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Site Investigation Completion Report

Scott Aviation, Inc.
Lancaster, New York

Prepared for:

Tyco International (US), Inc.
3121 Butterfield Road
Oak Brook, IL 60523

Submitted by:

EARTH TECH

Amherst, New York

June 2003

University Corporate Centre, 100 Corporate Parkway, Suite 341, Amherst, New York 14226

June 20, 2003

Mr. Greg Sutton
New York State Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

RE: Scott Aviation Site, Lancaster, NY
NYSDEC Site ID 9-15-149
Site Investigation Completion Report

Dear Mr. Sutton:

Telephone
716.836.4506
Facsimile
716.834.8785

On behalf of Tyco International (US), Inc., and Scott Aviation, Earth Tech is pleased to submit the enclosed Site Investigation Completion Report for the Scott Aviation Site, Lancaster, NY. This document presents a summary of findings related to the February 2003 site investigation, and presents an evaluation and recommendation for remedial action to address residual site contaminants. Earth Tech has provided two copies of the report for you, and one copy of the report to each NYSDEC and NYSDOH person on the distribution list, below.

We look forward to continuing to work toward implementing the recommended remedial alternative for this site. Should you have any questions or require additional information, please do not hesitate to call me, or Mr. Doug Fisher (Earth Tech) at 630-574-2006.

Very truly yours,

Earth Tech, Inc.

James L. Kaczor

James L. Kaczor, P.G.
Senior Professional Geologist

Enclosures

cc: Mr. Andrew English (NYSDEC, Albany, NY)
Mr. Matt Forcucci (NYSDOH, Buffalo, NY)
Mr. Mark Van Valkenburg (NYSDOH, Troy, NY)
Ms. Kacey Fung (Tyco International (US), Oak Brook, IL)
Mr. Robert Clark (Scott Aviation, Lancaster, NY)
Mr. Doug Fisher (Earth Tech (Project Manager), Oak Brook, IL)
Amherst File

Site Investigation Completion Report

Scott Aviation, Inc.
225 Erie Street
Lancaster, NY 14086

NYSDEC Site ID No. 9-15-149

SCOTT®
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Prepared for:

Tyco International (US), Inc.
3121 Butterfield Road
Oak Brook, IL 60523

Prepared by:

Earth Tech, Inc.
100 Corporate Parkway, Suite 341
Amherst, NY 14226

June 18, 2003

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1.0 INTRODUCTION

This Site Investigation Completion Report has been prepared pursuant to the requirements of State of New York, Department of Environmental Conservation (NYSDEC), Order on Consent, Index No. B9-0377095-05, for the Scott Aviation property (formerly Figgie International), NYSDEC Site Code No. 9-15-149. The subject property is located at 225 Erie Street, Village of Lancaster, County of Erie, State of New York (Figure 1). The Scott Aviation Site was the subject of a Remedial Investigation/Feasibility Study (RI/FS) performed during 1992/1993, and a selected remedy was identified by Record of Decision (ROD), Scott Aviation Site, Village of Lancaster, Erie County, I.D. Number 9-125-149, signed into Declaration on November 7, 1994. The Remedial Action Objectives (RAOs) for soil and groundwater provided in the ROD are summarized below.

Remedial Action Objectives

VOCs	Soil RAO (ppm)	Groundwater RAO (ppb)
Chloroethane	1	5
1,1-Dichloroethane	1	5
1,2-Dichloroethene	1	5
1,1,1-Trichloroethane	1	5
Trichloroethene	1	5
Vinyl chloride	1	5
Ethylbenzene	1	5
Toluene	1	5
Xylenes	1	5
Total VOCs	10	NA

Notes: ppm – Parts per million
ppb – Parts per billion

The purpose of this Site Investigation Completion Report is to present the results of the field investigation conducted by Earth Tech, Inc. in February 2003 in compliance with the *Site Investigation Work Plan*, prepared by Earth Tech for Tyco International (US), Inc., dated December 31, 2002, approved by NYSDEC on January 16, 2003. This report summarizes the results of the investigation in the area of the existing groundwater collection trench, presents an evaluation of remedial action alternatives, and, based on this evaluation, provides a recommended remedial alternative for the Site.

1.1 SITE BACKGROUND AND HISTORY

A 3,000 gallon underground storage tank (UST) was previously located at the Site, located west of Plant No. 2. The UST was used to store waste oil and spent chlorinated solvents from the manufacturing process at the Site. During April 1991, Figgie International (predecessor to the current owner, Scott Aviation, a division of Scott Technologies, a Tyco International (US) company) removed the UST, and initiated an RI/FS in July 1992. In 1995/1996, additional soil excavation was completed west of Plant No. 2, and a groundwater recovery trench and associated treatment system were installed west of the soil excavation area. From 1996 to the present, Scott Aviation has performed quarterly groundwater monitoring and reporting.

The administrative Site history is described in more detail in Section 2.2 of the *Final Engineering Report/Post Construction Summary Report, Soil and Groundwater Remediation Project, Scott Aviation, Lancaster, New York* (O'Brien & Gere, July 1996), and Section I of *Site Investigation Report, Scott Aviation Plant 2 Site*, by Waster Resource Associates, August 2001. Appendix A of this report provides a historical summary of Site remediation efforts.

1.2 PHYSICAL SETTING

This section describes the physical setting at the Site including a description of overburden soils and the occurrence of shallow groundwater within the overburden. There are no bedrock groundwater monitoring wells currently installed at the Site.

1.2.1 Overburden Soils

The boring logs from previous investigations and the 2003 comprehensive Site investigation indicate that the primary soil type is reddish-brown silty clay with some sand and trace gravel. Asphalt and gravel was encountered at the surface at several sample locations. Underlying the silty clay is a saturated sand and gravel unit with some interstitial clay that exists directly above the shale bedrock surface. The saturated sand and gravel layer ranges in thickness from 2 to 6 feet, and was encountered at most subsurface sample locations. The overburden beneath the Site ranges in thickness from approximately 20 to 24 feet.

1.2.2 Overburden Groundwater

Based on the boring logs presented in the Final Engineering Report/Post Construction Summary Report, Soil and Groundwater Remediation Project, Scott Aviation, Lancaster, New York (O'Brien & Gere, July 1996), the original six monitoring wells (designated MW-1 through MW-6) are screened in the overburden. Background monitoring well MW-1 and on-Site well MW-5 have been destroyed and are no longer viable for groundwater monitoring. During the investigation conducted in 1999, four new overburden monitoring wells (designated MW-7, MW-8, MW-9 and MW-10) were installed.

The natural groundwater flow direction is primarily toward the west. However, during pumping of the groundwater collection trench there is an inward radial flow pattern toward the groundwater collection trench. The mean hydraulic conductivity measured in wells MW-1 through MW-6 ranges from 0.18 feet per day (ft/day) to 10.6 ft/day.

A detailed analysis of the Site groundwater has already been performed and is provided in Groundwater Monitoring Program (Analytical Testing Data Evaluation) [Waste Resource Associates, Inc., September 30, 2002].

2.0 SUMMARY OF COMPREHENSIVE SITE INVESTIGATION PROGRAM

This section provides an overview of Site Investigation activities including the aerial photograph evaluation, surface geophysical survey, Site survey, groundwater level measurements, soil sampling activities, the field screening and analytical testing programs, equipment decontamination procedures, and investigation-derived waste management.

2.1 AERIAL PHOTOGRAPH EVALUATION

Prior to mobilizing to the Site, a background search for historic aerial photographs for the Scott Aviation Site and vicinity was conducted. The purpose of the evaluation was to provide information about historic Site activities at the Site or surrounding areas that may have been a potential source of environmental impacts.

An Environmental Data Resources, Inc. (EDR) Report was obtained that provided aerial photographs spanning the pre-development of the Scott Plant No. 2 through 1995. Aerial photographs provided in the EDR Report were taken in 1958, 1966, 1978, 1981, and 1995. The EDR Report and copies of the historic aerial photographs are included as Appendix B. Each photograph was enlarged and evaluated using stereoscopic analysis techniques.

The 1958 aerial photograph shows the Plant No. 1 location and associated parking area north of Plant No. 1. The 1958 aerial photograph shows the presence of a surface water drainage feature within the future Plant No. 2 footprint. The 1966 aerial photograph shows that Plant No. 2 has been constructed north of Plant No. 1 and an area north of Plant No. 2 has been cleared of vegetation. Also noted in the 1966 aerial photograph is the presence of unknown materials staged along the western Scott Aviation property boundary. The surface water drainage feature identified in the 1958 aerial photograph appears to have been backfilled and graded. The 1978 aerial photograph shows both Plant No. 1 and Plant No. 2 and the presence of an unknown square surface feature near the southeast corner of Plant No. 2. The 1981 aerial photograph indicates that the formerly cleared area north of Plant No. 2 has partially re-vegetated, and that two small buildings along with unknown materials or equipment are staged along the eastern edge of the adjacent Quick Cut Rubber Gasket Company property located west of Plant No. 2. There also appears to be an unpaved access road from Plant No. 2 to the cleared area located north of the plant. The 1995 aerial photograph shows two small oval features located directly north and northwest of Plant No. 2. Several large pieces of materials or equipment were also noted along the eastern edge of the adjacent Quick Cut Rubber Gasket Company property located west of Plant No. 2. Based upon the evaluation, there were no potential definitive sources of environmental impacts identified in the photographs.

2.2 GEOPHYSICAL SURVEY

Prior to the subsurface investigation, a non-intrusive surface geophysical survey was performed on the adjacent Quick Cut Rubber Gasket Company property to supplement the utility clearance survey and evaluate the potential presence of USTs or other buried metallic anomalies unknown to the current property owner. The geophysical survey was conducted by GeoMatrix Consultants, Inc., located in Buffalo, New York, and consisted of an electromagnetic survey conducted over an area west of the existing groundwater recovery trench in the vicinity of monitoring wells MW-4, MW-6, and MW-10. A Geonics® EM61 Time Domain Electromagnetic (TDEM) metal detector was used during the survey. Geophysical data obtained from the investigation did not indicate the presence of buried USTs. However, five low amplitude subsurface anomalies (designated A through E) and one potential linear subsurface anomaly were identified in the central portion of the Quick Cut Rubber Gasket Company facility parking lot that may be associated with minor amounts of buried metal. A detailed description of the geophysical survey and results, and a map illustrating the subsurface anomalies is provided in Appendix C.

2.3 SURVEY CONTROL

A temporary benchmark was established on-Site to provide a baseline for the DPT sampling grid. Figure 2 displays the DPT boring grid and the location of the on-Site benchmark. The grid system was set at 25-feet spacings and was used to determine approximate locations for DPT borings.

Earth Tech re-surveyed all wells to verify the prior survey data. The new survey was tied into the Site-specific survey control and included surveying horizontal locations to the nearest 0.1-foot, and vertical elevations for the top of the inner well casing and ground surface to the nearest 0.01 foot.

2.4 GROUNDWATER ELEVATION MONITORING

Groundwater elevation measurements were collected from existing wells MW-2, MW-3, MW-4, MW-6 through MW-10, and the groundwater recovery trench wet well over a period of eight days for a total of 12 rounds. The measurements were taken to the nearest 0.01-foot referenced to the marked location on each inner well casing. A complete round of water levels was collected in one continuous event at the start of the Site investigation, with the groundwater recovery trench operating. After concurrence with the NYSDEC, the groundwater recovery trench was temporarily shut down on February 24, 2003 at 13:30 hours. The groundwater recovery trench system was reactivated on March 1, 2003 at 08:00 hours. Groundwater data was collected before, during, and after the groundwater recovery trench wet well was shut down to evaluate the effect of the trench on groundwater flow patterns during pump operation. Figure 3 depicts groundwater surface contours with the groundwater recovery trench pumping, and Figure 4 depicts groundwater surface contours with the groundwater recovery trench wet well off. A review of recent groundwater monitoring data also indicates the presence of an apparent weathered petroleum

component in the area of MW-4, MW-7 and MW-8. During this investigation, floating product was observed in MW-8 only.

2.5 DIRECT PUSH TECHNOLOGY SURFACE AND SUBSURFACE SOIL SAMPLING

A total of 21 DPT borings were advanced February 24, 2003 through February 28, 2003 on, and adjacent to, the Scott Aviation Site to further assess the extent of impacted soils west of Plant No. 2.Surface and subsurface soil sampling was conducted in accordance with ASTM Method D6282-98 (Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations). DPT borings were advanced from ground surface to refusal using DPT sampling equipment. Soil samples were described by visual examination in accordance with ASTM D2487 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System). Lithologic descriptions are included in the Field Log Book (Appendix D).

Figure 2 illustrates DPT soil sample locations and Table 1 provides a summary of DPT sampling information. The location and number of borings were determined based on pre-existing data gaps, and were further refined in the field by real time portable field gas chromatograph (a.k.a., field GC) data. Four DPT borings (designated (B3, B7, C1, and D2) required at least two off-set borings to reach the target depth due to refusal at shallower depths. A total of 166 soil samples were collected for lithologic classification, PID and field GC screening, and potential laboratory analysis. Select samples were also analyzed for total petroleum hydrocarbons (TPH) by Method 310.13 and Total Organic Carbon (TOC) by the Kahn Method.

2.6 FIELD SCREENING

Each soil sample was evaluated for visual or olfactory evidence of contamination. Each sample was also screened with a PID to obtain a quantitative estimate of VOCs or petroleum hydrocarbons in soil. After sample collection, field screening samples were placed in a cooler filled with wet ice and chilled to approximately four degrees centigrade in accordance with the QAPP.

Each soil sample was tested in the field using a portable GC standardized for the Site-specific target compounds including PCE, TCE, trans-1,2-DCE, cis-1,2-DCE, and vinyl chloride. A typical reporting limit for these compounds is 0.1 ppm. The detection limits varied based on the presence of other compounds in the sample. Analytical laboratory confirmation was completed for approximately 10% of the samples screened with the field GC. This frequency was sufficient to verify that the field screening data generated by the field GC is reliable for use to evaluate the nature and extent of Site-related contaminants.

Table 2 provides a summary of field GC analytical results for Tetrachloroethene (PCE), TCE, cis-1,2-dichlorothene (cis-1,2-DCE), trans-1,2-dichlorothene (trans-1,2-DCE), vinyl chloride, and total VOCs.

2.7 ANALYTICAL LABORATORY TESTING

The purpose of analytical laboratory testing was to verify the accuracy of the field GC screening data. Soil samples selected for analytical laboratory testing were based on visual observations, PID and field GC results, and the sample location relative to potential source areas. The Earth Tech geologist and chemist discussed the field screening data prior to the selection of samples for laboratory testing.

A total of sixteen (16) confirmation samples were submitted to a fixed analytical laboratory for the analysis of VOCs by EPA SW846 Method 8260B for comparison to field-screening results. A total of 7 soil samples and one groundwater sample were submitted for TPH analysis using Method 310.13. Four soil samples were also submitted for TOC analysis using the Kahn Method. Appendix E includes Chain-of-Custody records and analytical laboratory certificates of analysis. Table 3 provides a summary of VOC results (detects only) from soil samples submitted to the analytical laboratory and Table 4 provides a comparison of field GC results to the analytical laboratory results. Table 5 includes a summary of TPH results and Table 6 includes a summary of TOC results.

2.8 QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

A New York State Department of Health (NYSDOH) Environmental Laboratory Analytical Program (ELAP) certified lab was selected to perform the third party analyses. Field QA/QC samples included blind duplicate, rinse blanks and matrix spike/matrix spike duplicates. Table 7 summarizes QA/QC results.

2.9 GEOTECHNICAL TESTING

A limited number of soil samples were selected for geotechnical testing. These analyses included particle size distribution (grain size and hydrometer), liquid and plastic limits, and remolded permeability. The purpose of the geotechnical testing program was to characterize soil characteristics and obtain geotechnical information that may be used to evaluate remedial alternatives for soil and groundwater. Geotechnical soil samples were collected from zones representative of subsurface materials encountered in the overburden at the Site including man-made fill, sandy silt, silty clay and gravelly clay.

Geotechnical soil samples were handled in accordance with the QAPP. Representative soil samples were selected from zones that did not exhibit contamination based on field screening data. However, the geotechnical laboratory was advised that the samples should be considered contaminated. The selected geotechnical laboratory was required to demonstrate adequate operational and health and safety protocols to accept the Scott Aviation Site samples. Adequate demonstration is defined as a letter acknowledging the laboratories capabilities for handling hazardous samples, along with an SOP for handling hazardous samples.

2.10 TEMPORARY PIEZOMETER INSTALLATION

One temporary piezometer (designated PZ-E2) was installed southeast of the groundwater collection trench to further assess groundwater hydraulics in that area. The piezometer was constructed of 1-inch polyvinyl chloride with a 10-foot screen. It was determined after installation that the construction integrity of PZ-E2 was inadequate for use as a water level monitoring point.

2.11 EQUIPMENT DECONTAMINATION AND HANDLING OF INVESTIGATION DERIVED WASTE (IDW)

IDW generated during the investigation included soils, equipment decontamination fluids, personal protective equipment (PPE), and acetate sleeves used during soil sampling. Personal protective equipment, disposable sampling equipment, and soils were placed in dedicated 55-gallon drums and stored on-Site for future disposal. Drums were placed in a secure, contained area, labeled with the contents and date of generation. IDW disposal is currently scheduled to occur concurrent with the overall remedial effort for the Site.

3.0 SITE INVESTIGATION RESULTS

3.1 GEOLOGY

Subsurface materials encountered during the comprehensive Site investigation were primarily comprised of reddish-brown silty clay with varying amounts of interstitial silt, sand and gravel. A thin veneer of asphalt, gravel and sand/silt was encountered at the surface at several DPT sample locations. Coarser-grained lenses were encountered intermittently within the silty clay. Underlying the silty clay is a saturated sand and gravel unit with some interstitial clay that exists directly above the shale bedrock surface. The saturated sand and gravel layer ranges in thickness from 2 to 6 feet. Underlying the overburden soil is a shale bedrock; the bedrock was not penetrated during this investigation. A weathered shale was observed at MW-6 directly above the bedrock surface. The overburden ranges in thickness from approximately 20 to 24 feet. Figures 5 and 6 illustrate the subsurface materials beneath the Site.

Particle size distribution data indicates that grain size increases with depth within the overburden soil. The percent clay ranges from 6.2 to 50.7; percent silt ranges from 28.7 to 55.5; percent sand ranges from 0.9 to 38.6; and percent gravel ranges from 0 to 26.5. Liquid limit values are 24.7 and 32.3, and plastic limit values are 14.0 and 16.9. Average remolded permeabilities are very low with values of 1.0E 10^{-8} cm/sec and 2.1E 10^{-8} cm/sec. These permeability values are typical of a tight silt and clay, but are not representative of permeability values of sand or gravel.

3.2 HYDROGEOLOGY

Table 8 includes a summary of groundwater elevations measured during the Site investigation. Figure 3 depicts groundwater surface contours with the groundwater recovery trench pumping and Figure 4 depicts groundwater surface contours with the groundwater recovery trench wet well turned off. The water levels measured in MW-7 were not used to create groundwater surface contours due to anomalously high water level elevations. The water levels measured in MW-8 were used to create groundwater surface contours; however due to the presence of floating free product the data is considered speculative. Based on the limited number of groundwater monitoring wells and their spatial distribution across the Site, the anomalous water level readings in MW-7, the presence of floating free product in MW-8, and the operation of the groundwater recovery trench, the surface contours depicted on Figures 3 and 4 are considered approximate.

Based on water level data collected during the Site investigation, the natural overburden groundwater flow direction beneath the Site is primarily toward the west. During pumping of the groundwater recovery trench, groundwater levels drop up to approximately 5 feet in the vicinity of the recovery trench. Graphs 1 through 9 illustrate the groundwater elevations measured in monitoring wells and the wet well during the investigation. There are currently not enough water level monitoring points (i.e., wells or piezometers) along the southeast perimeter of the recovery trench to accurately depict groundwater flow

conditions in that area. Groundwater data collected during the investigation was evaluated as part of the remedial alternatives analysis presented in Section 4.

3.3 OVERBURDEN SOIL QUALITY

Field GC data indicate that VOC concentrations in soil that exceeded RAO's (1 mg/kg) were detected in DPT borings B4, C3, D5, and E4 only. PCE and trans-1,2-DCE were not detected above the field GC instrument detection limit in any soil sample analyzed during the investigation. TCE was detected above RAO's in DPT borings B4, C3, and D5 at concentrations ranging from 1.01 to 72.08 ppm. Cis-1,2-DCE was also detected above RAO's in DPT borings B4, C3, and D5 at concentrations ranging from 1.54 to 16.07 ppm. Vinyl chloride was detected above RAO's in borings B4, C3, D5, and E4 at concentrations ranging from 1.01 to 4.43 ppm.

In DPT boring B4, elevated concentrations of VOCs were primarily limited to the 10 to 22 foot depth interval. Soils within this depth interval are comprised of silty clay with varying amounts of interstitial sand; a fine sand layer was encountered at the 12 to 12.5 foot depth interval. In DPT boring C3, elevated concentrations of VOCs were primarily limited to the 10 to 18 foot depth interval. Soils within this depth interval are comprised of silty clay and visual staining was observed in the 13.5 to 18 foot depth interval. The highest concentrations of VOCs in DPT boring D5 are limited to the 22 to 24 foot depth interval. Soils within this depth interval are saturated and comprised of fine to coarse-grained sand with gravel. The occurrence of VOCs within this depth interval are likely related to VOCs in groundwater.

With the exception of vinyl chloride, analytical laboratory data are generally consistent with field GC data and confirm the presence of VOCs in soils. Field GC results for vinyl chloride less than 1 ppm are considered estimated due to poor peak resolution on the chromatogram. The relative percent difference (RPD) for vinyl chloride ranges from 145 to 176 indicating that field GC data are biased high. Consequently, the reporting of vinyl chloride based on field GC data are not considered representative.

Although TCE exhibited the highest concentrations of VOCs detected in soils, the degradation compounds cis-1,2-DCE and vinyl chloride are more widely distributed in overburden soils. The presence of degradation products cis-1,2-DCE and vinyl chloride at concentrations comparable to TCE indicates that natural attenuation via reductive dechlorination is occurring at the Site. Based upon the distribution of VOCs in soil determined using field GC data collected during this investigation, the extent of VOCs in soil west of the groundwater collection trench have been sufficiently delineated. The occurrence of VOCs in DPT boring D5 indicates that residual VOCs are present in soil in the 18-24 foot depth directly east of the groundwater collection trench within the soil excavation footprint. The occurrence of VOCs at this location may be due in part by the operation of the groundwater collection trench and are likely related to VOCs in groundwater. Vinyl chloride was detected at a concentration of 1.01 ppm within the 18-20 foot depth interval at DPT boring E4. Although this concentration slightly

exceeds the RAO of 1.0 ppm, the RPD's for vinyl chloride are elevated, the data are biased high, and the occurrence of vinyl chloride in this soil sample may not be representative of actual Site conditions.

A total of 7 soil samples were submitted to the analytical laboratory for TPH analysis. Soil samples C3-10-12 and D5-20-22 contained TPH at concentrations of 480 and 960 ppm, respectively. TPH was not detected in any other sample submitted for analysis. Four soil samples were also analyzed for TOC; concentrations ranged form 7,990 to 19,300 ppm.

3.4 OVERBURDEN GROUNDWATER QUALITY

Although Earth Tech did not collect groundwater samples as a part of the February 2003 site investigation, a background record search of Scott Aviation's groundwater monitoring data (performed by others) was conducted. Figures 7, 8, and 9 illustrate isoconcentration contours of TCE, cis-1,2-DCE, and vinyl chloride collected in January 2001. TCE, cis-1,2-DCE, and vinyl chloride are the most widely distributed VOCs detected in groundwater at the Site. Other VOCs were detected in groundwater, but typically in wells where TCE, cis-1,2-DCE, and vinyl chloride are present. Similar to soils, the presence of degradation products cis-1,2-DCE and vinyl chloride in groundwater indicates that natural attenuation via reductive dechlorination is occurring at the Site. In January 2001, concentrations of TCE ranged from non-detect to 280,000 ppb; concentrations of cis-1,2-DCE ranged from non-detect to 22,000 ppb; and concentrations of vinyl chloride ranged from non-detect to 2,700 ppb. In January 2001, the extent of TCE was sufficiently delineated along the southwest perimeter of the Site only. The extent of cis-1,2-DCE and vinyl chloride were sufficiently delineated along the southwest and northeast perimeter of the Site. As the figures illustrate, the highest concentrations of these compounds were detected in monitoring well MW-8 located directly west of the groundwater recovery trench. MW-8 has also historically contained measurable amounts of floating free product.

Figures 10, 11, and 12 illustrate isoconcentration contours of TCE, cis-1,2-DCE, and vinyl chloride in groundwater collected in July 2002, respectively. Concentrations of TCE ranged from non-detect to 2,000,000 ppb; concentrations of cis-1,2-DCE ranged from non-detect to 91,000 ppb; and concentrations of vinyl chloride ranged from non-detect to 16,000 ppb. In July 2002, concentrations of TCE were elevated relative to January 2001; however, the extent of TCE was sufficiently delineated along the western, northern, and northeastern perimeter of the Site. Similar to TCE, concentrations of cis-1,2-DCE and vinyl chloride were also elevated relative to January 2001 and the extent of cis-1,2-DCE and vinyl chloride were sufficiently delineated along the western, northern, and northeastern perimeter of the Site. The highest concentrations of these compounds were again detected in monitoring well MW-8.

Figures 13, and 14 illustrate isoconcentration contours of TCE and vinyl chloride in groundwater collected in April 2003, respectively. Cis-1,2-DCE was not reported by the analytical laboratory, therefore, results are not provided in this report. Concentrations of TCE and vinyl chloride dropped significantly since July 2002; TCE concentrations ranged from non-detect to 40,600 ppb, and vinyl

chloride concentrations ranged from non-detect to 6,290 ppb. Similar to January 2001 and July 2002, the highest concentrations of VOCs were detected in monitoring well MW-8.

During the Site investigation, Earth Tech collected one groundwater sample from monitoring well MW-8 for TPH analysis due to the presence of floating free product. TPH was detected in the sample collected from MW-8 at a concentration of 10,600 ppm. This result is considered biased due to the presence of floating free product.

4.0 REMEDIAL ALTERNATIVES ANALYSIS

Other remedial alternatives are evaluated below because the existing trench recovery system has not achieved the RAOs since start-up in 1996. Based on the Site investigation data presented in Section 3, the conceptual site model (CSM) of residual contamination is:

- The overburden silt/clay formation has extremely low permeability (10^{-8} cm/sec).
- The depth to groundwater under pumping conditions is approximately 17 feet bgs (elevation 670 feet).
- The chlorinated VOCs TCE, cis-1,2-DCE and vinyl chloride are the main Site contaminants.
- The highest concentrations of chlorinated VOCs (CVOCs) were observed at DPT locations B4 and C3 at depths of 14 to 18 feet bgs within the silt/clay formation, which is at or slightly above the pumped groundwater surface.
- The existing extraction system has exposed the capillary fringe in the source area near B4 and C3 but may also be pulling contamination deeper towards the underlying sand and gravel layer.
- Floating free product (a.k.a., Light Non-Aqueous Phase Liquid or LNAPL) remains in the vicinity of wells MW-8 and MW-4.
- The maximum historical concentration of TCE was 2,000 mg/l in July 2002. This concentration exceeds the solubility limit (1,470 mg/l), suggesting that the TCE is within the LNAPL. The former waste solvent tank reportedly received both chlorinated and non-chlorinated solvents.
- The current (April 2003) maximum TCE concentration is 440 mg/l, which is 30 percent of the aqueous solubility limit. This concentration is indicative of free product, but there does not appear to be downward migration of TCE beyond 20 ft bgs, suggesting retention within the low permeability silt/clay formation.
- Cis-1,2-DCE and vinyl chloride are indicative of naturally occurring reductive dechlorination of TCE. Non-chlorinated organics in subsurface soils and groundwater may be the source of electron donors for this reaction.

The evaluation of remedial alternatives is based on this CSM and the physical/chemical properties of TCE, cis-1,2-DCE and vinyl chloride.

4.1 LIGHT NON-AQUEOUS PHASE LIQUID

The light Non-Aqueous Phase Liquid (LNAPL) on the west side of the property is a likely source of CVOCs based on solubility comparisons and vertical contaminant distribution. LNAPL removal is a precursor to all groundwater treatment alternatives described below to eliminate the potential for source contributions and to reduce the chance for contaminant recharge due to fluctuations in groundwater

levels. The relatively confined location of LNAPL would allow for LNAPL removal using a mobile vacuum truck. A vacuum would be applied to the wells containing floating free product and this product would be deposited into the vehicle's storage vessel. Once the vacuum truck has removed the majority of floating free product, residual LNAPL may be removed using peristaltic pumps or absorbent socks. Removal of the LNAPL should significantly reduce concentrations in groundwater. With the water table lowered due to pumping, CVOCs in the vadose zone can also be removed by vacuum extraction. The recommended approach is to apply vacuum using a mobile vacuum truck at existing wells MW-4 and MW-8 and evaluate the removal of floating free product and water while measuring vacuum levels in surrounding wells to determine a radius of influence. Shallow piezometers may be required for the vacuum measurements due to the distance to existing wells.

Once the source concentrations in the LNAPL and vadose soils are reduced, residual concentrations can be addressed by more long-term technologies. To the greatest extent possible, the existing groundwater recovery trench and components associated with the existing treatment system would be incorporated into future design applications. All or a portion of the components currently in use may be utilized to assist in restoring Site conditions through incorporation into a new remediation system or by taking advantage of the current system's groundwater containment performance characteristics. Based on available soil boring information and subsurface survey data, the Site geology and lithology appears to be quite heterogeneous. All remediation system equipment, delivery conduit, frequency and location of injection or extraction points will be positioned, installed, and screened in a configuration that will avoid, utilize, or compensate for subsurface lithostratigraphy, as appropriate.

4.2 GROUNDWATER REMEDIATION TECHNOLOGIES

The following is a brief description of the groundwater remediation technologies evaluated for potential implementation at the Scott Aviation Site. The technologies identified in this section were selected based on current Site-related information. Additional data may be necessary for the design of the selected remedial system.

4.2.1 Alternative G1 – In Situ Chemical Oxidation

In Situ Chemical Oxidation (ISCO) is the process of introducing oxidants into the subsurface to destroy contaminants. ISCO has been successfully implemented at sites with similar contaminants and similar lithology. The most common oxidants used in this type of application are hydrogen peroxide, potassium permanganate, and ozone. Typically, hydrogen peroxide and potassium permanganate are pumped as liquids or slurries while ozone is pumped in a gaseous state. The volume and chemical composition of Site-specific oxidant treatments are based on contaminant concentration levels, subsurface characteristics, and Site-related geochemistry. The oxidant is typically injected into the subsurface through vertical or horizontal treatment wells at controlled, timed intervals. Once the oxidant destroys Site-related contaminants, only inert compounds such as carbon dioxide and water remain.

If vertical treatment wells are selected for delivery of oxidants, the treatment systems typically include the construction of an injection-well grid system. Injection wells or points are usually installed in a grid pattern with equidistant spacing between points and include screened intervals at the bottoms of each point. Injection points can be positioned immediately above the contaminant plume or slightly off center to compensate for groundwater flow gradients. If horizontal treatment wells are selected for delivery of oxidants, the wells are typically positioned through or below the contaminant plume. The application rate of oxidants and location of and spacing between injection points is usually determined using vendor-supplied computer software. Other factors that are considered when evaluating injection point spacing include soil permeability, subsurface geological characteristics, and groundwater flow velocity. Injection point spacing is selected to ensure overlapping radii of influence between points thereby sufficiently distributing oxidant across the entire contaminant plume. Oxidant applications may be accomplished using active delivery systems with the aid of electrical and mechanical components such as pumps and meters or more passive delivery systems using time-release, sock-like packs that are inserted into treatment wells. Oxidant chemicals are readily available from commercial suppliers and the appropriate delivery system components can be assembled and/or installed relatively easily using traditional construction techniques. Additional information associated with Alternative G1 is presented in Table 9.

4.2.2 Alternative G2 – Dual Phase Extraction

Dual Phase Extraction (DPE) is an in-situ technology that uses pumps to remove groundwater and vapors from vadose zone soils. Extracted liquids are routed through treatment systems and either reinjected into the aquifer or pipe-routed to a local publicly owned treatment works (POTW) facility. Vapors are also collected and routed through treatment systems and eventually released into the atmosphere. DPE systems are effective in removing floating free product (LNAPL) from the subsurface, thereby reducing contaminant concentrations in both the saturated and unsaturated zones of the subsurface. DPE systems are typically designed to maximize vapor extraction rates and can thereby stimulate biodegradation and/or stripping of constituents from the unsaturated zone through increased oxygenation and airflow.

DPE systems utilize a high vacuum extraction well or system of wells with screened intervals located within the contaminated soils and groundwater zone. DPE systems are designed to lower the water table through pumping efforts and the unsaturated soil above the water table, referred to as the capillary fringe, becomes exposed. The capillary fringe area holds undissolved chemicals, those that are lighter than water, which, once exposed due to groundwater drawdown, can be removed through vapor extraction. Once above ground, the extracted vapors and groundwater are separated and treated. DPE systems can be implemented using vertical or horizontal extraction wells. Vertical extraction wells would be installed using conventional drilling techniques and horizontal extraction wells and transfer piping would be installed using conventional trenching methods and materials. DPE system mechanical and electrical components, along with appropriate filtration devices are typically available in self-contained, mobile

treatment trailers or skid-mounted units. DPE systems are relatively easily assembled, initiated, and operated. Additional information associated with Alternative G2 is presented in Table 9.

4.2.3 Alternative G3 – Air Sparge with Soil Vapor Extraction

Air Sparge (AS) involves the injection of air into an aquifer for the purpose of stripping contaminants from the groundwater and saturated soil matrix. Air is forced into the aquifer by means of a blower through an AS well. Air is forced down the AS well through the well screen and is released into the aquifer. Contaminants dissolved in the groundwater and adsorbed onto soil particles are typically volatilized into the gas phase and transported from the saturated zone to the vadose zone with air bubbles or pockets. A secondary benefit of the AS process is oxygenation of the aquifer and vadose zone, which can stimulate microbial activity and subsequent contaminant degradation. AS wells are typically installed in a grid pattern with equidistant spacing between points. Spacing between wells is determined based on an estimated radius of influence (ROI). The ROI is the areal extent that one well can impact at a given flowrate and is dependent upon characteristics such as soil permeability, local geologic formations, and headlosses in the delivery system piping.

A vapor collection system called soil vapor extraction (SVE) is used in conjunction with the AS system. The SVE system collects vapors that migrate up through the vadose zone as a result of the AS process. The SVE system physically removes volatile organic compounds from vadose zone soils by inducing airflow through the soil matrix. The flowing air strips volatile compounds from the solids and carries them to extraction wells. The contaminants removed by way of the SVE system are routed to a vapor treatment system and eventually released into the atmosphere.

AS/SVE systems are typically implemented using vertical AS wells and horizontal SVE wells although variations to this conventional approach are not uncommon (i.e. using horizontal AS wells versus vertical ones). Vertical AS wells would be installed using conventional drilling techniques and horizontal SVE wells and transfer piping would be installed using conventional trenching methods and materials. AS/SVE system mechanical and electrical components, along with appropriate filtration devices are typically available in self-contained, mobile treatment trailers or skid-mounted units. Additional self-sufficient filtration devices, such as a catalytic oxidizer, may be required if the contaminant mass of the extracted vapors exceeds regulatory levels for untreated release into the atmosphere. AS/SVE systems are relatively easily assembled, initiated, and operated. Additional information associated with Alternative G3 is presented in Table 9.

4.2.4 Alternative G4 – Pump and Treat

Pump and Treat is a widely used groundwater remediation technology. Typically, contaminated groundwater is pumped to the surface using submersible pumps installed in either horizontal or vertical extraction wells. The extracted groundwater may be cycled through a treatment system, such as an air

stripper, and reinjected into the subsurface or pipe-routed to a local POTW facility. Pump and Treat systems can be used as a means of hydraulic containment in situations where source contamination has not been identified or where excessive migration is occurring.

Construction of Pump and Treat systems is relatively easy. Vertical extraction wells would be installed using conventional drilling techniques and horizontal transfer piping would be installed using conventional trenching methods and materials. PVC piping and flow control fittings would be sized appropriately to manage a predetermined extraction flowrate. Extraction flowrates may be determined using computer simulation modeling, engineering headloss calculations, or a combination of the two. Extraction wells would be installed to a depth that would allow the screened portion to continuously bound the water table even during fluctuations due to rain events. Treatment systems may be skid mounted or trailer mounted and require little area for assembly or set up. Items that may impact the performance of a Pump and Treat system include but are not limited to heterogeneity of the Site's hydrogeologic setting and low permeability of the soil matrix. These Site-specific characteristics may cause preferential flow pathways that could impact the system efficiency. By strategically locating the system's extraction wells through evaluation of available boring and survey information, unfavorable geologic formations could be avoided to minimize the effects of subsurface impediments. Additional information associated with Alternative G4 is presented in Table 9.

