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Date:
April 15, 2009

Subject:
West Lot Site Supplemental Investigation Report

ARCADIS Project No.:
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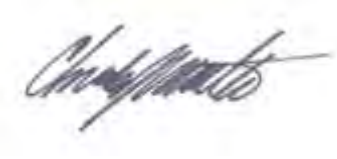

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West Lot Site
Supplemental Investigation Report

West Lot Site
Utica, New York

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ACRONYMS

ASP	Analytical Services Protocol
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylene
DCE	cis-1,2 dichloroethylene
DRO/GRO	diesel-range organics and gasoline-range organics
DUSRs	data usability summary reports
EDR	Environmental Data Resources, Inc.
EM	electromagnetic
GE	General Electric
GPR	ground-penetrating radar
GPS	Global Positioning System
IRM	Interim Remedial Measure
MW	monitoring well
NAVD	North American Vertical Datum
NYCRR	New York Codes, Rules, and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
PAHs	polyaromatic hydrocarbons
PCBs	polychlorinated biphenyls
PID	photoionization detector
PW	pumping well
PZ	piezometer
QA/QC	quality assurance/quality control
ROD	Record of Decision
SCO	Soil Cleanup Objective
SGV	standards and guidance values
SPDES	State Pollutant Discharge Elimination System
TAGM	Technical and Administrative Guidance Memorandum
TCE	trichloroethylene
TP	test pit
USEPA	U.S. Environmental Protection Agency
VC	vinyl chloride
VOCs	volatile organic compounds

1. Purpose

On behalf of Lockheed Martin Corporation (Lockheed Martin), ARCADIS has prepared this *West Lot Site Supplemental Investigation Report* for the former General Electric (GE) West Lot Site at the former Lockheed Martin French Road property in Utica, New York (Site No. 6-33-036). The West Lot Site, as referenced within the "Remedial Action/Remedial Design Order on Consent" governing the remedial program at the West Lot Site, encompasses approximately two acres and is currently undeveloped. This supplemental investigation was conducted voluntarily by Lockheed Martin to further investigate environmental conditions in the greater area of the West Lot Site (including the western parking lot area, the 10-acre parcel, and the West Lot Site). The western parking lot area, the 10-acre parcel, and the West Lot Site are collectively referred to herein as the greater West Lot site, and are the focus of the supplemental investigation presented in this report. The site location is shown in Figure 1. A site plan identifying referenced areas within the greater West Lot site is shown in Figure 2.

As part of Lockheed Martin's corporate requirements for site closure, an investigation of soil and groundwater conditions beyond the West Lot Site was completed. Although the investigation included portions of the West Lot Site previously remediated under the "Order on Consent" from the New York State Department of Environmental Conservation (NYSDEC), a larger area (including the western parking lot area and 10-acre parcel) was evaluated to confirm soil and groundwater quality in those areas. Although not required under the "Order on Consent" and "Record of Decision," the results of the supplemental investigation will be incorporated in the pending "Request for Closure for the West Lot Site." This strategy was developed by Lockheed Martin in an attempt to close the West Lot Site with no restrictions on soil and/or groundwater.

1.1 Site Description and History

The greater West Lot site is located on French Road in New Hartford (Oneida County), New York. From the 1950s to the early 1960s, the West Lot Site operated as a waste disposal site and fire training area, burning waste materials and spent solvents in an 80-foot-diameter pit (burn pit). The West Lot Site is currently listed as a "Class 4" site on the "New York State Registry of Inactive Hazardous Waste Disposal Sites."

The greater West Lot site encompasses approximately 30 acres and is currently undeveloped, although zoned as light industrial. Most of the greater West Lot site is covered either by mixed vegetation or is paved and contains no occupied buildings. A small storage shed and blower-house constructed during the soil "Interim Remedial Measure (IRM)" in 1993 and 1994 are present, but not in use. Site features are shown in Figure 2.

Adjacent to and east of the greater West Lot site is the former Lockheed Martin facility, historically used to manufacture electrical components. The Oneida County Industrial Development Agency (OCIDA) holds title to the facility and its property, including the greater West Lot site. However, OCIDA holds title as a conduit for providing financial assistance to the operator of the facility and its property, ConMed Corporation (ConMed). ConMed, which is a medical supply manufacturer and distributor, is considered the property owner. Although Lockheed Martin no longer owns the property (nor the greater West Lot site), Lockheed Martin retains responsibility for implementing the remediation activities specified in the March 1998 "Record of Decision (ROD)." Southwest of the West Lot Site is an active New York State Department of Transportation (NYSDOT) facility, including a building used for offices and a garage. The NYSDOT facility is located on a former landfill site known as the New Hartford Village Dump (see Figure 2).

As presented in the *Remedial Investigation Report* (Blasland, Bouck, & Lee, Inc., 1995) and subsequent ARCADIS reports, cis-1,2 dichloroethylene (DCE), trichloroethylene (TCE), 1,1,1-trichloroethane, vinyl chloride (VC), benzene, toluene, ethylbenzene, and xylene (BTEX) are the primary constituents detected in soil and groundwater at the West Lot Site. An extensive investigation of soil and groundwater was conducted in the early 1990s, the results of which are summarized in the *Remedial Investigation Report*. Generally, the highest concentrations of site-related constituents were found in the area of the former burn pit (see Figure 2).

In 1994, in accordance with the ROD, soils from the burn-pit area were excavated and placed into a containment cell as part of the implementation of the *Interim Remedial Measures Work Plan* (O'Brien & Gere Engineers, Inc., 1993). Excavation activities conducted by ARCADIS in 1999 removed additional impacted soils from the former burn-pit area, fully satisfying the soil-remedy requirement in the ROD and the "Order on Consent" (March 1999) (approved by NYSDEC in its November 15, 1999 letter to ARCADIS). Continued groundwater monitoring indicated a residual source of impacts to groundwater.

In 2004, a membrane-interface-probe program was initiated to delineate this residual source. Based on this investigation, a supplemental residual-source soil removal was conducted in the former burn-pit area in 2005 (as presented within the *Residual Source Soil Removal Report*, ARCADIS, 2006) to enhance groundwater cleanup. All post-excavation soil-sample results from the residual-source soil removal were less than NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4046 cleanup objectives. The residual-source soil removal was approved by NYSDEC in its January 31, 2006 letter to ARCADIS.

In compliance with the NYSDEC-recommended remedy for groundwater presented in the ROD, a hydraulic-control system was installed in 2001 and became fully operational in 2002. The system consisted of an extraction well (PW-1) and a treatment unit. The extraction well pumped water from the former burn-pit area to the groundwater collection and treatment unit (associated with the Solvent Dock Area, located at the east end of the former Lockheed Martin facility). The treatment unit removed volatile organic compounds (VOCs) from the extracted groundwater via a low-profile air stripper. Influent samples were collected monthly from PW-1 to measure the VOC concentrations in groundwater. All treated groundwater was then discharged to the municipal storm sewer in accordance with the site's State Pollutant Discharge Elimination System (SPDES) permit. The hydraulic-control system (extraction well PW-1) operated from 2002 through 2006. In January 2007, the extraction well was shut down, as approved by the NYSDEC in its January 3, 2007 letter.

2. Technical Overview and Findings

A supplemental investigation was conducted at the site to evaluate current groundwater conditions near the former burn-pit area as well as soil and groundwater conditions in the greater West Lot site. The investigation was conducted in accordance with the December 4, 2008 *Work Plan for Supplemental Investigation Activities*. The technical overview and findings of these investigations are presented below.

2.1 Environmental Data Search

Before starting field activities, ARCADIS reviewed a comprehensive environmental data search for the greater West Lot site and general vicinity that had been conducted by Environmental Data Resources, Inc. of Milford, Connecticut ("the EDR report" herein). Such a search seeks to identify any known environmental risks associated with

a given property and is typically completed as part of a “Phase I Environmental Site Assessment.” The EDR report lists known environmental risks within a prescribed radius of the target property and provides historical aerial photos, topographic maps, as well as Sanborn® fire insurance maps. Based on the review of the EDR report, no environmental risks were identified other than those directly related to the West Lot Site (Site No. 6-33-036).

2.2 Reconnaissance Surveys

2.2.1 Technical Overview

ARCADIS completed a field reconnaissance (foot survey) of the western parking lot, burn-pit area (West Lot Site), 10-acre parcel, and other neighboring property formerly owned by Lockheed Martin. The intent was to visually inspect the properties and evaluate any indications of waste disposal that may have occurred during the period of ownership and operation of the French Road property by Lockheed Martin and its predecessors. The reconnaissance was completed primarily by a field review (on foot) of site conditions, including use of a Global Positioning System (GPS) unit to indicate the exact locations of potential areas of concern.

The foot survey entailed walking over the wooded and outlying areas beginning at the western parking lot. During the foot survey, site conditions were noted and photo-documented. In addition, areas indicating a notable condition (such as a berm, debris, or other feature) were assigned GPS coordinates. These GPS coordinates were then overlain on an aerial photo to show relative spatial distribution. The findings of the foot survey are included in Appendix A.

Based on the results of the field reconnaissance (in particular reconnaissance in the 10-acre parcel and other wooded areas), an approach was developed to complete an electromagnetic (EM) geophysical survey. To accommodate the EM survey, limited clearing activities (i.e., brush removal) were completed in wooded areas to facilitate operation of the EM equipment. The western parking lot area and other cleared areas were covered by the EM survey on a minimum 10×10-foot grid. The wooded and outlying areas from the western parking lot were covered by the EM survey on a 50×100-foot grid.

The EM geophysical survey was conducted by Hager-Richter Geoscience, Inc. of Salem, New Hampshire (under ARCADIS oversight). The survey provided EM

coverage for the greater West Lot site and recorded EM anomalies indicative of conductive (i.e., metallic) buried objects. Following initial review of the EM survey in the field, ground-penetrating radar (GPR) was used within the parking lot area to further define the size and description of anomalies. Results of the EM/GPR survey are included in Appendix B.

2.2.1.1 Foot Survey Findings

The foot survey was completed primarily within the wooded 10-acre parcel and those areas not readily accessible by the EM survey equipment. The findings of the foot survey are presented in Appendix A. The survey revealed the sporadic presence of general debris and trash across the survey area. Based on the results of the foot survey, four locations were identified as potential areas of concern, and marked as areas for further investigation via test-pitting activities. Referenced locations are identified as test pit (TP) locations in Figure 3 — "Investigation Location Plan." These locations are:

- P-1 (addressed by TP-12). Investigation of this location was prompted by observation of metal debris, as well as the presence of an approximately 2.5–three-foot high mound.
- P-25 (addressed by TP-17). Investigation of this location related to observation of a small depression filled with "black water."
- P-36 and P-42 (addressed by TP-16). Investigation of these locations (located near each other) was related to observation of an approximately seven-foot high berm/mound in the interior of the 10-acre parcel.
- P-50 and P-51 (addressed by TP-13). Investigation of these locations related to observation of debris and multiple small mounds (approximately 0.5–two-feet high).

2.2.1.2 Geophysical Survey Findings

The geophysical survey, in general, did not identify any significant anomalies within the western parking lot, 10-acre parcel, or other surveyed areas that could not be attributed to known or expected subsurface features (e.g., reinforced concrete pipe, manholes, and reinforced concrete pads). Several smaller anomalies were identified, as shown in the survey results in Appendix B. The survey concluded that none of the anomalies indicate underground storage tanks or other significant buried features. However, as a conservative measure, eight locations indicating low- to moderate-sized anomalies

were identified for further investigation via test pitting. Referenced locations are identified as test pit locations in Figure 3. These locations are:

- TP-6 (addressing small anomalies in the northeast corner of the western parking lot);
- TP-7 (addressing a small- to medium-sized anomaly in the interior of the eastern end of the western parking lot);
- TP-8 (addressing a small- to medium-sized anomaly in the interior of the southwestern end of the western parking lot);
- TP-9 (addressing several small anomalies in the interior of the northwest corner of the western parking lot);
- TP-10 (addressing a medium-sized anomaly in the northwest corner of the western parking lot);
- TP-11 (addressing two small parallel anomalies near the center of the western parking lot); and
- TP-14 and TP-15 (addressing two similar anomalies located just north of the western parking lot).

2.2.2 Summary of Findings

The findings of the foot and EM surveys provide the basis for further exploratory work. The combined results of the foot, EM, and GPR surveys reveal evidence of limited disposal activities as a result of former operations on the French Road property. The surveys did not reveal any significant waste disposal areas, nor indicate any aboveground or buried tanks, drums, or other industrially related features.

2.3 Geology and Hydrogeology

This section presents the technical overview and findings regarding the geology and hydrogeology of the greater West Lot site derived from the supplemental investigation and augmented with information from previous investigations.

2.3.1 Technical Overview

Test pits were excavated primarily to determine the presence or absence and characteristics of waste, to evaluate soil quality, and provide information on the

geologic deposits of the greater West Lot site. Twelve test pits were completed (designated as TP-6 through TP-17) (see Figure 3). Test pits were dug with a small excavator to a depth ranging from approximately seven to 13-feet below ground surface (bgs) (to the approximate water table at each location). At each test pit, soils were described and logged by an ARCADIS scientist and screened for the presence of VOCs with a photoionization detector (PID). Test pit logs appear in Appendix C.

Two test borings were installed near the western parking lot (see Figure 3) to supplement the investigation of soil and groundwater quality in the greater West Lot site. Boring locations (identified as PZ-1 and PZ-2) are shown in Figure 3. Test borings were completed using Geoprobe^{TM} drilling techniques. An ARCADIS scientist logged and screened soils for the presence of VOCs with a PID. Continuous soil samples were collected at each boring location using macro-core open-ended samplers. Piezometer PZ-1 was completed to its planned depth of approximately 15 feet bgs. Piezometer PZ-2 was completed to a depth of approximately nine feet bgs (due to refusal at that depth). Soil samples were not collected from the test borings due to the absence of evidence of any contamination (i.e., no odor, staining, or PID readings). Construction details for the piezometers installed at these locations are included in Table 1.

2.3.2 Geologic Findings

The shallow geologic deposits observed in the greater West Lot site are consistent with those observed in previous investigations. General fill materials (including metal, brick, wood debris, concrete, and ash) were mixed with sands and gravels in several test pits. A native material comprised of sand and gravel, with varying amounts of silt and clay and localized lenses of silt and/or clay, was also observed at each of the test pit and soil boring locations underlying or independent of the fill materials. Test pit and soil boring logs are included as Appendices C and D, respectively.

2.3.3 Hydrogeologic Findings

This section discusses groundwater occurrence, water-elevation data, and inferred direction of groundwater flow based on data collected as part of the West Lot Site supplemental investigation.

Groundwater Occurrence: Groundwater was noted in each of the test pits and piezometer locations during field activities. Groundwater occurs in this shallow overburden unit (overlying a dense till unit and Utica Shale bedrock, as defined as part of previous investigations), and is unconfined.

Water-Elevation Data: Water-elevation data collected as part of the supplemental investigation groundwater sampling are presented in Table 2. Water-elevation data for the native overburden and fill units indicate that the water table decreases toward the southwest.

Groundwater Flow: Groundwater flow in the greater West Lot site, based on data collected as part of the supplemental investigation, is consistent with the inferred direction previously noted at the West Lot Site. Groundwater-elevation data from previous West Lot Site investigations indicate that flow occurs in a west-southwest direction (when originating at the former burn-pit area). However, historic water-quality data (as presented in previous investigation reports) show that groundwater contaminants are not present west of the former burn-pit area, but rather are found in an area more to the southwest. Groundwater elevations and inferred direction of groundwater flow are shown in Figure 4.

2.4 Soil and Groundwater Quality Investigation

This section presents the technical overview and findings of the soil and groundwater-quality investigation. Information in this section derives from the following scope of work, conducted from December 2008 through February 2009:

- Completion of 12 test pits;
- Installation of two soil borings/piezometers; and
- Groundwater sampling from existing wells and newly-installed piezometers.

2.4.1 Technical Overview

2.4.1.1 Test Pits

Twelve test pits were dug (designated as TP-6 through TP-17) with a small excavator to a depth ranging from approximately seven to 13 feet bgs (and to the approximate water table). Test pit locations are shown in Figure 3. At each test pit, an ARCADIS scientist described and logged soil and screened for the presence of VOCs with a PID. Test pit logs are included as Appendix C.

Two “grab” soil samples were collected from each test pit and submitted for laboratory analysis. These grab samples were collected from the upper three feet of the test pit and from an interval directly above the water table. Samples were submitted to TestAmerica Laboratories, Inc. of Amherst, New York and analyzed for the following parameters (as presented in Table 3):

- Volatile organic compounds (VOCs);
- Polyaromatic hydrocarbons (PAHs);
- Select metals (including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc);
- Polychlorinated biphenyls (PCBs); and
- Diesel-range organics and gasoline-range organics (DRO/GRO).

2.4.1.2 Piezometer Installation, Development, and Sampling

Two test borings (converted to two piezometers) were installed near the western parking lot to supplement the investigation of soil and groundwater quality in the greater West Lot site. The boring/piezometer locations (identified as PZ-1 and PZ-2) are shown in Figure 3. At each boring location, a one-inch piezometer was installed. Piezometer construction details for PZ-1 and PZ-2 are included in Table 1 and in Appendix D. Elevations of each piezometer were surveyed to the nearest 0.01-foot relative to the North American Vertical Datum (NAVD) of 1988. Each piezometer was developed by bailing to remove fine materials. Piezometer development continued until the discharge water was visually free of sediment.

Following installation and development of the piezometers (PZ-1 and PZ-2), and in advance of the groundwater-sampling event, groundwater levels were measured in monitoring wells and piezometers. Groundwater-elevation measurements are included in Table 2. Groundwater elevations and the inferred direction of groundwater flow are shown in Figure 4.

A groundwater-sampling event in February and March 2009 collected groundwater samples from the newly installed piezometers (PZ-1 and PZ-2), as well as from the following existing monitoring wells (MW):

- MW-1, MW-2, MW-3, MW-4, and MW-5 (associated with the 10-acre parcel);

- MW-B, MW-C, MW-D, MW-E, MW-F and former pumping well PW-1 (associated with the former burn-pit area); and
- MW-1(DOT) (located on the neighboring NYSDOT property).

Monitoring well and piezometer locations are shown in Figure 3. Monitoring well and piezometer construction details are included in Table 2. Groundwater samples were collected using polyethylene disposable-bailers with disposable polypropylene-rope. Samples were collected following three purged volumes or sufficient recharge following monitoring well or piezometer dewatering. Groundwater samples were submitted to TestAmerica Laboratories, Inc. of Amherst, New York and analyzed for the following parameters (as presented in Table 3):

- VOCs (for all groundwater sample locations);
- PAHs (for groundwater samples collected at MW-B, MW-C, MW-1, MW-2, MW-3, MW-4, MW-5 and piezometer PZ-1);
- Select metals (for groundwater samples collected at MW-B, MW-C, MW-1, MW-2, MW-3, MW-4, MW-5 and PZ-1 and PZ-2);
- PCBs (for groundwater samples collected at MW-B, MW-C, MW-1, MW-2, MW-3, MW-4, MW-5 and PZ-1); and
- DRO/GRO (for groundwater samples collected at MW-B, MW-C, MW-1, MW-2, MW-3, MW-4, MW-5 and PZ-1).

2.4.2 Findings

Soil- and groundwater-investigation findings appear in the following sections. Soil analytical data are provided in Tables 4 through 7. Groundwater analytical data are included in Tables 8 through 11. Laboratory-data analytical packages are included as Appendix E.

2.4.2.1 Soil

VOCs: No VOCs were detected in any soil samples collected from the test pits at concentrations exceeding the NYSDEC “Restricted Use— Industrial Soil Cleanup Objectives (SCOs)” set forth in the New York Codes, Rules, and Regulations (6 NYCRR Part 375).

PAHs: No PAHs were detected in any soil samples collected from the test pits at concentrations exceeding the NYSDEC "Restricted Use— Industrial SCOs" (6 NYCRR Part 375).

Metals: No metals were detected in any soil samples collected from the test pits at concentrations exceeding the NYSDEC "Restricted Use— Industrial SCOs" (6 NYCRR Part 375).

PCBs: No PCBs were detected in any soil samples collected from the test pits at concentrations exceeding the NYSDEC "Restricted Use— Industrial SCOs" (6 NYCRR Part 375).

DRO/GRO: The NYSDEC has not established SCOs for DRO/GRO. GRO was not detected in any soil samples collected from the test pits. DRO was detected in soil samples collected from TP-10 (2.0–2.5 feet) (460 mg/kg), TP-15 (4.0–4.5 feet) (16 mg/kg), and TP-16 (13.0–13.5 feet) (13 mg/kg).

2.4.2.2 Groundwater

VOCs: VOCs were not detected at concentrations greater than NYSDEC standards and guidance values (SGVs) in groundwater, with the exception of vinyl chloride at MW-D (2.8 μg/L vs. SGV of 2 μg/L) and cis-1,2-dichloroethene at MW-1(DOT) (7.0 μg/L vs. SGV of 5 μg/L). A historical trend chart of vinyl-chloride concentrations for MW-D (included as Appendix F) indicates a continued decrease as compared to historical results at that location. The concentration of cis-1,2-dichloroethene at MW-1(DOT), although above the SGV, is not solely related to the greater West Lot site and may be related to the former Town of New Hartford landfill (as discussed with NYSDEC in an April 1, 2009 conference call).

