

**DEUTSCH RELAYS, INC. SITE  
SUFFOLK COUNTY  
EAST NORTHPORT, NEW YORK**

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# **SITE MANAGEMENT PLAN**

**NYSDEC Site Number: 152003**

**Prepared for:**

65 Daly Road LLC  
300 Jericho Turnpike, Suite 100  
Jericho, NY 11753

**Prepared by:**

FPM Group, Ltd.  
640 Johnson Avenue, Suite 101, Bohemia, NY 11716  
(631) 737-6200

**Revisions to Final Approved Site Management Plan:**

<b>Revision No.</b>	<b>Date Submitted</b>	<b>Summary of Revision</b>	<b>NYSDEC Approval Date</b>

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**JANUARY 2021**

## CERTIFICATION STATEMENT

I, STEPHANIE O. DAVIS, PG certify that I am currently a Qualified Environmental Professional as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Stephanie O. Davis, P.G. QEP

January 19, 2021 DATE

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**SUFFOLK COUNTY**

**EAST NORTHPORT, NEW YORK**

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G	Site Management Forms (Site-Wide Inspection Form, Groundwater Sampling Form, and Canister Sampling Form)
H	Field Sampling Plan
I	Quality Assurance Project Plan
J	Health and Safety Plan

## LIST OF ACRONYMS

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1,1-DCA	1,1-Dichloroethane
1,1,1-TCA	1,1,1-Trichloroethane
ASP	Analytical Services Protocol
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulation
Cis-1,2-DCE	cis-1,2-dichloroethene
CLP	Contract Laboratory Program
COC	Certificate of Completion
CP	Commissioner Policy
DER	Division of Environmental Remediation
DO	Dissolved oxygen
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
EWP	Excavation Work Plan
FPM	FPM Group, Ltd.
FS	Feasibility Study
G&M	Geraghty & Miller, Inc.
Gpm	gallons per minute
H2M	Holzmacher, McLendon and Murrell, PC
HASP	Health and Safety Plan
IC	Institutional Control
MCL	Maximum Contaminant Level
MSL	Mean Sea Level
MTBE	Methyl tert butyl ether

Ng/l	Nanograms per liter
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOL	New York State Department of Labor
NYSDOT	New York State Department of Transportation
NYCRR	New York Codes, Rules and Regulations
Objectives	NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
OSHA	Occupational Safety and Health Administration
PCE	Tetrachloroethene
PFAS	Per and polyfluorinated alkyl substances
Ppbv	Parts per billion by volume
PID	Photoionization Detector
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
SCDHS	Suffolk County Department of Health Services
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-slab Depressurization System
Standards	NYSDEC Class GA Ambient Water Quality Standards
SVI	Soil Vapor Intrusion
SVOC	Semivolatile organic compound
SWAP	Source Water Assessment Program
TCE	Trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
TSCA	Toxic Substances Control Act
Ug/l	Micrograms per liter
Ug/m <sup>3</sup>	Micrograms per cubic meter
UST	Underground Storage Tank
VOC	Volatile organic compound

## ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring and reporting activities required by this Site Management Plan:

**Site Identification:** **Site #152003**  
**Deutsch Relays, Inc. Site**  
**65 Daly Road, East Northport, NY**

<b>Institutional Controls:</b>	1. The property may be used for restricted residential, commercial, or industrial uses.
	2. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Suffolk County Department of Health Services to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
	3. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP.
	4. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP.
	5. Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
	6. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 3.2.1, and appropriate actions to address exposures must be implemented.
	7. Vegetable gardens and farming on the Site are prohibited.
<b>Inspections:</b>	<b>Frequency</b>
Site-Wide Inspection	Annually
<b>Evaluations</b>	
Soil Vapor Intrusion evaluation	Upon change in use/as needed

**Site Identification:**

**Site #152003  
Deutsch Relays, Inc. Site  
65 Daly Road, East Northport, NY**

Groundwater Monitoring	Once per five quarters
<b>Reporting:</b>	
Inspection Report	Annually
Certification/PRR	Annually (initial)
Final Construction Report	Upon completion of Soil Management/Excavation activities

Further descriptions of the above requirements are provided in detail in the subsequent sections of this Site Management Plan.

## **1.0 INTRODUCTION**

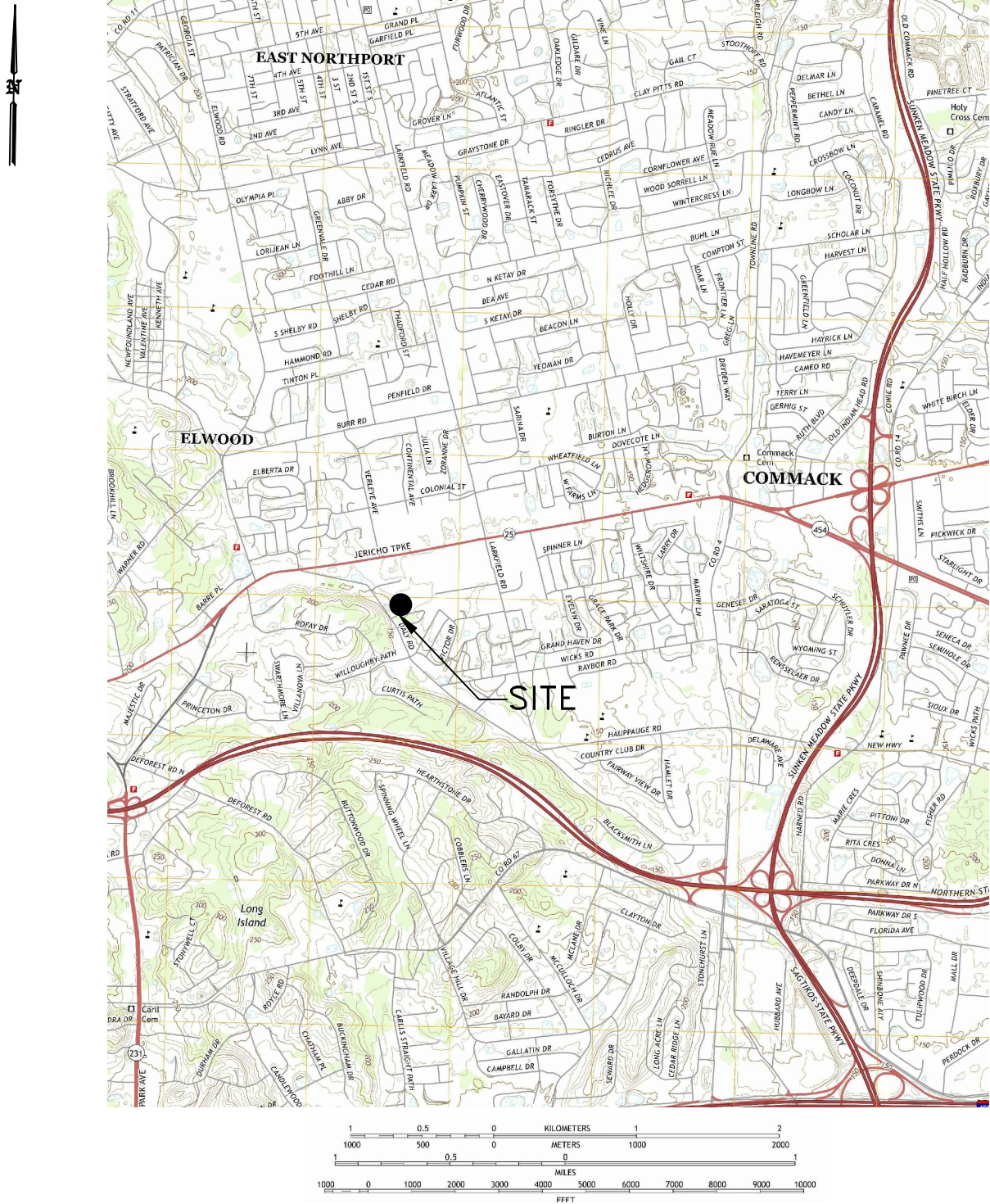
### **1.1 General**

This Site Management Plan (SMP) is a required element of the remedial program for the Deutsch Relays, Inc. Site located in East Northport, Suffolk County, New York; see Figure 1.1.1 for the Site location. The Site (Site No. 152003) is currently in the New York State Inactive Hazardous Waste Disposal Site Remedial Program, which is administered by New York State Department of Environmental Conservation (NYSDEC).

A former owner of the Site, Deutsch Relays, Inc., entered into an Order on Consent on October 5, 1989 (amended Order signed April 30, 1992) with the NYSDEC to remediate the Site. The original Site was approximately 22 acres and included a northern 6.5-acre undeveloped area adjoining Jericho Turnpike, an approximately 10-acre portion of the Site that included the manufacturing area and parking lot, and an approximately four-acre area to the west adjoining Daly Road. In response to a 1997 petition, the Site boundary was modified to include only the western four-acre area, which at that time included three recovery wells, a groundwater treatment building, and a stormwater recharge basin that received discharges of treated groundwater. The northern parcel was sold and subsequently developed by its new owners; this parcel is not further considered in this SMP. The Site presently includes the former manufacturing area, parking lot, and western area and is a 14.31-acre parcel identified on the Suffolk County Tax Map as District 400, Section 215, Block 2, and Lot 55.001. This SMP has been prepared for this 14.31-acre parcel, hereinafter referred to as the Site. The Site location and boundaries are provided in Figure 1.1.2. The boundaries of the Site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

After completion of the remedial work, some contamination remains at this Site, which is hereafter referred to as “remaining contamination”. Institutional (ICs) have been incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Suffolk County Clerk, requires compliance with this SMP and all ICs placed on the site.

This SMP was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with Environmental Conservation Law



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FIGURE 1.1.1  
SITE LOCATION MAP  
DEUTSCH RELAYS, INC. SITE  
EAST NORTHPORT, NEW YORK

SOURCE: USGS GREENLAWN TOPOGRAPHIC QUADRANGLE, 2016

Drawn By:H.C. Checked By:S.D. Date: 4/29/19






SOURCE: SUFFOLK COUNTY TAX MAP, 2017

LEGEND

 SITE BOUNDARY

APPROXIMATE SCALE IN FEET

0 200 400  


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FIGURE 1.1.2  
SITE LOCATION AND BOUNDARIES

DEUTSCH RELAYS, INC. SITE  
EAST NORTHPORT, NEW YORK

Drawn By:H.C. | Checked By:S.D. | Date: 4/29/19

(ECL) Article 71, Title 36. This SMP has been approved by the NYSDEC, and compliance with this SMP is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC), release or closure letter;
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the Order on Consent (Index #WI-0213-88-3; Site #152003) for the site, and thereby subject to applicable penalties.

All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the Site is provided in Appendix B of this SMP.

This SMP was prepared by FPM Group, Ltd. (FPM), on behalf of 65 Daly Road LLC, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs that are required by the Environmental Easement for the Site.

## **1.2 Revisions**

Revisions to this SMP will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a post-remedial removal of contaminated soil, or other significant change to the Site conditions. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

## **1.3 Notifications**

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- Written 60-day advance notice of any proposed changes in Site use that are required under the terms of the Order on Consent, 6NYCRR Part 375 and/or Environmental Conservation Law.



- 7-day advance notice of any field activity associated with the remedial program.
- Written 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP).

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the Order on Consent and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1.3.1 below includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

**Table 1.3.1: Notifications\***

<b>Name and Title</b>	<b>Contact Information</b>
Melissa Sweet, PE NYSDEC Project Manager	(518) 402-9614 Melissa.sweet@dec.ny.gov
Chris Engelhardt NYSDEC Regional HW Engineer	(631) 444-0235 Chris.engelhardt@dec.ny.gov
Kelly Lewandowski NYSDEC Site Control	(518) 402-9553 kelly.lewandowski@dec.ny.gov

\* Note: Notifications are subject to change and will be updated as necessary.

## **2.0 Summary of Previous Remedial Investigations and Remedial Actions**

### **2.1 Site Location and Description**

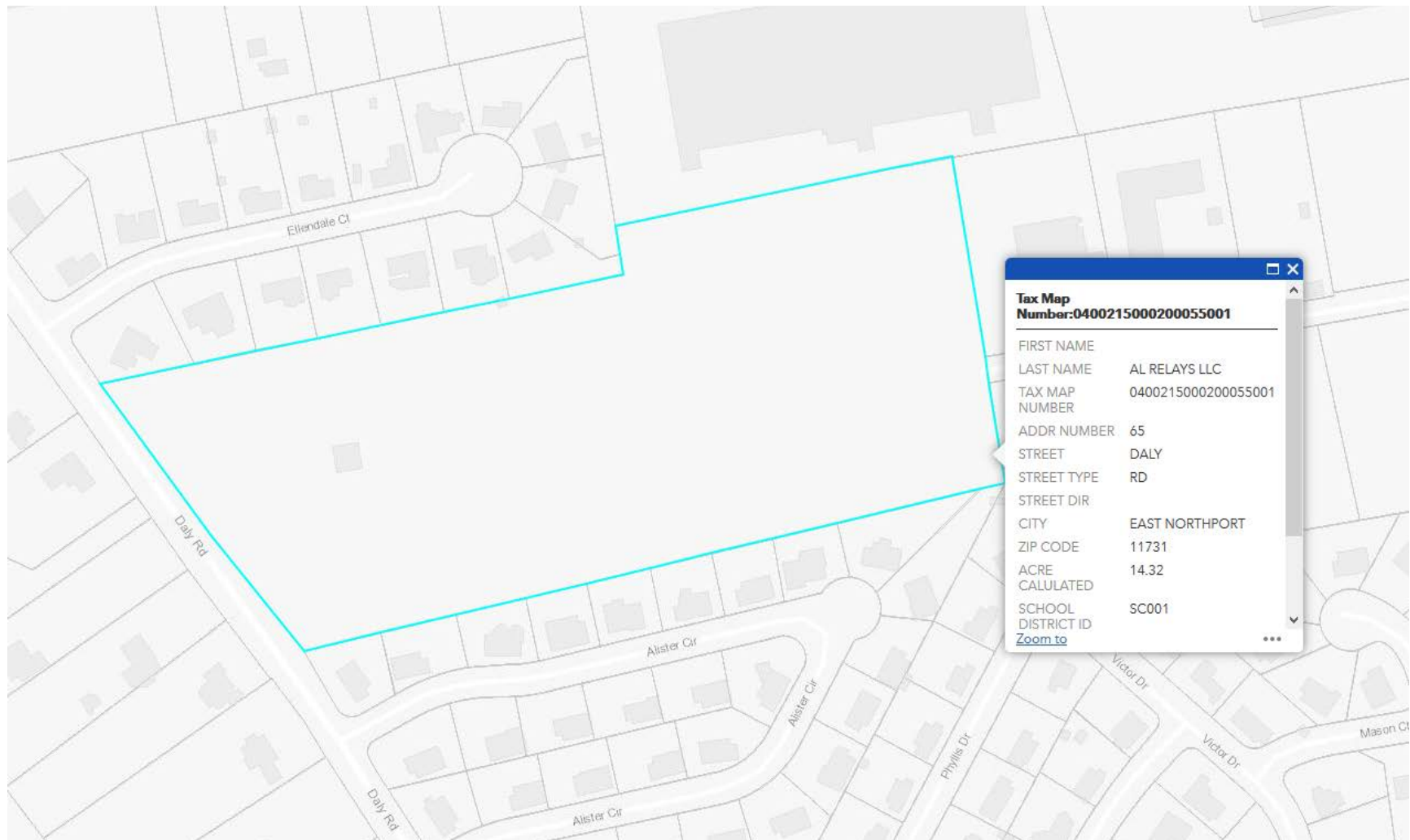
The Site is located in East Northport, Suffolk County, New York and is identified as District 400, Section 215, Block 2, and Lot 55.001 on the Suffolk County Tax Map (see Figure 2.1.1). The Site is an approximately 14.32-acre area and is bounded by a residential area along Ellendale Court and commercial buildings along Jericho Turnpike to the north, residential properties along Alister Circle to the south, industrial properties along Doyle Court to the east, and residential properties across Daly Road to the west (see previous Figure 1.1.2). The boundaries of the Site are more fully described in Appendix A – Environmental Easement. The owner of the Site parcel at the time of issuance of this SMP is 65 Daly Road LLC.