4.2.5 Alternative G5 - Reductive Dechlorination

Reductive dechlorination is the chemical process of using a chlorinated contaminant as an electron acceptor resulting in the replacement of a chlorine atom with a hydrogen atom. Reductive dechlorination is primarily dependent upon the presence of reducing conditions and electron donors. Reductive dechlorination processes involve naturally occurring bacteria gaining energy and nutrients for cell metabolism by removing chlorine atoms from contaminants and replacing them with hydrogen. Organic substrates are introduced as hydrogen sources and may include acetate, glucose, or lactate. Organic substrates may be delivered to the subsurface using vertical wells or be injected directly into the aquifer matrix. Vertical delivery wells would be installed using direct push technology and spaced at a predetermined locations and depth intervals. The organic substrate is then injected at a predetermined rate using mobile pumps. This type of system is easily constructed and the equipment and substrate associated with the technology is readily available. This technology would likely be used as a polishing system in conjunction with or after the implementation of a more aggressive technology such as DPE to address residual contaminants. Additional information associated with Alternative G5 is presented in Table 9.

4.3 RECOMMENDED GROUNDWATER REMEDIATION TECHNOLOGIES

Based on current Site conditions (i.e. exposed capillary fringe due to suppressed water table), the existence of on-Site equipment that may be incorporated into supplemental system design, and relatively

small areal extent of contamination, the recommended alternatives are Alternative 2 – DPE with Alternative G5 – Reductive Dechlorination as a polishing system. Earth Tech has extensive experience in designing, implementing, operating, and maintaining these types of systems. A DPE system would be constructed by installing vertical vacuum wells into the subsurface. The vertical vacuum wells would be installed at varying depths and spacing intervals to sufficiently cover the target contamination area. Each vertical vacuum well will be fitted with screened sections of piping for extraction of vapor and liquids.

The DPE system will be designed to extract vapors from the capillary zone, but as a contingency if the water table rises, the DPE system will be able to operate at or below the water table. A trailer-mounted system will likely be employed and its major components will include:

- a 2-stage, oil sealed, liquid ring vacuum pump,
- a liquid knock-out tank
- an oil-water separator,
- transfer pumps to pump liquid into holding tanks.

The DPE system will capture volatile vapors from soils within the unsaturated zone within the system's area of influence. Vapor phase carbon may be used to treat the DPE system off-gas emissions. The DPE system will be equipped with a relatively simple control panel and control process. The control panel will include DPE blower run time indicators, blower ammeter, main power on/off switch and indicator lamp, and DPE blower high vacuum indicator lamp. Additionally, the control panel will contain digital counters, which will indicate the number of power failures and on/off cycles of the air/water separator transfer pump. The system(s) will have an autodialer to inform the operator of system failure. Treatment system fail-safes will include shut down of the DPE blower in the event high and low vacuum levels and high water level conditions in the air/water separator system or storage vessel.

Vertical vacuum wells would be installed using conventional drilling techniques or direct push technology and horizontal transfer piping would be installed using conventional trenching methods and materials. A common piping system manifold with the necessary valves used to isolate each vacuum well will connect all vacuum wells and will allow for discrete system adjustments. All construction materials will be chemical resistant and suited for the appropriate system pressures.

Alternative G5 would be implemented to address residual contamination if necessary. It should be noted that an Underground Injection Control (UIC) permit might be required from the New York State Department of Environmental Conservation to inject organic substrate into the aquifer. This type of administrative procedure is common and should not be unobtainable. The vertical delivery wells will be installed and screened at varying depths to provide adequate coverage and interlocking zones of influence. The number of delivery wells and the substrate application rate and frequency would be determined upon completion of the DPE system operation. Alternatives G2 and G5 were selected

because the technologies are industry-proven alternatives that have been demonstrated to successfully restore impacted groundwater at sites with similar contaminants.

5.0 SUMMARY AND CONCLUSIONS

Results of the comprehensive Site investigation activities are summarized below:

- Overburden soils range in thickness from approximately 20 to 24 feet and are primarily comprised of reddish-brown silty clay with varying amounts of interstitial silt, sand and gravel. Coarser-grained lenses were encountered intermittently within the silty clay. Underlying the silty clay is a saturated sand and gravel unit with some interstitial clay that exists directly above the shale bedrock surface. The saturated sand and gravel layer ranges in thickness from 2 to 6 feet. Underlying the overburden soil is slate bedrock, partially weathered in some areas.
- The natural overburden groundwater flow direction beneath the Site is primarily toward the west. During pumping of the groundwater recovery trench, groundwater levels drop up to approximately 5 feet in the vicinity of the recovery trench.
- VOC concentrations in soil exceed 1 mg/kg in 4 of 21 DPT borings. TCE was detected at concentrations ranging from 1.01 to 72.08 ppm. Cis-1,2-DCE was detected at concentrations ranging from 1.54 to 16.07 ppm. Vinyl chloride was detected at concentrations ranging from 1.01 to 4.43 ppm.
- Analytical laboratory data are generally consistent with field GC data and confirm the presence of VOCs in soils with the exception of vinyl chloride,. Field GC results for vinyl chloride were determined to be biased high.
- TCE exhibited the highest concentration detected in soil samples. Degradation compounds cis-1,2-DCE and vinyl chloride are more widely distributed in overburden soils. The presence of degradation products cis-1,2-DCE and vinyl chloride at concentrations comparable to TCE indicates that natural attenuation via reductive dechlorination is occurring at the Site.
- Based on data collected during this investigation, the extent of VOCs in overburden soils in the vicinity of the groundwater collection trench has been sufficiently delineated.
- TPH was detected in only two soil samples at concentrations of 480 and 960 ppm.
- TOC concentrations in soil ranged from 7,990 to 19,300 ppm.
- TCE, cis-1,2-DCE, and vinyl chloride are the most widely distributed VOCs detected in groundwater at the Site. Similar to soils, the presence of degradation products cis-1,2-DCE and vinyl chloride in groundwater indicates that natural attenuation via reductive dechlorination is occurring at the Site.
- Floating product was observed in monitoring well MW-8 during this investigation and has been historically detected in wells MW-4 and MW-7. The highest concentrations of TCE, cis-1,2-DCE, and vinyl chloride were detected in monitoring well MW-8. TPH was also detected in

groundwater collected from MW-8 at a concentration of 10,600 ppm indicating that the free product contains petroleum hydrocarbons.

- Based on groundwater quality data collected in April 2003, the extent of VOCs in groundwater is sufficiently defined along the western, northern, and northeastern perimeter of the Site. The analytical data, in conjunction with the groundwater flow direction during pumping of the recovery trench indicates that the groundwater recovery trench is inducing hydraulic control in the area where VOCs exceed RAO's.
- LNAPL removal will be required as a precursor to the implementation of additional groundwater remediation. It is recommended that LNAPL extraction using a mobile vacuum truck be performed in monitoring wells MW-4 and MW-8. Residual LNAPL should be removed from these wells using peristaltic pumps followed by the installation of absorbent socks. LNAPL should also be characterized (e.g., fingerprinted) to determine its chemical composition.
- Existing monitoring wells near MW-8 and MW-4 will be monitored with vacuum gauges to assess the radius of influence of the vacuum gradient applied during LNAPL removal. This information will be useful for designing the DPE system.
- Alternative G2 (Dual Phase Extraction) is recommended to address contamination in the capillary zone and to extract contaminated groundwater in the vicinity of MW-4 and MW-8. The DPE system could be used in conjunction with the existing groundwater recovery trench and treatment system.
- Alternative G5 (Reductive Dechlorination) may be incorporated into the Site remedial strategy to address residual soil and/or groundwater contamination. This would be a polishing system, employed only if required to further reduce concentrations below RAOs.
- The aerial photograph evaluation was inconclusive. Several historical items were discovered on the aerial photos, but there were not sufficient details to reach a conclusion with respect to alternate sources of contamination at the Site.
- The results of the geophysical survey at the site and the adjoining site were inconclusive. The survey did identify several minor anomalies, however, there was no indication of large buried structures such as underground storage tanks or drums to identify an alternative source of contamination at the Site.

6.0 REFERENCES

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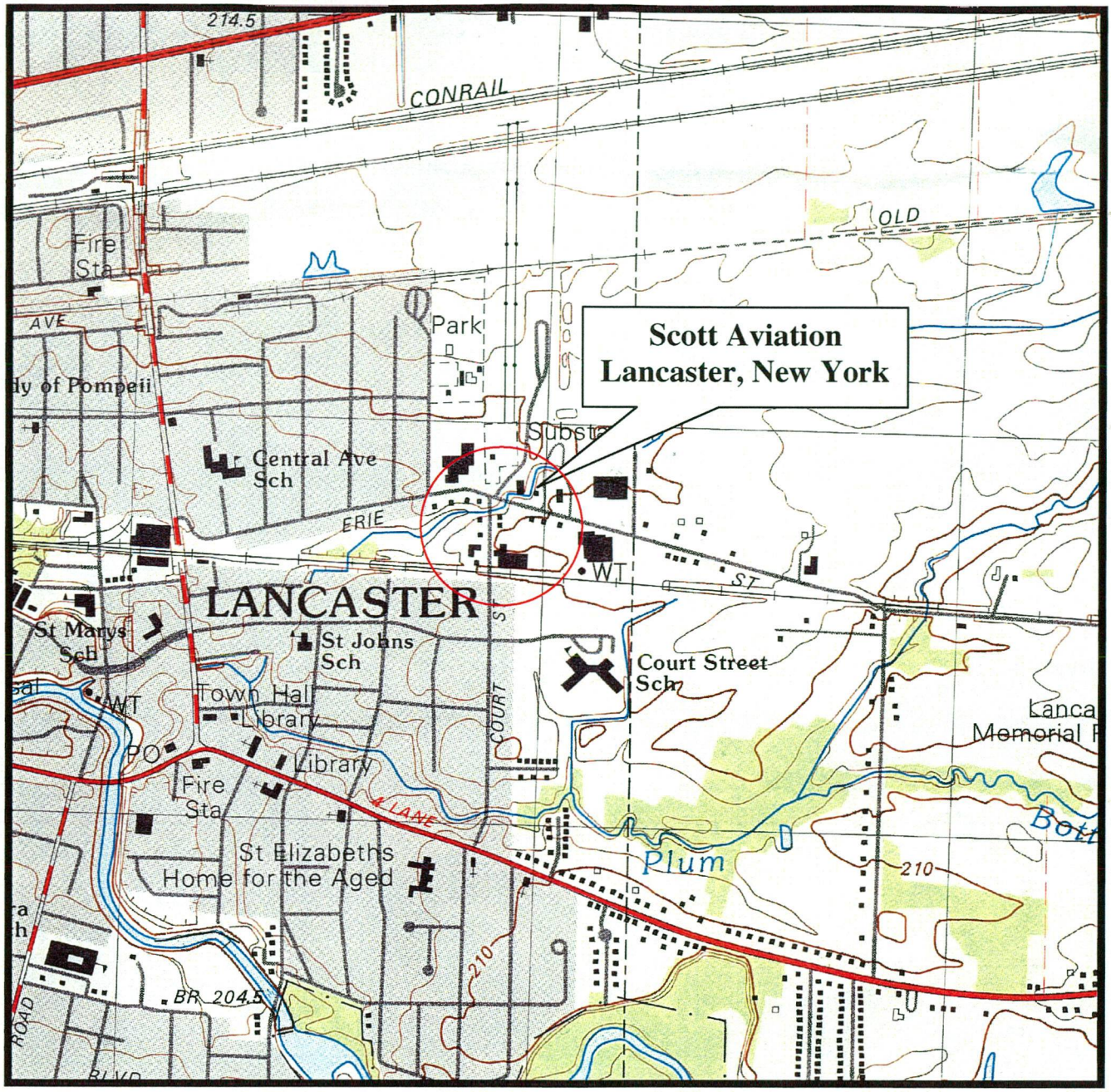
FIGURES



N

Scale

0 2000 feet

Source:
1982 Geologic Survey 7.5 X 15 Minute Topographic Quadrangle
Lancaster, New York

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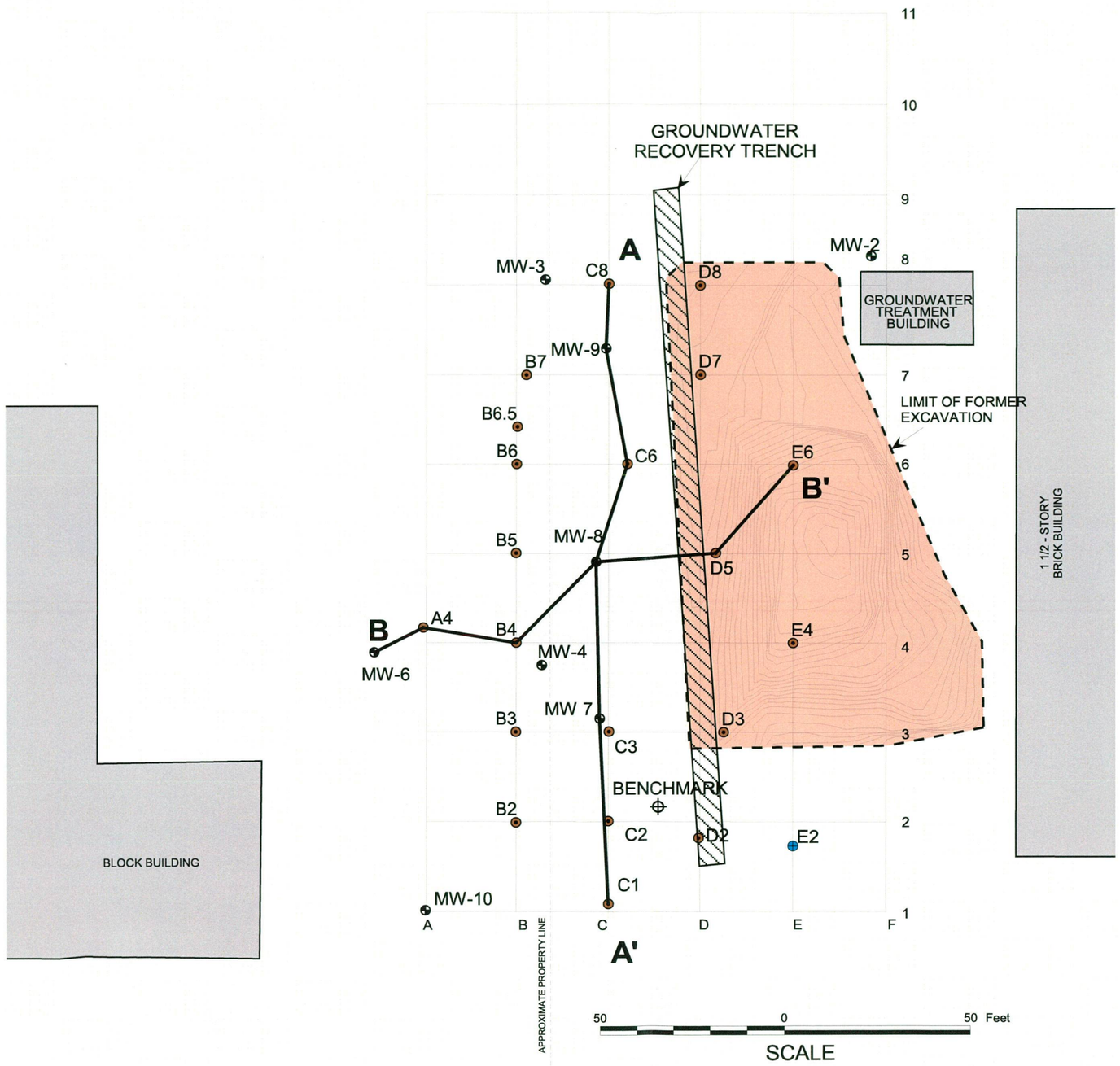
Figure 1
SITE LOCATION MAP

Scott Aviation
Lancaster, New York



LEGEND

- Shallow Monitoring Well
- DPT Soil Boring
- Soil Sample E2 and Piezometer PZ-E2
- Benchmark
- DPT Sample Grid
- Groundwater Recovery Trench
- Cross Section Line
- Property Line
- Building
- Excavation Depth Contour
- Approximate Limit of Former Excavation

NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED BY AN EXAMINATION OF SUCH.

GENERAL NOTES:

1. ALL ELEV.'S BASED ON MONITORING WELL 10 TOP OF CASING EL. = 687.70 BENCHMARK DESCRIPTION SET "X" CUT ON NORTH BOLT ON HYDRANT AS SHOWN ON MAP EL. = 691.13
2. PROPERTY LINE AS SHOWN IS APPROXIMATE.

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FIGURE 2
DPT SAMPLE LOCATION AND CROSS-SECTION LOCATION MAP

SCOTT AVIATION, INC., LANCASTER, NEW YORK

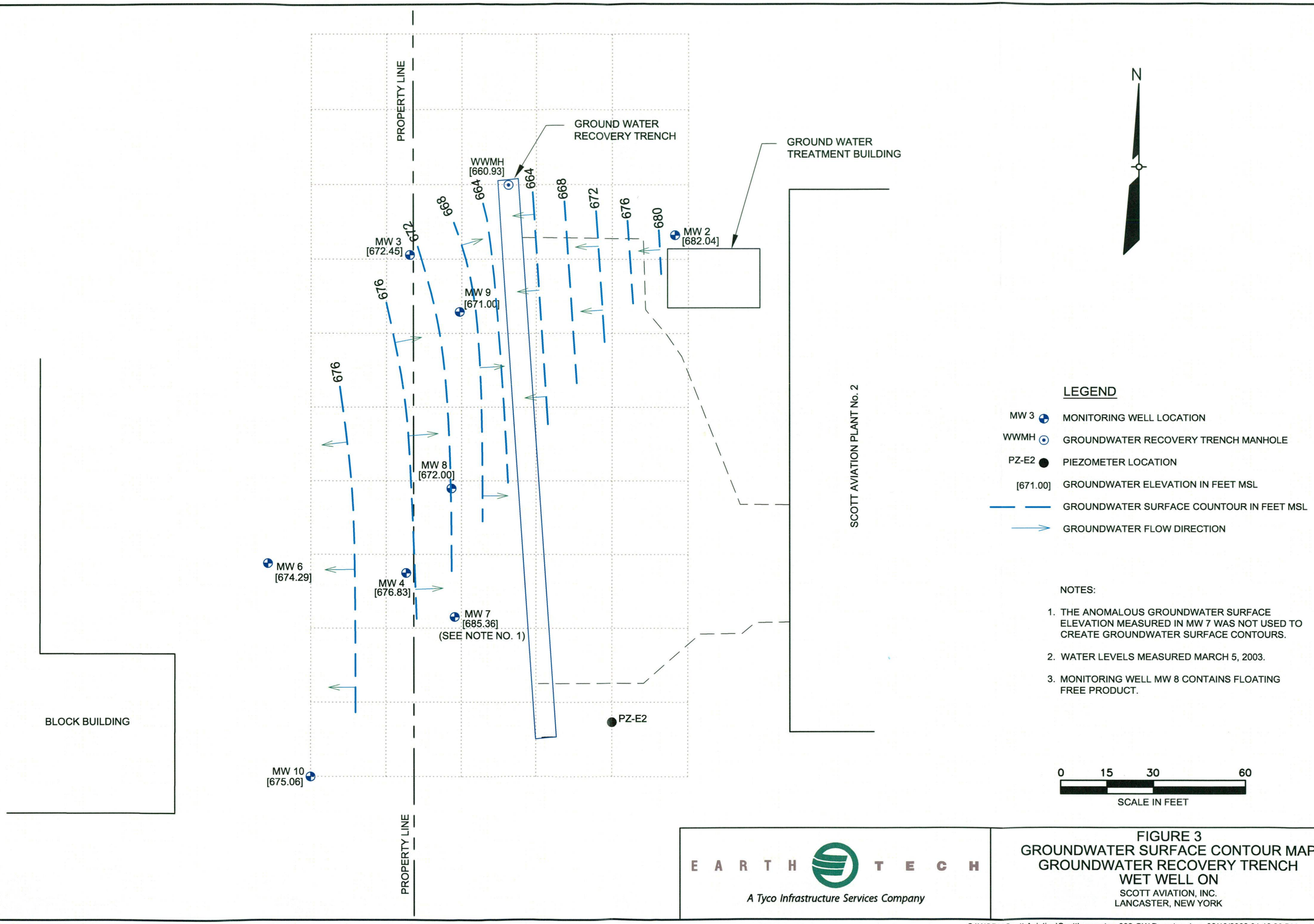

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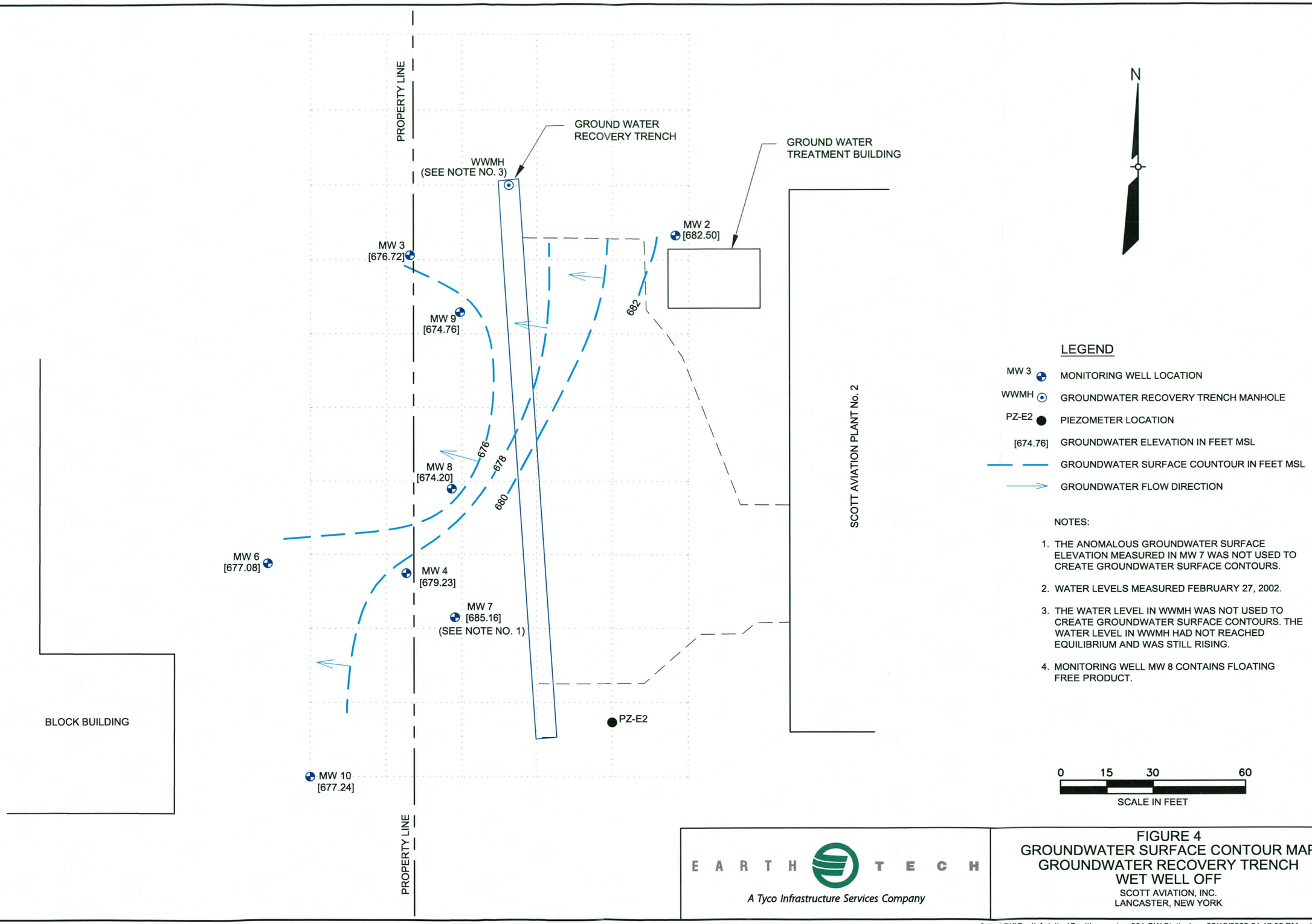
FIGURE 3
GROUNDWATER SURFACE CONTOUR MAP GROUNDWATER RECOVERY TRENCH WET WELL ON

SCOTT AVIATION, INC.
LANCASTER, NEW YORK

C:\WORK\Scott Aviation\ScottLancaster_002 GW Pumping.dwg, 06/19/2003 01:16:29 PM, rstubblefield



EARTH TECH
A Tyco Infrastructure Services Company

FIGURE 4
GROUNDWATER SURFACE CONTOUR MAP GROUNDWATER RECOVERY TRENCH WET WELL OFF

SCOTT AVIATION, INC.
LANCASTER, NEW YORK

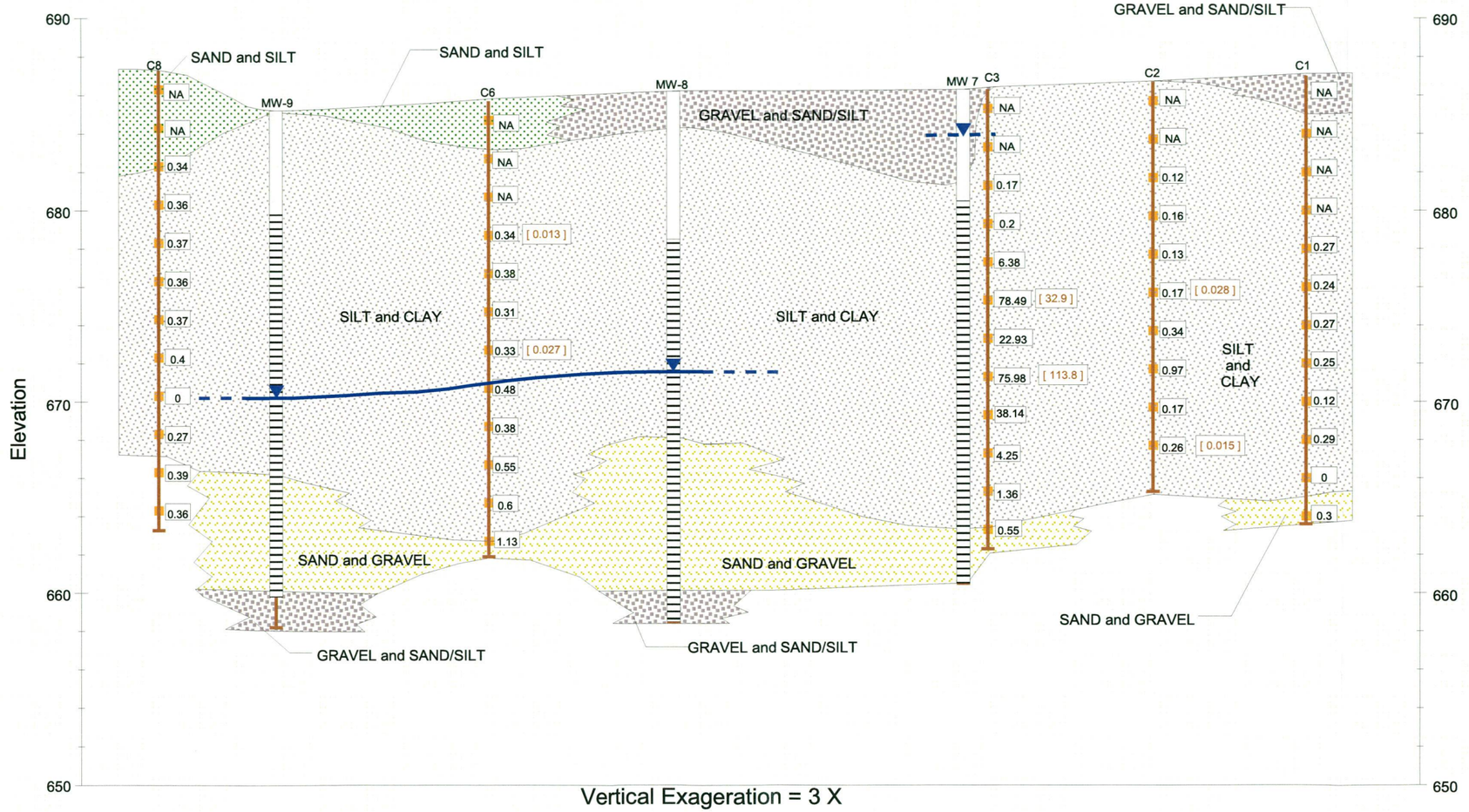
C:\WORK\Scott Aviation\ScottLancaster_001 GW Static.dwg, 06/19/2003 01:17:06 PM, rstubblefield

NORTH

A

SOUTH

A'



Vertical Exagaration = 3 X

20 0 20 40 60 Feet

SCALE

LEGEND

MW-9 Ground Surface

Well Casing

Well Screen

Bottom of Exploration (refusal)

Groundwater Surface (March 5, 2003)

GEOLOGIC UNITS

- GRAVEL and SAND/SILT
- SAND and GRAVEL
- SAND and SILT
- SILT and CLAY

Soil Boring

0.95 Total Field GC VOC Result (PPM)

NA [0.013] Total Laboratory VOC Result (PPM)

NA = Not Analyzed

NOTES:

1. WATER ELEVATIONS MEASURED ON MARCH 5, 2003.
2. THE ANOMALOUS GROUNDWATER SURFACE ELEVATION MEASURED IN MW 7 WAS NOT USED TO CREATE GROUNDWATER SURFACE CONTOURS.

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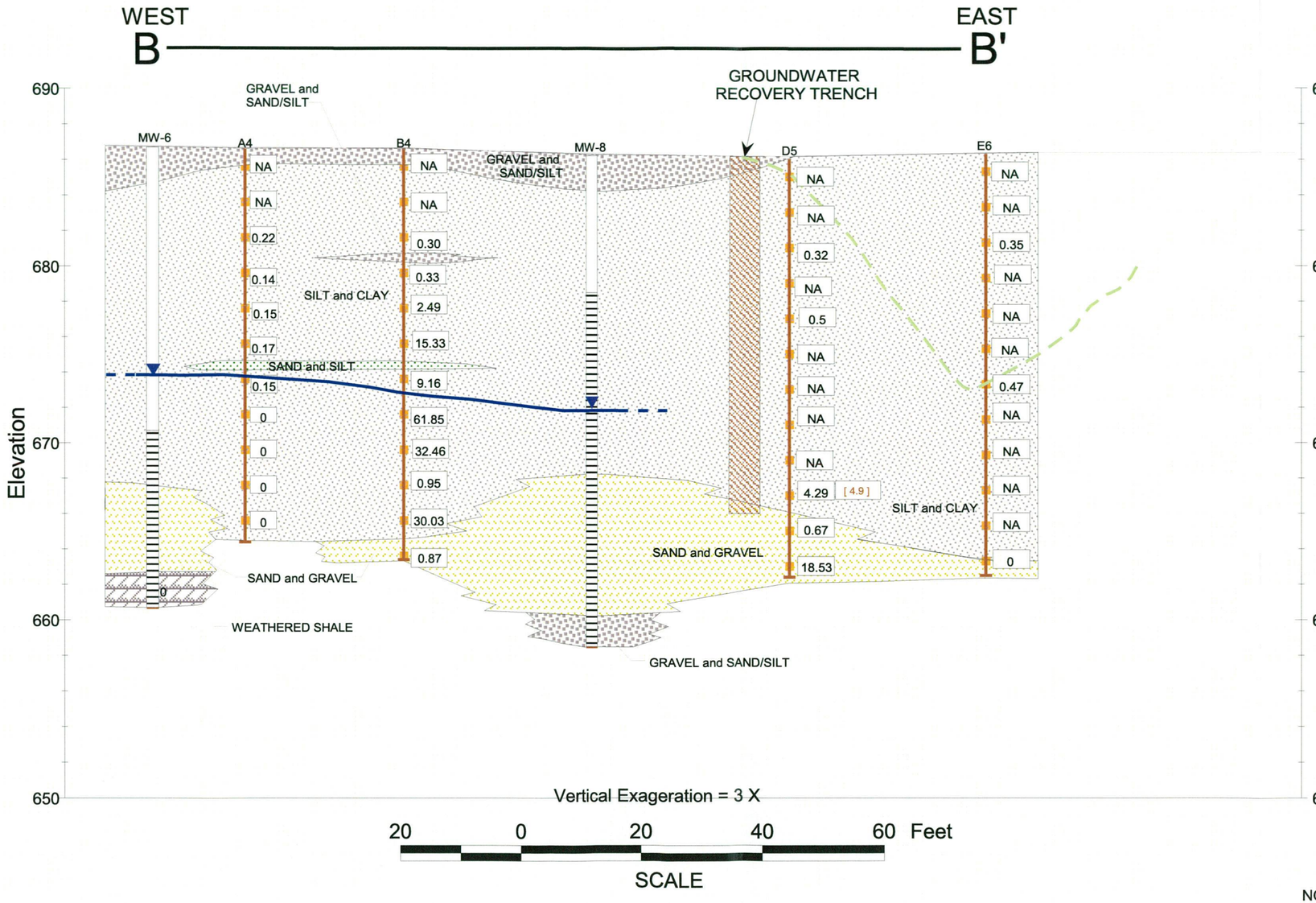
FIGURE 5
CROSS-SECTION A-A'
FIELD GC AND LABORATORY SOIL SAMPLE RESULTS

SCOTT AVIATION, INC., LANCASTER, NEW YORK



LEGEND

MW-6 Ground Surface
Well Casing
Well Screen
Bottom of Exploration (refusal)

Groundwater Surface (March 5, 2003)

Approximate Limit of Former Excavation

Groundwater Extraction Trench

GEOLOGIC UNITS
- GRAVEL and SAND/SILT
- SAND and GRAVEL
- SAND and SILT
- SILT and CLAY
- WEATHERED SHALE

Soil Boring
- 0.95 Total Field GC VOC Result (PPM)
- 4.29 [4.9] Total Laboratory VOC Result (PPM)

NA = Not Analyzed

NOTE: Water Elevations measured on March 5, 2003.

