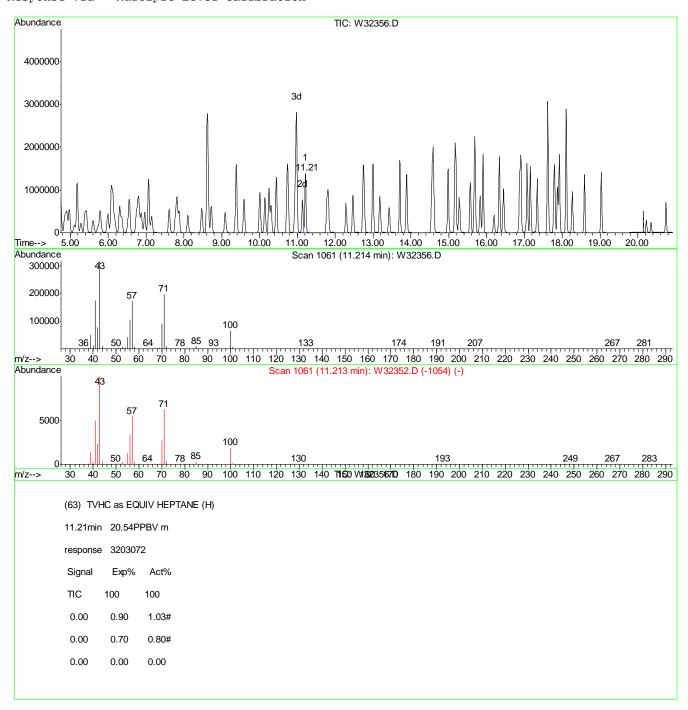
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32356.D MW1322.M

Thu Sep 01 12:13:56 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32357.D Vial: 2

Acq On : 21 Jun 2011 8:40 pm Operator: YOUMINH Sample : IC1322-5.0 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:22 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Stan	dards	R.T.	QIon	Response	Conc Ur	nits De	ev(Min)
1) BROMOCHI.	OROMETHANE	8 61	128	144061	10 00	DDRV	0 00
50) 1.4-DIFL	OROMETHANE UOROBENZENE NZENE-D5 nzene-d5(a)	10.30	114	731584	10.00	PPBV	0.00
69) CHLOROBE	NZENE-D5	14.54	82	347185	10.00	PPBV	0.00
106) Chlorobe	nzene-d5(a)	14.54	82	346550	10.00	PPBV	0.00
100, 011101020	iiiiiii ao (a)		02	310330	20.00		0.00
System Monito	ring Compounds						
85) 4-BROMOF	ring Compounds LUOROBENZENE	16.19	95	196105	5.23	PPBV	0.00
	_						_
Target Compou	nds	4 00	6.77	01505	F 1.4	DDD11	Qvalue
4) CHLORODI	FLUOROMETHANE	4.89	67	21585	5.14	PPB11	98
5) DICHLORO	DIFLUOROMETHANE	4.97	85	222531	5.26	PPD11	100
6) PROPYLEN	E .	4.91	41	86258	4.79	PPD11	100
7) FREON II	4 TIIN NID	5.18	85	202/41 2701/	5.30	PPDM	100
8) CHLOROME	THANE	5.10	52	2/814	5.08	PPDM	98
9) VINIL CH	DIENE POKIDE	J.∠0 E 20	0∠ E /I	99470	5.24 E 1/	PPBV	99
10) 1,3-BUIA	DIENE	5.30	2 <del>4</del>	162070	1 02	PPBV	100
12) DDOMOMET	пуис	5.42	9.4	26252	5 25	DDDM	100
12) DRUMUMEI	UANE DANE	5.00	54 61	571 <i>1</i> 1	5.33	DDDM	99
14) DICHLOROEL	ET HODOMETHYNE DAME	5.72	67	202270	5.23	PPDV	100
14) DICHLORU	FLOOROMEINANE	5.70	6 / E 6	202373	1 70	PPDV	100
16) FDFON 12	2	6.07	20	33411	5 2/	PPDV	# 100
10) FREON 12	3 N	6.00	117	131505	5.34	DDRW	100
18) TRICHLOR	OFIJIOROMETHANE	6 30	101	209244	5.18	DDRV	100
10) TRICHION	T. AT.COHOT.	6 35	45	177063	4 88	DDRV	99
20) ACETONE	n Anconon	6 17	58	44955	4 65	DDRV	94
21) ACRYLONI	TRILE	6 51	53	75392	5 36	DDRV	99
22) PENTANE	11(1111	6.56	57	28940	4.87	PPBV	99
23) TVHC as	EOUTV PENTANE	6.56	TIC	526159m	4.93	PPBV	
24) IODOMETH	ANE	6.74	142	232624	5.42	PPBV	100
25) 1,1-DICH	LOROETHYLENE	6.79	96	94161	5.18	PPBV	99
26) CARBON D	ISULFIDE	7.14	76	232090	5.29	PPBV	100
27) ETHANOL		5.81	45	44715	4.85	PPBV	98
28) ACETONIT	RILE	5.98	41	77438	5.07	PPBV	97
29) BROMOETH	ENE	5.99	106	89707	5.31	PPBV	100
30) METHYLEN	E CHLORIDE	6.87	84	85160	4.89	PPBV	99
31) 3-CHLORO	PROPENE	6.96	76	47555	5.44	PPBV	99
32) FREON 11	3	7.06	151	159824	5.35	PPBV	100
33) TRANS-1,	2-DICHLOROETHYLE	ENE 7.60	96	89637	5.26	PPBV	100
34) TERTIARY	BUTYL ALCOHOL	6.81	59	218369	5.23	PPBV	99
35) METHYL T	ERTIARY BUTYL E	THE 7.82	73	259656	5.34	PPBV	100
36) TETRAHYD	ROFURAN	9.09	72	46162	5.24	PPBV	98
37) HEXANE		8.62	57	165800	5.28	PPBV	99
38) VINYL AC	ETATE	7.87	86	25275	5.51	PPBV :	# 96
39) 1,1-DICH	LOROETHANE	7.78	63	176334	5.34	PPBV	100
40) METHYL E	THYL KETONE	8.10	72	45967	5.32	PPBV	94
41) cis-1,2-	DICHLOROETHYLEN	8.47	96	97386	5.04	PPBV	99
42) DI-ISOPR	OPYL ETHER	8.61	45	342157	5.27	PPBV	100
43) ETHYL AC	nt 5.000  nds  FLUOROMETHANE DIFLUOROMETHANE E 4 THANE HANE HANE HANE HANE FLUOROMETHANE  3 3A OFLUOROMETHANE L ALCOHOL  TRILE  EQUIV PENTANE ANE LOROETHYLENE ISULFIDE  RILE ENE E CHLORIDE PROPENE 3 2-DICHLOROETHYLI BUTYL ALCOHOL ERTIARY BUTYL ET ROFURAN  ETATE LOROETHANE THYL KETONE DICHLOROETHYLENI OPYL ETHER ETATE COPYL ETHER ETHER COPYL ETHER ETHER COPYL ETHER ETHER COPYL ETHER ETHER COPYL ETHER ETHER COPYL ETHER ETHER COPYL ETHER	8.63	61	28793	5.15	PPBV	97



<sup>(#) =</sup> qualifier out of range (m) = manual integration  $\tt W32357.D \ MW1322.M \ Thu \ Sep \ 01 \ 12:11:06 \ 2011 \ MSW$ 

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32357.D Vial: 2

Acq On : 21 Jun 2011 8:40 pm Operator: YOUMINH : IC1322-5.0 Sample Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:22 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit		Qva	lue
44)	METHYL ACRYLATE	8.63	55	173793	5.29 PP	BV		99
45)	CHLOROFORM	8.71	83	179862	5.35 PP	BV		100
46)	2,4-DIMETHYLPENTANE	9.38	57	199868 181518	5.38 PP 5.42 PP 5.40 PP	BV		100
	1,1,1-TRICHLOROETHANE	9.59	97	181518	5.42 PP	BV		99
48)	CARBON TETRACHLORIDE	10.13	117	185453	5.40 PP	BV		100
	1,2-DICHLOROETHANE	9.36	62	185453 105416	5.42 PP	BV		99
	BENZENE	10.00	78	302548	5.42 PP			100
52)	CYCLOHEXANE	10.24	84	142556 74434	5.06 PP	BV		94
53)	2,3-DIMETHYLPENTANE	10.44	71	74434	5.35 PP	BV		99
54)	TRICHLOROETHYLENE	10.96	95	115879 105429	5.34 PP			100
	DIBROMOMETHANE	10.73	174	105429	5.34 PP	BV		99
56)	1,2-DICHLOROPROPANE	10.74		110611	5.26 PP	BV		100
57)	ETHYL ACRYLATE	10.72	55	197128	5.42 PP	BV		100
58)	BROMODICHLOROMETHANE	10.93	83	188632	5.47 PP			100
59)	2,2,4-TRIMETHYLPENTANE	10.97	57	532545 62309	5.55 PP	BV		100
60)	1,4-DIOXANE	10.99	88	62309	5.50 PP			49
61)	METHYL METHACRYLATE	11.13	69	98522	5.17 PP	BV		98
62)	HEPTANE	11.21	43	98522 186788	5.20 PP	BV		99
63)	TVHC as EQUIV HEPTANE	11.21	TIC	807071m	5.19 PP	BV		
64)	METHYL ISOBUTYL KETONE	11.81	43	807071m 203864	5.29 PP	BV		100
65)	cis-1,3-DICHLOROPROPENE	11.77	75	149655	5.35 PP	BV		99
66)	TOLUENE	12.74	92	201476 140242	5.38 PP	BV		99
67)	trans-1,3-DICHLOROPROPENE	12.28	75	140242	5.41 PP	BV		100
68)	1,1,2-TRICHLOROETHANE	12.46	83	89110	5.49 PP	BV		99
70)	ETHYL METHACRYLATE	12.99	69	89110 152243 186597	5.69 PP	BV		100
71)	2-HEXANONE	12.99		186597	5.44 PP	BV		99
	TETRACHLOROETHYLENE	13.88	164	124305	5.38 PP	BV		99
73)	DIBROMOCHLOROMETHANE	13.18	129	175938	5.65 PP	BV		99
74)	1,2-DIBROMOETHANE	13.42	107	143777	5.55 PP	BV		100
75)	OCTANE	13.70	43	143777 238527	5.42 PP	BV		99
76)	1,1,1,2-TETRACHLOROETHANE	14.57	131	128585 233834	5.59 PP	BV	#	99
77)	CHLOROBENZENE	14.59	112	233834	5.46 PP	BV		99
78)	ETHYLBENZENE	14 98	91	386039	5 60 PP	BV		100
79)	m,p-XYLENE	15.17	106	300579	11.23 PF	BV		99
80)	O-XYLENE	15.68	T06	145456	5.63 PP	BV		99
81)	STYRENE	15.57	104	211993 137218	5.78 PP			100
82)	1,2,3-TRICHLOROPROPANE	15.82	75	137218	5.43 PP	BV		99
83)	NONANE	15.90		216240		BV		99
	BROMOFORM	15.27	173	151948	5.69 PP	BV		99
86)	1,1,2,2-TETRACHLOROETHANE	15.68		170568	5.63 PP			100
87)	ISOPROPYLBENZENE	16.33	105	414065 108870	5.69 PP			100
88)	BROMOBENZENE	16.44	156	108870	5.72 PP	BV		99
89)	2-CHLOROTOLUENE	16.87	126	91514 103518	5.63 PP	BV	#	99
	n-PROPYLBENZENE	16.90	120	103518	5.77 PP			96
	4-ETHYLTOLUENE	17.07	105	352864	5.83 PP			99
	1,3,5-TRIMETHYLBENZENE	17.16	105	352864 282484	5.65 PP			99
	ALPHA-METHYLSTYRENE	17.33	118	124951	5.61 PP			100
	TERT-BUTYLBENZENE	17.61	134	72693 263004	5.51 PP			97
95)	1,2,4-TRIMETHYLBENZENE	17.62	105	263004	5.74 PP	BV		100

(#) = qualifier out of range (m) = manual integration W32357.D MW1322.M Thu Sep 01 12:11:07 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32357.D Vial: 2

Acq On : 21 Jun 2011 8:40 pm Operator: YOUMINH Sample : IC1322-5.0 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:22 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96)	m-DICHLOROBENZENE	17.80	146	152717	5.62 PPBV	99
97)	BENZYL CHLORIDE	17.78	91	181268	5.60 PPBV	99
98)	p-DICHLOROBENZENE	17.87	146	147835	5.52 PPBV	100
99)	SEC-BUTYLBENZENE	17.92	134	82017	5.53 PPBV	99
100)	p-ISOPROPYLTOLUENE	18.10	134	78775	5.58 PPBV	99
101)	o-DICHLOROBENZENE	18.27	146	133371	5.46 PPBV	100
102)	n-BUTYLBENZENE	18.59	134	58481	5.51 PPBV	100
103)	HEXACHLOROETHANE	19.03	201	85146	5.77 PPBV	99
104)	HEXACHLOROBUTADIENE	20.74	225	45006	5.26 PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.22	180	28264	4.83 PPBV	98
107)	NAPHTHALENE	20.35	128	55212	5.32 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32357.D MW1322.M Thu Sep 01 12:11:07 2011 MSW

620 of 685
ACCUTEST

JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32357.D Vial: 2

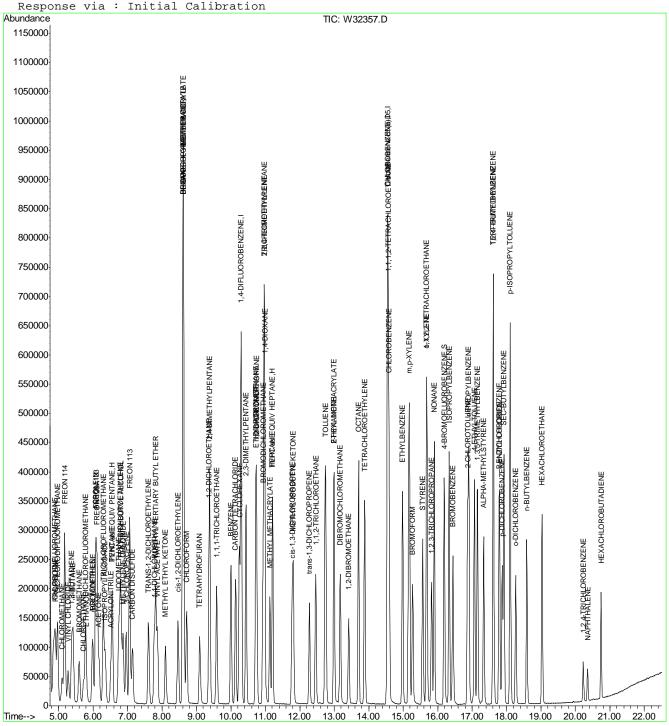
Acq On : 21 Jun 2011 8:40 pm Operator: YOUMINH Sample : IC1322-5.0 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32357.D MW1322.M

Thu Sep 01 12:11:08 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32357.D Vial: 2

 Acq On
 : 21 Jun 2011 8:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-5.0
 Inst : MSW

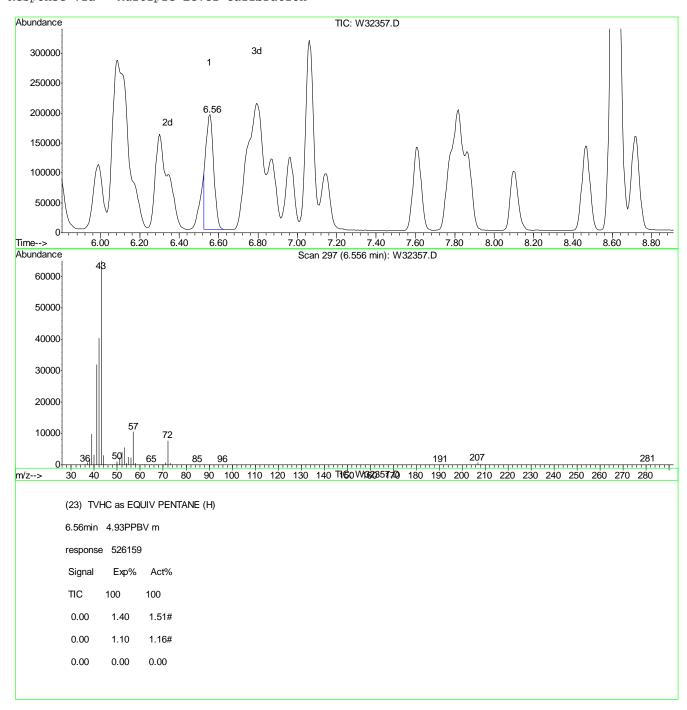
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32357.D MW1322.M

Tue Aug 16 08:52:25 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32357.D Vial: 2

 Acq On
 : 21 Jun 2011 8:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-5.0
 Inst : MSW

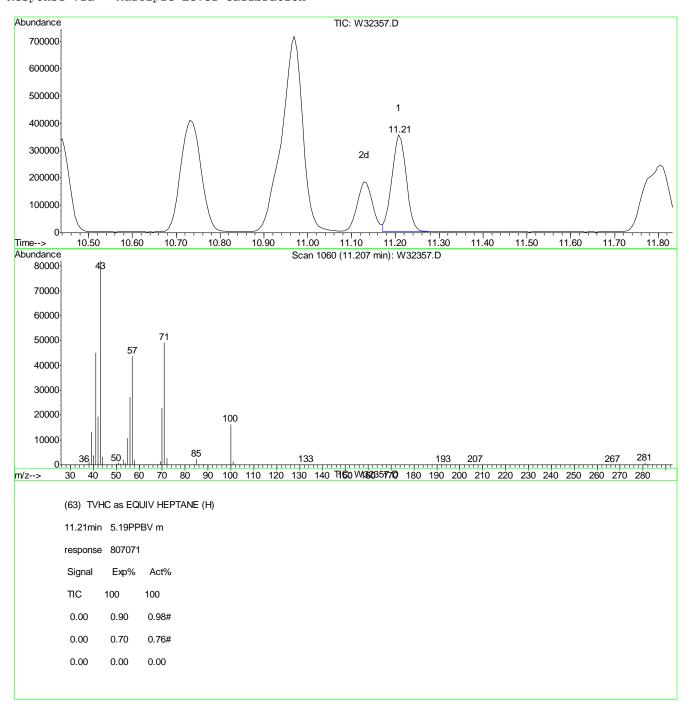
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32357.D MW1322.M

Tue Aug 16 08:52:32 2011

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32357.D Vial: 2

 Acq On
 : 21 Jun 2011
 8:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-5.0
 Inst
 : MSW

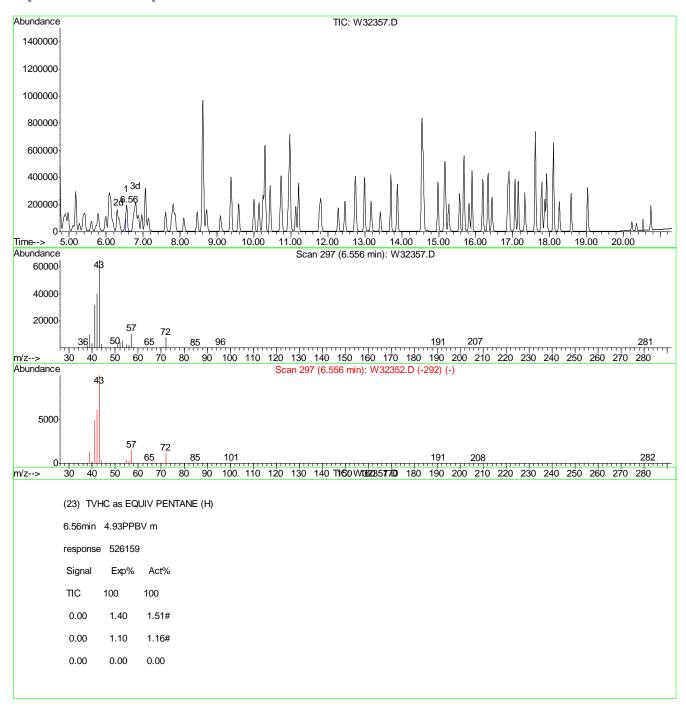
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 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32357.D MW1322.M

Thu Sep 01 12:14:01 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32357.D Vial: 2

 Acq On
 : 21 Jun 2011 8:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-5.0
 Inst : MSW

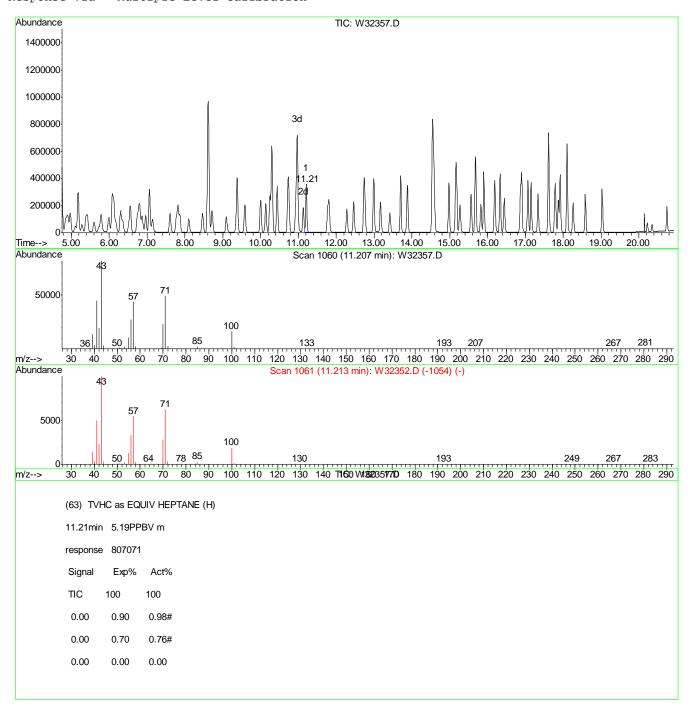
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32357.D MW1322.M