PAHs: PAHs were not detected in groundwater at concentrations greater than SGVs.

Metals: Total arsenic, chromium, iron, lead, magnesium, manganese, and sodium were detected in one or more groundwater samples at concentrations greater than SGVs. The detected constituents, concentrations greater than SGVs, and groundwater sampling locations are as follows:

Sample Location	Constituent Detected in Groundwater	Constituent Concentration (µg/L)	SGV (µg/L)
MW-B	Iron	2,200	300
	Sodium	43,800	20,000
MW-C	Iron	4,300	300
	Sodium	25,000	20,000
PZ-1	Arsenic	31.8	25
	Chromium	68.5	50
	Iron	64,700	300
	Lead	32	25
	Magnesium	71,500	35,000
	Manganese	3,000	300
	Sodium	72,400	20,000
PZ-2	Chromium	140	50
	Iron	37,000	300
	Lead	120	25
	Manganese	1,500	300
	Sodium	130,000	20,000
MW-1	Iron	9,170	300
	Magnesium	42,000	35,000
	Manganese	460	300
	Sodium	119,000	20,000
MW-2	Iron	472	300
MW-3	Magnesium	83,300	35,000
MW-5	Iron	4,000	300
	Magnesium	39,000	35,000
	Sodium	150,000	20,000

PCBs: PCBs were not detected in groundwater at concentrations greater than SGVs.

DRO/GRO: NYSDEC has not established SGVs for DRO/GRO. A single detected concentration of DRO (12 J mg/L) was found at MW-4.

2.5 Variances

The following variances from the December 4, 2008 NYSDEC-approved *Work Plan for Supplemental Investigation* Activities were identified during completion of the West Lot supplemental investigation:

- The off-site piezometer (located downgradient of existing monitoring well MW-1(DOT)) was not installed. Difficulty in obtaining access to off-site properties initially delayed installation of this piezometer. Thus, groundwater sampling (as described in Section 2.4 above) was completed in advance of the installation of this location. The results of that groundwater sampling indicate that concentrations of cis-1,2-dichloroethane (cis-1,2-DCE), the sole constituent above NYSDEC guidance values remaining at the most downgradient sampling location [MW-1(DOT)], continue to decrease. This data trend, coupled with continued difficulty in obtaining access to an off-site property, resulted in Lockheed Martin's decision to no longer pursue the off-site piezometer installation.
- Soil samples were not collected at the two soil borings (PZ-1 and PZ-2) due to the absence of PID readings in excess of background levels nor the physical evidence of impacts.
- The full suite of parameters proposed within the work plan was not collected, due to poor groundwater recovery in newly-installed piezometer PZ-2. PAHs, PCBs, and DRO/GRO were not analyzed due to insufficient sample volume.

2.6 Data Validation

Analyses were performed according to U.S. Environmental Protection Agency (USEPA) SW-846 Methods 1311/8260B, 1311/8270C, 1311/8081A, 1311/8082, 1311/6010B (total and dissolved metals), and 1311/7471A (mercury). Data were reviewed in accordance with USEPA *National Functional Guidelines* of October 1999, July 2002, and January 2005.

Data packages were provided by a New York State (NYS) certified laboratory and prepared as NYS Analytical Services Protocol (ASP) “Category B” deliverables. The review was conducted as a Tier III evaluation and included a review of data-package completeness. Field documentation was not included in this review. Included in this assessment are the validation-annotated sample result-sheets and chain-of-custody documentation. *Data Usability Summary Reports* were completed in accordance with NYSDEC Draft DER-10, *Technical Guidance for Site Investigation and Remediation* (December 2002).

Data review evaluates data technically rather than simply determining contract compliance. As such, the standards against which the data are weighed may differ from those specified in the contractually stipulated analytical method. The data package is thus presumed to represent the best efforts of the laboratory, and the data are likewise presumed to have been subjected to adequate and sufficient quality review before submission. During data review, laboratory-qualified- and –unqualified-data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer.

The NYSDEC ASP Category B-deliverable data review included checks of:

- Chain-of-custody forms;
- Holding times;
- Gas chromatography/mass spectrometer instrument-performance checks;
- Instrument calibration;
- Trip and/or laboratory (method) blank-detected constituents;
- Surrogate spike-recoveries;
- Matrix spike/spike-duplicate precision and accuracy;
- Internal standards;
- Checking for transcriptions between quantitation reports and forms “l;” and
- Blind duplicate precision.

A data validator performed final validation of data obtained during field sampling and analysis. Laboratory deliverables were reviewed for accuracy, precision, completeness, and overall quality of data. All laboratory data were reviewed for adherence to method-

specific quality assurance/quality control (QA/QC) guidelines and to the data validation guidelines described above.

Data Usability: The project data validator reviewed the analytical data for usability, including determining if the data were accurate, precise, representative, complete, and comparable. Review of the analytical results included checking chain-of-custody forms, sample holding times, blank contamination, spike recoveries, surrogate recoveries, internal standard, precision of duplicate sample analysis, and laboratory control samples (as appropriate). The review classified the data as valid, usable, or unusable. Valid data are data for which all QA/QC review criteria have been met and are acceptable (as per details outlined in the preceding section). Data were characterized as usable where QA/QC parameters were marginally outside acceptable limits (e.g., when sample holding times were slightly exceeded), such that the data may be questionable, but still usable within limitation. Unusable data are data that are observed to have gross errors or analytical interference that would render the data invalid for any purpose.

The data-usability summary reports (DUSRs) are prepared in accordance with NYSDEC guidance and are included as Appendix G. Data qualifications resulting from validation are included on the data tables. All data reviewed are considered usable based on the validation process described above.

3. Conclusions

The supplemental investigation findings confirm those of prior investigations, showing low-level residual impacts to soil and groundwater. Soil-quality data show that constituents were generally not detected and that the few detected constituents were reported at concentrations less than NYSDEC “Restricted Use— Industrial SCOs.” A single detection of PCBs (at TP-12) exceeded the NYSDEC “Unrestricted Use SCO.”

Groundwater-quality data also show that organic constituents generally were not detected and that, with two exceptions, the few detected constituents were reported at concentrations less than NYSDEC SGVs. Vinyl chloride at on-site monitoring well MW-D (2.8 μg/L vs. SGV of 2 μg/L) and cis-1,2-dichloroethene at off-site monitoring well MW-1(DOT) (7.0 μg/L vs. SGV of 5 μg/L) were detected at concentrations greater than SGVs. Several metals were also detected in one or more groundwater sampling locations at concentrations greater than SGVs; however, these concentrations are

more likely attributable to turbidity in the samples combined with natural groundwater quality conditions, rather than a site-specific source of impacts.

Based on the favorable findings of this supplemental investigation and the prior findings for the West Lot Site, Lockheed Martin will pursue site closure. A preliminary review of the supplemental investigation findings by NYSDEC and subsequent discussion with Lockheed Martin indicate that Lockheed Martin may potentially achieve closure without restrictions upon completion of the following actions:

- Soil removal to address soil exhibiting PCB concentrations greater than the NYSDEC “Unrestricted Use SCO” at test pit TP-12, and
- Resampling MW-D with the intent of providing data indicating either that vinyl chloride has reached concentrations below the SGV or that the downward trend continues, indicating the likely and eventual decrease of vinyl chloride to concentrations less than the SGV.

As such, Lockheed Martin is reviewing options for closure. Lockheed Martin will either develop a work plan for soil removal or submit a “Request for Closure” describing restrictions for site usage. Lockheed Martin will provide the appropriate documentation within 60 days of NYSDEC approval of this report.

4. References

Remedial Investigation Report, Blasland, Bouck, & Lee, Inc., 1995.

Interim Remedial Measures Work Plan, O'Brien & Gere Engineers, Inc., 1993.

Residual Source Soil Removal Report, ARCADIS, 2006.

The EDR Radius Map™ Report, Former GE West Lot Site, Environmental Data Resources, Inc., 2008.

Work Plan for Supplemental Investigation Activities, ARCADIS, 2008.

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Tables

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Table 1. Monitoring Well and Piezometer Construction Details, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York.

Monitoring Well	Diameter/Material	Screen Length	Ground Surface Elevation	Top of PVC Riser Elevation	Well Depth (ft bgs)	Screen Depth (ft bgs)			Screen/Borehole Elevation		Hydrogeologic Unit Monitored	Date Installed	Consultant Name
						From (Top)		To (Bottom)	Top	Bottom			
West Lot Site									0.0	0.0	Native Overburden		
MW-B	2"/PVC	10	508.40	509.85	14.0	4.0	---	14.0	504.4	494.4	Native Overburden	1990	O'Brien and Gere
MW-C	2"/PVC	10	507.00	509.10	14.1	4.1	---	14.1	502.9	492.9	Native Overburden	1990	O'Brien and Gere
MW-D	2"/PVC	10	506.50	508.95	14.1	4.1	---	14.1	502.4	492.4	Native Overburden	1990	O'Brien and Gere
MW-E	2"/PVC	8	506.10	508.50	14.0	6.0	---	14.0	500.1	492.1	Native Overburden	1990	O'Brien and Gere
MW-F	2"/PVC	11	507.40	509.75	14.5	3.5	---	14.5	503.9	492.9	Native Overburden	1991	O'Brien and Gere
MW-1(DOT)	2"/PVC	10	506.60	508.70	13.5	3.5	---	13.5	503.1	493.1	Native Overburden	1990	O'Brien and Gere
PW-1	6"/SS	10	504.14	503.26	26.0	16.0	---	26.0	488.1	478.1	Native Overburden	1999	ARCADIS
10-Acre Parcel													
MW-1	2"/PVC	10	508.65	508.65	13.5	3.5	---	13.5	505.2	495.2	Native Overburden	1990	O'Brien and Gere
MW-2	2"/PVC	--	511.00	512.90	14.9	--	---	--	--	--	Native Overburden	--	--
MW-3	2"/PVC	--	501.40	503.30	19.7	--	---	--	--	--	Native Overburden	--	--
MW-4	2"/PVC	--	503.25	505.70	14.8	--	---	--	--	--	Native Overburden	--	--
MW-5	2"/PVC	10	507.10	509.75	14.0	4.0	---	14.0	503.1	493.1	Native Overburden	1990	O'Brien and Gere
Western Parking Lot													
PZ-1	1"/PVC	10	508.79	508.56	15.0	5.0	---	15.0	503.8	493.8	Native Overburden/Fill	2009	ARCADIS
PZ-2	1"/PVC	5	509.19	508.95	9.0	4.0	---	9.0	505.2	500.2	Native Overburden/Fill	2009	ARCADIS

All elevations are reported as feet mean sea level (ft msl)
-- = Unknown detail
Survey data is referenced horizontally to the NAD83 and projected on the New York State Plane Coordinate System (Central Zone)
The reference vertical benchmark is the finished floor elevation of the southeasterly corner of the Boiler House Building (Elevation 506.50 feet)

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Table 2. Groundwater Elevation Measurements, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York.

Monitoring Well	Top of PVC Riser Elevation	Depth to water (from top of PVC riser)	Groundwater Elevation (ft)
		February 3, 2009	
West Lot Site			
MW-B	509.85	5.88	503.97
MW-C	509.10	6.45	502.65
MW-D	508.95	6.71	502.24
MW-E	508.50	6.66	501.84
MW-F	509.75	7.90	501.85
MW-1(DOT)	508.70	9.82	498.88
10-Acre Parcel			
MW-1	508.65	5.63	503.02
MW-2	512.90	8.88	504.02
MW-3	503.30	5.53	497.77
MW-4	505.70	5.42	500.28
MW-5	509.75	7.75	502.00
Western Parking Lot			
PZ-1	508.56	2.80	505.76
PZ-2	508.95	8.40	500.55

All elevations are reported as feet mean sea level (ft msl)
Survey data is referenced horizontally to the NAD83 and projected on the New York State Plane Coordinate System (Central Zone)
The reference vertical benchmark is the finished floor elevation of the southeasterly corner of the Boiler House Building (Elevation 506.50 feet)

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Table 3. Sampling and Analysis Program for Soil and Groundwater, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

GROUNDWATER SAMPLING					
Well ID	Analysis				
	VOCs	**SVOCs**	**Metals**	**PCBs**	**DRO/GRO**
West Lot					
MW-B	X	X	X	X	X
MW-C	X	X	X	X	X
MW-D	X				
MW-E	X				
MW-F	X				
PW-1	X				
MW-1 (DOT)	X				
Western Parking Lot					
PZ-1	X	X	X	X	X
PZ-2	X		X		
10-Acre Parcel					
MW-1	X	X	X	X	X
MW-2	X	X	X	X	X
MW-3	X	X	X	X	X
MW-4	X	X	X	X	X
MW-5	X	X	X	X	X

Metal analysis includes: Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc

VOCs: Volatile Organic Compounds (by USEPA Method 8260)

SVOCs: Semi Volatile Organic Compounds (by USEPA Method 8270)

PCBs: Polychlorinated Biphenyls (by USEPA Method 8082)

DRO/GRO: Diesel Range Organics/Gasoline Range Organics

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Table 3. Sampling and Analysis Program for Soil and Groundwater, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

TEST PIT INVESTIGATION

Test Pit	Sample Depth	Analysis				
		VOCs	**PAHs**	**Metals**	**PCBs**	**DRO/GRO**
TP-6	2.5-3.0	X	X	X	X	X
	6.5-7.0	X	X	X	X	X
TP-7	2.5-3.0	X	X	X	X	X
	6.5-7.0	X	X	X	X	X
TP-8	3.0-3.5	X	X	X	X	X
	7.5-8.0	X	X	X	X	X
TP-9	2.0-2.5	X	X	X	X	X
	7.0-7.5	X	X	X	X	X
TP-10	2.0-2.5	X	X	X	X	X
	6.5-7.0	X	X	X	X	X
TP-11	3.0-3.5	X	X	X	X	X
	6.5-7.0	X	X	X	X	X
TP-12	3.0-3.5	X	X	X	X	X
	6.5-7.0	X	X	X	X	X
TP-13	2.5-3.0	X	X	X	X	X
	7.5-8.0	X	X	X	X	X
TP-14	4.5-5.0	X	X	X	X	X
	8.0-8.5	X	X	X	X	X
TP-15	4.0-4.5	X	X	X	X	X
	6.5-7.0	X	X	X	X	X
TP-16	2.5-3.0	X	X	X	X	X
	13.0-13.5	X	X	X	X	X
TP-17	2.0-2.5	X	X	X	X	X
	5.5-6.0	X	X	X	X	X

Metal analysis includes: Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thalllium, Zinc

VOCs: Volatile Organic Compounds (by USEPA Method 8260)

SVOCs: Semi-Volatile Organic Compounds (by USEPA Method 8270)

PCBs: Polychlorinated Biphenyls (by USEPA Method 8082)

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Table 4. Volatile Organic Compounds in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-6 2.5-3.0 12/2/2008	TP-6 6.5-7.0 12/2/2008	TP-7 2.5-3.0 12/2/2008	TP-7 6.5-7.0 12/2/2008	TP-8 3.0-3.5 12/2/2008	TP-8 7.5-8.0 12/2/2008	TP-9 2.0-2.5 12/2/2008	TP-9 7.0-7.5 12/2/2008	TP-10 2.0-2.5 12/3/2008	TP-10 6.5-7.0 12/3/2008	TP-11 3.0-3.5 12/3/2008
1,1,1-TRICHLOROETHANE	1,000,000	680	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-TETRACHLOROETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-TRICHLOROETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,1-DICHLOROETHANE	480,000	270	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,1-DICHLOROETHENE	1,000,000	330	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,2,4-TRICHLOROBENZENE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,2-DIBROMO-3-CHLOROPROPANE	NS	NS	<6	<5	<6	<5 J	<5	<5 J	<5	<5	<5	<5	<5
1,2-DIBROMOETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,2-DICHLOROBENZENE	1,000,000	1,100	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,2-DICHLOROETHANE	60,000	20	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,2-DICHLOROPROPANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,3-DICHLOROBENZENE	560,000	2,400	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
1,4-DICHLOROBENZENE	250,000	1,800	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
2-BUTANONE	1,000,000	120	44	<26	24 J	<26	<24	<26	<27	<26	<26	<27	<26
2-HEXANONE	NS	NS	<28	<26	<28	<26	<24	<26	<27	<26	<26	<27	<26
4-METHYL-2-PENTANONE	NS	NS	<28	<26	<28	<26	<24	<26	<27	<26	<26	<27	<5
ACETONE	1,000,000	50	**230**	8 J	**150**	25 J	7 J	17 J	**58**	**50**	<26	31	9 J
BENZENE	89,000	60	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
BROMODICHLOROMETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
BROMOFORM	NS	NS	<6 J	<5 J	<6 J	<5 J	<5 J	<5 J	<5	<5	<5	<5	<5 J
BROMOMETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CARBON DISULFIDE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CARBON TETRACHLORIDE	44,000	760	<6 J	<5 J	<6 J	<5	<5	<5	<5	<5	<5	<5	<5 J
CHLOROBENZENE	1,000,000	1,100	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CHLOROETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CHLOROFORM	700,000	370	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CHLOROMETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CIS-1,2-DICHLOROETHENE	1,000,000	250	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CIS-1,3-DICHLOROPROPENE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
CYCLOHEXANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
DIBROMOCHLOROMETHANE	NS	NS	<6 J	<5 J	<6 J	<5 J	<5 J	<5 J	<5	<5	<5	<5	<5 J
DICHLORODIFLUOROMETHANE	NS	NS	<6 J	<5 J	<6 J	<5	<5	<5	<5	<5	<5	<5	<5 J
ETHYLBENZENE	780,000	1,000	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
ISOPROPYLBENZENE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
METHYL ACETATE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
METHYL-T-BUTYL ETHER (MTBE)	1,000,000	930	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
METHYLCYCLOHEXANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
METHYLENE CHLORIDE	1,000,000	50	15 J	2 J	8 J	11 BJ	4 J	11 BJ	19 UB	13 UB	22	15 UB	<5 J
STYRENE (MONOMER)	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
TETRACHLOROETHENE	300,000	1,300	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
TOLUENE	1,000,000	700	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
XYLENE (TOTAL)	1,000,000	260	<16	<16	<17	<15	<15	<16	<16	<16	<16	<16	<16
TRANS-1,2-DICHLOROETHENE	1,000,000	190	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
TRANS-1,3-DICHLOROPROPENE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
TRICHLOROETHENE	400,000	470	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
TRICHLOROFLUOROMETHANE	NS	NS	<6	<5	<6	<5	<5	<5	<5	<5	<5	<5	<5
VINYL CHLORIDE	27,000	20	<11	<10	<11	<10	<10	<10	<10	<10	<10	<11	<10

Notes:
All units are ug/kg unless otherwise noted
NS - No Standard
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
B -Analyte is found in the associated blank, as well as in the sample.

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Table 4. Volatile Organic Compounds in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-11 6.5-7.0 12/3/2008	TP-12 3.0-3.5 12/3/2008	TP-12 6.5-7.0 12/3/2008	TP-13 7.5-8.0 12/3/2008	TP-13 2.5-3.0 12/3/2008	TP-14 4.5-5.0 12/4/2008	TP-14 8.0-8.5 12/4/2008	TP-15 4.0-4.5 12/4/2008	TP-15 6.5-7.0 12/4/2008	TP-16 2.5-3.0 12/4/2008	TP-16 13.0-13.5 12/4/2008
1,1,1-TRICHLOROETHANE	1,000,000	680	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,1,2,2-TETRACHLOROETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,1,2-TRICHLOROETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,1-DICHLOROETHANE	480,000	270	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,1-DICHLOROETHENE	1,000,000	330	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,2,4-TRICHLOROBENZENE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,2-DIBROMO-3-CHLOROPROPANE	NS	NS	<5	<7	<5	<6	<6	<6	<5 J	<10	<6	<6	<6
1,2-DIBROMOETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,2-DICHLOROBENZENE	1,000,000	1,100	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,2-DICHLOROETHANE	60,000	20	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,2-DICHLOROPROPANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,3-DICHLOROBENZENE	560,000	2,400	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
1,4-DICHLOROBENZENE	250,000	1,800	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
2-BUTANONE	1,000,000	120	<26	<34	<27	<30	<29	<29	<27	<49	<29	<31	<29
2-HEXANONE	NS	NS	<26	<34	<27	<30	<29	<29	<27	<49	<29	<31	<29
4-METHYL-2-PENTANONE	NS	NS	<26	<34	<27	<30	<29	<29	<27	<49	<29	<31	<29
ACETONE	1,000,000	50	6 J	<34	26 J	11 J	<29	<29	10 J	<49	<29	<31	14 J
BENZENE	89,000	60	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
BROMODICHLOROMETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
BROMOFORM	NS	NS	<5 J	<7 J	<5 J	<6	<6	<6 J	<5 J	<10	<6	<6	<6
BROMOMETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CARBON DISULFIDE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CARBON TETRACHLORIDE	44,000	760	<5 J	<7 J	<5 J	<6	<6	<6 J	<5	<10	<6	<6	<6
CHLOROBENZENE	1,000,000	1,100	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CHLOROETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CHLOROFORM	700,000	370	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CHLOROMETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CIS-1,2-DICHLOROETHENE	1,000,000	250	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CIS-1,3-DICHLOROPROPENE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
CYCLOHEXANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
DIBROMOCHLOROMETHANE	NS	NS	<5 J	<7 J	<5	<6	<6	<6 J	<5 J	<10	<6	<6	<6
DICHLORODIFLUOROMETHANE	NS	NS	<5 J	<7 J	<5	<6	<6	<6 J	<5	<10	<6	<6	<6
ETHYLBENZENE	780,000	1,000	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
ISOPROPYLBENZENE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
METHYL ACETATE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
METHYL-T-BUTYL ETHER (MTBE)	1,000,000	930	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
METHYLCYCLOHEXANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
METHYLENE CHLORIDE	1,000,000	50	<5 J	11 J	15 BJ	16 UB	11 UB	9 J	19 BJ	26 UB	10 UB	14 UB	17 UB
STYRENE (MONOMER)	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
TETRACHLOROETHENE	300,000	1,300	<5	62	5	<6	<6	<6	<5	<10	<6	<6	<6
TOLUENE	1,000,000	700	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
XYLENE (TOTAL)	1,000,000	260	<16	<20	<16	<18	<18	<18	<16	<29	<18	<19	<17
TRANS-1,2-DICHLOROETHENE	1,000,000	190	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
TRANS-1,3-DICHLOROPROPENE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
TRICHLOROETHENE	400,000	470	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
TRICHLOROFLUOROMETHANE	NS	NS	<5	<7	<5	<6	<6	<6	<5	<10	<6	<6	<6
VINYL CHLORIDE	27,000	20	<10	<14	<11	<12	<12	<12	<11	<20	<12	<12	<12

Notes:
All units are ug/kg unless otherwise noted
NS - No Standard
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
B -Analyte is found in the associated blank, as well as in the sample.