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FIGURE 6
CROSS-SECTION B-B'
FIELD GC AND LABORATORY SOIL SAMPLE RESULTS
SCOTT AVIATION, INC., LANCASTER, NEW YORK

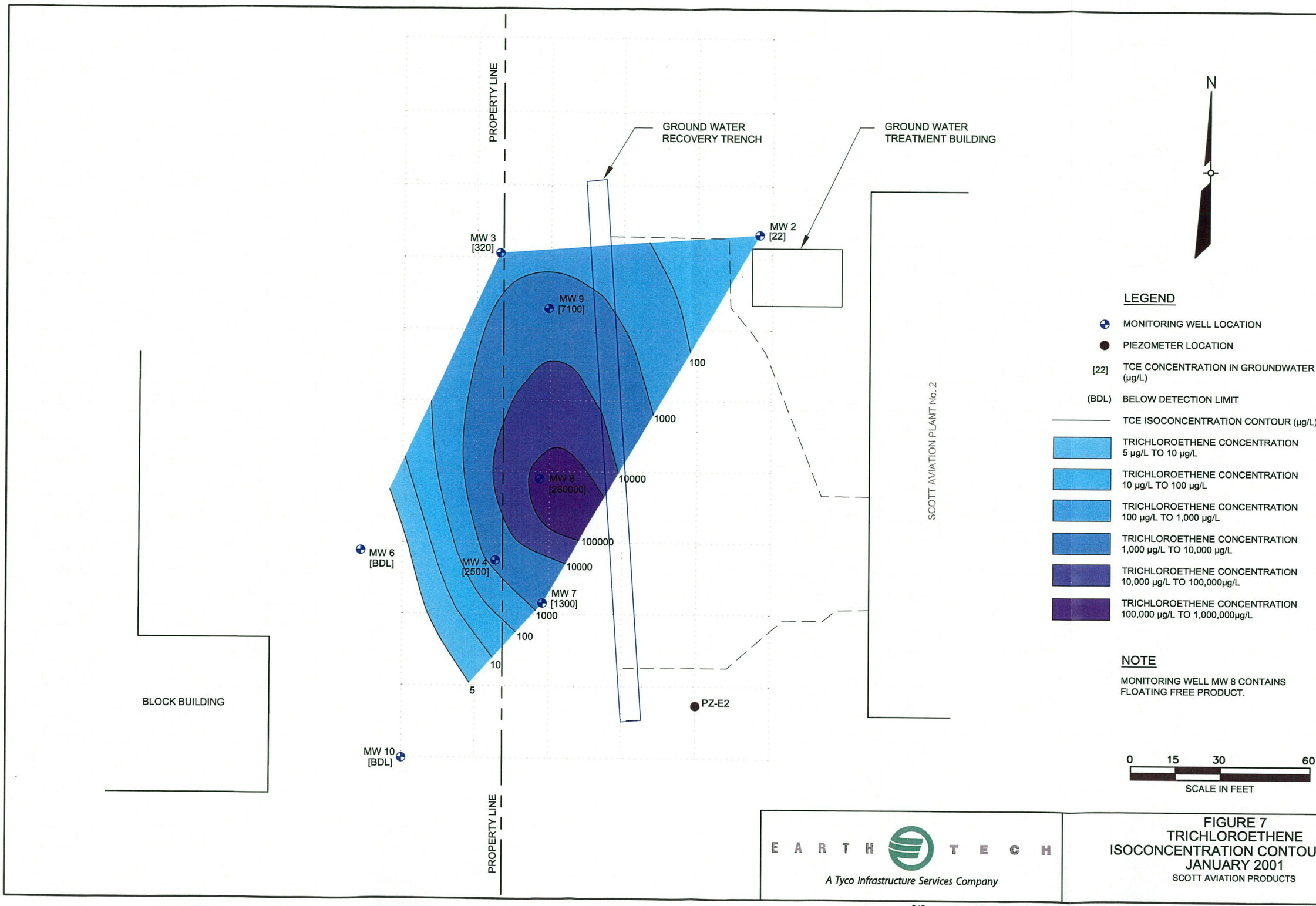

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FIGURE 7
TRICHLOROETHENE ISOCONCENTRATION CONTOUR MAP JANUARY 2001
SCOTT AVIATION PRODUCTS

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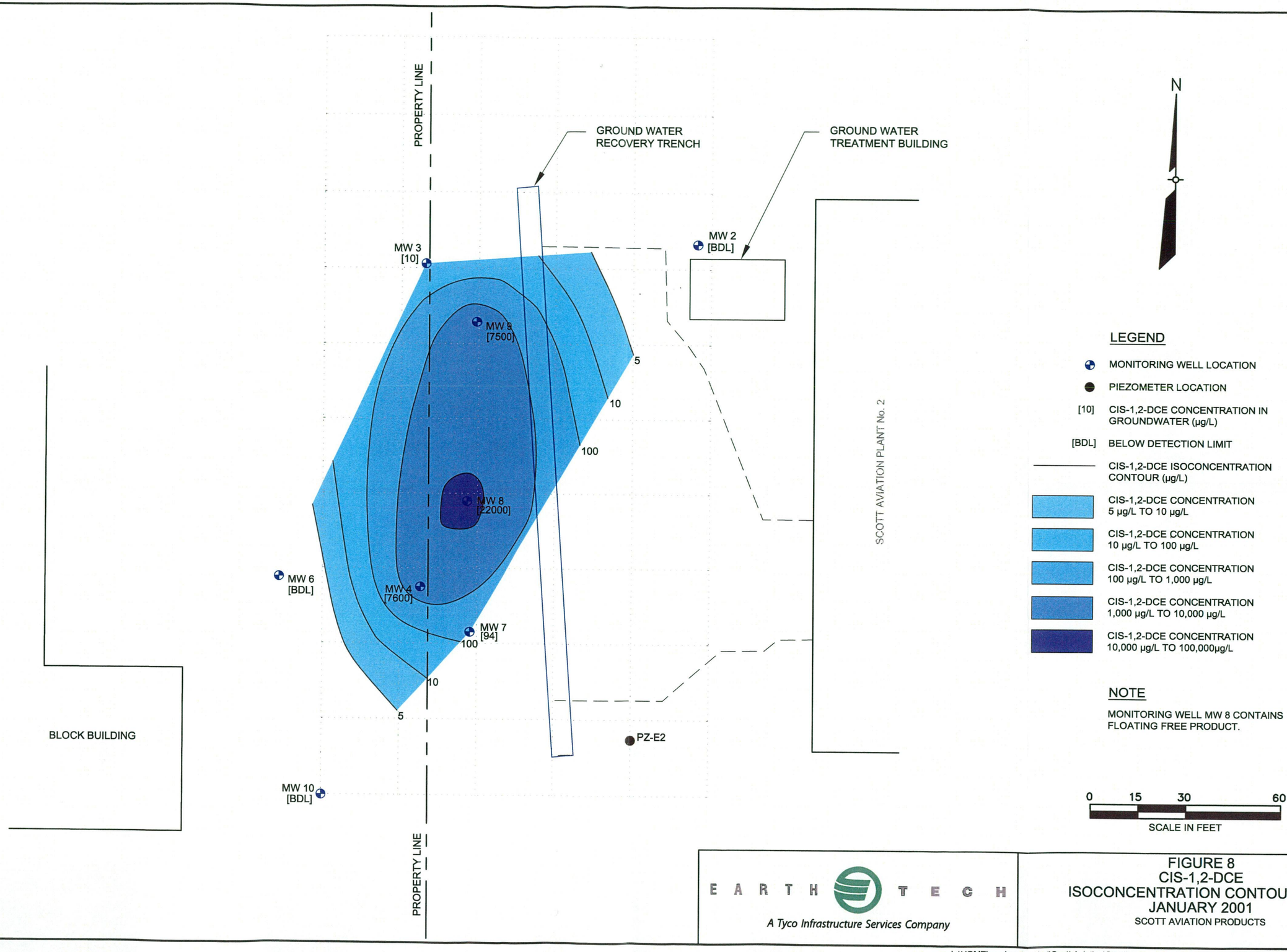

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FIGURE 8
CIS-1,2-DCE ISOCONCENTRATION CONTOUR MAP JANUARY 2001
SCOTT AVIATION PRODUCTS

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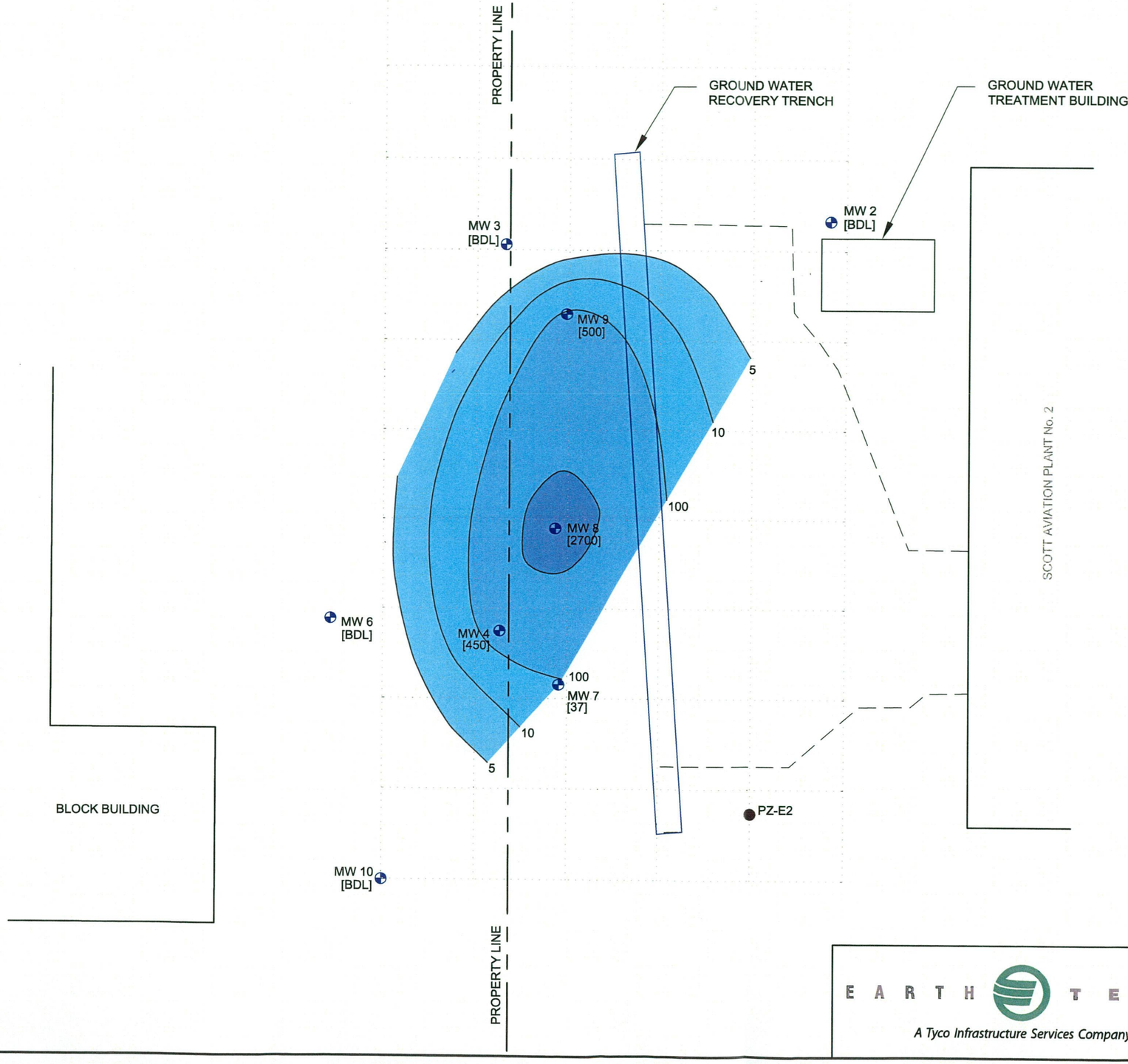

N

LEGEND

- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- [460] VINYL CHLORIDE CONCENTRATION IN GROUNDWATER (µg/L)
- [BDL] BELOW DETECTION LIMIT
- VINYL CHLORIDE ISOCONCENTRATION CONTOUR (µg/L)
- VINYL CHLORIDE CONCENTRATION 5 µg/L TO 10 µg/L
- VINYL CHLORIDE CONCENTRATION 10 µg/L TO 100 µg/L
- VINYL CHLORIDE CONCENTRATION 100 µg/L TO 1,000 µg/L
- VINYL CHLORIDE CONCENTRATION 1,000 µg/L TO 10,000 µg/L

NOTE

MONITORING WELL MW 8 CONTAINS FLOATING FREE PRODUCT.

0 15 30 60

SCALE IN FEET

EARTH TECH

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FIGURE 9
VINYL CHLORIDE ISOCONCENTRATION CONTOUR MAP JANUARY 2001

SCOTT AVIATION PRODUCTS

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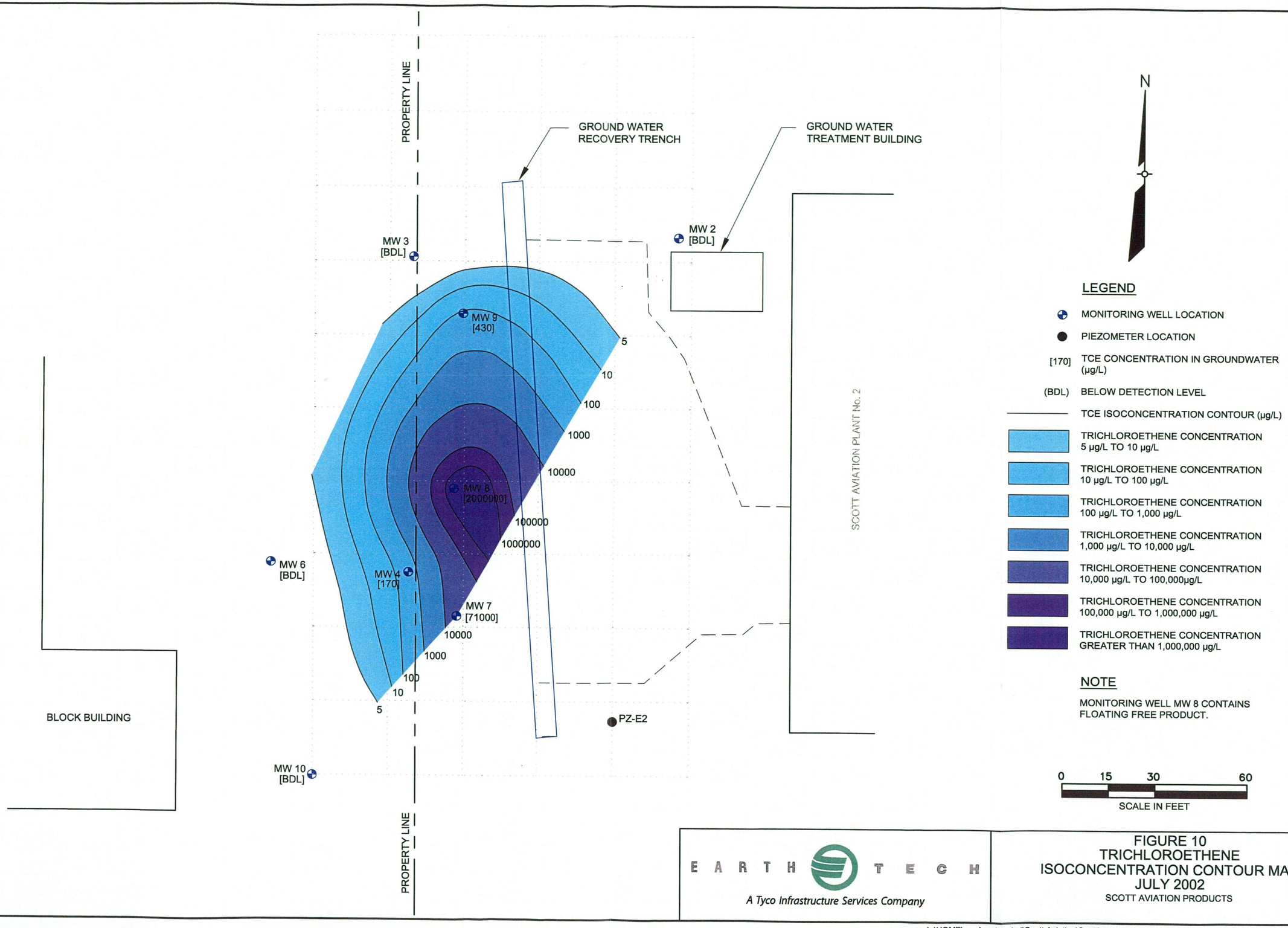

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FIGURE 10
TRICHLOROETHENE ISOCONCENTRATION CONTOUR MAP
JULY 2002
SCOTT AVIATION PRODUCTS

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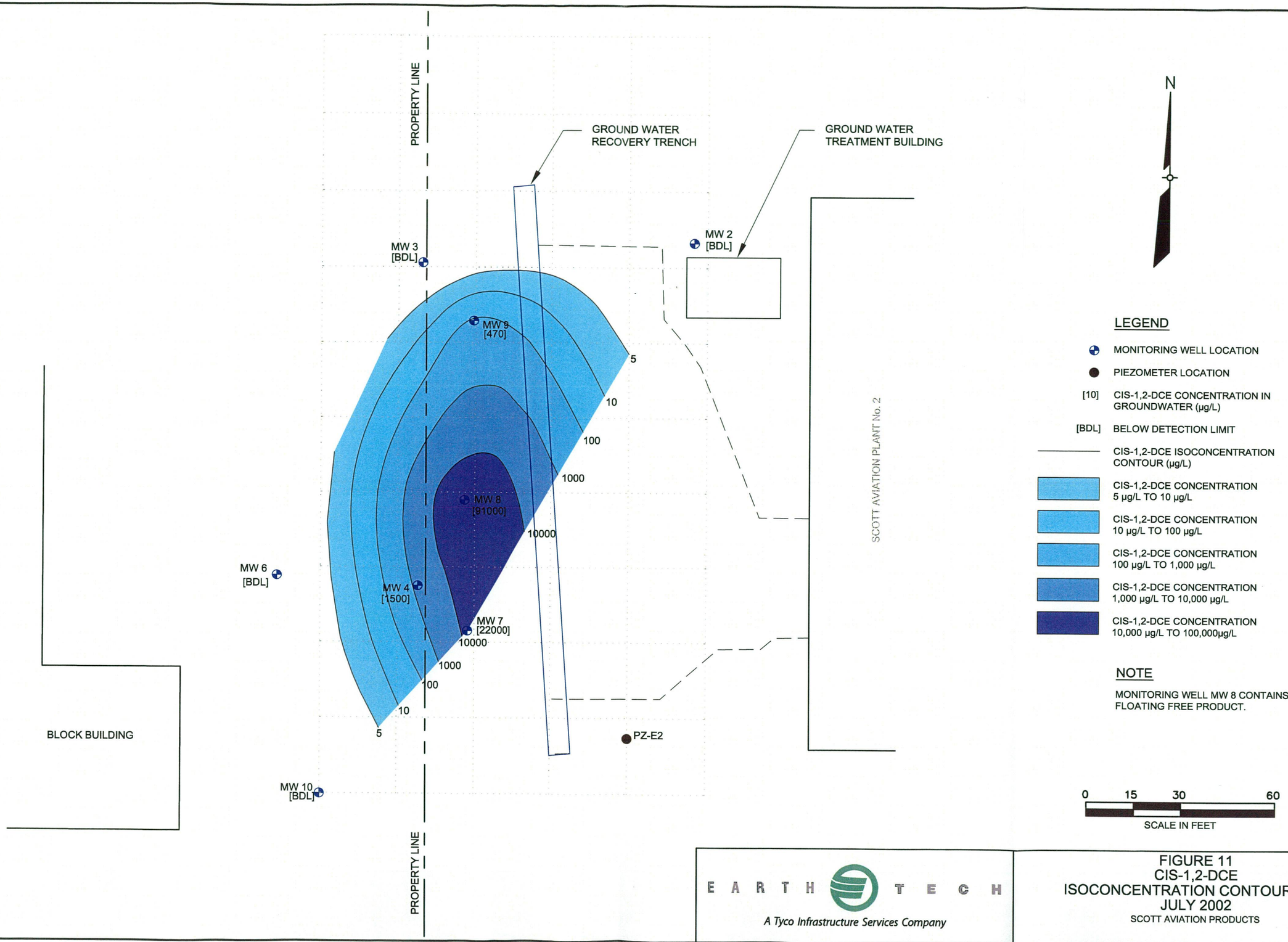
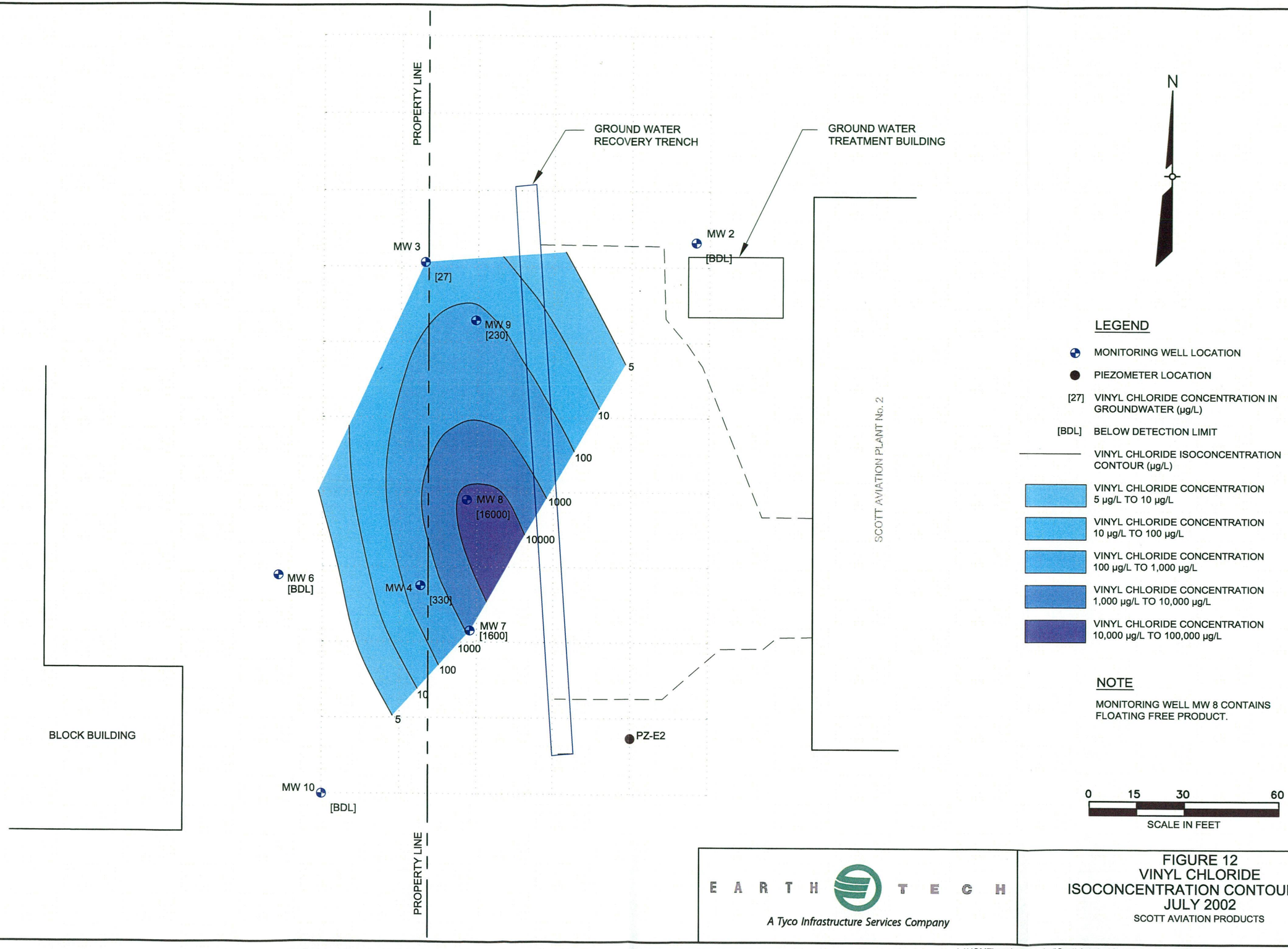


EARTH TECH
A Tyco Infrastructure Services Company

FIGURE 11
CIS-1,2-DCE ISOCONCENTRATION CONTOUR MAP JULY 2002
SCOTT AVIATION PRODUCTS



EARTH TECH
A Tyco Infrastructure Services Company

FIGURE 12
VINYL CHLORIDE ISOCONCENTRATION CONTOUR MAP JULY 2002
SCOTT AVIATION PRODUCTS

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PROPERTY LINE

GROUND WATER
RECOVERY TRENCH

GROUND WATER
TREATMENT BUILDING

MW 3
[BDL]

MW 2
[BDL]

MW 9
[3]

MW 8
[40600]

MW 6
[BDL]

MW 4
[249]

MW 7
[213]

MW 10
[BDL]

PZ-E2

5

10

100

1000

1000

100

10

5

BLOCK BUILDING

SCOTT AVIATION PLANT No. 2

N

LEGEND

- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- [3] TCE CONCENTRATION IN GROUNDWATER (µg/L)
- (BDL) BELOW DETECTION LIMIT
- TCE ISOCONCENTRATION CONTOUR (µg/L)
- TRICHLOROETHENE CONCENTRATION 5 µg/L TO 10 µg/L
- TRICHLOROETHENE CONCENTRATION 10 µg/L TO 100 µg/L
- TRICHLOROETHENE CONCENTRATION 100 µg/L TO 1,000 µg/L
- TRICHLOROETHENE CONCENTRATION 1,000 µg/L TO 10,000 µg/L
- TRICHLOROETHENE CONCENTRATION 10,000 µg/L TO 100,000µg/L

NOTE

MONITORING WELL MW 8 CONTAINS FLOATING FREE PRODUCT.

0 15 30 60

SCALE IN FEET

EARTH TECH

A Tyco Infrastructure Services Company

FIGURE 13
TRICHLOROETHENE ISOCONCENTRATION CONTOUR MAP APRIL 2003
SCOTT AVIATION PRODUCTS

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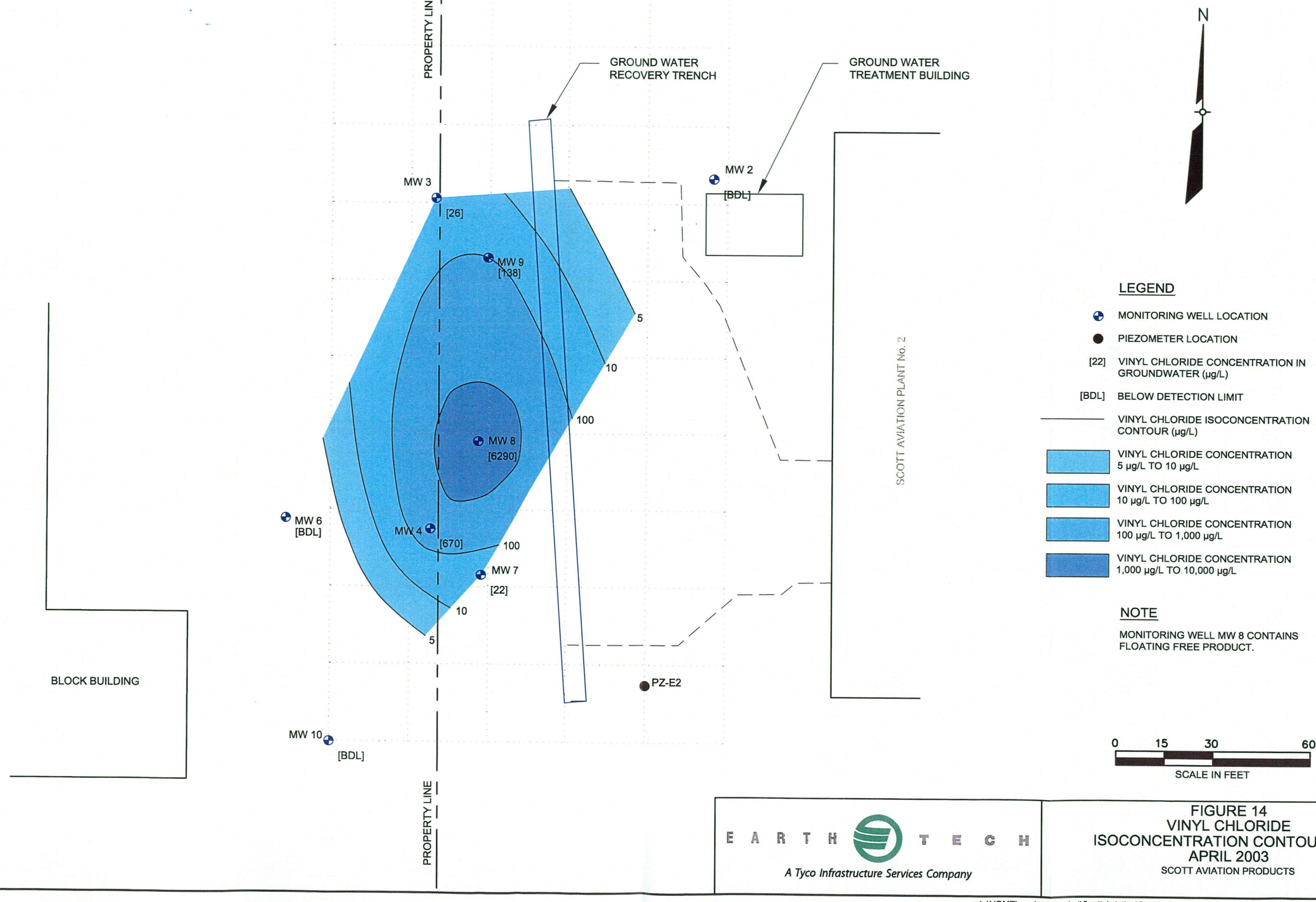

EARTH TECH
A Tyco Infrastructure Services Company

FIGURE 14
VINYL CHLORIDE
ISOCONCENTRATION CONTOUR MAP
APRIL 2003
SCOTT AVIATION PRODUCTS

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TABLES

Table 1
DPT Boring Data Summary
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

DPT Boring Identification	Date Installed	First Water [1]	Total Depth [1]	Reason for Refusal [2]
A4	2/24/2003	12-12.5	22.2	bedrock
B2	2/27/2003	17-18	23.4	bedrock
B3 (attempt 1)	2/24/2003	12-14	14.0	possible cobble
B3 (attempt 2)	2/24/2003	NA	12.0	possible cobble
B3 (attempt 3)	2/25/2003	NA	23.2	bedrock
B4	2/24/2003	6-6.5	23.2	bedrock
B5	2/24/2003	14-15	23.7	bedrock
B6	2/27/2003	12-13	21.2	bedrock
B6.5	2/28/2003	8-9	19.6	bedrock
B7 (attempt 1)	2/27/2003	NA	15.0	hard silty clay
B7 (attempt 2)	2/27/2003	4-7	7.0	possible cobble
C1 (attempt 1)	2/27/2003	NA	15.9	hard silty clay
C1 (attempt 2)	2/28/2003	5-8	23.4	bedrock
C2	2/25/2003	12.5-13	21.4	bedrock
C3	2/25/2003	4-5	24.0	bedrock
C6	2/25/2003	12-13.5	23.8	bedrock
C8	2/24/2003	12-13	20.0	bedrock
D2 (attempt 1)	2/27/2003	NA	8.0	hard silty clay
D2 (attempt 2)	2/28/2003	21.5-22	22.0	bedrock
D3	2/26/2003	7-8	22.7	bedrock
D5	2/26/2003	12-16	23.6	bedrock
D7	2/26/2003	12-14	23.9	bedrock
D8	2/26/2003	22-23.4	23.4	bedrock
E2	2/28/2003	8-8.5	20.0	target depth
E4	2/26/2003	8-9	23.8	bedrock
E6	2/26/2003	8-9	23.8	bedrock

Notes:

[1] Feet below ground surface.

[2] Based on sample recovery and correlation with prior data; bedrock was not actually penetrated by DPT rig.

Table 2
Field GC Analytical Results - Volatile Organic Compounds
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification	Volatile Organic Compound					Total VOCs
	Vinyl Chloride	Trans-1,2 Dichloroethene	Cis-1,2 Dichloroethene	Trichloroethene	Tetrachloroethene	
B5(4-6')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B5(6-8')	0.35	<0.1	<0.1	<0.1	<0.1	0.35
B5(8-10')	0.44	<0.1	<0.1	<0.1	<0.1	0.44
B5(10-12')	0.36	<0.1	<0.1	<0.1	<0.1	0.36
B5(12-14)	0.51	<0.1	0.12	<0.1	<0.1	0.63
B5(14-16')	0.78	<0.1	0.50	0.13	<0.1	1.41
B5(16-18')	0.87	<0.1	0.39	0.69	<0.1	1.95
B5(18-20')	0.39	<0.1	<0.1	<0.1	<0.1	0.39
B5(20-22')	0.41	<0.1	<0.1	<0.1	<0.1	0.41
B5(22-24')	0.37	<0.1	<0.1	<0.1	<0.1	0.37
C8(4-6')	0.34	<0.1	<0.1	<0.1	<0.1	0.34
C8(6-8')	0.36	<0.1	<0.1	<0.1	<0.1	0.36
C8(8-10')	0.37	<0.1	<0.1	<0.1	<0.1	0.37
C8(10-12')	0.36	<0.1	<0.1	<0.1	<0.1	0.36
C8(12-14')	0.37	<0.1	<0.1	<0.1	<0.1	0.37
C8(14-16')	0.4	<0.1	<0.1	<0.1	<0.1	0.4
C8(16-18')	<0.1	<0.1	<0.1	<0.1	<0.1	0
C8(18-20')	0.27	<0.1	<0.1	<0.1	<0.1	0.27
C8(20-22')	0.39	<0.1	<0.1	<0.1	<0.1	0.39
C8(22-24')	0.36	<0.1	<0.1	<0.1	<0.1	0.36
B4(4-6')	0.30	<0.1	<0.1	<0.1	<0.1	0.30
B4(6-8')	0.19	<0.1	0.14	<0.1	<0.1	0.33
B4(8-10')	0.95	<0.1	**1.54**	<0.1	<0.1	2.49
B4(10-12')	**2.13**	0.14	**13.06**	<0.1	<0.1	**15.33**
B4(12-14')	**2.52**	<0.1	**6.64**	<0.1	<0.1	9.16
B4(14-16')	**4.43**	0.15	**15.22**	**42.05**	<0.1	**61.85**
B4(16-18')	**2.66**	<0.1	**10.00**	**19.80**	<0.1	**32.46**
B4(18-20')	<0.1	<0.1	0.77	0.18	<0.1	0.95
B4(20-22')	**3.94**	0.17	**14.22**	**11.7**	<0.1	**30.03**
B4(22-24')	0.52	<0.1	0.25	0.1	<0.1	0.87
A4(4-6')	0.12	<0.1	<0.1	0.1	<0.1	0.22
A4(6-8')	0.14	<0.1	<0.1	<0.1	<0.1	0.14
A4(8-10')	0.15	<0.1	<0.1	<0.1	<0.1	0.15
A4(10-12')	0.17	<0.1	<0.1	<0.1	<0.1	0.17
A4(12-14')	0.15	<0.1	<0.1	<0.1	<0.1	0.15
A4(14-16')	<0.1	<0.1	<0.1	<0.1	<0.1	0
A4(16-18')	<0.1	<0.1	<0.1	<0.1	<0.1	0
A4(18-20')	<0.1	<0.1	<0.1	<0.1	<0.1	0
A4(20-22')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B3(4-6')	0.19	<0.1	<0.1	<0.1	<0.1	0.19
B3(4-6')dup	0.17	<0.1	<0.1	<0.1	<0.1	0.17
B3(6-8')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B3(8-10')	0.17	<0.1	<0.1	<0.1	<0.1	0.17
B3(10-12')	0.18	<0.1	<0.1	<0.1	<0.1	0.18
B3(12-14')	0.23	<0.1	<0.1	<0.1	<0.1	0.23
B3(14-16')	0.30	<0.1	<0.1	<0.1	<0.1	0.3
B3(14-16')dup	0.27	<0.1	<0.1	<0.1	<0.1	0.27
B3(16-18')	0.24	<0.1	<0.1	<0.1	<0.1	0.24
B3(18-20')	0.29	<0.1	<0.1	<0.1	<0.1	0.29
B3(20-22')	0.36	<0.1	0.27	0.26	<0.1	0.89
C2(4-6')	0.12	<0.1	<0.1	<0.1	<0.1	0.12
C2(6-8')	0.16	<0.1	<0.1	<0.1	<0.1	0.16
C2(8-10')	0.13	<0.1	<0.1	<0.1	<0.1	0.13
C2(8-10')dup	0.15	<0.1	<0.1	<0.1	<0.1	0.15
C2(10-12')	0.17	<0.1	<0.1	<0.1	<0.1	0.17
C2(12-14')	0.20	<0.1	<0.1	0.14	<0.1	0.34
C2(14-16')	0.16	<0.1	<0.1	0.81	<0.1	0.97
C2(16-18')	0.17	<0.1	<0.1	<0.1	<0.1	0.17
C2(18-20')	0.26	<0.1	<0.1	<0.1	<0.1	0.26

Table 2
Field GC Analytical Results - Volatile Organic Compounds
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification	Volatile Organic Compound					Total VOCs
	Vinyl Chloride	Trans-1,2 Dichloroethene	Cis-1,2 Dichloroethene	Trichloroethene	Tetrachloroethene	
C3(4-6')	<0.1	<0.1	<0.1	0.17	<0.1	0.17
C3(4-6')dup	<0.1	<0.1	<0.1	<0.1	<0.1	0
C3(6-8')	0.2	<0.1	<0.1	<0.1	<0.1	0.2
C3(8-10')	0.21	<0.1	**1.74**	**4.43**	<0.1	6.38
C3(10-12')	0.80	0.13	**16.07**	**61.06**	0.43	**78.49**
C3(12-14')	0.22	<0.1	**4.71**	**18.00**	<0.1	**22.93**
C3(14-16')	0.25	<0.1	**2.95**	**72.78**	<0.1	**75.98**
C3(16-18')	0.21	<0.1	0.76	**37.17**	<0.1	**38.14**
C3(18-20')	0.18	<0.1	**2.01**	**2.06**	<0.1	4.25
C3(20-22')	0.20	<0.1	0.15	**1.01**	<0.1	1.36
C3(22-24')	<0.1	<0.1	<0.1	0.18	0.37	0.55
C6(6-8')	0.34	<0.1	<0.1	<0.1	<0.1	0.34
C6(8-10')	0.38	<0.1	<0.1	<0.1	<0.1	0.38
C6(8-10')dup	0.3	<0.1	<0.1	<0.1	<0.1	0.3
C6(10-12')	0.31	<0.1	<0.1	<0.1	<0.1	0.31
C6(12-14')	0.33	<0.1	<0.1	<0.1	<0.1	0.33
C6(14-16')	0.32	<0.1	0.16	<0.1	<0.1	0.48
C6(16-18')	0.38	<0.1	<0.1	<0.1	<0.1	0.38
C6(18-20')	0.44	<0.1	0.11	<0.1	<0.1	0.55
C6(20-22')	0.41	<0.1	0.19	<0.1	<0.1	0.6
C6(22-24')	0.95	<0.1	0.18	<0.1	<0.1	1.13
D5(4-6')	0.32	<0.1	<0.1	<0.1	<0.1	0.32
D5(8-10')	0.32	<0.1	<0.1	0.18	<0.1	0.5
D5(18-20')*	**1.42**	<0.1	**2.87**	<0.1	<0.1	4.29
D5(20-22')*	0.32	<0.1	0.1	0.25	<0.1	0.67
D5(22-24')*	**2.72**	<0.1	**15.62**	0.19	<0.1	**18.53**
D7(2-4')	0.3	<0.1	<0.1	<0.1	<0.1	0.3
D7(4-6')	0.38	<0.1	<0.1	0.2	<0.1	0.58
D7(16-18')	0.33	<0.1	<0.1	0.13	<0.1	0.46
D7(18-20')**	0.33	<0.1	<0.1	<0.1	<0.1	0.33
D7(20-22')	0.3	<0.1	<0.1	<0.1	<0.1	0.3
D7(22-24')	<0.1	<0.1	<0.1	<0.1	<0.1	0
D3(8-10')	0.45	<0.1	0.15	0.44	<0.1	1.04
D3(10-12')	0.49	<0.1	<0.1	<0.1	<0.1	0.49
D3(12-14')	0.45	<0.1	<0.1	0.13	<0.1	0.58
D3(14-16')	0.31	<0.1	0.19	<0.1	<0.1	0.5
D3(14-16')dup	0.33	<0.1	0.15	<0.1	<0.1	0.48
D3(16-18')	0.11	<0.1	0.16	<0.1	<0.1	0.27
D3(18-20')	0.77	<0.1	1.78	<0.1	<0.1	2.55
D3(20-22')	0.46	<0.1	0.24	0.15	<0.1	0.85
E6(4-6')	0.25	<0.1	<0.1	0.1	<0.1	0.35
E6(12-14')	0.27	<0.1	<0.1	0.2	<0.1	0.47
E6(22-24')	<0.1	<0.1	<0.1	<0.1	<0.1	0
E4(16-18')	0.52	<0.1	0.12	0.23	<0.1	0.87
E4(16-18')dup	0.53	<0.1	<0.1	0.11	<0.1	0.64
E4(18-20')	**1.01**	<0.1	0.56	0.15	<0.1	1.72
E4(20-22')	0.34	<0.1	<0.1	<0.1	<0.1	0.34
E4(22-24')	0.39	<0.1	0.17	<0.1	<0.1	0.56
D8(16-18')	0.26	<0.1	<0.1	<0.1	<0.1	0.26
D8(18-20')	0.26	<0.1	<0.1	<0.1	<0.1	0.26
D8(20-22')	0.32	<0.1	<0.1	<0.1	<0.1	0.32
D8(22-24')	0.3	<0.1	<0.1	<0.1	<0.1	0.3