Thu Sep 01 12:14:04 2011



Vial: 4

**Manual Integrations** APPROVED

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32359.D

Acq On : 21 Jun 2011 10:00 pm Operator: YOUMINH Sample : IC1322-0.04 Inst : MSW Misc : MS14116, VW1322, , , , , 1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:28 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Inte	rnal Standards	R.T.	QIon	Response	Conc Ur	nits De	ev(Min)
1)	BROMOCHLOROMETHANE	8.61	128	141897	10.00	PPRV	0.00
,	1,4-DIFLUOROBENZENE	10.30	114	729611	10.00	PPRV	0.00
	CHLOROBENZENE-D5	14.54	82	330760	10.00	PPRV	0.00
	Chlorobenzene-d5(a)	14.54	82	141897 729611 330760 329224	10.00	PPBV	0.00
100,	enforozenzene us(u)	11.31	02	32,221	10.00	1120	0.00
Syst	em Monitoring Compounds						
	4-BROMOFLUOROBENZENE						
Sp	iked Amount 5.000	Range 65	- 128	Recove	ry =	94.8	0%
Targ	et Compounds					(	Qvalue
5)	DICHLORODIFLUOROMETHANE	4.97	85	1526	0.04	PPBV	97
6)	PROPYLENE	4.92	41	864	0.05	PPBV	88
7)	FREON 114	5.17		1772	0.04	PPBV	100
9)	VINYL CHLORIDE	5.28	62	651	0.03	PPBV	76
	1,3-BUTADIENE	5.37		614	0.04	PPBV :	# 35
	BROMOMETHANE	5.61	94	536	0.03	PPBV :	# 30
13)	CHLOROETHANE	5.73	64	381	0.04	PPBV :	# 49
14)	DICHLOROFLUOROMETHANE	5.79	67	1390	0.04	PPBV :	# 83
16)	FREON 123	6.08	83	1519	0.04	PPBV :	# 92
17)	FREON 123A	6.13	117	865	0.04	PPBV	90
18)	TRICHLOROFLUOROMETHANE	6.31	101	1562	0.04	PPBV	93
	PENTANE	6.57	57	1562 254	0.04	PPBV :	
	IODOMETHANE	6.75	142		0.03	PPBV	
	CARBON DISULFIDE	7.14	76	1495	0.03	PPBV	97
	ACETONITRILE	5.98	41	707	0.05	PPBV :	# 1
	BROMOETHENE	5.99	106	576	0.03	PPBV :	# 91
31)	3-CHLOROPROPENE	6.96	76	269	0.03	PPBV :	# 58
	FREON 113	7.06			0.04	PPBV	
,	TRANS-1,2-DICHLOROETHYLE			589	0.04	PPBV	
	TERTIARY BUTYL ALCOHOL	6.87		1300m		PPBV	
	METHYL TERTIARY BUTYL ET	HE 7.84	73	1622	0.03	PPBV	84
	TETRAHYDROFURAN	9.14	72	226		PPBV :	
	HEXANE	8.62	57	1213		PPBV	
39)	1,1-DICHLOROETHANE	7.77	63	1138	0.03	PPBV	87
	METHYL ETHYL KETONE	8.12	72	250		PPBV :	
	cis-1,2-DICHLOROETHYLENE			810		PPBV :	
	DI-ISOPROPYL ETHER	8.62		2324	0 04	PPBV	94
	METHYL ACRYLATE	8.64		1187	0.04	PPBV :	# 79
	CHLOROFORM	8.72		1187 1124	0.03	PPBV :	# 87
	2,4-DIMETHYLPENTANE	9.38		1303		PPBV	
	1,1,1-TRICHLOROETHANE	9.59		1153		PPBV	
	CARBON TETRACHLORIDE	10.13		1192		PPBV	
,	1,2-DICHLOROETHANE	9.37				PPBV :	
51)	BENZENE	9.99		599 1980	0.04	PPBV	
52)	CYCLOHEXANE		84			PPBV :	
531	2,3-DIMETHYLPENTANE	10.43		478		PPBV :	
	TRICHLOROETHYLENE	10.15	95	756		PPBV	90
	DIBROMOMETHANE	10.73		693	0.03	PPBV :	
	1,2-DICHLOROPROPANE	10.75		795	0.04	PPRV	π 3 <u>2</u> 78
	ETHYL ACRYLATE	10.73	55	1226		PPBV :	
,							, , ,

(#) = qualifier out of range (m) = manual integration W32359.D MW1322.M Thu Sep 01 12:11:10 2011 MSW

> 626 of 685 ACCUTEST JA81330

Page 1

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32359.D Vial: 4

Acq On : 21 Jun 2011 10:00 pm Operator: YOUMINH Sample : IC1322-0.04 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:28 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	t	Qva	lue
58)	BROMODICHLOROMETHANE	10.93	83	1172	0.03 PI	 PBV		98
59)	2,2,4-TRIMETHYLPENTANE	10.96	57	3420	0.04 PI			98
61)	METHYL METHACRYLATE	11.15	69	584	0.03 PI	PBV	#	76
62)	HEPTANE	11.21	43	1498	0.04 PI	PBV		84
63)	TVHC as EQUIV HEPTANE	11.21	TIC	6250m	0.04 PI	PBV		
	METHYL ISOBUTYL KETONE	11.84	43	1428	0.04 PI	PBV	#	66
65)	cis-1,3-DICHLOROPROPENE	11.77	75	951	0.03 PI	PBV		86
66)	TOLUENE	12.74	92	1348	0.04 PI	PBV		96
67)	trans-1,3-DICHLOROPROPENE	12.28	75	885	0.03 PI	PBV	#	78
68)	1,1,2-TRICHLOROETHANE	12.46		492	0.03 PI	PBV	#	86
70)	ETHYL METHACRYLATE	12.99	69 43	767	0.03 PI	PBV	#	85
71)	2-HEXANONE	13.02	43	1362	0.04 PI	PBV		75
72)	TETRACHLOROETHYLENE	13.88	164	798	0.04 PI	PBV		93
73)	DIBROMOCHLOROMETHANE	13.17	129	1007	0.03 PI	PBV		89
74)	1,2-DIBROMOETHANE	13.41	107	795	0.03 PI	PBV	#	88
75)	OCTANE	13.70		1617	0.04 PI	PBV	#	82
76)	1,1,1,2-TETRACHLOROETHANE	14.57	131	729	0.03 PI	PBV	#	61
77)	CHLOROBENZENE	14.58	112	1461	0.04 PI	PBV	#	44
78)	ETHYLBENZENE	14.98	91	2296	0.03 PI	PBV		95
79)	m,p-XYLENE	15.16	106	1635	0.06 PI	PBV	#	86
80)	O-XYLENE	15.68	106	807	0.03 PI	PBV		98
81)	STYRENE	15.57		1114	0.03 PI	PBV		96
82)	1,2,3-TRICHLOROPROPANE	15.83	75	956	0.04 PI	PBV	#	82
83)	NONANE	15.90	43	1308	0.04 PI	PBV		83
84)	BROMOFORM	15.27	173	809	0.03 PI	PBV		83
86)	1,1,2,2-TETRACHLOROETHANE	15.69	83	937	0.03 PI	PBV	#	95
87)	ISOPROPYLBENZENE	16.33		2206	0.03 PI	PBV		96
88)	BROMOBENZENE	16.44	156	603	0.03 PI	₽BV		90
89)	2-CHLOROTOLUENE	16.86		524	0.03 PI	₽BV	#	80
,	n-PROPYLBENZENE	16.90		516	0.03 PI			71
91)	4-ETHYLTOLUENE	17.07		1810	0.03 PI			96
92)	1,3,5-TRIMETHYLBENZENE	17.15	105	1533	0.03 PI	₽BV		90
95)	1,2,4-TRIMETHYLBENZENE	17.62	105	1405	0.03 PI	PBV		93
96)	m-DICHLOROBENZENE	17.80		913	0.04 PI	₽BV		88
97)	BENZYL CHLORIDE	17.78	91	1107	0.04 PI	₽BV		88
98)	p-DICHLOROBENZENE	17.88		1035	0.04 PI			92
99)	SEC-BUTYLBENZENE	17.92		389	0.03 PI			85
100)	p-ISOPROPYLTOLUENE	18.11			0.03 PI			78
	o-DICHLOROBENZENE	18.27		934	0.04 PI			95
104)	HEXACHLOROBUTADIENE	20.75	225	283	0.03 PI	₽BV	#	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32359.D MW1322.M Thu Sep 01 12:11:10 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32359.D Vial: 4

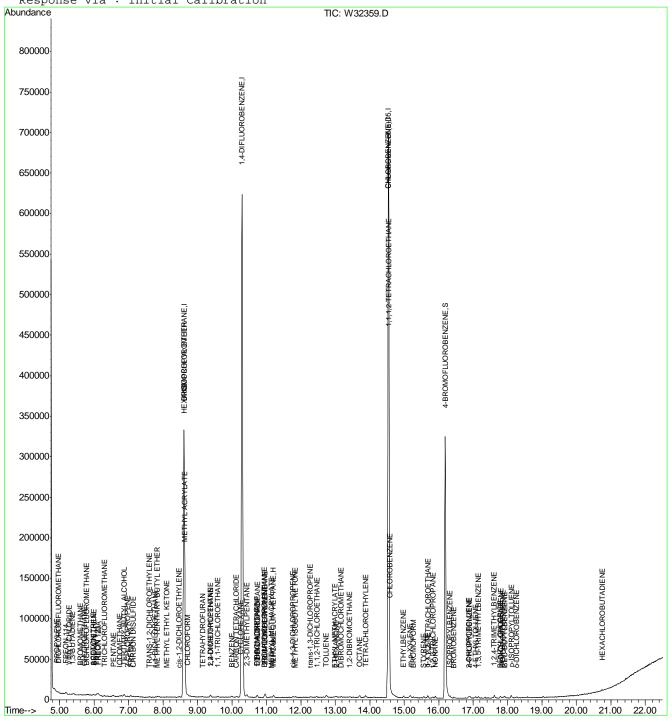
Acq On : 21 Jun 2011 10:00 pm Operator: YOUMINH Sample : IC1322-0.04 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration



W32359.D MW1322.M

Thu Sep 01 12:11:10 2011



# **Manual Integration Approval Summary**

Sample Number: VW1322-IC1322 Method: TO-15

Lab FileID:W32359.DAnalyst approved:06/23/11 10:14Youmin HuInjection Time:06/21/11 22:00Supervisor approved:06/24/11 08:52Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tertiary Butyl Alcohol	75-65-0		6.87	Poor instrument integration

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32359.D Vial: 4

 Acq On
 : 21 Jun 2011 10:00 pm
 Operator: YOUMINH

 Sample
 : IC1322-0.04
 Inst : MSW

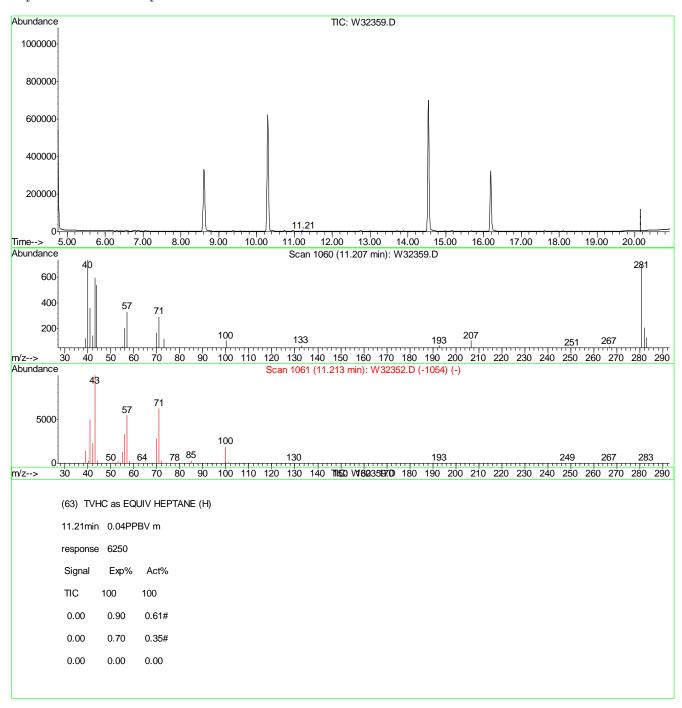
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32359.D MW1322.M

Thu Sep 01 12:14:11 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32360.D Vial: 2

 Acq On
 : 21 Jun 2011 10:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-40
 Inst : MSW

 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:31 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth: TO15W

Inte	rnal Standards	R.T.	QIon	Response	Conc Units Dev(Min)	
1)	BROMOCHLOROMETHANE	8.62	128	144315	10.00 PPBV 0.00	)
	1,4-DIFLUOROBENZENE	10.30	114	730116	10.00 PPBV 0.00	)
	CHLOROBENZENE-D5	14.55	82	384708	10.00 PPBV 0.00	)
106)	Chlorobenzene-d5(a)	14.55	82	384391	10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00	)
SYSU	em Monitoring Compounds 4-BROMOFLUOROBENZENE	16 20	0 5	205210	4.94 PPBV 0.00	١
00 <i>)</i>	iked Amount 5.000	Pange 65				'
SP	Tred Amount 5.000	Ralige 05	- 120	Recove	ery – 90.00%	
	ret Compounds				Qvalue	
	CHLORODIFLUOROMETHANE	4.87	6.7	163617	38.86 PPBV 97 38.68 PPBV 99	
	DICHLORODIFLUOROMETHANE	4.96	85	1639695	38.86 PPBV 97 38.68 PPBV 99 36.79 PPBV 99 38.85 PPBV 100 39.09 PPBV 91 39.99 PPBV 100 38.50 PPBV 98 38.66 PPBV 98 38.65 PPBV 98 38.52 PPBV 100 38.33 PPBV 100 38.33 PPBV 100 38.41 PPBV 100 38.41 PPBV 100 38.41 PPBV 99 36.98 PPBV 100 37.13 PPBV 99 36.44 PPBV 99 35.39 PPBV 99 35.39 PPBV 99 35.39 PPBV 99 35.39 PPBV 99 35.39 PPBV 99 35.37 PPBV 99 37.98 PPBV 99 37.98 PPBV 99 37.98 PPBV 99 37.98 PPBV 99 37.98 PPBV 99 37.98 PPBV 99 38.68 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99 38.79 PPBV 99	)
6)	PROPYLENE	4.90	41	663589	36.79 PPBV 99	)
7)	FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROETHANE	5.17	85	1930171	38.85 PPBV 100	)
8)	CHLOROMETHANE	5.10	52	214503	39.09 PPBV 91	
9)	VINYL CHLORIDE	5.27	62	759921	39.99 PPBV 100	1
10)	1,3-BUTADIENE	5.37	54	612694	38.50 PPBV 100	)
11)	n-BUTANE	5.42	43	1213717	35.69 PPBV 100	)
12)	BROMOMETHANE	5.59	94	632321	38.85 PPBV 99	,
13)	CHLOROETHANE	5.71	64	432321	39.66 PPBV 98	\$
14)	DICHLOROF LUOROME THANE	5.78	67	1489256	38.52 PPBV 100	)
15)	ACROLEIN FREON 123 FREON 123A	6.07	56	299033	36.20 PPBV 100	)
	FREON 123	6.07	83	1587892	38.33 PPBV # 100	)
		6.12	117	951801	38.41 PPBV 100	)
	TRICHLOROFLUOROMETHANE	6.29	101	1497017	36.98 PPBV 100	)
19)	ISOPROPYL ALCOHOL	6.35	45	1349636	37.13 PPBV 99	,
	ACETONE	6.17	58	352811	36.44 PPBV 99	,
	ACRYLONITRILE	6.51	53	587688	41.68 PPBV 99	į
22)	PENTANE	6.55	57	210723	35.39 PPBV 99	,
23)	TVHC as EQUIV PENTANE	6.55	TIC	3946551m	36.88 PPBV	
24)	IODOMETHANE	6.74	142	1649252	38.36 PPBV 99	,
	1,1-DICHLOROETHYLENE	6.78	96	691918	38.02 PPBV 99	,
26)	CARBON DISULFIDE	7.13	76	1670374	37.98 PPBV 100	)
27)	ETHANOL	5.81	45	326633	35.37 PPBV 99	,
	ACETONITRILE	5.97	41	605531	39.57 PPBV 98	\$
,	BROMOETHENE	5.98	106	656011	38.79 PPBV 100	)
30)	METHYLENE CHLORIDE	6.87	84	616527	35.32 PPBV 97	1
31)	3-CHLOROPROPENE	6.96	76	352336	40.24 PPBV 97	,
32)	FREON 113	7.06	151	1152747	38.56 PPBV 99	į
33)	TRANS-1,2-DICHLOROETHYLE TERTIARY BUTYL ALCOHOL	ENE 7.60	96	663742	38.86 PPBV 99	,
34)	TERTIARY BUTYL ALCOHOL	6.81	59	1565791	37.44 PPBV 99	
	METHYL TERTIARY BUTYL ET	THE 7.81	73	1961484	40.29 PPBV 100	)
	TETRAHYDROFURAN	9.09	72	363020	41.14 PPBV 99	į
37)	HEXANE	8.62	57	1121994	35.70 PPBV 99	,
38)	VINYL ACETATE	7.87	86	200018	43.50 PPBV # 95	
39)	1,1-DICHLOROETHANE	7.77	63	1269686	38.38 PPBV 99	
40)	METHYL ETHYL KETONE	8.10	72	364200	42.08 PPBV # 90	
	cis-1,2-DICHLOROETHYLENE	8.47	96	728231	37.61 PPBV 99	
42)	DI-ISOPROPYL ETHER ETHYL ACETATE	8.61	45	2379157	36.60 PPBV 98	
	ETHYL ACETATE	8.63	61	216141	38.56 PPBV 99 38.86 PPBV 99 37.44 PPBV 99 40.29 PPBV 100 41.14 PPBV 99 43.50 PPBV # 95 38.38 PPBV # 95 42.08 PPBV # 90 37.61 PPBV 99 36.60 PPBV 98 38.61 PPBV # 83	,

(#) = qualifier out of range (m) = manual integration

W32360.D MW1322.M Thu Sep 01 12:11:12 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32360.D Vial: 2

Acq On : 21 Jun 2011 10:40 pm Operator: YOUMINH Sample : IC1322-40 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:31 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	METHYL ACRYLATE	8.63	55	1280361	38.88 PPBV	99
	CHLOROFORM	8.72	83	1301534	38.61 PPBV	100
46)	2,4-DIMETHYLPENTANE	9.38	57	1421332	38.17 PPBV	99
	1,1,1-TRICHLOROETHANE	9.38 9.59	97	1299937	38.17 PPBV 38.73 PPBV	100
48)	CARBON TETRACHLORIDE	10.14	117	1324472	38.51 PPBV	100
49)	1,2-DICHLOROETHANE	9.37	62	765625	38.51 PPBV 39.31 PPBV	100
51)	BENZENE	10.01	78			
52)	CYCLOHEXANE	10.25	84	1036304	36.88 PPBV 39.57 PPBV	96
53)	2,3-DIMETHYLPENTANE	10.45	71	549383	39.57 PPBV	97
54)	TRICHLOROETHYLENE	10.97	95	838527	38.73 PPBV 40.00 PPBV	100
55)	DIBROMOMETHANE	10.74	174	787738	40.00 PPBV	100
56)	1,2-DICHLOROPROPANE	10.76	63	789247	37.64 PPBV 41.27 PPBV	99
57)	ETHYL ACRYLATE	10.73	55	1497695	41.27 PPBV	99
58)	BROMODICHLOROMETHANE	10.94	83	13508/2	39.28 PPBV	100
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	3468466	36.21 PPBV 40.75 PPBV	99
60)	1,4-DIOXANE			460799	40.75 PPBV	# 68
61)	METHYL METHACRYLATE	11.14	69	797416	41.93 PPBV	99
62)	HEPTANE	11.21	43	1323749	41.93 PPBV 36.95 PPBV	98
63)	TVHC as EQUIV HEPTANE	11.21	TIC		37.34 PPBV	
64)	METHYL ISOBUTYL KETONE	11.82	43		39.44 PPBV	
65)	cis-1,3-DICHLOROPROPENE	11.78		1127421	40.39 PPBV	99
66)	TOLUENE	12.74	92	1499110	40.12 PPBV	99
67)	trans-1,3-DICHLOROPROPENE			1075371	40.12 PPBV 41.54 PPBV	100
68)	1,1,2-TRICHLOROETHANE	12.48		677538	41.80 PPBV	99
70)	ETHYL METHACRYLATE	13.00	69	1185351	39.99 PPBV	99
71)	2-HEXANONE	13.01	43	1361843	35 81 DDBW	9.8
	TETRACHLOROETHYLENE	13.89	164	931136	36.36 PPBV 38.23 PPBV	100
73)	DIBROMOCHLOROMETHANE	13.18	129	1318996	38.23 PPBV	100
74)	1,2-DIBROMOETHANE	13.43	107	1108493	38.63 PPBV	100
75)	OCTANE	13.71	43	1704888	38.63 PPBV 34.99 PPBV	97
76)	1,1,1,2-TETRACHLOROETHANE	14.58	131	954493	37.47 PPBV	# 100
	CHLOROBENZENE	14.60	112	1756820	37.47 PPBV 37.04 PPBV	99
78)	ETHYLBENZENE	14.99	91	2917588	38.17 PPBV	99
79)	m,p-XYLENE	15.19	106	2276408	76.76 PPBV 38.13 PPBV	97
80)	O-XYLENE	15.69	106	1092014	38.13 PPBV	98
81)	STYRENE	15.58		1686928	38.13 PPBV 41.53 PPBV 37.42 PPBV 36.68 PPBV	100
82)	1,2,3-TRICHLOROPROPANE	15.84	75	1046972	37.42 PPBV	99
83)	NONANE	15.91		1554998	36.68 PPBV	97
	BROMOFORM	15.29	173	1189143	40.18 PPBV	99
86)	1,1,2,2-TETRACHLOROETHANE	15.69	83	1294123	38.54 PPBV	100
87)	ISOPROPYLBENZENE	16.35	105	3093643	38.37 PPBV	99
88)	BROMOBENZENE			858442	40.73 PPBV	
89)	2-CHLOROTOLUENE	16.88	126	705910	39.22 PPBV 41.42 PPBV	# 99
90)	n-PROPYLBENZENE	16.91	120	823607	41.42 PPBV	93
	4-ETHYLTOLUENE	17.08		2765033	41.24 PPBV 39.43 PPBV	99
	1,3,5-TRIMETHYLBENZENE	17.16		2185924	39.43 PPBV	100
	ALPHA-METHYLSTYRENE	17.35		1049256	42.54 PPBV	100
	TERT-BUTYLBENZENE	17.62	134	570834	39.02 PPBV 40.15 PPBV	97
95)	1,2,4-TRIMETHYLBENZENE	17.63	105	2039749	40.15 PPBV	98