Table 4. Volatile Organic Compounds in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-17 5.5-6.0 12/2/2008	TP-17 2.0-2.5 12/2/2008
1,1,1-TRICHLOROETHANE	1,000,000	680	<6	<6
1,1,2,2-TETRACHLOROETHANE	NS	NS	<6	<6
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NS	NS	<6	<6
1,1,2-TRICHLOROETHANE	NS	NS	<6	<6
1,1-DICHLOROETHANE	480,000	270	<6	<6
1,1-DICHLOROETHENE	1,000,000	330	<6	<6
1,2,4-TRICHLOROBENZENE	NS	NS	<6	<6
1,2-DIBROMO-3-CHLOROPROPANE	NS	NS	<6	<6
1,2-DIBROMOETHANE	NS	NS	<6	<6
1,2-DICHLOROBENZENE	1,000,000	1,100	<6	<6
1,2-DICHLOROETHANE	60,000	20	<6	<6
1,2-DICHLOROPROPANE	NS	NS	<6	<6
1,3-DICHLOROBENZENE	560,000	2,400	<6	<6
1,4-DICHLOROBENZENE	250,000	1,800	<6	<6
2-BUTANONE	1,000,000	120	<30	<29
2-HEXANONE	NS	NS	<30	<29
4-METHYL-2-PENTANONE	NS	NS	<30	<29
ACETONE	1,000,000	50	8 J	13 J
BENZENE	89,000	60	<6	<6
BROMODICHLOROMETHANE	NS	NS	<6	<6
BROMOFORM	NS	NS	<6	<6
BROMOMETHANE	NS	NS	<6	<6
CARBON DISULFIDE	NS	NS	<6	<6
CARBON TETRACHLORIDE	44,000	760	<6	<6
CHLOROBENZENE	1,000,000	1,100	<6	<6
CHLOROETHANE	NS	NS	<6	<6
CHLOROFORM	700,000	370	<6	<6
CHLOROMETHANE	NS	NS	<6	<6
CIS-1,2-DICHLOROETHENE	1,000,000	250	<6	<6
CIS-1,3-DICHLOROPROPENE	NS	NS	<6	<6
CYCLOHEXANE	NS	NS	<6	<6
DIBROMOCHLOROMETHANE	NS	NS	<6	<6
DICHLORODIFLUOROMETHANE	NS	NS	<6	<6
ETHYLBENZENE	780,000	1,000	<6	<6
ISOPROPYLBENZENE	NS	NS	<6	<6
METHYL ACETATE	NS	NS	<6	<6
METHYL-T-BUTYL ETHER (MTBE)	1,000,000	930	<6	<6
METHYLCYCLOHEXANE	NS	NS	<6	<6
METHYLENE CHLORIDE	1,000,000	50	13 UB	14 UB
STYRENE (MONOMER)	NS	NS	<6	<6
TETRACHLOROETHENE	300,000	1,300	<6	<6
TOLUENE	1,000,000	700	<6	<6
XYLENE (TOTAL)	1,000,000	260	<18	<18
TRANS-1,2-DICHLOROETHENE	1,000,000	190	<6	<6
TRANS-1,3-DICHLOROPROPENE	NS	NS	<6	<6
TRICHLOROETHENE	400,000	470	<6	<6
TRICHLOROFLUOROMETHANE	NS	NS	<6	<6
VINYL CHLORIDE	27,000	20	<12	<12

Notes:
All units are ug/kg unless otherwise noted
NS - No Standard
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
B -Analyte is found in the associated blank, as well as in the sample.

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Table 5. PAHs in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-6 2.5-3.0 12/2/2008	TP-6 6.5-7.0 12/2/2008	TP-7 2.5-3.0 12/2/2008	TP-7 6.5-70 12/2/2008	TP-8 3.0-3.5 12/2/2008	TP-8 7.5-8.0 12/2/2008	TP-9 7.0-7.5 12/2/2008	TP-9 2.5-3.0 12/2/2008
2-METHYLNAPTHALENE	NS	NS	<6	<6	<6	<6	<6	<6	<6	<6
ACENAPTHENE	1,000,000	20,000	<6	<6	<6	<6	<6	<6	<6	<6
ACENAPTHYLENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6
ANTHRACENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6
BENZO(A)ANTHRACENE	11,000	1,000	<6	<6	<6	<6	<6	<6	<6	<6
BENZO(A)PYRENE	1,100	1,000	<6	<6	<6	<6	<6	<6	<6	<6
BENZO(B)FLOURANTHENE	11,000	1,000	<6	<6	<6	<6	<6	<6	<6	<6
BENZO(G,H,I)PERYLENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6
BENZO(K)FLUORANTHENE	110,000	800	<6	<6	<6	<6	<6	<6	<6	<6
CHRYSENE	110,000	1,000	<6	<6	<6	<6	<6	<6	<6	<6
DIBENZO(A,H)ANTHRACENE	1,100	330	<6	<6	<6	<6	<6	<6	<6	<6
FLUORANTHENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6
FLUORENE	1,000,000	30,000	<6	<6	<6	<6	<6	<6	<6	<6
INDENO(1,2,3-CD)PYRENE	11,000	500	<6	<6	<6	<6	<6	<6	<6	<6
NAPTHALENE	1,000,000	12,000	<6	<6	<6	<6	<6	<6	<6	<6
PHENANTHRENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6
PYRENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6

Notes:
All units are ug/kg unless otherwise noted
NS - No Standard

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Table 5. PAHs in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-10 6.5-7.0 12/3/2008	TP-10 2.0-2.5 12/3/2008	TP-11 3.0-3.5 12/3/2008	TP-11 6.5-7.0 12/3/2008	TP-12 3.0-3.5 12/3/2008	TP-12 6.5-7.0 12/3/2008	TP-13 7.5-8.0 12/4/2008	TP-13 2.5-3.0 12/4/2008
2-METHYLNAPTHALENE	NS	NS	<6	<33	<6	<6	<6	<6	<6	<6
ACENAPTHENE	1,000,000	20,000	<6	<33	<6	<6	<6	<6	<6	<6
ACENAPTHYLENE	1,000,000	100,000	<6	<33	<6	<6	<6	<6	<6	7
ANTHRACENE	1,000,000	100,000	<6	62	<6	<6	6	<6	<6	6
BENZO(A)ANTHRACENE	11,000	1,000	<6	120	<6	<6	24	<6	<6	37
BENZO(A)PYRENE	1,100	1,000	<6	98	<6	<6	22	<6	<6	37
BENZO(B)FLOURANTHENE	11,000	1,000	<6	90	<6	<6	30	<6	<6	55
BENZO(G,H,I)PERYLENE	1,000,000	100,000	<6	75	<6	<6	17	<6	<6	29
BENZO(K)FLUORANTHENE	110,000	800	<6	70	<6	<6	13	<6	<6	31
CHRYSENE	110,000	1,000	<6	130	<6	<6	25	<6	<6	55
DIBENZO(A,H)ANTHRACENE	1,100	330	<6	<33	<6	<6	<6	<6	<6	<6
FLUORANTHENE	1,000,000	100,000	<6	260	<6	<6	52	<6	<6	76
FLUORENE	1,000,000	30,000	<6	<33	<6	<6	<6	<6	<6	<6
INDENO(1,2,3-CD)PYRENE	11,000	500	<6	38	<6	<6	14	<6	<6	23
NAPTHALENE	1,000,000	12,000	<6	<33	<6	<6	<6	<6	<6	<6
PHENANTHRENE	1,000,000	100,000	<6	190	<6	<6	30	<6	<6	27
PYRENE	1,000,000	100,000	<6	240	<6	<6	43	<6	<6	77

Notes:
All units are ug/kg unless otherwise noted
NS - No Standard

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Table 5. PAHs in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-14 4.5-5.0 12/4/2008	TP-14 8.0-8.5 12/4/2008	TP-15 6.5-7.0 12/4/2008	TP-15 4.0-4.5 12/4/2008	TP-16 2.5-3.0 12/4/2008	TP-16 13.0-13.5 12/4/2008	TP-17 5.5-6.0 12/5/2008	TP-17 2.0-2.5 12/5/2008
2-METHYLNAPTHALENE	NS	NS	<6	<6	<6	<6	<6	<6	<6	<6
ACENAPTHENE	1,000,000	20,000	<6	<6	<6	14	<6	<6	<6	<6
ACENAPTHYLENE	1,000,000	100,000	<6	<6	<6	<6	<6	<6	<6	<6
ANTHRACENE	1,000,000	100,000	<6	<6	10	26	<6	<6	<6	<6
BENZO(A)ANTHRACENE	11,000	1,000	23	<6	49	110	<6	<6	<6	<6
BENZO(A)PYRENE	1,100	1,000	24	<6	51	98	<6	<6	<6	<6
BENZO(B)FLOURANTHENE	11,000	1,000	34	6	65	120	<6	<6	<6	<6
BENZO(G,H,I)PERYLENE	1,000,000	100,000	18	<6	32	59	<6	<6	<6	<6
BENZO(K)FLUORANTHENE	110,000	800	13	<6	32	64	<6	<6	<6	<6
CHRYSENE	110,000	1,000	29	<6	62	110	<6	<6	<6	<6
DIBENZO(A,H)ANTHRACENE	1,100	330	<6	<6	18	22	<6	<6	<6	<6
FLUORANTHENE	1,000,000	100,000	43	8	110	210	<6	<6	<6	<6
FLUORENE	1,000,000	30,000	<6	<6	<6	9	<6	<6	<6	<6
INDENO(1,2,3-CD)PYRENE	11,000	500	15	<6	26	53	<6	<6	<6	<6
NAPTHALENE	1,000,000	12,000	<6	<6	<6	<6	<6	<6	<6	<6
PHENANTHRENE	1,000,000	100,000	17	<6	46	110	<6	<6	<6	<6
PYRENE	1,000,000	100,000	41	7	91	190	<6	<6	<6	<6

Notes:
All units are ug/kg unless otherwise noted
NS - No Standard

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Table 6. Metals in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-6 2.5-3.0 12/2/2008	TP-6 6.5-7.0 12/2/2008	TP-7 2.5-3.0 12/2/2008	TP-7 6.5-7.0 12/2/2008	TP-8 3.0-3.5 12/2/2008	TP-8 7.5-8.0 12/2/2008
ANTIMONY	NS	NS	<17.1	<16.6	<18.5	<16.1	<16.0	<15.7
ARSENIC	16	13	4.7	3.4	3	4.5	5.1	6.0
BERYLLIUM	2,700	7.2	0.33	0.26	0.31	0.32	0.27	0.27
CADMIUM	60	2.5	<0.23	<0.22	<0.25	<0.22	<0.21	<0.21
CHROMIUM	6,800	30	9.4	6.3	8.6	8.9	7.7	8.4
COPPER	10,000	50	20.2	18.5	29.9	26.1	22.6	20.3
LEAD	3,900	63	6.7	5.6	6.1	5.5	4.8	6.3
MERCURY	6	0.18	<0.023	<0.020	<0.023	<0.022	<0.022	<0.21
NICKEL	10,000	30	11.8	9.6	11.8	13.0	10.8	11.1
SELENIUM	6,800	3.9	<4.6	<4.4	<4.9	<4.3	<4.2	<4.2
SILVER	6,800	2	<0.57	<0.55	<0.62	<0.54	<0.53	<0.52
THALLIUM	NS	NS	<6.8	<6.6	<7.4	<6.4	<6.4	<6.3
ZINC	10,000	109	57.4	35.4	50.9	57.8	46.6	58.0

Notes:
All units are mg/kg unless otherwise noted
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NA - Not Analyzed
NS - No Standard

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Table 6. Metals in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-9 7.0-7.5 12/2/2008	TP-9 2.5-3.0 12/2/2008	TP-10 6.5-7.0 12/3/2008	TP-10 2.0-2.5 12/3/2008	TP-11 3.0-3.5 12/3/2008	TP-11 6.5-7.0 12/3/2008
ANTIMONY	NS	NS	<15.3 J	<15.9	<16.8	<22.4	<17.2	<16.7
ARSENIC	16	13	3.8	4.1	5.2	7.0	3.5	4.2
BERYLLIUM	2,700	7.2	0.27	0.32	0.34	0.39	0.25	0.24
CADMIUM	60	2.5	<0.20	<0.21	<0.22	**4.6**	<0.23	<0.22
CHROMIUM	6,800	30	6.8	8.3	8.3	**45.1**	7.4	6.8
COPPER	10,000	50	19.7	29.1	20.1	**210**	14.2	21.3
LEAD	3,900	63	6.3	7.9	7.5	**177**	4.5	4.4
MERCURY	6	0.18	<0.020	<0.022	<0.025	0.50	<0.022	<0.02
NICKEL	10,000	30	11.7	12.5	13.8	29.1	9.2	10
SELENIUM	6,800	3.9	<4.1	<4.2	<4.5	<6.0	<4.6	<4.4
SILVER	6,800	2	<0.51	<0.53	<0.56	1.0	<0.57	<0.56
THALLIUM	NS	NS	<6.1	<6.4	<6.7	<9.0	<6.9	<6.7
ZINC	10,000	109	44.3 J	47.9	42.7	435	39.8	49.1

Notes:
All units are mg/kg unless otherwise noted
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NA - Not Analyzed
NS - No Standard

ARCADIS

Table 6. Metals in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-12 3.0-3.5 12/3/2008	TP-12 6.5-7.0 12/3/2008	TP-13 7.5-8.0 12./3/08	TP-13 2.5-3.0 12/3/2008	TP-14 4.5-5.0 12/4/2008	TP-14 8.0-8.5 12/4/2008	TP-15 6.5-7.0 12/4/2008
ANTIMONY	NS	NS	<19.8	<18.3	<17.0	<18.2	<18.2	<17.3	<17.8
ARSENIC	16	13	6	5.6	5.9	7.4	8.8	7.4	7.0
BERYLLIUM	2,700	7.2	0.42	0.36	0.31	0.4	0.35	0.36	0.31
CADMIUM	60	2.5	0.31	<0.24	<0.23	<0.24	<0.24	<0.23	0.38
CHROMIUM	6,800	30	10.8	9	8.7	8.8	9.1	9.3	11.8
COPPER	10,000	50	32.7	23.7	21.9	24.3	19.2	23.2	21.3
LEAD	3,900	63	16.1	6.2	7.5	11.6	11.6	10.9	15.3
MERCURY	6	0.18	0.081	<0.024	<0.24	<0.024	0.083	0.049	0.071
NICKEL	10,000	30	14.8	12.8	14.8	13.9	12.3	13.4	14.0
SELENIUM	6,800	3.9	<5.3	<4.9	<4.5	<4.8	<4.8	<4.6	<4.8
SILVER	6,800	2	<0.66	<0.61	<0.57	<0.60	<0.61	<0.58	<0.59
THALLIUM	NS	NS	<7.9	<7.3	<6.8	<7.3	<7.3	<6.9	<7.1
ZINC	10,000	109	56.0	46.8	44.1	47.9	45.9	59.9	61.0

Notes:
All units are mg/kg unless otherwise noted
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NA - Not Analyzed
NS - No Standard

ARCADIS

Table 6. Metals in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-15 4.0-4.5 12/4/2008	TP-16 2.5-3.0 12/4/2008	TP-16 13.0-13.5 12/4/2008	TP-17 5.5-6.0 12/5/2008	TP-17 2.0-2.5 12/5/2008
ANTIMONY	NS	NS	<17.8	<20.3	<17.0	<20.2	<17.0
ARSENIC	16	13	8.6	10.5	4.7	4.8	8.9
BERYLLIUM	2,700	7.2	<0.28	0.71	0.24	0.67	0.69
CADMIUM	60	2.5	<0.28	<0.27	<0.23	<0.27	0.36
CHROMIUM	6,800	30	9.8	16.5	5.9	16.3	13.5
COPPER	10,000	50	20.7	30.8	19.9	18.7	35.1
LEAD	3,900	63	14.1	13	6.0	6.6	11
MERCURY	6	0.18	0.043	0.033	<0.025	<0.023	0.045
NICKEL	10,000	30	10.4	28	10.6	22.9	25.6
SELENIUM	6,800	3.9	<4.8	<5.4	<4.5	<5.4	<4.5
SILVER	6,800	2	<0.59	<0.68	<0.57	<0.67	<0.57
THALLIUM	NS	NS	<7.1	<8.1	<6.8	<8.1	<6.8
ZINC	10,000	109	58.9	61.7	33.0	49.6	57.0

Notes:
All units are mg/kg unless otherwise noted
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NA - Not Analyzed
NS - No Standard

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Table 7. PCBs and DRO/GRO in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-6 2.5-3.0 12/2/2008	TP-6 6.5-7.0 12/2/2008	TP-7 2.5-3.0 12/2/2008	TP-7 6.5-7.0 12/2/2008	TP-8 3.0-3.5 12/2/2008	TP-8 7.5-8.0 12/2/2008	TP-9 7.0-7.5 12/2/2008
PCBs									
AROCLOR 1016	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
AROCLOR 1221	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
AROCLOR 1232	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
AROCLOR 1242	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
AROCLOR 1248	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
AROCLOR 1254	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
AROCLOR 1260	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
TOTAL PCBs	25,000	1,000	<18	<17	<19	<17	<18	<17	<17
DIESEL RANGE ORGANICS									
DRO (MG/KG)	NS	NS	<5.5	<5.0	<5.6	<5.3	<5.2	<5.1	<5.3
GASOLINE RANGE ORGANICS									
GRO (MG/KG)	NS	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:
All units are ug/kg unless otherwise noted
Soil Cleanup Objective for PCBs represents Total PCBs in subsurface soils
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NS - No Standard

ARCADIS

Table 7. PCBs and DRO/GRO in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-9 2.5-3.0 12/2/2008	TP-10 6.5-7.0 12/3/2008	TP-10 2.0-2.5 12/3/2008	TP-11 3.0-3.5 12/3/2008	TP-11 6.5-7.0 12/3/2008	TP-12 3.0-3.5 12/3/2008	TP-12 6.5-7.0 12/3/2008	TP-13 7.5-8.0 12/3/2008	TP-13 2.5-3.0 12/3/2008
PCBs											
AROCLOR 1016	25,000	1,000	<19	<20	<22	<19	<17	<100	<19	<20	<20
AROCLOR 1221	25,000	1,000	<19	<20	<22	<19	<17	<100	<19	<20	<20
AROCLOR 1232	25,000	1,000	<19	<20	<22	<19	<17	<100	<19	<20	<20
AROCLOR 1242	25,000	1,000	<19	<20	<22	<19	<17	<100	<19	<20	<20
AROCLOR 1248	25,000	1,000	<19	<20	<22	<19	<17	<100	<19	<20	<20
AROCLOR 1254	25,000	1,000	<19	<20	<22	<19	<17	**1300**	24	<20	23
AROCLOR 1260	25,000	1,000	<19	4.9 J	<22	<19	<17	<100	<19	<20	4.7 J
TOTAL PCBs	25,000	1,000	<19	4.9 J	<22	<19	<17	**1300**	24	<20	27.7
DIESEL RANGE ORGANICS											
DRO (MG/KG)	NS	NS	<5.7	<5.9	460	<5.5	<5.2	<6.1	<5.6	<5.8	<6.0
GASOLINE RANGE ORGANICS											
GRO (MG/KG)	NS	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:
All units are ug/kg unless otherwise noted
Soil Cleanup Objective for PCBs represents Total PCBs in subsurface soils
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NS - No Standard