Table 2
Field GC Analytical Results - Volatile Organic Compounds
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification	Volatile Organic Compound					Total VOCs
	Vinyl Chloride	Trans-1,2 Dichloroethene	Cis-1,2 Dichloroethene	Trichloroethene	Tetrachloroethene	
B2(6-8')	0.11	<0.1	<0.1	<0.1	<0.1	0.11
B2(8-10')	0.24	<0.1	<0.1	<0.1	<0.1	0.24
B2(10-12')	0.2	<0.1	<0.1	<0.1	<0.1	0.2
B2(10-12')dup	0.2	<0.1	<0.1	<0.1	<0.1	0.2
B2(12-14')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B2(14-16')	0.19	<0.1	<0.1	<0.1	<0.1	0.19
B2(16-18')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B2(18-20')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
B2(20-22')	0.29	<0.1	<0.1	<0.1	<0.1	0.29
B2(22-24')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6(6-8')	0.3	<0.1	<0.1	<0.1	<0.1	0.3
B6(8-10')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
B6(10-12')	0.27	<0.1	<0.1	<0.1	<0.1	0.27
B6(12-14')	0.31	<0.1	<0.1	<0.1	<0.1	0.31
B6(14-16')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
B6(16-18')	0.22	<0.1	<0.1	<0.1	<0.1	0.22
B6(18-20')	0.11	<0.1	<0.1	<0.1	<0.1	0.11
B6(20-22')	0.38	<0.1	<0.1	<0.1	<0.1	0.38
B7(0-2')	0.29	<0.1	<0.1	<0.1	<0.1	0.29
B7(8-10')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B7(10-12')	0.18	<0.1	<0.1	<0.1	<0.1	0.18
B7A(4-6')	0.17	<0.1	<0.1	<0.1	<0.1	0.17
B7A(6-8')	0.2	<0.1	<0.1	<0.1	<0.1	0.2
C1(8-10')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
C1(10-12')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
C1(12-14')	0.3	<0.1	<0.1	<0.1	<0.1	0.3
C1(14-16')	0.24	<0.1	<0.1	<0.1	<0.1	0.24
C1(8-10')	0.27	<0.1	<0.1	<0.1	0.15	0.27
C1(8-10')dup	0.26	<0.1	<0.1	<0.1	<0.1	0.26
C1(10-12')	0.24	<0.1	<0.1	<0.1	<0.1	0.24
C1(12-14')	0.27	<0.1	<0.1	<0.1	<0.1	0.27
C1(14-16')	0.25	<0.1	<0.1	<0.1	<0.1	0.25
C1(16-18)	0.12	<0.1	<0.1	<0.1	<0.1	0.12
C1(18-20')	0.29	<0.1	<0.1	<0.1	<0.1	0.29
C1(20-22')	<0.1	<0.1	<0.1	<0.1	<0.1	0
C1(22-24')	0.3	<0.1	<0.1	<0.1	<0.1	0.3
D2(4-6')	0.25	<0.1	<0.1	<0.1	<0.1	0.25
D2(8-10')	0.2	<0.1	<0.1	<0.1	<0.1	0.2
D2(10-12')	0.2	<0.1	<0.1	<0.1	<0.1	0.2
D2(12-14')	0.29	<0.1	<0.1	<0.1	<0.1	0.29
D2(14-16')	0.27	<0.1	<0.1	<0.1	<0.1	0.27
D2(16-18')	<0.1	<0.1	<0.1	<0.1	<0.1	0
D2(18-20')	<0.1	<0.1	<0.1	<0.1	<0.1	0
D2(20-22')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(4-6')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(6-8')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(8-10')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(10-12')**	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(12-14')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(14-16')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
B6.5(16-18')	0.28	<0.1	<0.1	<0.1	<0.1	0.28
B6.5(18-20')	<0.1	<0.1	<0.1	<0.1	<0.1	0
B6.5(20-22')	<0.1	<0.1	<0.1	<0.1	<0.1	0

Notes:
1. All sample results reported in milligram per kilogram (mg/kg) or parts per million (ppm).
2. Sample results detected below the 0.1 ppm (instrument calibration) are considered to be non-detect.
3. **BOLD** sample results indicate an exceedence of 1 ppm for individual VOCs and 10 ppm for total VOCs.
4. Vinyl chloride results are considered estimated due to poor peak resolution between initial water peak on chromatogram.
5. * Unknown peak identified at retention time of 2 minutes 50 seconds on chromatogram.
6. ** Several unknown peaks identified on chromatogram.

Table 3
Laboratory Analytical Results - Volatile Organic Compounds
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Analyte	Sample Identification & Depth Interval																	
	C6 (12-14')		C6 (6-8')		D3 (18-20')		D5 (18-20')		D7 (2-4')		D7 (22-24')		D8 (18-20')		E2 (18-20'		H2 (18-20')	
bromomethane	ND		ND		ND		ND		ND		ND		ND		ND		ND	
vinyl chloride	ND		ND		0.048	J	0.11		ND		ND		ND		ND		0.009	J
chloroethane	ND		17		0.12	J	0.22		ND		0.009	J	0.16		ND		ND	
methylene chloride	0.004	J	ND		ND		0.003	J	ND		0.003	J	0.013	J	0.004	J	ND	
acetone	0.016		0.013		ND	J	0.022		1.1		0.023		ND		ND		ND	
carbon disulfide	ND		ND		0.008	J	ND		ND		ND		ND		ND		0.002	J
1,1-dichloroethene	ND		ND		0.027	J	0.007	J	ND		ND		ND		ND		ND	
1,1-dichloroethane	ND		ND		1.0	DJ	0.79	J	ND		ND		0.031	J	ND		ND	
chloroform	ND		ND		ND	J	ND		ND		ND		ND		ND		ND	
1,2-dichloroethane	ND		ND		0.003	J	ND		ND		ND		ND		ND		ND	
2-butanone	ND		ND		ND	J	ND		0.09		ND		ND		ND		ND	
1,1,1-trichloroethane	ND		ND		0.008	J	0.16		ND		ND		ND		ND		ND	
trichloroethene	0.003	J	ND		0.026	J	0.013		0.012		0.003	J	ND		ND		0.019	
1,1,2-trichloroethane	ND		ND		0.005	J	ND		ND		ND		ND		ND		ND	
benzene	ND		ND		ND	J	ND		ND		ND		ND		ND		ND	
tetrachloroethene	ND		ND		ND	J	0.002	J	ND		ND		ND		ND		ND	
toluene	ND		ND		0.009	J	0.099		0.003	J	0.002	J	ND		ND		ND	
ethylbenzene	ND		ND		ND	J	0.007	J	0.002	J	ND		ND		ND		ND	
total xylenes	ND		ND		ND	J	0.045		0.006	J	0.008	J	ND		ND		ND	
1,1,2-trichloro-1,1,2-trifluoro	ND		ND		ND	J	0.002	J	ND		ND		ND		ND		ND	
cis,1-2,dichloroethene	0.004	J	ND		**2.6**	D	**3.4**		0.004	J	0.002	J	ND		ND		0.036	
dichlorodifluoromethane	ND		ND		0.009	J	0.017		ND		ND		ND		ND		ND	
trichlorofluoromethane	ND		ND		0.002	J	0.002	J	ND		ND		ND		ND		ND	
cyclohexane	ND		ND		ND	J	ND		ND		ND		ND		ND		ND	
methylcyclohexane	ND		ND		ND	J	ND		ND		ND		ND		ND		ND	
Total VOCs	0.027		0.013		3.9		4.9		1.2		0.05		0.204		0.004		0.066	

Notes:

1. Only samples containing detectable concentrations of VOCs.
2. All sample results reported in milligram per kilogram (mg/kg) or parts per million (ppm).
3. ND - Non detect.
4. "J" - Estimated laboratory result due to QC issue or result was greater than instrument detection limit but below method detection limit.
5. "D" - Diluted laboratory result.
6. "E" - Concentration exceeded calibration curve, however diluted result could not be accurately calculated because the concetration was well below the calibration curve. The reported concentration is more protective of the enviornment.
7. **Bold** indicates sample result exceeds 1 ppm.
8. Laboratory samples were analyzed using USEPA Method 8260.

Table 4
Sample Data Comparison Summary
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification & Depth Interval	Vinyl Chloride (field GC)	Vinyl Chloride (laboratory)		RPD	Trans-1,2-DCE (field GC)	Trans-1,2-DCE (laboratory)		RPD	Cis-1,2-DCE (field GC)	Cis-1,2-DCE (laboratory)		RPD	TCE (field GC)	TCE (laboratory)		RPD	PCE (field GC)	PCE (laboratory)		RPD
C2 (10-12')	0.17	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	0.03		NC	<0.1	ND		NC
C2 (18-20')	0.26	ND		NC	<0.1	ND		NC	<0.1	0.002	J	NC	<0.1	0.01		NC	<0.1	ND		NC
C3 (10-12')	0.80	0.08		164%	0.13	ND		NC	**16.07**	**5.1**	J	104%	**61.06**	**27**		77%	0.43	0.02		186%
C3 (14-16')	0.25	0.04		145%	<0.1	ND		NC	**2.95**	**2.7**	J	9%	**72.78**	**110**		41%	<0.1	0.01		NC
B3 (18-20')	0.29	ND		NC	<0.1	ND		NC	<0.1	0.002	J	NC	<0.1	0.03	J	NC	<0.1	ND		NC
B3 (20-22')	0.36	0.03		169%	<0.1	ND		NC	0.27	0.17		45%	0.26	0.22		17%	<0.1	ND		NC
C6 (6-8')	0.34	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC
C6 (12-14')	0.33	ND		NC	<0.1	ND		NC	<0.1	0.004	J	NC	<0.1	0.003	J	NC	<0.1	ND		NC
D7 (2-4')	0.3	ND		NC	<0.1	ND		NC	<0.1	0.004	J	NC	<0.1	0.01		NC	<0.1	ND		NC
D7 (22-24')	<0.1	ND		NC	<0.1	ND		NC	<0.1	0.002	J	NC	<0.1	0.003	J	NC	<0.1	ND		NC
D5 (18-20')	1.42	0.11		171%	<0.1	ND		NC	**2.87**	**3.4**		17%	<0.1	0.01		NC	<0.1	0.002	J	NC
D3 (18-20')	0.77	0.05	J	176%	<0.1	ND		NC	**1.78**	**2.6**	J	37%	<0.1	0.03	J	NC	<0.1	ND		NC
D8 (18-20')	0.26	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC
B2 (10-12')	0.20	ND		NC	<0.1	ND		NC	<0.1	0.003	J	NC	<0.1	0.009	J	NC	<0.1	ND		NC
B6 (12-14')	0.31	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC
B6.5 (20-22')	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC	<0.1	ND		NC

Notes:

1. All sample results reported in milligram per kilogram (mg/kg) or parts per million (ppm).
2. %RPD- Relative Percent Difference between field GC and laboratory results. Per USEPA Region II CLP Organic Data Review Guidelines, %RPD should not exceed 100% for good sample duplicity.
3. Sample results for the field GC detected below the 0.1 ppm (instrument calibration) are considered to be non-detect.
4. ND - Non detect laboratory result.
5. NC- Not calculated due to non-detect results.
6. "J" - Estimated laboratory result due to QC issue or result was greater than instrument detection limit but below method detection limit.
7. **Bold** indicates sample results that exceed 10 ppm - See Table 1.
8. Field GC results for Vinyl Chloride below 1.0 ppm are considered estimated due to poor peak resolution between initial water peak on chromatogram.
9. Laboratory samples were analyzed using USEPA Method 8260B.
10. Sixteen duplicate samples were collected out of 166 samples analyzed. Therefore a 9.6% duplication of samples was performed.

Table 5
Laboratory Analytical Results -Total Petroleum Hydrocarbons
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification	Sample Type	Date Sampled	Time Sampled	Total Petroleum Hydrocarbons (310.13)	PID
B2-16-18	soil	2/27/2003	09:45 hrs	ND	5.5
B6.5-8-10	soil	2/28/2003	12:30 hrs	ND	35
B6-16-18	soil	2/27/2003	10:45 hrs	ND	ND
C2-12-14	soil	2/25/2003	10:25 hrs	ND	2.2
C3-10-12	soil	2/25/2003	11:59 hrs	480	> 475
D5-20-22	soil	2/26/2003	10:53 hrs	960	129
E2-16-18	soil	2/28/2003	14:56 hrs	ND	ND
MW-8	groundwater	2/26/2003	12:30 hrs	10,600	NA

Notes:
1. TPH results reported in milligram per kilogram (mg/kg) or parts per million (ppm).
2. PID - Photoionzation Detector
3. PID values in ppm.

Table 6
Laboratory Analytical Results - Total Organic Carbon
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification	Date Sampled	Time Sampled	Total Organic Carbon (mg/kg)
C3-4-6	2/25/2003	11:40 hrs	13,900
C6-10-12	2/25/2003	16:55 hrs	7,990
D3-10-12	2/26/2003	11:30 hrs	19,300
E6-22-24	2/26/2003	13:56 hrs	16,000

Notes:
1. mg/kg - milligrams per kilogram (ppm).

Table 7
Quality Control Results for Field GC Analysis
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Sample Identification	Vinyl Chloride	RPD	Trans-1,2-DCE	RPD	Cis-1,2-DCE	RPD	TCE	RPD	PCE	RPD
B3(4-6')	0.19	11.11%	<0.1	NC	<0.1	NC	<0.1	NC	<0.1	NC
B3(4-6')dup	0.17		<0.1		<0.1		<0.1		<0.1	
B3(14-16')	0.30	10.53%	<0.1	NC	<0.1	NC	<0.1	NC	<0.1	NC
B3(14-16')dup	0.27		<0.1		<0.1		<0.1		<0.1	
C2(8-10')	0.13	14.29%	<0.1	NC	<0.1	NC	<0.1	NC	<0.1	NC
C2(8-10')dup	0.15		<0.1		<0.1		<0.1		<0.1	
C3(4-6')	<0.1	NC	<0.1	NC	<0.1	NC	0.17	NC	<0.1	NC
C3(4-6')dup	<0.1		<0.1		<0.1		<0.1		<0.1	
C6(8-10')	0.38	23.53%	<0.1	NC	<0.1	NC	<0.1	NC	<0.1	NC
C6(8-10')dup	0.30		<0.1		<0.1		<0.1		<0.1	
D3(14-16')	0.31	6.25%	<0.1	NC	0.19	23.53%	<0.1	NC	<0.1	NC
D3(14-16')dup	0.33		<0.1		0.15		<0.1		<0.1	
E4(16-18')	0.52	1.90%	<0.1	NC	0.12	NC	0.23	70.59%	<0.1	NC
E4(16-18')dup	0.53		<0.1		<0.1		0.11		<0.1	
B2(10-12')	0.20	0.00%	<0.1	NC	<0.1	NC	<0.1	NC	<0.1	NC
B2(10-12')dup	0.20		<0.1		<0.1		<0.1		<0.1	
C1(8-10')	0.27	3.77%	<0.1	NC	<0.1	NC	<0.1	NC	0.15	NC
C1(8-10')dup	0.26		<0.1		<0.1		<0.1		<0.1	

Notes:

1. Nine duplicate samples were collected out of 166 samples analyzed. Therefore a 5.4% duplication of samples occurred.
2. %RPD- Relative Percent Difference. Per USEPA Region II CLP Organic Data Review Guidelines, %RPD should not exceed 100% for soil samples.
3. NC- Not calculated due to non-detect results.
4. All sample results reported in milligram per kilogram (mg/kg) or parts per million (ppm).
5. Sample results detected below the 0.1 ppm (instrument calibration) are considered to be non-detect.

Table 8
Monitoring Well Groundwater Elevations
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Monitoring Well Identification	Monitoring Well Inner Casing Elevation (1)	Groundwater Elevation											
		2/21/2003	2/24/2003		2/25/2003	2/26/2003		2/27/2003		2/28/2003		3/3/2003	3/5/2003
		AM	AM	PM	AM	AM	PM	AM	PM	AM	PM	AM	PM
MW-2	689.44	681.57	681.47	681.52	681.38	681.84	682.18	682.33	682.50	682.56	682.54	NA	682.04
MW-3	687.22	672.03	672.57	672.64	674.02	675.73	676.13	676.48	676.72	677.26	677.47	673.05	672.45
MW-4	686.22	676.40	677.47	677.1	677.65	678.61	678.82	679.08	679.23	679.61	679.71	677.10	676.83
MW-6	686.51	674.22	674.59	674.57	675.05	676.22	676.41	676.87	677.08	677.45	677.61	674.63	674.29
MW-7	685.86	684.14	684.76	684.85	684.84	684.84	684.86	684.85	685.16	685.06	685.01	684.96	685.36
MW-8	685.90	670.90	NA	NA	672.00	672.7	NA	NA	674.2	NA	NA	672.62	672.00
MW-9	685.10	670.40	670.82	670.87	671.36	672.82	673.59	674.43	674.76	675.38	675.65	671.35	671.00
MW-10	687.22	675.10	NA	NA	675.63	676.50	676.77	677.07	677.24	677.60	677.67	675.38	675.06
WWMH	687.19	NA	660.39	663.4	668.43	671.22	671.65	672.41	672.80	674.07	674.49	662.39	660.93

Notes:

(1) Casing elevations from TVGA, 2/21/03.

Groundwater recovery trench wet well was shut off 2/24/03 at 13:30 and turned back on 3/1/03 at 09:00.

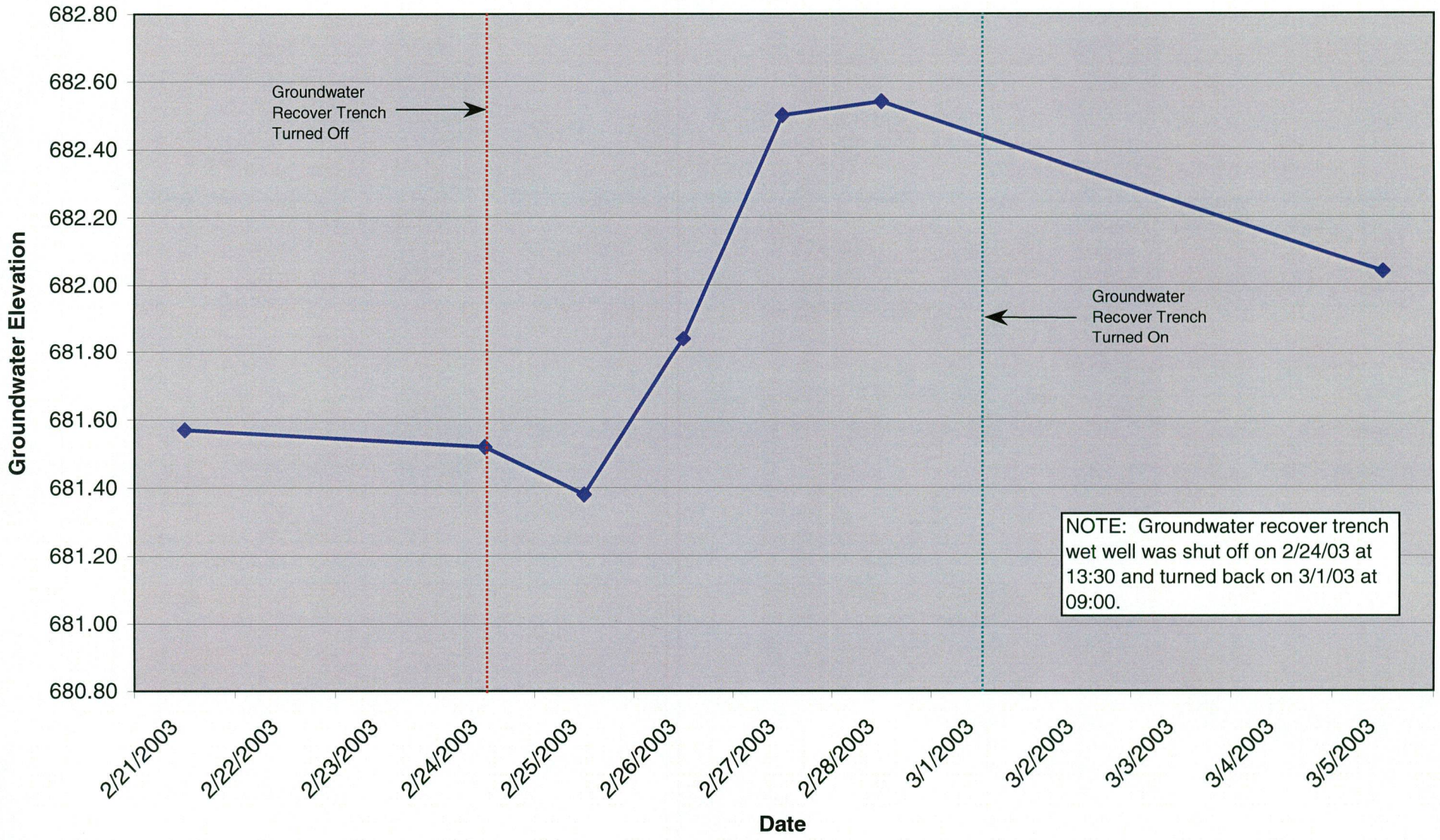
Table 9
Technology Screening and Evaluation Matrix
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Technology Identification	State of Technology and Earth Tech's Experience	Applicability to Site Contaminants and Site Characteristics	Implementability and Constructability	Reliability and Effectiveness	Operation and Maintenance Requirements	Relative Cost (This criterion is highly subjective.)
Alternative G1 - In Situ Chemical Oxidation (ISCO)	ISCO is an industry-proven technology that has been shown to reduce contaminant concentrations. Earth Tech has extensive experience in designing, installing, and operating this type of remediation technology.	ISCO is extremely effective on these types of contaminants. Surficial aquifer silts and sands should allow sufficient dispersion of ozone. In contrast to air sparging where high air flow rates are necessary, low flow rates for ozone delivery is required. Aquifer is well suited to ozonation because overlying and underlying clays/silts would form a "reaction cell", increasing contact efficiency. Groundwater pH range is favorable for ISCO.	ISCO could be readily implemented because there are no significant physical site constraints such as unfavorable topography, structures, etc. Constructability of this type of system is relatively easy because it requires traditional methods and materials. Mechanical and electrical equipment does not require significant space for installation. A UIC permit would be required that may present a brief time constraint.	ISCO is a highly reliable technology that has been proven very effective at similar sites with similar contaminants. Low permeability may slightly impede effectiveness, but this impediment would be associated with the other alternatives as well.	Monthly O&Ms are typical. Equipment is designed to operate unattended with an auto dialer. Corona tubes, compressor, and generators are examples of maintenance items.	Medium Some Factors that Impact Cost: • # of injection points, • duration of operation, • capital equipment cost, • permitting fees.
Alternative G2 - Dual Phase Extraction (DPE)	DPE is an industry-proven technology that has been shown to reduce contaminant concentrations. Earth Tech has extensive experience in designing, installing, and operating this type of remediation technology.	Technology is only applicable if dewatering can be maintained for a prolonged period of time so that air flow and vapor removal could be established. Groundwater from the dewatering process would be need to be discharged somewhere either at the POTW of the current treatment system.	DPE could be readily implemented because there are no significant physical site constraints such as unfavorable topography, structures, etc. Constructability of this type of system is relatively easy because it requires traditional methods and materials. Mechanical and electrical equipment does not require significant space for installation.	ISCO is a highly reliable technology that has been proven very effective at similar sites with similar contaminants. Low permeability may slightly impede effectiveness, but this impediment would be associated with the other alternatives as well.	Monthly O&Ms are typical. Equipment is designed to operate unattended with an auto dialer. Additional vapor sampling and carbon change outs associated with the VE system.	Medium Some Factors that Impact Cost: • dewatering duration, • water management, • duration of operation, • capital equipment cost.
Alternative G3 - Air Sparge with Soil Vapor Extraction (AS/SVE)	AS/SVE is an industry-proven technology that has been shown to reduce contaminant concentrations. Earth Tech has extensive experience in designing, installing, and operating this type of remediation technology.	Contaminants of concern (TCE and DCE) are volatile and amenable to the AS/SVE process. Lithology is not ideal for use of the technology given low permeability values and the presence of clays and silts. Applicability is questionable since the majority of contamination is approximately 20 feet below ground surface where air sparge well influence would be reduced.	AS/SVE could be readily implemented because there are no significant physical site constraints such as unfavorable topography, structures, etc. Constructability of this type of system is relatively easy because it requires traditional methods and materials. Mechanical and electrical equipment does not require significant space for installation.	AS/SVE is a highly reliable technology that has been proven very effective at similar sites with similar contaminants. Low permeability may slightly impede effectiveness, but this impediment would be associated with the other alternatives as well.	Monthly O&Ms are typical. Equipment is designed to operate unattended with an auto dialer. Equipment is very reliable and Earth Tech would anticipate no major O&M concerns. Additional vapor sampling and carbon change outs associated with the SVE system.	Medium Some Factors that Impact Cost: • # of AS points, • duration of operation, • horizontal well installation (for SVE), • capital equipment cost.
Alternative G4 - Pump and Treat	Pump and Treat is an industry-proven technology that has been shown to reduce contaminant concentrations. Earth Tech has extensive experience in designing, installing, and operating this type of remediation technology.	Extraction rates and well placement would be determined based on modeling information. Low permeability and the presence of silts and clay may impact performance. High contaminant concentrations may not be acceptable for discharge at local POTW facilities. Pump and treat systems generally show slower concentration reduction rates than other technologies.	Pump and Treat could be readily implemented because there are no significant physical site constraints such as unfavorable topography, structures, etc. Constructability of this type of system is relatively easy because it requires traditional methods and materials. Mechanical and electrical equipment does not require significant space for installation. A discharge permit for the POTW may be required presenting a brief time constraint.	Pump and Treat is not as effective as other alternatives but has been shown to be reliable over time. Low permeability may slightly impede effectiveness, but this impediment would be associated with the other alternatives as well.	Weekly inspections are normal, although systems are designed to run unattended with an autodialer for typical alarm conditions (e.g., loss of power, high level in surge tanks, etc.).	High Some Factors that Impact Cost: • # of extraction wells, • duration of operation, • horizontal well installation (if required), • capital equipment cost, • POTW treatment fees, • permitting fees.

Table 9
Technology Screening and Evaluation Matrix
Comprehensive Site Investigation
Scott Aviation, Inc.
Lancaster, New York

Technology Identification	State of Technology and Earth Tech's Experience	Applicability to Site Contaminants and Site Characteristics	Implementability and Constructability	Reliability and Effectiveness	Operation and Maintenance Requirements	Relative Cost (This criterion is highly subjective.)
Alternative G5 - Reductive Dechlorination	Technology is proven, has been successfully demonstrated on more than 200 sites. Effectiveness in this soil type and geochemical setting is good. Earth Tech experience includes 8 sites completed or in progress, more than 10 pending in various stages of development or pilot testing.	Applicability to this site appears good. There is evidence of naturally occurring reductive dechlorination in the aquifer. There is also evidence of at least two dechlorination steps (cis-DCE and VC), suggesting that the proper organisms and geochemistry are present for substantial dechlorination to endpoints that have multiple known degradation pathways. In situ redox conditions, DO concentrations, and alkalinity are naturally low, indicating that minimal electron donor supplementation should be needed to achieve necessary redox levels.	Reductive dechlorination should be easily implemented at this site. Accessibility by DPT in all areas and to the full contaminated depth appears good so a number of options for electron donor injection are available. Implementation would include either direct injection of electron donor, installation of small-diameter injection points or a combination of both. Constructability of this type of system is relatively easy because it requires traditional methods and materials.	Reliability would be expected to be good, particularly if the implementation plan could be constructed in phases or if pilot work could be done before completing the final design. There is little question that the technology would result in effective treatment but in-field testing is generally required to develop a strategy for full coverage of injected electron donor.	Monthly O&Ms are typical. A typical remedial scenario would include either a network of electron donor storage and pumping stations used to meter product to individual injection locations, or simply periodic manual injection events. If, however, electron demand is high or donor consumption is too rapid to sustain treatment between injection events, continuous metering may be necessary in some locations (highest VOC concentration areas).	Medium Some Factors that Impact Cost: • initial concentrations, • # of injection points, • duration of operation, • volume of organic substrate required, • capital equipment cost.