### **2.2 Physical Setting**

#### **2.2.1 Land Use**

The Site consists of a 14.32-acre property that is currently vacant. The western approximately four-acre portion of the Site where the groundwater remedial system was formerly present is zoned R-10 for residential use and is largely wooded. The remainder of the Site is zoned I-1 for light industrial use and is currently partially paved (former parking lot) and partially cleared (former manufacturing area). The Site was formerly occupied from 1961 to 2001 by a manufacturing plant for electronics components. The former manufacturing buildings were vacant by 2004 and were removed in 2006. Figure 2.2.1.1 shows the general layout of the Site.

The properties adjoining the Site and in the neighborhood surrounding the Site include residential, commercial, and industrial properties. The properties immediately south of the Site include residential properties; the properties immediately north of the Site include commercial and residential properties; the properties immediately east of the Site include industrial properties; and the properties to the west of the Site, across Daly Road, include residential properties.



**Tax Map**  
**Number:0400215000200055001**

FIRST NAME

LAST NAME

TAX MAP  
NUMBER

ADDR NUMBER

STREET

STREET TYPE

STREET DIR

CITY

ZIP CODE

ACRE  
CALULATED

SCHOOL  
DISTRICT ID

AL RELAYS LLC

0400215000200055001

65

DALY

RD

EAST NORTHPORT

11731

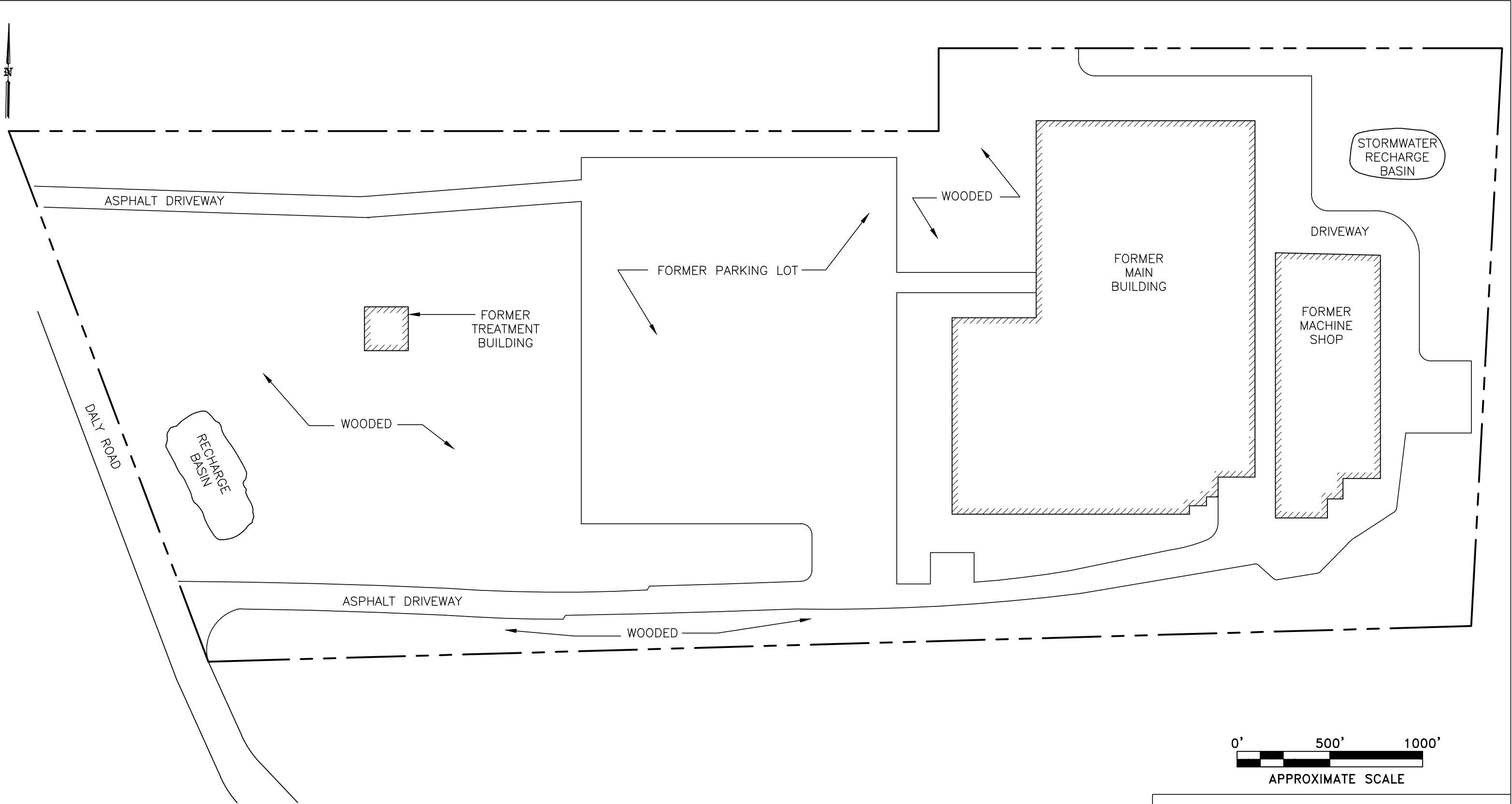
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FPM GROUP		
FIGURE 2.2.1.1 GENERAL SITE PLAN DEUTSCH RELAYS, INC. SITE EAST NORTHPORT, NEW YORK		
Drawn By:H.C.	Checked By:S.D.	Date: 4/29/19

### 2.2.2 Geology

The surface topography of the Site and vicinity was obtained from the USGS Greenlawn, New York Quadrangle (1969). The topographic elevation of the subject property is approximately 160 to 170 feet above mean sea level (MSL) and the property land surface is relatively level, with a slight slope to the south and west. Topographic information is shown on the previously-presented Figure 1.1.1.

The Site is underlain by unconsolidated Pleistocene glacial deposits (USGS, 1964) consisting primarily of sand and gravel. There are two silty clay layers within the Pleistocene deposits, as identified in the Supplemental Remedial Investigation (SRI) for the Site (Clayton, January 1997). The first layer is approximately 60 to 120 feet below grade and approximately 10 to 30 feet thick. The second layer is approximately 100 to 200 feet below grade and also between 10 and 30 feet thick. The SRI indicates that these layers may not be continuous throughout the Site vicinity. A massive clay layer approximately 80 to over 200 feet thick is present beneath the Pleistocene deposits and separates them from the underlying Cretaceous Magothy Formation, the top of which is approximately 320 to 380 feet below grade.

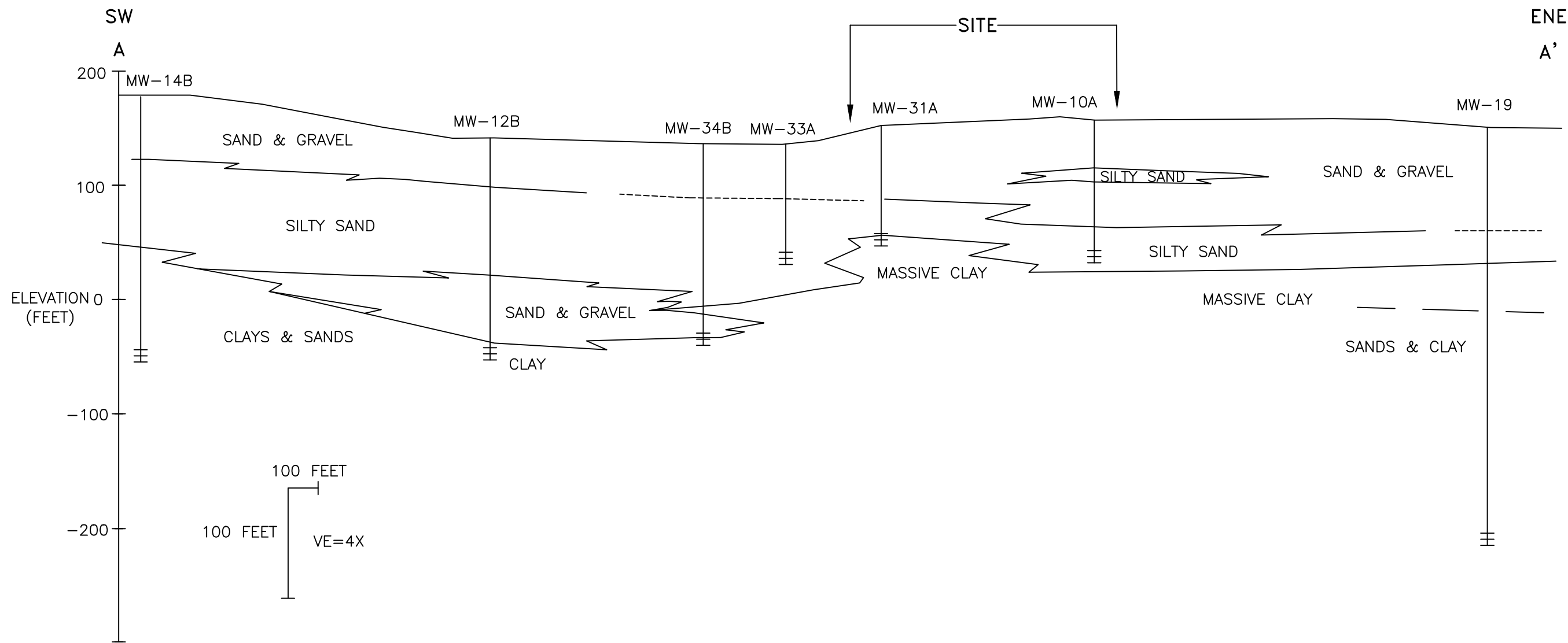
The Magothy Formation is approximately 600 feet thick in the Site vicinity and is underlain successively by the Clay Member and the Lloyd Sand Member of the Raritan Formation (USGS, 1964). The Lloyd Sand Member overlies bedrock, the top of which is present at a depth of about 1,100 feet below the Site.

A generalized geologic cross section is shown in Figure 2.2.2.1 and is based on the available boring logs and a cross section presented in the SRI. The cross section location is depicted on Figure 2.2.2.2 and copies of the available Site-specific boring logs are provided in Appendix E.

### 2.2.3 Hydrogeology

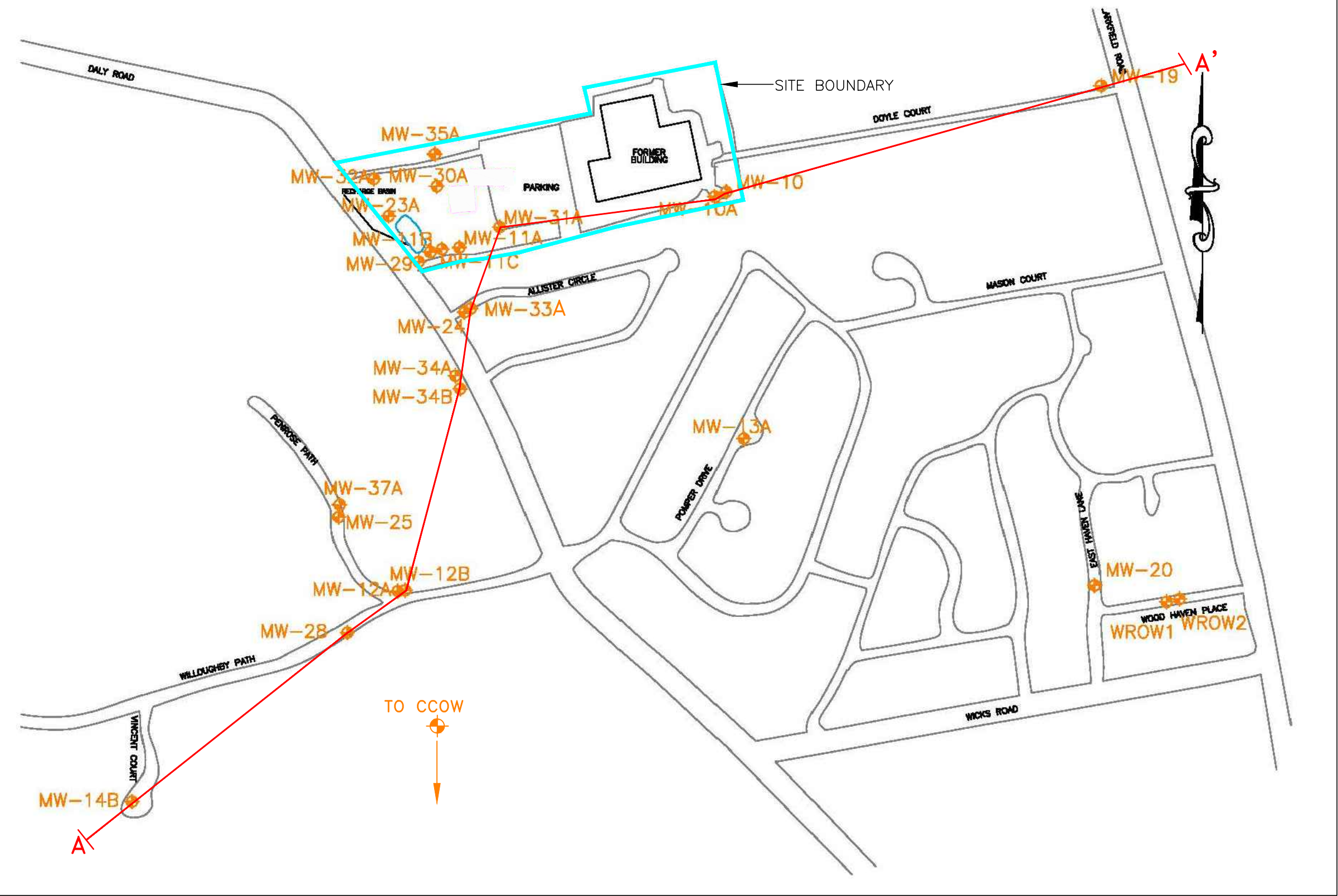
Groundwater is present within the Upper Glacial Aquifer (a sole-source aquifer) within the Pleistocene glacial deposits that underlie the Site. The water table elevation in the vicinity of the Site is approximately 75 to 90 feet above mean sea level, or MSL (Clayton, 1997) and the depth to groundwater is approximately 70 to 95 feet below grade.