ARCADIS

Table 7. PCBs and DRO/GRO in Soil Samples from Test Pits, West Lot Site Supplemental Investigation Report, Former Lockheed Martin French Road Property, Utica, New York

CONSTITUENT	Part 375 Restricted Use - Industrial Soil Cleanup Objective	Part 375 Unrestricted Use Soil Cleanup Objective	TP-14 4.5-5.0 12/4/2008	TP-14 8.0-8.5 12/4/2008	TP-15 6.5-7.0 12/4/2008	TP-15 4.0-4.5 12/4/2008	TP-16 2.5-3.0 12/4/2008	TP-16 13.0-13.5 12/4/2008	TP-17 5.5-6.0 12/5/2008	TP-17 2.0-2.5 12/5/2008
PCBs										
AROCLOR 1016	25,000	1,000	<19	<18	<21	<19	<22	<20	<20	<20
AROCLOR 1221	25,000	1,000	<19	<18	<21	<19	<22	<20	<20	<20
AROCLOR 1232	25,000	1,000	<19	<18	<21	<19	<22	<20	<20	<20
AROCLOR 1242	25,000	1,000	<19	<18	<21	<19	<22	<20	<20	<20
AROCLOR 1248	25,000	1,000	<19	<18	<21	<19	<22	<20	<20	<20
AROCLOR 1254	25,000	1,000	13 J	4.8 J	32	42	<22	<20	<20	<20
AROCLOR 1260	25,000	1,000	<19	<18	20 J	22	<22	<20	<20	<20
TOTAL PCBs	25,000	1,000	13 J	4.8 J	52	64	<22	<20	<20	<20
DIESEL RANGE ORGANICS										
DRO (MG/KG)	NS	NS	<5.7	<5.5	<6.4	16	<6.4	13	<6.3	<5.9
GASOLINE RANGE ORGANICS										
GRO (MG/KG)	NS	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:
All units are ug/kg unless otherwise noted
Soil Cleanup Objective for PCBs represents Total PCBs in subsurface soils
Exceedence of Unrestricted Use SCO noted in **bold** and highlighted.
J - Estimated Value
NS - No Standard

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Figures

CITY:(MAHWAH) DIV/GROUP:(ENRI-1) DB:(JG LD:(Opt) PIC:(Opt) PM:(CM) TM:(BM) LYR:(Opt)ON=*;OFF=*REF*
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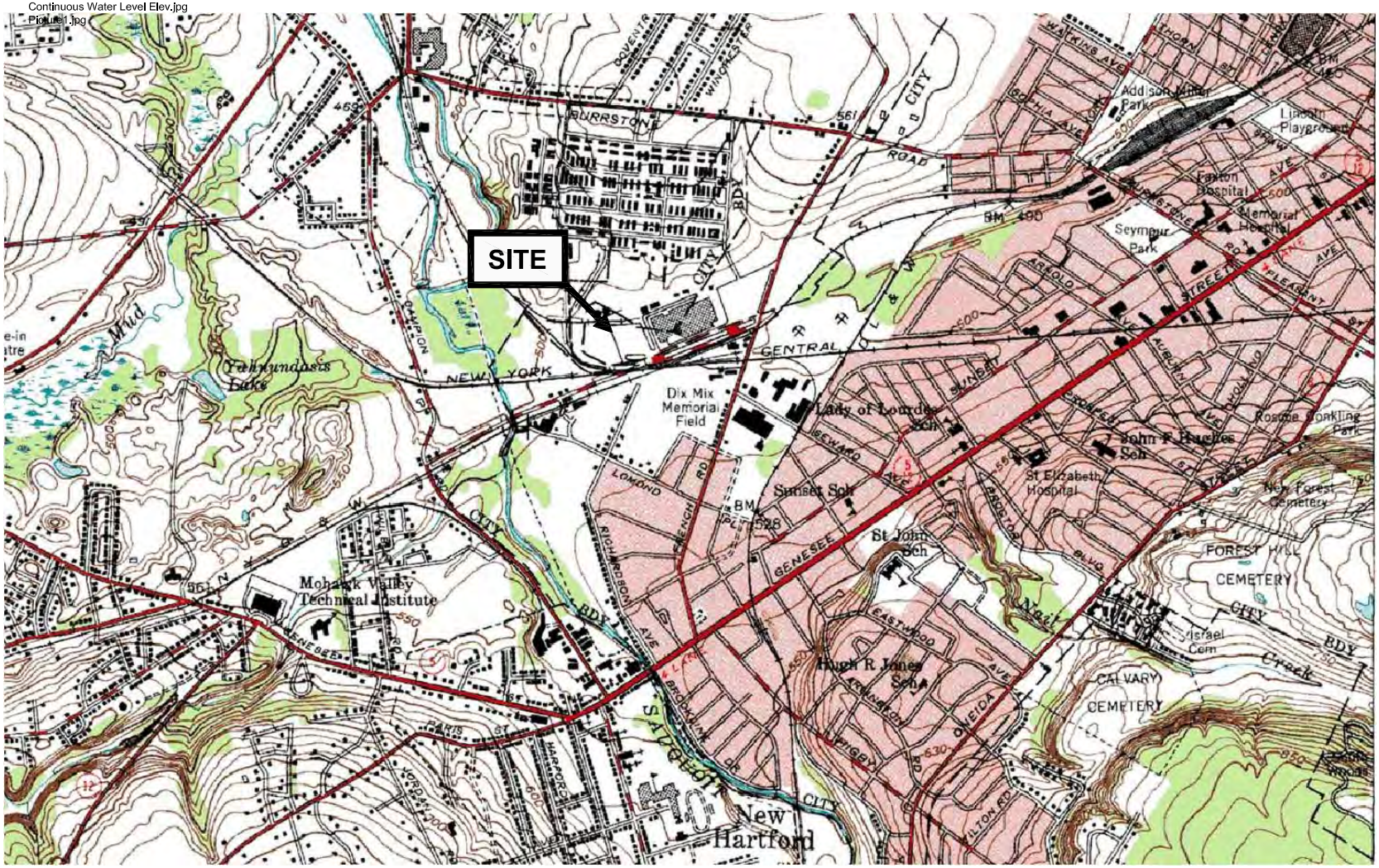
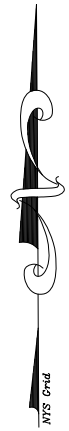
Continuous Water Level Elev.jpg
Picture1.jpg





0 12000 24000
SCALE IN FEET

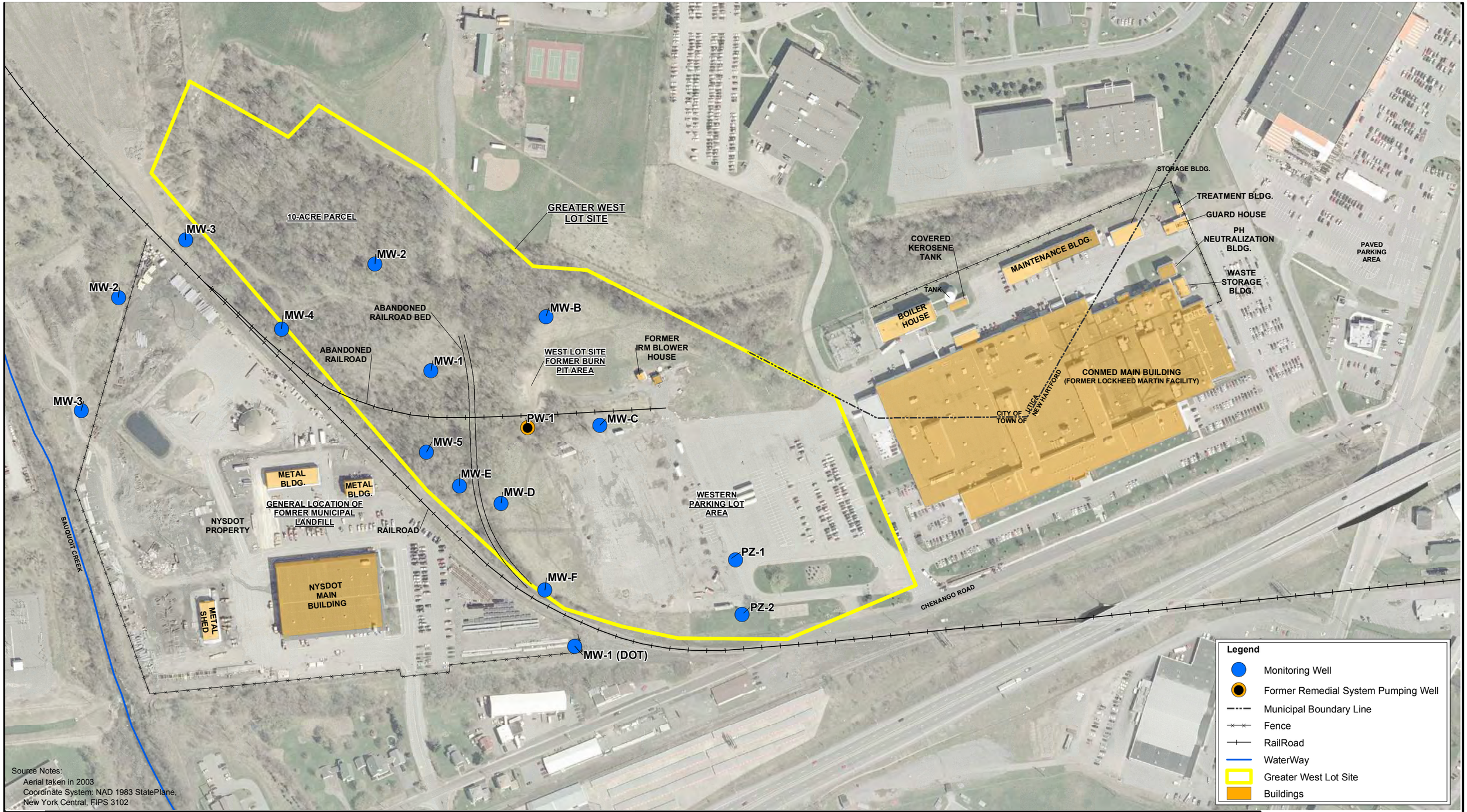
WEST LOT SITE SUPPLEMENTAL INVESTIGATION REPORT

FORMER LOCKHEED MARTIN, FRENCH ROAD PROPERTY
UTICA, NEW YORK

SITE LOCATION MAP

ARCADIS

FIGURE
1



Source Notes:
Aerial taken in 2003
Coordinate System: NAD 1983 StatePlane, New York Central, FIPS 3102

ArcGIS - ArcView 9.x

ARCADIS
465 New Karner Road, First Floor
Albany, NY 12205
Tel (518)452-7826 Fax (518)452-4398

Map Date:	File Location:	Produced By:	Checked By:	Project Manager:
3/31/2009	G:\GIS\LM_Utica\ArcMap\2009\20090331_Fig2_LockheedMartin_WestSite.mxd	R. McKinney	J. Bonsteel	C.Motta

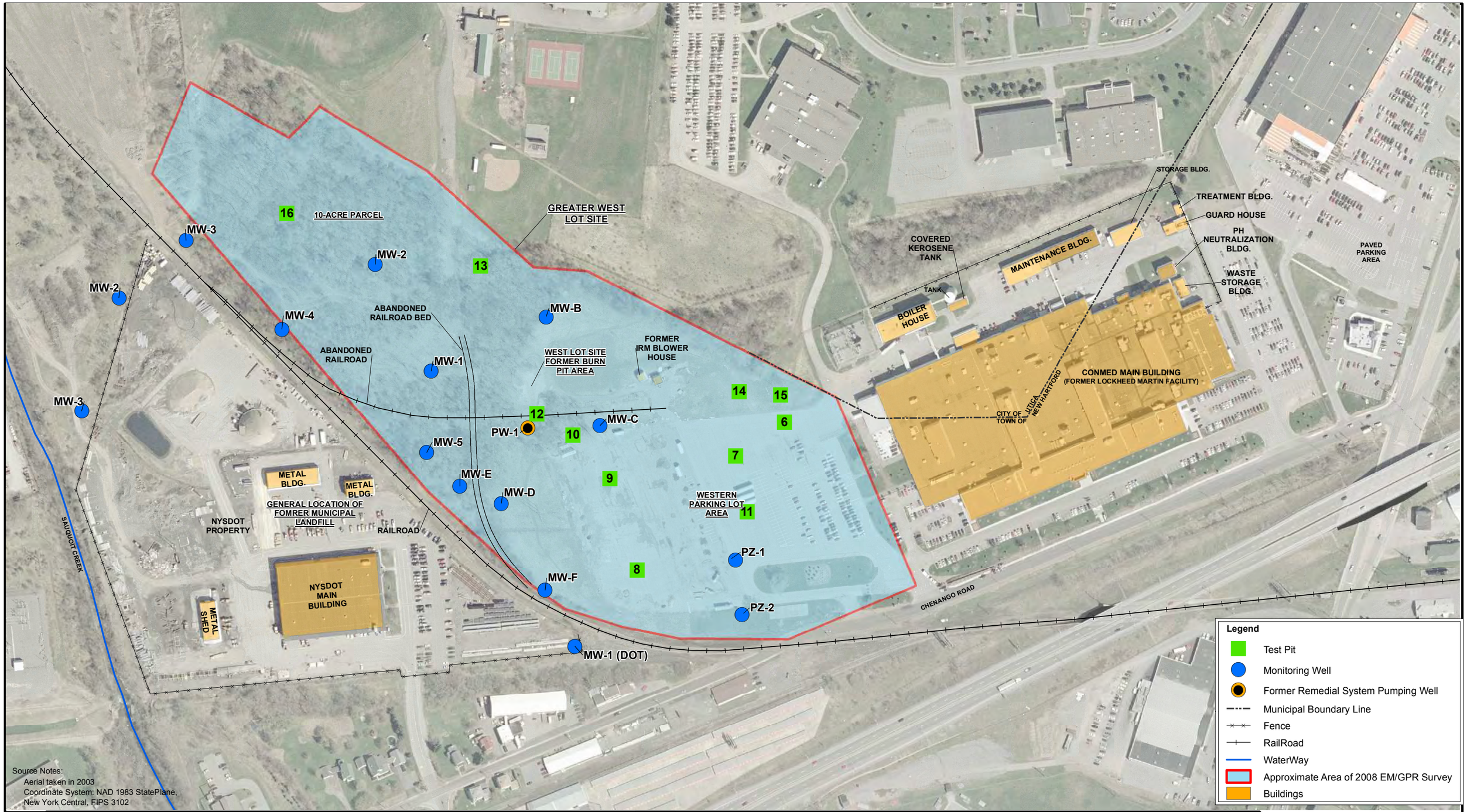
Site Features Map

West Lot Site Supplemental Investigation Report
Former Lockheed Martin French Road Property
Utica, New York

Dept. Manager:	Geodatabase:
C.Motta	Site Map
Project Number:	**Figure:**
NJ000639.0001	2

N

240 120 0 240
Feet



Source Notes:
Aerial taken in 2003
Coordinate System: NAD 1983 StatePlane, New York Central, FIPS 3102

Legend

- Test Pit
- Monitoring Well
- Former Remedial System Pumping Well
- Municipal Boundary Line
- Fence
- RailRoad
- WaterWay
- Approximate Area of 2008 EM/GPR Survey
- Buildings

ArcGIS - ArcView 9.x

ARCADIS
465 New Karner Road, First Floor
Albany, NY 12205
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Map Date:	File Location:	Produced By:	Checked By:	Project Manager:
3/31/2009	G:\GIS\LM_Utica\ArcMap\2009\20090402_Fig3_LockheedMartin_Survey.mxd	R. McKinney	J. Bonsteel	C.Motta
			Dept. Manager: C.Motta	Geodatabase: Site Map
			Project Number: NJ000639.0001	Figure: 3

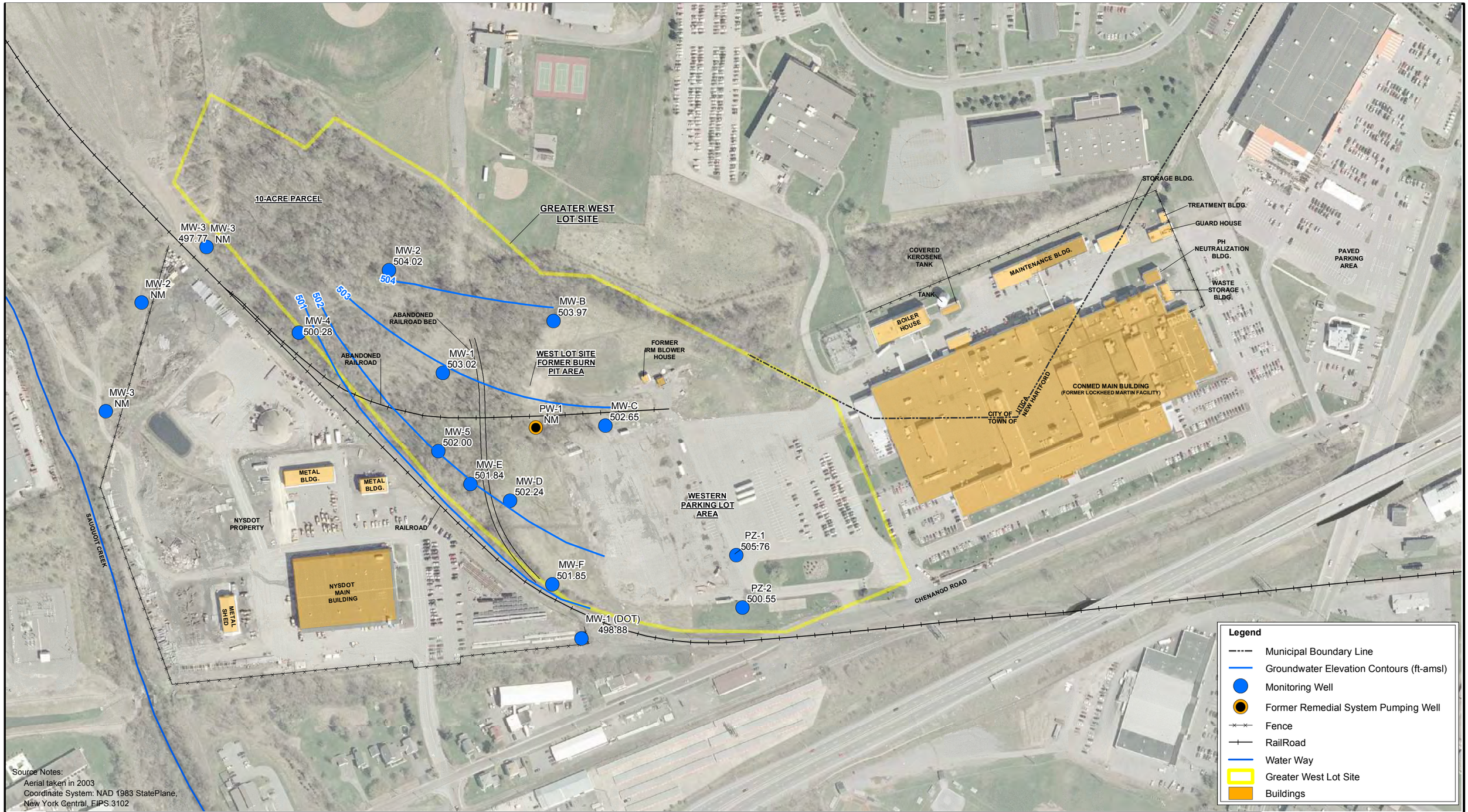
Investigation Location Map

West Lot Site Supplemental Investigation Report
Former Lockheed Martin French Road Property
Utica, New York

N

240 120 0 240

Feet



Source Notes:
Aerial taken in 2003
Coordinate System: NAD 1983 StatePlane, New York Central, FIPS 3102

ArcGIS - ArcView 9.x

ARCADIS
465 New Karner Road, First Floor
Albany, NY 12205
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NOTES:
1. ft-amsl - feet above mean sea level.
2. NM - Not measured
3. The reference vertical benchmark is the finished floor elevation of the southeasterly corner of the Boiler House Building (Elevation 506.50 feet)

Map Date:	File Location:	Produced By:	Checked By:	Project Manager:
4/2/2009	G:\GIS\LM_Utica\ArcMap\2009\20090402_Fig4_LockheedMartin_GW.mxd	R. McKinney	J. Bonsteel	C. Motta
			Dept. Manager: C. Motta	Geodatabase: Site Map
			Project Number: NJ000639.0001	Figure: 4

Groundwater Elevation Map - February 3, 2009

West Lot Site Supplemental Investigation Report
Former Lockheed Martin French Road Property
Utica, New York