GRAPHS

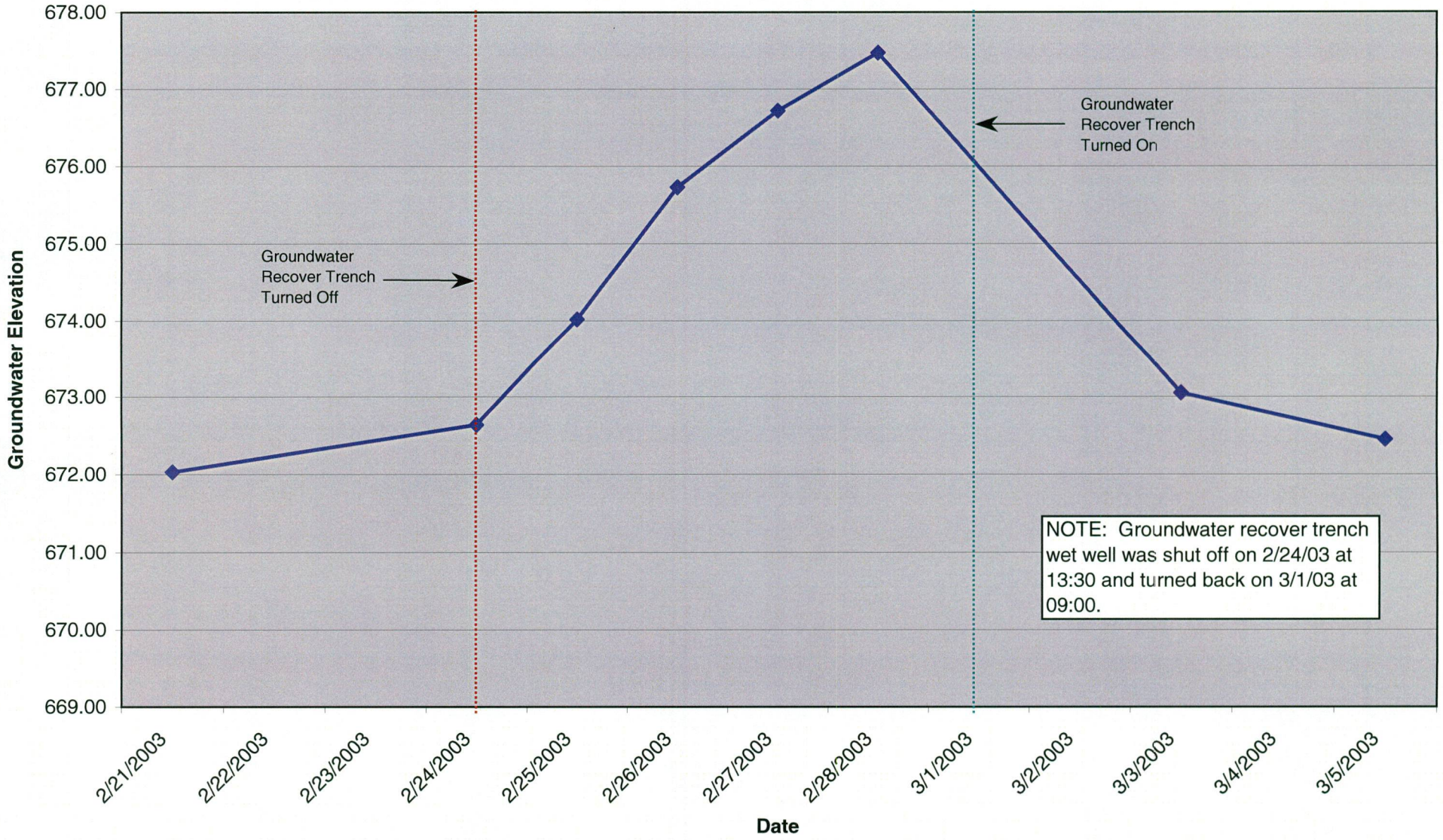


EARTH TECH

A Tyco Infrastructure Services Company

GRAPH 1
MW-2 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

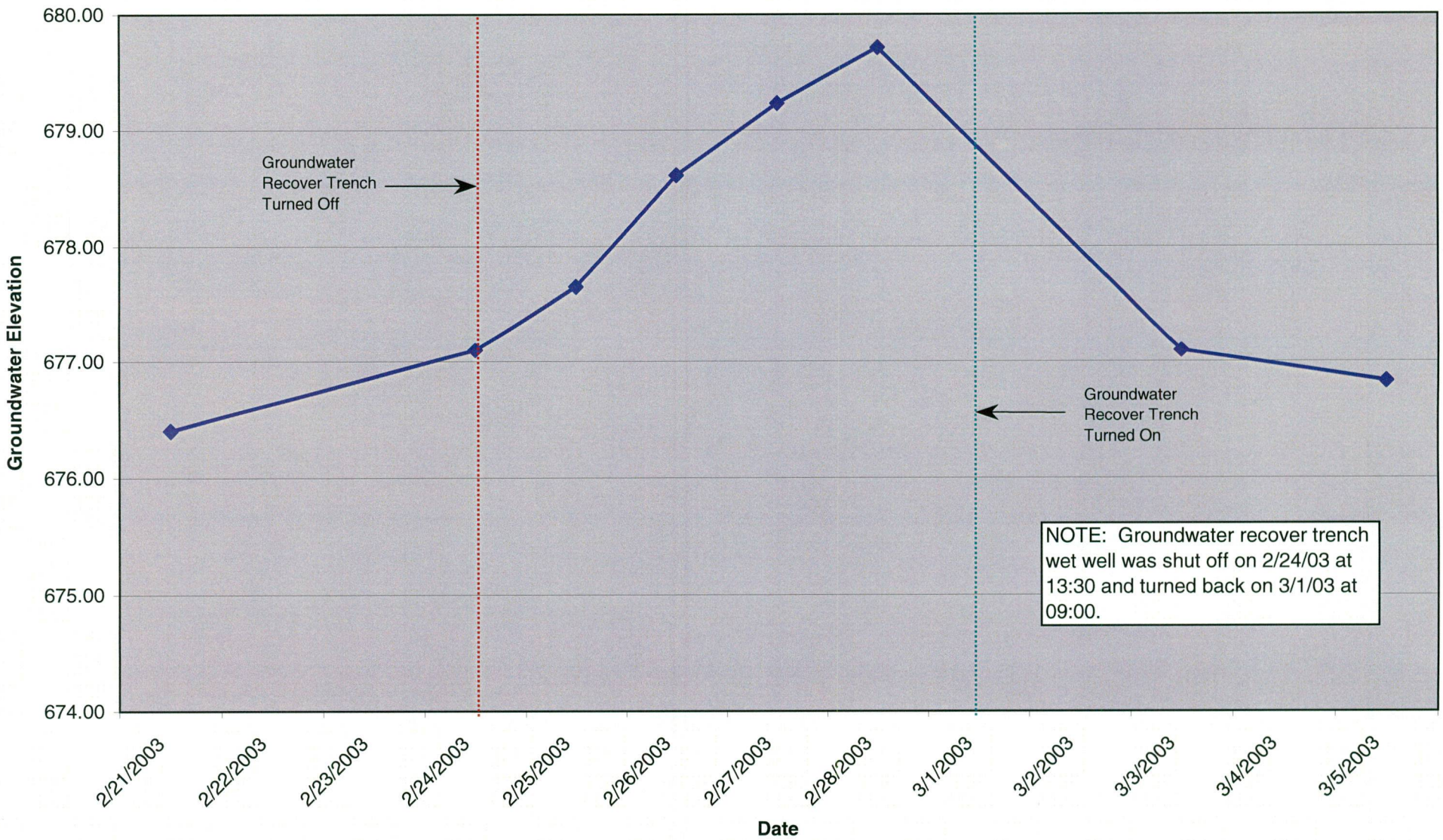


E A R T H T E C H

A Tyco Infrastructure Services Company

GRAPH 2
MW-3 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

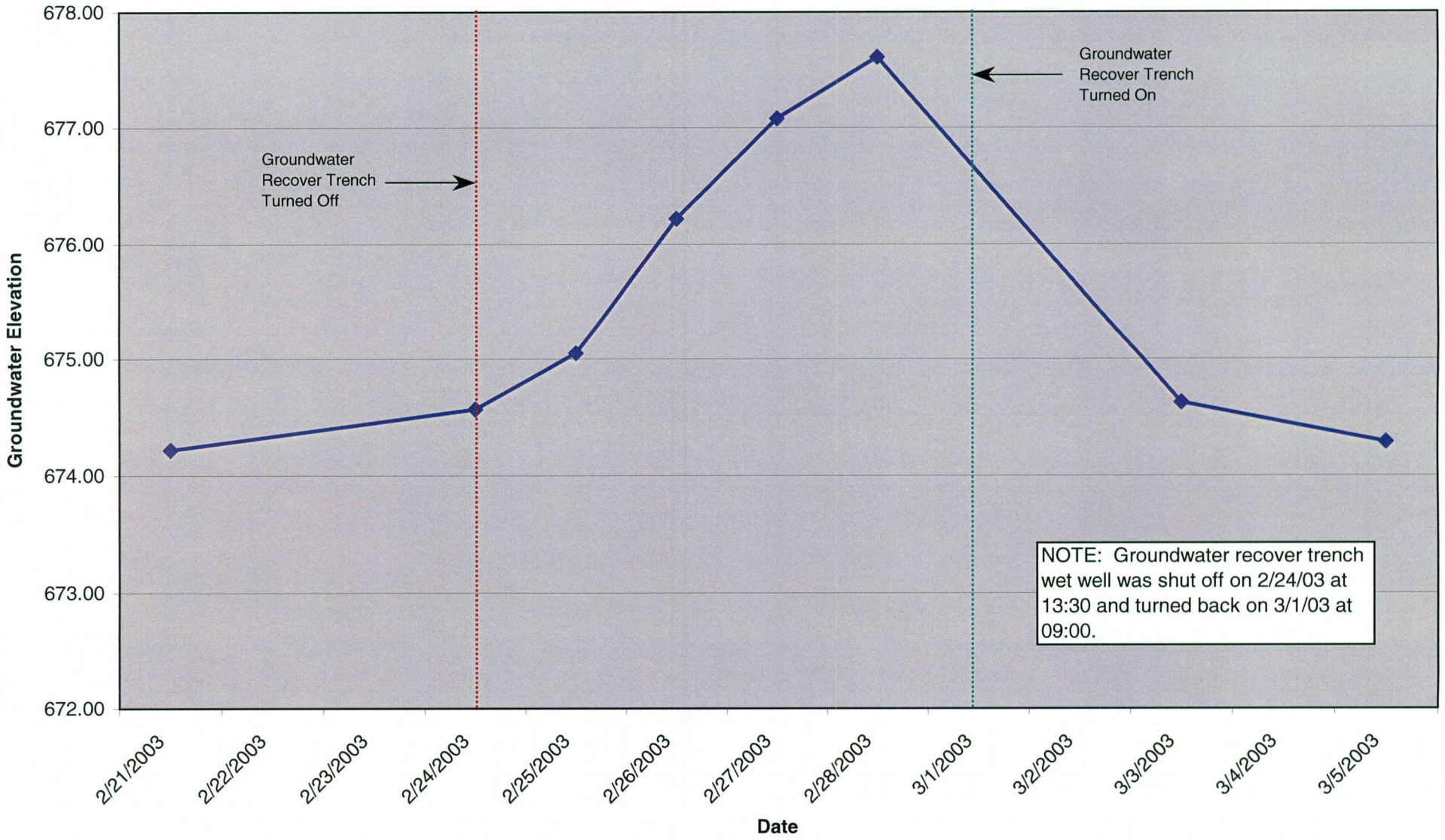


EARTH TECH

A Tyco Infrastructure Services Company

GRAPH 3
MW-4 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

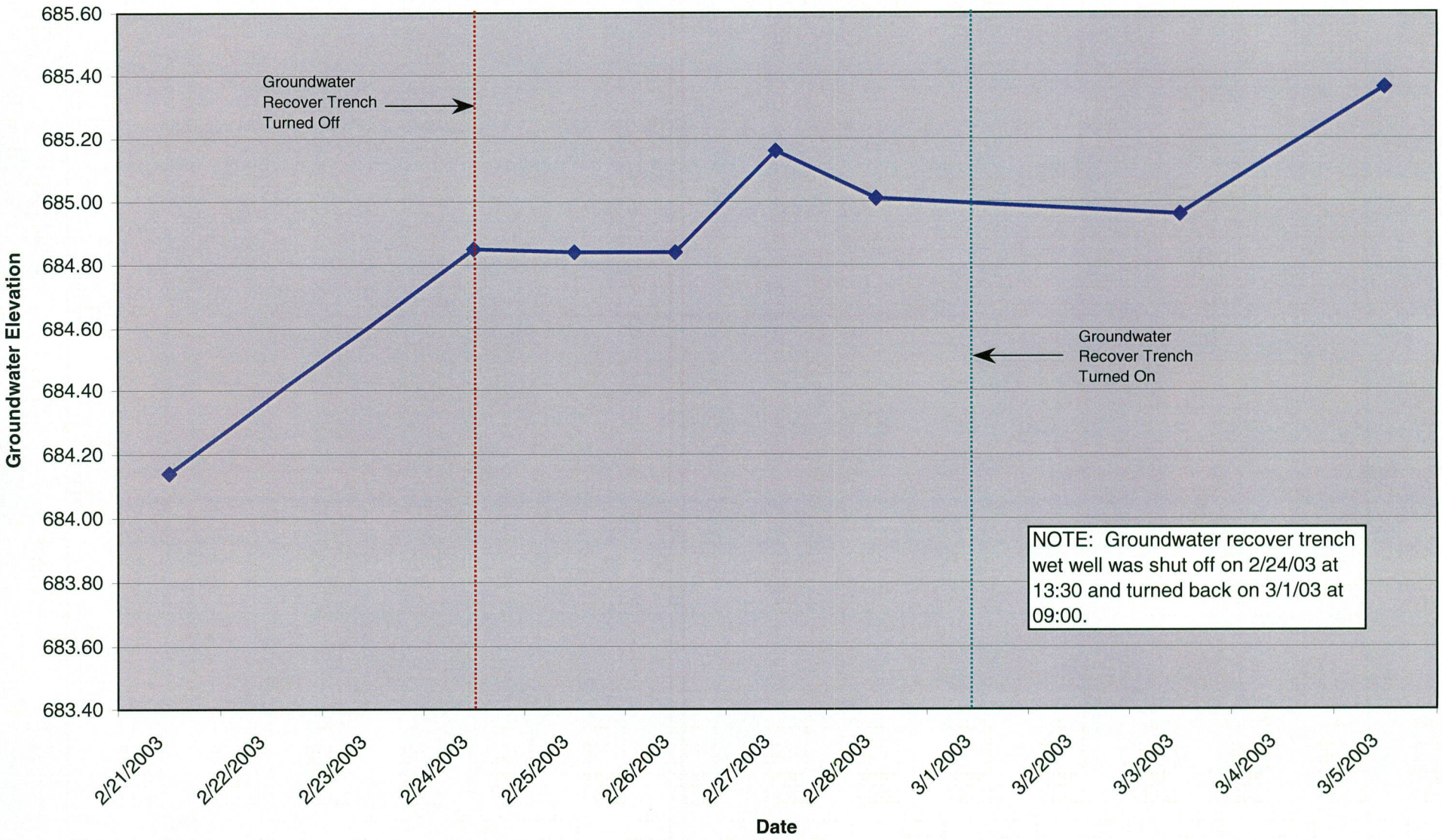


E A R T H T E C H

A Tyco Infrastructure Services Company

GRAPH 4
MW-6 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

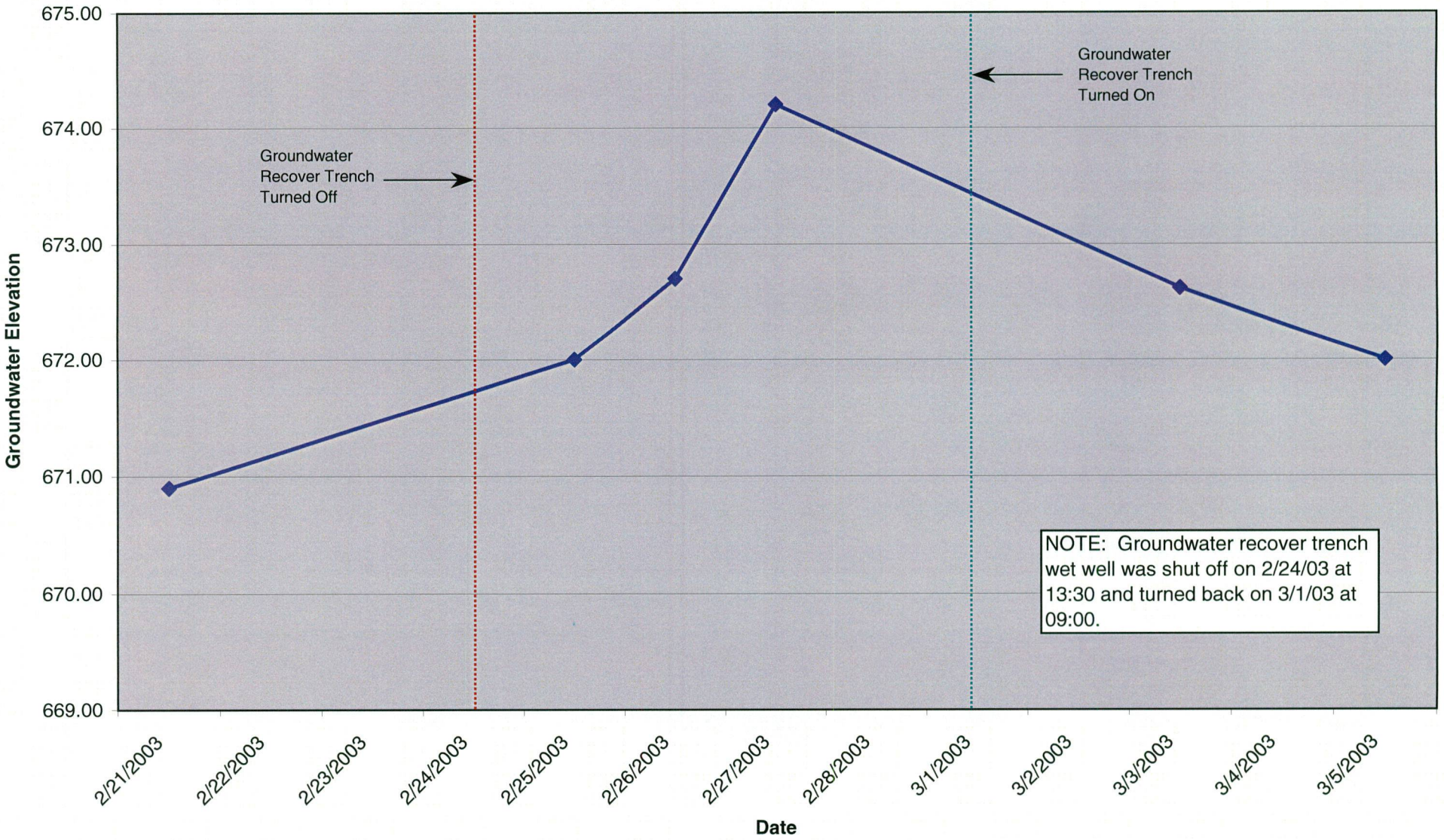


E A R T H T E C H

A Tyco Infrastructure Services Company

GRAPH 5
MW-7 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

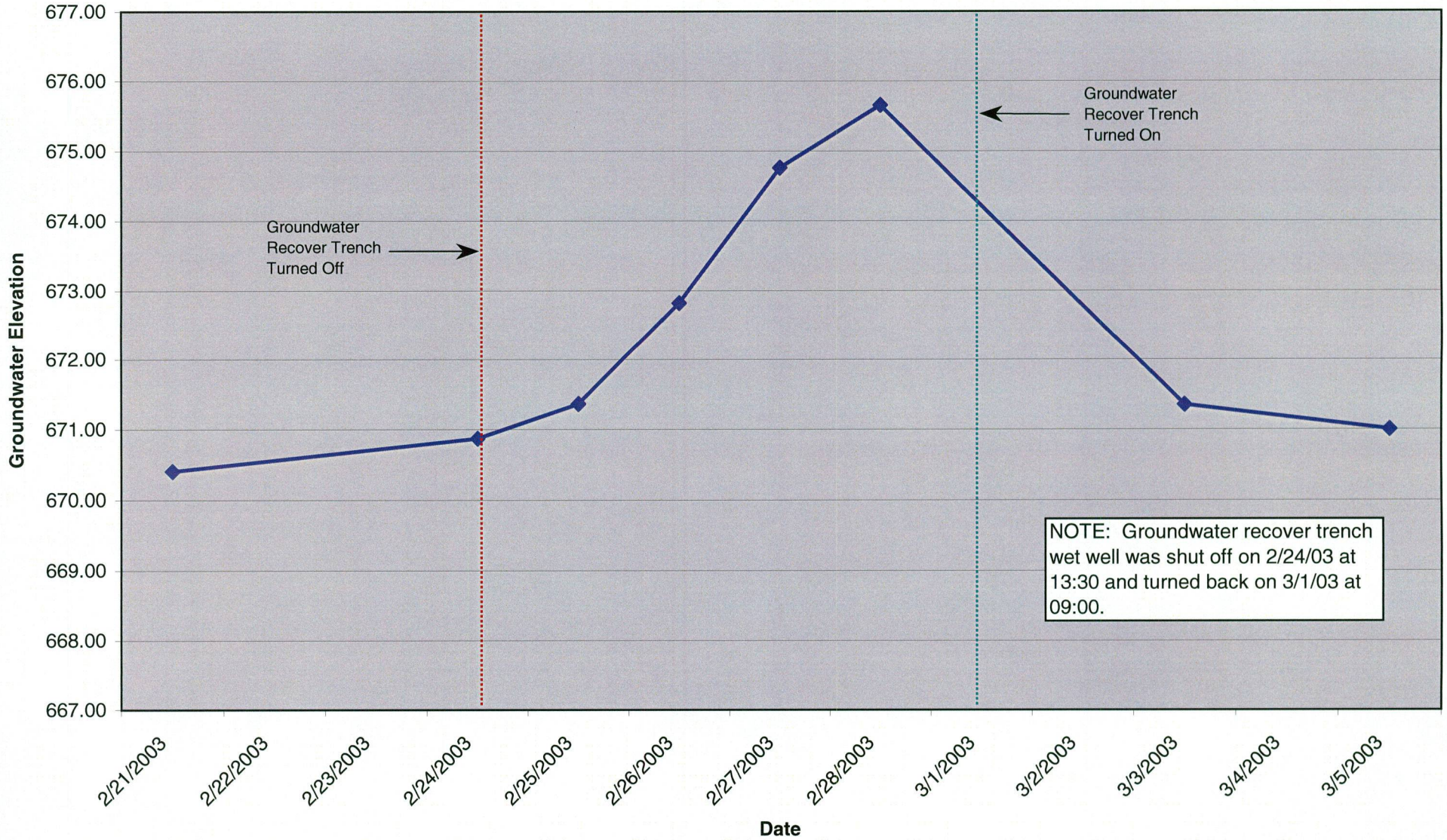


EARTH TECH

A Tyco Infrastructure Services Company

GRAPH 6
MW-8 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

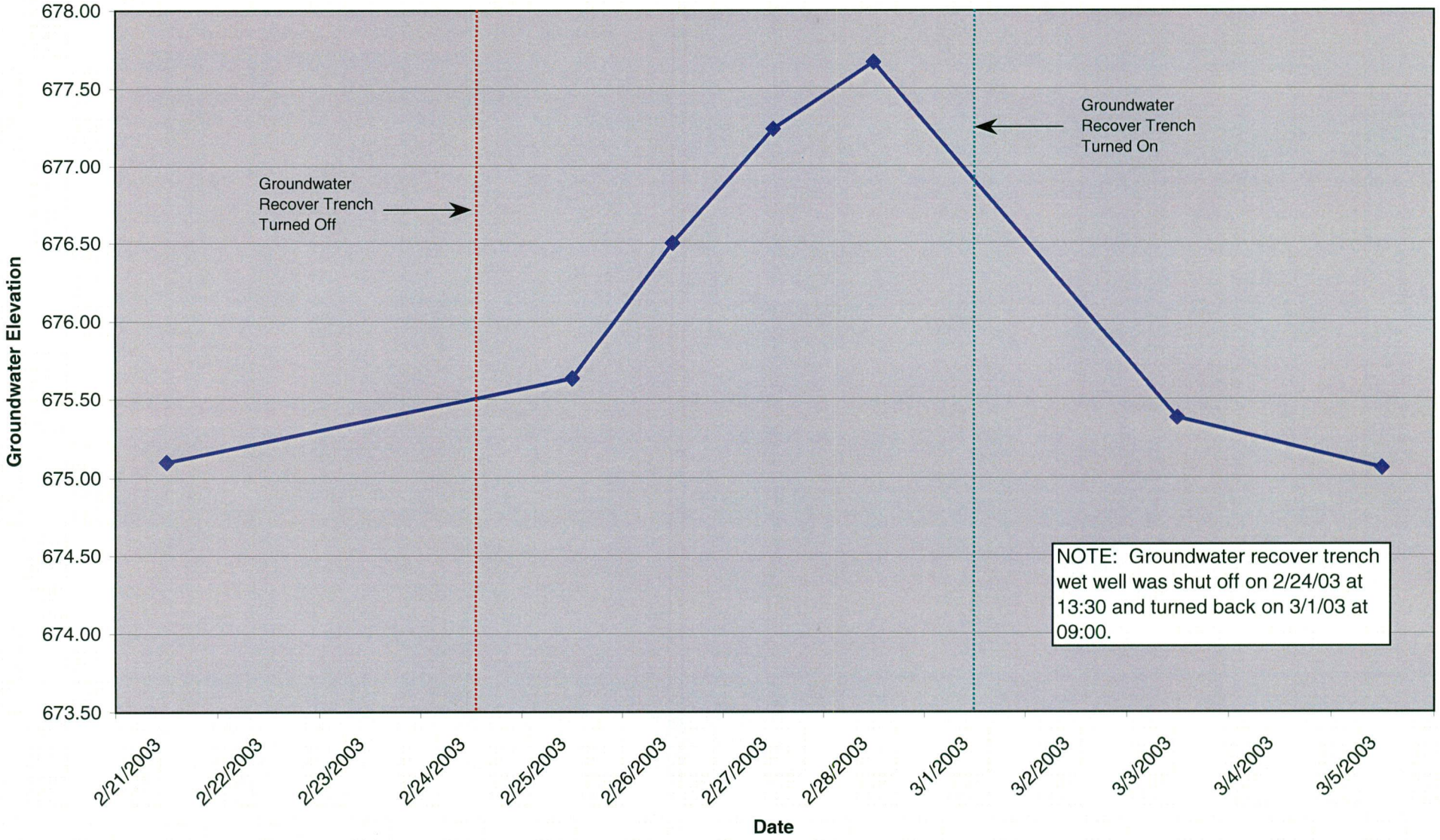


EARTH TECH

A Tyco Infrastructure Services Company

GRAPH 7
MW-9 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation



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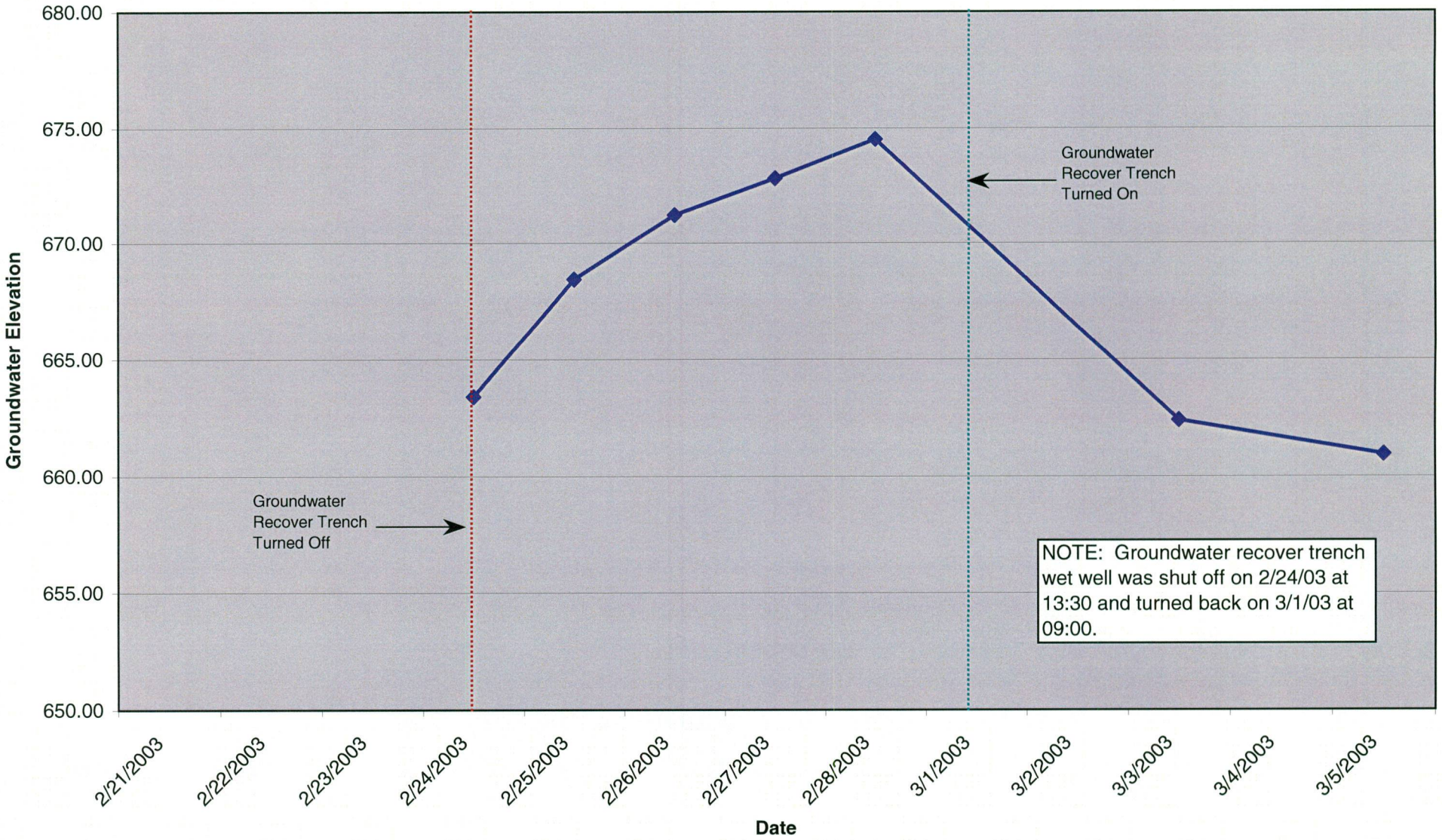
GRAPH 8
MW-10 GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation



EARTH TECH

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GRAPH 9
Well MH GROUNDWATER ELEVATIONS

Scott Aviation Products - Plant #2
Comprehensive Site Investigation

APPENDICES

APPENDIX A

SITE REMEDIAL ACTIVITIES HISTORY

Site History

The following list is a historical summary of site remediation efforts:

April 1991 – Figgie International decommissioned, removed and disposed the 3,000 gallon underground storage tank (UST) from which solvents had been released.

July 9, 1992 – Figgie International, at the request of the NYSDEC, entered into an RI/FS Order on Consent with the NYSDEC and initiated an RI at the Site in the area where the former UST was located.

November 1993 – Figgie International submitted the final RI Report to the NYSDEC for approval.

December 1993 – The NYSDEC approved the RI Report.

March 18, 1994 – Figgie International submitted the final Feasibility Study (FS) Report to the NYSDEC for approval.

August 29, 1994 – The NYSDEC approved of the FS Report.

August 1994 – The NYSDEC issued the Proposed Remedial Action Plan (PRAP) for public review and comment.

September 14, 1994 – The NYSDEC hosted a public meeting to review the PRAP and address questions/comments pertaining to the Site.

November 7, 1994 – The NYSDEC finalized a Record of Decision (ROD) indicating that groundwater remediation at the Site would be completed by constructing a ground water collection trench and treatment system, and soil remediation would be completed by excavating the soils containing levels of VOCs above the RAOs and treating soil on-site using an *ex situ* soil vapor extraction system.

December 22, 1994 – Figgie International, via a letter from the Law Offices of Theodore Hadzi-Antich requested the NYSDEC assess the feasibility of using a Mechanical Volatilization System (MVS) to treat the soils, as proposed by O'Brien & Gere Engineers, Inc., in lieu of an *ex situ* soil vapor vacuum extraction system.

February 17, 1995 – Figgie International submitted the MVS Technology Evaluation Report dated February 1995 to the NYSDEC for review. At the request of the NYSDEC, the Report presented additional information about the MVS process and provided information to supplement the Feasibility Study in an effort to obtain NYSDEC approval of the alternate approach proposed for soil remediation at the Site.

April 19, 1995 – The NYSDEC issued a ROD Amendment allowing the use of the MVS process for soils treatment in lieu of the *ex situ* soil vapor extraction method.

September 7, 1995 – Final submittal of the Remedial Design/Remedial Action (RD/RA) Work Plan to the NYSDEC. The RD/RA Work Plan was subsequently incorporated into the RD/RA Order on Consent #B9-0377-95-05.

September 29, 1995 – NYSDEC approved the Remedial Design.

October 1995 – Order on Consent #B9-0377-95-05 was executed and became effective requiring Figgie International to initiate and complete remedial actions at the Site in compliance with the ROD, as amended on April 19, 1995, and the RD/RA Work Plan dated September 1995.

November 21, 1995 – The Buffalo Sewer Authority and Erie County Department of Environmental Planning jointly issued Scott Aviation a Buffalo Pollutant Discharge Elimination System (BPDES) permit to temporarily discharge water removed from the excavation during construction, following treatment using bag filters and granular carbon (GAC), to the sanitary sewer (Permit #95-11-TP025).

December 8, 1995 – The results of the soil excavation and final soil verification sampling, performed in connection with the soil remediation activities, were submitted to the NYSDEC for review. Based on the data, NYSDEC approval was requested to backfill the excavation.

December 11, 1995 – The NYSDEC provided written approval to backfill the excavation. Backfill of the excavation was completed on December 19, 1995.

December 14, 1995 – The Buffalo Sewer Authority and Erie County Department of Environment and Planning jointly issued Scott Aviation a final BPDES permit to discharge effluent from the air stripper to the sanitary sewer (Permit #96-01-E4045). This permit became effective on February 15, 1996.

December 22, 1995 – Site restoration activities in the areas where the soil processing equipment and soil stockpiles were located, not including placement of topsoil and seed, was conducted based on Pre-Restoration verification sampling.

March 1, 1996 – Start-up and testing of the Ground Water Recovery and Treatment Systems. Pursuant to the CQAP, influent and effluent water streams to the air stripper were sampled and analyzed for VOCs. As required by the permit issued for discharge to the sanitary sewer (Permit #96-01-E4045), the effluent was also analyzed for pH, Total Extractable Hydrocarbons and Total Suspended Solids.

April 1996 – Commencement of quarterly groundwater sampling of monitoring wells MW-3 and MW-4, and annual groundwater sampling of monitoring wells MW-2 and MW-6.

May 17, 1996 – Substantial completion of the on-site remedial actions.

June 14, 1996 – Notice of Completion sent to the NYSDEC.

April 1998 – Groundwater showed an increasing trend in VOC concentrations in well MW-4. Additionally, LNAPLs was observed on the water level probe at MW-4 during the November 1998 sampling event.

April 1999 – Additional subsurface investigations were performed to evaluate the extent and potential source of the VOCs and the LNAPL observed in well MW-4. The additional investigation included the installation of four additional groundwater monitoring wells as MW-7, MW-8, MW-9 and MW-10. The results of the groundwater quality monitoring events indicate the presence of VOCs in wells MW-7, MW-8, MW-9 and MW-10.

July 2001 – Waste Resource Associates, Inc. submits a Work Plan to Scott Aviation. The purpose of the investigation was to define the limits of contamination in the areas surrounding monitoring wells MW-4, MW-7, and MW-8.

August 2001 – Waste Resource Associates, Inc. submits a Site Investigation Report (dated August 17, 2001), to the NYSDEC.

APPENDIX B

HISTORIC AERIAL PHOTOGRAPHS

The EDR-Aerial Photography Print Service

Scott Aviation
225 Erie Street
Lancaster, NY 14086

December 13, 2002

Inquiry Number: 897298-3

Environmental Data Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

Environmental Data Resources, Inc.
Aerial Photography Print Service

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-00, Section 7.3.4, page 12.

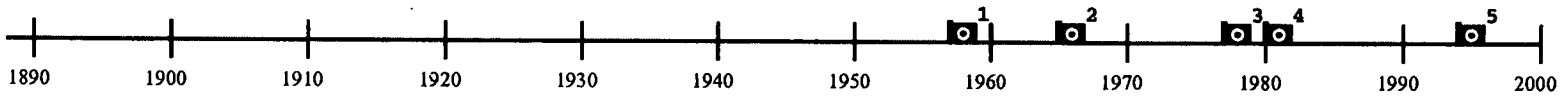
Aerial Photographs

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of aerial photograph collections flown by public and private agencies for the state of New York. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at approximately ten year intervals.

Environmental Data Resources, Inc.

Prior Use Report® Timeline

Target Property



Legend:

= Historical Topographic Map (**HT**)

= National Wetland Inventory Map (**WT**) *

= Flood Prone/FEMA Maps (**FP/FR**) *

= Aerial Photos Included (**P**) *

= Aerial Photos Available *

= Residential (**R**)

= Commercial or Industrial (**C**)

Superscript number corresponds to graph ID in text

**Displayed on timeline when aerial photos, flood prone, FEMA, wetland maps, or Aerial Research Summary are purchased.*

Target Property:	Scott Aviation	**Customer:**	Earth Tech Inc.
Address:	225 Erie Street	**Contact:**	Jim Kaczor
City/State/Zip:	Lancaster, NY 14086	**Inquiry #:**	897298-3
		Date:	12/13/02

4. SUMMARY

- *Aerial Photographs:*

Date EDR Searched Historical Sources:
Aerial Photography December 13, 2002
Fire Insurance Maps December 13, 2002

Target Property:
225 Erie Street
Lancaster, NY 14086

PUR ID Year	*Uses*	*Portion-Findings (FIM Information Only)*	*Source*
1 1958	Aerial Photograph. Scale: 1"=750'	Panel #: 2442078-H6/Flightdate: October 20, 1958	nar
2 1966	Aerial Photograph. Scale: 1"=750'	Panel #: 2442078-H6/Flightdate: July 3, 1966	nar
3 1978	Aerial Photograph. Scale: 1"=833'	Panel #: 2442078-H6/Flightdate: October 21, 1978	nar
4 1981	Aerial Photograph. Scale: 1"=750'	Panel #: 2442078-H6/Flightdate: August 19, 1981	nar
5 1995	Aerial Photograph. Scale: 1"=833'	Panel #: 2442078-H6/Flightdate: March 28, 1995	nar

Glossary of Terms

A.A.A.

Aerial photograph flyer: Agriculture Adjustment Administration (Federal).

A.S.C.S

Aerial photograph flyer: Agricultural Stabilization and Conservation Service (Federal)

Address in Research Source

Indicates that a property is listed at a different address than the one provided by the user. Generally occurs when a property is located on a corner or, when the physical address of a property is different than its mailing address.

Address Not Listed in Research Source

Occurs when a specific site address is not listed in city directories and/or fire insurance maps.

Adjoining

Any property that is contiguous, or a property that would be contiguous if not for a public thoroughfare, to the target property. *To differentiate from each adjoining property, stand at the target property's "front door" facing the street.*

Adjoining Back

Property directly to the rear of the target property. (Applies only to fire insurance map data.)

Adjoining Front

Property directly in front of the target property. (Applies only to fire insurance map data.)

Adjoining Left

Property directly to the left of the target property. (Applies only to fire insurance map data.)

Adjoining Right

Property directly to the right of the target property. (Applies only to fire insurance map data.)

Adjoining Surrounding Area

Property that may adjoin the target property but due to lack of specific map information cannot be located precisely. This situation typically occurs when city directory information, but not fire insurance map information, is available.

C.A.S

Aerial photograph flyer: Chicago Aerial Survey (private).

C.S.S.

Aerial photograph flyer: Commodity Stabilization Service (Federal).

Cartwright

Aerial photograph flyer: Cartwright (private)

CD

City Directory

Commercial

Any property including, but not limited to, property used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes; property used for residential purposes that has more than four residential dwelling units.

Commercial or Industrial

Property that has either a commercial *or* an industrial use. Examples include retail stores, manufacturing facilities, factories, and apartment buildings.

D.N.R.

Aerial photograph flyer: Department of National Resources (state).

D.O.T.

Aerial photograph flyer: Department of Transportation (state).

Fairchild

Aerial photograph flyer: Fairchild (private).

FIM

Fire Insurance Map

Flood Insurance Rate Maps

Flood Insurance Rate Maps are produced by the Federal Emergency Management Agency (FEMA). These maps indicate special flood hazard areas, base flood elevations and flood insurance risk zones.

Flood Prone Area Maps

Flood Prone Area maps are produced by the United States Geological Survey (USGS). Areas identified as flood prone have been determined by available information gathered from past floods.

F.S.

Aerial photograph flyer: Forest Service (Federal).

Geonex

Aerial photograph flyer: Geonex (private).

M.C.

Aerial photograph flyer: Metropolitan Council of the Twin Cities Area (state).

Mark Hurd

Aerial photograph flyer: Mark Hurd (private)

N.A.P.P.

Aerial photograph flyer: National Aerial Photography Program (Federal).

National Wetland Inventory Maps

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a division of the U.S. Department of the Interior. Wetland and deepwater habitat information is identified on a 7.5 minute U.S.G.S. topographic map. The classification system used categorizes these habitats into five systems: marine, estuarine, riverine, lacustrine and palustrine.

No Return

Indicates that site owner was unavailable at time of surveyor's contact. *(Applies only to city directories.)*

No Structure Identified on Parcel

Used when site boundaries and/or site address is indicated on a fire insurance map; no structure details exist.

Other

Occurs when the site's classification is different that EDR's standard categories. Examples may include undeveloped land and buildings with no specified function.

P.M.A.

Aerial photograph flyer: Production and Marketing Administration (Federal).

Pacific Aerial

Aerial photograph flyer: Pacific Aerial (private)

Portion

Refers to the fire insurance map information identified on the four quadrants of a target or adjoining property. The portions are referred to as *Frontright*, *Frontleft*, *Backright*, and *Backleft* and are determined as if one were standing at the front door, facing the street.

Property Not Defined

Used when property is not clearly demarcated on a fire insurance map.

Residential

Any property having fewer than five dwelling units used exclusively for residential purposes.

Residential with Commercial Uses (a.k.a. Multiple Purpose Address)

A business (firm) and residence at the same address. Examples include a doctor, attorney, etc. working out of his/her home.

Sidwell

Aerial photograph flyer: Sidwell (private).

Site Not Mapped

Occurs when an adjoining property has not been mapped by fire insurance map surveyors. (Applies only to fire insurance map data.)

Teledyne

Aerial photograph flyer: Teledyne (private)

Topographic Maps

Topographic maps are produced by the United States Geological Survey (USGS). These maps are color coded line and symbol representations of natural and selected artificial features plotted to scale.