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FIGURE 2.2.2.1 GENERALIZED GEOLOGIC CROSS SECTION		
DEUTSCH RELAYS, INC. SITE EAST NORTHPORT, NEW YORK		
Drawn By:H.C.	Checked By:S.D.	Date: 5/13/19

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FPM GROUP		
FIGURE 2.2.2.2 GENERAL GEOLOGIC CROSS SECTION LOCATION DEUTSCH RELAYS, INC. SITE EAST NORTHPORT, NEW YORK		
Drawn By:H.C.	Checked By:S.D.	Date: 5/13/19

The regional groundwater flow direction in the Site vicinity is generally to the south (USGS, 2015) but groundwater flow directions beneath the Site are variable and are affected by a groundwater divide located in the Site vicinity. Groundwater flow was also formerly influenced by pumping from two onsite supply wells and discharge to diffusion wells and recharge basins. In general, groundwater flow is to the southwest with a localized southeast component.

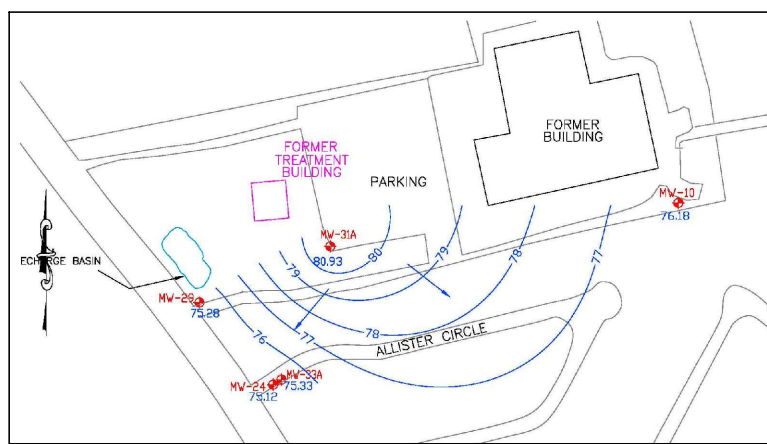
Groundwater contour maps based on the most recent water level monitoring data (January 2014 from the Bureau Veritas, May 30, 2014 *Groundwater Evaluation Report*) are shown in Figure 2.2.3.1. It should be noted that groundwater is monitored at three levels in the Upper Glacial Aquifer, including the shallow zone (water table to about 20 feet below the water table), the intermediate zone (A-designated wells, approximately 50 feet below the water table), and the deep zone (B-designated wells, approximately 150 feet below the water table). Groundwater elevation data are provided in Table C-1, located in Appendix D, and the available groundwater monitoring well construction logs are also provided in Appendix D. Several of the monitoring wells have been previously decommissioned, as noted on Table C-1. All of the former onsite supply wells, diffusion wells, and groundwater remediation system wells have been decommissioned.

As discussed in Section 2.3 of this SMP, a zone of groundwater impacted by volatile organic compounds (VOCs) that originated from the Site is generally confined within the Upper Glacial Aquifer between the two silty clay layers. Historic groundwater monitoring results indicate that wells screened below the lower silty clay layer (approximately 160 feet below grade) and above the massive clay layer yielded negligible contaminant concentrations.

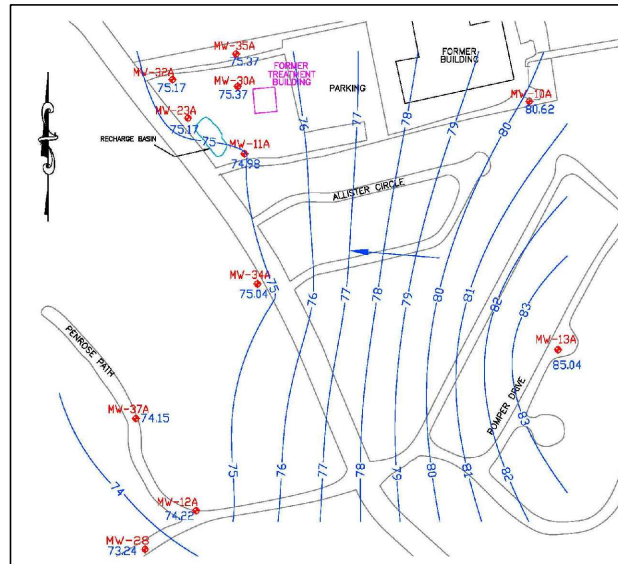
The potential presence of private water supply wells in the Site vicinity was evaluated in the Remedial Investigation (RI) Report prepared by Geraghty & Miller, Inc. (G&M, June 1992) and further information was provided in the Record of Decision (ROD) for the Site (NYSDEC, March 1995). The Greenlawn Water District, which provides public water in the Site vicinity, confirmed the extent of their distribution system and service network in the Site area and it was determined that the great majority of the residences in the area bounded by Jericho Turnpike, Commack Road, Wicks Road, and the west end of Willoughby Path were supplied with public water. The few private supply wells located in this area were sampled and Site-related contaminants were not found. The NYSDEC indicated in the ROD that private well users had been connected or were to be connected to the public water supply to eliminate potential exposures.



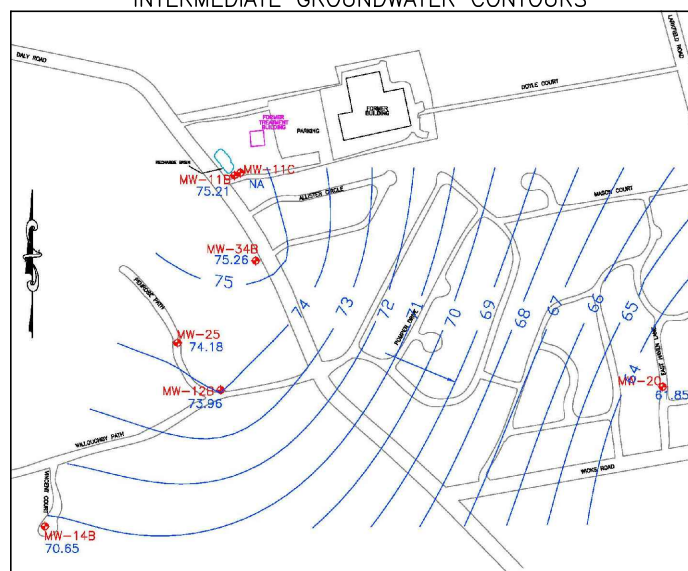
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SHALLOW GROUNDWATER CONTOURS







INTERMEDIATE GROUNDWATER CONTOURS



DEEP GROUNDWATER CONTOURS

### LEGEND

-  Groundwater Flow Direction
-  Groundwater Contour
-  Monitoring Well
-  Groundwater Elevation in Feet

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### FIGURE 2.2.3.1 GROUNDWATER FLOW DIRECTIONS

DEUTSCH RELAYS, INC. SITE  
EAST NORTHPORT, NEW YORK

Drawn By: H.C. | Checked By: S.D. | Date: 4/29/19

Municipal supply wells, including the Elmo Place Well Field, the Kalb Court Well Field (future), the Wicks Road Well Field, the Huntsman Lane Well Field, the Colby Drive Well Field, and the Daly Road Well Field, are present in the Site vicinity. Groundwater studies have been conducted to assess the long-term movement and dispersion of the Site-related VOC groundwater plume in relation to these well fields. Further information concerning these studies is provided in Section 2.3 of this SMP.

### **2.3 Investigation and Remedial History**

The following narrative provides a remedial history summary documenting key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 6.0 - References. Site plans showing the former facility areas and sampling locations are included in Appendix C.

The Site was initially developed starting in 1961 by Filtors, Inc., a predecessor to Deutsch AL, for use in research, design, testing, and manufacture of electronic components. Filtors, Inc.'s facilities included a Main Building, a Machine Shop, and a parking lot that were constructed primarily on the eastern portion of the Site between 1962 and 1966. A stormwater recharge basin was developed on the southwest corner of the Site by 1966 and another stormwater recharge basin was developed on the northeast corner of the Site by 1970. An extension of the Main Building was developed between 1980 and 1985; this addition included the north plating shop, the hermetics area, and a drum storage area. Associated operations included administrative and engineering offices, research and testing laboratories, manufacturing, plating, machining, a waste treatment facility, and building utilities. Operations at the facility were conducted until its closure in 2001, following which the Main Building and Machine Shop were demolished in 2006.

A groundwater remediation system was constructed to the east of the southwestern recharge basin circa 1994 and began operating in 1995. This operation continued until 2007, when termination of groundwater treatment was approved by the NYSDEC. The groundwater remediation system treatment building was demolished in 2012 following a fire.

Multiple investigations have been performed at the Site and remediation events, including groundwater remediation, tank removals, and contaminated soil and sediment removal, have also occurred. The following sections, which are organized by former facility areas, summarize the investigation and remediation history based on the existing documents. In particular, significant

information was obtained from a Clayton Services Group (Clayton) Site Investigation Report (February 2004), James Carrol, a former Deutsch Relay, Inc. employee during an FPM site inspection on July 22, 2004, and from a Phase II investigation conducted by FPM in 2004.

For all of the investigations, the detected concentrations of constituents in the samples were compared to regulatory criteria that were applicable at the time the data were generated, including the NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (Objectives), the NYSDEC Class GA Effluent Limitations (Limitations), or other criteria, as appropriate. In the following discussions, the data are also compared to current regulatory standards and guidance, including the 6NYCRR Part 375 Soil Cleanup Objectives (SCOs), the NYSDOH Soil Vapor Intrusion (SVI) guidance, and the NYSDEC Class GA Ambient Water Quality Standards (Standards). Figures showing current exceedances of the current regulatory standards and guidance are presented in Appendix C.

### 2.3.1 Former Facility Infrastructure and Soil and Soil Vapor Data

#### ➤ Western Sanitary Waste Disposal System

A sanitary waste disposal system was present on the west side of the Main Building and included one septic tank, a distribution pool (primary pool) and several overflow leaching pools constructed in approximately 1962. This system was remediated in 1993 by removal of the out-of-service septic tank and associated wastes and remediation of the sediments and liquids in the active septic tank and leaching pools. The NYSDEC approved this remediation on October 29, 1993. This system remained present in 2004 and was assigned SPDES Outfall #001 by the Suffolk County Department of Health Services (SCDHS).

Soil sampling was performed by Geraghty & Miller, Inc. (G&M) in the vicinity of this system in May 1990 (G&M, October 1990), with the samples analyzed for VOCs, semivolatile organic compounds (SVOCs), metals, pesticides, PCBs, and/or select Toxic Characteristic Leaching Procedure (TCLP) metals. Concentrations of benzo(a)pyrene, beryllium, iron, and/or mercury were noted in several of the samples in exceedance of the NYSDEC Objectives.

A soil boring (SB-1) was performed in the vicinity of the sanitary waste disposal system in November 1992 and samples were analyzed for VOCs, cyanide and select metals, as reported in the Feasibility Study, or FS, (Eder, January 1994). Low levels of VOCs were detected and the metals concentrations were characterized as characteristic of naturally-occurring concentrations.

The NYSDEC agreed with this conclusion (NYSDEC, March 1995) and did not require further investigation or remediation in this area.

The sediment in the primary leaching pool (distribution pool) was sampled by the SCDHS in June 2001 (November 13, 2001 SCDHS correspondence) and several VOCs and metals were detected. This leaching pool was remediated on January 10, 2002, as required by the SCDHS. Following remediation, an end-point sample was collected and analyzed for VOCs (including Freon 113), SVOCs, and total petroleum hydrocarbons (TPH). No VOCs or SVOCs were detected and the TPH concentration was low. These data were submitted to the SCDHS and no further remediation was required (February 20, 2002 SCDHS correspondence).

The sediment in the secondary leaching pool in this system was sampled on December 27, 2001 and analyzed for VOCs, with no detections noted. These data were submitted to the SCDHS (January 28, 2002 C3 Real Estate correspondence), which did not require any further work (February 20, 2002 SCDHS correspondence).

During FPM's 2004 Phase II investigation a geophysical survey was performed at the request of the SCDHS to identify any additional leaching pools that may be associated with this system. Three additional leaching pools (LP-7 through LP-9) with sub-grade covers were identified. Under the oversight of the SCDHS all of the leaching pools in this system were inspected. The SCDHS required sampling of the three newly-identified structures (LP-7 through LP-9) for metals, VOCs and cyanide only. The results showed exceedances of the SCDHS Action Levels for several metals, including cadmium, copper, mercury and/or silver, in LP-8 and LP-9.

A "Leaching Pool Closure Request" report (Clayton, May 25, 2005) submitted to the SCDHS documents the investigation, remediation and closure by abandonment of several leaching systems associated with the Site. The western sanitary system was remediated and no further work was required by the SCDHS; this system has been properly abandoned and closed.

#### ➤ Machine Shop Sanitary Waste Disposal System

A sanitary waste disposal system consisting of two leaching pools was located on the east side of the Machine Shop and was likely constructed in the mid-1960s when the Machine Shop building was initially constructed. The SCDHS assigned SPDES Outfall #002 to this system. The sediment in one of the leaching pools was sampled in June 2001 by the SCDHS and analyzed for VOCs and metals. No VOCs were detected but three metals (copper, iron and zinc) were noted to

exceed the NYSDEC Objectives. The SCDHS concluded that no appreciable levels of contaminants were found (SCDHS November 13, 2001 correspondence) and did not require any further work on this system.

The sediments in this system were sampled by Volumetric Techniques, LTD (Clayton, May 25, 2005) and analyzed for VOCs and metals in November 2002. None of the VOC detections exceeded the NYSDEC Objectives, but copper, iron and zinc were found above the NYSDEC Objectives.

During FPM's 2004 Phase II Investigation the leaching pools associated with this system were inspected with SCDHS representatives; based on the inspection and a review of the available data, the SCDHS did not require any further sampling. Clayton's May 25, 2005 "Leaching Pool Closure Request" report documents that the Machine Shop septic system was subsequently remediated and no further work was required by the SCDHS; this system has been abandoned and closed.

➤ North Industrial Leaching Pool System

The north industrial leaching pool system consisted of two leaching pools and was constructed in the mid to late 1980s when the northern addition was made to the Main Building. While active, these leaching pools received discharges from the north plating shop and were assigned SPDES Outfall #003 by the SCDHS.

Soil was sampled by G&M at one location (B-3) in the vicinity of this system in May 1990 (G&M, October 1990) and analyzed for VOCs, SVOCs, metals, pesticides, PCBs and select TCLP parameters. Concentrations of iron and zinc were noted above the NYSDEC Objectives.

A soil boring (SB-2) was performed through one of the pools in November 1992 and samples were analyzed for VOCs, cyanide and select metals as reported in the FS (Eder, January 1994). Low levels of VOCs were reportedly detected and the metals concentrations were characterized as characteristic of naturally-occurring concentrations. The NYSDEC agreed with this conclusion and did not require further investigation or remediation in this area (NYSDEC, March 1995 correspondence).

The SCDHS sampled the sediment in one of the leaching pools in June 2001 and analyzed for VOCs and metals. No VOCs were detected and none of the metals concentrations exceeded the SCDHS Action Levels. The SCDHS concluded that no appreciable levels of contaminants were found and that no further work was required for this system (November 13, 2001 SCDHS

correspondence). These two leaching pools were subsequently abandoned by removing the discharge piping and backfilling the structures with sand (January 28, 2002 C3 Real Estate correspondence).

During FPM's 2004 Phase II Investigation the leaching pools associated with this system were inspected with SCDHS representatives and were found to be backfilled. Based on the visual inspection and a review of the available data the SCDHS did not require any further work for this system. The SCDHS has approved the completed abandonment of this system (Clayton, May 25, 2005).