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32360.D MW1322.M Thu Sep 01 12:11:12 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32360.D Vial: 2

Acq On : 21 Jun 2011 10:40 pm Operator: YOUMINH Sample : IC1322-40 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:31 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96) m-DICHLOROBENZENE	17.81	146	1276349	42.42 PPBV	100
97) BENZYL CHLORIDE	17.79	91	1605312	44.78 PPBV	99
98) p-DICHLOROBENZENE	17.88	146	1223478	41.23 PPBV	99
99) SEC-BUTYLBENZENE	17.93	134	667401	40.62 PPBV	94
100) p-ISOPROPYLTOLUENE	18.11	134	644272	41.16 PPBV	96
101) o-DICHLOROBENZENE	18.27	146	1093670	40.39 PPBV	100
102) n-BUTYLBENZENE	18.60	134	531621	45.22 PPBV	95
103) HEXACHLOROETHANE	19.03	201	692478	42.34 PPBV	98
104) HEXACHLOROBUTADIENE	20.74	225	327060	34.51 PPBV	100
105) 1,2,4-TRICHLOROBENZENE	20.23	180	260014	40.09 PPBV	99
107) NAPHTHALENE	20.35	128	473002	41.09 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32360.D MW1322.M Thu Sep 01 12:11:12 2011 MSW



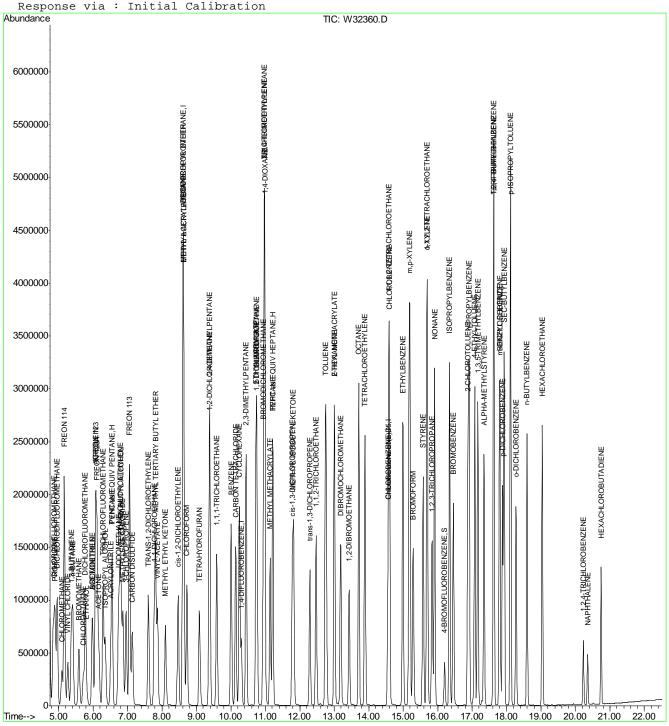
Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32360.D Vial: 2

Acq On : 21 Jun 2011 10:40 pm Operator: YOUMINH Sample : IC1322-40 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Last Update : Wed Jun 22 11:25:24 2011



W32360.D MW1322.M

Thu Sep 01 12:11:12 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32360.D Vial: 2

 Acq On
 : 21 Jun 2011 10:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-40
 Inst : MSW

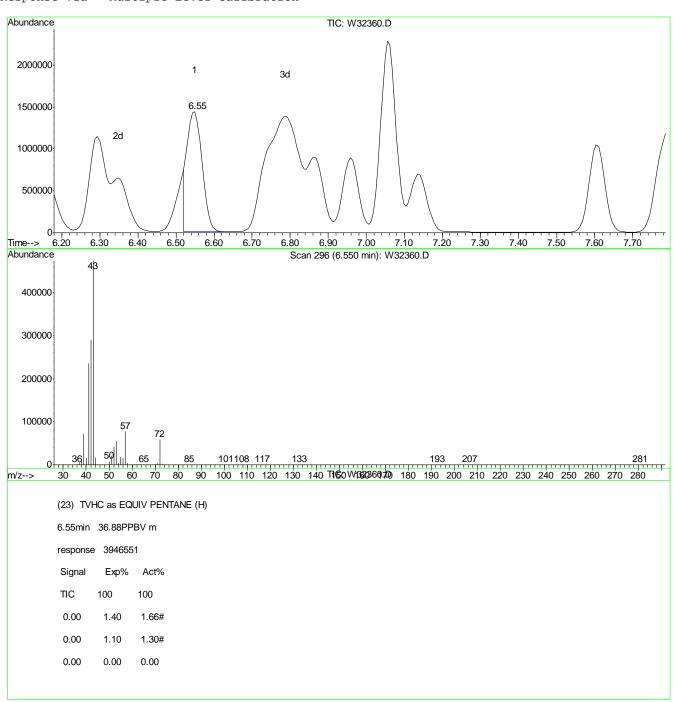
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32360.D MW1322.M

Tue Aug 16 08:53:05 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32360.D Vial: 2

 Acq On
 : 21 Jun 2011 10:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-40
 Inst : MSW

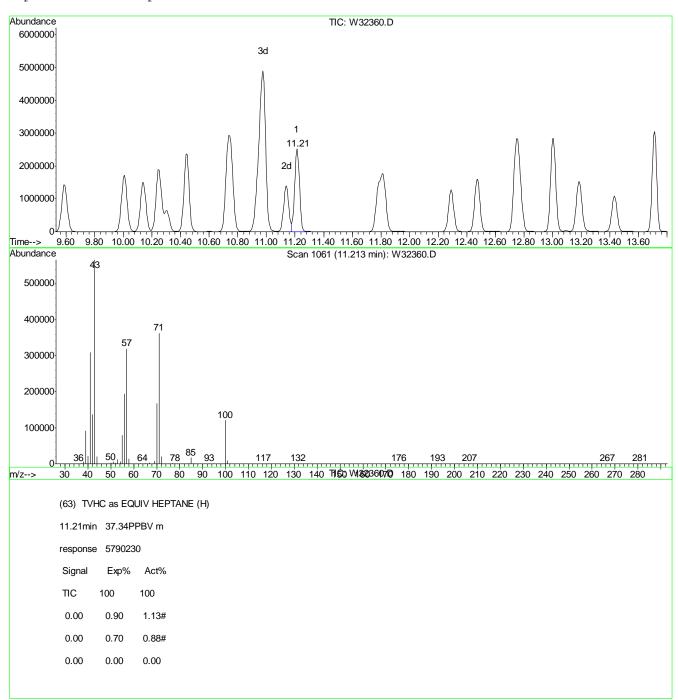
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32360.D MW1322.M

Tue Aug 16 08:53:13 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32360.D Vial: 2

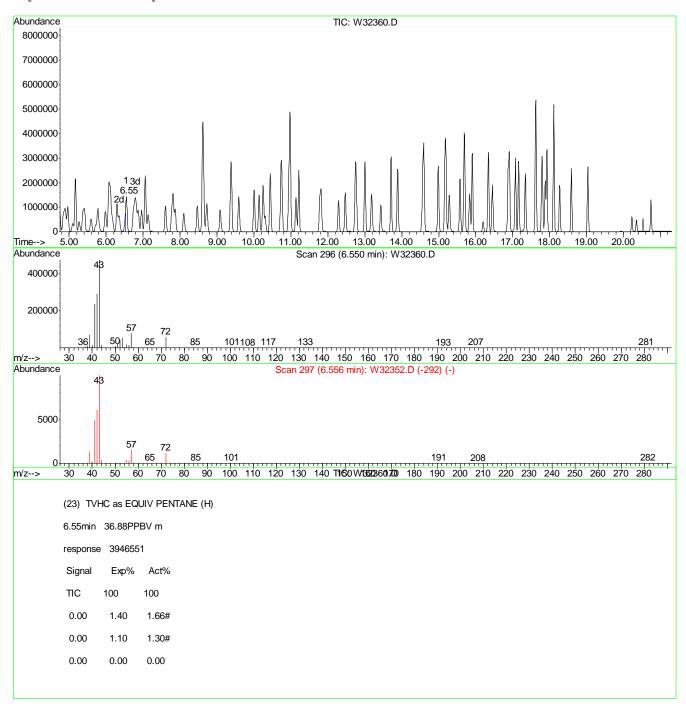
: 21 Jun 2011 10:40 pm Operator: YOUMINH Acq On Sample : IC1322-40 : MSW Inst Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Thu Sep 01 12:14:16 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32360.D Vial: 2

 Acq On
 : 21 Jun 2011 10:40 pm
 Operator: YOUMINH

 Sample
 : IC1322-40
 Inst : MSW

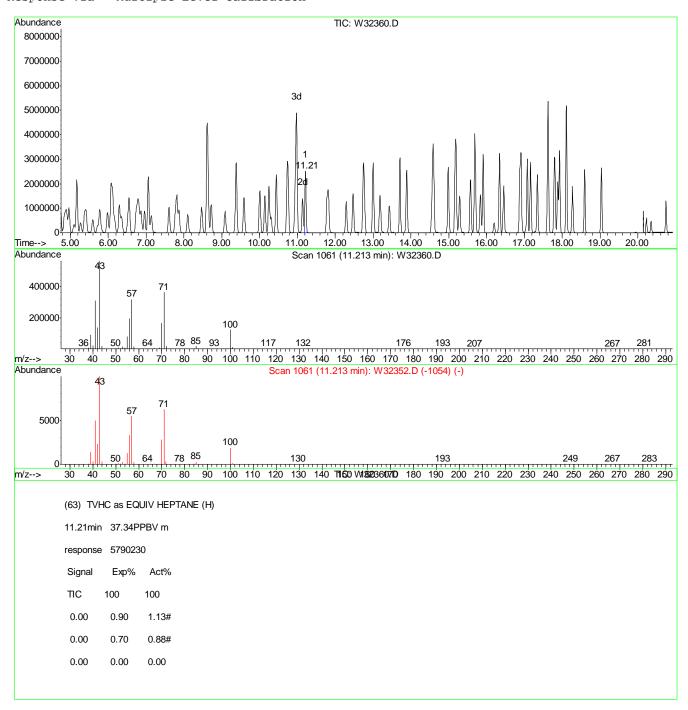
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32360.D MW1322.M

Thu Sep 01 12:14:20 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32364.D Vial: 1

Acq On : 22 Jun 2011 9:56 am Operator: YOUMINH Sample : IC1322-0.2 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:42 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards				Conc Units Dev(Min)
1) BROMOCHLOROMETHANE	8.61	128	150155	10.00 PPBV 0.00
	10.29	114	752387	10.00 PPBV 0.00
50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5	14.54	82	344093	10.00 PPBV 0.00
106) Chlorobenzene-d5(a)	14.54	82	342166	10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00 10.00 PPBV 0.00
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE				
Spiked Amount 5.000	Range 65	- 128	Recove	ery = 97.40%
Target Compounds 4) CHLORODIFLUOROMETHANE 5) DICHLORODIFLUOROMETHANE 6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROFLUOROMETHANE 14) DICHLOROFLUOROMETHANE 15) ACROLEIN 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE 19) ISOPROPYL ALCOHOL 20) ACETONE 21) ACRYLONITRILE 22) PENTANE 23) TVHC as EQUIV PENTANE 24) IODOMETHANE 25) 1,1-DICHLOROETHYLENE 26) CARBON DISULFIDE 28) ACETONITRILE 29) BROMOETHENE 30) METHYLENE CHLORIDE 31) 3-CHLOROPROPENE 32) FREON 113 33) TRANS-1,2-DICHLOROETHYLE 34) TERTIARY BUTYL ALCOHOL 35) METHYL TERTIARY BUTYL ET 36) TETRAHYDROFURAN 37) HEXANE 38) VINYL ACETATE 39) 1,1-DICHLOROETHANE 40) METHYL ETHYL KETONE 41) cis-1,2-DICHLOROETHYLENE 42) DI-ISOPROPYL ETHER 43) ETHYL ACETATE 44) METHYL ACETATE				Qvalue
4) CHIORODIELLIOROMETHANE	4 88	67	840	0 19 DDRV 91
5) DICHLORODIFILIOROMETHANE	4 96	85	8345	0.19 TIBV 91
6) PROPYLENE	4 91	41	3663	0.15 11BV 94
7) FREON 114	5 18	85	9650	0 19 PPRV 99
8) CHLOROMETHANE	5.11	52	1146	0.20 PPBV # 66
9) VINYL CHLORIDE	5 29	62	3566	0 18 PPBV 99
10) 1 3-BUTADIENE	5 39	54	3147	0 19 PPRV # 78
11) n-RUTANE	5 42	43	6401	0 18 PPBV # 93
12) BROMOMETHANE	5 60	94	3188	0.10 11BV # 93
13) CHLOROETHANE	5.72	64	2134	0 19 PPRV 94
14) DICHLOROFLUOROMETHANE	5 78	67	7561	0 19 PPRV 98
15) ACROLETN	6.08	56	1659	0.19 PPBV # 67
16) FREON 123	6.08	83	7958	0 18 PPBV # 99
17) FREON 123A	6.12	117	4909	0.19 PPBV 100
18) TRICHLOROFLUOROMETHANE	6.30	101	8095	0.19 PPBV 99
19) ISOPROPYL ALCOHOL	6.37	45	7596	0.20 PPBV 99
20) ACETONE	6.18	58	2129	0.21 PPBV 92
21) ACRYLONITRILE	6.51	53	2690	0.18 PPBV 97
22) PENTANE	6.56	57	1185	0.19 PPBV # 87
23) TVHC as EOUIV PENTANE	6.56	TIC	22519m	0.20 PPBV
24) IODOMETHANE	6.74	142	8517	0.19 PPBV 99
25) 1,1-DICHLOROETHYLENE	6.79	96	3720	0.20 PPBV 95
26) CARBON DISULFIDE	7.15	76	8699	0.19 PPBV 92
28) ACETONITRILE	5.98	41	2810	0.18 PPBV # 42
29) BROMOETHENE	5.99	106	3288	0.19 PPBV # 98
30) METHYLENE CHLORIDE	6.88	84	4300	0.24 PPBV 96
31) 3-CHLOROPROPENE	6.96	76	1697	0.19 PPBV # 86
32) FREON 113	7.06	151	5754	0.18 PPBV 97
33) TRANS-1,2-DICHLOROETHYLE	NE 7.61	96	3535	0.20 PPBV 94
34) TERTIARY BUTYL ALCOHOL	6.85	59	8028	0.18 PPBV 89
35) METHYL TERTIARY BUTYL ET	HE 7.83	73	8828	0.17 PPBV 93
36) TETRAHYDROFURAN	9.12	72	1568	0.17 PPBV # 84
37) HEXANE	8.62	57	6169	0.19 PPBV 93
38) VINYL ACETATE	7.88	86	725	0.15 PPBV # 40
39) 1,1-DICHLOROETHANE	7.77	63	6482	0.19 PPBV 100
40) METHYL ETHYL KETONE	8.12	72	1610	0.18 PPBV # 84
41) cis-1,2-DICHLOROETHYLENE	8.47	96	3643	0.18 PPBV 97
42) DI-ISOPROPYL ETHER	8.62	45	12340	0.18 PPBV 99
43) ETHYL ACETATE	8.64	61	1059	0.18 PPBV # 89
44) METHYL ACRYLATE	8.63	55	6144	0.18 PPBV 99

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JA81330
LABORATORIES

Page 1

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32364.D MW1322.M Thu Sep 01 12:11:17 2011 MSW

Vial: 1 Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32364.D

Acq On : 22 Jun 2011 9:56 am Operator: YOUMINH Sample : IC1322-0.2 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:42 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45)	CHLOROFORM	8.71	83	6673	0.19 PPBV	97
,	2,4-DIMETHYLPENTANE	9.38		7320	0.19 PPBV	98
	1,1,1-TRICHLOROETHANE	9.59	97	6609	0.19 PPBV	99
	CARBON TETRACHLORIDE	10.13		6813	0.19 PPBV	99
49)	1,2-DICHLOROETHANE	9.36	62	3758	0.19 PPBV	99
	BENZENE	10.00	78	10727	0.19 PPBV	99
52)	CYCLOHEXANE	10.24	84	5708	0.20 PPBV	# 74
	2,3-DIMETHYLPENTANE	10.43	71	2837	0.20 PPBV	
	TRICHLOROETHYLENE	10.96			0.19 PPBV	96
55)	DIBROMOMETHANE	10.73	174	3910	0.19 PPBV	98
	1,2-DICHLOROPROPANE	10.74		4075	0.19 PPBV	97
57)	ETHYL ACRYLATE	10.73	55	6614	0.18 PPBV	# 94
58)	BROMODICHLOROMETHANE	10.93	83	6673	0.19 PPBV	99
	2,2,4-TRIMETHYLPENTANE	10.97	57	18518	0.19 PPBV	99
60)	1,4-DIOXANE	11.06	88		0.15 PPBV	# 1
61)	METHYL METHACRYLATE	11.13		3364	0.17 PPBV	94
62)	HEPTANE	11.21	43	6995	0.19 PPBV	96
63)	TVHC as EQUIV HEPTANE	11.21	TIC	30623m	0.19 PPBV	
64)	METHYL ISOBUTYL KETONE	11.83	43	7279	0.18 PPBV	96
65)	cis-1,3-DICHLOROPROPENE	11.77		5438	0.19 PPBV	88
66)	TOLUENE	12.74		7029	0.18 PPBV	98
67)	trans-1,3-DICHLOROPROPENE	12.28	75	4975	0.19 PPBV	93
	1,1,2-TRICHLOROETHANE	12.28 12.46	83	2973	0.18 PPBV	96
70)	ETHYL METHACRYLATE	12.99	69	4826	0.18 PPBV	# 96
71)	2-HEXANONE	13.01	43	6422	0.19 PPBV	92
72)	TETRACHLOROETHYLENE	13.88			0.20 PPBV	98
	DIBROMOCHLOROMETHANE	13.17	129	5931	0.19 PPBV	98
74)	1,2-DIBROMOETHANE	13.41	107		0.19 PPBV	98
75)	OCTANE	13.70	43	8332	0.19 PPBV	94
76)	1,1,1,2-TETRACHLOROETHANE	14.57	131	4292	0.19 PPBV	# 88
77)	CHLOROBENZENE	14.59	112			97
78)	ETHYLBENZENE	14.98	91	12385	0.18 PPBV	100
79)	m,p-XYLENE	15.17			0.37 PPBV	# 89
80)	O-XYLENE	15.68	106	4696	0.18 PPBV	97
81)	STYRENE	15.56	104	6256	0.17 PPBV	99
82)	1,2,3-TRICHLOROPROPANE	15.83	75	4578	0.18 PPBV	96
83)	NONANE	15.90	43	6929	0.18 PPBV	95
84)	BROMOFORM	15.27	173	4639	0.18 PPBV	99
86)	1,1,2,2-TETRACHLOROETHANE	15.69	83	5560	0.19 PPBV	97
87)	ISOPROPYLBENZENE	16.33	105	13199	0.18 PPBV	99
88)	BROMOBENZENE	16.45	156	3328	0.18 PPBV	94
89)	2-CHLOROTOLUENE	16.87	126	2943	0.18 PPBV	# 100
90)	n-PROPYLBENZENE	16.90	120	3011	0.17 PPBV	78
91)	4-ETHYLTOLUENE	17.07	105	10146	0.17 PPBV	97
92)	1,3,5-TRIMETHYLBENZENE	17.15			0.18 PPBV	96
93)	ALPHA-METHYLSTYRENE	17.34	118	2937	0.13 PPBV	94
	TERT-BUTYLBENZENE	17.61	134	2364	0.18 PPBV	
95)	1,2,4-TRIMETHYLBENZENE	17.61	105	7885	0.17 PPBV	94
96)	m-DICHLOROBENZENE	17.80	146	4487	0.17 PPBV	96



Page 2

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32364.D MW1322.M Thu Sep 01 12:11:17 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32364.D Vial: 1

Acq On : 22 Jun 2011 9:56 am Operator: YOUMINH Sample : IC1322-0.2 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:06:42 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
97) BENZYL CHLORIDE	17.78	91	5158	0.16 PPBV	97
98) p-DICHLOROBENZENE	17.88	146	4518	0.10 TIBV	96
99) SEC-BUTYLBENZENE	17.92	134	2478	0.17 PPBV	91
100) p-ISOPROPYLTOLUENE	18.10	134	2287	0.16 PPBV	87
101) o-DICHLOROBENZENE	18.26	146	4166	0.17 PPBV	97
102) n-BUTYLBENZENE	18.58	134	1647	0.16 PPBV	97
103) HEXACHLOROETHANE	19.03	201	2350	0.16 PPBV	84
104) HEXACHLOROBUTADIENE	20.74	225	1920	0.23 PPBV	89
105) 1,2,4-TRICHLOROBENZENE	20.23	180	1242	0.21 PPBV	97
107) NAPHTHALENE	20.36	128	1439	0.14 PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32364.D MW1322.M Thu Sep 01 12:11:17 2011 MSW

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ACCUTEST

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ABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32364.D Vial: 1