Turnbow

Aerial photograph flyer: Michael Turnbow (private)

U.S.D.A.

Aerial photograph flyer: United States Department of Agriculture (Federal).

U.S.D.I.

Aerial photograph flyer: United States Department of the Interior (Federal).

U.S.G.S.

Aerial photograph flyer: United States Geological Survey (Federal).

Vacant

May refer to an unoccupied structure or land. *Used only when fire insurance map or city directory specifies 'vacant.'*

W.P.A.

Aerial photograph flyer: Works Progress Administration (Federal).

WALLACE

Aerial photograph flyer: Wallace (private).

The Following Image(s) are the Best Copy Available

BIEL'S


INQUIRY #: 8971298
YEAR: 1995
SCALE: 1"= 833'

INQUIRY #: 897698

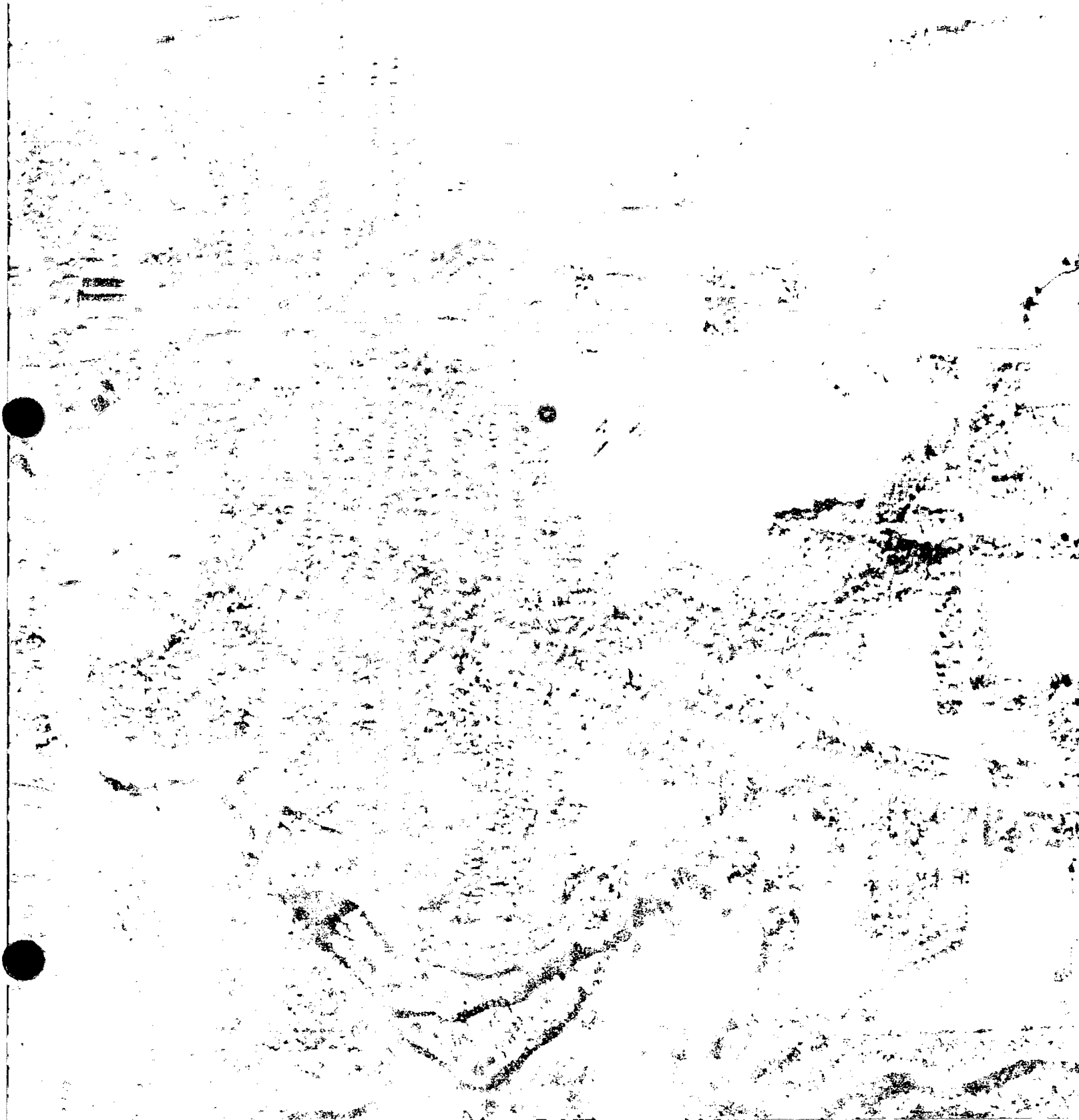
YEAR: 1981

SCALE: 1"= 750'

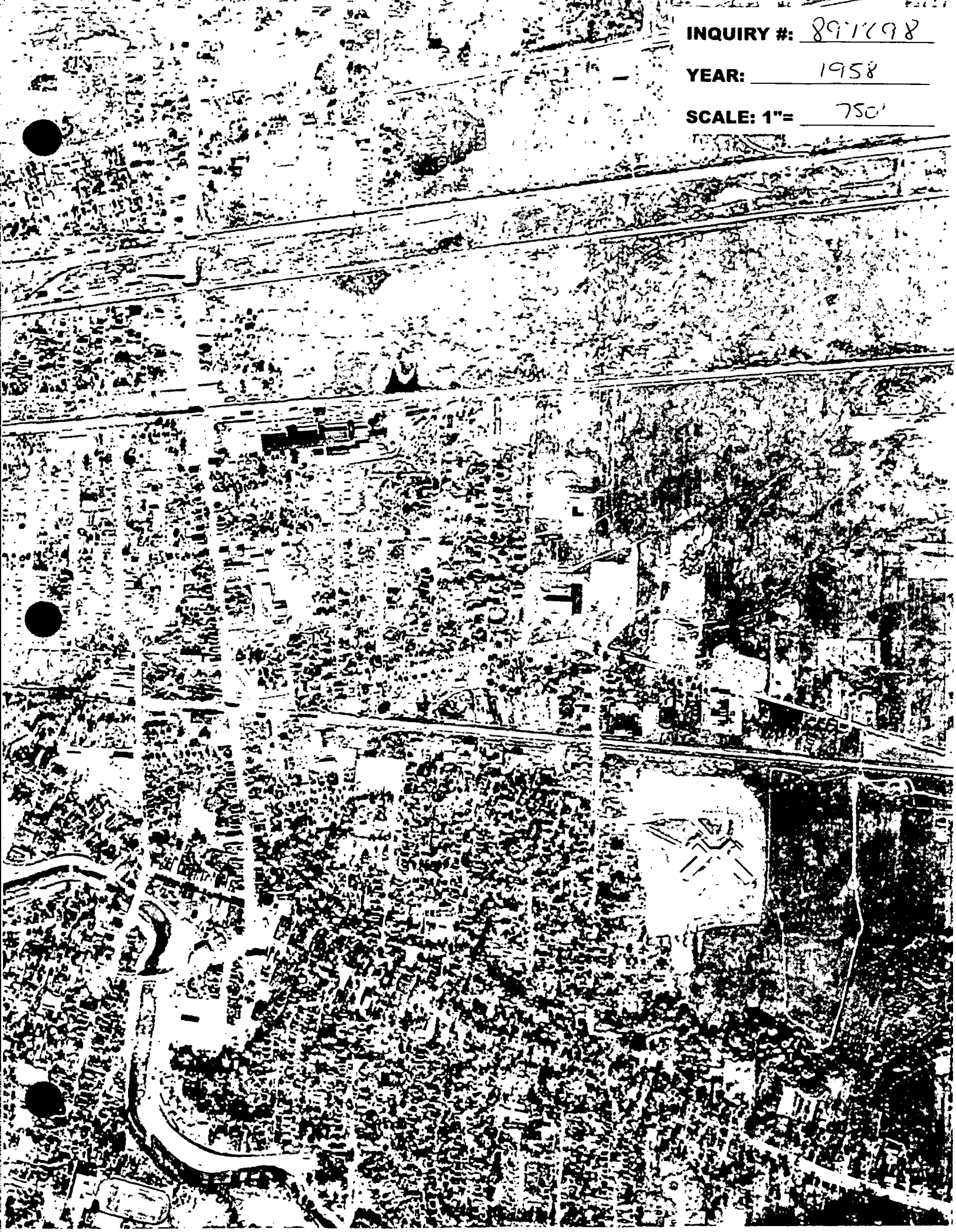
INQUIRY #: 8971298

YEAR: 1978

SCALE: 1"= 833'




INQUIRY #: 89768
YEAR: 1966
SCALE: 1"= 750'



INQUIRY #: 891698

YEAR: 1958

SCALE: 1"= 750'

APPENDIX C

GEOPHYSICAL SURVEY RESULTS

338 Harris Hill Road, Suite 201
Williamsville, New York 14221
(716) 565-0624 · Fax (716) 565-0625

GEOMATRIX

March 3, 2003

Mr. James Kaczor
Earth Tech, Inc.
University Corporate Centre
100 Corporate Parkway
Suite 341
Amherst, NY 14226

Dear Mr. Kaczor:

Subject: Geophysical Survey Results – Scott Aviation Site, Lancaster, NY

1.0 INTRODUCTION

This report presents the results of a geophysical investigation performed at a property located east of 225 Erie Street in Lancaster, NY. The geophysical survey was performed by Geomatrix Consultants, Inc. (Geomatrix) to map the distribution of buried metals in an attempt to locate anomalies indicative of underground storage tanks (USTs). The survey was performed on February 19, 2003 utilizing electromagnetic techniques.

The geophysical results presented herein are intended to serve as a guide to focus any future intrusive investigations, if warranted. Additional collaborative data are generally necessary to confirm geophysical anomalies suggestive of USTs.

2.0 METHODOLOGY

A reference grid was installed to facilitate data acquisition along lines spaced three feet apart. The grid was marked with orange and red spray paint. Grid north was taken as the direction parallel to the east wall of the Quick Cut facility adjacent to 225 Erie Street.

EM61 (Photo not from this site)

The site was geophysically surveyed using the Geonics EM61. The EM61 unit is a high sensitivity, high resolution time domain electromagnetic (TDEM) metal detector that can detect both ferrous and nonferrous metallic objects. It has an approximate investigation depth of 10 feet. The processing console is contained in a backpack worn by the operator which is interfaced to a digital

data logger. The transmitter and two receiver coils are located on a two-wheeled cart that is pulled by the operator.

The device's transmitter coil generates a pulsed primary EM field at a rate of 150 pulses per second, inducing eddy currents into the subsurface. The decay rates of these eddy currents are measured by two, 3.28 foot by 1.64 foot (1 meter by ½ meter) rectangular receiver coils. By taking the measurements at a relatively long time frame after termination of the primary pulse, the response is practically independent of the survey area's terrain conductivity. Specifically, the decay rates of the eddy currents are much longer for metals than for normal soils allowing the discrimination of the two.

Data are collected from the EM61's two receiver coils. One of the receiver coils is located coincident to the transmitter coil. The other receiver coil is located 1.31 feet (0.4 meters) above the transmitter coil. Data from the top receiver coil are stored on Channel 1 of a digital data logger. Data from the bottom receiver coil are stored on Channel 2 of the data logger. Channel 1 and Channel 2 data are simultaneously recorded at each station location. The instrument responses are recorded in units of milliVolts (mV). Data were recorded digitally by a data logger at a rate of approximately 2 measurements per foot along the survey lines which were spaced 3 feet apart.

3.0 RESULTS

The EM61 data are presented in Figure 1. The color bar to the right of the map indicates the colors associated with the respective measured values. Areas suspected to be free of buried metals are shown as color shades of light blue. All areas exhibiting a response greater than background (0 to 30 mVolts) likely contain buried metals. These areas are depicted in shades of dark blue through purple on the figure. Linear anomalies are denoted with dashed white lines on the figure.

Anomalies interpreted to be significant, relative to the objective of this investigation, are alphabetically labeled on the figure (where appropriate) and discussed below. It is possible that any of the additional above background responses may be significant, however, it is more likely that they are associated with minor amounts of buried metals.

Anomalies A, B, C, D and E are relatively low amplitude buried metal anomalies located in the central portion of the facility parking lot. The low amplitude and nondescript shape of these anomalies do not strongly suggest that they are related to UST's, however, that possibility can not be ruled out based on this data set. These anomalies, therefore, may represent miscellaneous metallic fill material, USTs or other buried metals.

4.0 LIMITATIONS

The geophysical methods used during this survey are established, indirect techniques for non-invasive subsurface reconnaissance exploration. As these instruments utilize indirect methods, they are subject to inherent limitations and ambiguities. All geophysical methods utilize interpretative techniques which can be significantly impacted by varying site conditions. Anomalies can only be identified if they show recognizable patterns against data representative of background or natural conditions. Therefore, where possible, confirmation of any geophysical anomalies identified or interpreted should be sought through the use of historical aerial photography, test pit and/or borehole information.

We trust the information contained in this report is sufficient for your present needs. Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

John Luttinger
Senior Geophysicist

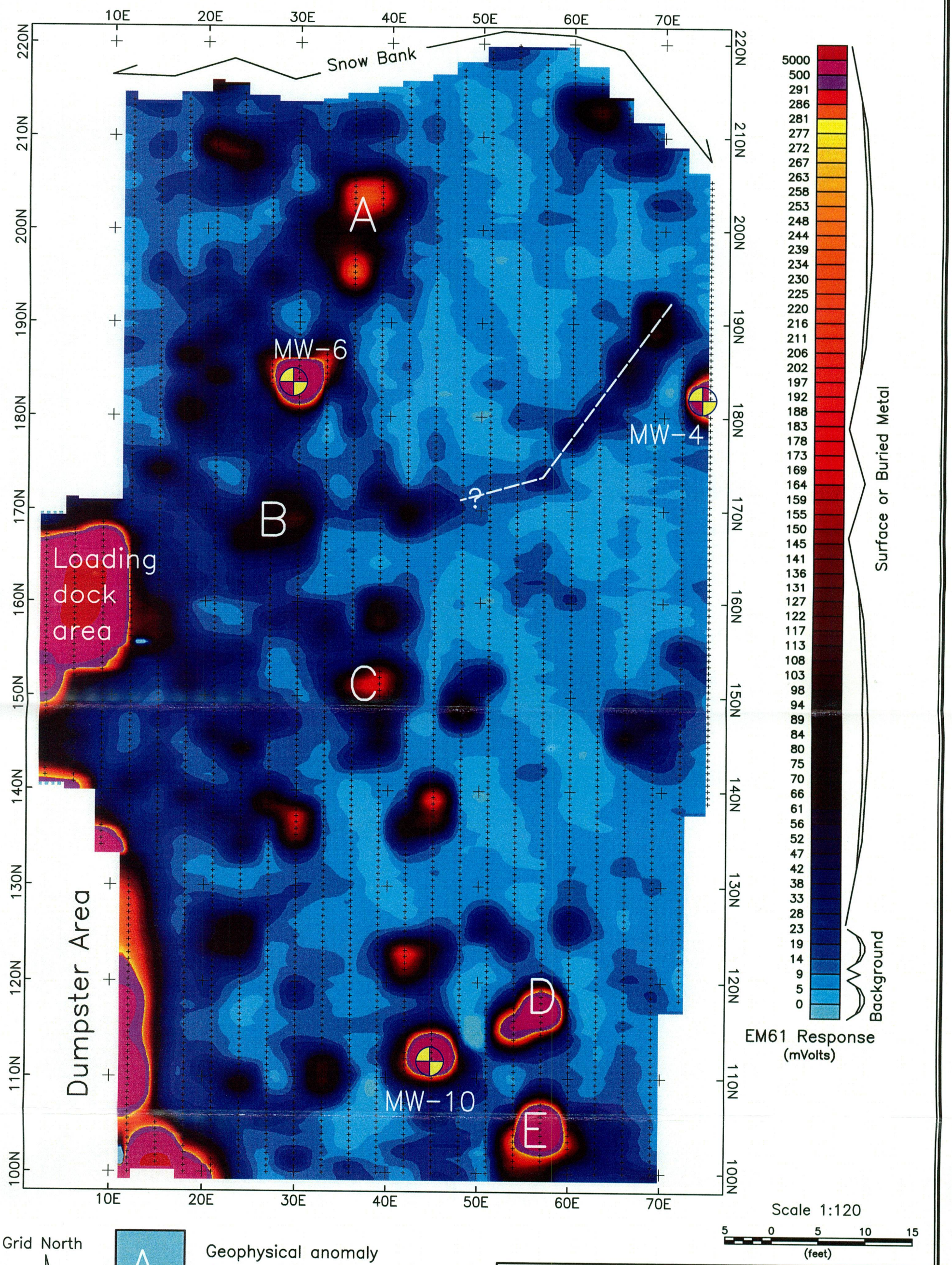


Figure 1

Geophysical Survey Results
Color Contours of EM61 Data
(mVolts)

Scott Aviation Site
Erie Street
Lancaster, NY
Earth Tech

Geomatrix

APPENDIX D

FIELD LOG BOOK

SOKKIA™

Scott Aviation Site #1

SOKKIA™

Scott Aviation Site
Lancaster, NY

FIELD BOOK

Book No. 1

Earth Tech

MADE IN U.S.A.

No. 8152-60

Property of Earth Tech

Address 100 Corporate Parkway, Suite 341
Amherst, NY 14226

Telephone 716-836-4506

Fax 716-834-8785

INDEX

John Luttinger (Geomatrix Consultants)
phone ~ 716-565-0624
fax ~ 716-565-0625

Douglas Hager (TVGA Consultants)
phone ~ 716-655-8842
fax ~ 716-655-0937

Jerry Jones (SLC Environmental Services)
phone ~ 716-433-0776
fax ~ 716-433-0802

Patrick Filey (STL)
phone ~ 716-691-2600
fax ~ 716-691-7991

Jeanne Asquith (3rd Rock)
fax/phone ~ 716-655-4933

Bob Clark (Scott Aviation)
phone ~ 686-1605
roberclark@tyroint.com
cell ~ 861-0931

February 21, 2003 Sun, 35°F
Friday Slight west wind

Activity: Site Investigation

Arrive on site @ 0730hrs

Meet with Gary (Scott Maintenance)
to pick up keys for well locks.

TUGA on site @ 0815hrs to
perform survey activity.
- set up grid for locating direct push borings.
- set up bench mark.
- collect survey data from monitoring wells.

Well ID	Water Level (TOC)		Comments
MW-1	—		well under blacktop
MW-2	0758hrs	7.87'	
MW-3	0855hrs	15.19'	
MW-4	0903hrs	9.52'	
MW-5	—		well not found

2/21/03

Water Levels (cont'd)

Well ID	Time	Water Level	Comments
MW-6	0909 hrs	12.24'	
MW-7	0839 hrs	1.72'	
MW-8	0815 hrs	Dry	~12' product
MW-9	0946 hrs	14.70'	
MW-10	0930 hrs	12.12'	

Discuss water level data with Jim Kaczor (ET).

Meet with TUGA to locate monitoring wells and explain grid locations, i.e., A1-A11, F1-F11, A1-F1, A11-F11, C1-C11.

Off site @ 1100 hrs.

Make copy of well key.

Sample bottles for GC analysis and standard in Amherst office.

Sample bottles from STL will

2/21/03

be delivered later today (2/21/03) to the Amherst office

1515 hrs / Receive phone call from TUGA field crew at Scott Aviation
- ⇝ Grid line A1 - A11 completed
- ⇝ Grid line A4 - F4 completed
- ⇝ Elevation of monitoring wells surveyed (using elevation 683.70' AMSL from MW-10)
- ⇝ Benchmark established on fire hydrant located on east side of site (X cut on northern upper bolt)

Jim Jacks

(4)

February 24, 2003 — Snow, 20°F
Monday — west wind

Activity: Site Investigation

Arrive on site @ 0730hrs
- collect water levels

Well ID	Time	Water Level	Comments
MW-2	NA	NA	lock frozen
MW-3	NA	NA	lock frozen
MW-4	NA	NA	covered w/ice
MW-6	~~0805hrs~~ 0742	~~0.40~~ 0.40'	covered w/ice
MW-7	0900 hrs	0.40	
MW-8	0900 hrs	NA	5.5' product
MW-9	0857 hrs	14.4'	
MW-10	NA	NA	frozen shut

0815hrs/SLC on site

Advance first boring ~~SB~~ east of MW-3 (C8)

Jerry Jones (SLC)
Rob (SLC)

(5)

2/24/03

Boring C8

0-4' - Recovery: 3'
0-1' Description: Snow
1-2' Description: dark brown f-m sand, some organic matter, little silt (fill) moist
PID: ND
Samples: C8-0-2
GC: NA (Not Analyzed)
2-4' Description: light brown f-c sand, little silt, dry
PID: ND
Sample: C8-2-4 GC: NA

4-5' - Recovery: 4'
4-4.5' Description: light brown f-c sand, little silt, wet
PID: ND
4.5-6' Description: dark brown - black silty clay, little organic matter, soft, moist
PID: ND
Comments: chemical odor
Samples: C8-4-6
GC: VC = 0.339
TDCE = ND
CDCE = ND
TCE = ND
PCE = ND

2/24/03

Boring C8 (cont'd)

0-8' Description: reddish brown silty clay, trace gravel Stiff, dry-moist

PID: ND

Samples: C8-6-8 VC=0.301 C-DCE=0.017 PCE=0.004

GC: T-DCE=ND TCE=ND

8-12' Recovery: 4'

Description: reddish brown silty clay trace gravel, very stiff dry-moist

PID: ND

Samples: C8-8-10 VC=0.367 T-DCE=0.018 C-DCE=0.014 TCE=0.556 PCE=ND

C8-10-12 GC VC=0.349 T-DCE=ND C-DCE=ND TCE=0.005 PCE=ND

12'-16' Recovery: 4'

12-13' Description: reddish brown silty clay, trace gravel, soft, wet

PID: ND

Samples: C8-12-14' VC=0.356 C-DCE=ND PCE=ND

GC: T-DCE=0.038 TCE=ND

13-16' Description: reddish brown silty clay, trace f sand layers (1mm)

PID: ND

Sample: C8-14-16 VC=0.396 T-DCE=0.013 C-DCE=0.055 TCE=0.010 PCE=ND

GC: _____

2/24/03

Boring C8 (cont'd)

16'-20' Recovery: 4'

16-17.5' Description: reddish brown silty clay, soft, moist

PID: ND

Sample: C8-16-18' VC=ND C-DCE=ND PCE=ND

GC: T-DCE=ND TCE=0.010

17.5-18.5' Description: reddish brown silty clay and gravel little f-c sand, wet

PID: ND

18.5-20.0' Description: reddish brown silty clay, little gravel, trace rock chips (shale) @ base, wet

PID: ND

Sample: C8-18-20 VC=0.245 C-DCE=ND PCE=0.001

GC: T-DCE=ND TCE=0.006

End of boring

Mobilize to B5 (located ~25' west of MW-8)

(8)
2/24/03

Boring B5

0-4' Recovery = 4'

0-1.5' Description: Asphalt and gravel

1.5-2.5' Description: light brown f-c sand and silt, some gravel (fill) dry

PID: ND

Sample: B5-0-2

GC: NA

2.5-4.0' Description: light brown silty clay, little gravel, trace f-c sand, dry-moist little black staining

PID: ND

Sample B5-2-4

GC: NA

4-8' Recovery = 4'

4-6.5' Description: reddish brown silty clay, little gravel and f-c sand, trace red brick (fill) dry

~~6.5-8'~~ PID: ND

Sample B5-4-6

GC: ND-All compounds

(9)
2/24/03

Boring B5 (cont'd)

6.5-8' Description: brown to gray silt and f sand, dry-moist slight chem odor

PID: ND

Sample: B5-6-8

GC: VC = 0.35, ND-All Remaining compounds

8-12' Recovery = 4'

8-9.5' Description: brown to gray f-c sand, some silt, moist

PID: ND

Sample: B5-8-10

GC: VC = 0.442 - ND-all Remaining compounds

9.5'-12' Description: reddish brown silty clay, trace gravel, stiff, dry

PID: ND

Sample: B5-~~8~~ DUP 10-12

GC: VC = 0.361, ND-all Remaining compounds

12-16' Recovery: 4'

12-14' Description: reddish brown silty clay, little gravel, trace f. sand, stiff, dry

PID: ND

Sample: B5-12-14'

GC: VC = 0.504, C-DCE = 0.123, T-DCE = ND, TCE = ND, PCE = ND

2/24/03

Boring B5 (cont.)

14-15' Description: gray f. sand and silt, trace gravel wet - moist

PID: ND

Sample: B5-14-16

GC: VC = 0.782 C-DCE = 0.496 T-DCE = 0.018 TCE = 0.12E PCE = ND

15-16' Description: reddish brown to gray silty clay, trace gravel m/stff, dry - moist

16-20' Recovery: 4'

16-17' Description: gray f. sand, some silt, little gravel, wet very loose.

PID: ND

Sample: B5-16-18

GC: VC = 0.873 C-DCE = 0.387 T-DCE = ND TCE = 0.696 PCE = ND

17-20' Description: reddish brown silty clay, moist, m/stff

PID: ND

Sample: B5-18-20

GC: VC = 0.386, ND - All Remaining Compounds

20-24' Recovery: 4' DUE 3.7'

20-21' Description: gray f-c sand, little gravel, trace silty clay layers, wet, very loose.

2/24/03

Boring B5 cont.

PID: ND

Sample: B5-20-22

GC: VC = 0.410 ND - All Remaining Compounds.

21-23.7' Description: gray, f-c. Sand, little Gravel and Shale chips, moist, m/dense.

PID: ND

Sample: B5-22-24

GC: VC = 0.367 ND - All Remaining Compounds.

End of boring @ 23.7'

Mobilize to B4, located 25' S of B5

Boring B4

0-4' Recovery: 4"

0-1' Description: Asphalt and gravel

1-4' Description: Olive to reddish brown silty clay, little gravel and f-c sand (fill) dry

PID: ND

Sample: B4-0-4

GC: NA

2/24/03

Boring B4 (cont)

4-4' Recovery: 4'

4-6' Description: reddish brown silty clay trace gravel, dry very stiff

PID: ND

Sample: B4 - 4-6

GC: VC=0.1301 C-DCE=0.1009 T-DCE=0.002 TCE=ND PCE=ND

6-6.5' Description: olive gravel and f-c sand little silt and red brick Loose, wet

PID: ND

Samp DL2

6.5-8' Description: gray to olive ~~clay~~ DL2 silty clay, trace gravel. Some black staining, Stiff

PID: ND

Sample: B4-6-8'

GC: VC=0.192 C-DCE=0.144 T-DCE=ND TCE=0.050 PCE=ND

8-12' Recovery: 4'

8-9.5' Description: reddish brown silty clay, little f sand, moist, m/stiff.

PID: 1.5 ppm

Sample: B4-8-10

9.5-12' Description: reddish brown silty clay, little gravel, very stiff dry

2/24/03

Boring B4 (cont'd)

PID: 1 ppm

Sample: B4 - 10-12

GC: VC=2.134 C-DCE=13.056 T-DCE=0.137 TCE=ND PCE=ND

12-16' Recovery: 4'

12-12.5' Description: olive to gray f-c sand, little silty clay, trace gravel, wet, sheen

PID: 7.8 ppm

12.5-13' Description: reddish brown silty clay little f-c sand, trace gravel, wet

PID: 5.5 ppm

Sample: B4-12-14 GC VC=2.517 T-DCE=0.036 C-DCE=6.635 TCE=0.038 PCE=ND

13-16' Description: reddish brown silty clay, trace gravel, stiff, dry - moist

PID: 2.0 ppm

Sample: B4-14-16

GC: VC=41.426 C-DCE=15.224 T-DCE=0.147 TCE=42.046 PCE=ND

16-20' Recovery: 4'

16-17.5' Description: reddish brown and gray silty clay, little f sand. wet, very soft, sl. sheen

PID: 2.2

Sample: B4-16-18

GC: VC=2.662 C-DCE=9.963 T-DCE=0.092 TCE=19.760 PCE=ND

2/24/03

Boring B4 (cont'd)

17.5-20' Description: reddish brown and gray silty clay, moist, soft

PID: ND

Sample: B4-18-20

GC: VC=ND C-DCE=0.773 T-DCE=0.052 TCE=0.175 PCE=ND

20-23.2' Recovery ~~2.3~~ 3.2'

20-21' Description: gray to reddish brown silty clay, trace f. sand wet, very soft

PID: >3 ppm

21'-22' Description: gray silty clay, trace f-m sand and shale chips

PID: > ppm

Sample: B4-20-22

GC: VC=3.935 C-DCE=14.217 T-DCE=0.174 TCE=11.695 PCE=ND

22-23.2' Description: gray f-m sand, trace silty clay and shale chips

PID: 2 ppm

Sample: ~~B4-22-24~~ B4-22-24

GC: VC=0.523 C-DCE=0.245 T-DCE=ND TCE=0.102 PCE=ND

End of boring @ 23.2'

Mobilize to A4, located 25' west of B4

2/24/03

Boring A4

0-4' Recovery: 4'

0-1 Description: asphalt and gravel

1-4 Description: brown silty clay, some f-c sand, little gravel, dry

PID: ND

4-8' Description: dark gray-black silty clay, little gravel, trace yellow brick (fill) stiff, dry

A4 (6-8') GC: ND - All compounds

PID: ND Sample 4-6 VC=0.121 T-DCE=ND C-DCE=ND TCE=0.103 PCE=ND

8-12' Recovery: 4'

8-10' Description: dark gray-black silty clay, little gravel m/stiff moist

PID: ND

Sample: A4-8-10

GC: VC=0.147 C-DCE=ND T-DCE=0.008 TCE=ND PCE=ND

10-12' Description: reddish brown silty clay, little gravel, very stiff moist dry

PID: ND

Sample: A4-10-12

GC: VC=0.165 C-DCE=0.017 T-DCE=ND TCE=0.017 PCE=ND

2/24/03

Boring A4 (cont'd)

12-16' Recovery: 4'

12-12.5' Description: gray to brown f. sand, trace silty clay, wet, loose

PID: ND

12.5'-15' Description: reddish brown silty clay, little gravel, moist very stiff

PID: ND

Sample: A4-12-14

GC: VC=0.152 C-DCE=ND T-DCE=ND TCE=0.010 PCE=ND

15-16' Description: gray silty clay, trace gravel, soft moist

PID: ND

Sample: A4-14-16

GC: VC=ND C-DCE=ND T-DCE=0.003 TCE=ND PCE=ND

16-20' Recovery: 4'

16-17' Description: gray silty clay trace gravel, very soft, wet

PID: ND

Sample A4-16-20 DUP 18

GC: All-ND

17-20' Description: gray and reddish brown silty clay, little f-m sand, ~~soft, wet~~ moist, m/stiff

PID: ND

Sample A4-18-20 18 MIN DUP

GC VC=ND T-DCE=ND C-DCE=ND TCE=ND PCE=ND

2/24/03

Boring A4 (cont'd)

20-22.2' Recovery: 2.2'

Description: gray to reddish brown silty clay, little f-m sand, soft, wet-moist

PID: ND

GC: All-ND

End of boring at 22.2'. Mobilize DUP to B3 located 25' south of ~~C3~~ B4.

Boring B4 B3 DUP

0-4' Recovery: 4'

0-1' Description: Asphalt and gravel

1-4' Description: Brown-gray f. sand, little silty clay, some gravel (fill) dry

PID: ND

4-8' Recovery: 4'

4-5' Description: Brown-gray f. sand, some gravel, little silty clay moist-dry

PID: ND

Sample: B3-4-6

GC: VC=0.191, All Remaining Compounds ND

2/24/03

Boring B3 (cont)

5-6.5' Description: brown - olive f. sand and gravel and red brick, trace silty clay, dry

PID: 2.0 ppm

6.5'-8' Description: olive silty clay some f. sand, trace gravel, dry - moist very stiff.

PID: ND

Sample: B3-6-8

GC: VC = 0.0833 C-DCE = 0.078 T-DCE = 0.019 TCE = 0.057 PCE = 0.047

8-12' Recovery: 4'

8-9' Description: olive f-c sand, some silty clay, trace gravel, dry.

PID: 2.0 ppm

Sample: B3-8-10

GC.

9-12' Description: reddish brown, silty clay, trace gravel dry-moist, very stiff

PID: 1.2 ppm

Sample: B3-10-12

GC: VC = 0.175 C-DCE = ND T-DCE = ND TCE = 0.074 PCE = ND

2/24/03

Boring B3 (cont)

12-14' Recovery: 2'

Description: reddish brown to gray f-c sand, some silty clay, little gravel, wet

PID: ND

Sample: B3-12-14

GC: VC = 0.234 C-DCE = ND T-DCE = ND TCE = ND PCE = 0.008

End of boring @ 14' - refusal - attempted boring again - refusal @ 12'

1300 hrs / Drillers off site.

Water Levels (from earlier in day)

Well ID	Time	Water Level	Comments
MW-2	1257 hrs	7.97	
MW-3	1302 hrs	14.65	
MW-4	1306 hrs	8.75	
MW-6	1309 hrs	11.92	
MW-7	13:20 hrs	1.10	
MW-8	—	—	free product in well
MW-9	1304 hrs	14.28	
MW-10	NA	NA	frozen
Wet well MH	1323	26.80'	

(CJ)

2/24/03

Wet well shut off @ 1330 hrs.

Water levels

Well ID	Time	Water Level	Comments
MW-2	1646 hrs	7.92	
MW-3	1648 hrs	14.58	
MW-4	1702 hrs	9.12	
MW-6	1705 hrs	11.94	
MW-7	1700 hrs	1.01	
MW-8	NA	NA	product
MW-9	1647 hrs	14.23	
MW-10	NA	NA	frozen
Wet well MH	16:48 hrs	23.21	

Minda Kirk (ET) and Melissa Sweet (ET) continue to run samples with GC.

off site @ 1900 hrs

Dina L Zack

(ET)

February 25, 2003 — Snow, 15°F
Tuesday — west wind

Activity: Site Investigation

Arrive on site @ 0715 hrs
- collect water levels

Well ID	Time	Water Level	Comments
MW-2	0801 hrs	8.06'	
MW-3	0805 hrs	13.20'	
MW-4	0818 hrs ~~0857 hrs~~ DUP	8.57'	
MW-6	0816 hrs	11.46'	
MW-7	0811 hrs	1.02'	
MW-8	0809 hrs	13.90'	product
MW-9	0803 hrs	13.74'	
MW-10	0908 hrs	11.59'	
Wet well MH	0802 hrs	18.76'	

Discuss GC results with Minda Kirk (ET) and Melissa Sweet (ET)

0800 hrs. SLC on site. Prepare equipment and set up at Boring CZ, located N25 feet south of MW-7.

2/25/03

Boring C2

0-4 Recovery: 3.2'

0-0.5' Description: Dark brown silty clay, some organics (black), little f. sand moist-dry.

PID: ND

0.5'-2.5' Description: Reddish brown silty clay, trace f. sand ~~and~~ trace gravel ~~trace~~ ~~and~~ organics, moist-dry

PID: ND

Sample: not collected.

2.5-3.2'(4.0') Description: Reddish brown and olive silty clay, trace organics (moist-dry)

4-8 Recovery: 4.0'

4-5' Description: Reddish brown and olive, silty clay, trace gravel, PID: ND trace f. sand dry-moist

5-8' Description: reddish brown silty clay, little f. sand layers (gray-weathering olive), trace gravel, very stiff dry

PID: ND

Sample: C2-6-8

GC: VC = 0.161 C-DCE = 0.026 T-DCE = 0.019 TCE = 0.059 PCE = 0.002

2/25/03

Boring C2 (cont.)

8-12 Recovery: 4'

8-10' Description: Reddish brown silty clay, trace f. sand layers, trace gravel, very stiff, dry

PID: ND

Sample: C2-8-10

GC: VC = 0.130 C-DCE = 0.010 PCE = ND T-DCE = 0.009 TCE = 0.050

10-10.2' Description: Olive f. sand, some silt, trace gravel, dry

PID: 2.4 ppm

Sample: C2-10-12 (100 shis) for lab VOC.

10.2-12' Description: Reddish brown silty clay trace f. sand layers, trace gravel, very stiff, dry

PID: ND

Sample: C2-10-12

GC: VC = 0.169 C-DCE = ND T-DCE = ND TCE = ND PCE = ND

12-16 Recovery: 4'

12-12.5 Description: Reddish brown silty clay, trace f-c sand, trace gravel, dry-moist, stiff

PID: ND

Sample: C2 12-14 C-DCE = 0.028 PCE = ND

GC: VC = 0.195 T-DCE = 0.010 TCE = 0.135

2/25/03

Boring C2 (cont)

12.5-13' Description: Reddish brown, silty clay, some gravel, little f-c sand, wet

PID: 2.2

Sample: C2-12-14 (1025hrs) for Lab TPH analysis

13-16' Description: Reddish brown silty clay, little gravel, very stiff, dry

PID: N.D.