N

240 120 0 240
Feet

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Appendices

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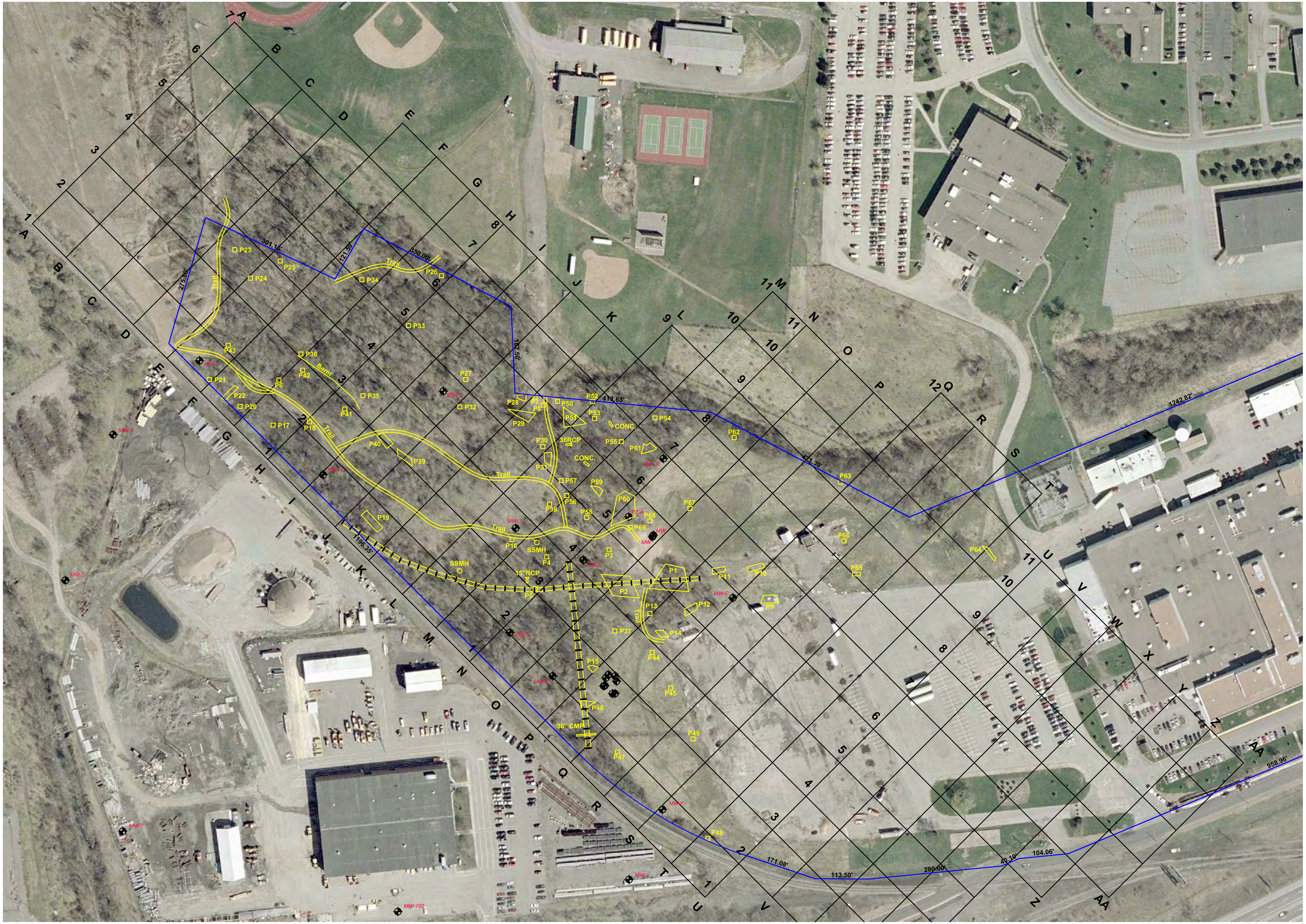
Appendix A

Foot Survey Findings

ON A SEPARATE CD

Proposed Test Pit Location



P23
P25
P24
P34
P26
P33
P43
P36
P42
Berm
P21
P6
P22
P20
P35
P41
P17
P18
Trail
P27
P32
P28
P29
P50
P51
P52
P53
P54
CONC.
P40
P39
P30
36"RCP
P55
P61
P62
P31
CONC.
P57
P59
P60
P56
P38
P58
P67
P68
P69
P63
P19
Trail
P16
SSMH
P4
P3
P66
P64
SSMH
15"RCP
P1
P2
P5
P11
P10
P65
P13
P12
P9
P37
P14
P44
P15
P45
P46
36" CMP
P49
P47
P48
301.16'
350.00'
413.63'
1242.82'
171.08'
113.50'
280.00'
104.06'
958.96'

Appendix A. Descriptions of points of interest located in the Wooded Area; West Lot Site, Utica, New York.

Point ID	Reason for Interest	Description of Point of Interest	Photo Numbers
P.1	Mound with Refuse	Refuse includes: Roofing materials and metal debris (plates, strips, box). Mound approx. 2.5-3 ft high	8-14
P.2	Mound with Refuse	Refuse includes: Metal debris (poles and stakes), 2" PVC pipe, Wooden debris (4"x 4" RR ties), high vis fencing. 5' x 5' concrete box; Mound approx. 6.5 ft high	15-22
P.3	Mound with Refuse	Refuse includes: High vis fencing, black plastic (poly liner)	23
P.4	Mound	Mound approx. 4 ft high; top of the mound is cleared (old rail road tracks)	24-25
P.5	Mound	Mound approx. 4-5 ft high; top of the mound is cleared (old rail road tracks)	26-27
P.6	Mound	Mound approx. 1.5 to 2 ft high	28
P.7	Refuse	Refuse includes: Bleachers right at the property line	29
P.8	Refuse	Refuse includes: Concrete pieces, wood debris (1" x 1" x 3'); Small mounds	30
P.9	Refuse	Refuse includes: Granite and concrete debris.	31-33
P.10	Refuse	Refuse includes: Metal debris (stakes, screws, and ties, RR tools)	34-37
P.11	Mound with Refuse	Refuse includes: Cross railroad lines, wood railroad ties. Mound approx. 2 ft high	38
P.12	Mound with Refuse	Refuse includes: Asphalt, plastics, concrete.	39-40
P.13	Refuse	Refuse includes: hard black plastic (12" diameter pipe) in ground, filled with concrete to 1 ft bgs	41
P.14	Mound	Mound is composed of fill and gravel (from construction of parking lot)	42
P.15	Mound with Refuse	Refuse includes: Sheet of black linoleum/rubber, and piece of a gutter	43
P.16	Refuse	Refuse includes: Household items (vacuum and trash, drink cans)	46-47
P.17	Refuse	Refuse includes: 1 car tire	54
P.18	Refuse	Refuse includes: 2 engine car parts	55
P.19	Mound	Mound approx. 0.5 -2 ft high, thick brush cover. Possibly remnants from construction of rail road track	56-58
P.20	Mound with Refuse	Refuse includes: Railroad ties and rail remnants; Mound approx. 4 ft high.	59-60
P.21	Mound with Refuse	Refuse includes: Railroad ties and rail remnants; Mound approx. 3.5 ft high.	61
P.22	Mound	Mound approx. 2.5 ft high; perpendicular to rail road tracks; very thick brush	62-63
P.23	Refuse	Refuse includes: Wood debris (boards) and metal debris (<1" dia. pole, 2 ft in length)	73-74
P.24	Refuse	Refuse includes: Cardboard remnants	78
P.25	Depression	Small depression filled with black water. Approx. 10' x 5' and 1.5' deep. Strong odor when disturbed	79
P.26	Refuse	Refuse includes: 1 piece of metal (steering wheel?)	82
P.27	Refuse	Refuse includes: Wooden pallets, particle board.	88-89
P.28	Mound with Refuse	Refuse includes: Bricks, tree stumps, concrete, blue plastics, reworked earth	95-98
P.29	Mounds with Refuse	Refuse includes: Concrete (blocks, slabs, culvert), and a rusty chair.	99-101
P.30	Depression with Resue	Small depression up to 1 ft depth. Gray plastic refuse (shaped like large spools).	102-103
P.31	Mound	Mound approx. 1 to 2 ft high.	104-105
P.32	Refuse	Refuse includes: 1 car tire	106
P.33	Mound	Mound approx. 2.3 to 3 ft high	107-108
P.34	Mound	Mound approx. 1.5 ft high	109
P.35	Refuse	Refuse includes: Small rusted bike, and melted gray plastic	110-111
P.36	Mound with Refuse	Refuse includes: metal wire/cable sticking out of the top of a berm. Mound/berm approx. 7 ft high	116-117

Appendix A. Descriptions of points of interest located in the Wooded Area; West Lot Site, Utica, New York.

Point ID	Reason for Interest	Description of Point of Interest	Photo Numbers
P.37	Mound	Mound approx. 1.5 ft high	118-119
P.38	Mound	Mound approx. 2 ft high	125-126
P.39	Mound	Mound approx. 1.5 to 2.5 ft high; Heavy brush	127-129
P.40	Mound	Mound approx. 1.5 to 2.5 ft high; Heavy brush; Mound ties into taller 7 ft berm (P.36)	130-131
P.41	Refuse	Refuse includes: Metal square (1' x 1'), chairs, cans	134-135
P.42	Refuse	Refuse includes: metal cable, black plastic, and a net; located at base of tall berm (P.36)	136-137
P.43	Mound with Refuse	Refuse includes: 1 piece of concrete debris. Mound appox. 1.5 ft high	138-140
P.44	Mound	Mound, approx. 1 ft high	141
P.45	Refuse	Refuse includes: broken 2" metal pipe broken into pieces	142
P.46	Mound	Mound approx. 2-4 ft high. Gradual mound from old RR tracks into flat area next to parking lot	143-145
P.47	Refuse	Refuse includes: blue plastic tarp	147-148
P.48	Mound with Refuse	Refuse includes: 1 piece of wood. Mound approx. 2 ft high;	149-150
P.49	Mound	Mound approx. 1-1.5 ft high. Next to culvert	151-152
P.50	Refuse	Refuse includes: Concrete and old wooden fence	153-154
P.51	Mound	Refuse includes: Metal debris (strips, panels, rack), ~200 gal tank (water heater?), concrete debris; Multiple low mounds (approx. 0.5 to 2 ft high).	155-162
P.52	Refuse	Refuse includes: Concrete slab and metal strip.	164-164
P.53	Drum	Drum: empty, crushed, partially buried. Located in a mounded area (approx. 0.5-1.5 ft high)	165-168
P.54	Mound	Mound approx. 1.5 ft high	171-172
P.55	Refuse	Refuse includes: metal debris (T-shaped, like a handle, 1' x 2')	174-175
P.56	Mound	Refuse includes: 2" plastic pipe, 10-15 ft length. Mound approx. 1.5 ft high	177
P.57	Mound	Mound approx. 1 ft high	178-179
P.58	Mound with Refuse	Refuse includes: concrete debris, wooden RR tie scraps. Mound composed of loose gravel	180-181
P.59	Mound with Refuse	Refuse includes: metal debris (strips) and brick remnants; Mound approx. 3-4 ft high	182-186
P.60	Mound with Refuse	Refuse includes: trace concrete debris; Mound approx. 3-4 ft high	187
P.61	Mound with Refuse	Refuse includes: old chair; Mound approx. 1.5-2 ft high	188-189
P.62	Refuse	Refuse includes: household plastics	190
P.63	Mound with Refuse	Refuse includes: concrete and asphalt debris; Mound approx. 2 ft high	191
P.64	Mound with Refuse	Refuse includes: trace asphalt debris; Mound/Berm approx. 1.5 ft high	192
P.65	Mounds	Mound appox. 1. 5 ft high	193-194
P.66	Refuse	Refuse includes: Large steel grate	196
P.67	Refuse	Refuse includes: 1 piece of square concrete	197
P.68	MW Remnants	4" dia. Monitoring well stick-ups left on ground	199
P.69	Refuse	Refuse inlcludes: concrete and asphalt debris	200

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Appendix B

Geophysical Survey Report

HAGER-RICHTER
GEOSCIENCE, INC.

GEOPHYSICAL SURVEY
CONMED CORPORATION FACILITY
NEW HARTFORD, NEW YORK

Prepared for:

Thew Associates PE-LS, PLLC
301 Saint Anthony Street
Utica, New York 13501

Prepared by:

Hager-Richter Geoscience, Inc.
8 Industrial Way - D10
Salem, New Hampshire 03079

File 08J58
February, 2009

HAGER-RICHTER
GEOSCIENCE, INC.

CONSULTANTS IN GEOLOGY AND GEOPHYSICS
8 INDUSTRIAL WAY - D10
SALEM, NEW HAMPSHIRE
TELEPHONE (603) 893-9944
FAX (603) 893-8313

February 11, 2009
File 08J58

Robert H. Korosec, PLS
Division Manager
Thew Associates PE-LS, PLLC
301 Saint Anthony Street
Utica, New York 13501

Tel: 315/733-7278
FAX: 315/797-1957
Email: rkorosec@thewassociates.com

RE: Geophysical Survey
ConMED Corporation Facility
New Hartford, New York

Dear Mr. Korosec:

In this report, we summarize the results of a geophysical survey conducted by Hager-Richter Geoscience, Inc. (H-R) at a site designated as the ConMED Corporation Facility in Utica, New York for Thew Associates PE-LS, PLLC (Thew). The scope of the survey and areas of interest (AOI) were specified by Thew. The geophysical survey is part of an environmental investigation of the Site by Thew.

INTRODUCTION

The ConMED Corporation Facility is an active industrial site located north of Chenango Road in New Hartford, New York. The general location of the site is shown in Figure 1. The Site consists of a large manufacturing building, an asphalt paved parking lot, grassy areas, and wooded areas. As part of an environmental investigation of the Site for the owner, Thew was interested in locating underground storage tanks (USTs), utilities, and buried metal objects present in the accessible portions of the parking area located west of the building and the wooded area located north of the parking area.

The area of interest measures approximately 2000 feet by 750 feet. A 100 foot by 100 foot site survey grid was established and staked by Thew prior to the survey. Figure 2 shows the approximate location of the area of interest referenced to the site survey grid. The geophysical survey was broken into two phases. The first phase consisted of a geophysical survey of the paved parking area to locate underground storage tanks (USTs), utilities, and buried metal objects. The second phase consisted of a reconnaissance geophysical survey of the wooded area to detect large areas of buried metal to be further explored by conventional means such as test pits. Obstructions such as vehicles and vegetation were present within the AOI and limited access in certain areas.

OBJECTIVES

The objectives of the geophysical survey were to detect, and if detected, to locate USTs, utilities, and buried metal objects in the accessible portions paved parking area and areas of buried metal in the accessible portions of the wooded area of interest.

THE SURVEY

Jeffrey Reid, P.G., Brooks MacFarquhar, and Nicholas Dicristofaro of Hager-Richter conducted the first phase of the survey (Phase I) November 10 through 14, 2008 using time domain electromagnetic induction (EM61), focused ground penetrating radar (GPR), and precision utility locating (PUL) on the asphalt parking lot and open grassy areas located west of the building. Jeffrey Reid, P.G., and Vanja Dezelic of Hager-Richter conducted the second phase of field operations (Phase II) December 1 through 3, 2008 using frequency domain electro-magnetic induction terrain conductivity (EM31) in the wooded areas. The project was coordinated with Robert Korosec of Thew who was present for most of the field work and specified the AOI. Ms. Brooke Mason and Mr. Jon Rocklin of ARCADIS were also present for portions of the field work.

The Phase I survey was conducted using three complementary geophysical methods: time domain electromagnetic induction (EM61), ground penetrating radar (GPR) and precision utility locating (PUL). The EM61 data were acquired at approximately 8-inch intervals along lines spaced 5 feet apart across the accessible portions of the paved parking lot and adjacent open grassy areas. The EM61 survey detects buried metal. However, the EM61 method cannot provide information on the type of objects causing the anomaly. In order to aid in the identification of the objects, a GPR survey was conducted over selected EM61 anomalies interpreted to be buried metal. The GPR records were interpreted in field as they were acquired and the interpreted features were marked with spray paint on the ground and recorded in the field notes. A passive mode PUL survey was conducted to aid detecting possible utilities present in the accessible portions of the paved parking lot and adjacent open grassy areas, and the locations of detected utilities were marked on the ground at the Site and were recorded in the field notes.

The Phase II survey consisted of a reconnaissance frequency domain electromagnetic induction terrain conductivity (EM31) survey. EM31 data were acquired along traverses spaced nominally 50 feet apart along cleared survey lines through the wooded areas, and at tighter spacing where access allowed. The EM31 data were acquired in conjunction with a Trimble DGPS system that provided horizontal positioning for the data. This allowed the EM31 survey to be conducted in “walking mode” where access was available providing reasonable horizontal control to the data without the need for the time and expense of conventional surveying techniques.

Preliminary results of the Phase I survey were provided to Thew on November 24, 2008. Preliminary results of the Phase II survey were provided to Thew in a meeting on December 4, 2008 upon the completion of the field work.

EQUIPMENT

EM61. The EM survey was conducted using a Geonics EM61-MK2 time domain electromagnetic induction metal detector. The EM61-MK2 instrument was designed specifically for detecting buried metal objects such as USTs, drums, and utilities. An air-cored transmitter coil generates a pulsed primary magnetic field in the earth, thereby inducing eddy currents in nearby metal objects. The eddy current produces a secondary magnetic field that is sensed by two receiver coils, one coincident with the transmitter and one positioned 40 cm above the main coil. By measuring the secondary magnetic field after the current in the ground has dissipated but before the current in metal objects has dissipated, the instrument responds only to the secondary magnetic field produced by metal objects. Four channels of secondary response are measured in mV and are recorded on a digital data logger. The system is generally operated by pulling the coils configured as a trailer with an odometer mounted on the axle to trigger the data logger automatically at approximately 8-inch intervals.

GPR. The GPR survey was conducted using a Sensors & Software Smart Cart Noggin Plus digital subsurface imaging radar system. The system includes a survey wheel that triggers the recording of the data at fixed intervals, thereby increasing the accuracy of the locations of features detected along the survey lines. The GPR system was used with a 250 MHz antenna and a 90 nsec time window.

PUL. The PUL survey was conducted using a precision electromagnetic pipe and cable locator, Radiodetection RD4000 series. The RD4000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

EM31. For the EM survey, w used a Geonics Model EM31 terrain conductivity meter, the industry standard for this type of geophysical survey. This unit is an induction type instrument and provides measurement of both the quadrature-phase and in-phase components of terrain conductivity without ground electrodes or contact. The data for both components are recorded on a digital data logger. The EM31 is calibrated to read ground conductivity directly in millimhos per meter with a resolution of 2% of full scale and an accuracy of 1 mmho/meter. The nominal depth of earth sampled by the EM31 in the vertical dipole mode is about 18 feet.

The EM31 system was coupled to a Trimble GeoXH GPS system using a Zephyr external antenna to provide DGPS data corrected in real time. In open areas of the Site, the accuracy of the positioning data was less than one foot. In the heavily wooded portions of the Site, the accuracy of the positioning data was less than about 4 feet.

LIMITATIONS OF THE METHODS

HAGER-RICHTER GEOSCIENCE, INC. MAKES NO GUARANTEE THAT ALL TARGETS OF INTEREST WERE DETECTED IN THIS SURVEY. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR DETECTING TARGETS THAT CANNOT BE DETECTED BY THE METHODS EMPLOYED OR BECAUSE OF SITE CONDITIONS. HAGER-RICHTER IS NOT RESPONSIBLE FOR MAINTAINING MARKOUTS AFTER LEAVING THE WORK AREA. MARKOUTS MADE DURING INCLEMENT WEATHER OR IN HIGH TRAFFIC AREAS MIGHT NOT LAST.

EM61. The EM cannot detect non-metallic objects. The data from all EM surveys are adversely affected by surface metal, and subsurface information is eliminated at and near the surface metal. The EM61 has a depth sensitivity limited to about 10 feet feet.

Detection and identification should be clearly differentiated. Detection is the recognition of the presence of a metal object, and the electromagnetic method is excellent for such purposes. Identification, on the other hand, is determination of the nature of the causative body (i.e., what is the body -- a cache of drums, UST, automobile, white goods, etc.?). Although the EM data cannot be used to *identify* all buried metal objects, they provide excellent guides to the identification of some objects. For example, buried metal utilities produce anomalies with lengths many times their widths.

GPR. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities.

The electrical conductivity of the ground determines the attenuation of the GPR signals, and thereby limits the maximum depth of exploration. For example, the GPR signal does not

penetrate clay-rich soils, and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small then the reflection may be too weak to recognize, possibly due to deeply corroded metal in the target, the target can be missed.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target.

PUL. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

EM31. All electromagnetic geophysical methods are affected by the presence of power lines and surface metal objects (steel sided buildings, dumpsters, vehicles, railroad tracks, reinforced concrete, etc.) Where such are present, the effects of materials in the subsurface may be masked, and firm conclusions about subsurface conditions cannot be made.

The detection of any target, whether an object or change in geological conditions, is predicated in the assumption of a marked contrast in electrical conductivity. For example, if the conductivity target saltwater wedge does not contrast sufficiently with the conductivity of the surrounding fresh water saturated soils, it might not be possible to detect the lateral extent of the wedge.