➤ Molding Machine Cooling Water Leaching Pools

The molding machine cooling water leaching pools included four leaching pools on the northwest corner of the Main Building that were constructed in the mid to late 1980s when the northern addition was made to the Main Building. These leaching pools received discharges of non-contact cooling water from the molding machine and were assigned SPDES Outfall #004 by the SCDHS.

The SCDHS sampled the liquid in the system in October 2001 and analyzed for VOCs (including Freon 113) and metals. Freon 113 was the only VOC detected; several metals were also noted. The detected concentrations of Freon 113 and several metals exceeded the NYSDEC Limitations and/or Standards. Although the SCDHS indicated that the detected concentrations of Freon 113 and several metals were indicative of the unpermitted discharge of industrial waste (November 13, 2001 SCDHS correspondence), no further work was required for this system other than the disconnection of the piping from the building and bringing the lids of the overflow pools to grade (February 20, 2002 SCDHS correspondence). This work was subsequently performed (April 25, 2002 SCDHS correspondence).

During FPM's 2004 Phase II Investigation the system was inspected with SCDHS representatives. Based on the visual inspection and the available data, the SCDHS required sediment sampling, with testing for VOCs, metals and cyanide. None of the detections exceeded the SCDHS Action Levels. The SCDHS approved closure of this system and a SCDHS representative later confirmed that the piping to the system had been disconnected and sealed (April 25, 2002 correspondence) and the system backfilled.

➤ RCRA Wastewater Treatment Area

An underground wastewater treatment system was formerly present on the north side of the Main Building and included a sludge storage tank, a clarifier, an acid wastewater holding tank, and a clearwell. This system was constructed in 1982 and acid/alkali and cyanide-bearing rinse waters generated onsite were treated in this system, with the treated wastewater regularly removed and disposed offsite.

In August 1988, it was decided to segregate the cyanide-bearing wastes prior to disposal and, therefore, the treatment system became unnecessary and required RCRA closure. Closure was performed in 1989 and included removal and disposal of the remaining wastes, power-washing of the containment vessels, removal of the plastic acid wastewater holding tank (the vault was left in place and backfilled), and removal of the clarifier and clearwell structures. Removal of the clearwell and clarifier structures was observed by the SCDHS and no problems were noted. It was noted in the closure report that the floor of the concrete sump holding the acid wastewater tank was worn in one location but did not appear to be significantly damaged. It was noted in a February 9, 1999 SCDHS field inspection report that the former sludge storage tank had also been removed. Closure activities are documented in a Wastewater Treatment System Closure Certification Report (January 1990, Eder Associates Consulting Engineers, P.C.) and the closure certification was accepted by the NYSDEC.

Soil samples were collected from the vicinity of the clearwell and clarifier during closure activities and analyzed for metals and cyanide. Copper and nickel were noted to exceed the NYSDEC Objectives in one soil sample collected from 7 to 9.5 feet below grade next to the clarifier, but no other exceedances of the NYSDEC Objectives were noted.

Additional soil sampling was performed near the former sludge storage tank and a nearby nitric acid tank by G&M in May 1990 (G&M, October 1990). Soil samples were collected at two locations (B-5 and MW-7) and analyzed for VOCs, SVOCs, metals, pesticides, PCBs and select TCLP parameters. Concentrations of iron and/or zinc were noted in both of the samples in exceedance of the NYSDEC Objectives.

During FPM's 2004 Phase II Investigation the former wastewater treatment system area was inspected with SCDHS representatives. Based on the visual inspection and a review of the available data the SCDHS did not require any further sampling in the vicinity of this former system.

➤ Former Fuel Oil USTs and Other Potential USTs

A 10,000-gallon fuel oil underground storage tank (UST) was installed adjoining the south side of the Main Building in the early 1960s and abandoned in place in 1989 by pumping out the contents, cutting open the tank, and filling it with sand. A geophysical investigation performed in August 2003 (Clayton, February 2004) confirmed that this UST remained in place in close proximity to underground utilities and the south supply well's water UST. During FPM's 2004 Phase II investigation the SCDHS requested sampling to confirm the condition of the soil around the UST. Two borings, UST-1 and UST-2, were performed in close proximity to the UST. No visual indications of potential contamination were noted in any of the samples and laboratory testing confirmed the absence of petroleum VOCs and SVOCs.

A 5,000-gallon fuel oil UST was installed to the northeast of the Machine Shop Building in approximately 1971 and was removed in 1989. A geophysical investigation performed in August 2003 in the vicinity of the former UST location confirmed that this UST had been removed. The status of this UST was discussed with the SCDHS in 2004 and no concern was expressed regarding the removed UST area.

Three other USTs were suspected of being present at the facility based on a review of historic site plans, including a 4,000-gallon wastewater tank in the vicinity of the north supply well and two 275-gallon tanks that may have been part of the facility's floor drain system on the south side of the Main Building. The suspected areas of these USTs were subjected to a geophysical survey, including metal detection and ground-penetrating radar, in 2003 (Clayton, February 2004). None of these tanks was identified. Based on the available information, including the historic site plans that represent proposed but not "as-built" conditions, it was concluded that these tanks were never installed.

A SCDHS representative, Mr. John Gladysz, confirmed to FPM in 2004 that all tanks registered at the property had been removed (with the exception of a 10,000-gallon fuel oil UST that was abandoned in place) or were never installed.

➤ Water Supply and Diffusion Wells

Two water supply wells and six diffusion wells were present at the Site in 2004. The supply wells were completed in the Magothy Aquifer at a depth of approximately 450 feet below grade and were used to supply cooling water to the facility. The diffusion wells were completed at



varying depths, ranging from approximately 30 to 470 feet below grade, and were used to discharge cooling water from the facility.

Samples of the water from the holding tanks for each of the supply wells were obtained in August 1990 and analyzed for VOCs, metals, and several general parameters. No exceedances of the NYSDEC Standards were noted.

A November 23, 2005 letter from Bureau Veritas (successor to Clayton) to the NYSDEC documents the August 2005 closure of the water supply and diffusion wells. The closures were performed by a licensed well driller in accordance with a NYSDEC-approved work plan and included locating and excavating all of the discharge piping, removing the well pumps and uppermost portion each well casing, backfilling the screens with clean sand, grouting the remainder of each casing to near grade, and backfilling the intervals where casing was removed with clean sand.

➤ Stormwater Catch Basins and Leaching Pools

Eleven stormwater catch basins were formerly present onsite and four of these basins that were open (basins N, R, S and T) were sampled in 2002 (Clayton, May 25, 2005). VOCs and/or metals exceeding NYSDEC Objectives were identified in all four of these catch basins. Basins R and T were subsequently remediated by Clayton.

The remaining 7 of the 11 identified basins had previously been buried or partially filled and were identified from historic site plans, a geophysical investigation, and by excavation. Six of these buried basins were accessed and remediated in 2003 (Clayton, May 25, 2005). Following remediation, end-point samples were collected from the remaining sediment in each of the remediated basins and from one basin that had not undergone remediation (basin Q). Based on the end-point sample results, it was concluded that sediments impacted with cadmium, chromium, copper, nickel, and/or lead remained present in three of the basins: basins W, Z, and AA. Additional sampling was performed at several depths in each of these basins to delineate the depth of impact and, following delineation, additional remediation was performed to remove the remaining impacted materials.

During FPM's 2004 Phase II Investigation each of the stormwater catch basins and leaching pools was accessed and visually inspected with SCDHS oversight. The SCDHS required sediment sampling in several of the leaching pools and catch basins and the results showed that no VOCs or metals exceeded the SCDHS Action Levels.

Stormwater catch basin and leaching pool closure activities were conducted prior to building demolition (Clayton, August 31, 2005) and included backfilling the remaining open leaching pools with clean fill, excavating the piping connecting the systems to the buildings, demolishing the piping, and filling the former connections to the buildings with grout. The systems that were closed included all of the roof drain stormwater pools on the west and south sides of the Main Building and several stormwater leaching pools on the north and east sides of the Main Building.

➤ South Industrial Leaching Pools

Two leaching pools (X and Y) were present on the south side of the Main Building and formerly accepted discharges of tumbling waste from the south plating shop. These pools were sampled in November 2002 and benzene and/or MTBE exceeding NYSDEC Objectives were identified in both pools. These pools were remediated in September 2003; end-point samples indicated that leaching pool X had been adequately remediated but material impacted with cadmium remained present in pool Y. Additional sampling was performed in November 2003 to delineate the depth of the impact and, based on the sampling results, an additional four feet of sediment were removed from pool Y in January 2004.

During FPM's 2004 Phase II Investigation, the SCDHS inspected both of these leaching pools and an adjoining grated stormwater leaching pool (LP-3). A geophysical survey was also performed to locate any subsurface structures that may have been buried in this area. Based on the geophysical results and visual appraisal of the leaching pool conditions, the SCDHS required sampling of the X and Y leaching pools and LP-3. The results indicated exceedances of the SCDHS Action Levels for cadmium and copper in leaching pool Y (LP-1).

The South Industrial system was subsequently remediated (Clayton, May 25, 2005), with post-excavation sample results documenting that the impacts had been removed. This system has been closed.

➤ South Plating Shop

The plating shop at the facility was originally located in the southern portion of the Main Building. Soil sampling was performed beneath the floor of this area in 2002 and September 2003 and several metals, including copper, nickel, zinc, and/or iron, exceeded the NYSDEC Objectives in several samples. The lateral extent and depth of these impacts was not defined.

Additional sub-floor soil sampling (S-5 and S-6) was performed during FPM's 2004 Phase II Investigation. The results indicated that copper, nickel and/or zinc exceeded the NYSDEC Objectives current at that time.

All of the sub-slab soil data were reviewed relative to the current 6NYCRR Part 375 Soil Cleanup Objectives (SCOs) in 2018. The concentrations of copper at two locations exceeded the SCOs for commercial use; these exceedances are shown on Plate 1 in Appendix C.

➤ North Plating Shop

The north plating shop and associated laboratory were constructed in the mid to late 1980s when the north addition was made to the Main Building and were decommissioned and closed in 1996 in accordance with a NYSDEC-approved Closure Plan. Closure was documented in a Closure Report (Environmental Constructors, Inc., January 1996) and including removing and properly disposing all remaining plating chemicals and wastes. The plating tanks, piping, and associated structures (including ductwork) were power-washed and removed from the facility. Following removal of all materials and equipment, the floor and walls of the plating shop and laboratory were power-washed and the wash water properly disposed. Wipe samples collected from the remaining surface of the plating shop and laboratory, and a chip sample collected from the concrete floor of the laboratory were analyzed for pH, cyanide, and RCRA metals. The pH of the tested areas appeared relatively neutral (6.19 to 8.12 pH units) and the concrete floor sample exhibited a pH of 4.19, which does not indicate that the concrete would exhibit the hazardous waste characteristic of corrosivity. Low residual levels of several metals and cyanide were detected; the detected levels were not indicative of hazardous waste characteristics.

Clayton performed one soil boring and collected one sample of the concrete floor in September 2003. Iron was detected in the soil sample at a concentration exceeding its NYSDEC Objective. No VOCs were detected in the soil or concrete.

During FPM's 2004 Phase II Investigation, additional sub-floor soil samples (S-1 through S-4) were collected and the soil in an open utility connection sump in an adjoining utility service room was also sampled (Sump-1). The sample results indicated that iron, nickel, and/or zinc were present in the samples at levels above the NYSDEC Objectives.

All of the sub-slab soil data from beneath the North Plating Shop were reviewed in 2018 relative to the current 6NYCRR Part 375 SCOs. None of the detections exceeded the SCOs for restricted residential or commercial use.

➤ Main Building Sub-Floor – Other Locations

Sub-floor soils in several areas of the former Main Building were sampled by Environmental Compliance Services (ECS) in 2001; the areas sampled included the clean room along the northeast side of the building, the Bell oven area, the Materials Lab, the Coil Room, the Paint Shop, and the Boiler Room. One VOC (PCE) was detected in one sample from beneath the Coil Room at a low concentration and several metals were detected. None of the detected concentrations exceeded the NYSDEC Objectives (ECS, December 31, 2001).

During FPM's 2004 Phase II Investigation additional sub-floor soil sampling was performed beneath the Main Building and shallow soil samples were collected throughout the property. Samples were selected in consultation with the SCDHS and collected in accordance with the SCDHS guidance concerning redevelopment for residential use (November 20, 2002). At each sample location a shallow (0 to 0.25 feet) soil sample was collected and analyzed. At one location a deeper (0.25 to 0.5 feet) soil sample was also analyzed. The sample results showed no exceedances of the NYSDEC Objectives for VOCs, SVOCs, cyanide, or PCBs. Several metals, including arsenic, copper, iron, nickel, and/or zinc, exceeded the Objectives in several samples.

All of the sub-floor and shallow soil sample data were reviewed relative to the current 6NYCRR Part 375 SCOs. None of the detections exceeded the SCOs for restricted residential or commercial use.

➤ Machine Shop

Sub-floor soil sampling was performed at two locations in the Machine Shop by ECS in 2001 (ECS, December 31, 2001). One boring was performed each in the screw machine area (HB-13) and the punch press area (HB-14). Chromium was detected in the HB-14 sample at a concentration exceeding its NYSDEC Objective, but no other exceedances were noted. Additional soil sampling was performed in the Machine Shop by Clayton in 2003. Iron and zinc were detected exceeding the NYSDEC Objectives.

During FPM's 2004 Phase II Investigation sub-floor soil sampling was performed at two locations in the Machine Shop, SS-15 and SS-16, with testing for VOCs, SVOCs, metals, and cyanide. The sample results did not show any exceedances of the Objectives except for iron.

All of the sub-slab soil data from beneath the Machine Shop were reviewed in 2018 relative to the current 6NYCRR Part 375 SCOs. None of the detections exceeded the SCOs for restricted residential or commercial use.

➤ Drum Storage Areas

Several drum storage areas were formerly present at the facility, including:

- Drum storage shed south of the Main Building
- Chemical storage shed east of the Main Building
- Bermed drum storage area south of the North Plating Shop
- Drum storage area south of the North Plating Shop
- Exterior drum storage area at northeast corner of Main Building
- Exterior Freon storage area on east side of the Main Building

Shallow (0 to 0.5 feet below grade) soil samples were collected from each of these areas in 2003 and analyzed for VOCs, metals and cyanide. Iron was noted in all of the drum storage area soil samples at concentrations exceeding its NYSDEC Objective (Clayton, February 2004).

During FPM's 2004 Phase II Investigation a soil boring was performed in each of the former drum storage areas and the samples were tested for VOCs, SVOCs, metals, and cyanide. The results showed only iron, copper, and/or zinc in excess of the Objectives at several locations.

All of the soil data from the drum storage areas were reviewed relative to the current 6NYCRR Part 375 SCOs in 2018. None of the detections exceeded the SCOs for restricted residential or commercial use.

➤ Floor Drains

Ten floor drains were formerly present in the Main Building and three floor drains were present in the Machine Shop. A drain tracing investigation was conducted in 2003 using geophysical methods but the results were not conclusive.

An August 31, 2005 letter from Clayton to the SCDHS documented closure activities conducted prior to building demolition, which included excavating the piping connecting the former leaching systems to the buildings, demolishing the piping, and filling the former connections to the buildings with grout. The systems that were closed included all of the subsurface leaching facilities known to be associated with the former facility operations. Building demolition activities included removal of the floor slabs and remaining piping, which appears to have included any remaining floor drain systems; no former floor slabs or piping were observed during FPM's 2018 site inspection (FPM, December 2018).