Sample: C2-14-16

GC: VC=0.159 C-DCE=0.0169 T-DCE=0.0116 TCE=0.809 PCE=ND

16-20' Recovery: 4'

16-18' Description: Reddish brown, silty clay, trace f. sand layers m/stiff, moist

PID: ND

Sample: C2-16-18

GC: VC=0.169 T-DCE=0.009 C-DCE=0.011 TCE=0.028 PCE=ND

18-18.5' Description: Olive silty clay, some gravel and shale chips, wet

PID: ND

18.5'-19.5' Description: Reddish brown silty clay, trace f. sand layers m/stiff, moist

2/25/03

Boring C2 (cont)

PID: ND

Sample: C2-18-20, VOC Sample for Lab collected

GC: VC=0.201 C-DCE=ND T-DCE=ND TCE=ND PCE=0.005

19.5-20.0' Description: Olive silty clay, some gravel and shale chips, wet.

PID: ND

20-24' Recovery = 0

Total depth = 21.4'

End of boring, mobilize to C3 located N5' south of MW-7

Boring C3

0-4' Recovery = 2'

Description: brown silty clay, little organics, little f. sand, moist

PID: 0.1 ppm

4-8' Recovery = 4'

4-5' Description: black silty clay and wood chips, little red brick, trace gravel wet, sheen

PID: 2.0 ppm

(26)

2/25/03

Boring C3 (cont.)

5-6' Description: Olive to dark gray silty clay and wood, little red brick, trace gravel. Sheen wet

PID: ~~2.0 ppm~~ 0.2 ppm

Sample: C3-4-6

TOC sample collected

GC: VC=ND C-DCE=0.076 T-DCE=0.031 TCE=0.168 PCE=0.631

6-7' Description: Olive silty clay, some f. sand, trace gravel, moist, m/stiff

PID: 0.2 ppm

Sample: C3-6-8

GC: VC=0.196 T-DCE=0.007 C-DCE=0.067 TCE=0.028 PCE=ND

7-8' Description: reddish brown, silty clay, little f. sand, trace gravel, dry V/stiff

PID: ND

8-12 Recovery: 4'

8-8.5 Description: black silty clay, some wood chips, little gravel, little f-c sand, wet Sheen

PID: 14.5 ppm

Sample: C3-8-10

GC: VC=0.213 T-DCE=0.009 C-DCE=1.741 TCE=4.432 PCE=ND

2/25/03

Boring C3 (cont.)

8.5-12 Description: Reddish brown silty clay, trace gravel. Free product @ 11'

PID: >475 ppm

Sample: C3-10-12

collect TPH sample @ 1158. Also collect VOC sample at 1155 for lab | grab

GC: VC=0.210 C-DCE=9.452 T-DCE=ND TCE=53.334 PCE=ND

12-16 Recovery: 4'

12-13.5' Description: Reddish brown and dark gray, silty clay, little gravel, little f-c sand, wet sheen

PID: 20 ppm

Sample: C3-12-14

GC: VC=0.216 C-DCE=4.710 T-DCE=0.032 TCE=17.991 PCE=0.056

13.5-16' Description: Reddish brown silty clay, little gravel, dry-moist, V/stiff. Free product in silty clay (not f. sand layers)

GC: VC=0.253 T-DCE=0.020 C-DCE=2.948 TCE=72.784 PCE=ND

PID: 75 ppm VOC

Sample: C3-14-16 and sample for lab including dup. H3-14-16

2/25/03

Boring C3 (cont'd)

16 20 Recovery: 4'

16-18' Description: Reddish brown silty clay, some fi sand, trace gravel, wet, very soft, sheen

PID: 80 ppm

Sample: C3-16-20 (18 mid)

GC: VC=0.205 C-DCE=0.7603 T-DCE=0.021 TCE=37.1165 PCE=ND

18'-20' Description: Reddish brown silty clay, some fi sand layers (~1mm - 10mm) trace gravel, moist dry m/stiff

PID: 35 ppm

Sample: C3-18-20

GC: VC=0.177 C-DCE=2.0026 T-DCE=ND TCE=2.0160 PCE=ND

20-24 Recovery: 4'

20-23' Description: gray and reddish brown silty clay; some f. sand, trace gravel wet, very soft

PID: 13 ppm

Sample: C3-20-22

GC: VC=0.199 C-DCE=0.149 T-DCE=0.004 TCE=1.008 PCE=ND

2/25/03

Boring C3 (cont'd)

23-24' Description: gray f-c sand, little shale chips, trace silty clay, trace gravel, wet, loose.

PID: 1.6 ppm

Sample: C3-22-24

GC: VC=ND C-DCE=0.184 T-DCE=0.011 TCE=0.372 PCE=ND

End of boring at 24'. Mobilize to C2 B3. Drillers attempting boring for third time (see p. 17)

Boring B3

12-16 Recovery: 4'

12-14' Description: reddish brown, silty clay trace gravel, stiff, moist

VC=ND T-DCE=0.015 C-DCE=ND PCE=0.047 PCE=0.113 2/26/03

PID: 1.2 ppm

Sample: B3-12-14 2/25/03

GC: VC=0.234 C-DCE=ND T-DCE=ND TCE=ND PCE=0.008

14-16' Description: reddish brown, silty clay trace gravel, trace gray f. sand layers, m/stiff, moist

PID: 18.4 ppm

Sample: B3-14-16

GC: VC=0.302 C-DCE=ND T-DCE=ND TCE=ND PCE=ND

2/25/03

Boring B3 (cont'd)

16-20' Recovery: 4'

16-17.5' Description: reddish brown silty clay, little f. sand (gray) layers, m/shiff, moist

PID: 0.2

Sample: B3-16-18

GC: VC=0.241 C-DCE=ND T-DCE=ND TCE=ND PCE=ND

17.5'-20' Description: reddish brown silty clay, trace f. sand layers, m/shiff, moist

PID: 1.2 ppm

lab sample (VOC) collected @ 1446 hrs

GC

20-23.2' Recovery: 3.2'

20-22' Description: NA

GC: VC=0.363 T-DCE=ND C-DCE=0.264 TCE=0.256 PCE=0.041

PID: 0.1 ppm

Sample: B3-20-22, lab VOC collected

22-23.2' Description: NA

PID: 0.9 ppm

Sample: B3-22-24

GC: VC=0.309 C-DCE=0.039 T-DCE=NA TCE=ND PCE=0.046

End of Boring at 23.2', Mobilize to location C6.

2/25/03

Boring C6

0-4' Recovery: 3'

0-2.5' Description: brown f-m. sand and silty clay and organic matter, trace gravel

PID: ND

Sample: C6-0-2

GC: NA

2.5-3' Description: reddish brown silty clay, little organic matter and f-c sand trace gravel

4-8' Recovery: 3'

4-6' Description: reddish brown silty clay, little organic matter and little f-c sand, trace gravel

6-7' Description: dark gray silty clay little f. sand, trace gravel, moist (rock @ bottom)

PID: ND

Sample: C6-6-8

VOC sample for lab collected at 1645 hrs.

GC: VC=0.359 C-DCE=ND T-DCE=ND TCE=ND PCE=ND

2/25/03

Boring C6 (cont)

8-12' Recovery: 4'

8-10' Description: dark gray silty clay little f. Sand trace gravel moist.

PID: ND

Sample C6-8-10

GC: VC=0.361 C-DCE=ND PCE=ND T-DCE=ND TCE=ND

10-12' Description: reddish brown silty Clay little gravel very stiff.

PID: ND

Samples: C6-10-12, TOC

Sample collected @ 1655hrs

GC: VC=0.312 C-DCE=0.003 T-DCE=0.007 TCE=0.011 PCE=ND

12'-16' Recovery: 4'

12-13.5' Description: reddish brown and gray silty clay, little fine sand, trace gravel wet

PID: ND

Sample: C6-12-14 MS/MSD Collected at 1658, 1700, 1702 hrs

GC: VC=0.329 C-DCE=0.026 T-DCE=0.009 TCE=ND PCE=ND

2/25/03

Boring C6 cont

13.5-16' Description: reddish brown silty clay, little gravel little f. sand.

PID: ND

Sample: C6-14-16

GC: VC=0.321 C-DCE=0.156 T-DCE=0.020 TCE=0.016 PCE=ND

16-20 Recovery: 4'

16.0-16.5 Description: Reddish brown and gray silty clay, some f-c sand, trace gravel moist

16.5-17.5 Description: reddish brown and gray silty clay, some f-c Sand, trace gravel wet

17.5-18' Description: Reddish brown and gray Silty clay, some f-c sand, trace gravel moist

PID: ND

Sample: C6-16-18

18-19.5' Description: Reddish brown and gray silty clay, some f-c Sand, trace gravel moist

2/25/03

Boring C6 (cont'd)

PID: ND

Sample: C6-18-20

19.5-20.0' Description: reddish brown and gray silty clay, some f-c sand trace gravel, moist

PID: ND GC: VC=0.441 C-DCE=0.015 T-DCE=0.105 TCE=ND PCE=ND

20-24 Recovery: 3.8'

20-23' Description: reddish brown and gray silty clay, some f-c sand, trace gravel wet

PID: ND

Sample: C6-20-22

GC: VC=0.411 C-DCE=0.191 T-DCE=0.022 TCE=0.0144 PCE=0.027

23-23.8' Description: gray f-c sand and shale chips, little silty clay wet-moist

PID: ND

Sample: C6-22.4

GC: VC=0.948 C-DCE=0.178 T-DCE=0.011 TCE=0.014 PCE=0.007

End of boring @ 23.8'.

Drills off site.

Samples sent to laboratory include:

C6-10-12	2/25	1655 hrs	TOC
C3-4-6	2/25	1140 hrs	TOC
C2-12-14	2/25	1025 hrs	TPH
C3-10-12	2/25	1159 hrs	TPH
HZ-18-20	2/25	1134 hrs	VOC (dup of C2-18-20)
C3-10-12	2/25	1155 hrs	VOC
C3-14-16	2/25	1210 hrs	VOC
C2-10-12	2/25	1003 hrs	VOC
C2-18-20	2/25	1035 hrs	VOC
B3-18-20	2/25	1446 hrs	VOC
B3-20-22	2/25	1455 hrs	VOC
C6-6-8	2/25	1645 hrs	VOC
C6-12-14	2/25	1658 hrs	VOC
C6-12-14-MS	2/25	1700 hrs	VOC
C6-12-14 MSD	2/25	1702 hrs	VOC
Equipment blank-2-25-03		1315 hrs	VOC
Equipment blank-2-25-03		1330 hrs	TPH

Jim Kaczor (ET) and Stu Rixman (ET) on site.

Greg Sutton (DEC) on site twice during the day to discuss site activities.

2/25/03

Locate DPT borings on 25x25 grid map. Several monitoring wells not plotted properly on base map: MW4 ~ located ~ 20' North of location on base map
MW 7 ~ located ~ 20' North of location on base map
MW 8 ~ located ~ 25' North and 5' east of location on base map
MW 9 ~ located ~ 25' north of location on base map
MW 3 ~ located ~ 5' north of location on base map.

Discuss GC data results with Minda Kirk (ET)

off site @ 1900 hrs

Dinah Sack

February 26, 2003 Clear, -5° F
Wednesday calm

Activity: Site Investigation

Arrive on site @ 0715 hrs.
Prepare lab samples for pick up (refer to page 35 for list of samples)

Collect water levels

Well ID	Time	W/L	Comments
MW-2	0940	7.60	
MW-3	1143	11.44	
MW-9	~~12:22~~ 0944	12.28	
MW-7	0945	1.92	
MW-4	1110	7.11	
MW-6	0950	10.29	
MW-10	0952	10.72	
MW-8	0955	13.20	product on probe
MW-1	1142	15.97	

Drillers on site - set up @ boring Location 7D (offset 2' east of original location).

2/26/03

Boring D7

0-4 Recovery: 4'

0-2' Description: brown f-c sand, some silty clay, little organic matter, trace gravel (fill) dry

PID: 1.2 ppm

2-4' Description: same as above (fill)

PID: 7.8 ppm

Sample: D7-0-2 (lab VOC)

GC: NA

D7 (2-4):
VC = 0.362 PCE = ND
T-DCE = ND
C-DCE = 0.034
TCE = 0.0666

4-8 Recovery: 4'

4-6.5' Description: same as above, dry (fill)

PID: 11.9 ppm

Sample: D7-4-6

GC: VC = 0.375 C-DCE = 0.071 PCE = 0.003
T-DCE = ND TCE = 0.197

6.5-8.0' Description: same as above, moist (fill)

PID: 9.8 ppm

8-12 Recovery: 1.5'

Description: same as above, moist (fill)

PID: 1.1 ppm

12-16' Recovery: 4'

12-14' Description: same as above, moist-wet (fill)

~~concrete @~~ DI2

PID: 1.2 ppm

14-16' Description: same as above, moist-wet (fill)

- concrete @ 15.5-16
- high vis fence @ 15.5'

PID: 1.2 ppm

2/26/03

Boring D7 (cont)

16-20' Recovery: 3'

16-18' Description: same as above, moist (fill)

PID: 1.8 ppm

Sample: D7-16-20'

GC: _____

18-19' Description: Reddish brown silty clay, little f-c sand, little gravel (shale), dry - m/stiff

PID: 0.4 ppm

Sample: D7-18-20

GC: _____

20-24' Recovery: 3.9'

20-22' Description: Reddish brown and dark gray silty clay, little gravel, wet

22-23.5' gray silty clay, little f. sand, moist, stiff PID 3.3 ppm

PID: 3.4 ppm

Sample: D7-20-22

GC:

23.5' ~~22~~ DI2 - 23.9' Description: Dark gray f-c sand, some gravel (shale), little silty clay moist.

PID: ND

Sample: D7-22-24

GC:

Collected VOC Lab Sample

End of boring @ 23.9'

(40)

2/26/03

Boring D5 (offset 5' east)

0-4' Recovery: 4'

Description: ~~Silty clay (rubble) brown~~ DCZ reddish brown and brown silty clay, some f-c sand, little gravel, trace organics dry (fill)

PID: 0-2' ~ 5.8 ppm

2-4' ~ 8.5 ppm

4-6' Description: Same as above (fill)

PID: 10.8 ppm

Sample: D5-4-6

GC: ———

6-8' Description: Same as above (moist) (fill)

PID: 5.2 ppm

8-12': Recovery: 4'

8-10' Description: Same as above (dry) (fill)

PID: 16.8 ppm

Sample: D5-8-10

GC: ———

10-12' Description: same as above (moist) (fill)

PID: 1.2 ppm

12-16': Recovery: 1'

Description: Same as above (wet) (fill)

PID: 5.1 ppm

(41)

2/26/03

Boring D5

16-20': Recovery: 4'

16-18' Description: same as above (wet) (fill)

PID: 4.7 ppm

18-19' Description: Dark gray silty clay, little f sand, soft, moist

PID: 2.7 ppm

19-20' Description: Reddish brown silty clay, little gravel, moist-dry

PID: 7.4 ppm

Sample: D5-18-20

- send sample to lab for VOC analysis (10:46hrs)

GC:

20-24': Recovery: 3.6"

20-21.5 Description: Reddish brown and gray ~~silty clay~~ DCZ f-c sand, some gravel, little silty clay, very loose, wet, Sheen

PID: 129 ppm

Sample: D5-20-22

- TPH analysis (10:53hrs)
- Dup (H5+20-22) for TPH analysis (11:50hrs)

GC: ———

2/26/03

Boring D5 (cont.)

21.5-23.0 Description: Reddish brown and gray silty clay, little gravel, little f. sand layers, moist, soft
PID: 136 ppm
Sample: D5-22-24
GC: _____

23-23.6' Description: Dark gray, f-c sand, some gravel (shale), little silty clay, moist
PID: 25.4 ppm.

End of boring @ 23.6'
mobilize to D3 (off set ~10' East)

Boring D3

0-4' Recovery: 3'
0-2' Description: Brown silty clay and f-c sand, little organics, trace gravel, wet - moist
PID: 0.5 ppm
2-3' Description: same as above (fill) (moist)
PID: 0.7 ppm

2/26/03

Boring D3 (cont.)

4-8' Recovery: 4'
4-6' Description: brown silty clay, and f-c sand, trace gravel, trace white lime (moist) (fill)
PID: 1.2 ppm
6-7' Description: same as above (moist) (fill)
PID: 0.6 ppm
7-8' Description: Same as above (wet) (fill)
PID: 0.4 ppm
8-12' Recovery: 4'
8-9' Description: Same as above (wet) (fill)
PID: 2.2 ppm
9-10' Description: Same as above (moist) (fill)
PID: 7.6 ppm
Sample: D3-8-10
GC: _____
10-12' Description: Dark gray silty clay, trace gravel, soft (moist) chemical odor.
PID: 8.2 ppm
Sample: D3-10-12
TOC sample collected @ 1130 hrs.
GC: _____

(44)

2/26/03

Boring D3 (cont'd)

12-16' Recovery: 4'

12-14' Description: Dark gray silty clay trace gravel, soft, moist

PID: 5.9 ppm

Sample: D3-12-16

GC: _____

14-16' Description: Reddish brown silty clay, little gray f. sand layers, trace gravel, moist

PID: 2.1 ppm

Sample: D3-14-16

GC: _____

16-20' Recovery: 4'

16-17' Description: Dark gray silty clay, some f-c sand, wet

PID: 2.4 ppm

17-18.5' Description: Reddish brown silty clay, trace gray f. sand layers, moist, soft

PID: 1.0 ppm

Sample: D3-16-18'

GC: _____

(45)

2/26/03

Boring D3 (cont'd)

18.5'-20' Description: Dark gray f. sand layers and reddish brown silty clay, m/stiff, moist

PID: 6.8 ppm

Sample ID: D3-18-20

VOC lab sample collected at 1159 hrs.

GC: _____

20-22.7' Recovery: 2.7'

20-22 Description: Dark gray f-c sand, little reddish brown silty clay, trace gravel (moist)

PID: ND

Sample: D3-20-22

GC: _____

22-22.7 Description: Dark gray f-c sand and gravel (shale); trace silty clay (moist)

PID: ND

End of boring @ 22.7'

Mobilize to Boring E6.

2/26/03

Boring E6

0-4' Recovery: 4'
Description: Brown silty clay, some f-c. sand, little organics little gravel, trace white lime, (moist) (Fill)
PID: 0-2 ~ 0.9 ppm
2-4 ~ 3.0 ppm

4-8' Recovery: 4'
4-6' Description: same as above (dry)(Fill)
PID: 9.3 ppm
Sample: E6-4-6
GC: ———

6-8' Description: same as above (moist)(Fill)
PID: 4.6 ppm

8-12 Recovery: 4'
8-9' Description: Same as above (wet) (Fill)
PID: 5.7 ppm
9-10' Description: Same as above (moist) (Fill)
PID: 5.9 ppm
10-12' Description: Same as above (wet) (Fill)
PID: 3.7 ppm

12-16' Recovery: 2'
12-13' Description: same as above (moist)(Fill)
PID: 9.6 ppm
Sample: E6-12-14
GC: ———

2/26/03

Boring E6 (cont'd)

13-14' Description: same as above (moist)(Fill)
PID: 4.5 ppm

16-20' Recovery: 4'
16-18' Description: same as above (wet) (Fill)
PID: 3.7 ppm
Sample: E6-16-18
GC: ———

18-20' Description: same as above (wet)(Fill)
PID 4.9 ppm
Sample: E6-18-20
GC: ———

20-24' Recovery: 3.8'
20-22' Description: same as above (wet)(Fill)
PID: 3.2

22-23' Description: Reddish brown silty clay, trace gravel (moist)
PID: 1.0 ppm

23-23.8' Description: med-dark gray f-c sand and gravel (Shell) trace silty clay, (wet)
PID: 1.3 ppm
Sample: E6-22-24, TOC sample collected 1356
GC: ———

End of boring @ 23.8'

(48)

2/26/03

Boring D8

0-4' Recovery: 4'

0-2' Description: Brown silty clay, some f-c sand, little gravel, trace organics (clay)(fill)

PID: 7.1 ppm

2-4' Description: Same as above (clay)(fill)

PID: 2.2 ppm

4-8' Recovery: 4'

4-6' Description: Same as above (clay)(fill)

PID: 6.0 ppm

6-7' Description: Same as above (clay)(fill)

7-8' Description: reddish brown and gray silty clay, little f. sand, trace organics (moist) soft (fill)

PID: 0.6 ppm

8-12' Recovery: 4'

Description: Same as above (fill), trace burnt wood, painted gravel (moist)

PID: 1.0 ppm

12-16' Recovery: 4'

Description: gray silty clay, little gravel (fill) (moist)

PID: 1.0 ppm

(49)

2/26/03

Boring D8 (cont)

16-20' Recovery: 4'

16-17' Description: Same as above (fill)

PID: 0.1 ppm

Sample: D8-16-18

GC: _____

17-20' Description: Reddish brown silty clay, some gray f. sand layers (soft) (moist)

PID: 0.1 ppm

Sample: D8-18-20, VOC lab sample collected @ 1530 hrs.

20-24' Recovery: 3.4'

20-22' Description: Reddish brown silty clay, trace gray f. sand layers, trace gravel m/stiff, (moist)

PID: 0.1 ppm

Sample: D8-20-22'

GC: _____

22-23.4' Description: Reddish brown silty clay little f. sand layers (gray) (wet) soft

PID: 0.1 ppm

Sample: D8-22-24

GC: _____

End of boring @ 23.4'

2/26/03

Boring E4

0-4' Recovery: 4'

0-2' Description: Brown silty clay, some f-c sand, little gravel, trace organics (dry-moist) (fill)

PID: 0.8 ppm

2-4' Description: Same as above (fill) (dry)

PID: 2.5 ppm

4-8' Recovery: 4'

4-6' Description: Same as above, trace plastic sheeting (fill) (moist) @ 6.0'

PID: 0.7 ppm

6-8' Description: Same as above (fill) (moist)

PID: 1.4 ppm

8-12' Recovery: 4'

8-9' Description: Same as above (fill) (wet)

PID: 3.2 ppm

9-12' Description: Same as above (moist) (fill)

PID: 4.1 ppm

12-16' Recovery: 4'

12-14' Description: Same as above (wet) (fill)

PID: 2.9'

14-16' Description: Reddish brown silty clay some f-c sand, trace gravel (fill) white line (dry-moist)

PID: 5.8 ppm

2/26/03

Boring E4 (cont.)

16-20' Recovery: 3'

16-18' Description: gray - reddish brown f-c sand, some gravel, trace silty clay wet

PID: 2.4 ppm

Sample: E4-16-20

GC: ____

18-19' Description: dark gray f-c sand and gravel (shale) (wet)

PID: 1.8 ppm

Sample: E4-18-20

20-23.8' Recovery: 3.8'

20-21' Description: dark gray, f-c sand and gravel (shale) (wet)

PID: 1.1 ppm

21-22.5' Description: med gray f-c sand and little gravel, some silty clay med dense, moist

PID: 1.5 ppm

Sample: E4-20-22

GC: ____

22.5-23.8' Description: med gray f-c sand, little gravel (moist)

PID: ND Sample: E4-22-24 GC ____

End of boring @ 23.8'

2/26/03
Drillers off site

Collect round of water levels.

Well ID	Water Level	Time
MW-2	7.26'	1619 hrs
MW-3	11.09'	1623 hrs
MW-9	11.51'	1624 hrs
MW-7	1.00'	1629 hrs
MW-4	3.40'	1626 hrs
MW-6	10.10'	1632 hrs
MW-10	10.45	1634 hrs
MW-8	—	collect sample of product
Wet Well MH	15.54	1622 hrs

Prepare samples of Laboratory

DS-2-4	2/26/03	0851 hrs	VOC
DS-22-24	2/26/03	0925 hrs	VOC
DS-18-20	2/26/03	1046 hrs	VOC
D3-18-20	2/26/03	1159 hrs	VOC
D8-18-20	2/26/03	1530 hrs	VOC
D5-20-22	2/26/03	1053 hrs	TPH
H5-20-22	2/26/03	1150 hrs	TPH: Dup of
D3-10-12	2/26/03	1130 hrs	TOC
E6 #2-24	2/26/03	1356 hrs	TOC
MW-8	2/26/03	1230 hrs	TPH

Discuss site activities during the day with Jim Kuczer (ET)

Off site @ 1800 hrs

Dina Jack

February 27, 2003 10°F, snow
Thursday west wind

Activity: Site Investigation

Arrive on site @ 0915 hrs.

Water Levels

Well ID	Water Level	Time
mw-2	7.11'	0830
Wetwell MH	14.38'	0831
mw-3	10.74'	0831
mw-9	10.67'	0832
mw-4	7.14'	0844
mw-7	1.01'	0845
mw-6	9.64'	0845
mw-10	10.15'	0846

Meet with Scott Aviation Maintenance to discuss utilities.

Meet with Mindy Leick (GT) to discuss GC data.

SLC on site. Set up @ B2.

2/27/03

Boring B2

0-4 Recovery: 4'
0-1' Description: Reddish brown silty clay and gravel (dry) fill
PID: 2.4 ppm
1-4' Description: Reddish brown and gray silty clay, trace gravel, trace f-c sand (dry) stiff, fill
PID: 0.2 ppm

4-8 Recovery: 4'
4-6' Description: gray-brown silty clay, little f. sand, little gravel, trace red brick @ 6' (dry) fill
PID: 0.5 ppm
6-8' Description: reddish brown silty clay and gray f. sand, trace gravel (dry) fill
PID: 0.1 ppm
Samples: B2-6-8, ASTM D422 collected.
GC: ____

8-12' Recovery: 4'
8-10' Description: reddish brown silty clay, trace gray-olive f. sand layers, trace gravel. (dry) very stiff

2/27/03

Boring B2 (cont'd)

PID: ~~0.2 ppm~~ 21.1 ppm
Sample: B2-8-10
GC: _____

10-12' Description: Reddish brown silty clay trace f. sand layer, trace gravel, (dry) Very Stiff
PID: 0.2 ppm
Samples: B2-10-12 collect VOC lab sample @ 0922 and collect ASTM D422 sample
GC: _____

12-16' Recovery: 2'
12-14' Description: Reddish brown silty clay, trace f. sand, trace gravel stiff (Dry).
PID: 0.2 ppm
Sample: B2-12-14
GC: _____

14'-16' Description: Reddish brown silty clay, trace f. sand, trace gravel stiff (dry)
PID: 0.2 ppm
Sample: B2-14-16
GC: _____

2/27/03

Boring B2 (cont'd)

16-20' Recovery: 4'
16-18' Description: Reddish brown silty clay, little gray f. sand layers, (moist-dry), m-stiff
PID: 0.1 ppm
18-18' Description: Reddish brown silty clay, little gray f. sand layers (wet) soft.
PID: 5.5 ppm
Sample: B2-16-18, TPH collected
GC: _____

18-20' Description: Reddish brown silty clay some gray f. sand layers, (moist) (soft)
PID: 0.1 ppm
Sample: B2-18-20 and ASTM D422 collected @ 0949 hrs
GC: _____

20-24' Recovery: 3.4'
20-21' Description: Reddish brown silty clay, some f. sand layers (gray), moist (soft)
PID: 0.1
Sample: B2-20-22
GC: _____

2/27/03

Boring B2 (cont)

21-23' Description: Reddish brown silty clay, some gray f. sand layer (wet)
PID: 0.3 ppm
23-23.4' Description: Gray f-c sand, some reddish brown silty clay little gravel (clay) moist
PID: 0.1 ppm
Sample: B2-22-24
GC: ———

End of boring @ 23.4'
Mobilize to Boring B6

Boring B6

0-4' Recovery: 3'
0-1' Description: Snow
1-2' Description: Asphalt and gravel
PID: 1.0 ppm
2-3' Description: Reddish brown and gray silty clay (weathered olive), little gravel (dry) fill
PID: 0.2 ppm

2/27/03

Boring B6 (cont)

4-8' Recovery: 4'
4-5' Description: Reddish brown and gray silty clay (weathered olive) little gravel (dry) fill
PID: 0.6 ppm
5-7' Description: Reddish brown and gray silty clay, little gravel (moist) fill
PID: 0.1 ppm
7-8' Description: Dark gray silty clay, little gravel, trace red brick (dry)
PID: 0.8 ppm
Sample: B6-6-8
GC: ———

8-12' Recovery: 4'
8-10' Description: Dark gray f. sand, trace gravel, trace silty clay (moist)
PID: 0.1 ppm
Sample: B6-8-10
GC: ———
10-12' Description: Reddish brown silty clay, little gravel, trace gray-olive f. sand. Very stiff (dry)
PID: 0.0
Sample: B6-10-12
GC: ———

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2/27/03

Boring B6 (cont'd)

12-16' : Recovery: 4'

12-13' Description: dark gray f. sand; little silty clay (wet)

PID: 0.1

12-14' Description: Dark gray f. sand, trace gravel trace reddish brown silty clay

PID: ND

Sample: B6-12-14, Lab Use sample collected at 1031hrs

GC: ____

14-16' Description: Reddish brown silty clay, little gravel, (dry) hard

PID: ND

Sample: B6-14-16, ASTM D4318 collected @ 1037hrs

GC: ____

16-20 : Recovery: 4'

16-17' Description: Reddish brown and gray silty clay, little f. sand, trace gravel (moist)

PID: ND

Sample: B6-16-18, TPH sample collected @ 1045hrs

GC: ____

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2/27/03

Boring B6 (cont)

17-19' Description: Gray f. sand, some reddish brown silty clay, trace gravel (wet)

PID: ND

19-20' Description: Gray f. sand layers, little reddish brown silty clay, trace gravel (dry-moist)

PID: ND

Sample: B6-18-20

GC: ____

20-21.2' Recovery: 1.2'

Description: Gray f. sand layers, little reddish brown silty clay, trace gravel (moist-wet)

PID: ND

Sample: B6-20-22

GC: ____

End of boring @ 21.2'

Mobilize to Boring B7

2/27/03

Boring B7

0-4' Recovery: 3'
0-2' Description: Snow
2-2.5' Description: Asphalt and gravel
2.5-3' Description: brown silty clay, little f. sand, little gravel, trace wood, trace fabric (fill)
PID: 8.9 ppm
Sample: B7-2-4
GC: ____

4-8' Recovery: 3'
4-6' Description: Gray to reddish brown silty clay, little gravel, trace f-c sand (moist) stiff
PID: ND
6-7' Description: Reddish brown silty clay trace f.c. sand, trace gravel U-stiff
PID: ND

8-12' Recovery: 4'
8-10' Description: Reddish brown silty clay, trace gravel (dry) Hard
PID: 0.1 ppm
Sample: B7-8-10
GC: ____

2/27/03

Boring B7 (cont)

10-12' Description: Reddish brown silty clay trace gravel (dry) Hard
PID: 0.2 ppm
Sample: B7-10-12
GC: ____
Drillers advanced rods to 15.0'
12-16' core lost in boring along with 2 rods. Mobilize ~10' east to Boring B7A.

Boring B7A

0-4' Recovery 3'
0-1' Description: Snow
1-2' Description: Asphalt and gravel (wet)
PID: ND
2-3' Description: Reddish brown silty clay some gravel, little f.c sand

4-8' Recovery 3'
4-7' Description: Dark gray silty ~~shale~~ clay, some f. sand, trace gravel, trace organics, (moist wet)
PID: ND
Sample: B7A-4-6, B7A-6-8
GC: ____ GC: ____
C:D material under ground knocked Rig off plumb. End of boring.

2/27/03

Boring C1

0-4' Recovery: 3'
0-1 Description: Snow
1-3 Description: brown to reddish brown silty clay, some gravel, little organics (moist)
PID: 0.1 ppm

4-8' Recovery: 4'
Description: Reddish brown silty clay trace gray f. sand (dry) V-stiff.
PID: ND

8-12' Recovery: 4'
Description: Reddish brown silty clay trace gravel (dry) V-stiff
PID: ND
Sample: C1-8-10, ASTM D422 collected @ 1445hrs. GC: ____
Sample: C1-10-12
GC: ____

12-16' Recovery: 2.9'
Description: Reddish brown silty clay trace gravel (dry) Hard
PID: ND.
Sample: C1-12-14 GC: ____
Sample: C1-14-16 GC: ____

2/27/03

Boring C1 (cont)

ASTM D 5084 collected (C1-14-16) @ 1453hrs.

Refusal @ 15.9' due to hard silty clay. End of boring. Mobile to Boring D2.

Boring D2

0-4' Recovery: 4'
0-1' Description: Snow
1-4' Description: Reddish brown silty clay, some f.c Sand, little gravel (dry)
PID: ND

4-8' Recovery: 2'
Description: Reddish brown silty clay, trace gravel (dry), stiff
PID. ND
Sample: D2-4-6
GC: ____
Lost 2 rods due to stiff silty clay
End of boring.

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2/27/03

Drillers off site

Collect water levels

Well I.D	WL	Time
MW-2	6.94'	1605 hrs
MH	14.39'	1605 hrs
MW-3	10.50'	1606 hrs
MW-9	10.34'	1607 hrs
MW-4	6.99'	1608 hrs
MW-7	0.30'	1613 hrs (TWD: 24.8')
MW-6	9.43'	1610 hrs
MW-10	7.98'	1611 hrs
MW-8	11.90	1616 hrs (product on probe)

5 Drums labeled for soil-PPE and 1 Drum labeled for waste water (Recon water). All drums dated.

Prepare Samples for Laboratory

B2-10-12	2/27/03	0922 hrs	VOC
B2-16-18	2/27/03	0945 hrs	TPH
B6-12-14	2/27/03	1031 hrs	VOC
B6-16-18	2/27/03	1045 hrs	TPH

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2/27/03

Geo Tech samples collected today

B2-6-8	2/27/03	ASTM D422
B2-10-12	2/27/03	ASTM D422
B2-18-20	2/27/03	ASTM D422
C1-14-16	2/27/03	ASTM D5084
B6-14-16	2/27/03	ASTM D4318

Discuss site activities with Jim Tracer (ET) throughout the day.

Meet with Mindy Kirk (ET) to discuss GC status.

off site @ 1300 hrs

David Zack

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February 28, 2003 Friday — 0°F, light snow, West wind

Activity: Site Investigation

Arrive on Site @ 0815 hrs.

Collect water Levels

Well ID	WL	Time
MW-1	NA	NA
MW-2	6.88'	0835 hrs
MW-3	9.96'	0836 hrs
MW-4	6.61'	0837 hrs
MW-5	NA	NA
MW-6	9.06'	0838 hrs
MW-7	0.80'	0840 hrs.
MW-8	NA	NA
MW-9	4.72'	0837 hrs.
MW-10	9.62'	0838 hrs.
Wet well MH	13.12'	0835 hrs

- Prepare equipment to begin sampling activity.
- Drillers on site
- Discuss GC data with Mindy Kirk (ET)

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2/28/03

Boring C1

0-4' Recovery: 3'

0-1' Description: Snow

1-2' Description: Asphalt and gravel

2-2.5' Description: Reddish brown silty clay little gravel (moist-dry).

PID: 1.0 ppm

2.5'-3.0' Description: Reddish brown and gray silty clay, trace f. sand, trace gravel (dry-moist)

PID: 0.5 ppm

4-8' Recovery: 4'

4-5' Description: Reddish brown and gray silty clay, trace f. sand trace gravel (dry-moist) Stiff

PID: ND

5-8' Description: Reddish brown silty clay trace gravel (dry) V. Stiff -water in tube

PID: ND

8-10' Recovery: ~~4~~ 2' (Advancing core 2')

Description: Reddish brown silty clay in trends trace gravel (dry) V-stiff (wet in tube)

PID: ND

Sample: C1-8-10

GC: ——

2/28/05

Boring C1 (cont)

10-12' Recovery 2'
Description: Reddish brown silty clay, trace gravel (dry) V. Stiff
PID: ND
Sample: C1-10-12
GC: ____

12-14' Recovery 2'
Description: Reddish brown silty clay, trace gravel (dry) V Stiff
PID: ND
Sample: C1-12-14

DL2
~~14-16~~ Recovery 3' (!) - clay is expanding into tube
14-15.75'
Description: Reddish brown silty clay, trace gravel, (dry) Stiff
PID: 0.1 ppm
Sample: C1-14-16

15.75'-16.0' Description: Reddish brown silty clay, trace gravel, trace gray f. sand m-stiff
PID: ND

2/28/05

Boring C1 (cont)

16-20' Recovery 4'
16-18' Description: Reddish brown → lt gray clay, some gray f. sand layers (~2-5 mm thick every 2-5 cm) (moist) soft
PID: ND
Sample: C1-16-18, collected ASTM D 4318 @ 1000 hrs
GC: ____

18-20' Description: Red brown silty clay, soft (moist)
PID: ND
Sample: C1-18-20
GC: ____

20-24' Recovery: ~~4~~ 3.4'
20-22' ~~Description~~: Reddish brown silty clay some med gray f-c sand, trace gravel (wet) med dense
PID: ND
Sample: C1-20-22'
GC: ____

2/28/03

Boring C1 (cont)

22-23.4' Description: med gray f-c Sand, some gravel (shale), trace silty clay (wet) med Dense

PID: ND

Sample: C1-22-24, collect ASTM D422 @ 1015hrs

GC: ____

Refusal @ 23.4', Mobilize to Boring D2.