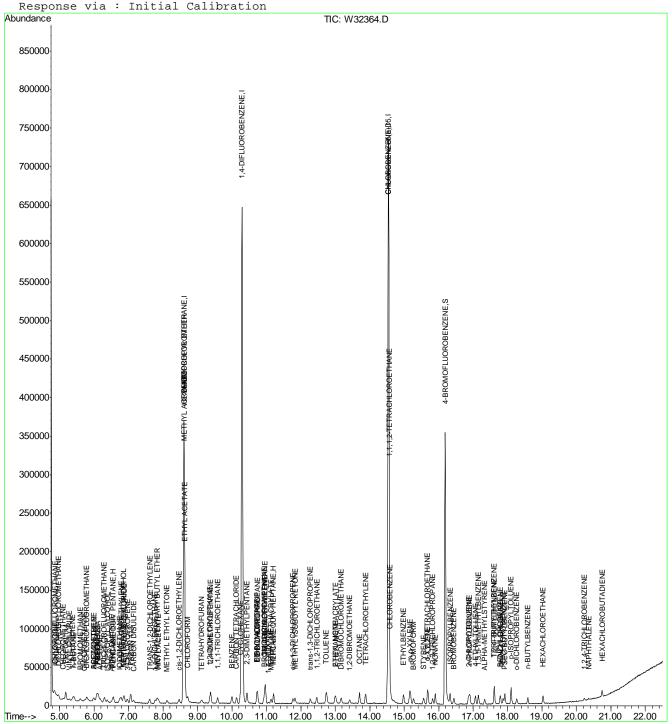
Operator: YOUMINH : 22 Jun 2011 9:56 am Sample : IC1322-0.2 : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32364.D MW1322.M

Thu Sep 01 12:11:17 2011



Page 4

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32364.D Vial: 1

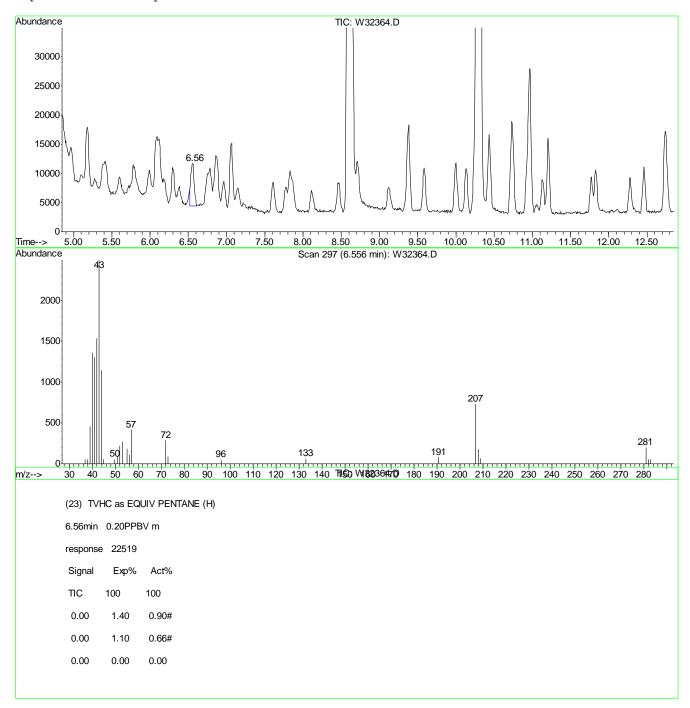
: 22 Jun 2011 9:56 am Operator: YOUMINH Acq On Sample : IC1322-0.2 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32364.D MW1322.M

Tue Aug 16 08:53:37 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32364.D Vial: 1

 Acq On
 : 22 Jun 2011
 9:56 am
 Operator: YOUMINH

 Sample
 : IC1322-0.2
 Inst
 : MSW

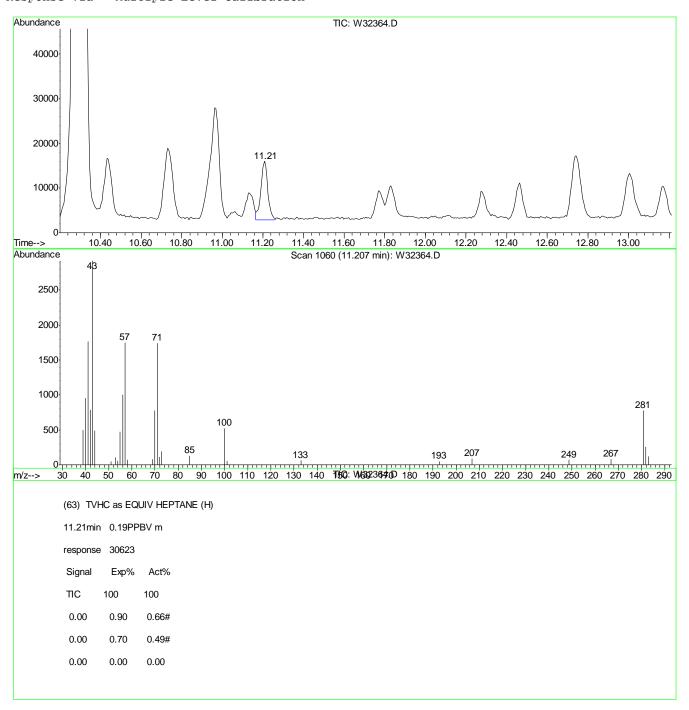
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32364.D MW1322.M

Tue Aug 16 08:53:52 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32364.D Vial: 1

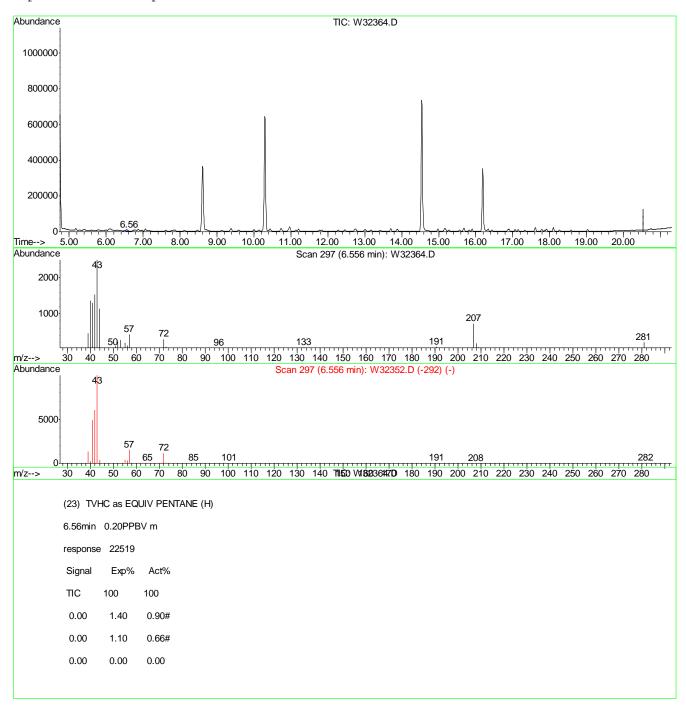
: 22 Jun 2011 9:56 am Operator: YOUMINH Acq On Sample : IC1322-0.2 : MSW Inst : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Thu Sep 01 12:14:25 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32364.D Vial: 1

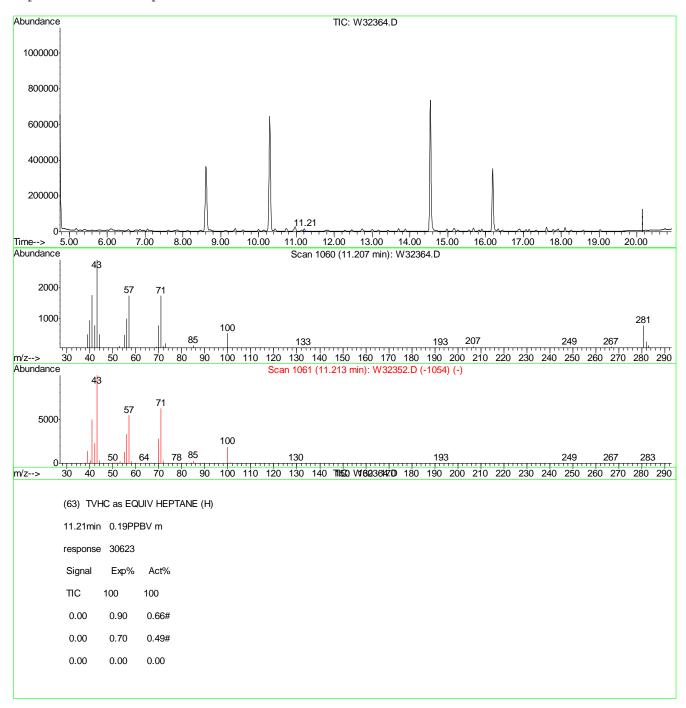
: 22 Jun 2011 9:56 am Operator: YOUMINH Acq On Sample : IC1322-0.2 : MSW Inst : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Thu Sep 01 12:14:29 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32365.D Vial: 4

 Acq On
 : 22 Jun 2011 10:36 am
 Operator: YOUMINH

 Sample
 : IC1322-0.1
 Inst : MSW

 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:22:02 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards			Response			
1) BROMOCHLOROMETHANE	8.61		144028	10 00	PPBV	0.00
50) 1,4-DIFLUOROBENZENE			740621	10.00		0.00
69) CHLOROBENZENE-D5	14.54	82	336405	10.00	PPBV	0.00
106) Chlorobenzene-d5(a)	14.54	82	740621 336405 335267	10.00	PPBV	0.00
System Monitoring Compounds						
85) 4-BROMOFLUOROBENZENE	16.19	95	173759	4.78	PPBV	0.00
Spiked Amount 5.000 Ra	nge 65	- 128	Recove	ry =	95.60	18
Managab Gammanada					6	\ 1a
Target Compounds 5) DICHLORODIFLUOROMETHANE	4.97	85	1721	0.11	_	value) 97
6) PROPYLENE	4.92		2024		PPBV #	
7) FREON 114	5.18	85	5363		PPBV #	99
9) VINYL CHLORIDE	5.28			0 11	זזמממ	0.0
10) 1,3-BUTADIENE	5.39	54	1693	0.11	DDBW #	56
12) BROMOMETHANE	5.60	62 54 94 64	1767	0.11 0.11 0.11	DDRV #	63
13) CHLOROETHANE	5.73	64	1139	0.11	PPBV T	96
14) DICHLOROFLUOROMETHANE	5.79	67	4176	0.10	PPBV #	93
16) FREON 123	6.09	83	4405	0.10 0.11 0.11	PPBV #	99
17) FREON 123A	6.12		2646	0.11	PPBV	94
18) TRICHLOROFLUOROMETHANE	6.29	101	2646 4450	0.11	PPBV	96
21) ACRYLONITRILE	6.52	53	1451	0.10	PPBV	
22) PENTANE	6.56	53 57	1451 694	0.12	PPBV #	
23) TVHC as EQUIV PENTANE	6.56	TTC	12508m	0.12	PPBV	
24) IODOMETHANE	6.74	142	4546 4835	0.11	PPBV	99
26) CARBON DISULFIDE	7.15	76	4835	0.11	PPBV	96
28) ACETONITRILE	5.98	4.4	4 4 4 5 1	0.10		1
29) BROMOETHENE	6.00	41 106	1497 1842	0.11	PPBV #	95
31) 3-CHLOROPROPENE	6.97	70	911	0.10	PPBV #	85
32) FREON 113	7.06	151	3096	0.10	PPBV	95
33) TRANS-1,2-DICHLOROETHYLENE		96	1746	0.10	PPBV	95
34) TERTIARY BUTYL ALCOHOL	6.85	59	4230 5033	0.10	PPBV #	70
35) METHYL TERTIARY BUTYL ETHE	7.83	73	5033	0.10	PPBV	89
36) TETRAHYDROFURAN	9.13	72	827	0.09	PPBV #	85
37) HEXANE	8.62		3377	0.11	PPBV	92
39) 1,1-DICHLOROETHANE	7.78	63	3512		PPBV	97
40) METHYL ETHYL KETONE	8.12	72	904		PPBV	99
41) cis-1,2-DICHLOROETHYLENE	8.46	96	1969	0.10	PPBV	98
42) DI-ISOPROPYL ETHER	8.62		1969 6938 527	0.11	PPBV	
43) ETHYL ACETATE	8.63	61			PPBV #	
44) METHYL ACRYLATE	8.64		3298		PPBV	98
45) CHLOROFORM	8.71	83	3641		PPBV	94
46) 2,4-DIMETHYLPENTANE	9.38	57	3848		PPBV	98
47) 1,1,1-TRICHLOROETHANE	9.59		3488		PPBV	98
48) CARBON TETRACHLORIDE	10.13		3527		PPBV	98
49) 1,2-DICHLOROETHANE	9.35		2039		PPBV	95 99
51) BENZENE	10.00	78 94	5719	0.10	PPBV	
52) CYCLOHEXANE	10.24	84 71	3378 1453	0.12	PPBV #	‡ 2 92
53) 2,3-DIMETHYLPENTANE	10.45	71 95	1453 2275	0.10	PPBV	92 96
54) TRICHLOROETHYLENE	10.96	90	2215	0.10	PPBV	90

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Page 1

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32365.D MW1322.M Thu Sep 01 12:11:18 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32365.D Vial: 4

Acq On : 22 Jun 2011 10:36 am Operator: YOUMINH Sample : IC1322-0.1 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 11:22:02 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:04:41 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
55)	DIBROMOMETHANE	10.73	174	2014	0.10 PPBV	92
56)	1,2-DICHLOROPROPANE	10.74	63	2328	0.11 PPBV	96
57)	ETHYL ACRYLATE	10.73	55	3467	0.09 PPBV	# 92
58)	BROMODICHLOROMETHANE	10.93	55 83	3540	0.10 PPBV	99
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	10206	0.11 PPBV	99
61)	METHYL METHACRYLATE	11.14	57 69	1773	0.09 PPBV	92
62)	HEPTANE	11.21	43	3969	0.11 PPBV	91
63)	TVHC as EQUIV HEPTANE	11.21	TIC	17432m	0.11 PPBV	
64)	METHYL ISOBUTYL KETONE	11.84		3884	0.10 PPBV	91
65)	cis-1,3-DICHLOROPROPENE	11.77	75	2881	0.10 PPBV	93
66)	TOLUENE	12.74	92	3839	0.10 PPBV	99
67)	trans-1,3-DICHLOROPROPENE	12.28		2514	0.10 PPBV	83
68)	1,1,2-TRICHLOROETHANE	12.47	83	1654	0.10 PPBV	99
70)	ETHYL METHACRYLATE	12.99			0.09 PPBV	
71)	2-HEXANONE	13.02	43	2853	0.09 PPBV	92
72)	TETRACHLOROETHYLENE	13.88	164		0.11 PPBV	98
	DIBROMOCHLOROMETHANE	13.17	129	2909	0.10 PPBV	
74)	1,2-DIBROMOETHANE	13.42	107		0.10 PPBV	# 99
- ,	OCTANE	13.70	43	4609	0.11 PPBV	
76)	1,1,1,2-TETRACHLOROETHANE	14.57	131	2257	0.10 PPBV	
77)	CHLOROBENZENE	14.59	112	4291	0.10 PPBV	
78)	ETHYLBENZENE	14.98		6601	0.10 PPBV	
	m,p-XYLENE	15.16			0.20 PPBV	
	O-XYLENE	15.68		2505	0.10 PPBV	
	STYRENE	15.57			0.09 PPBV	
	1,2,3-TRICHLOROPROPANE	15.82		2363	0.10 PPBV	
,	NONANE	15.90		3829	0.10 PPBV	
,	BROMOFORM	15.27		2507	0.10 PPBV	
	1,1,2,2-TETRACHLOROETHANE	15.68		2908	0.10 PPBV	
,	ISOPROPYLBENZENE	16.33		6986	0.10 PPBV	
	BROMOBENZENE	16.44		1678	0.09 PPBV	
,	2-CHLOROTOLUENE	16.87			0.10 PPBV	
	n-PROPYLBENZENE	16.90			0.09 PPBV	
	4-ETHYLTOLUENE	17.07			0.09 PPBV	
	1,3,5-TRIMETHYLBENZENE	17.16			0.09 PPBV	
,	TERT-BUTYLBENZENE	17.61			0.09 PPBV	
	1,2,4-TRIMETHYLBENZENE	17.61			0.09 PPBV	
,	m-DICHLOROBENZENE	17.79		2250	0.09 PPBV	
,	BENZYL CHLORIDE	17.78	91	2439	0.08 PPBV	
,	p-DICHLOROBENZENE	17.88		2225	0.09 PPBV 0.08 PPBV	
,	SEC-BUTYLBENZENE	17.92				
	p-ISOPROPYLTOLUENE	18.10 18.27			0.08 PPBV 0.09 PPBV	
,	O-DICHLOROBENZENE					
	HEXACHLOROETHANE HEXACHLOROBUTADIENE	19.03 20.75		1174 781	0.08 PPBV 0.09 PPBV	
,	1,2,4-TRICHLOROBENZENE	20.75	180	476	0.09 PPBV 0.08 PPBV	
TO3)	I, Z, I-IKICHLOKODENZENE	20.23	T 0 0	4/0	U.UO PPBV	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32365.D MW1322.M Thu Sep 01 12:11:18 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32365.D Vial: 4

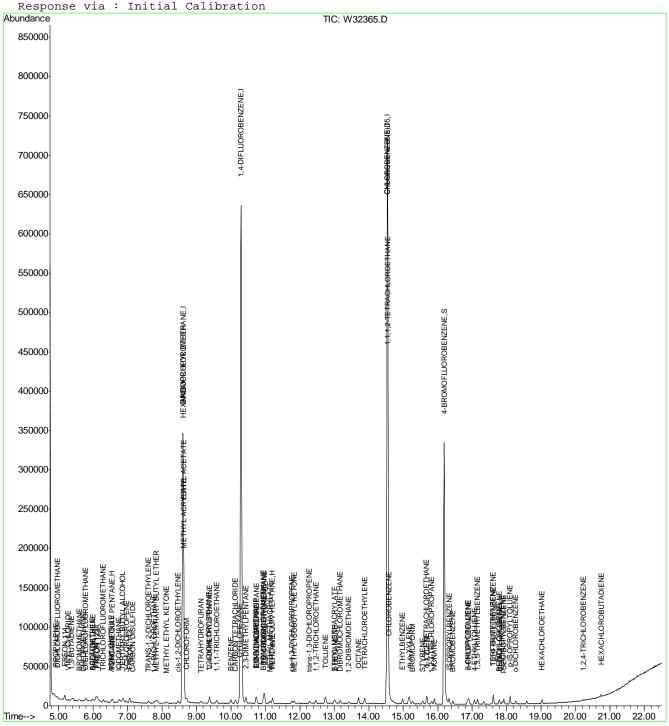
Acq On : 22 Jun 2011 10:36 am Operator: YOUMINH Sample : IC1322-0.1 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011
Response via : Initial Calibration



W32365.D MW1322.M

Thu Sep 01 12:11:19 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32365.D Vial: 4

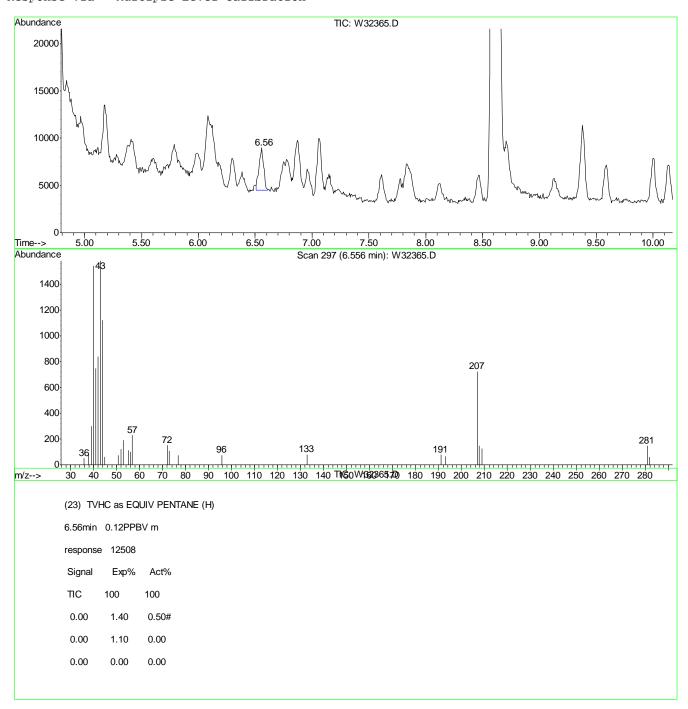
: 22 Jun 2011 10:36 am Operator: YOUMINH Acq On Sample : IC1322-0.1 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32365.D MW1322.M

Tue Aug 16 08:54:16 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32365.D Vial: 4

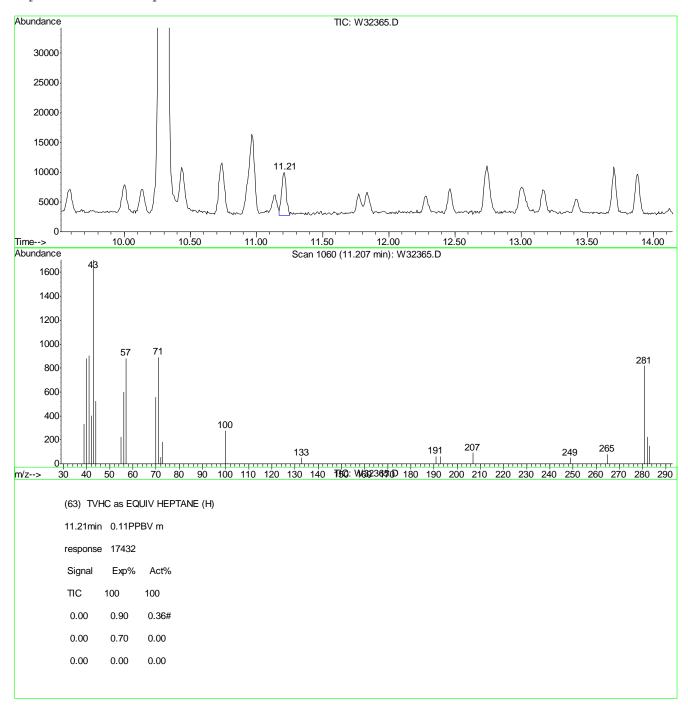
: 22 Jun 2011 10:36 am Operator: YOUMINH Acq On Sample : IC1322-0.1 Inst : MSW Misc : MS14116,VW1322,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Tue Aug 16 08:54:24 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32365.D Vial: 4