The EM31 instrument response varies with the orientation of the dipoles. In the horizontal dipole mode (coils vertical and co-planar), the instrument is more sensitive to near-surface conductive layers than it is in the vertical dipole mode (coils horizontal and co-planar)

RESULTS

General. The geophysical survey consisted of two phases. Phase I consisted of a time domain electromagnetic induction (EM61), focused ground penetrating radar (GPR), and precision utility locating (PUL) and Phase II consisted of a frequency domain electromagnetic induction terrain conductivity (EM31) survey. Figures 3 and 4 show the EM61 results and the integrated interpretation of the Phase I survey, respectively. Plates 1 and 2 show the EM31 apparent conductivity and EM31 in-phase component results, respectively. Plate 3 shows interpretation of the Phase II survey.

Phase I

The geophysical survey consisted of a time domain electromagnetic induction metal detector (EM) survey, a focused GPR survey across selected EM anomalies, and a passive PUL survey. Figures 3 and 4 show the EM61 data and the integrated interpretation of the EM61, GPR, and PUL data, respectively.

Interpretation of EM data is based on the *relative* response of the instrument in millivolts to local conditions. The instrument is not calibrated to provide an absolute measure of a particular property, such as the conductivity of the soil or the strength of the earth's magnetic field. Subsurface metal objects produce sharply defined positive anomalies when the EM61 is positioned directly over them. Collecting data at short intervals along closely spaced lines, as was done at the subject site, provides high spatial resolution of the location and footprint of the targets. Thus, buried metal is recognized in contour plots of EM data by positive anomalies roughly corresponding to the dimensions of the buried metal.

Figure 3 exhibits several high-amplitude EM anomalies. Many such anomalies are attributed to surface features such as a reinforced concrete, vehicles, drainage grates, sign posts, and light poles, and their locations are shown as blue hatched areas on Figure 4. We note that the presence or absence of subsurface metal objects in such areas cannot be determined on the basis of the EM data alone due to the anomaly caused by the surface metal objects.

Several low to moderate to high amplitude EM anomalies not attributable to surface metal objects are present. We attribute such anomalies to the presence of buried. GPR data were acquired at the locations of selected EM anomalies. The integrated interpretation of the data are shown on Figure 4. Apparent GPR signal penetration was generally fair to fair, with two-way traveltime reflections received from 25-35 nsec. Based on handbook time-to-depth conversions for the GPR signal in average soils, the GPR signal penetration is estimated to have ranged from been about 3-4 feet in most areas surveyed.

The GPR records contain reflections consistent with utilities and scattered small unidentified buried objects judged too small to be USTs, and their locations are also shown on

Figure 4. GPR reflections typical of a UST were not observed in the GPR records for the ConMED Site.

Live electric signals were searched for by the PUL receiver in 'passive' mode. The only other utilities that were detected in the specified AOI had also been detected with the GPR, and their locations were confirmed.

No UST with: (1) electrical properties sufficiently contrasting with the surrounding soils to produce EM anomalies and/or GPR reflections, or (2) a capacity of 500 gallons or more was detected within the effective depth of penetration of the GPR signal (about 3-4 feet) in the surveyed area. *Whether a UST occurs at a depth greater than the effective depth of penetration of the GPR signal or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.*

Phase II

The Phase II survey consisted of a reconnaissance frequency domain electromagnetic induction terrain conductivity (EM31) survey. Plates 1 and 2 show the EM31 apparent conductivity and EM31 in-phase component data, respectively, and Plate 3 shows results of the Phase II survey.

Apparent conductivity data are useful for detecting the presence of anomalously conductive ground, which might be caused by the presence of objects with properties unlike those of the natural materials on site, such as fill. The in-phase component data, on the other hand, are *only* used to interpret the presence of metal objects. Where the metal objects are relatively small, the instrument must be located within a few feet of the objects in order to detect them.

Metal objects, whether buried or above ground, produce anomalously high or low apparent conductivity and in-phase component values in EM31 surveys. Most of the high amplitude EM31 anomalies evident in Plates 1 and 2 are associated with surface features and known subsurface features such as metal debris, fences, concrete, and known utilities. The locations of such objects are marked on Plate 3 as blue hatched areas. In such areas, the presence or absence of buried metal cannot be determined on the basis of the EM data, due to the effects of the surface metal. Linear anomalies on Plates 1 and 2 are attributed to subsurface utilities.

Background apparent conductivity values range from 9 to 12 mS/m and in-phase component values range from 0 to 3 ppt across the entire Site. As can be seen on Plates 1 and 2, most of the area exhibits apparent conductivity and in-phase component values that are generally within the background range.

As can be seen on Plate 1, the apparent conductivity values in the area of interest are elevated in the northwestern portion of the survey area. The elevated apparent conductivity anomalies present in the northeastern portion of the Site are located in relatively low areas and may represent a relatively shallow water table in this area. The locations of elevated apparent conductivity are shown on Plate 4 as purple hatched areas. Note that the areas of anomalous apparent conductivity have no corresponding in-phase anomalies, indicating that there is not a significant amount of buried metal in such areas.

As can be seen on Plate 2, in-phase component anomalies are present at the locations of the above ground structures. One area of elevated in-phase component values is present outside areas affected by surface features. The location of the anomaly is shown as a red hatched area on Plate 3. A test pit conducted at this location by Thew revealed the presence of significant amounts of reinforced concrete debris. The EM data do not exhibit broad in-phase component anomalies typical of widespread disposal of metallic objects in the area surveyed.

CONCLUSIONS

Based on the geophysical survey performed by Hager-Richter Geoscience at the ConMED Corporation Facility in Utica, New York, we conclude that:

- Small scattered buried metal objects were detected in the paved parking area and open grassy areas west of the building.
- Possible utilities were detected.
- No USTs with: (1) electrical properties to produce an EM61 anomaly or sufficiently contrasting with the surrounding soils to produce GPR reflections, or (2) a capacity of 500 gallons or more was detected within the effective depth of penetration of the GPR signal. *Whether a UST occurs at a depth greater than the effective depth of penetration of the GPR signal (approximately 3-4 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.*
- Widespread disposal of metallic objects was not conducted in the wooded area of the Site.

LIMITATIONS ON USE OF THIS REPORT

This letter report was prepared for the exclusive use of Thew Associates PE-LS, PLLC (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for

which H-R has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to H-R.

H-R has used reasonable care, skill, competence and judgment in the performance of' its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

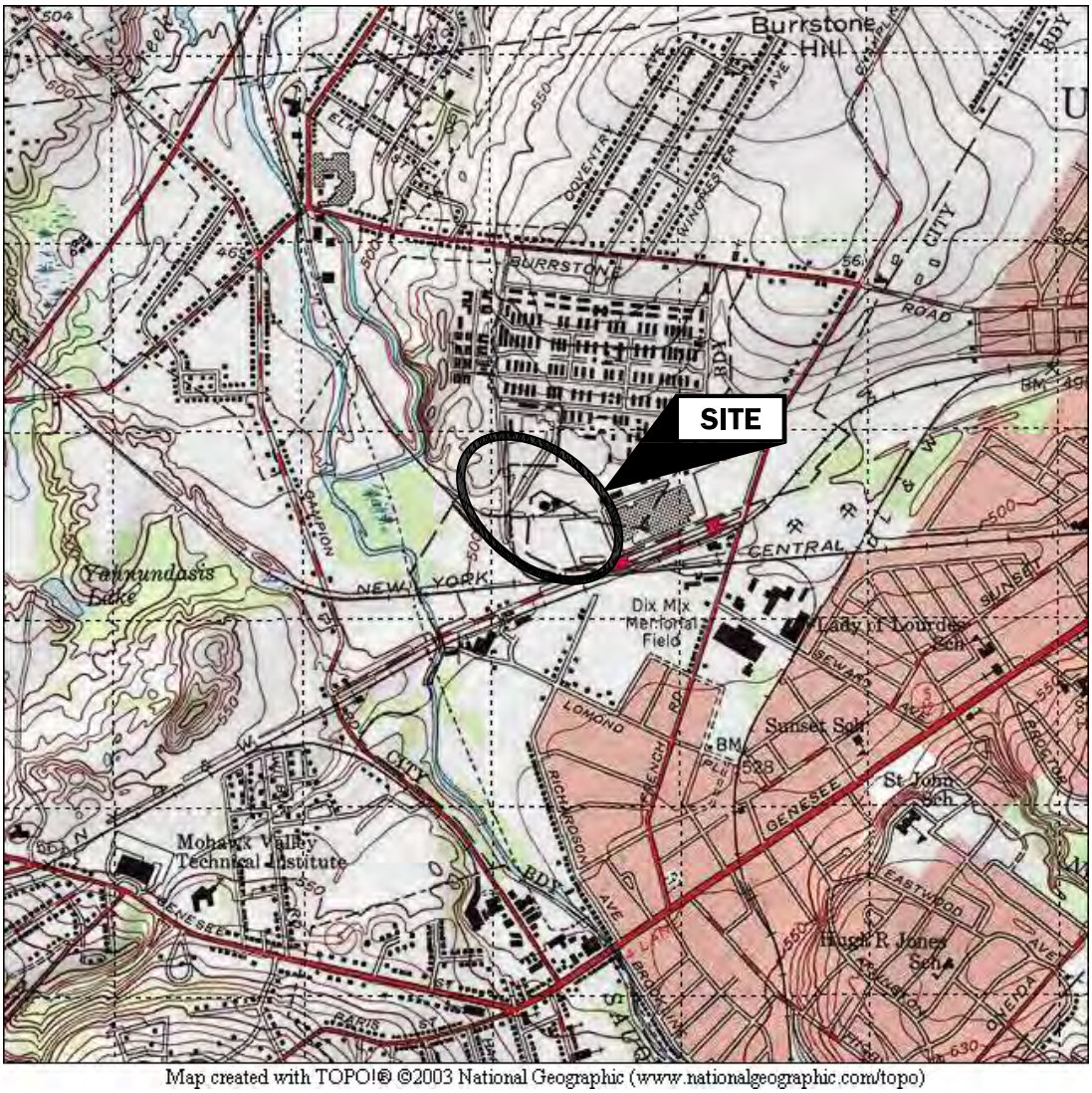
If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with PMK on this project. We look forward to working with you again in the future.

Sincerely yours,
HAGER-RICHTER GEOSCIENCE, INC.

Jeffrey Reid, P.G.
Project Manager/Senior Geophysicist

Dorothy Richter, P.G.
President

Attachments: Figures 1-4
Plates 1-3



LOCATION

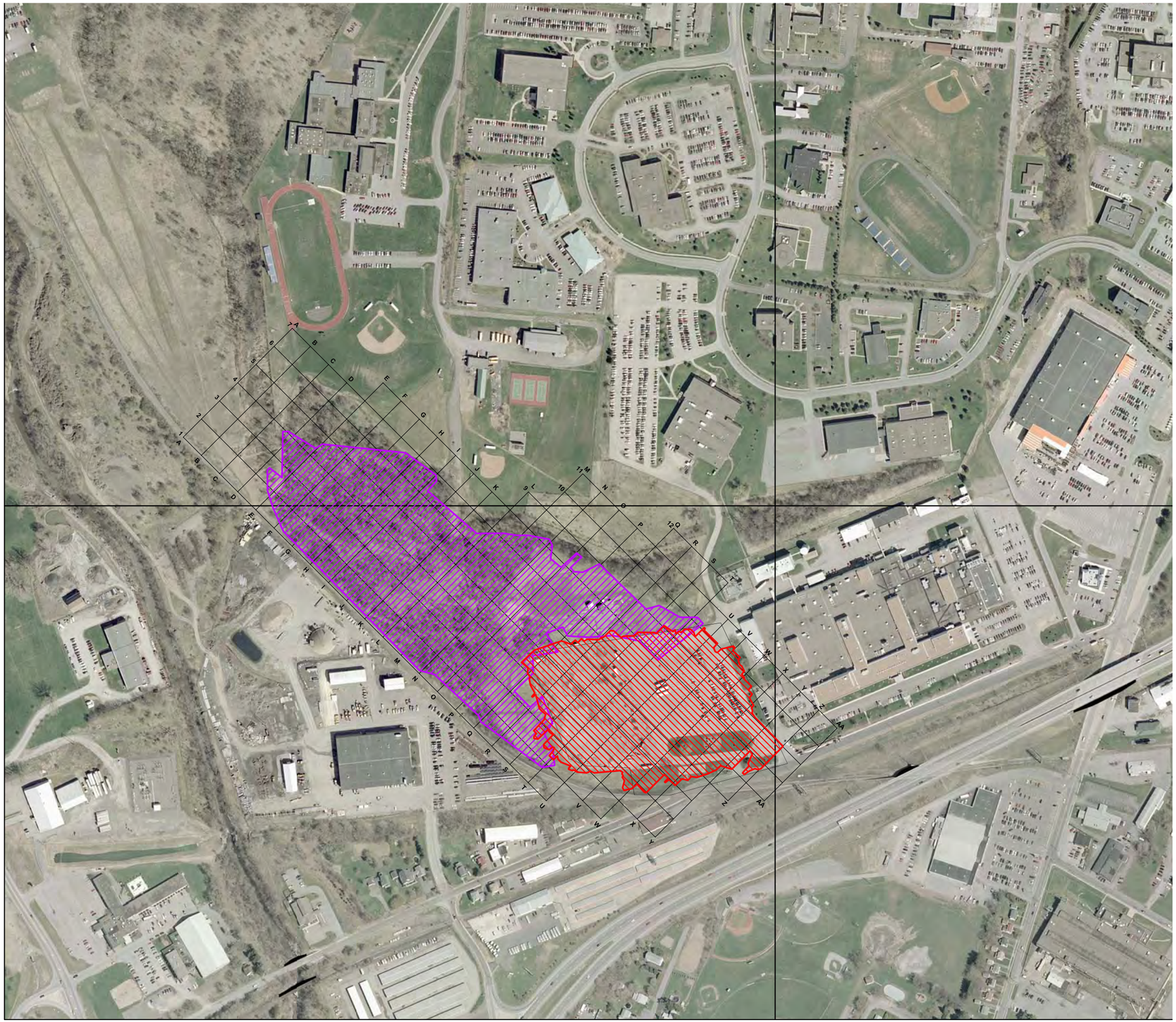
SCALE (feet)

0 2000 4000

Figure 1
General Site Location
ConMED Corporation Facility
New Hartford, New York

File 08J58 | February, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Salem, New Hampshire



N

APPROX.

LEGEND

APPROXIMATE LIMITS OF PHASE I SURVEY AREA

APPROXIMATE LIMITS OF PHASE II SURVEY AREA

SCALE (feet)

0 400 800

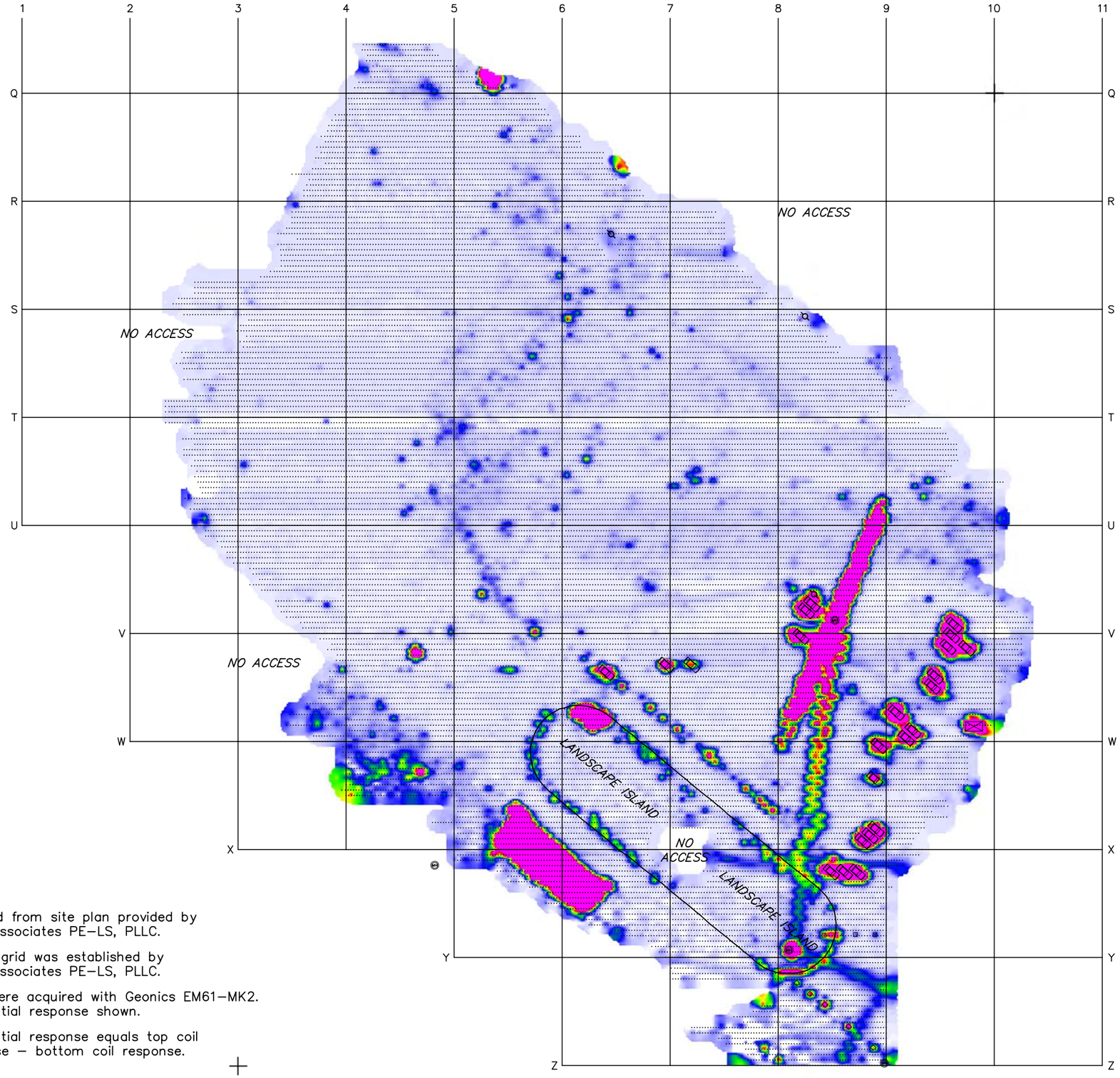
NOTES:

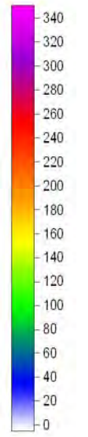
1. Modified from site plan provided by Thew Associates PE–LS, PLLC.
2. Survey grid was established by Thew Associates PE–LS, PLLC.

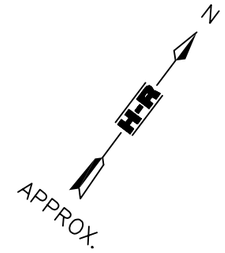
Figure 2
Site Plan
ConMED Corporation Facility
New Hartford, New York

File 08J58 | February, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Salem, New Hampshire







LEGEND

- DATA STATIONS
- UTILITY POLE
- MANHOLE
- CUT FENCE POST
- DUMPSTER
- VEHICLE

SCALE (feet)

0 100 200

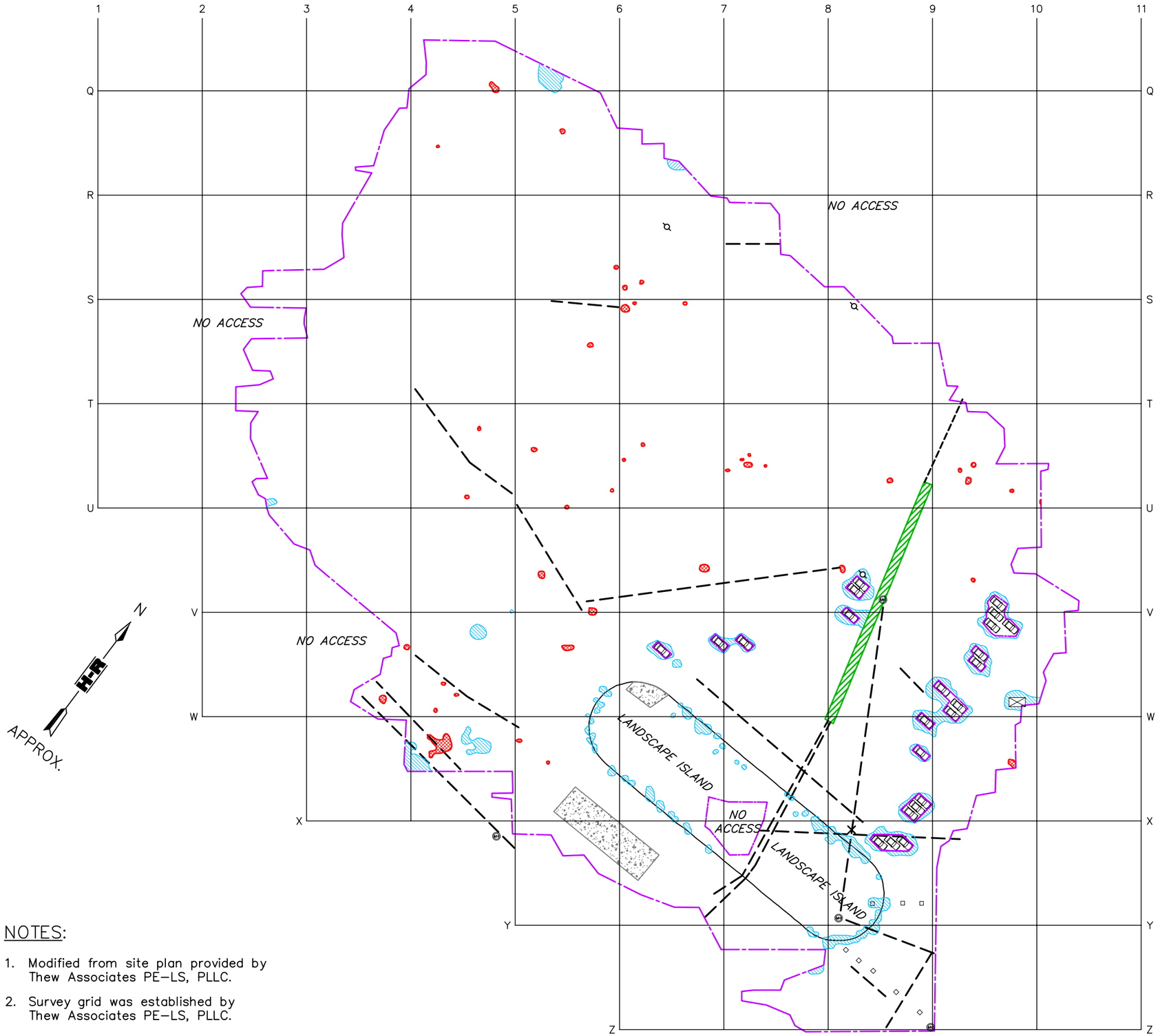
NOTES:

1. Modified from site plan provided by Thew Associates PE–LS, PLLC.
2. Survey grid was established by Thew Associates PE–LS, PLLC.
3. Data were acquired with Geonics EM61–MK2. Differential response shown.
4. Differential response equals top coil response – bottom coil response.