➤ Stormwater Recharge Basins

Two stormwater recharge basins are present at the Site, including one basin to the west adjoining Daly Road and one basin to the northeast of the former Machine Shop location. The western basin formerly received discharges of treated industrial waste in addition to stormwater runoff. The northeastern basin appeared to have received stormwater runoff, cooling water, and floor drain discharges.

The western basin was sampled in 1995 prior to a planned dredging event and the northeastern recharge basin was sampled in 2003. Metals, including beryllium, chromium, copper, iron, lead, mercury, nickel, and/or zinc were detected in all of the samples at concentrations exceeding the NYSDEC Objectives. The western recharge basin was dredged in April 1996 (Clayton, December 8, 1997) and the removed sediments were disposed offsite. No sediment removal is reported for the northeastern basin.

During FPM's 2004 Phase II Investigation the SCDHS reviewed the available data, observed the recharge basin floors, and requested sediment sampling in the northeastern recharge basin. Sediment in the western basin was also sampled. The sampling results showed one SVOC and several metals in excess of the Objectives.

The sediment data were reviewed in 2018 relative to the current 6NYCRR Part 375 SCOs. As noted on Plate 1 in Appendix C, one detection of copper in the northeastern basin exceeded the SCO for commercial use, and one detection of mercury in the western basin exceeded the SCO for restricted residential use. No other exceedances were noted.

➤ Former Tumbling Waste Lagoon and Sludge-Drying Beds

A tumbling waste lagoon was formerly present to the southeast of the Main Building and formerly received discharges of cyanide-containing waste. Sludge from the lagoon was discharged to two sludge-drying beds located at the southeastern corner of the Site; overflow liquids from the lagoon were routed to the western recharge basin. The discharge to the waste lagoon was assigned SPDES Outfall #001 by the SCDHS. Violations of the effluent limits occurred in 1982, including exceedances of the limits for copper, nickel, nitrogen, pH and silver and the accumulated sludge was removed from the lagoon on December 27, 1982.

This industrial waste discharge system was discontinued in the late 1970s or early in 1980. An August 1980 site plan for the proposed north addition to the Main Building indicated that the

lagoon and sludge-drying beds were to be removed, filled to rough grade with clean fill, covered with three inches of topsoil and seeded. Copies of manifests for disposal of the removed sludge were identified in the SCDHS files.

Soil sampling was performed by G&M in the vicinity of the former lagoon in May 1990 (G&M, October 1990), with the samples analyzed for VOCs, SVOCs, metals, pesticides, PCBs and select TCLP parameters. Concentrations of beryllium, iron, nickel, selenium, and/or zinc were noted in two of the samples in exceedances of the NYSDEC Objectives.

Additional soil sampling was performed in both the former lagoon area (SB-4) and former sludge-drying bed area (SB-3) in November 1992, with the samples analyzed for VOCs, cyanide and select metals. The VOC levels were reportedly low and the metals concentrations were characterized as characteristic of naturally-occurring concentrations (Eder, January 1994). The NYSDEC agreed with this conclusion and did not require further investigation or remediation in this area (NYSDEC, March 1995 correspondence).

During FPM's 2004 Phase II Investigation the SCDHS inspected the former plating waste settling lagoon and sludge-drying beds areas and reviewed the construction of the portions of the former plating waste treatment system located in the loading dock area on the south side of the Main Building. Based on this inspection and review, the SCDHS required sampling in the former sludge-drying beds area, accessing and sampling of a former plating waste settling tank located within the loading dock, and sampling of the soil in proximity to the former plating waste settling tank. The results from these samples, which were tested for VOCs, SVOCs, PCBs, metals, and/or cyanide, indicated no exceedances of the NYSDEC Objectives in the former plating waste tank or its proximity. Exceedances of the NYSDEC Objectives were noted for several metals, including copper, iron, nickel, zinc, and/or mercury, in the former sludge-drying beds.

All of the sample data from the former plating waste settling lagoon, former sludge-drying beds, and former plating waste tank areas were reviewed in 2018 relative to the current 6NYCRR Part 375 SCOs. One detection of copper exceeded the SCO for commercial use, as shown on Plate 1 in Appendix C. No other exceedances were noted.

#### ➤ Electrical Equipment Areas

Several areas formerly containing potential PCB-containing electrical equipment were present at or near the Main Building in 2004, including a transformer vault on the southeast corner of the Main Building, electrical switch gear in the boiler room of the Main building, and a former

generator room (empty at that time) in the central-western portion of the Main Building. Additional transformers were present within the Machine Shop and outside of the buildings; these transformers were confirmed to be dry-type or to include oil not manufactured to contain PCBs.

During FPM's 2004 Phase II Investigation, each of the suspect PCB-containing electrical devices was examined by a licensed electrician. The electrical switches in the boiler room were confirmed to be dry-type. The three transformers in the vault were determined to be in an unsafe condition for sampling. In addition, they were confirmed to be LIPA-owned equipment and, therefore, LIPA would be responsible for decommissioning these transformers. Therefore, no sampling of suspect PCB-containing electrical equipment fluids was performed.

Wipe samples were collected from the floors of the transformer vault and former electrical generator room. The sample results showed no exceedances of the Toxic Substances Control Act (TSCA) surface standard in the former electrical generator room. However, the three samples from the transformer vault on the southeast corner of the Main Building did show exceedances of the TSCA surface standard.

As noted above, the Main Building and Machine shop were demolished in 2006, with all infrastructure removed. During FPM's 2018 site inspection, no visible indication of the former transformer vault was noted.

#### ➤ Former Radioactive Materials Areas

Three x-ray-producing systems were formerly in use at the facility, including a Faxitron Radiographic inspection system and two UPA Technology, Inc. XRF systems. Three electron beam guns used for welding were also formerly present at the facility. Krypton-85 gas was also formerly used in a Tracer-Flow Leak Test Unit in a separate room of the reliability test center in the northwestern portion of the Main Building. This equipment was operated under New York State Department of Labor (NYSDOL) radioactive materials license #2308-1623 and NYSDEC radiation control permit # 1-4726-00361/00035-9, Facility/ Program #24-3.

Most of the x-ray systems and all of the electron beam guns were removed from the facility between 1973 and 1988. The last two x-ray systems were scheduled for removal in early 1995 and were not observed during the 2004 site inspection. The entire Krypton-85 system and the remaining gas cylinders were returned to the manufacturer on October 31, 1994. A radiation survey performed in the former Tracer-Flow room following removal of the equipment showed only background levels of radiation (0.03 to 0.05 millirem per hour). Based on the confirmation



of the removal of the radioactive materials, the final survey, and a NYSDEC March 21, 1995 close-out inspection, the NYSDEC approved the termination of the facility's radiation control permit. The NYSDOL license was cancelled on December 7, 1994.

During the 2004 site inspection performed by FPM, radiation screening was performed using a Geiger counter in each of the areas where radiation equipment was formerly used. No areas exhibiting radiation counts above background conditions were noted.

➤ Post-Demolition Soil Sampling

Following the 2006 demolition of the Site buildings the NYSDEC required a supplemental site characterization to evaluate soil conditions in areas where soil impacts were most likely based on former facility operations and/or prior soil vapor sampling results. Fifteen soil borings were performed and two soil samples were tested for Site-related VOCs at each location (Bureau Veritas, January 23, 2013); most of the boring locations were within the footprint of the former Main Building. The results indicated that the targeted VOCs were either not detected or were detected at very low levels, below the NYSDEC SCOs. No further investigation or remedial action was recommended.

➤ Soil Gas

A soil gas survey was performed to the north, northwest and northeast of the Main Building and to the southeast of the Main Building and Machine Shop Building in May 1990 by G&M (May 17, 1990 G&M correspondence) and the soil gas samples were analyzed for Freon 113, 1,1,1-trichloroethane (1,1,1-TCA), chloroform, and tetrachloroethene (PCE) using a portable gas chromatograph. The detection limits for these compounds were reported in parts per billion by volume (ppbv): these have been converted to micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ) and correspond to  $3,602 \text{ ug}/\text{m}^3$ ,  $21,827 \text{ ug}/\text{m}^3$ ,  $4,883 \text{ ug}/\text{m}^3$ , and  $339 \text{ ug}/\text{m}^3$ , respectively. Trichloroethene (TCE) was also analyzed; its detection limit was not reported. The sample results were compared to the USEPA Target Shallow Soil Gas Concentrations corresponding to a risk factor of  $1 * 10^{-6}$  (USEPA, November 29, 2002). Several exceedances of the Target Shallow Soil Gas Concentrations were noted for TCE and PCE in the areas to the northwest and northeast of the Main Building and to the south and southeast of the Machine Shop.

During FPM's 2004 Phase II Investigation additional soil gas sampling was performed in accordance with SCDHS standards for soil vapors contaminated by volatile organic chemicals (SCDHS, February 26, 1998). The areas sampled and the number of samples collected were

selected in consultation with the SCDHS and included former industrial areas, former tank and chemical storage areas, and areas of the property not formerly used for industrial purposes (beneath the parking lot). The results showed that TCE, PCE, cis-1,2-dichloroethene (cis-1,2-DCE), and/or 1,1,1-TCE were detected at most of the locations.

Additional soil vapor sampling was performed in 2007 and 2008 at five soil vapor monitoring points installed in unpaved areas near the property line to the south and southeast of the former Main Building and Machine Shop (Bureau Veritas, December 9, 2008 letter to the NYSDEC). The samples were tested for chlorinated VOCs and Freon 113. Freon 113 and PCE were detected in nearly all of the samples, with TCE and 1,1,1-TCA also detected at one location. None of the chlorinated VOCs for which the NYSDOH has guidance were detected at elevated levels and it was concluded that additional soil vapor monitoring locations were not warranted.

SVI testing was performed in 2012 at eight residential structures located in proximity to the Site (Environmental Assessment & Remediation, May 22, 2012); copies of the resulting data tables are included in Appendix D. The SVI sampling results indicated no further action was needed at the offsite residences.

### 2.3.2 Groundwater Investigations and Remediation

Groundwater was first sampled at the Site by the SCDHS in 1983 and Freon 113 (1,1,2 trichloro-1,2,2 trifluoroethane) was reported at the five locations sampled to the north and south of the buildings. The most elevated levels were detected at locations MW-4 and MW-5 on the north side of the facility to a depth of at least 105 feet below grade. Concentrations of other VOCs, including 1,1,1-TCA, 1,1,2-trichloroethylene, and/or PCE, were also detected in some of the samples.

Additional groundwater sampling was performed by Holzmacher, McLendon and Murrell, PC (H2M) in 1985, which included sampling the two onsite supply wells and a new diffusion well (H2M, August 1985). No VOCs were detected in any of these samples.

Further delineation of the groundwater VOC plume was performed by H2M in January 1986 (H2M, March 1987). The only VOC detected was Freon 113, which was detected in three of the onsite monitoring wells at concentrations ranging from 26 to 55 ug/l and in two of the three offsite monitoring wells at up to 120 ug/l. Freon 113 was not detected in either of the two supply wells or in the diffusion well.

Wells MW-6 through MW-11A were installed at the Site by G&M between May and July 1990 and were sampled in August 1990 (G&M, November 1990) and Freon 113 was found in the onsite wells at concentrations up to 190 ug/l. Several other VOCs were also detected, including PCE, 1,2-DCE, 1,1,1-TCA, but at lower concentrations than Freon 113.

Additional groundwater monitoring wells, including deep wells MW-11B, MW-12B, and MW-14B, were installed in 1991 and sampled in 1992; the results were reported in the RI Report (G&M, June 1992). The groundwater flow directions were confirmed: regional southeast shallow groundwater flow was observed, with localized southwest flow due to onsite groundwater recharge. The intermediate-level groundwater flow (approximately 50 feet below the water table) was to the southwest and the deep-level groundwater flow (approximately 150 feet below the water table) was also to the southwest. Freon 113 concentrations were noted to increase in the intermediate-depth (A-designated) wells relative to the 1990 sampling results, with the highest concentration (780 ug/l) detected at well MW-11A. Freon 113 concentrations in the shallow wells had generally decreased between 1990 and 1992. The highest Freon 113 concentration detected in the deep-level wells was 490 ug/l at well MW-12B. Other VOCs of concern, including 1,1-DCA, 1,1,1-TCA, chloroform, TCE, and PCE, were also detected but at lower concentrations than Freon 113.

Further groundwater investigation was performed in 1992 to evaluate the potential for northward plume migration and to further define the areal and vertical extent of the plume to the north and east. It was concluded, based on the observed decrease in VOC concentrations, that there were no continuing sources of VOCs present at the Site and that the plume was not migrating to the north. It was also concluded that the plume was moving to the east and southeast, but at significantly lower concentrations than in the Site vicinity.

A Feasibility Study (FS) was prepared in 1994 (Eder, January 1994) and several remedial alternatives were considered to address the groundwater plume. The pump-and-treat alternative was selected in the NYSDEC's Record of Decision (ROD) for the facility (NYSDEC, March 1995) and included restoration of the aquifer within the 500 ug/l total VOC contour using pump-and-treat technology with natural attenuation used to address the remainder of the plume. Groundwater monitoring was required, including monitoring of outpost wells for nearby well fields.

The approximate extent of the VOC groundwater plume was evaluated in mid-1996 shortly prior to the startup of the pump-and treat system. The plume extended somewhat to the east and

southeast of the Site and also to the southwest, with the highest VOC concentrations to the southwest. The plume did not appear to extend significantly to the north and concentrations also appeared to be decreasing to the west. The highest VOC concentrations were present in the intermediate-depth (A) wells, approximately 50 feet below the water table and ranged up to 1,545 ug/l total VOCs.

The groundwater remediation system was constructed between 1995 and 1997 and included three recovery wells with a combined flow of just above 250 gallons per minute (gpm). The treatment system included two venturi air strippers. Air effluent treatment was not required and treated groundwater was discharged to the western recharge basin. Construction of the system was documented in the final Remedial Action Construction Report (Clayton, December 8, 1997), which was reviewed and accepted by the NYSDEC (March 4, 1998 NYSDEC correspondence).

The remediation system was operated and monitored from mid-1996 until 2007 and the results were reported quarterly. Total VOC concentrations in the system influent declined steadily from approximately 500 ug/l in mid-1996 to 10.7 ug/l during the December 2003 monitoring event. Effluent total VOC concentrations remained very low, ranging from non-detect to up to 9.1 ug/l.

A groundwater monitoring well network consisting of 23 wells was formerly present in association with the Site. Clayton (February 2004) reported that 10 of these wells remained open and were utilized for the ongoing groundwater monitoring program at that time. 11 wells had been abandoned in accordance with NYSDEC guidelines, and two wells (MW-4 and MW-5) appeared to have been damaged and/or destroyed and could not be located. As of 2004 groundwater was monitored annually at select site wells and quarterly at the four outpost wells. By 2003 groundwater total VOC concentrations had decreased significantly. Traces of VOCs (less than 5 ug/l) remained present downgradient to the east and southeast of the facility and somewhat higher concentrations (up to 48 ug/l) were present to the southwest. Groundwater in the vicinity of the former high-concentration area at well MW-11A generally contained less than 5 ug/l total VOCs, with a few wells up to 20 ug/l total VOCs. June 2004 monitoring data exhibited a similar trend of overall decreasing VOC levels.