Boring D2

0-4' Recovery: 3'

0-1' Description: Brown silty clay, some f-c sand, trace gravel, trace organic (moist)

PID: ND

1-3' Description: Asphalt, ½" some gravel, little f-c sand, little silty clay (clay - moist)

PID: ND

2/28/03

Boring D2 (cont)

4-8' Recovery: 4'

4-5' Description: Gray silt, little wood little f. sand, trace gravel (moist)

PID: ND

5-8' Description: Reddish brown silty clay, little gray f. sand, trace gravel (dry)

PID: ND

8-10' Recovery: 2'

Description: Reddish brown silty clay trace gray f. sand, trace gravel, (dry) V stiff

PID, ND

Sample: D2-8-10

GC: ____

10-12' Recovery: 2'

Description: Reddish brown silty clay, trace gray f. sand, trace gravel (dry) V stiff

PID: ND

Sample: D2-10-12

GC: ____

Boring D2 (Cont'd)

12-14' Recovery: 2'
Description: Reddish brown silty clay trace gravel (dry) stiff
PID: N.D.
Sample: D2-12-14
GC: ____

14-16' Recovery 2'
Description: Reddish brown silty clay trace gravel (dry) stiff
PID: ND
Sample: D2-14-16
GC: ____

16-18' Recovery: 2'
Description: Reddish brown silty clay trace gravel (dry), trace gray f. sand layer
PID: ND
Sample: D2-16-18
GC: ____

18-20' Recovery 2'
Description: Reddish brown silty clay and gray f. sand layers (moist) m stiff-soft
PID: ND
Sample: D2 18 20
GC: ____

Boring D2 (Cont'd)

20-22' Recovery: 2'
20-21.5' Description: Reddish brown silty clay, little f. sand layers (gray) soft
PID: ND
Sample: D2-20-22
GC: ____
21.5-22' Description: Gray f-c sand and gravel (shale) (wet) trace silty clay med-dense

End of boring @ 22'
Mobilize to Location B6.5

Boring B6.5

0-4' Recovery: 3'
0-2' Description: snow!
2-2.5' asphalt and gravel
2.5-3' asphalt and gravel
4-8' Recovery: 4'
4-6' Description: Reddish brown-olive silty clay some gravel, trace f-c sand, ~~trace~~ OL2 (moist)
PID: 0.2 ppm
Sample: B6.5 4-6
GC: ____

2/28/03

6-8' Boring B6.5 (cont)

Description: Reddish brown silty clay, some gravel, trace f-c sand, trace red brick and asphalt @ 8' (moist)

PID: 0.4ppm

Sample: B6.5-6-8

GC: _____

8-12' Recovery: 4'

8-9' Description: Reddish brown silty clay some gravel, trace f-c sand, trace red brick and asphalt (wet) Med Dense to Loose

PID: 1.3 ppm

9-11' Description: Dark gray f sand and silt (moist)

PID: 35ppm

Sample: B6.5-8-10, TPH collected

GC: _____

11-12' Description: Reddish brown silty clay little gravel, trace f. sand (dry) Very stiff

PID: 0.1

Sample: B6.5-10-12

GC: _____

2/28/03

Boring B6.5 (cont)

12-16 Recovery: 4'

12-14' Description: Reddish brown silty clay little gravel, trace f sand (dry) - very stiff

PID: 0.1 ppm

Sample: B6.5-12-14

GC: _____

14-16' Description: Reddish brown silty clay; little f. sand (gray) layers, trace gravel. (moist)

PID: 0.1 ppm

Sample: B6.5-14-16

GC: _____

16-20 Recovery: 4'

16-17' Description: Reddish brown silty clay, little f sand layers, trace gravel (wet)

PID: ND

17-18' Description: gray gravel (shale) some f-c sand, trace silty clay (wet) very loose

PID: ND

Sample: B6.5-16-18, ASTM D422

GC: _____

2/28/03

Boring 6.5 (cont)

18-20' Description: Reddish brown silty clay little gray f. sand layers trace gravel (moist) med/stiff
PID: ND
Sample: B6.5-18-20, ASTM D2487
GC:

20-21.6' Recovery: 1.6'
20-21' Description: Reddish brown silty clay little gray f. sand layers trace gravel (moist) soft
21-21.6' Description: Gray f-c sand some gravel, trace silty clay (moist)
PID: ND
Sample: B6.5-20-22, VOC lab sample collected @ 1308 hrs

End of boring @ 21.6' (cut depth)
- actual depth @ 19.6' due to snow.

Mobilize to E2 to install piezometer

2/28/03

P2-E2

0-4' Recovery: 3.5'
0-0.5' Description: Topsoil (moist)
PID: ND
0.5-3.0' Description: brown silty clay, little gravel, trace f-c sand, trace asphalt (moist-dry)
PID: ND
3.0-3.5' Description: olive silty clay, little gravel, trace f-c sand, trace asphalt (moist-dry)
PID: ND

4-8' Recovery: 4'
4-7' Description: med gray-brown silty clay and gray f. sand (moist-dry), m-stiff
PID: ND
7-8' Description: reddish brown silty clay little f. sand (dry) (dry) stiff
PID: ND

8-12' Recovery: 4'
Description: reddish brown silty clay trace gray f. sand lens, trace gravel, med stiff
wet @ 8-8.5
moist-dry @ 8.5-12
PID: ND

(80)

2/28/03

P2-E2 (cont)

12-16' Recovery: 4'

Description: Reddish brown silty clay trace gravel (wet-moist) soft

PID: ND

Sample: E2-14-16 for ASTM D422 @ 1445 hrs

16-20' Recovery: 4'

16-18' Description: Reddish brown and gray silty clay, little F. sand, little gravel (wet) very stiff

PID: ND

Sample: E2-16-18 for TPH @ 1458 hrs

18'-20' Description: Reddish brown silty clay, little gray F. sand layers (moist) soft

PID: ND

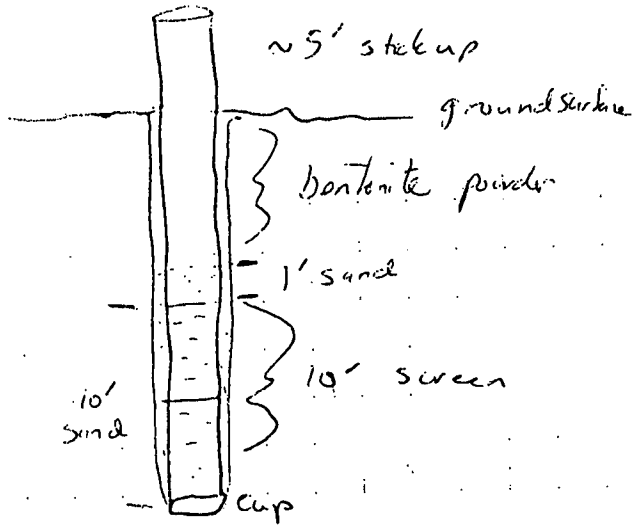
Sample: E2-18-20 for VOC @ 1450 hrs

Install piezometer

(81)

2/28/03

P2-E2 (cont)



Driller decon and demobilize

Collect a round of water levels

Well ID	W/L	Time
MW-2	6.90'	3:31
MW-3	9.75'	3:35
MW-4	6.51'	3:42
MW-6	8.90'	3:40
MW-7	0.85'	3:45
MW-8	NA	NA
MW-9	9.45'	3:36
MW-10	9.55	3:43
Wet well	12.70	3:33

(82)

2/28/03

Prepare samples for laboratory

E2-16-18	2/28/03 (1456)	TPH
B6.5-8-10	2/28/03 (1230)	TPH
B6.5-10-22	2/28/03 (1308)	VOC
E2-18-20	2/28/03 (1450)	VOC

Note: VOC - method 8260
TPH - method 310.13

Prepare Samples for Geotech lab

C1-8-10	2/28/03	ASTM D422
C1-22-24	2/28/03	ASTM D422
B6.5-16-18	2/28/03	ASTM D422
P2-E2-14-16	2/28/03	ASTM D 422
B6.5-18-20	2/28/03	ASTM D5084
C1-16-18	2/28/03	ASTM D 4318

Prepare equipment, etc for demobilization

Off site - transport samples to Laboratory

David Gack

(83)

March 3, 2003 Cloudy, west wind
Monday ~ 1/2" ice

Arrive on site @ 0515 hrs.

Met with Scott personell to discuss ground water collection trench wet well status.
- ET was informed system was turned back on Sat. 3/1/03 @ 0900 hr.

Collect water levels

Well ID	W/L	Time	
MW-2	NA	NA	- covered w/ice
Wet Well MH	24.80'	8:48	
MW-9	13.25'	8:26	
MW-4	9.12'	8:00	
MW-6	11.88'	~~7.38~~ DC2 7.40	
MW-10	11.84'	7.38	
MW-7	0.9'	8:19	
MW-8	13.28'	8:24	
P2-E2	3.10' bgs	7.36	
MW-3	14.17'	8:51	

Off site David Gack

(84)

March 5, 2003 Cloudy, 25°F
Wednesday

Arrive on site @ 5:00pm

Collect water Levels

Well ID	W/L	Time
MW-2	7.40'	5:34
MW-3	14.77'	5:24
MW-4	9.39'	5:21
MW-6	12.22'	5:20
MW-7	0.50'	5:22
MW-8	13.28'	5:23
MW-9	14.10'	5:25
MW-10	12.16'	5:18
PZ-E2	3.16' Sys	5:35
Wet Well MH	26.26'	5:30

off site

Dan Jones

APPENDIX E

ANALYTICAL LABORATORY DATA

~~61796~~ 2LC
~~57499~~
61796/4.5

Certified Analytical Laboratory Services

JOHN G. FISHER, JR., DIRECTOR NYS ELAP ID# 10383

4455 Genesee Street Box 400 Buffalo NY 14225 Telephone Number (716) 631-6799

May 2, 2003

Mr. Robert Clark
Scott Aviation Company
225 Erie Street
Lancaster, New York 14086

Dear Mr. Saskowski:

Enclosed are the results of the chemical analysis performed on the eight sets of VOC samples collected by CAL Services at wells of the Plant #2 remediation field as shown on the enclosed map. Also included are the water elevations in the monitoring wells. The sampling was performed on April 15, 2003.

During the measurements of elevation, wells #4 and #8 showed a surface oil present. This oil was observed by both Earth Tech personel and CAL Services at the time of sampling.

The well samples were collected after the wells were purged by a total of five gallons with a new disposable bailer. The procedures outlined in the remediation plan manual were followed and the samples were analyzed by a NYS/DOH certified laboratory.

The samples were collected by Mr. John G. Fisher Jr. and the chemical analysis was performed by the NYS/DOH certified laboratory, Certified Analytical Laboratory Services of Buffalo, New York with the VOC analysis being performed under subcontract by Waste Stream Laboratory Inc., Buffalo, New York.

If you have any questions concerning the analytical results or methods, the sampling and measurement procedures involved, or any other aspect of this program, please feel free to contact me.

Sincerely,

John G. Fisher Jr.
Director

Enclosure

WASTE STREAM TECHNOLOGY, INC.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report
Report Date : 04/29/03
Group Number : 2031-881

Prepared For :
Mr. John G. Fisher, Jr.
Certified Analytical Laboratory Services
4455 Genesee Street, Box 400
Buffalo, NY 14225
FAX: 716-631-6722

Site : Stripper & Wells

Analytical Parameters	Analytical Services Number of Samples	Turnaround Time
EPA 624	10	Standard

Report Released By : _____
Brian S. Schepart, Ph.D., Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977

ACCREDITED IN ACCORDANCE WITH nelac

TECHNOLOGY

Waste Stream Technology, Inc.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report

Group Number: 2031-881
Site: Stripper & Wells

Field and Laboratory Information

WST ID	Client ID	Matrix	Date Sampled	Date Received	Time
WT17472	Inf	Aqueous	04/15/03	04/16/03	10:55
WT17473	Eff	Aqueous	04/15/03	04/16/03	10:55
WT17474	#2	Aqueous	04/15/03	04/16/03	10:55
WT17475	#3	Aqueous	04/15/03	04/16/03	10:55
WT17476	#4	Aqueous	04/15/03	04/16/03	10:55
WT17477	#6	Aqueous	04/15/03	04/16/03	10:55
WT17478	#7	Aqueous	04/15/03	04/16/03	10:55
WT17479	#8	Aqueous	04/15/03	04/16/03	10:55
WT17480	#9	Aqueous	04/15/03	04/16/03	10:55
WT17481	#10	Aqueous	04/15/03	04/16/03	10:55

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following U.S. Environmental Protection Agency Reference:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised December 1996, U.S. EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 100 Harbor Drive, West Conshohocken, PA 19428-2959.

Standard Methods for the Examination of Water and Wastewater. (20th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

DETECTION LIMIT DEFINITIONS

MDL = Method Detection Limit. When reported, the MDL is the minimum concentration that can be measured and reported with 99 percent confidence that the concentration is greater than zero.

MQL = Method Quantitation Limit. The MQL is the minimum concentration that can be reliably reported. The MQL is equal to the concentration of the lowest standard used for the initial calibration of the instrument.

Reporting Limit = A reporting limit is the minimum concentration that can be measured and reported for analyses where initial calibration is not applicable. The reporting limit is based on the specifics of the analysis procedure.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected at the stated MQL or Reporting Limit. If the MDL has been reported, U indicates that the compound was not detected at the MDL.

J - Indicates an estimated value. This flag is used to qualify the following: when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed; a compound is detected in the sample but the result is less than the method quantitation limit but greater than the statistically calculated laboratory method detection limit; the result for a compound is estimated due to the analysis of a sample beyond the USEPA defined holding time; the result for a compound is estimated due to a quality control sample result that is outside the laboratory quality control recovery limits.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument of that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out. The sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) - Indicates that the compound is a surrogate and that the value reported for this compound is in percent recovery. The quality control recovery limits are indicated in the detection limit or QC limits column.

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17474
Client ID: #2
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	Not detected		U
bromomethane	2.0	Not detected		U
chloroethane	2.0	36.3		
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	Not detected		U
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
1,2-dichloropropane	1.0	Not detected		U
bromodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		98	76-114	
Toluene-d8 (%)		98	84-118	
Bromofluorobenzene (%)		100	82-117	
Dilution Factor	1			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
[redacted]te Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17475
Client ID: #3
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	25.6		
bromomethane	2.0	Not detected		U
chloroethane	2.0	3.4		
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	14.9		
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
1,2-dichloropropane	1.0	Not detected		U
[redacted]nodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		96	76-114	
Toluene-d8 (%)		96	84-118	
Bromofluorobenzene (%)		96	82-117	
Dilution Factor	1			

[redacted]

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17476
Client ID: #4
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	10.0	670		D
bromomethane	2.0	Not detected		U
chloroethane	2.0	30.0		
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	16.1		
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	13.9		
1,1-dichloroethane	1.0	91.2		
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	20.9		
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	4.9		
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	10.0	249		D
1,2-dichloropropane	1.0	Not detected		U
bromodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	20.5		
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	1.3		
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		94	76-114	
Toluene-d8 (%)		96	84-118	
Bromofluorobenzene (%)		96	82-117	
Dilution Factor	1			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17477
Client ID: ~~#8~~ #9
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	20.0	Not detected		U
vinyl chloride	100	6290		D
bromomethane	20.0	Not detected		U
chloroethane	20.0	539		
trichlorofluoromethane	10.0	Not detected		U
1,1-dichloroethene	10.0	612		
methylene chloride	20.0	62.2		B
trans-1,2-dichloroethene	10.0	110		
1,1-dichloroethane	100	4600		D
chloroform	10.0	Not detected		U
1,1,1-trichloroethane	10.0	171		
carbon tetrachloride	10.0	Not detected		U
benzene	10.0	Not detected		U
1,2-dichloroethane	10.0	18.4		
trichloroethene	5000	406000		D
1,2-dichloropropane	10.0	Not detected		U
bromodichloromethane	10.0	Not detected		U
2-chloroethylvinyl ether	100	Not detected		U
cis-1,3-dichloropropene	10.0	Not detected		U
toluene	10.0	1240		
trans-1,3-dichloropropene	10.0	Not detected		U
1,1,2-trichloroethane	10.0	22.4		
tetrachloroethene	10.0	47.9		
dibromochloromethane	10.0	Not detected		U
chlorobenzene	10.0	Not detected		U
ethylbenzene	10.0	Not detected		U
bromoform	10.0	Not detected		U
1,1,2,2-tetrachloroethane	10.0	Not detected		U
1,3-dichlorobenzene	10.0	Not detected		U
1,4-dichlorobenzene	10.0	Not detected		U
1,2-dichlorobenzene	10.0	Not detected		U
1,2-Dichloroethane-d4 (%)		80	76-114	
Toluene-d8 (%)		84	84-118	
Bromofluorobenzene (%)		82	82-117	
Dilution Factor	**10**			

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17478
Client ID: #7 + #6
Extraction Date: NA
Date Analyzed: 04/21/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	Not detected		U
bromomethane	2.0	Not detected		U
chloroethane	2.0	Not detected		U
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	Not detected		U
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
1,2-dichloropropane	1.0	Not detected		U
bromodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		96	76-114	
Toluene-d8 (%)		103	84-118	
Bromofluorobenzene (%)		101	82-117	
Dilution Factor	1			

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
[redacted]ate Sampled: 04/15/03
[redacted]ate Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17479
Client ID: ~~#8~~ #7
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	21.5		
bromomethane	2.0	Not detected		U
chloroethane	2.0	2.2		
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	1.8		
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	7.4		
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	2.7		
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	213		
[redacted]-dichloropropane	1.0	Not detected		U
[redacted]modichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		99	76-114	
Toluene-d8 (%)		97	84-118	
Bromofluorobenzene (%)		100	82-117	
Dilution Factor	1			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
[redacted]ate Sampled: 04/15/03
[redacted]te Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17480
Client ID: #9
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	138		
bromomethane	2.0	Not detected		U
chloroethane	2.0	97.6		
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	80.8		
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	2.1		
trichloroethene	1.0	3.0		
[redacted]-dichloropropane	1.0	Not detected		U
[redacted]nodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		100	76-114	
Toluene-d8 (%)		98	84-118	
Bromofluorobenzene (%)		103	82-117	
Dilution Factor	1			

[redacted]

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
[redacted]te Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17481
Client ID: #10
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	Not detected		U
bromomethane	2.0	Not detected		U
chloroethane	2.0	Not detected		U
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	Not detected		U
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
1,2-dichloropropane	1.0	Not detected		U
[redacted]nodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		94	76-114	
Toluene-d8 (%)		93	84-118	
Bromofluorobenzene (%)		98	82-117	
Dilution Factor	1			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Method 624 Method Blank Results

EPA 624

Site: Stripper & Wells
[redacted]te Sampled: NA
Date Received: NA

Group Number: 2031-881
Units: µg/L

WST ID: MB041803
Client ID: NA
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	Not detected		U
bromomethane	2.0	Not detected		U
chloroethane	2.0	Not detected		U
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	4.2		
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	Not detected		U
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
[redacted]dichloropropane	1.0	Not detected		U
[redacted]modichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		99	76-114	
Toluene-d8 (%)		101	84-118	
Bromofluorobenzene (%)		104	82-117	

Dilution Factor 1

MB denotes Method Blank
NA denotes Not Applicable

[redacted]

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Method 624 Method Blank Results

EPA 624

Site: Stripper & Wells
[redacted]te Sampled: NA
[redacted]te Received: NA

Group Number: 2031-881
Units: µg/L

WST ID: MB042103
Client ID: NA
Extraction Date: NA
Date Analyzed: 04/21/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	Not detected		U
bromomethane	2.0	Not detected		U
chloroethane	2.0	Not detected		U
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	Not detected		U
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
[redacted]dichloropropane	1.0	Not detected		U
[redacted]nodichloromethane	1.0	Not detected		U
2-chloroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		94	76-114	
Toluene-d8 (%)		101	84-118	
Bromofluorobenzene (%)		98	82-117	

Dilution Factor 1

MB denotes Method Blank
NA denotes Not Applicable

[redacted]

WASTE STREAM TECHNOLOGY

Certified Analytical Laboratory Services

JOHN G. FISHER, JR., DIRECTOR NYS ELAP ID# 10383

455 Genesee Street Box 400 Buffalo NY 14225 Telephone Number (716) 631-6799

2031-881

Chain of Custody Report for Sampling and Analysis

Sample Numbers: CAL-S- #

Description: Stripper + Walls

Location of Sampling: S

Date and Time of Samping: 4/14-15/03

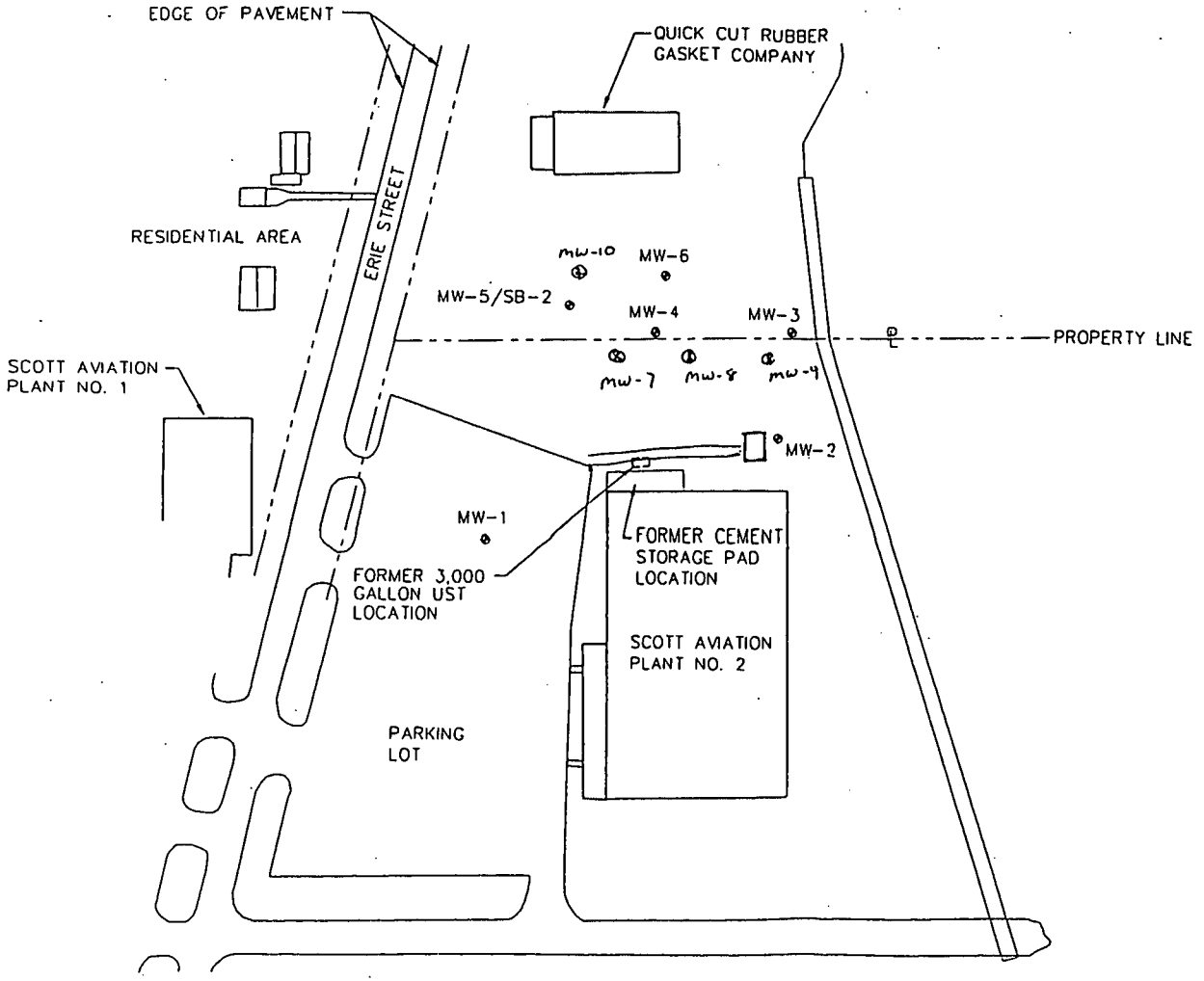
Individuals having custody of sample: JGF

INF	4x40ml	Composite	—	WT17472
EFF	4x40ml	Composite	—	73
#2	2x40ml	Duplicate	—	74
#3	"	"	—	75
(#4)	"	"	6 240ml	76
#6	"	"	EACH	77
#7	"			
(#8)	"	"	—	78
#9	"	"	—	79
#10	"	"	—	80
				81

4 + # 8 High oil

Name	Title	Company	Date Received	Time Received
John Fisher		Dir CAL	4/15/03	3PM
Kris Foster		WST	4/16/03	1055 am

FIGURE 2



LEGEND

MW-1 — APPROX. LOCATIONS OF EXISTING MONITORING WELLS

SCOTT AVIATION
LANCASTER, NEW YORK
GROUND WATER REMEDIATION SYSTEM
OPERATION & MAINTENACE MANUAL

PREVIOUS SITE PLAN

0 100 200

APPROX. SCALE IN FEET

FILE NO. 2488.580-29F

O'BRIEN & GERE ENGINEERS INC.

Certified Analytical Laboratory Services

JOHN G. FISHER, JR., DIRECTOR NYS ELAP ID# 10383

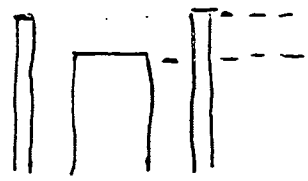
4455 Genesee Street Box 400 Buffalo NY 14225 Telephone Number (716) 631-6799

DATE

SCOTT AVIATION - WELL MONITORING
PLANT #2 REMEDIATION
WELL LOCATION AND MEASUREMENTS

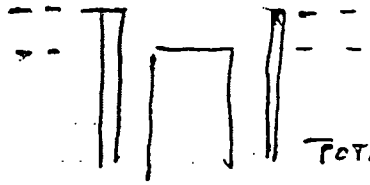
WELL #1 COVERED ASPHALT.

WELL #2



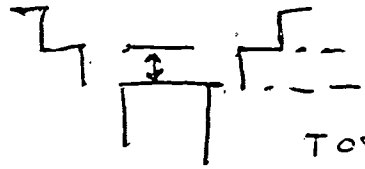
TOTAL 6.94'

WELL # 3



TOTAL 14.44'

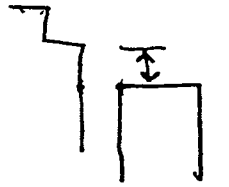
WELL #4



TOTAL 15.83'

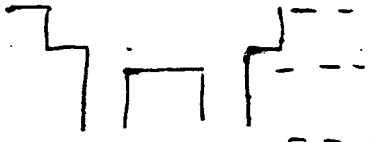
WELL #5 LOST

WELL #6



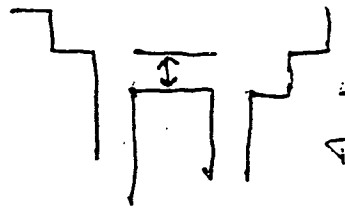
TOTAL 11.72'

WELL #7



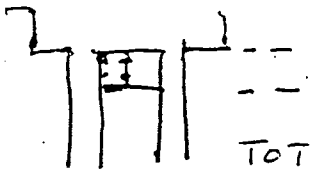
TOTAL 1.14'

WELL #8



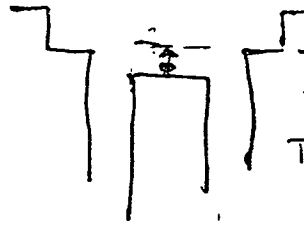
TOTAL 15.55'

WELL #9



TOTAL 13.90'

WELL #10



TOTAL 11.32'

DATA COLLECTION FIELD SHEET

INDUSTRIAL WASTE SAMPLE NUMBER: WELL #2,3,4,6,7,8,9,10

COMPANY: SCOTT AVIATION / PLANT #2

ADDRESS: 225 ERIE STREET, LANCASTER, N.Y. 14086

SAMPLE POINT NUMBER: MONITORING WELL

SAMPLE POINT DESCRIPTION & SIZE: SEE ENCLOSED MAP OF MONITORING WELL FIELD IN REMEDIATION AREA

TYPE OF SAMPLE: GRAB (BAIL) AFTER 5 GALLONS PURGE

FLOW MEASURING METHOD: WELL / BAILER GEOMETRY FOR VOLUMNS.

INSTALLATION DATA

DATE & TIME: April 15 10am

CREW: JGF

TYPE OF SAMPLER: DEDICATED BAILER

SAMPLE INTERVAL: —

PRESERVATION USED: ICED

IN. FLOW READING: —

TYPE OF BOTTLE: 40 ml GLASS VOA/TEFLON

OBSERVATIONS:

COLLECTION DATA

DATE & TIME: April 15 2003 3pm

CREW: JGF

VOLUME OF SAMPLE: 3-5 Gallons

FINAL FLOW READING:

FLOW MEASUREMENT:

OBSERVATIONS: alternate

CHAIN OF CUSTODY

Relinquished by: (signature)	Received by: (signature)	Date & Time
	JGF/CAL SERVICES	4/16/03 3pm
Relinquished by:	Received by:	Date & Time
Relinquished by:	Received by:	Date & Time
Relinquished by:	Received by:	Date & Time
Relinquished by:	Received by:	Date & Time
Relinquished by:	Received by:	Date & Time
Dispatched by: (signature)		

Certified Analytical Laboratory Services

JOHN G. FISHER, JR., DIRECTOR NYS ELAP ID# 10383

4455 Genesee Street Box 400 Buffalo NY 14225 Telephone Number (716) 631-6799

May 19, 2003

Mr. Robert Clark
Scott Aviation Company
225 Erie Street
Lancaster, New York 14086

Dear Mr. Clark:

Enclosed are the revisions made to the results of the chemical analysis performed on the eight sets of VOC samples collected by CAL Services at wells of the Plant #2 remediation field. The sampling was performed on April 15, 2003.

Waste Stream Technology, Inc. has determined that the results from Wells #6, #7, and #8 were misreported. The corrected pages are enclosed.

The samples were collected by Mr. John G. Fisher Jr. and the chemical analysis was performed by the NYS/DOH certified laboratory, Certified Analytical Laboratory Services of Buffalo, New York with the VOC analysis being performed under subcontract by Waste Stream Laboratory Inc., Buffalo, New York.

If you have any questions concerning the analytical results or methods, the sampling and measurement procedures involved, or any other aspect of this program, please feel free to contact me.

Sincerely,

John G. Fisher Jr.
Director

Enclosure

MEMORANDOM

WASTE STREAM TECHNOLOGY, INC.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Date: May 14, 2003

To: Mr. John G. Fisher, Jr.
Certified Analytical Laboratory Services
4455 Genesee Street – Box 400
Buffalo, NY 14225

RE: The following revision was made to the report for group number 2031-881:

---

1. At your request, the labels of the VOA vials for sample numbers WT17477, WT17478 and WT17479 were examined for the client ID. It was determined that WT17477 was Client ID #8, WT17478 was Client ID #6 and WT17479 was Client ID #7 and not #6, #7 and #8 as initially reported. The EPA 624 result reports for WT17447, WT17478 and WT17479 (pages 10, 11 and 12) have been revised to reflect the correct Client ID. The Field and Laboratory Information page (page 2) of the report has also been revised for the same reason.

If you have any questions regarding these revisions, please contact Daniel Vollmer or Paul Morrow at the phone number listed above.

D. Vollmer
5/14/03

Analytical Laboratory Services
St Box 400 Buffalo NY 14225

5/16/03

Waste Stream Technology, Inc.
302 Grote Street
Buffalo, NY 14207
(716) 876-5290

Analytical Data Report

Group Number: 2031-881
Site: Stripper & Wells

Field and Laboratory Information

WST ID	Client ID	Matrix	Date Sampled	Date Received	Time
WT17472	Inf	Aqueous	04/15/03	04/16/03	10:55
WT17473	Eff	Aqueous	04/15/03	04/16/03	10:55
WT17474	#2	Aqueous	04/15/03	04/16/03	10:55
WT17475	#3	Aqueous	04/15/03	04/16/03	10:55
WT17476	#4	Aqueous	04/15/03	04/16/03	10:55
WT17477	#8	Aqueous	04/15/03	04/16/03	10:55
WT17478	#6	Aqueous	04/15/03	04/16/03	10:55
WT17479	#7	Aqueous	04/15/03	04/16/03	10:55
WT17480	#9	Aqueous	04/15/03	04/16/03	10:55
WT17481	#10	Aqueous	04/15/03	04/16/03	10:55

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17477
Client ID: #8
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	20.0	Not detected		U
vinyl chloride	100	6290		D
bromomethane	20.0	Not detected		U
chloroethane	20.0	539		
trichlorofluoromethane	10.0	Not detected		U
1,1-dichloroethene	10.0	612		
methylene chloride	20.0	62.2		B
trans-1,2-dichloroethene	10.0	110		
1,1-dichloroethane	100	4600		D
chloroform	10.0	Not detected		U
1,1,1-trichloroethane	10.0	171		
carbon tetrachloride	10.0	Not detected		U
benzene	10.0	Not detected	406 ppm	U
1,2-dichloroethane	10.0	18.4		
trichloroethene	5000	406000	Sol. 1,100 ppm	D
1,2-dichloropropane	10.0	Not detected		U
[illegible]modichloromethane	10.0	Not detected		U
[illegible]hloroethylvinyl ether	100	Not detected	~40% ?.	U
cis-1,3-dichloropropene	10.0	Not detected		U
toluene	10.0	1240		
trans-1,3-dichloropropene	10.0	Not detected		U
1,1,2-trichloroethane	10.0	22.4		
tetrachloroethene	10.0	47.9		
dibromochloromethane	10.0	Not detected		U
chlorobenzene	10.0	Not detected		U
ethylbenzene	10.0	Not detected		U
bromoform	10.0	Not detected		U
1,1,2,2-tetrachloroethane	10.0	Not detected		U
1,3-dichlorobenzene	10.0	Not detected		U
1,4-dichlorobenzene	10.0	Not detected		U
1,2-dichlorobenzene	10.0	Not detected		U
1,2-Dichloroethane-d4 (%)		80	76-114	
Toluene-d8 (%)		84	84-118	#
Bromofluorobenzene (%)		82	82-117	#
Dilution Factor	**10**			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17478
Client ID: #6
Extraction Date: NA
Date Analyzed: 04/21/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	Not detected		U
bromomethane	2.0	Not detected		U
chloroethane	2.0	Not detected		U
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	Not detected		U
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	Not detected		U
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	Not detected		U
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	Not detected		U
1,2-dichloropropane	1.0	Not detected		U
[illegible]modichloromethane	1.0	Not detected		U
[illegible]loroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		96	76-114	
Toluene-d8 (%)		103	84-118	
Bromofluorobenzene (%)		101	82-117	
Dilution Factor	1			

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Volatile Organics in Water

EPA 624

Site: Stripper & Wells
Date Sampled: 04/15/03
Date Received: 04/16/03

Group Number: 2031-881
Units: µg/L
Matrix: Aqueous

WST ID: WT17479
Client ID: #7
Extraction Date: NA
Date Analyzed: 04/18/03

Compound	MQL	Result	QC Limits (%)	Qualifier
chloromethane	2.0	Not detected		U
vinyl chloride	1.0	21.5		
bromomethane	2.0	Not detected		U
chloroethane	2.0	2.2		
trichlorofluoromethane	1.0	Not detected		U
1,1-dichloroethene	1.0	1.8		
methylene chloride	2.0	Not detected		U
trans-1,2-dichloroethene	1.0	Not detected		U
1,1-dichloroethane	1.0	7.4		
chloroform	1.0	Not detected		U
1,1,1-trichloroethane	1.0	2.7		
carbon tetrachloride	1.0	Not detected		U
benzene	1.0	Not detected		U
1,2-dichloroethane	1.0	Not detected		U
trichloroethene	1.0	213		
1,2-dichloropropane	1.0	Not detected		U
bromodichloromethane	1.0	Not detected		U
[redacted]loroethylvinyl ether	10.0	Not detected		U
cis-1,3-dichloropropene	1.0	Not detected		U
toluene	1.0	Not detected		U
trans-1,3-dichloropropene	1.0	Not detected		U
1,1,2-trichloroethane	1.0	Not detected		U
tetrachloroethene	1.0	Not detected		U
dibromochloromethane	1.0	Not detected		U
chlorobenzene	1.0	Not detected		U
ethylbenzene	1.0	Not detected		U
bromoform	1.0	Not detected		U
1,1,2,2-tetrachloroethane	1.0	Not detected		U
1,3-dichlorobenzene	1.0	Not detected		U
1,4-dichlorobenzene	1.0	Not detected		U
1,2-dichlorobenzene	1.0	Not detected		U
1,2-Dichloroethane-d4 (%)		99	76-114	
Toluene-d8 (%)		97	84-118	
Bromofluorobenzene (%)		100	82-117	
Dilution Factor	1			

WASTE STREAM TECHNOLOGY