Figure 3
Phase I – EM61 Survey
ConMED Corporation Facility
New Hartford, New York

File 08J58 | February, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Salem, New Hampshire



LEGEND

- APPROXIMATE LIMITS OF EM SURVEY AREA
- AREA OF POSSIBLE BURIED METAL
- EM ANOMALY ATTRIBUTED TO EFFECTS OF SURFACE OBJECTS. THE PRESENCE OR ABSENCE OF BURIED METAL WITHIN THIS AREA CANNOT BE DETERMINED ON THE BASIS OF THE EM61 DATA ALONE.
- POSSIBLE DRAIN STRUCTURE
- POSSIBLE UTILITY
- UNIDENTIFIED BURIED OBJECT
- REINFORCED CONCRETE PAD
- UTILITY POLE
- MANHOLE
- CUT FENCE POST
- DUMPSTER
- VEHICLE

SCALE (feet)

0 100 200

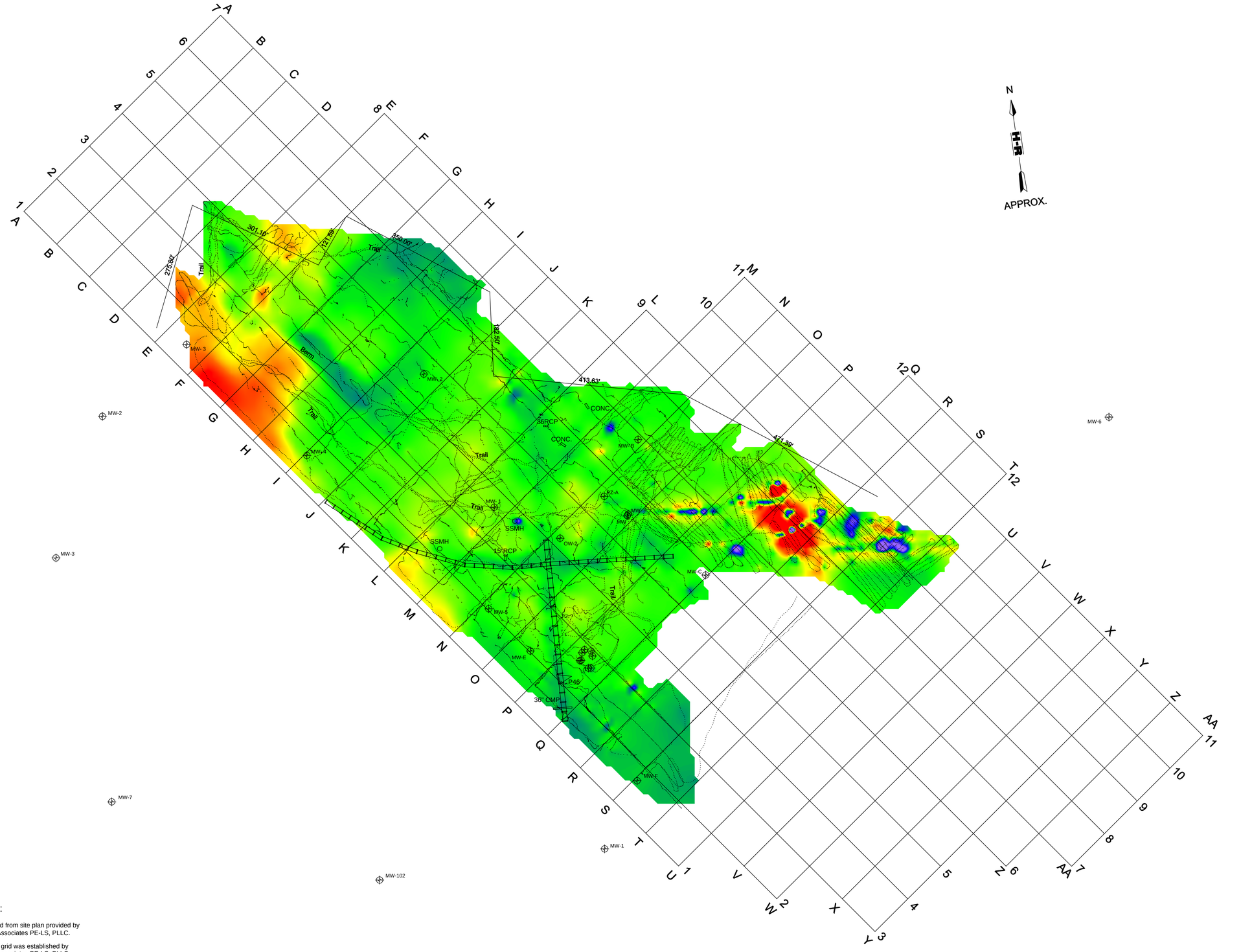
NOTES:

1. Modified from site plan provided by Thew Associates PE–LS, PLLC.
2. Survey grid was established by Thew Associates PE–LS, PLLC.

Figure 4
Phase I – Interpretation
ConMED Corporation Facility
New Hartford, New York

File 08J58 | February, 2009

HAGER–RICHTER GEOSCIENCE, INC.
Salem, New Hampshire



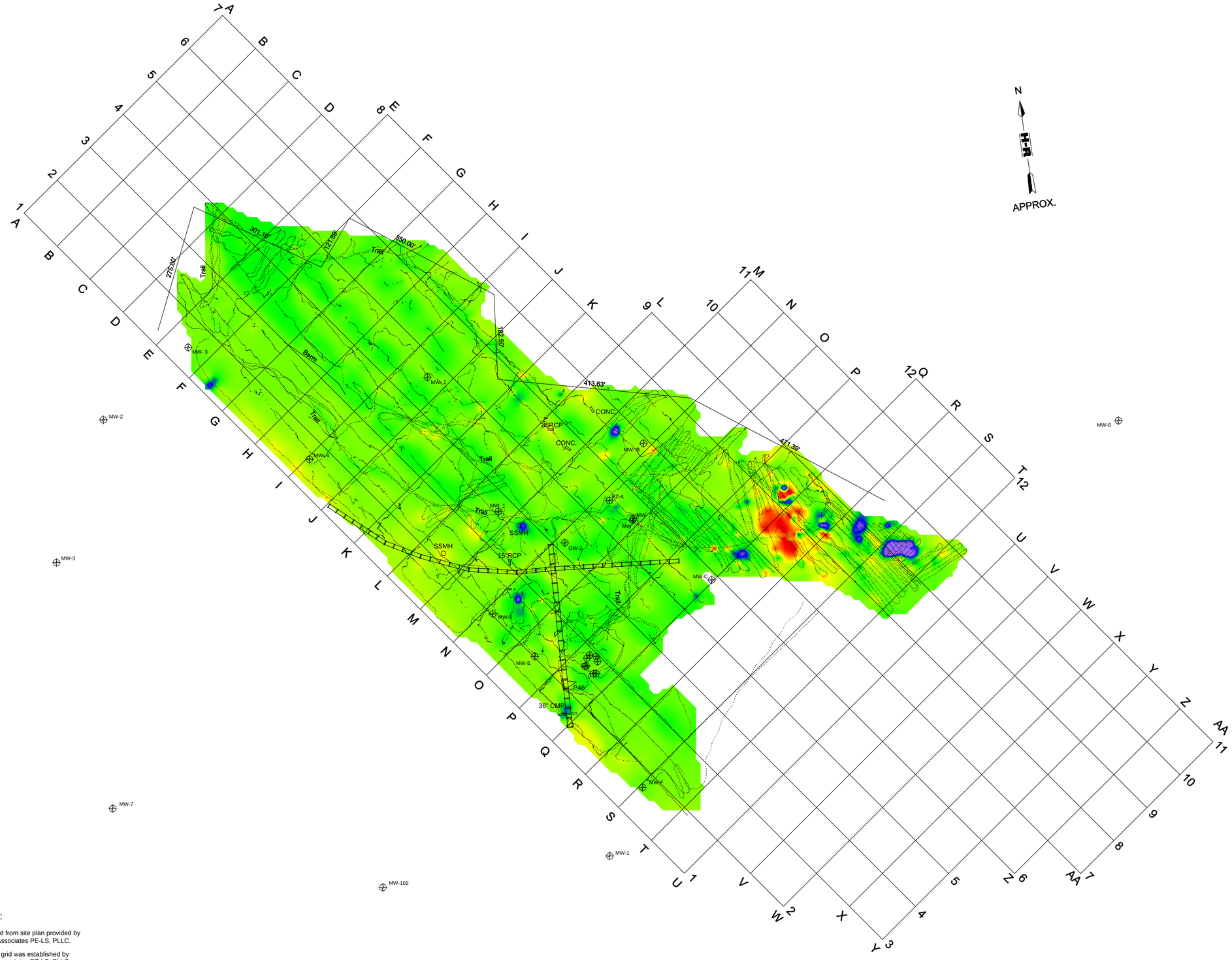
NOTES:

1. Modified from site plan provided by Thew Associates PE-LS, PLLC.
2. Survey grid was established by Thew Associates PE-LS, PLLC.
3. Data were acquired with a Geonics EM31-MK2 in vertical dipole mode with boom parallel to traverse line where possible.

PLATE 1
PHASE II - APPARENT CONDUCTIVITY
CONMED CORPORATION FACILITY
NEW HARTFORD, NEW YORK

08J58	FEBRUARY, 2009

HAGER-RICHTER GEOSCIENCE, INC.
SALEM, NEW HAMPSHIRE



NOTES:

1. Modified from site plan provided by Thew Associates PE-LS, PLLC.
2. Survey grid was established by Thew Associates PE-LS, PLLC.
3. Data were acquired with a Geonics EM31-MK2 in vertical dipole mode with boom parallel to traverse line where possible.

PLATE 2
PHASE II - IN-PHASE COMPONENT
CONMED CORPORATION FACILITY
NEW HARTFORD, NEW YORK

08J58	FEBRUARY, 2009

HAGER-RICHTER GEOSCIENCE, INC.
SALEM, NEW HAMPSHIRE

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Appendix C

Test Pit Logs

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Test Pit Log

Test Pit ID TP-6 Project. Location/N NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/2/2008 Completed 12/2/2008

Total Depth 8 Feet Pit Dimensions Approx 7' X 7' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	8'	Sand, fine to course; and Gravel; Brown	
		Silty Clay deposits at 2-4' bls	
		Water table at approx 7.5' bls	
		All PID readings = 0 ppm	
		Small metal and brick piece observed at 2 ft	
		Water entering hole from entire south excavation wall. North wall was	
		dry.	
		Sample 2.5' - 3.0' at 1255	
		Sample 6.5' - 7.0' at 1245	

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Test Pit Log

Test Pit ID TP-7 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/2/2008 Completed 12/2/2008

Total Depth 8 Feet Pit Dimensions 6.5' X 7.0' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	8.0'	Sand, fine to coarse; and Gravel; Brown	
		Silty Clay deposits at 2-4' bls	
		Water table at approx 7.5' bls	
		All PID readings = 0ppm	
		Pieces of metal and wood debris observed	
		Both North and South walls are dry as opposed to TP-6	
		Sample 2.5' - 3.0' at 1410	
		Sample 6.5' - 7.0' at 1400	

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Test Pit Log

Test Pit ID TP-8 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/2/2008 Completed 12/2/2008

Total Depth 9 Feet Pit Dimensions 8' X 8' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	8.0'	Sand, fine to course; and Gravel; Brown	
8.0'	9.0'	Same with less Gravel	
		Silty Clay deposits at 2-4' bls	
		Water table at approx 8.5' bls	
		All PID readings = 0 ppm	
		Metal wire debris observed	
		Water entering hole from entire south excavation wall. North wall was	
		dry.	
		Sample 3.0' - 3.5' at 1505	
		Sample 7.5' - 8.0' at 1455	

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Test Pit Log

Test Pit ID TP-9 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/2/2008 Completed 12/2/2008

Total Depth 8.5 Feet Pit Dimensions 8.0' X 8.0' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	8.5'	Sand, fine to medium; some Silt; some Gravel; Brownish-black	
		Pockets of Silty Clay throughout	
		Clay at 8.0' bls	
		Water table at approx 8.0' bls	
		All PID = 0ppm	
		Piece of mangled metal at 2.0' bls (about 2 feet long)	
		Water seeping into excavation from all walls at 7.5' bls	
		Sampled 2.5' - 3.0' at 1600	
		Sampled 7.0' - 7.5' at 1550	

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Test Pit Log

Test Pit ID TP-10 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/3/2008 Completed 12/3/2008

Total Depth 8 Feet Pit Dimensions 10' X 10' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	8.0'	Sandy Silt; some Gravel and Cobbles; Dark brown; Moist	
		Dense Clay-Silt pockets througout	
		Water table at approx 7.5' bls	
		Water entering hole from N/NW wall at approx 1.0' bls	
		Small piece of mangled metal observed at 3.0' bls	
		Slight fuel oil odor around metal - PID = 0ppm	
		Wood debris and small metal pieces at 3.0' bls	
		Pieces of what appeared to be fiberglass circuit board at 3.0' bls	
		All PID readings = 0 ppm	
		Sample 2.0' - 2.5' at 0955	
		Sample 6.5' - 7.0' at 0945	
		Samples collected from the areas that contained the above mentioned	
		materials	

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Test Pit Log

Test Pit ID TP-11 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/3/2008 Completed 12/3/2008

Total Depth 7 Feet Pit Dimensions 7' X 7' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	7.0'	Sand, fine to medium; and Gravel; Brown	
		Gravel Layers at 3.0' bls and 5.0' bls	
		Water table at approx 7.5' bls	
		No clay observed	
		All PID = 0ppm	
		Sample 3.0' - 3.5' at 1140	
		Sample 6.5' - 7.0' at 1130	

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Test Pit Log

Test Pit ID TP-12 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/3/2008 Completed 12/3/2008

Total Depth 8 Feet Pit Dimensions 13' X 12' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	8.0'	Sandy Silt; little Gravel; Brown; Organic Odor	
		Large metal box and concrete block on the surface of the ground	
		Grey ash layer at 2.5' bls. Very thin layer. Small pocket of material	
		Large pieces of concrete pipe encountered 2.5' - 6.0'	
		All PID = 0ppm	
		Sample 3.0' - 3.5' at 1415*	
		Sample 6.5' - 7.0' at 1405	
		* Sample collected of and directly below the ash layer	

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Test Pit Log

Test Pit ID TP-13 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/3/2008 Completed 12/3/2008

Total Depth 9.5 Feet Pit Dimensions See notes Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
		Directly in front of the test pit location is a series of random berms	
		with household trash on the surface. These berms were	
		opened up with the excavator to reveal a clean sandy soil.	
		Test pit advanced under a 75-100 gallon AST	
		Other household/white goods debris scattered around	
0	9.0'	Sand, fine to medium; trace Gravel; Brownish orange	
		Same homogeneous soil throughout. No debris	
		Water table at approx 9.0' bls	
		All PID = 0 ppm	
		Sample 2.5' - 3.0' at 1540	
		Sample 7.5 - 8.0' at 1530	

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Test Pit Log

Test Pit ID TP-14 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/4/2008 Completed 12/4/2008

Total Depth 9 Feet Pit Dimensions 8' X 12' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	9.0'	Sand, fine to medium; some Gravel; Brown	
		Water Table at approx 9.0' bls	
		Large pieces of concrete down to 4.0' bls	
		Positioning of pieces of concrete have created voids in the ground	
		Sample 4.5' - 5.0' at 1140	
		Sample 4.5' - 5.0' at 1140	
		Sample collected directly below the concrete pieces	

ARCADIS

Test Pit Log

Test Pit ID TP-15 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/4/2008 Completed 12/4/2008

Total Depth 7.5' Feet Pit Dimensions 8' X 12' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	7.0'	Sand, fine to medium; some Gravel; Brown/Black	
		Water table at approx 7.0' bls	
		Lots of construction debris 0 - 4.0' bls	
		Bricks, concrete and conduit	
		Large pieces of concrete pipe with embedded 1-4" metal pipes	
		All PID = 0ppm	
		Sample 4.0' - 4.5' at 1250	
		Sample 6.5' - 7.0' at 1240	
		Sample collected directly below construction debris	

ARCADIS

Test Pit Log

Test Pit ID TP-16 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/4/2008 Completed 12/4/2008

Total Depth 13.5 Feet Pit Dimensions 10' x 12' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
		Test pit excavated into large berm from the top	
0	13.0'	Sand, very fine with clay deposits throughout	
		Some of the clay was silty and moist	
		Very fine sand content increased with depth	
		All PID = 0ppm	
		Sample 2.5' - 3.0' at 1550	
		Sample 13.0' - 13.5' at 1540	

ARCADIS

Test Pit Log

Test Pit ID TP-17 Project. Location/I NJ000638.0001 Page 1 of 1

Site Location Former Lockheed Martin French Road Property, Utica, New York Started 12/3/2008 Completed 12/3/2008

Total Depth 8 Feet Pit Dimensions 10' x 12' Equipment Excavator

Contractor Thew Associates

Prepared By J. Rocklin

From	To	Sample/	PID (ppm)
0	6.0'	Sand, very fine to fine; and Clay; Moist	
6.0'	7.0'	Clay; Maroon color	
		Water seeping from Clay at 7.0' bls	
		All PID = 0ppm	
		Sample 2.0' - 2.5' at 1005	
		Sample 5.5' - 6.0' at 0955	

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Appendix D

Piezometer Construction Logs

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Sample/Core Log

Boring/Well PZ-1 Project/No. NJ000638.0001 Page 1 of 1

Site Location: Former Lockheed Martin - Utica, NY

Drilling Started: 2/3/2009 Drilling Completed: 2/3/2009

Total Depth Drilled: 15 Feet Hole Diameter: 2 inches Type of Sample/ Coring Device: Geoprobe

Length and Diameter of Coring Device: 2" X 4' Sampling Interval: 4 feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used: NA Drilling Method: Geo Probe

Drilling Contractor: Atlantic Testing Driller: Justin Helper: NA

Prepared By: J. Rocklin Hammer Weight: NA Hammer Drop: NA ins.

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)		Sample/Core Description*	PID (ppm)
0	4.0'	4.0'	0 - 1.0'	Asphalt and Gravel associated with parking lot	0
			1.0 - 3.0'	Sand, fine-med; and Gravel, Brown/Tan/Black	0
			3.0 - 4.0'	Sandy Gravel; Multi-colored	0
4.0'	8.0'	3.0'	0 - 3.0'	Sand and Gravel; Multi-color; Moist at 7-8'	0
8.0'	12.0'	3.0'	0 - 1.0'	No recovery	0
			1.0 - 2.2'	Sand, fine-med; And Gravel; Wet	0
			2.2 - 3.2'	Sand, fine-med; Some Gravel; Wet	0
			3.2 - 4.0'	Same as above with even less gravel; Wet	0
12.0'	16.0'	4.0'	0 - 1.0'	Formation Collapse	0
			1.0 - 4.0'	Sand, fine-med; Trace Gravel; Wet	0
				Very compact at the bottom (Till)	0
				REFUSAL at 15.6' bls due to Till	
				PZ-1 screen 5-15' bls	

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Sample/Core Log

Boring/Well PZ-2 Project/No. NJ000638.0001 Page 1 of 1

Site Location: Former Lockheed Martin - Utica, NY

Drilling Started: 2/3/2009 Drilling Completed: 2/3/2009

Total Depth Drilled: ____ Feet Hole Diameter: 2 inches Type of Sample/Coring Device: Geoprobe

Length and Diameter of Coring Device: 2" X 4' Sampling Interval: 4 feet

Land-Surface Elev.: ____ feet ☐ Surveyed ☐ Estimated Datum: ____

Drilling Fluid Used: NA Drilling Method: Geo-Probe

Drilling Contractor: Atlantic Testing Driller: Justin Helper: NA

Prepared By: J. Rocklin Hammer Weight: NA Hammer Drop: NA ins.