During FPM's 2004 Phase II Investigation groundwater sampling was performed for VOCs at wells not included in the ongoing monitoring program. The results of this sampling were compared to the NYSDEC Standards and two VOCs, PCE and Freon 113, were found at levels

somewhat exceeding their Standards in wells MW-10 and MW-10A. VOCs were not detected above the NYSDEC Standards in the other wells that were sampled.

Groundwater remediation was terminated with NYSDEC approval on April 13, 2007 and approval to decommission the system was granted in 2009, as documented in a Bureau Veritas February 18, 2014 report that also includes groundwater monitoring results through November 2013. The remediation system building and remaining system components were demolished in 2012. As of 2013 groundwater flow was the southwest in both the shallow and deep groundwater intervals and to the west-northwest in the intermediate interval. The monitoring data showed that very few wells contained Site-related constituents that exceeded the NYSDEC Standards. The exceedances were all very low and were noted at only five wells on the property and one offsite well, with 14.60 ppb of PCE at MW-10 the highest detection noted.

Groundwater monitoring for emerging contaminants 1,4-dioxane and per- and polyfluorinated alkyl substances (PFAS) was performed by a NYSDEC contractor at select wells in November 2018. Sampling was conducted for well MW-31A, which is a shallow onsite well located a short distance downgradient of the former facility, and for well MW-12A, which is an intermediate-depth offsite well located somewhat further downgradient of the former facility. Historically, both of these wells were impacted by Freon 113 and other Site-related constituents.

The results indicated 0.41 micrograms per liter (ug/l) of 1,4-dioxane, 8.4 nanograms per liter (ng/l) of PFOA, and 7.0 ng/l of PFOS at offsite well MW-12A, and no detection of 1,4-dioxane (detection limit of 0.035 ug/l), 3.9 ng/l of PFOA, and 2.8 ng/l of PFOS at onsite well MW-31A. Although New York State does not have a Class GA Ambient Water Quality Standard for 1,4-dioxane or PFAS compounds, the New York State Drinking Water Quality Council has recommended a NYS Maximum Contaminant Level (MCL) of 1 ug/l for 1,4-dioxane and 10 nanograms per liter (ng/l) for PFOA and PFOS. Based on this information, the groundwater quality results for emerging contaminants do not suggest any significant contamination.

### 2.3.3 Municipal Water Supply Well Monitoring and Assessment

The presence of several Site-related VOCs in groundwater resulted in the implementation of a groundwater remediation system to eliminate the threat to public water supplies that service the surrounding communities. The municipal supply wells that were identified as potentially at risk included the Wicks Road, Huntsman Lane, Kalb Court, and Colby Drive Well Fields. Several

studies to assess the long-term movement and dispersion of the Site-related VOC groundwater plume were performed, including a numerical groundwater model (Clayton, April 4, 1997), a municipal supply well evaluation (Clayton, May 1, 2003), and an evaluation of the plume based upon detections in outpost wells (Clayton and Bureau Veritas, various reports). In addition, an outpost monitoring well network and sampling program were initiated to track the movement of the plume both laterally and vertically.

Outpost monitoring wells were installed in 1995 and were routinely monitored to assess potential impacts to the Huntsman Lane (outpost well MW-19), Wicks Road (outpost wells WROW-1 and WROW-2), and Colby Drive and Kalb Court (outpost well CCOW) well fields. The outpost wells for each of these well fields were located a minimum of two years hydraulically upgradient of the municipal supply well screen zones and were installed to depths ranging between 301 and 490 feet below grade. For reference, the Huntsman Lane (S-023999), Wicks Road (S-014579) and Colby Drive (S-45935) supply wells are reportedly installed to depths of 612, 512, and 505 feet below grade, respectively. No information pertaining to the construction of the Kalb Court Well Field was available.

In September 2001, routine groundwater monitoring identified 1,1-dichloroethane (DCA) at 1 ug/l and 1,1,1-TCA at 0.5 ug/l in Wicks Road outpost well WROW-2. This detection required, as a stipulation of the NYSDEC-issued ROD, that an assessment be conducted to evaluate potential impacts to the municipal supply wells. The assessment (Clayton, May 1, 2003) reviewed the available information and concluded that the contaminants detected at WROW-2 were not derived from the Site due to the acknowledged groundwater divide located beneath the Site, the absence of the more prevalent site contaminants (Freon 113 and PCE), and the presence of an industrial area (potential source) situated to the east of the Site along Doyle Court.

The Huntsman Lane Well Field was also discussed and it was concluded that the contaminants that were detected did not originate from the Site based upon the absence of the primary contaminants (Freon 113 and PCE) associated with the Site. It was also noted that an industrial area is located between the Site and the Huntsman Lane Well Field; however, no direct evidence attributing these contaminants to offsite sources was reported.

The Colby Drive outpost well had historical (1995-1996) detections of low concentrations of 1,1,1-TCA, low estimated concentrations of PCE, and 1,1-DCA. Freon 113 was not detected and the origin of these constituents was concluded to be from a source other than the Site.

The Municipal Supply Well Assessment Report (Clayton, November 26, 2002) was transmitted to the NYSDEC and the SCDHS. The SCDHS provided comments in a June 22, 2003 correspondence, and concluded that the Site-related contaminants would not likely impact the Wicks Road, Huntsman Lane, Colby Court, or Elmo Place Well Fields based upon the results of a Source Water Assessment Program (SWAP) study prepared for the area by the SCDHS.

In 2004 FPM reviewed the available data for the outpost wells. No detections of any of the Site-related VOCs had been noted in the Colby Drive and Kalb Court Well Fields outpost well since 1996.

The Wicks Road Well Field outpost well WROW-1 showed no detections of any Site-related VOCs, with the exceptions of periodic very low (up to 0.3 ug/l) detections of chloroform. Neither Freon 113, PCE, TCE, 1,1-DCA nor 1,1,1-TCA had been detected in this well. The Wicks Road Well Field outpost well WROW-2 showed repeated detections of Site-related VOCs, with the exceptions of PCE and Freon 113. The total VOC concentration gradually increased from approximately 0.2 ug/l in 1995/1996 to between approximately 5 and 6 ug/l in 2004.

The Huntsman Lane Well Field outpost well MW-19 showed a variety of VOC detections, with total VOCs in the 20 to 50 ug/l range in 1995 to 1997, decreasing to 1 to 10 ug/l between 1998 and 2001, and increasing to the 5 to 20 ug/l range in 2002 and 2003. 1,1-DCA, 1,1,1-TCA, and TCE were the primary VOCs detected. Freon 113 had not been detected in this well since early 1997.

In 2004 FPM also reviewed output maps from the SWAP model as provided by the SCDHS. These maps indicated that groundwater flow in the Magothy Aquifer, into which the public water supply wells are installed, is to the northeast in the Site vicinity. Particle backtracking was used to evaluate the capture zone of each public supply well for a period of 75 years. None of the 75-year capture zones included the Site, indicating that contaminants originating from the Site would not impact the public supply wells.

During the 2004 investigation FPM obtained raw water quality information from the Greenlawn Water District for the Wicks Road Well Field wells. Well #5 is screened from approximately 456 to 507 feet below grade and well #16 is screened from 575 to 655 feet below grade. The raw water from both wells is sampled on a quarterly basis and analyzed for VOCs. No VOCs were detected in either well in 2002, 2003 or 2004.

The thickness and depth of the massive clay separating the Upper Glacial Aquifer from the underlying Magothy Aquifer were evaluated using onsite and nearby well logs. Logs from four deep onsite supply and diffusion wells (S-72579, S-72996D, S-20746, and S-20649T) were reviewed and indicated the presence of a clay interval ranging from approximately 80 to over 200 feet thick located between approximately 200 and 300 to 400 feet below grade. These data confirmed the presence of a massive clay layer beneath the Site.

A May 30, 2014 report by Bureau Veritas provides a more recent evaluation of potential Site-related impacts to municipal water supply wells. The conclusions for each well field are as follows:

- The Greenlawn Water District Huntsman Lane well #12, located east (generally crossgradient) of the Site, has exhibited detections of 1,1,1-TCA, TCE and PCE that decreased between 2009 and 2013 but no detections of Freon 113 were noted. Several other potential CVOC sources are located in proximity to this well field.
- Greenlawn Water District Wicks Road well #5, located southeast of the Site, has not shown detections of TCE, PCE or Freon 113 and only one very low detection of 1,1,1-TCA. The deeper of the two outpost wells, WROW-1, has not shown any detections of site-related CVOCs and the shallower outpost well, WROW-2, has shown some CVOCs slightly above 1 ppb.
- The SCWA Daly Road #1 well, located to the south-southeast of the Site, was reportedly installed in 2008 following initial tests in 2006 and 2008. The 2006 and 2008 test data showed CVOCs, including Freon 113, to a depth of 360 feet below grade and no CVOCs below 430 feet below grade. The well was installed into the Magothy Aquifer to between 580 and 640 feet below grade and subsequent data during well operation showed increasing levels of CVOCs, including Freon 113, through 2013. The report concludes that installation and operation of this well may have spread impacts from the Upper Glacial Aquifer into the Magothy Aquifer.
- The Dix Hills Water District Colby Drive well #4-1, located south of the Site, has shown no CVOC detections and outpost well CCOW has shown no CVOCs above 1 ppb and no detections of Freon 113.

Additional information obtained from the SCWA in November 2018 confirms that CVOCs, including Freon 113, PCE and TCE, continue to remain present in raw water pumped from SCWA



Daly Road #1 well through at least October 2018. The well appears to be used seasonally, generally from April through October. Groundwater modeling that appears to have been performed prior to well installation, indicated that the zone of contribution to the well was predicted to extend to the west-southwest of the well and did not include the Site vicinity.

## **2.4 Remedial Action Objectives**

### **2.4.1 Groundwater RAOs for Public Health and Environmental Protection**

The Remedial Action Objectives (RAOs) for the Site as listed in the March 1995 ROD included only RAOs for groundwater, as follows:

- Mitigate the impacts of contaminated groundwater to the environment and public health.
- Provide for attainment of SCGs for groundwater quality to the extent feasible.

### **2.4.2 Soil RAOs for Public Health and Environmental Protection**

Although no soil RAOs were established in the ROD, Site-specific RAOs that are applicable for soil are as follows:

- Prevent ingestion/direct contact with contaminated soil.
- Prevent migration of contaminants that would result in groundwater contamination.

### **2.4.3 Soil Vapor RAOs for Public Health Protection**

Although no soil vapor RAOs were established in the ROD, Site-specific RAOs that are applicable for soil vapor are as follows:

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

## **2.5 Remaining Contamination**

### **2.5.1 Soil**

As discussed in Section 2.3.1, multiple investigations of soil conditions have been conducted on the Site since at least 1990 and the data are contained in several reports. Copies of the data tables from these reports are included in Appendix D. Remedial measures for soil have also been conducted in several areas of the Site, including removal of impacted soil and post-excavation sampling, the results of which are also included in Appendix D.

The data for the soil that remains present onsite following the completion of remedial measures are summarized on Plate 1 in Appendix C. Plate 1 shows all of the locations where soil data were collected over multiple investigations, and the results for the remaining soil that exceed the NYSDEC's SCOs for restricted residential or commercial uses, which are the anticipated uses for the Site. It should be noted that none of the data showed any exceedances of the NYSDEC's SCOs for industrial use.

Plate 1 shows the following:

- There are extremely limited areas where soil is present that exceeds the NYSDEC restricted residential or commercial use SCOs. The volume of the remaining soil that exceeds restricted residential or commercial use SCOs is estimated at less than 50 cubic yards;
- The only constituents that exhibit exceedances of the NYSDEC's restricted residential or commercial use SCOs are the metals copper and mercury. No exceedances of the SCOs were noted for any VOCs, including the VOCs of concern for the Site.
- The soil at the R-2 location on the floor of the western recharge basin at a depth of 0 to 0.5 feet exceeds the restricted residential use SCO for mercury, but does not exceed the commercial use SCO. None of the other samples from the floor of the western recharge basin exhibited exceedances of the restricted residential or commercial use SCOs.
- Two samples (#1 and #2) from approximately two feet below the former floor of the plating shop in the former Main Building exhibited exceedances of the commercial use SCO for copper. None of the other samples from below the former floor of the plating shop exhibited exceedances of the SCOs for restricted residential or commercial use.
- The soil at a depth of 0 to 0.5 feet at the R-5 location on the floor of the northeast recharge basin exceeds the commercial use SCO for copper. The soil in the interval from 0.5 to 1 feet below grade at this location and the soil at the other sampled locations within and near this recharge basin does not exceed the SCOs for restricted residential or commercial use;
- The soil at a depth of 7 to 9 feet at the S-16 location below the floor of the former sludge-drying beds exceeds the commercial use SCO for copper. The soil at the other sampled locations within the former sludge-drying beds does not exceed SCOs for restricted residential or commercial use.

### 2.5.2 Groundwater

As discussed in Section 2.3.1, groundwater investigations and monitoring have been ongoing at this Site since 1983 and groundwater remediation was conducted from 1996 to 2007. Many of the former groundwater monitoring wells are now abandoned. Copies of the data tables summarizing the groundwater monitoring results are included in Appendix D.

Groundwater was impacted by Site-related VOCs, including Freon 113, 1,1-DCA, 1,1,1-TCA, chloroform, TCE, and PCE. The Site-related VOCs were present in three levels (shallow, intermediate, and deep) of the Upper Glacial Aquifer in the dissolved phase; non-aqueous-phase VOCs were not present. Concentrations of Site-related VOCs have decreased significantly in all three levels of the aquifer and only very low concentrations remain present.

The most recent groundwater data for the wells that remain present onsite and offsite are summarized on Plate 2 in Appendix C. Plate 2 shows all of the most recent data for each of the wells; detections that exceed the NYSDEC Standards are highlighted.

Plate 2 shows the following:

- For the shallow wells, the only exceedance of the NYSDEC Standards is found in onsite well MW-10, where 14.60 ug/l of PCE was present in 2013. This well is in immediate proximity to the former manufacturing building locations. No other exceedances of the Standards remain present in the shallow groundwater.
- For the intermediate wells, the only exceedances of the NYSDEC Standards are found in onsite well MW-10A, where 13.10 ug/l of PCE was present in 2013, and onsite well MW-32A, where an estimated concentration of 5.48 ug/l of Freon 113 was present in 2012. Well MW-10A is in immediate proximity to the former manufacturing building locations and well MW-32A is located on the downgradient side of the Site. No other exceedances of the Standards remain present in the intermediate groundwater.
- For the deep wells, the only exceedances of the NYSDEC Standards are found in onsite well MW-11B, where 9.74 ug/l of PCE was present in 2013, and offsite well MW-12B, where 8.08 ug/l of PCE and 6.49 ug/l of Freon 113 were present in 2013. No detections of Site-related VOCs were found further downgradient in well MW-14B and no other exceedances of the Standards remain present in the deep groundwater.
- No detections of any Site-related VOCs were found during the most recent monitoring event in outpost monitoring wells MW-19, CCOW, or WROW-1. The VOCs 1,1-DCA,

1,1,1-TCA and TCE were found at very low levels (below Standards) in outpost well WROW-2 in 2013. However, neither Freon 113 nor PCE were detected. As discussed in Section 2.3 above, it has previously been concluded that these VOCs were not derived from the Site due to the acknowledged groundwater divide located beneath the Site, the absence of the more prevalent Site contaminants (Freon 113 and PCE), and the presence of an industrial area (potential source) situated to the east of the Site along Doyle Court.