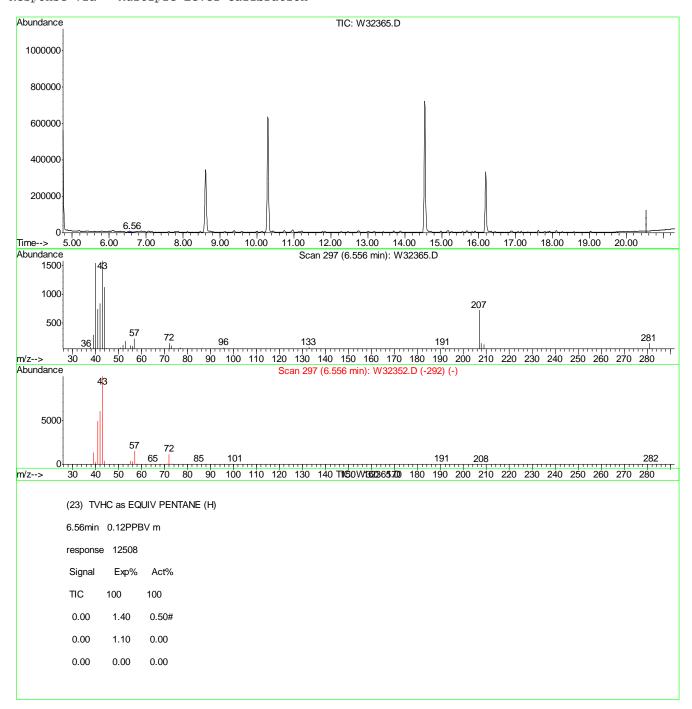
: 22 Jun 2011 10:36 am Operator: YOUMINH Acq On Sample : IC1322-0.1 : MSW Inst : MS14116,VW1322,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32365.D MW1322.M

Thu Sep 01 12:14:35 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322\W32365.D Vial: 4

 Acq On
 : 22 Jun 2011 10:36 am
 Operator: YOUMINH

 Sample
 : IC1322-0.1
 Inst : MSW

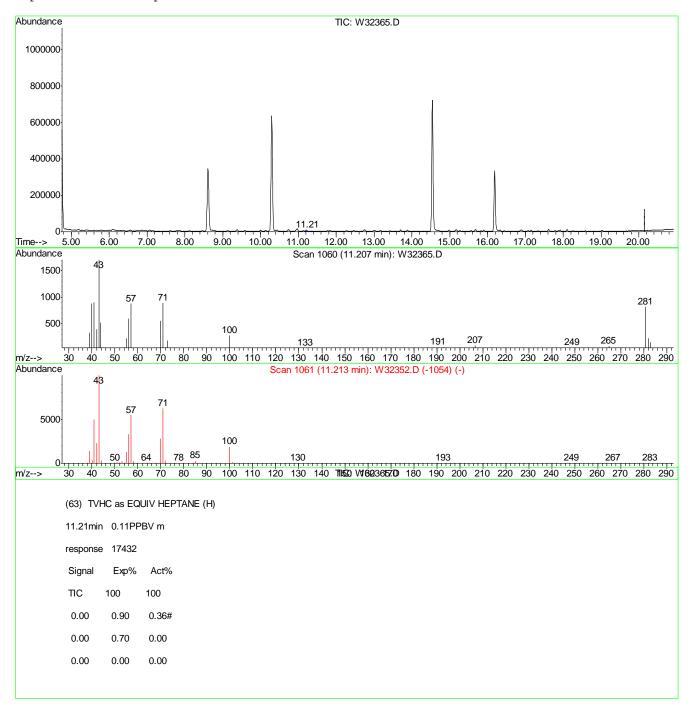
 Misc
 : MS14116,VW1322,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Aug 23 12:53 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32365.D MW1322.M

Thu Sep 01 12:14:39 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32368.D Vial: 3

Acq On : 22 Jun 2011 1:22 pm Operator: YOUMINH Sample : BS Inst : MSW : MS14116,VW1323,,,,,1 Multiplr: 1.00 Misc

MS Integration Params: rteint.p

Quant Time: Jun 22 13:56:34 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U			
1) BROMOCHLOROMETHANE	8.61	128					
50) 1,4-DIFLUOROBENZENE	10.30	114	760524	10.00	PPBV	7	0.00
69) CHLOROBENZENE-D5	14.55	82	366156	10.00	PPBV	7	0.00
106) Chlorobenzene-d5(a)	14.55	82	149452 760524 366156 365656	10.00	PPBV	r	0.00
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE	16.19	95	207608	5.25	PPBV	7	0.00
		- 128	Recove	ery =	105.	00%	
Target Compounds						Qv	alue
4) CHLORODIFLUOROMETHANE	4.88	67	41637 417564 162840 444623 55309 195622 156235 309186 161535 110372 77773 421371 244584 390979 342668 86774 55476 976614m 438686 166577 475744	9.55	PPBV	7	98
5) DICHLORODIFLUOROMETHANE	4.97	85	417564	9.51	PPBV	7	100
6) PROPYLENE	4.91	41	162840	8.72	PPBV	7	99
7) FREON 114	5.18	85	444623	8.64	PPBV	7	94
7) FREON 114 8) CHLOROMETHANE	5.10	52	55309	9.73	PPBV	7	95
9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 15) ACROLEIN 16) FREON 123 17) FREON 123A	5.28	62	195622	9.94	PPBV	7	100
10) 1,3-BUTADIENE	5.38	54	156235	9.48	PPBV	7	100
11) n-BUTANE	5.42	43	309186	9.48	PPBV	7	100
12) BROMOMETHANE	5.60	94	161535	9.58	PPBV	7	100
13) CHLOROETHANE	5.73	64	110372	9.78	PPBV	7	95
15) ACROLEIN	6.07	56	77773	9.64	PPBV	7	99
16) FREON 123	6.08	83	421371	9.82	PPBV	7 #	99
17) FREON 123A	6.12	117	244584	9.53	PPBV	7	97
18) TRICHLOROFLUOROMETHANE	6.30	101	390979	9.33	PPBV	7	100
19) ISOPROPYL ALCOHOL	6.35	45	342668	9.41	PPBV	7	99
20) ACETONE	6.17	58	86774	9.08	PPBV	7	98
22) PENTANE	6.56	57	55476	9.00	PPBV	7	99
23) TVHC as EQUIV PENTANE	6.56	TIC	976614m	8.74	PPBV	7	
24) IODOMETHANE	6.74	142	438686	9.85	PPBV	7	100
	6.79	96	166577	8.84	PPBV	7	98
26) CARBON DISULFIDE	7.14	76	475744	10.44	PPBV	7	100
27) ETHANOL	5.81	45	81037	8.47	PPBV	7	98
29) BROMOETHENE	6.00	106	168965	9.65	PPBV	7	98 100
25) 1,1-DICHLOROETHYLENE 26) CARBON DISULFIDE 27) ETHANOL 29) BROMOETHENE 30) METHYLENE CHLORIDE 31) 3-CHLOROPROPENE 32) FREON 113 33) TRANS-1,2-DICHLOROETHYLENE 34) TERTIARY BUTYL ALCOHOL 35) METHYL TERTIARY BUTYL ETHE 36) TETRAHYDROFURAN 37) HEXANE	6.87	84	154038	8.52	PPBV	7	99
31) 3-CHLOROPROPENE	6.96	76	91657	10.11	PPBV	7	99
32) FREON 113	7.06	151	277290	8.96	PPBV	7	99
33) TRANS-1.2-DICHLOROETHYLENE	7.61	96	174061	9.84	PPBV	7	99
34) TERTIARY BUTYL ALCOHOL	6.81	59	413784	9.81	PPBV	7	100
35) METHYL TERTIARY BUTYL ETHE	7.82	73	502245	9.96	PPBV	7	100
36) TETRAHYDROFURAN	9.09	72	91304	10.45	PPBV	7	98
37) HEXANE	8 62	57	306917	9 43	PPRV	7	98
38) VINYL ACETATE	7.87	86	47412	9.70	PPBV	7 #	91
39) 1 1-DICHLOROETHANE	7 78	63	328780	9 60	PPRV	7 ''	100
39) 1,1-DICHLOROETHANE 40) METHYL ETHYL KETONE	8 10	72	90079	10 05	PPR	7	94
41) cis-1,2-DICHLOROETHYLENE	8 46	96	182567	9 10	DDB	7	99
42) DI-ISOPROPYL ETHER	8 61	45	667360	9 91	DDB	7	94
43) ETHYL ACETATE	8 63	4.5 6.1	57420	9 90	DDB	7 ±	94
45) CHLOROFORM	2 77	83	37720	9.90	DDDA	# 7	100
46) 2 4-DIMETHYL DENTAND	0.72	53 57	91304 306917 47412 328780 90079 182567 667360 57420 333372 381859 336072	a an	ב ב ה ס	7	99
46) 2,4-DIMETHYLPENTANE 47) 1,1,1-TRICHLOROETHANE	9.30	<i>31</i>	336073 301033	9.90 0.67	בבסע	7	100
I// I,I,I-IKICHLUKUEIHANE	9.59	91	3300/2	9.0/	FFBV		T00



Page 1

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32368.D MW1322.M Tue Aug 16 08:55:56 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32368.D Vial: 3

Acq On : 22 Jun 2011 1:22 pm Operator: YOUMINH Sample : BS Inst : MSW Misc : MS14116,VW1323,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 13:56:34 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : T015W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48)	CARBON TETRACHLORIDE	10.14			9.50 PPBV	100
49)	1,2-DICHLOROETHANE	9.36	62	202352	10.03 PPBV	100
51)	BENZENE	10.00	78	576258	9.93 PPBV	100
52)	CYCLOHEXANE	10.24	84	271280 142254	9.27 PPBV	98
53)	2,3-DIMETHYLPENTANE	10.44	71	142254	9.84 PPBV	99
54)	TRICHLOROETHYLENE	10.96	95	216265	9.59 PPBV	99
56)	1,2-DICHLOROPROPANE	10.74	63	211289	9.67 PPBV	
58)	BROMODICHLOROMETHANE	10.93	83 57	356355	9.95 PPBV 10.10 PPBV	99
59)	2,2,4-TRIMETHYLPENTANE	10.98	57	1007496		
	1,4-DIOXANE	10.99		117481	9.97 PPBV	
,	METHYL METHACRYLATE	11.13		194927		
,	HEPTANE	11.21		353801		
	TVHC as EQUIV HEPTANE	11.21				
	METHYL ISOBUTYL KETONE	11.81	43	397152		
	cis-1,3-DICHLOROPROPENE	11.77 12.74	75	291165 393282	10.01 PPBV	
	TOLUENE					
	trans-1,3-DICHLOROPROPENE	12.28		275835 173435	10.23 PPBV	
	1,1,2-TRICHLOROETHANE	12.46				
	2-HEXANONE	12.99		355121	9.81 PPBV	
	TETRACHLOROETHYLENE	13.88		234653	9.63 PPBV	
	DIBROMOCHLOROMETHANE	13.18		342510		
	1,2-DIBROMOETHANE	13.42	107	283693	10.39 PPBV	
,	OCTANE	13.71	43	466546	10.06 PPBV	
	1,1,1,2-TETRACHLOROETHANE		131	257065 463317	10.60 PPBV	
	CHLOROBENZENE	14.59			10.26 PPBV	
	ETHYLBENZENE	14.98	91	785259	10.79 PPBV	
	m,p-XYLENE	15.17		610127	21.61 PPBV	
	O-XYLENE	15.68		294246	10.79 PPBV	
	STYRENE	15.57	104	432924 285020	11.20 PPBV	
	1,2,3-TRICHLOROPROPANE				10.70 PPBV	
	NONANE	15.90		440200	10.91 PPBV	
	BROMOFORM	15.27		304655	10.82 PPBV	
	1,1,2,2-TETRACHLOROETHANE	15.68		359821	11.26 PPBV	
	ISOPROPYLBENZENE	16.33		842617	10.98 PPBV	
	2-CHLOROTOLUENE	16.87		188844	11.02 PPBV	
	n-PROPYLBENZENE	16.91	120	217018	11.47 PPBV	
	4-ETHYLTOLUENE	17.07		742350	11.63 PPBV	
	1,3,5-TRIMETHYLBENZENE	17.16		598470	11.34 PPBV	
	TERT-BUTYLBENZENE	17.61		155382	11.16 PPBV	
	1,2,4-TRIMETHYLBENZENE	17.62		566633	11.72 PPBV	
	m-DICHLOROBENZENE	17.80		333930	11.66 PPBV	
	BENZYL CHLORIDE	17.78		410272	12.03 PPBV	
	p-DICHLOROBENZENE	17.88		317804	11.25 PPBV	
	SEC-BUTYLBENZENE	17.92		176695	11.76 PPBV	99
	p-ISOPROPYLTOLUENE	18.10	134	1/2/30	12.10 PPBV 11.36 PPBV	98
	o-DICHLOROBENZENE	18.27	146 124	∠∀∠႘႘႘ 122056	11 41 DDD1	99
	n-BUTYLBENZENE	10.59	134	133856	11.41 PPBV	100
	HEXACHLOROBUTADIENE	20.74	∠∠5 100	100707	11.41 PPBV 11.78 PPBV 10.70 PPBV	100 100
TO2)	1,2,4-TRICHLOROBENZENE	۷0.22		000/3	TO./O PPBV	



Page 2

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32368.D MW1322.M Tue Aug 16 08:55:56 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32368.D Vial: 3

Acq On : 22 Jun 2011 1:22 pm Operator: YOUMINH Sample : BS Inst : MSW Misc : MS14116,VW1323,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 22 13:56:34 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

Response via · Initial calls

DataAcq Meth : TO15W

Compound R.T. QIon Response Conc Unit Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed W32368.D MW1322.M Tue Aug 16 08:55:56 2011 MSW

656 of 685
ACCUTEST.
JA81330

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32368.D Vial: 3

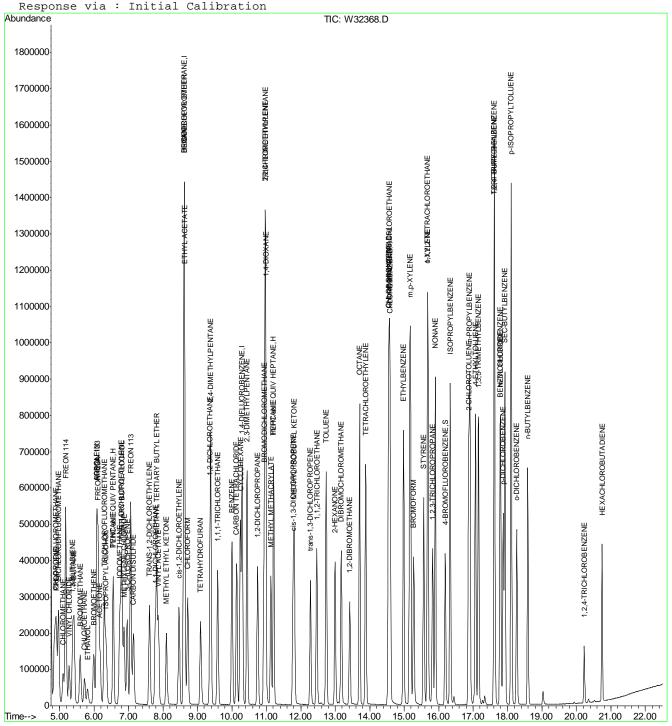
: 22 Jun 2011 1:22 pm Operator: YOUMINH Acq On Sample : BS Inst : MSW : MS14116,VW1323,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32368.D MW1322.M

Tue Aug 16 08:55:57 2011

MSW

657 of 685 ACCUTEST: JA81330

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32368.D Vial: 3

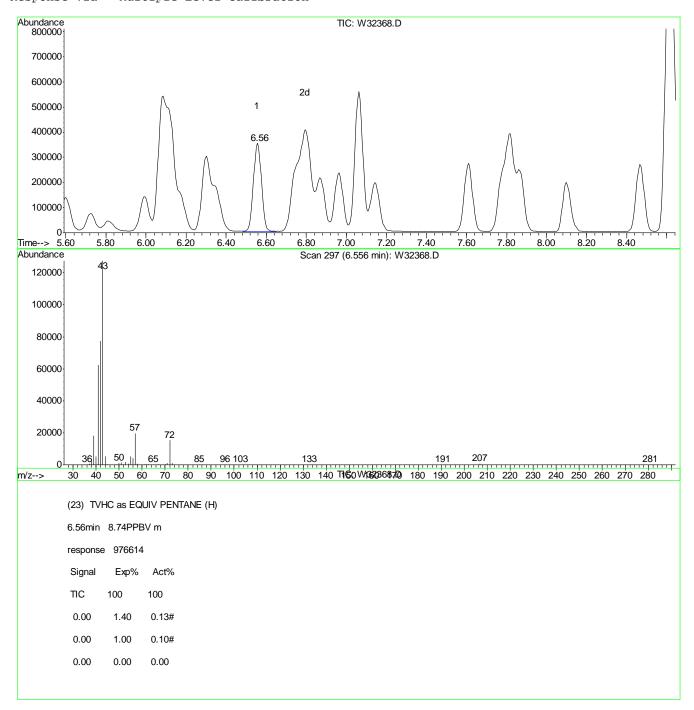
: 22 Jun 2011 1:22 pm Operator: YOUMINH Acq On Sample : BS Inst : MSW Misc : MS14116,VW1323,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Tue Aug 16 09:08:58 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32368.D Vial: 3

 Acq On
 : 22 Jun 2011 1:22 pm
 Operator: YOUMINH

 Sample
 : BS
 Inst : MSW

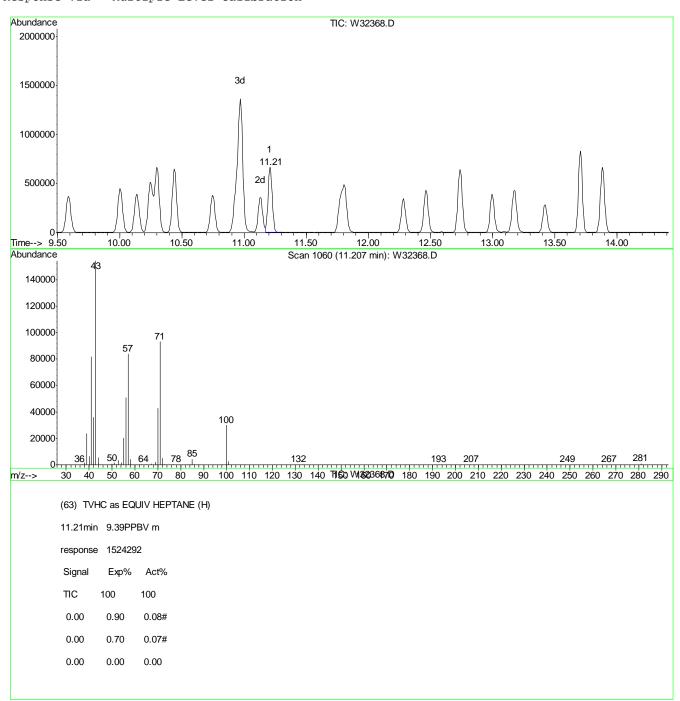
 Misc
 : MS14116,VW1323,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32368.D MW1322.M

Tue Aug 16 09:09:05 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32386.D Vial: 2

Acq On : 23 Jun 2011 9:03 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW Misc : MS14299,VW1324,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:25 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards				Conc U	nits De	v(Min)
				10.00	PPBV	0.00
1) BROMOCHLOROMETHANE 50) 1,4-DIFLUOROBENZENE 69) CHLOROBENZENE-D5	10.30	114	149471 767115 376885 375518	10.00	PPBV	0.00
69) CHLOROBENZENE-D5	14.55	82	376885	10.00	PPBV	0.00
106) Chlorobenzene-d5(a)	14.55	82	375518	10.00	PPBV	0.00
System Monitoring Compounds						
System Monitoring Compounds 85) 4-BROMOFLUOROBENZENE	16.19	95	211618	5.20	PPBV	0.00
Spiked Amount 5.000		- 128	Recove	ry =	104.009	8
Target Compounds					0,	value
4) CHLORODIFLUOROMETHANE	4.89 4.97 4.92 5.18	67	43129 433231	9.89	PPBV	98
5) DICHLORODIFLUOROMETHANE	4.97	85	433231	9.87	PPBV	100
6) PROPYLENE	4.92	41	181486	9.71	PPBV	99
7) FREON 114	5.18	85	181486 511728	9.94	PPBV	97
8) CHLOROMETHANE	5.11	52	57377	10.09	PPBV #	87
9) VINYL CHLORIDE	5.28	62	202199	10.27	PPBV	100
10) 1,3-BUTADIENE	5.39	54	163845	9.94	PPBV	97
11) n-BUTANE	5.43	43	340581	10.44	PPBV	99
12) BROMOMETHANE	5.60	94	165981	9.85	PPBV	100
13) CHLOROETHANE	5.73	64	115393	10.22	PPBV	99
14) DICHLOROFLUOROMETHANE	5.79	67	403894	10.09	PPBV	100
6) PROPYLENE 7) FREON 114 8) CHLOROMETHANE 9) VINYL CHLORIDE 10) 1,3-BUTADIENE 11) n-BUTANE 12) BROMOMETHANE 13) CHLOROETHANE 14) DICHLOROFLUOROMETHANE 15) ACROLEIN 16) FREON 123 17) FREON 123A 18) TRICHLOROFLUOROMETHANE	6.07	56	81407	10.08	PPBV	100
16) FREON 123	6.09	83	426800	9.95	PPBV #	100
17) FREON 123A	6.12	117	245226	9.56	PPBV	92
18) TRICHLOROFLUOROMETHANE	6.31	101	405952 365785 96970 156915 57971	9.68	PPBV	100
19) ISOPROPYL ALCOHOL	6.35	45	365785	10.04	PPBV	99
20) ACETONE	6.18	58	96970	10.14	PPBV	97
21) ACRYLONITRILE	6.52	53	156915	10.42	PPBV	99
22) PENTANE	6.56	57	57971	9.40	PPBV	95
23) TVHC as EQUIV PENTANE 24) IODOMETHANE	6.56	TIC	1070513m 426268 178891 441505 91235	9.58	PPBV	
24) IODOMETHANE	6.74	142	426268	9.57	PPBV	98
25) 1,1-DICHLOROETHYLENE	6.79	96	178891	9.49	PPBV	93
26) CARBON DISULFIDE	7.15	76	441505	9.69	PPBV	99 99 98
Z// EIHANOL	5.82	45	91235	9.54	PPBV	99
28) ACETONITRILE 29) BROMOETHENE	5.98	41	167837	10.59	PPBV	98
29) BROMOETHENE	5.99	106	167837 169946 168684 92577 294777	9.70	PPBV	99
30) METHYLENE CHLORIDE 31) 3-CHLOROPROPENE 32) FREON 113	6.87	84	168684	9.33	PPBM PPBM	94
31) 3-CHLOROPROPENE	6.96	76	925//	10.21	PPBM PPBM	96
32) FREON 113	/.U/	151	294///	9.52	PPBM PPBM	97
33) TRANS-1,2-DICHLOROETHYLE	NE /.61	96	169290	9.57	PDD74	96
34) TERTIARY BUTYL ALCOHOL	T 7 0 0 17 17 17 17 17 17 17 17 17 17 17 17 17	72	420/98 E1E20/	10.12	PDDM	98
35) MEIHIL LERIIARI BUIIL EI	0.00	73	013204	10.22	PPBV	90
30) IEIRAHIDROFURAN	9.09	/ Z	24330	10.50	PPBV	95
20) TINNI ACETATE	7 07	06	520125	10.00	PPDV #	99
30 / 1 1-DICHIODODTHAND	7.07	63	348957	10.37	DDDM #	100
40) METHYI, ETHYI, KETONE	7.70 Q 10	72	9NU31	10.10	DDBM	100
41) cis-1 2-DICHLOROETHVIENE	9 47	96	186715	9 31	DDBM	97
42) DI-ISOPRODVI. ETHER	8 61	45	703083	10 44	DDBM	100
32) FREON 113 33) TRANS-1,2-DICHLOROETHYLE 34) TERTIARY BUTYL ALCOHOL 35) METHYL TERTIARY BUTYL ET 36) TETRAHYDROFURAN 37) HEXANE 38) VINYL ACETATE 39) 1,1-DICHLOROETHANE 40) METHYL ETHYL KETONE 41) cis-1,2-DICHLOROETHYLENE 42) DI-ISOPROPYL ETHER 43) ETHYL ACETATE	8 63	61	57894	9 98	PPRV #	94
					v   m	