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 Inches	Sample/Core Description*	PID (ppm)
0	4.0'	4.0'	0 - 0.5'	Organics	0
			0.5 - 2.0'	Sand, fine-medium; And Gravel; Some Cinders; Brownish Black	0
			2.0 - 4.0'	Silty Sand; Some Gravel; Little Clay; Brownish orange	0
4.0'	8.0'	4.0'	0 - 0.7'	Same as above	0
			0.7 - 1.7'	Cobbles and Gravel	0
			1.7 - 4.0'	Sand, fine-medium; And Gravel; Brown; Moist at bottom	0
8.0'	12.0'	2.2'		Refusal at 10.2' bls. Possible till in tip of soil core.	
				** Attempt # 2 yielded the same results.	

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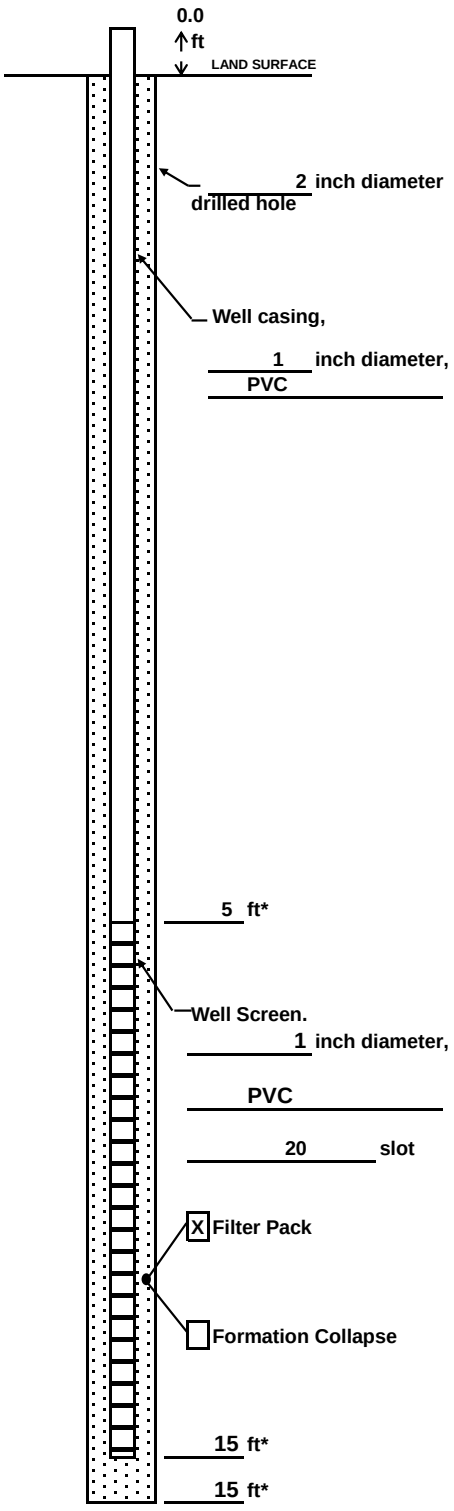
Well Construction Log

(Unconsolidated)



Project Name and No. LMC - Utica, NY #NJ000638.0001

Well PZ-1 **Town/City** Utica, NY

County Utica **State** NY

Permit No.

Land-Surface Elevation and Datum:

508.79 feet [X] Surveyed [ ] Estimated

Installation Date(s) 2/3/2009

Drilling Method Geoprobe Macrocore

Drilling Contractor Atlantic Testing, Inc.

Drilling Fluid None

Development Technique(s) and Date(s)

2/5/2009 - Peristaltic pump and surge with 1" bailer.

Fluid Loss During Drilling 0 gallons

Water Removed During Development Approx 5 gallons

Static Depth to Water 7.76 feet below M.P.**

Pumping Depth to Water N/A feet below M.P.**

Pumping Duration N/A hours

Yield N/A gpm **Date** N/A

Specific Capacity N/A gpm/ft

Well Purpose Groundwater Monitoring

Remarks

* Depth Below Land Surface

**Measuring Point is Top of Well Casing Unless Otherwise Noted.

Prepared by J. Rocklin

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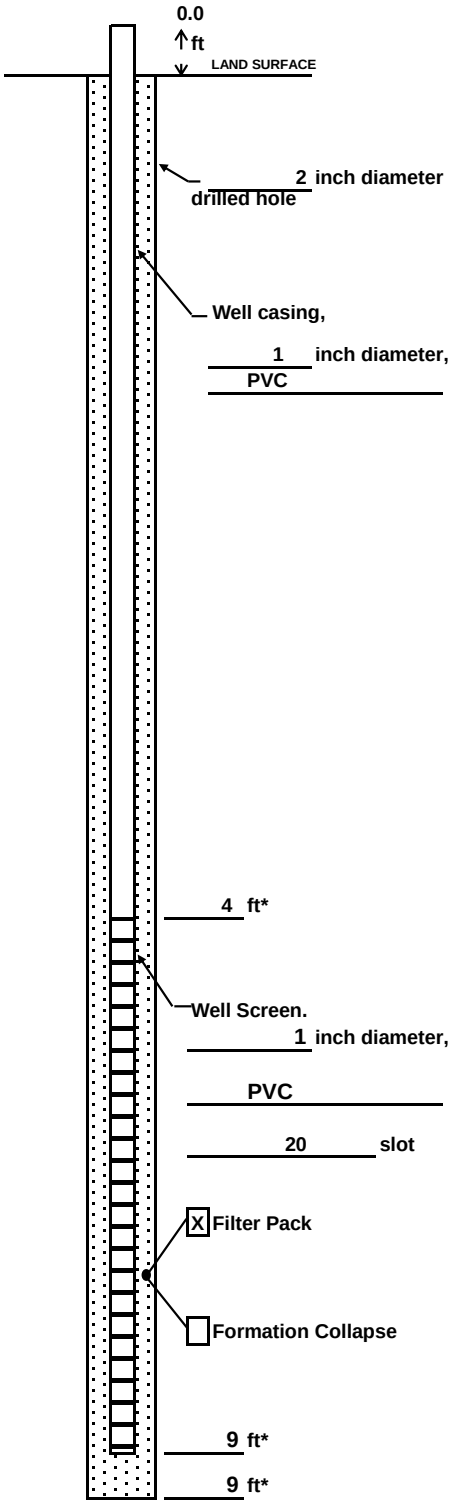
Well Construction Log

(Unconsolidated)



Project Name and No. LMC - Utica, NY #NJ000638.0001

Well PZ-2 **Town/City** Utica, NY

County Utica **State** NY

Permit No.

Land-Surface Elevation and Datum:

509.19 feet [X] Surveyed [ ] Estimated

Installation Date(s) 2/3/2009

Drilling Method Geoprobe Macrocore

Drilling Contractor Atlantic Testing, Inc.

Drilling Fluid None

Development Technique(s) and Date(s)

2/5/2009 - Peristaltic pump and surge with 1" bailer.

Fluid Loss During Drilling 0 gallons

Water Removed During Development Approx 0.5 gallons

Static Depth to Water 8.43 feet below M.P.**

Pumping Depth to Water N/A feet below M.P.**

Pumping Duration N/A hours

Yield N/A gpm **Date** N/A

Specific Capacity N/A gpm/ft

Well Purpose Groundwater Monitoring

Remarks

* Depth Below Land Surface

**Measuring Point is Top of Well Casing Unless Otherwise Noted.

Prepared by J. Rocklin

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Appendix E

Laboratory Analytical Data Packages

ON A SEPARATE CD

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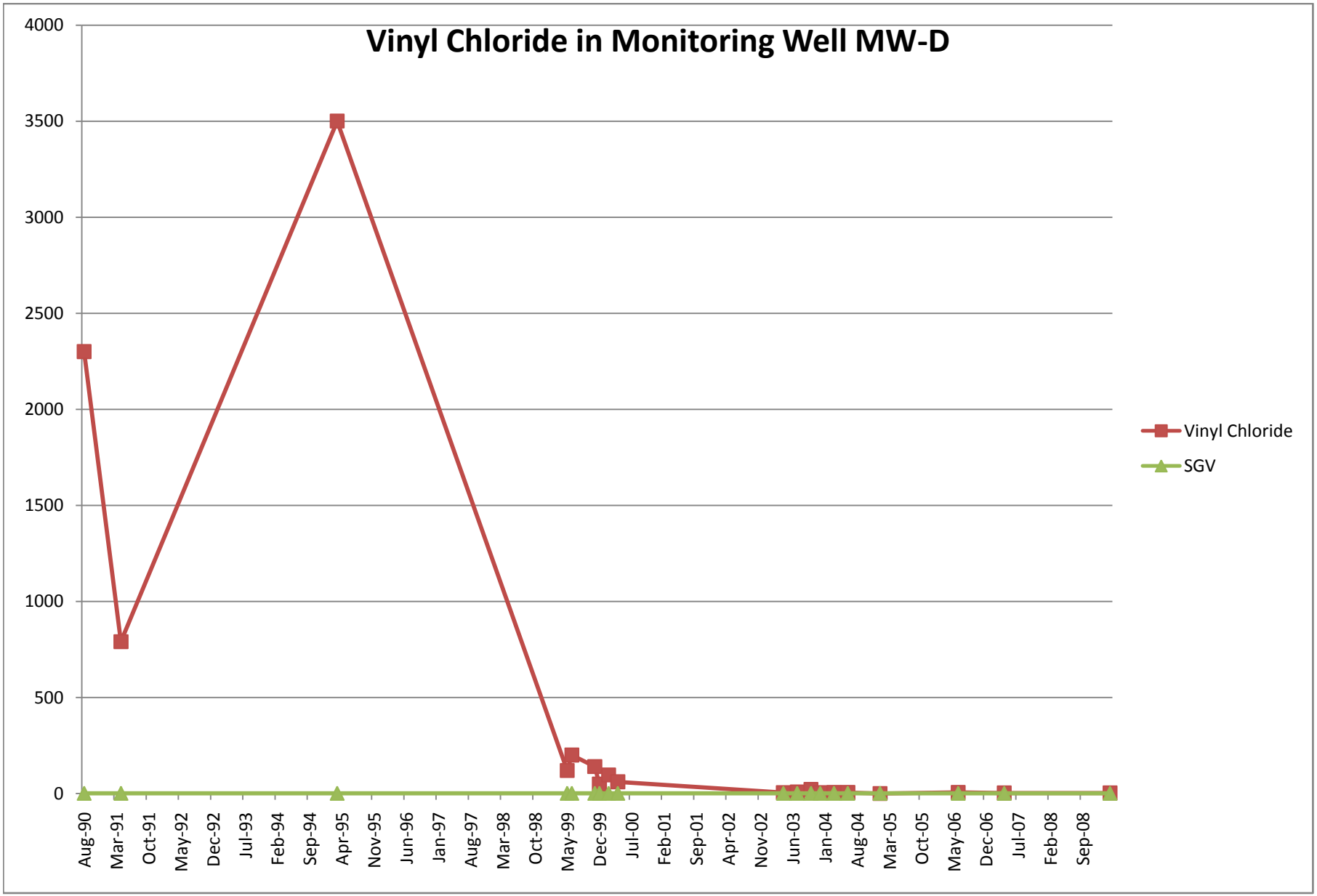
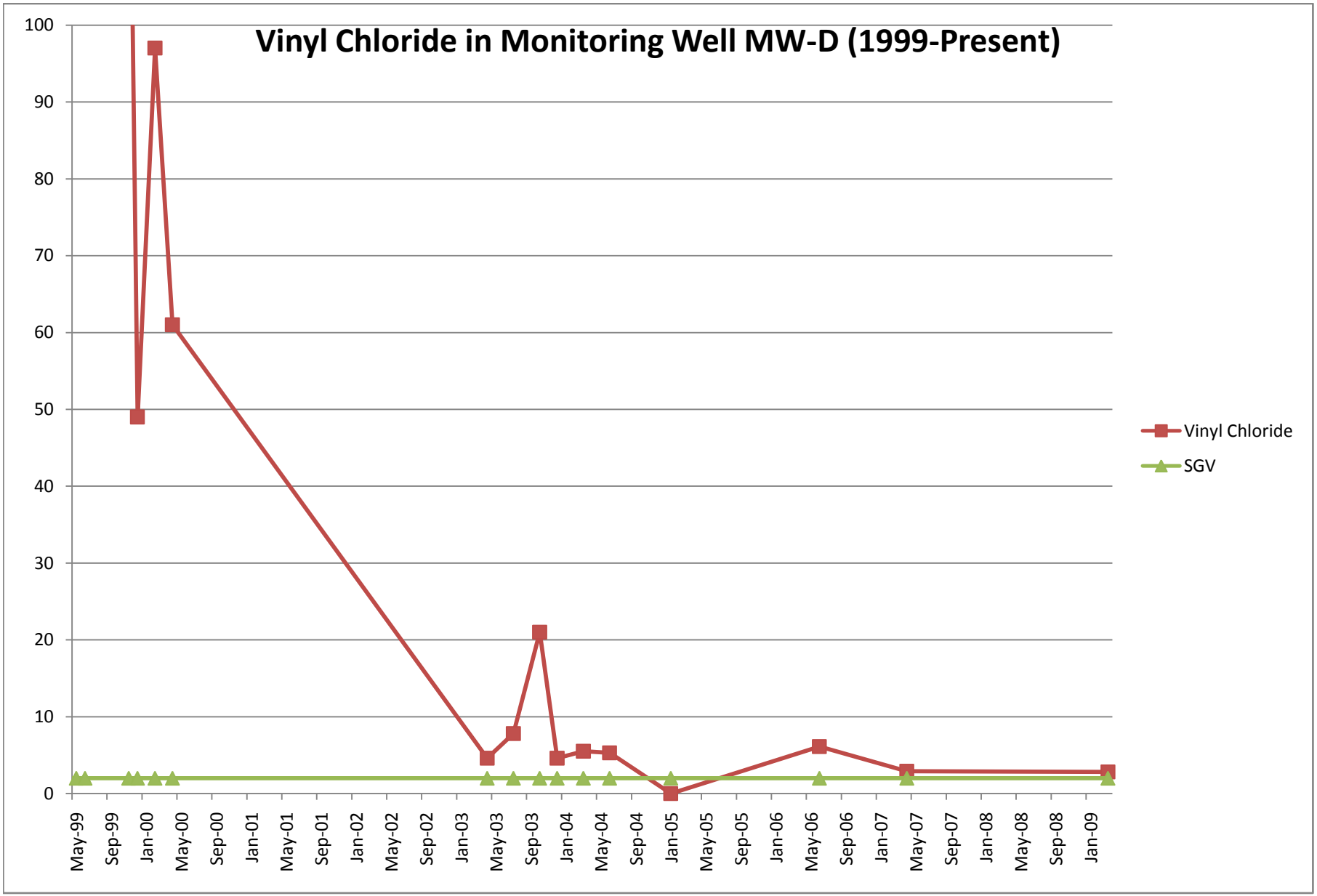
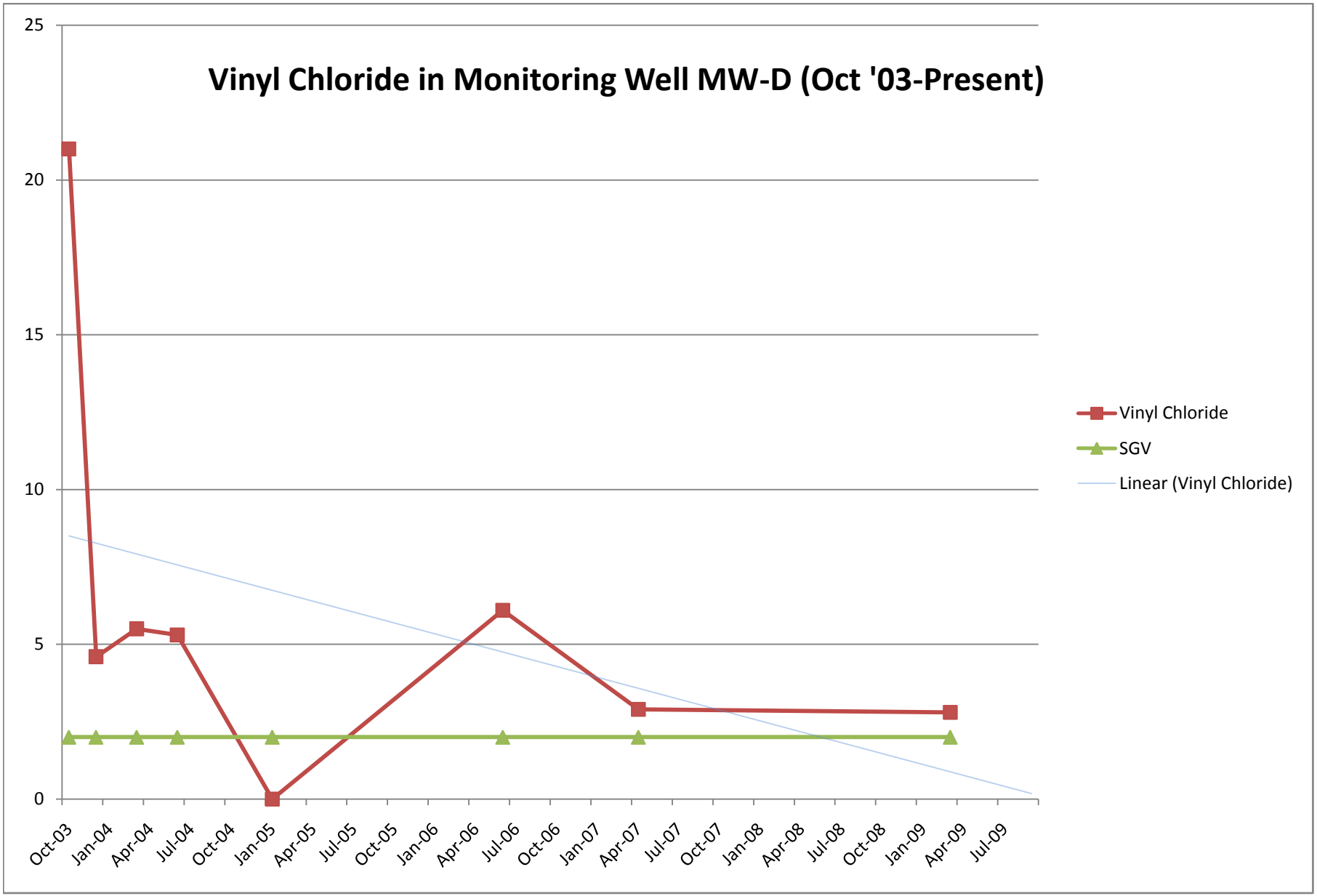
Appendix F

Vinyl Chloride Trend Chart for
Monitoring Well MW-D


Vinyl Chloride in Monitoring Well MW-D
4000
3500
3000
2500
2000
1500
1000
500
0
Aug-90
Mar-91
Oct-91
May-92
Dec-92
Jul-93
Feb-94
Sep-94
Apr-95
Nov-95
Jun-96
Jan-97
Aug-97
Mar-98
Oct-98
May-99
Dec-99
Jul-00
Feb-01
Sep-01
Apr-02
Nov-02
Jun-03
Jan-04
Aug-04
Mar-05
Oct-05
May-06
Dec-06
Jul-07
Feb-08
Sep-08
Vinyl Chloride
SGV


Vinyl Chloride in Monitoring Well MW-D (1999-Present)
100
90
80
70
60
50
40
30
20
10
0
May-99
Sep-99
Jan-00
May-00
Sep-00
Jan-01
May-01
Sep-01
Jan-02
May-02
Sep-02
Jan-03
May-03
Sep-03
Jan-04
May-04
Sep-04
Jan-05
May-05
Sep-05
Jan-06
May-06
Sep-06
Jan-07
May-07
Sep-07
Jan-08
May-08
Sep-08
Jan-09
Vinyl Chloride
SGV


Vinyl Chloride in Monitoring Well MW-D (Oct '03-Present)
25
20
15
10
5
0
Oct-03
Jan-04
Apr-04
Jul-04
Oct-04
Jan-05
Apr-05
Jul-05
Oct-05
Jan-06
Apr-06
Jul-06
Oct-06
Jan-07
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Apr-09
Jul-09
Vinyl Chloride
SGV
Linear (Vinyl Chloride)

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Appendix G

Data Usability Summary Reports

ON A SEPARATE CD