#### 2.5.5 Soil Vapor

Soil vapor sampling was conducted onsite between 2004 and 2008 in the former industrial areas, former tank and chemical storage areas, areas of the property not formerly used for industrial purposes (beneath the parking lot), and in unpaved areas near the property line to the south and southeast of the former Main Building and Machine Shop. TCE, PCE, cis-1,2-DCE, and/or 1,1,1-TCE were detected at most of the locations. In the unpaved areas near the south property line none of the chlorinated VOCs for which the NYSDOH has guidance were detected at elevated levels.

SVI testing performed in 2012 at eight residences near the Site indicated that no further action was needed for any of the residences.

Copies of the data tables summarizing the soil vapor results are included in Appendix D. The soil vapor data for the onsite sampling locations are also summarized on Plate 3 in Appendix C.

### **3.0 Institutional Control Plan**

#### **3.1 General**

Since remaining contamination exists at the Site, Institutional Controls (ICs) are required to protect human health and the environment. This IC Plan describes the procedures for the implementation and management of all ICs at the Site. The IC Plan is one component of the SMP and is subject to revision by the NYSDEC.

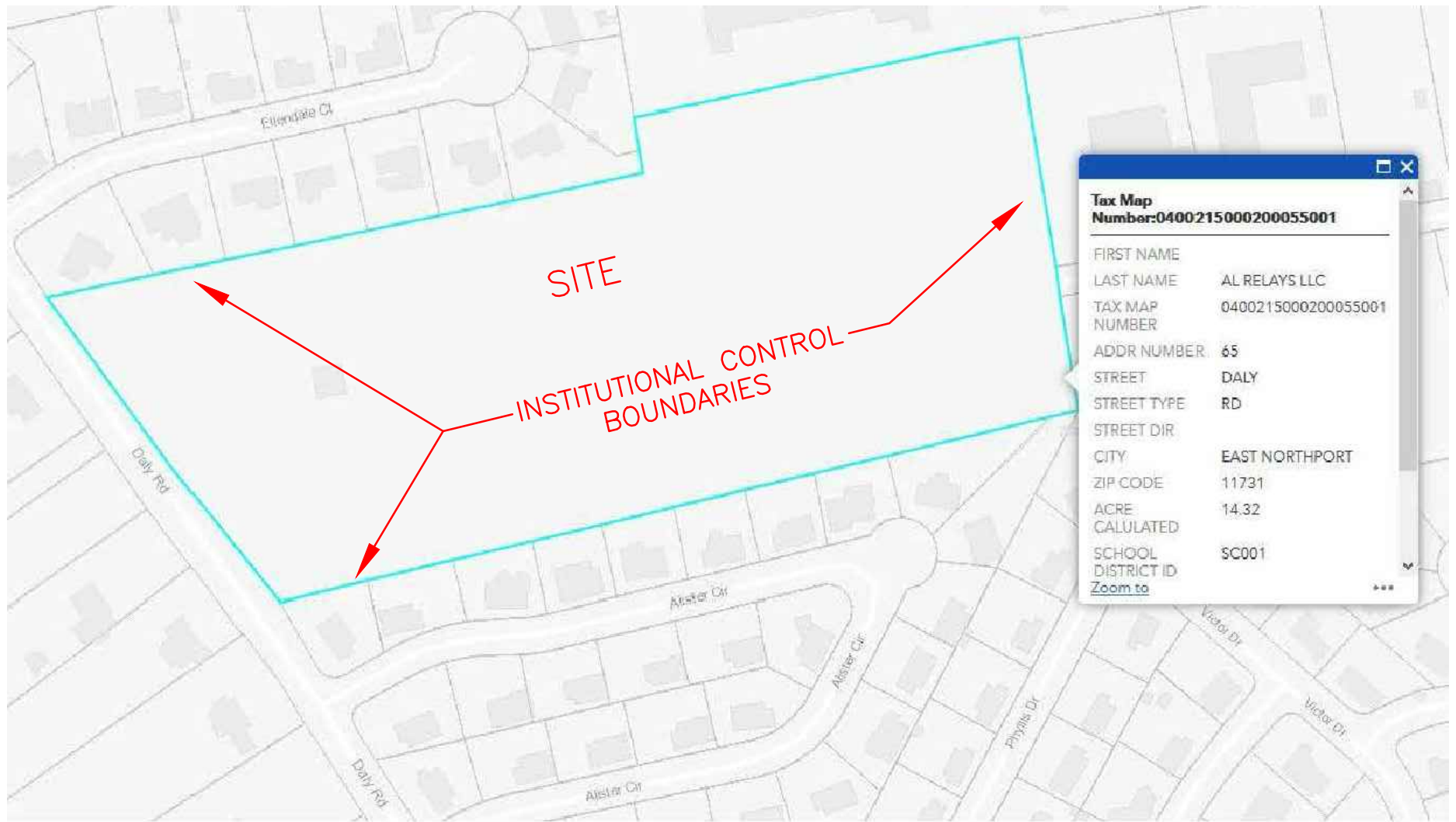
This plan provides:

- A description of all ICs on the Site;
- The basic implementation and intended role of each IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of ICs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix F) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the ICs required by the site remedy, as determined by the NYSDEC.

#### **3.2 Institutional Controls**

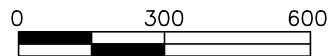
A series of ICs is required to: (1) prevent future exposure to remaining contamination; and, (2) limit the use and development of the Site to restricted residential, commercial and/or industrial uses only. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on Figure 3.2.1. These ICs are:

- The property may be used for: restricted residential, commercial, and/or industrial uses;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Suffolk County Department of Health Services to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.



SOURCE: SUFFOLK COUNTY TAX MAP, 2017

APPROXIMATE SCALE IN FEET



FPM GROUP

FIGURE 3.2.1  
INSTITUTIONAL CONTROL BOUNDARIES

DEUTSCH RELAYS, INC. SITE  
EAST NORTHPORT, NEW YORK

Drawn By:H.C. Checked By:S.D. Date: 5/13/19

- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 3.2.1, and appropriate actions to address exposures must be implemented; and
- Vegetable gardens and farming on the Site are prohibited.

### **3.3 Site-wide Inspection**

Site-wide inspections will be performed at a minimum of once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect the remaining contamination at the Site. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report.

During an inspection, an inspection form will be completed as provided in Appendix G – Site Management Forms. The inspections will determine and document the following:

Compliance with all ICs, including Site usage;

- General Site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- If site records are complete and up to date.

Reporting requirements are outlined in Section 5.0 of this plan.

Inspections will also be performed in the event of an emergency. An inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the ICs implemented at

the Site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.



## **4.0 Periodic Assessments/Evaluations**

### **4.1 Climate Change Vulnerability Assessment**

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given Site and associated remedial systems. Vulnerability assessments provide information so that the Site is prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding. This section briefly summarizes the vulnerability of the Site to severe storms/weather events and associated flooding.

A vulnerability assessment has not been prepared for the Site and a vulnerability assessment is not planned. The Site is not located in a flood plain or low-lying area. All stormwater has previously been managed onsite in recharge basins and leaching pool systems. When the Site is redeveloped all stormwater will continue to be managed onsite using typical groundwater recharge devices; the Site is underlain by sand and gravel, which is conducive to stormwater recharge. The Site surface is relatively level and erosion does not present a concern. If high winds occur it is unlikely that damage may result as the redeveloped Site is unlikely to feature large trees in proximity to the buildings.

### **4.2 Soil Vapor Intrusion Evaluation**

No buildings are currently present on the Site. It is planned to redevelop the Site, but the nature and scope of redevelopment have not yet been defined. It is anticipated that any new buildings will be constructed with a vapor barrier and the sub-slab elements of a sub-slab depressurization system (SSDS) and that an SVI evaluation would be performed prior to building occupancy to determine if SVI presents a concern such that operation of the SSDS would be necessary.

The scope of the SVI evaluation will be determined based upon discussion with the NYSDEC Project manager and NYSDOH. Based upon these discussions and agency requirements, a work plan may need to be developed. SVI sampling is anticipated to include

collection of sub-slab soil vapor samples from monitoring points, co-located indoor air samples, and an ambient (outdoor) air sample. An SVI evaluation work plan would include the following information:

- A figure showing the SVI sample locations;
- Discussion of the depths of the soil vapor samples;
- A table of sample locations and analytical parameters to be analyzed along with the minimum reporting limits to be achieved by the NYS ELAP-certified laboratory.

Upon completion of the SVI evaluation, if an action is required, any actions taken or to be taken will be reflected in an update to the SMP.

### **4.3 Groundwater Monitoring**

Groundwater monitoring will be conducted on a periodic (once-per five-quarter) basis to assess the anticipated continued decrease in Site-related VOC concentrations. The sampling locations, required analytical parameters, and schedule are provided in Table 4.3.1 – Groundwater Monitoring Requirements and Schedule below. The NYSDEC will be notified of any modification to the frequency or sampling protocols.

**Table 4.3.1 – Groundwater Monitoring Requirements and Schedule**

<b>Sampling Locations</b>	<b>Analytical Parameters</b>	<b>Analytical Method</b>	<b>Schedule</b>
MW-10, MW-24, MW-29, MW-10A, MW-12A, MW-32A, MW-23A, MW-34B, MW-12B, MW-14B, MW-11B, MW-34A, MW-35A, and MW-20	VOCs	EPA Method 8260	Once every 5 Quarters

Detailed sample collection and analytical procedures and protocols are provided in Appendix H – Field Sampling Plan and Appendix I – Quality Assurance Project Plan.

#### **4.3.1 Groundwater Sampling**

Groundwater monitoring will be performed once every five quarters to assess the performance of the remedy on a seasonal basis. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

The network of monitoring wells was installed to monitor Site-related groundwater conditions and was designed in consultation with the NYSDEC. The network of wells has been reduced over time as groundwater conditions improved and the full network was no longer necessary. The network to be monitored includes three wells to monitor shallow groundwater, six wells to monitor intermediate groundwater, and five wells to monitor the deep groundwater.

The available monitoring well construction logs are provided in Appendix E of this SMP. Table 4.3.1.1 summarizes the well identification numbers, completion interval, location, depths, diameter and screened intervals of the wells targeted for groundwater monitoring.

If biofouling or silt accumulation occurs in the Site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced if an event renders a well unusable and the well is required for monitoring. Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater monitoring program are specified in Section 5.0 – Reporting Requirements.

**Table 4.3.1.1 - Monitoring Well Construction Details**

Monitoring Well ID	Well Completion Interval	Coordinates (longitude/latitude)	Well Diameter (inches)	Elevation above mean sea level unless noted as *			
				Top of Casing	Depth to Water (initial)*	Screen Top*	Screen Bottom*
MW-10	shallow	73° 19' 03.58" W 40° 50' 12.01" N	4	169.67	85.00	77.5	87.5
MW-24	shallow	73° 19' 15.59" W 40° 50' 07.66" N	2	142.82	69.58	68	78
MW-29	shallow	73° 19' 17.30" W 40° 50' 09.30" N	2	144.43	72.07	72.0	82.0
MW-10A	intermediate	73° 19' 03.83" W 40° 50' 11.78" N	4	169.38	93.53	118.0	128.0
MW-12A	intermediate	73° 19' 19.36" W 40° 49' 57.69" N	4	145.72	72.79	101.0	110.0
MW-23A	intermediate	73° 19' 19.24" W 40° 50' 11.30" N	2	145.07	71.57	110.0	120.0
MW-32A	intermediate	73° 19' 20.38" W 40° 50' 12.62" N	2	146.12	72.25	110.0	120.0
MW-34A	intermediate	73° 19' 15.59" W 40° 50' 05.73" N	2	143.24	69.42	100.0	110.0
MW-35A	intermediate	73° 19' 16.76" W 40° 50' 13.45" N	2	160.52	86.37	120.0	130.0
MW-11B	deep	73° 19' 16.91" W 40° 50' 09.48" N	4	144.71	71.14	210.1	230.1
MW-12B	deep	73° 19' 18.87" W 40° 49' 57.76" N	4	145.56	73.65	182.5	192.5
MW-14B	deep	73° 19' 31.78" W 40° 49' 49.87" N	4	182.14	112.78	228.7	238.7
MW-20	deep	73° 18' 46.18" W 40° 49' 58.01" N	2	158.35	97.42	232.0	242.0
MW-34B	deep	73° 19' 15.10" W 40° 50' 05.16" N	2	143.26	69.52	162.0	172.0

\* = Depths from top of casing.

## 5.0. Reporting Requirements

### 5.1 Site Management Reports

All site management inspection events will be recorded on the appropriate site management forms provided in Appendix G. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data generated for the Site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 5.1.1 and summarized in the Periodic Review Report.

**Table 5.1.1: Schedule of Inspection Reports**

<b>Task/Report</b>	<b>Reporting Frequency*</b>
Inspection Report	Annually

\*The frequency of events will be conducted as specified until otherwise modified by the NYSDEC.

All inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Non-routine event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;

- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and

## **5.2 Periodic Review Report**

The Periodic Review Report (PRR) will consist only of the certification as specified in Section 5.2.1, except in the event where there have been changes to the Site or data gathered during the certifying period. Given such an event, the submittal of a comprehensive PRR will be necessary, as specified below.

A PRR will be submitted to the NYSDEC beginning 30 days after the initial 15-month certifying period. This initial certifying period commences upon issuance of the approval of this SMP. After submittal of the initial PRR, the next PRR shall be submitted annually to the NYSDEC or at another frequency as may be subsequently required by the NYSDEC. In the event that the Site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the Site described in Appendix A - Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the PRR. The report will include:

- Identification, assessment and certification of all ICs required by the remedy for the Site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any data and/or information generated during the reporting period, with comments and conclusions, if any.
- A site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the Site-specific ROD;
  - Any new conclusions or observations regarding Site contamination based on inspections or data generated;

- Recommendations regarding any necessary changes to the remedy; and
- The overall performance and effectiveness of the remedy.

#### 5.2.1 Certification of Institutional Controls

Within 30 days after the end of each certifying period, as determined by the NYSDEC, the following certification will be provided to the NYSDEC:

*“For each institutional control identified for the Site, I certify that all of the following statements are true:*

- *The institutional control employed at this Site is unchanged from the date the control was put in place, or last approved by the NYSDEC;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the Site is compliant with the environmental easement.*
- *The information presented in this report is accurate and complete.*

*I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, \_\_\_\_\_name\_\_\_\_\_, of \_\_\_\_\_business address\_\_\_\_\_, am certifying as \_\_\_\_\_Owner or Owner’s Designated Site Representative\_\_\_\_\_for the Site.”*

The signed certification will be included in the PRR, if such report is required for the period. Otherwise, the Certification will be submitted as a stand-alone document.

The PRR/Certification will be submitted, in electronic format, to the NYSDEC Central Office, the NYSDEC Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The PRR/Certification may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

### **5.3 Corrective Measures Work Plan**

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC. Upon completion of the Corrective Measure, a signed certification form must be submitted to the NYSDEC.