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W32386.D MW1322.M Tue Aug 16 08:56:05 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32386.D Vial: 2

Acq On : 23 Jun 2011 9:03 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW Misc : MS14299,VW1324,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:25 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44)	METHYL ACRYLATE	8.63	55	357163	10.47 PPBV	99
45)	CHLOROFORM	8.72	83	346672	9.93 PPBV	99
	2,4-DIMETHYLPENTANE	9.38	57		10.25 PPBV	99
47)	1,1,1-TRICHLOROETHANE	9.59	97	342139	9.84 PPBV	99
	CARBON TETRACHLORIDE	10.14	117	349256	9.81 PPBV	100
49)	1,2-DICHLOROETHANE	9.37	62	208968	10.36 PPBV	99
	BENZENE	10.01	78	585315	10.36 PPBV 10.00 PPBV	99
52)	CYCLOHEXANE	10.25	84	271398	9.19 PPBV 10.03 PPBV	97
	2,3-DIMETHYLPENTANE	10.44	71	146351	10.03 PPBV	98
	TRICHLOROETHYLENE	10.96	95	224597	9.87 PPBV	99
	DIBROMOMETHANE	10.73	174	196141	9.48 PPBV	95
	1,2-DICHLOROPROPANE					
	ETHYL ACRYLATE	10.72	55	387459	10.06 PPBV 10.16 PPBV 9.99 PPBV	100
,	BROMODICHLOROMETHANE	10.93	83	361105	9.99 PPBV	100
	2,2,4-TRIMETHYLPENTANE	10.98	57	1047346	10.41 PPBV 9.64 PPBV	100
	1,4-DIOXANE	10.99	88	114507	9.64 PPBV	# 78
	METHYL METHACRYLATE	11.13	69	199452	9.98 PPBV	
	HEPTANE	11.21	43	372904	9.91 PPBV	
	TVHC as EQUIV HEPTANE			1589392m		
	METHYL ISOBUTYL KETONE	11.81	43	394561	9.76 PPBV	
,	cis-1,3-DICHLOROPROPENE	11.77	75	294749	9.76 PPBV 10.05 PPBV	99
	TOLUENE	12.74	92	390507	9.95 PPBV	100
,	trans-1,3-DICHLOROPROPENE	12.28	75	276049	9.95 PPBV 10.15 PPBV	99
	1,1,2-TRICHLOROETHANE	12.46	83	175164	10.29 PPBV	99
	ETHYL METHACRYLATE	12.99	69	294074	10.29 PPBV 10.13 PPBV	98
	2-HEXANONE	12.99	43	353489		98
	TETRACHLOROETHYLENE			229599		
	DIBROMOCHLOROMETHANE			336306	9.95 PPBV	
	1,2-DIBROMOETHANE	13.42	107	278254		
	OCTANE	13.71	43	481765	9.90 PPBV 10.09 PPBV	98
	1,1,1,2-TETRACHLOROETHANE	14.57	131	250649	10.04 PPBV	# 99
	CHLOROBENZENE	14.59	112	452956	10.04 PPBV 9.75 PPBV	99
	ETHYLBENZENE	14.98	91	757372	10.11 PPBV	100
	m,p-XYLENE	15.17	106	590580	20.33 PPBV	100
	O-XYLENE	15.68	106	287966	20.33 PPBV 10.26 PPBV	100
,	STYRENE	15.57	104	416344	10.46 PPBV	99
	1,2,3-TRICHLOROPROPANE	15.83	75	278691	10.46 PPBV 10.17 PPBV	98
	NONANE	15.91	43	450834	10.85 PPBV	99
,	BROMOFORM	15.27	173	294178	10.85 PPBV 10.15 PPBV	99
	1,1,2,2-TETRACHLOROETHANE			345433	10.50 PPBV	
	ISOPROPYLBENZENE	16.33		817604	10.35 PPBV	99
	BROMOBENZENE	16 11	1 = 6			
,	2-CHLOROTOLUENE	16.87	126	178506	10.12 PPBV	# 97
	n-PROPYLBENZENE	16.91	120	209087	10.21 PPBV 10.12 PPBV 10.73 PPBV	98
	4-ETHYLTOLUENE	17.07	105	713048	10.86 PPBV	100
,	1,3,5-TRIMETHYLBENZENE	17.16	105	566491	10.86 PPBV 10.43 PPBV	100
	ALPHA-METHYLSTYRENE	17.33	118	253260	10.48 PPRV	100
	TERT-BUTYLBENZENE	17.61	134	147843	10.32 PPRV	97
	1,2,4-TRIMETHYLBENZENE	17.62	105	536865	10.48 PPBV 10.32 PPBV 10.79 PPBV	100
	, ,					



<sup>(#) =</sup> qualifier out of range (m) = manual integration W32386.D MW1322.M Tue Aug 16 08:56:05 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32386.D Vial: 2

 Acq On
 : 23 Jun 2011 9:03 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 24 08:07:25 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Ur	nit	Qvalue
96)	m-DICHLOROBENZENE	17.80	146	305289	10.36	PPBV	99
97)	BENZYL CHLORIDE	17.78	91	372549	10.61	PPBV	99
98)	p-DICHLOROBENZENE	17.88	146	289038	9.94	PPBV	99
99)	SEC-BUTYLBENZENE	17.93	134	169057	10.93	PPBV	99
100)	p-ISOPROPYLTOLUENE	18.10	134	162807	11.08	PPBV	99
101)	o-DICHLOROBENZENE	18.27	146	262601	9.90	PPBV	99
102)	n-BUTYLBENZENE	18.59	134	121091	10.02	PPBV	97
103)	HEXACHLOROETHANE	19.03	201	167433	10.45	PPBV	97
104)	HEXACHLOROBUTADIENE	20.74	225	82555	8.89	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.23	180	49775	7.83	PPBV	99
107)	NAPHTHALENE	20.35	128	90968	8.09	PPBV	99

<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed W32386.D MW1322.M Tue Aug 16 08:56:05 2011 MSW



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32386.D Vial: 2

 Acq On
 : 23 Jun 2011
 9:03 am
 Operator: YOUMINH

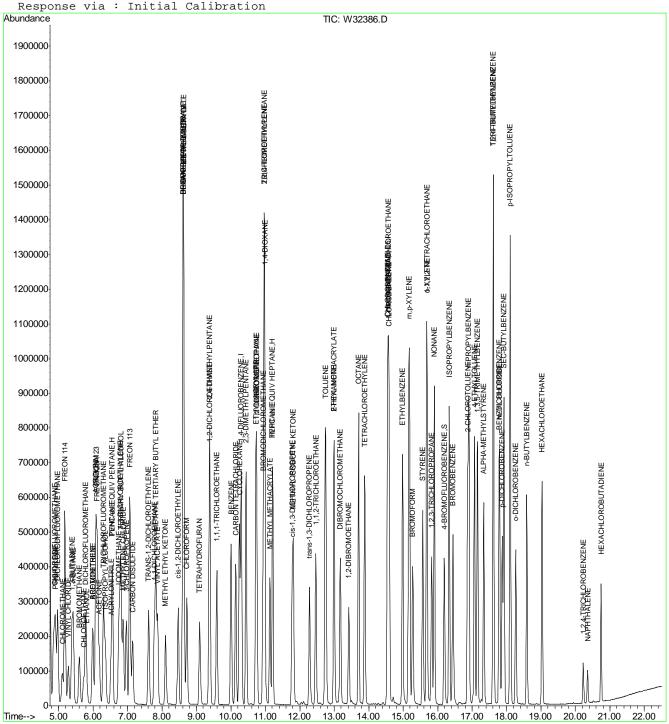
 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: MW1322.RES

Last Update : Wed Jun 22 11:25:24 2011



W32386.D MW1322.M

Tue Aug 16 08:56:06 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32386.D Vial: 2

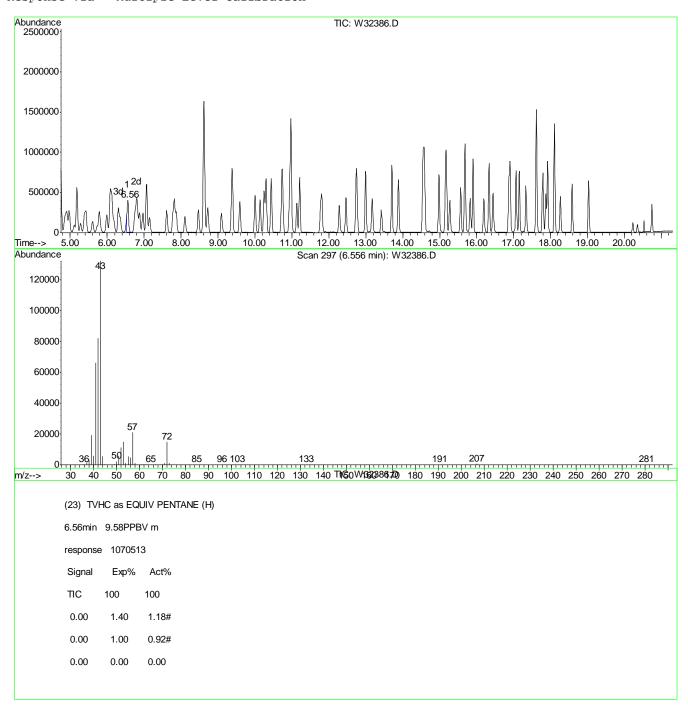
: 23 Jun 2011 9:03 am Operator: YOUMINH Acq On Sample : CC1322-10 Inst : MSW : MS14299,VW1324,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32386.D MW1322.M

Tue Aug 16 09:10:13 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1322-1327\W32386.D Vial: 2

 Acq On
 : 23 Jun 2011
 9:03 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst
 : MSW

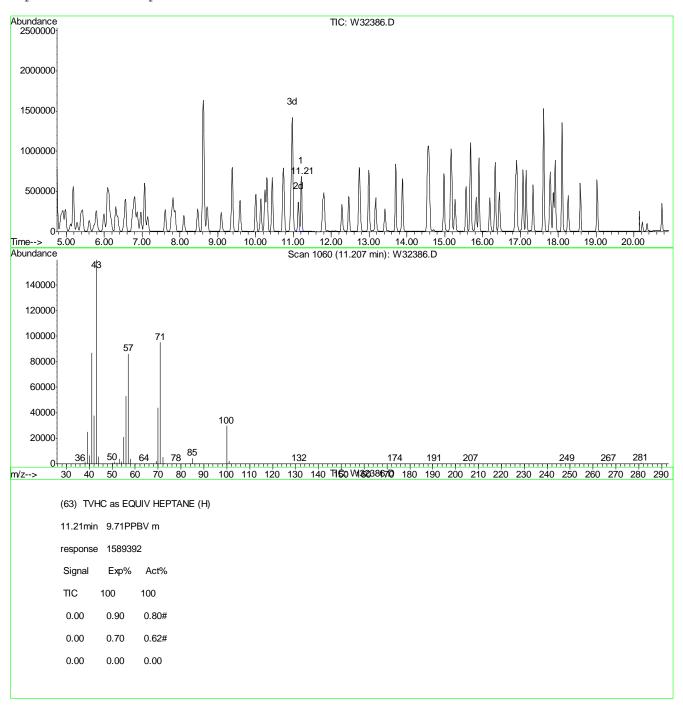
 Misc
 : MS14299,VW1324,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jun 27 12:16 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32386.D MW1322.M

Tue Aug 16 09:10:17 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32800.D Vial: 2

 Acq On
 : 20 Jul 2011 8:11 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:10:53 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc U			
1) BROMOCHLOROMETHANE	8.59	128	163015	10 00	DDRV		-0.02
50) 1,4-DIFLUOROBENZENE	10.27	114	786379	10.00	PPBV		-0.02
69) CHLOROBENZENE-D5	14.52	82	378609	10.00	PPBV		-0.03
106) Chlorobenzene-d5(a)	14.52	82	786379 378609 377057	10.00	PPBV		-0.03
System Monitoring Compounds							
85) 4-BROMOFLUOROBENZENE		95			PPBV		-0.03
Spiked Amount 5.000	Range 65	- 128	Recove	ery =	92.8	80%	
Target Compounds						Qv	alue
4) CHLORODIFLUOROMETHANE	4.89	67	39701		PPBV		99
5) DICHLORODIFLUOROMETHANE	4.96	85	424348		PPBV		99
6) PROPYLENE	4.91	41	183187	8.99	PPBV		97
7) FREON 114	5.17	85	534892	9.53	PPBV		96
8) CHLOROMETHANE	5.10	52	63442	10.23	PPBV		100
9) VINYL CHLORIDE	5.27	62	227250	10.59	PPBV		99
10) 1,3-BUTADIENE	5.38	54	227250 185263 397149 181770	10.31	PPBV		98
11) n-BUTANE	5.42	43	397149	11.17	PPBV		99
12) BROMOMETHANE	5.59	94	181770	9.89	PPBV		99
13) CHLOROETHANE	5.71	64	129672 429450 86096	10.53	PPBV		91
14) DICHLOROFLUOROMETHANE	5.78	67	429450	9.83	PPBV		99
15) ACROLEIN	6.06	56	86096	9.78	PPBV		98
16) FREON 123	6.07	83	479430 260217	10.24	PPBV	#	99
17) FREON 123A	6.11		260217	9.30	PPBV		88
18) TRICHLOROFLUOROMETHANE	6.29	101	425956 414693 105319	9.31	PPBV		100
19) ISOPROPYL ALCOHOL	6.34	45	414693	10.44	PPBV		97
20) ACETONE	6.17	58	105319	10.10	PPBV		92
21) ACRYLONITRILE	6.50	53	169439	10.32			98
22) PENTANE	6.54	57	169439 67227	10.00	PPBV	#	94
23) TVHC as EQUIV PENTANE	6.54	TIC			PPBV		
24) IODOMETHANE	6.73	142	462403	9.52	PPBV		99
25) 1,1-DICHLOROETHYLENE	6.78	96	208005	10.12	PPBV		95
26) CARBON DISULFIDE	7.13	76	510499	10.27	PPBV		100
27) ETHANOL	5.81	45	104380	10.01	PPBV		99
28) ACETONITRILE	5.96	41	180250	10.43	PPBV		96
29) BROMOETHENE	5.98	106	1243644m 462403 208005 510499 104380 180250 185343 192300 101307	9.70	PPBV		99
30) METHYLENE CHLORIDE	6.85	84	192300	9.75	PPBV		93
31) 3-CHLOROPROPENE	6.95	76	192300 101307	10.24	PPBV	#	93
32) FREON 113	7.05	151	295463	8.75			91
33) TRANS-1,2-DICHLOROETHYLE			186237	9.65			97
34) TERTIARY BUTYL ALCOHOL	6.80	59	295463 186237 479052	10.41			99
35) METHYL TERTIARY BUTYL ET			492334	8.95			97
36) TETRAHYDROFURAN	9.07	72	92539	9.71			92
37) HEXANE	8.60	57	385215	10.85			96
38) VINYL ACETATE	7.85		385215 50323 385546	9.43			82
39) 1,1-DICHLOROETHANE	7.76		385546	10.32			99
40) METHYL ETHYL KETONE	8.08		94106	9.63	PPBV		94
41) cis-1,2-DICHLOROETHYLENE		96	204138	9.33			98
42) DI-ISOPROPYL ETHER	8.59		751222				99
43) ETHYL ACETATE	8.61		61479		PPBV		85
45) EINID ACEIAIE						П	

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W32800.D MW1322.M Wed Aug 17 12:48:47 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32800.D Vial: 2

Acq On : 20 Jul 2011 8:11 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW : MS15431,VW1341,,,,,1 Misc Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:10:53 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Ur	nit	Qva	alue
44)	METHYL ACRYLATE	8.61	55	373145	10.03	PPBV		98
	CHLOROFORM	8.70	83	368190	9.67	PPBV		99
46)	2,4-DIMETHYLPENTANE	9.36	57	445345 341071	10.59	PPBV		98
	1,1,1-TRICHLOROETHANE	9.56	97	341071	9.00			98
48)	CARBON TETRACHLORIDE	10.11	117	338924	8.72	PPBV		99
	1,2-DICHLOROETHANE	9.34	62	338924 211407	9.61	PPBV		99
	BENZENE	9.98	78	626207	10.44	PPBV		98
52)	CYCLOHEXANE	10.22	84	626207 290766 159045	9.61	PPBV		93
53)	2,3-DIMETHYLPENTANE	10.41	71	159045	10.63	PPBV		95
54)	TRICHLOROETHYLENE	10.94	95	238103	10.21	PPBV		95
55)	DIBROMOMETHANE	10.71	174	238103 197947	9.33	PPBV		90
56)	1,2-DICHLOROPROPANE	10.72	63	237189	10.50	PPBV		96
57)	ETHYL ACRYLATE	10.70	55	237189 409962	10.49	PPBV		98
	BROMODICHLOROMETHANE	10 91	83	375235	10 13	DDBM		100
59)	2,2,4-TRIMETHYLPENTANE	10.95	57	1185270 122118 197350 435014	11.49	PPBV		99
	1,4-DIOXANE	10.96	88	122118	10.03	PPBV	#	54
	METHYL METHACRYLATE	11.10	69	197350	9.63	PPBV		95
62)	HEPTANE	11.18	43	435014	11.27	PPBV		94
63)	TVHC as EQUIV HEPTANE	11.18	TIC	1775083m	10.58	PPBV		
	METHYL ISOBUTYL KETONE	11.78	43	445977	10.77	PPBV		96
65)	cis-1,3-DICHLOROPROPENE	11.75	75	294234	9.79	PPBV		99
,	TOLUENE	12.71	92					99
,	trans-1,3-DICHLOROPROPENE	12.26	75	386157 261778	9.59 9.39	PPBV		99
	1,1,2-TRICHLOROETHANE	12.44	83	177868				97
	ETHYL METHACRYLATE	12.96	69	177868 309272	10.60	PPBV		96
	2-HEXANONE	12.97	43	405827	10.84	PPBV		97
	TETRACHLOROETHYLENE			231239				99
	DIBROMOCHLOROMETHANE	13.15	129	317252	9.34			100
	1,2-DIBROMOETHANE	13.39	107	267122	9.46	PPBV		100
75)	OCTANE	13.68	43	267122 537174	11.20	PPBV		93
76)	1,1,1,2-TETRACHLOROETHANE	14.54	131	228265	9.11			
	CHLOROBENZENE	14.57	112	228265 429592	9.20	PPBV		98
	ETHYLBENZENE	14.96	91	718049	9.55	PPBV		99
79)	m,p-XYLENE	15.15	106	553534	18.96	PPBV		98
80)	O-XYLENE	15.66	T06	265340	9.41	PPBV		100
81)	STYRENE	15.54	104	382372 251493	0 56	זזמממ		98
82)	1,2,3-TRICHLOROPROPANE	15.80	75	251493	9.13	PPBV		97
83)	NONANE	15.88	43	459287	11.01	PPBV		96
84)	BROMOFORM	15.25	173	459287 265253	9.11	PPBV		99
86)	1,1,2,2-TETRACHLOROETHANE	15.66	83	334710	10.13	PPBV		99
	ISOPROPYLBENZENE		105	729373				99
88)	BROMOBENZENE			189767	9.15	PPBV		95
89)	2-CHLOROTOLUENE	16.85	126	159841	9.02	PPBV	#	97
90)	n-PROPYLBENZENE	16.88	120	159841 181633	9.28	PPBV		91
	4-ETHYLTOLUENE	17.04	105	615687		PPBV		99
92)	1,3,5-TRIMETHYLBENZENE	17.13	105	615687 478341		PPBV		100
	ALPHA-METHYLSTYRENE	17.31	118	217864	8.98	PPBV		99
94)	TERT-BUTYLBENZENE	17.59	134	123004 451931	8.54	PPBV		97
95)	1,2,4-TRIMETHYLBENZENE	17.60	105	451931	9.04	PPBV		100

W32800.D MW1322.M Wed Aug 17 12:48:47 2011 MSW



<sup>(#) =</sup> qualifier out of range (m) = manual integration

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32800.D Vial: 2

 Acq On
 : 20 Jul 2011 8:11 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 08:10:53 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Ur	nit	Qvalue
96)	m-DICHLOROBENZENE	17.77	146	266189	8.99	PPBV	99
97)	BENZYL CHLORIDE	17.75	91	329784	9.35	PPBV	98
98)	p-DICHLOROBENZENE	17.85	146	256549	8.79	PPBV	99
99)	SEC-BUTYLBENZENE	17.90	134	139574	8.98	PPBV	93
100)	p-ISOPROPYLTOLUENE	18.08	134	134178	9.09	PPBV	96
101)	o-DICHLOROBENZENE	18.24	146	228874	8.59	PPBV	98
102)	n-BUTYLBENZENE	18.57	134	102041	8.41	PPBV	92
103)	HEXACHLOROETHANE	19.01	201	143036	8.89	PPBV	97
104)	HEXACHLOROBUTADIENE	20.72	225	70763	7.59	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.21	180	53479	8.38	PPBV	99
107)	NAPHTHALENE	20.33	128	104341	9.24	PPBV	98



<sup>(#) =</sup> qualifier out of range (m) = manual integration (+) = signals summed W32800.D MW1322.M Wed Aug 17 12:48:47 2011 MSW

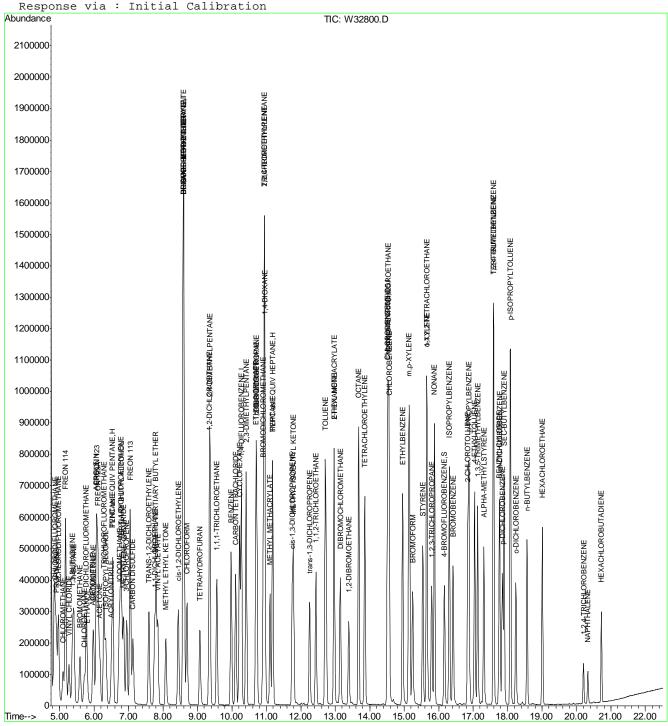
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Acq On : 20 Jul 2011 8:11 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:03 2011 Quant Results File: MW1322.RES

Last Update : Wed Jun 22 11:25:24 2011



W32800.D MW1322.M

Wed Aug 17 12:48:48 2011



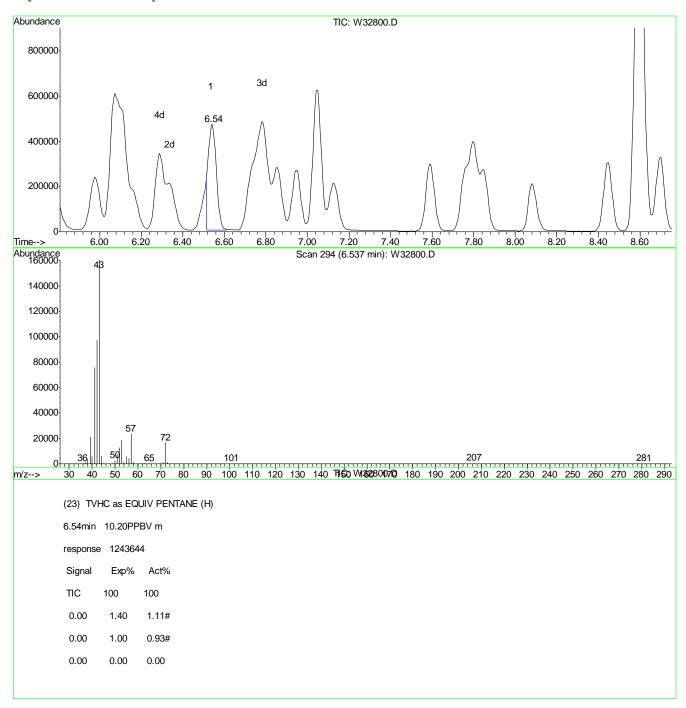
Acq On : 20 Jul 2011 8:11 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW Misc : MS15431,VW1341,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:03 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32800.D MW1322.M

Wed Aug 17 14:37:27 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1341\W32800.D Vial: 2

 Acq On
 : 20 Jul 2011 8:11 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

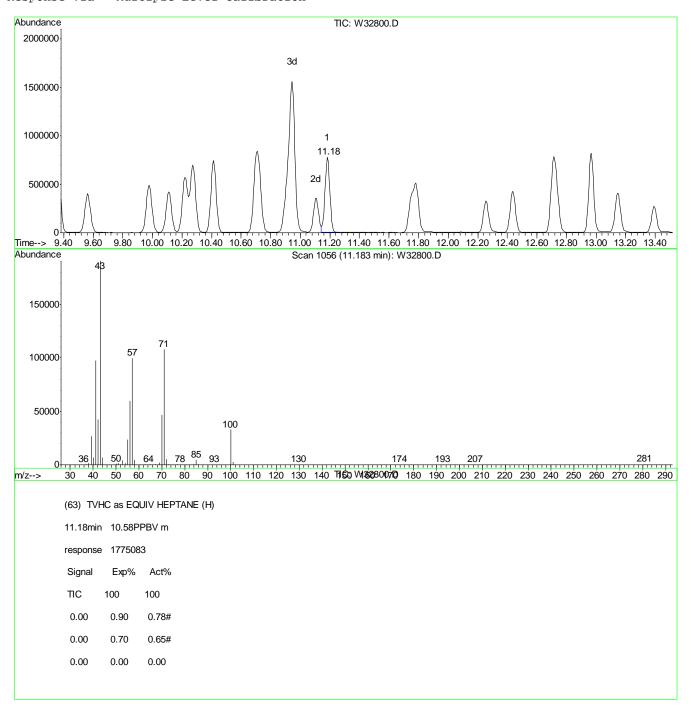
 Misc
 : MS15431,VW1341,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 21 9:03 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32800.D MW1322.M

Wed Aug 17 14:37:42 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32829.D Vial: 2

 Acq On
 : 21 Jul 2011 9:18 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:49 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011

Response via : Initial Calibration

DataAcq Meth : TO15W

	rnal Standards			Response			
	BROMOCHLOROMETHANE			151689			
50)	1 4-DIFLUOROBENZENE	10.37	114	746250	10.00	DDRV	-0.02
69)	1,4-DIFLUOROBENZENE CHLOROBENZENE-D5	14 52	82	746250 365970 365239	10.00	PPRV	-0.03
106)	Chlorobenzene-d5(a)	14 52	82	365239	10.00	DDRV	-0.03
100/	ciiioiobelizelle us(u)	11.52	02	303233	10.00	IIDV	0.03
Syst	em Monitoring Compounds						
85)	4-BROMOFLUOROBENZENE	16.16	95	180821	4.57	PPBV	-0.03
Sp	iked Amount 5.000	Range 65	- 128	Recove	ry =	91.4	0%
Tara	et Compounds						Ovalue
41	CHLORODIFLUOROMETHANE	4 88	67	38736	8 75	DDRV	Qvarue
5 )	DICHLOPODIELLIOPOMETHANE	4.00	85	399194	8 96	DDBM	99
6)	DPODVI.FMF	4.90	∆1	175303	9 25	DDBM	98
7)	FREON 114	5 17	85	503043	9.63	DDBM	96
8)	CHIOROMETHANE	5 10	52	60116	10 42	DDRV	97
9)	VINVI. CHI.ORIDE	5 27	62	211784	10.12	DDRV	99
10)	1 3-RITADIENE	5 38	54	174460	10.00	DDBM	99
11)	n-RIITANE	5 42	43	371935	11 24	DDRV	98
12)	BROMOMETHANE	5 59	94	168951	9 88	DDRV	100
13)	CHLOROETHANE	5.32	64	121544	10 61	DDRV	91
14)	DICHLOPOFILIOPOMETHANE	5 78	67	406374	10.01	DDBM	100
15)	ACROLETIN	5.76	56	84170	10.00	DDBM	100
16)	FREON 123	6.00	83	446301	10.27	DDBM	# 99
17)	FREON 123	6 11	117	242162	9 30	DDRV	π 22 87
18)	TRICHLOPORTHOPOMETHANE	6 29	101	403012	9.47	DDBM	100
10)	TSODPODVI. ALCOHOL.	6 34	45	395300	10 69	DDBM	98
20)	ACETONE	6 17	5.8	103208	10.63	DDBM	100
20)	ACETONE ACDVI ONITEDITE	6 51	53	166492	10.04	DDDM	100
221	DENTANE	6.51	53 57	63738	10.09	DDBM	# 94
22)	TVHC ac FOITV DENTANE	6 54	ידר דדר	1198495m	10.10	DDBM	т ја
241	TODOMETHANE	6.73	142	427836	9 47	DDBM	100
25)	1 1_DICHLODOFTHYLENE	6 77	96	191205	10 00	DDRV	93
26)	CARRON DISHLETDE	7 13	76	469137	10.00	DDRV	99
27)	ETHANOI.	5 81	45	102452	10.15	DDRV	99
28)	ACETONITE II.E	5 97	41	179994	11 19	DDRV	99
29)	BROMOETHENE	5 98	106	171448	9 64	DDRV	99
30)	METHYLENE CHLORIDE	6 85	84	176954	9 64	DDRV	91
31)	3-CHLOROPROPENE	6 95	76	94643	10 28	DDRV	# 90
32)	FREON 113	7 05	151	274018	8 72	PPRV	91
33)	TRANS-1 2-DICHLOROETHYLE	ne 7.59	96	173704	9 68	PPRV	97
34)	TERTIARY RITYI, ALCOHOL	6 81	59	449747	10 51	DDRV	99
35)	METHYL TERTLARY BUTYL ET	HE 7.80	73	485061	9 48	PPRV	97
36)	TETRAHYDROFIIRAN	9 07	72	91242	10 29	PPRV	# 90
371	HEXANE	8 60	57	364576	11 04	PPRV	98
38)	VINVI. ACETATE	7 85	86	49255	9 92	DDRV	# 78
391	1 1-DICHLOROETHANE	7.05	63	362147	10 41	PPRV	99
401	METHYL ETHYL KETONE	7.70 8 N8	72	90853	9 99	PPRV	93
41)	cis-1.2-DICHLOROETHYLENE	2.00	96	190875	9 38	PPRV	97
421	DI-ISOPROPYL ETHER	8 59	45	747616	10 94	PPRV	99
431	ETHYL ACETATE	8 61	61	60468	10.29	PPRV	# 86
	CHLORODIFLUOROMETHANE DICHLORODIFLUOROMETHANE PROPYLENE FREON 114 CHLOROMETHANE VINYL CHLORIDE 1,3-BUTADIENE n-BUTANE BROMOMETHANE CHLOROFLUOROMETHANE ACROLEIN FREON 123 FREON 123A TRICHLOROFLUOROMETHANE ISOPROPYL ALCOHOL ACETONE ACRYLONITRILE PENTANE TVHC as EQUIV PENTANE IODOMETHANE 1,1-DICHLOROFTHYLENE CARBON DISULFIDE ETHANOL ACETONITRILE BROMOETHENE METHYLENE CHLORIDE 3-CHLOROPROPENE FREON 113 TRANS-1,2-DICHLOROETHYLE TETTIARY BUTYL ALCOHOL METHYL TERTIARY BUTYL ET TETRAHYDROFURAN HEXANE VINYL ACETATE 1,1-DICHLOROETHYLE 1,1-DICHLOROETHANE METHYL ETHYL KETONE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CIS-1,2-DICHLOROETHYLENE CHAMBER CHA						

672 of 685
ACCUTEST

JA81330
LABORATORIES

<sup>(#) =</sup> qualifier out of range (m) = manual integration W32829.D MW1322.M Wed Aug 17 12:49:01 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32829.D Vial: 2

 Acq On
 : 21 Jul 2011
 9:18 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:49 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Ur	nit	Qve	alue
44)	METHYL ACRYLATE	8.61	55	374698	10.83	PPBV		97
,	CHLOROFORM	8.70		349783		PPBV		99
	2,4-DIMETHYLPENTANE	9.36	57	423829	10.83	PPBV		98
	1,1,1-TRICHLOROETHANE	9.56	97	329930		PPBV		98
	CARBON TETRACHLORIDE	10.11	117	326944	9.04	PPBV		100
49)	1,2-DICHLOROETHANE	9.34		205145	10.02	PPBV		100
51)	BENZENE	9.98	78	609115	10.70	PPBV		98
52)	CYCLOHEXANE	10.22	84	277419	9.66	PPBV		93
53)	2,3-DIMETHYLPENTANE	10.41	71	152575	10.75	PPBV		95
54)	TRICHLOROETHYLENE	10.94	95	227662	10.29	PPBV		95
55)	DIBROMOMETHANE	10.71	174	189552	9.42	PPBV		90
56)	1,2-DICHLOROPROPANE	10.72	63	234760	10.95	PPBV		96
57)	ETHYL ACRYLATE	10.70	55	407411	10.98	PPBV		98
58)	BROMODICHLOROMETHANE	10.91	83	364184	10.36	PPBV		100
59)	2,2,4-TRIMETHYLPENTANE	10.95	57	1137758	11.62	PPBV		99
60)	1,4-DIOXANE	10.96	88	114278	9.89	PPBV	#	61
61)	METHYL METHACRYLATE	11.11	69	114278 198966	10.24	PPBV		94
62)	HEPTANE	11.18	43	418571	11.43	PPBV		94
63)	TVHC as EQUIV HEPTANE	11.18	TIC	1686881m	10.59	PPBV		
64)	METHYL ISOBUTYL KETONE	11.79	43	431854	10.99	PPBV		96
65)	cis-1,3-DICHLOROPROPENE	11.75	75	290007	10.17	PPBV		100
	TOLUENE	12.71	92	384015	10.05	PPBV		100
67)	trans-1,3-DICHLOROPROPENE	12.26	75	262146	9.91	PPBV		99
68)	1,1,2-TRICHLOROETHANE	12.44	83	174280	10.52	PPBV		97
70)	ETHYL METHACRYLATE	12.96	69	299395	10.62	PPBV		96
71)	2-HEXANONE	12.97	43	389909	10.78	PPBV		96
72)	TETRACHLOROETHYLENE	13.85		220159	9.04	PPBV		99
	DIBROMOCHLOROMETHANE	13.15	129	312529		PPBV		99
	1,2-DIBROMOETHANE	13.40	107	312529 263137	9.64			100
75)	OCTANE	13.68	43	532563	11.49			92
	1,1,1,2-TETRACHLOROETHANE			229016	9.45			99
77)	CHLOROBENZENE	14.57		426834		PPBV		97
78)	ETHYLBENZENE	14.96	91	721384	9.92	PPBV		99
	m,p-XYLENE	15.15		555114				99
	O-XYLENE	15.66		267582		PPBV		100
	STYRENE	15.54		385895		PPBV		98
	1,2,3-TRICHLOROPROPANE	15.80		257010		PPBV		97
	NONANE	15.88	43	469496	11.64			96
	BROMOFORM	15.25		260198		PPBV		100
	1,1,2,2-TETRACHLOROETHANE	15.66	83	339972	10.64			99
,	ISOPROPYLBENZENE	16.31		738287		PPBV		99
	BROMOBENZENE	16.42	156	187814		PPBV		94
	2-CHLOROTOLUENE	16.85		159162		PPBV		95
	n-PROPYLBENZENE	16.88	120	185338		PPBV		92
,	4-ETHYLTOLUENE	17.04		633757		PPBV		99
	1,3,5-TRIMETHYLBENZENE	17.13		492762		PPBV		100
,	ALPHA-METHYLSTYRENE	17.31		221735		PPBV		99
,	TERT-BUTYLBENZENE	17.59		127240		PPBV		97
,	1,2,4-TRIMETHYLBENZENE	17.60	105	463581	9.59	PPBV		100

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<sup>(#) =</sup> qualifier out of range (m) = manual integration W32829.D MW1322.M Wed Aug 17 12:49:01 2011 MSW

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32829.D Vial: 2

 Acq On
 : 21 Jul 2011 9:18 am
 Operator: YOUMINH

 Sample
 : CC1322-10
 Inst : MSW

 Misc
 : MS15431,VW1342,,,,,1
 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 08:19:49 2011 Quant Results File: MW1322.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Initial Calibration

DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
96)	m-DICHLOROBENZENE	17.77	146	265163	9.26 PPBV	99
97)	BENZYL CHLORIDE	17.75	91	330874	9.70 PPBV	99
98)	p-DICHLOROBENZENE	17.85	146	255674	9.06 PPBV	99
99)	SEC-BUTYLBENZENE	17.90	134	142417	9.48 PPBV	92
100)	p-ISOPROPYLTOLUENE	18.08	134	137101	9.61 PPBV	97
101)	o-DICHLOROBENZENE	18.24	146	229785	8.92 PPBV	99
102)	n-BUTYLBENZENE	18.57	134	101512	8.65 PPBV	89
103)	HEXACHLOROETHANE	19.01	201	140495	9.03 PPBV	95
104)	HEXACHLOROBUTADIENE	20.72	225	70649	7.84 PPBV	100
105)	1,2,4-TRICHLOROBENZENE	20.21	180	46616	7.55 PPBV	99
107)	NAPHTHALENE	20.33	128	91858	8.40 PPBV	98

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ACCUTEST.
JA81330

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32829.D Vial: 2

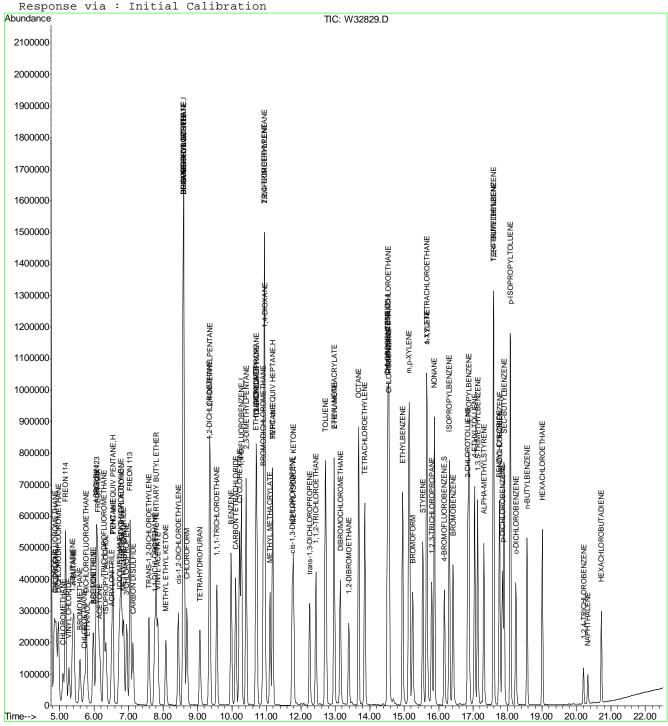
Acq On : 21 Jul 2011 9:18 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:49 2011 Quant Results File: MW1322.RES

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011



W32829.D MW1322.M

Wed Aug 17 12:49:02 2011

MSW

675 of 685
ACCUTEST
JA81330
LABORATORIES

Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32829.D Vial: 2

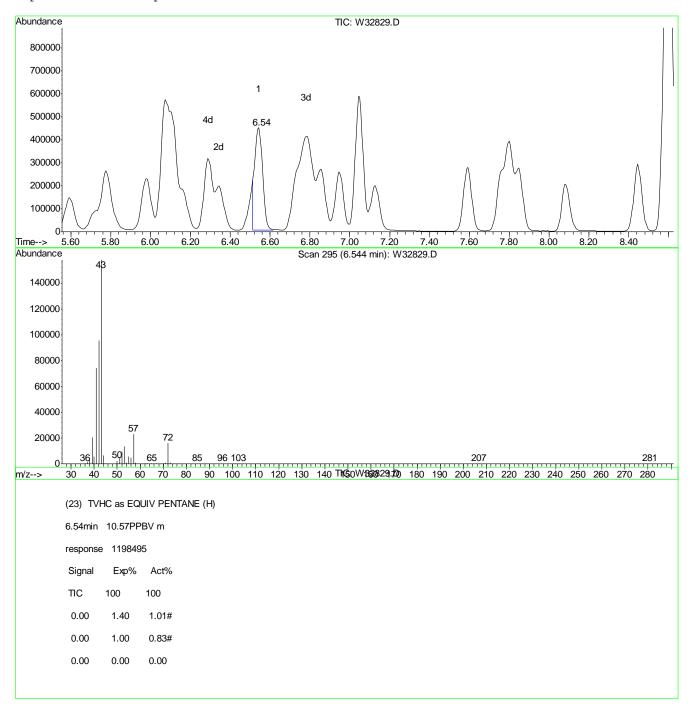
Acq On : 21 Jul 2011 9:18 am Operator: YOUMINH Sample : CC1322-10 Inst : MSW Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:49 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



W32829.D MW1322.M

Wed Aug 17 14:35:57 2011



Data File : C:\MSDCHEM\1\DATA\OLD\_W\VW1342\W32829.D Vial: 2

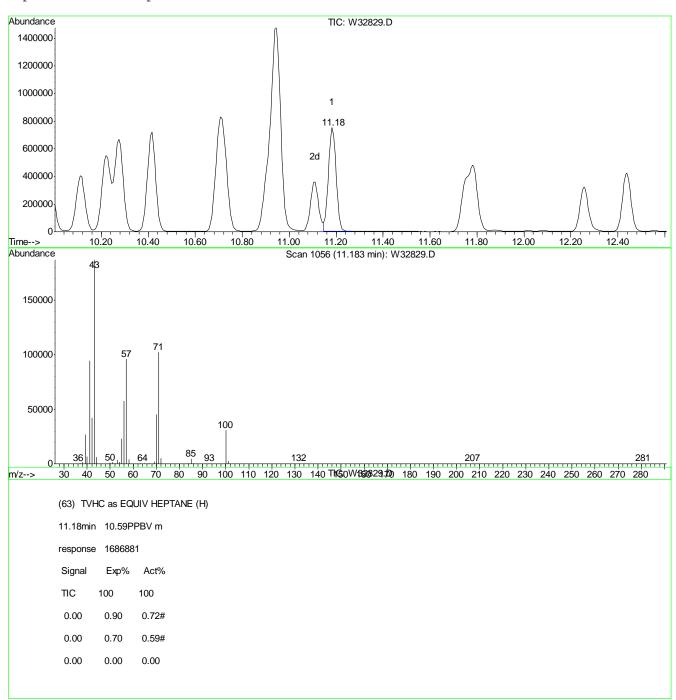
: 21 Jul 2011 9:18 am Operator: YOUMINH Acq On Sample : CC1322-10 : MSW Inst Misc : MS15431,VW1342,,,,,1 Multiplr: 1.00

MS Integration Params: rteint.p

Quant Time: Jul 22 8:49 2011 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\MW1322.M (RTE Integrator) Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um

Last Update : Wed Jun 22 11:25:24 2011 Response via : Multiple Level Calibration



Wed Aug 17 14:36:03 2011



Date: 5 13 11

Lot #

<u> As 4850</u>

AS 4851

AS 4852

7015

STD

Analyst Signature:

Columns: 1274-1, 60mx, 32mm Method: TOIB 343.M

Batch ID: V3W886

Seq. File: 3W051311-S Initial Cal. Method: M360 886

AS Data Method: To 15 Mot.

10 ppbi/

pphi/

Standard Data Description Conc. TOIS ISISHUR 40/200phy TOIS LCS 10 POBV TO15 STD

Lot#	Description	Conc.
A54853	7015 8 510	0.4 PUD
A54842	1015 STD	Z Pph
		''

Standand D.

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

					visor Sig	nature:	-	YH		Date:_	5/18/ N
AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	3WZ7414	BFB		A960	100					0 K	
	3W22415	10886-02		A981	80			1	/	NG	
2	3W22416	1C886-5		A 975	50			1	1	σk	
	31422417	10886-0.5		A981	200			/	1	NG	
	3W22418	10886-20		A 975	200				/	وإد	
٦_	2 12419	100886-10		A 975	100			_ /		ΦIL	
	3W21420	10886-1		A981	400				/	OK.	
<u> </u>	3W22421	10886-02		A965	40				/	_ b kr	
	311/22422	10886-0.04		A966	40				1	e K	
<u>#</u>	3W 22423	1C886-0.		A966	100			_/	./	اد اد	
2_	3422424	1Cf86-40		A 975	400			/		916	
	34122424	10886-05		A 965	100			_/		OK	
6	2142242b	1cv886-10		A 978	100			/		OK	
											` '
		5									
-			A								
			/	c 5/	13/11						
		/									
		/									
						7.					-
									$\dashv$		<del></del>
											- :
						1				<del></del>	
						1		<del></del>			·
Strike	Oute must be	initial dated and a		<u> </u>							

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error, #2 = Transcription Error, # 3 = Computer Miscalculation, #4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09

29



MINI LA	<b>1</b>	TEST	
<b>S</b>	/ccu	TEST	=

6/24/11 Date:\_

Analyst Signature:\_

Columns:

Batch ID: V3W910

Method: Seq. File:\_

Initial Cal. Method: H3W886

AS Data Method:

Standard Data

I of #	Standard Data			Standard Data	
Lot #	Description	Сопс.	Lot #	Description	Conc.
			AS 4877	TOITSTO	HOPPEN
			AS 4876	Toisies	4 oppbu
		<del> </del>	AS 4861	ISISUCC	4droppbv
noller inde					

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP FOA044

	<del>,</del>	·			Supe	rvisor Si	gnature	:	)î		Date:	6/29/14
AS#		Sample ID	7	EST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Suri	C4-4	
_5_	3W23017	BFB			Aquo	100				· · · · · ·	OK	
2_	3W23018	CC886-10			A975	102					on	
3_	3W23019	BS			A 918	100				1	OIL	
3_	3W23020	BSD			A978	100					On	
5	31023011	MB			Agec	40				/		<u> </u>
<u>i</u>	30023022	JA-19195-9 YH	5	מד	A875,A539	100	22.1-			-	DYL	<del> </del>
7	3W23023	JA 19195 - 104H		j	A77/	20				-	ON	<del> </del>
8	36023024	SCC			<b>A</b> 377	400	1				<del>                                     </del>	
9	3W23025	JA79105-11	5	מד	A470	100	i				OKOL	1
10	3123026	JA79105-13		1	A870	20						RRZom(
_11	3W23027	JA79105-14			A823	20					on_	
125811	3W23028	JA79105-17			AU41, A537	100	665				OVL	
/3	36023024	JA79105-18			A441,A675	100	<i>26</i> 3 27				DVL	
	3W23030	JA79223-1	S	טז	A3572	400	1	-	-/-		OK.	
	36023031	JA79223-104p			A30D	400	<del>!</del> -!			7	012/01	RRIDOMI
15	36023032	JA79223-2			ADZI	400		<del> </del> -			OK.	
16	31023033	JA79223-1834H			A984	400		<u> </u>		<del>/</del>	0K/0L	RRIGOM
1	31023034	JA79223-4			A002	400		<del> -</del>	-	$\rightarrow$	on_	-
3	31023035	JA79223-5	$\exists$		A876	453					m	
4	31023036	JA79223-6			Alos	400					ON	
	31023037	JH79223-7			A1005	400	$\dashv$		<del>-/- </del>		OR	
	36053038	JA79223-8			A308	400	$\neg$				01/-6	30.00
	311733039	JA79223-9			A993	400	$\dashv$				01/01	RRZOUM
	3W23040	JA74273-10			A503	100				$\dot{\rightarrow}$	01/04	RRZOOM
10 3	W23041	JA79223-11	$\neg$		A724	100	+		$\rightarrow$	$\frac{1}{2}$	on	
11	Wa3042	JA79223-12	$\dashv$		A573	100			$\rightarrow$		on	
12 3	3iv23043	JA14223-13	1		A531	100			<del></del>	<del>-</del>	on on	
						YH					<del></del>	
二上		initial dated and										

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, 3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09



Date: 6/21/11 Analyst Signature:\_

Columns:

Batch ID: VW 1322

Method: \_ Seq. File: WO6ZIII.S

Initial Cal. Method: MW1372,M

AS Data Method: TOIS, MPT

Standard Data Lot# Description Conc. AS 4863 Isjsur

	Standard Data	
Lot #	Description	Conc.
AS 48 BL	TOISICS	Hoppby
AS 4887	TOIS STO	HOPPOS
AS 4888	TOIS STD	7.0ppbv
As 4889	TOISSTO	0.4000

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

		7	· · · · ·		rvisor Sig				_	Date:	10/25/11
AS#		p	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
7	W32342	BFB		A961	100				-	OK	
	W32343	CC1314-10		A964	100					NG-	
2	W32344	CC1319-10	<u> </u>	A969	100				<del></del>	NG	<u> </u>
3	W32845	BS		A967	100					N6-	
3	W32346	BSD		A967	100					NI-	
5	W32347	18		A961	100					notused	
5	W32348	1.8		P461	100						
5	W32349	IB		Aqei	LOD					netused	
5	W3235V	18		A961	100					notused	
5	W32351	BFB		1961	100				·	notused	
2	W32352	ICC 1322-10		A971	100					DK	
1	W32353	IC1322-0.5		A970	100		-+			OIL	
2	W32354	IC1322-5.D		A971	50					on	
1	W32355	IC1322-0.2		A970	40					notused	
2	W32356	IC1322-20		A971	200		-	-	_	notused	
2	W32357	IC1322-5.0		A971	รง			-		OK	
	W32358	IC1327-0.1	-	A977	100				<del>-</del>	OIL I	
4	W32359	IC1322-0.04		A977	40					notused	
7	1137315	IC1322-40		A971	400				_	OK_	
5	W32361	18		A961	ioo		-			OK	
5	W32362	IØ		A961	100	-	-			notused	
3 1	XW32363	ICV1322-10		A967	IOD					notused	
	W32364	IC1322-0.2		A970	40				<del>-  </del>	rotused	
4	W32365	IC1322-0.1		A977	100	<del></del> -				OK	
					100					OK	
		-		-	7H						
			_ +								
strike	oute must be	initial dated and re						<u>-</u>		_	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, 3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09

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AS Data

Method:

blazlu Date:

Analyst Signature:\_

Columns:

Batch ID: VW1323

Method: \_ Seq. File:

Initial Cal. Method: MW1372.M

Standard Data

Lot#	Description	Conc.

	Standard Data	
Lot#	Description	Conc.
AS 4887	TOISSTO	407000
AS 4886	TOISUS	Hoppbu
As 4863	Isisum	40/20900
	. ,	

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

					utest SOP rvisor Sig	_		10			
AS#	Data File	Sample ID	TEST	Canister	Vol	Dil	TICS	Int. STD		Date:	1/23/1
-	1		1	Serial #	Sample	Fact	1103	Areas	Surr	Data	Comment
	W32366	BFB		A961	100			*****		OK	
2_	W32367	CC1322-10		A971	100				/	on	
3_	W32368	BS		A961	100			/		in	<u> </u>
3	W32369	BSD		A967	100				/	on	<u> </u>
5	W32370	MB		A961	400					ion	<del></del>
<u>b</u>	W32371	JA79005-1	STO	A595,A791	40	224				01/00	NN 10 MYO'Y
7	W32372	JA74005-2	₩	A788, A805	200	23.6				214/01	RR10,000X
8	W32373	SCC		A587	400	- (				P.R.	RR700X
9	W32374	JA79005-3	STO	A575	100	1				OK/OL	Possible (lo
9	W32375	JA74005-30up		A575	100					on	RR 2000 SDX
10	W32376	JA79005-844H		A561	100						
11	W32377	JA79005-5		A804	100	<u> </u>			-	DN_	
12	W32378	JA79005-6		A524,A582	200	22,6				on or	Ma >
13	W32379	JA79087-1	מדצ	A1014, A542	100	22	$\neg +$			OK/UL	RR LOUX
14	LU32380	JA79087-2	1	A779	100	1				OK/OL	KRSDOX
15	W32381	JA74087-3	J	A231	400		_	<del></del>	-	on	
16	W32382	JA 79074-1	STD	A840,A578	100	24				OK	-
	W32383	JH79074-2		AUS1, H383	lvv	25			-	OK/DL	RL STUX
3	1,03,384	Str		ASSO	400	1	_	-	<del>-  </del>	01/02	RESTOX
						<u>`_</u> _				on	
			<u> </u>								
						<del></del>			-		
			i		YH _	-					· · · · · · · · · · · · · · · · · · ·
				-							
				<del></del>							
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trike	outs must be	initial, dated and re				$\Box$			$\neg +$	<del></del>	·

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09



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AS Data

Method:

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	ACCUTEST:	

Date: 6/30/11

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Batch ID: Viv1374

Analyst Signature:\_\_\_\_\_

RTX-160MX .32mm

Method: \_\_ Seq. File:\_

W063011.S

Initial Cal. Method: HW1322,H

Standard Data

	Dianaula Duta	
Lot #	Description	Conc.

	Standard Data	
Lot #	Description	Conc.
AS 4887	TOISSTO	40pplev
AS 4886	TOISUS	40ppbv
AS 4813	Islauce	40120000
l 1 1		

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria

of Accutest SOP EQA044.

	- 27					visor Sig	gnature:		<u> </u>		Date:	7/114
AS#	Data File	Sample ID	TE	ST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	W32499	вғв	1		A461	100					OIL	
2	W32500	CC 1322-10	<u></u>		A971	100	· -			/	on	
YHZ3	W32501	BS			A967	100			/.	/	on	
_3_	W31502	BSD		_	A967	100			/	/	on	
5	M35203	МВ			A961	400				1	on	
6	W32504	JA79189-1	STA	IR A	tirbog.A400,A501	100	10,000			/	on	
7	M35202	JA79184-Z		A	irbug: AIIS, A48	loo	loioco		/		on	
_8	M3720P	JA79189-3		A	irbag, ASHANIA	loo	10,000				on	
9	W32507.	SCC			A\$45	400	11		1		NH	Recleun
10	M35208	JA79756-1	ST	0	A311	400	.1			/	on	
_11	W325D9	JA79756-2			A049	612	1,53			/	014/02	RRIOOMI
12	1032510	JA79756-3			ALOOL	632	1.58			/	RR	Possible Clo
13	W32571	JA79756-4			A1004	580	1.45			/	OIL/OL	RRIDOM
13	W32572	JA 19756 -40up			A1004	580	1.45			/	אינט	
14	W32573	JA79756-5	<b>-</b> >		A861	400	1		/		Rr.	Pessible Clo
15	W32514	JA79755-1	STE	2	A348	400	1		/	/	OK.	7ESST ME CIT
16	W32515	JA79755-2			A628	400	ł				OK/OL	RRIVOM
1	W32516	JA79755-3			A220	400	1			/	01400	RRyom
. 3	W32517	JA79755-4			A509	100	-		/	/	on	7
4	W32518	JA79689-1	STO	A	1016, AS80	25	56.5		/	7	on	
6	W32519	JA79689-2	1		A343	20	1				on	
1	M35250	JA79740-1	STI	0	A865	100	1			/	on	
ç	M35251	JA79813-1	STO	) Ai	dag 1538	40	700		. /	/	014/00	KR40,000X
9	W32522	JA7964-14H	STD	) As	36,A793	ĴD	26			7	RE	JA79754-1 Possible
10	W32523	JA79754-2	J		562,A678	COD	75.6		/ /	/	m	: 4 7 ( 7 1 3 1 1 - 4 3 M P (C
	W32524	JA79688-1	STY	2 A4	133,AST3	W	56.5		_/	7	RR	datanetmatch
12	M35252	JA79688-2	J		810,A794	20	25.6		/	/	RR	data not must ch
							911					
	outs must be											

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, #3 = Computer Miscalculation, #4 = Analyst's Correction Error

Form: AT008-05

Rev. Date: 10/20/09

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# Canister Secondary Ununon Log

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							_		_				 		_		
		Final Canister	Ullutton	י בינט	3	20											
		Ž	Dillullon		- 1	3						•					
		Equiv Total	Volume	36	2000	2000											
	secondary Canister Dilution	Final	nsin CO English	107		1 2 1								•			
	ary Canis	Sample Volume		40	2 3	100											
C	Second	Canister Volume		Can	C. Z.	046	_				Ť						
		Canister	<u>Q</u>	A694	Asm	3/21											
		Dilution	Factor	1.30									T			Ī	
er Dilution		Final Pressure Dilution	psig	1.2	0				1							-	
Original Canister Dilution	Same and	Vacuum in "Hg at	time of Dilution	-5.0	0	1		_									
Orio		Canister	ID	ATHG	Airbea					-							
		Accutest	Sample ID	JA81203-1	YH JA81392-2												
			Initials	λH	1 H K												
			Date	1/21/11	11/12/1												

(Final Canister Dilution Factor) x (Normal Sampling Volume in cc) Final DF = (Original Canister DF) x (Secondary Canister DF) Dilution Factor at Instrument = Definition:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the (Sample Volume in cc Injected)

Example:

Notes:

dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20 (from canister dilution) x 20 (from instrument dilution) = 400 All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction

Form: AT003-03
Rev. Date: 6/13/06



TOIS, MPT

MIN SACCUTEST:

Date:\_\_\_\_\_7/20/11

Analyst Signature: \_\_\_\_\_\_\_

Columns: RTX-160MX.32m

Batch ID: 101341

Method: Tolsw.M

Seq. File: WO17011.5
Initial Cal. Method: MW1322

Method:

Standard Data											
Lot#	Description	Conc.									
1											

Lot#	Description	Conc.
As 4887	TOISSTO	40ppl
AS 4886	TOISLES	4oppi
AS 4893	Islaure	40/2000

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria

					visor Sig			The same		Date:	761
AS#	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil	TICS	Int. STD Areas	Surr	Chada	Comments
2	W32799	BF6		A961	100					DK	<u> </u>
2	W32800	CC1327-10		A971	lov				1	OK	
3_	W32801	BS	<u> </u>	A967	iov					on	
3	W32802	BSD	<u> </u>	A967	100			/	/	OK	
2	W32803	MB	<u> </u>	A961	400				/	OK	
b	W32804	JA81247-1	STO	A984	25				1	OV	
7	W32805	JA81247-2	ı	<u> 1</u> 477	75			/		DIL	
8	W3280b	SCC		A614	400			/	1	PR	Possible Clo
9	W32807	JA81330 - 1	STO	A190	400	1		/	/	0400	RESOM
10	W32808	JA81330-2		A089	400			/	1	04/02	Recombinal
- 11	W32809	JA81330-3		A147	400			/	/	014/01	RRIOUM
12	W32810	JA81330-4		A661	400				/	04/3/	Resomi
13	W35811	JA81330-5		A365	400	1		1		01/01	RRyom
13	W32812	JA81330 - K500		A315	400	1			/	ØK_	
14	W32813	JA81330-764H		A039	400	1		/	/	OK/DL	RRIUTM
12	W32814	JA81330-7		A358°	400	1			/	01406	RRIVOM
16	W32815	JA\$1330-8	1	C28A	400			_/	/	014/01	RRIvom
• )	W3581P	JA81330-1	STO	A190	50			/	/	012	
3	W32817	JA\$/35: 2		A089	50	1		/		DIL	
4	8185EW	JA81330-3		A147	lov	-		/	/	DIL.	
<u>b</u>	LU32819	JA81330-4		A661	50	l		/	/	DIL	
7	M35850	JA81076-1	STO	A236	(OD	1.22		_/		on	
8	1032821	JA81037-X57	570	A799,A622	100	28.6		. /		DK	
9	6032822	JA81037-6		A426,A527	(00)	27.6		/	_/'	ÖIZ	
10	W32823	JA81037-7		A510, A494	200	29.6		/		CIL	
1):	W32824	JA81037-8		A543,A561	200	29.6		/	/	OL	
12	W32825	JA81037-9		A569,A695	200	29			/	or	
13	W32826	JA81037-12	- ↓	A390, A574	(80	28.6		/	/	on	
_5	W32827	scc	· .	A614	400			1	/	on	
VII admile											

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error Form: AT008-05

Rev. Date: 10/20/09

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ACCUTEST

JA81330

LABORATORIES

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AS Data

TOIS,MPT

Method:

Batch ID:	VW 1342
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Date:	7/21/11	
Date:	4011	

Analyst Signature:\_\_\_\_

Columns: RTX-160MX.331

Method:

TOISW.M

Seq. File: Wo72111.5
Initial Cal. Method: MW1322

Standard Data

···	Dutu	
Lot #	Description	Conc.
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Standard Data									
_ot #	Description	Conc.							
A:4887	TOISSID	40776							
AS 4886	TOITUS	40Pobs							
As litera	7 Cla	1. 1							

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria

					utest SOF	-		1	•		7/22/11
AS#	D / 201			Commission	rvisor Si	gnature; Dil	<del></del>	L-4 CTP	<del></del>	Date:	<u>'                                    </u>
A5#	Data File	Sample ID	TEST	Serial #	Sample		TICS	Int. STD Areas	Surr	Status Data	Comments
2	W32828	BFB		A961	100					OL	
2	W32829	CC1322-10		A971	lov					DK_	
_ 3	W32830	BS		A967	100					UK	
3	W32831	BSD		1967	100					on	
7	W32832	MB		A961	400					bn	
b	W32833	JA81330 -5	STO	A365	40	1			_	on	
7	W32834	JA81330-6		Ab39	lop	1				DIL	
8	W32835	JA81330-7		A358	100	. 1				on	
9	W32836	JA81330-8		A853	200	1				on	
10	W32837	٤٥٥		A384	400	ĺ				on	
	W32838	JA81054-1	STO	A524	100	1			/	on	
12	W32839	JA81054-2	1	A122	100	7		/		DK/DL	REISM
13	W32840	JA81054-3		A579	100	1			/	OK/DL	perm
13	W32841	JA81054-3DUP		A579	100	1		/		OR	EU (SHII)
14	W32842	JA81054-4		A648	100	1	""		7	OK/DL	RRZIMI
15	W32843	JA81054-5		A397	lov	1		/		on	1210201111
16	W32844	JA81054-6		ASSS	iov	1			/	01/01	RRZum Homl
1	W32845	JA81054-7		A597	ivo	1		/		01/01	KK50X
3	W32846	JA81054-8	- ↓	ASSO	(OD					ON/DL	KRDX
4	W32847	JA81054-9	STO	A786	100	1	"	7		DIL	7010/
	W32848	JA81054-10		AMb	100	1			7	on	
	W32849	JA81054-11	J	A801	100	U			$\overline{}$	014/01	Kerml
	1735825	JA81203-1	BTXMT	A749, A694	100	65		-/	7	014/00	KR 4,000X
	W>2851	HY 1-00518AE	STO	MA A SID PRES	100	1		7	$\overline{}$	on	JA81392-1
	W32852	JA81240-2-4H		ATTIS 1H	100	20		/	7	04/00	JA81392-2 RRY
	M35823	JA81291-1	1	A766	100	1		/	7	ou	THUIS IS EXACT
	W32854	JA81226-1	5TD	A818	100	1		/	7	OKOL	RR40ml
5	M35822	SCC		A235	400						out of Nz
-			1		YH						

All strikeouts must be initial, dated and reason code applied as follows: #1 = Reviewer Correction Error; #2 = Transcription Error, #3 = Computer Miscalculation, #4 = Analyst's Correction Error
Form: AT008-05

Rev. Date: 10/20/09

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