## 6.0 REFERENCES

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- U.S. Department of the Interior. 1967. *Greenlawn, NY 15' Quadrangle*. U.S. Geological Service, National Mapping Division. Reston, VA.
- U.S. Geological Survey. 2015. *Water-Table and Potentiometric-Surface Altitudes in the Upper Glacial, Magothy, and Lloyd Aquifers beneath Long Island, New York, April-May 2013*.
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**APPENDIX A**  
**ENVIRONMENTAL EASEMENT**  
**SITE METES AND BOUNDS**

This Appendix includes a copy of the Environmental Easement for this Site, including recording information. The Site's metes and bounds description is also included in this Appendix.

**ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36  
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW**

**THIS INDENTURE** made this 17<sup>th</sup> day of April, 2020, between Owner, 65 Daly Road LLC, having an office at c/o The Engel Burman Group, 67 Clinton Road, Garden City, New York 11530, County of Nassau, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

**WHEREAS**, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

**WHEREAS**, Grantor, is the owner of real property located at the address of 65 Daly Road in the Town of Huntington, County of Suffolk and State of New York, known and designated on the tax map of the County Clerk of Suffolk as tax map parcel numbers: District 0400 Section 215.00 Block 02.00 Lot 055.001, being the same as that property conveyed to Grantor by deed dated May 1, 2019 and recorded in the Suffolk County Clerk's Office in Liber and Page D00013013/968. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 14.31 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 10, 2019 prepared by Gregory David Peterman, L.L.S. of Nelson & Pope, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

**WHEREAS**, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

**NOW THEREFORE**, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent Index Number: CO 3-20181123-203, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

**Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii),  
Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial  
as described in 6 NYCRR Part 375-1.8(g)(2)(iv)**

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Suffolk County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, New York 12233  
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

**This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.**

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;



5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:      Site Number: 152003  
Office of General Counsel  
NYSDEC  
625 Broadway  
Albany New York 12233-5500

With a copy to:      Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and

communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

11. Consistency with the SMP. To the extent there is any conflict or inconsistency between the terms of this Environmental Easement and the SMP, regarding matters specifically addressed by the SMP, the terms of the SMP will control.

**Remainder of Page Intentionally Left Blank**

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

65 Daly Road LLC:

By:

**Steven Krieger**  
Member

Print Name.

Title:

Date: \_\_\_\_\_

### Grantor's Acknowledgment

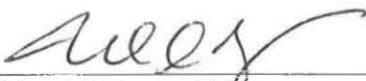
STATE OF NEW YORK )  
 ) ss:  
COUNTY OF Nassau )

On the 19 day of March, in the year 20 20, before me, the undersigned, personally appeared Steven Krieger, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Jessica F. Colabella  
Notary Public - State of New York

**JESSICA F. COLABELLA**  
Notary Public, State of New York  
No. 01CO6137529  
Qualified in Nassau County  
Commission Expires November 28, 2021

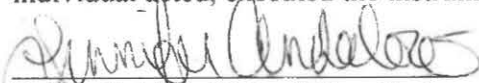
**THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK**, Acting by and Through the Department of Environmental Conservation as Designee of the Commissioner,

By:   
Michael J. Ryan, Director  
Division of Environmental Remediation

**Grantee's Acknowledgment**

STATE OF NEW YORK     )  
  ) ss:  
COUNTY OF ALBANY     )

On the 17<sup>th</sup> day of April, in the year 2020, before me, the undersigned, personally appeared Michael J. Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
Notary Public - State of New York

JENNIFER ANDALORO  
Notary Public, State of New York  
No. 02AN6098246  
Qualified in Albany County  
Commission Expires January 14, 2024

**SCHEDULE "A" PROPERTY DESCRIPTION**

ALL THAT CERTAIN TRACT, PIECE OR PARCEL OF LAND SITUATE, LYING AND BEING IN THE TOWN OF HUNTINGTON, COUNTY OF SUFFOLK, STATE OF NEW YORK, LYING GENERALLY SOUTHERLY OF JERICHO TURNPIKE (NYS ROUTE 25) AND GENERALLY EASTERLY OF DALY ROAD, AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION FORMED BY THE SOUTHERLY LINE OF JERICHO TURNPIKE (NYS ROUTE 25) AND WESTERLY LINE OF LARKFIELD ROAD (AS WIDENED).

RUNNING THENCE WESTERLY ALONG THE SOUTHERLY LINE OF NYS ROUTE 25 THE FOLLOWING (3) COURSES:

- 1. SOUTH 79° 45' 00" WEST 378.18 FEET
- 2. SOUTH 79° 39' 00" WEST 599.93 FEET
- 3. SOUTH 79° 37' 30" WEST 128.12 FEET TO THE WESTERLY LINE OF LAND NOW OR FORMERLY OF SEARS ROEBUCK & CO.

THENCE SOUTHERLY ALONG SAID LAND SOUTH 14° 47' 26" EAST, 675.54 FEET TO THE NORTHERLY LINE OF THE MAP OF 44 SMALL FARMS;

THENCE WESTERLY ALONG THE NORTHERLY LINE OF THE MAP OF 44 SMALL FARMS THE FOLLOWING TWO (2) COURSES:

- 1. SOUTH 80° 44' 14" WEST 200.36 FEET
- 2. NORTH 14° 47' 26" WEST, 1.13 FEET, TO THE WESTERLY LINE OF THE MAP OF 44 SMALL FARMS AND THE POINT OF BEGINNING;

THENCE SOUTHERLY ALONG SAID LAND SOUTH 08° 38' 30" EAST, 519.99 FEET TO THE NORTHWESTERLY INTERSECTION OF THE MAP OF 44 SMALL FARMS, VICTOR MEADOWS SECTION 3 AND THE MAP OF ROCHELLE WOODS;

THENCE WESTERLY ALONG THE NORTHERLY LINE OF THE MAP OF ROCHELLE WOODS SOUTH 77° 05' 20" WEST, 1,134.66 FEET TO ITS POINT OF INTERSECTION WITH THE EASTERLY BOUNDARY OF DALY ROAD;

THENCE NORTHERLY ALONG SAID EASTERLY BOUNDARY OF DALY ROAD THE FOLLOWING TWO (2) COURSES:

- 1. NORTH 38° 05' 40" WEST 231.42 FEET;
- 2. NORTH 33° 38' 00" WEST 296.89 FEET TO THE SOUTHERLY LINE OF THE MAP OF ELLENDALE ESTATES;

THENCE EASTERLY ALONG SAID LINE NORTH 78° 48' 00" EAST, 839.55 FEET TO THE EASTERLY LINE OF THE MAP OF ELLENDALE ESTATES;

THENCE NORTHERLY ALONG SAID LINE NORTH 08° 31' 30" WEST, 77.90 FEET TO THE SOUTHERLY LINE OF PROPOSED LOT 2 ON THE MAP OF DEUTSCH RELAYS PLAT;

THENCE EASTERLY ALONG THE SOUTHERLY LINE OF SAID LOT 2 THE FOLLOWING (2) COURSES:

- 1. NORTH 78° 48' 00" EAST, 441.67 FEET;
- 2. NORTH 79° 27' 30" EAST, 100.00 FEET TO THE WESTERLY LINE OF THE MAP OF 44 SMALL FARMS AND THE POINT OR PLACE OF BEGINNING.

AND ALSO DESCRIBED, AS SURVEYED:

BEGINNING AT A POINT ON THE EASTERLY SIDE OF DALY ROAD, DISTANT THE FOLLOWING TWO (2) COURSES FROM THE INTERSECTION FORMED BY THE SOUTHERLY SIDE OF ELLENDALE COURT AND THE EASTERLY SIDE OF DALY ROAD:

1) SOUTHWESTERLY ALONG THE ARC OF A CURVE BEARING TO THE LEFT, HAVING A RADIUS OF 20.00 FEET AND AN ARC LENGTH OF 31.42 FEET;

2) SOUTH 32° 53' 52" EAST, 71.45 FEET TO THE POINT OR PLACE OF BEGINNING;

RUNNING THENCE THE FOLLOWING EIGHT (8) COURSES:

- 1) NORTH 78° 48' 00" EAST, 839.55 FEET;
- 2) NORTH 08° 31' 30" WEST, 77.90 FEET;
- 3) NORTH 78° 48' 00" EAST, 441.67 FEET;
- 4) NORTH 79° 27' 30" EAST, 100.00 FEET;
- 5) SOUTH 08° 38' 30" EAST, 519.99 FEET;
- 6) SOUTH 77° 05' 20" WEST, 1,134.66 FEET;
- 7) NORTH 38° 05' 40" WEST, 231.42 FEET;
- 8) NORTH 35° 38' 00" WEST, 296.89 FEET TO THE POINT OR PLACE OF BEGINNING;

EXCEPT THE INTEREST IN THAT PORTION OF LAND THEREOF OVERLAPPING THE PROPERTY BOUNDARY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE EASTERLY SIDE OF LOT 1 OF DEUTSCH RELAYS PLAT, SAID POINT BEING THE FOLLOWING SEVEN (7) COURSES FROM THE INTERSECTION FORMED BY THE SOUTHERLY SIDE OF ELLENDALE COURT AND THE EASTERLY SIDE OF DALY ROAD:

1) SOUTHWESTERLY ALONG THE ARC OF A CURVE BEARING TO THE LEFT, HAVING A RADIUS OF 20.00 FEET AND AN ARC LENGTH OF 31.42 FEET;

- 2) SOUTH 32° 53' 52" EAST, 71.45 FEET;
- 3) NORTH 78° 48' 00" EAST, 839.55 FEET;
- 4) NORTH 08° 31' 30" WEST, 77.90 FEET;
- 5) NORTH 78° 48' 00" EAST, 441.67 FEET;
- 6) NORTH 79° 27' 30" EAST, 100.00 FEET;
- 7) SOUTH 08° 38' 30" EAST, 1.13 FEET TO THE POINT OR PLACE OF BEGINNING;

RUNNING THENCE THE FOLLOWING THREE (3) COURSES:

- 1) SOUTH 08° 38' 30" EAST, 132.93 FEET;
- 2) NORTH 09° 52' 12" WEST, 132.92 FEET;
- 3) NORTH 80° 44' 14" EAST, 2.85 FEET TO THE POINT OR PLACE OF BEGINNING.

THE AREA OF THE ENVIRONMENTAL EASEMENT DESCRIBED ABOVE CONTAINING 14.31 PLUS OR MINUS ACRES OF LAND.

## APPENDIX B

### LIST OF SITE CONTACTS

This Appendix includes a listing of all Site contacts necessary for implementation of the SMP.

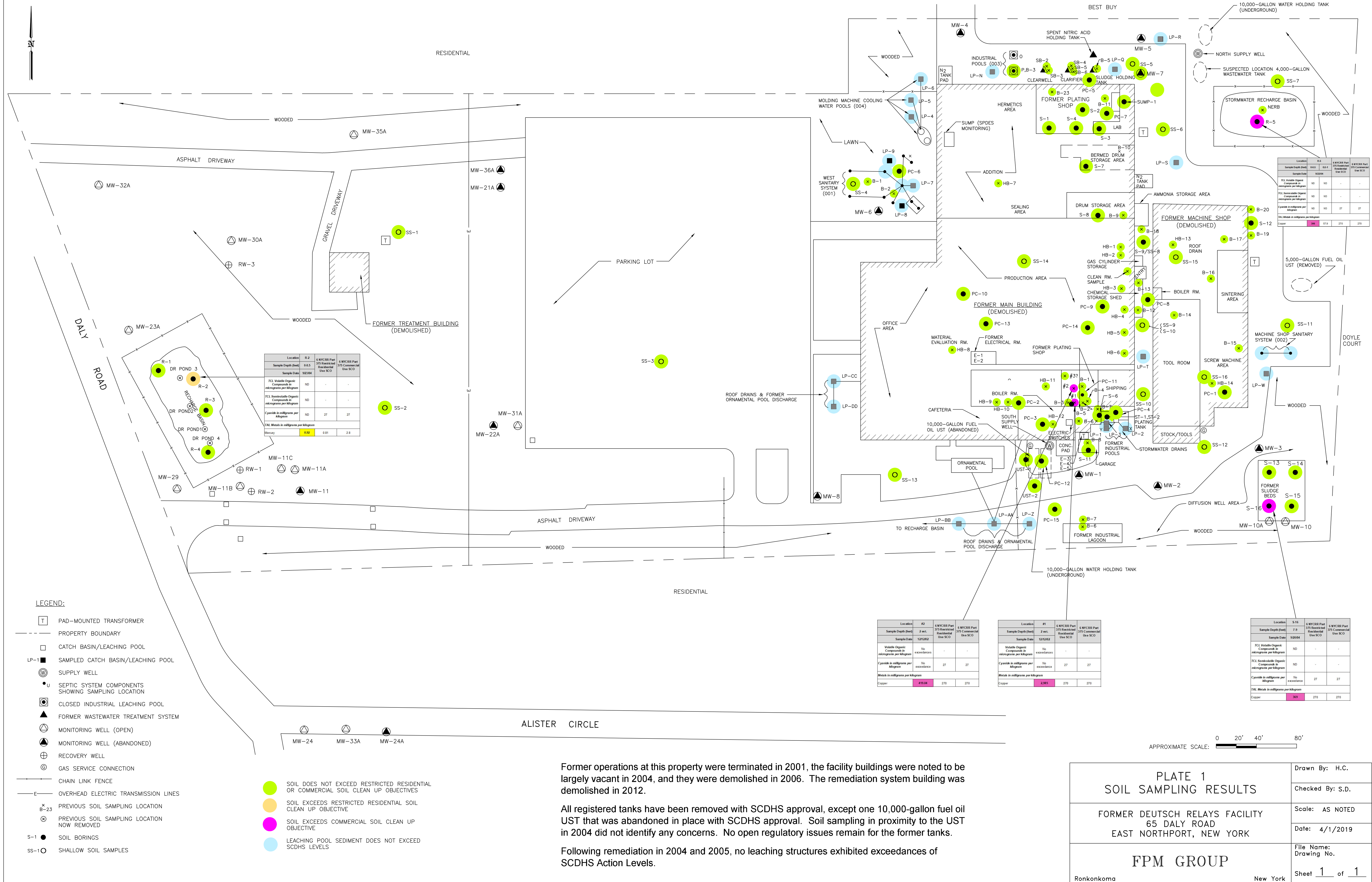
<b>Name/Role</b>	<b>Phone/Email Address</b>
<b>Site Owner and Remedial Party:</b> 65 Daly Road LLC David Burman	(516) 747-1200, david@engelburman.com
<b>Owner/Remedial Party Attorney:</b> Barry Cohen, Esq.	(516) 296-7000, bcohen@certilmanbalin.com
<b>Qualified Environmental Professional:</b> FPM Group, Ltd. Stephanie O. Davis, PG	(631) 737-6200, ext. 528 s.davis@fpm-group.com
<b>NYSDEC DER Project Manager:</b> Melissa Sweet, PE	(518) 402-9614, melissa.sweet@dec.ny.gov
<b>NYSDEC Regional HW Engineer:</b> Chris Engelhardt	(631) 444-0235, Chris.engelhardt@dec.ny.gov
<b>NYSDEC Site Control:</b> Kelly Lewandowski	(518) 402-9553, kelly.lewandowski@dec.ny.gov

## **APPENDIX C**

### **REMAINING CONTAMINATION**

This Appendix includes site plans showing the nature and extent of the remaining impacts in soil, groundwater and soil vapor. The data for each of the Site media are shown in relation to applicable regulatory criteria. For soil, these criteria are the 6 NYCRR SCOs for restricted residential use and commercial use, which are the anticipated uses of the Site when it is redeveloped.











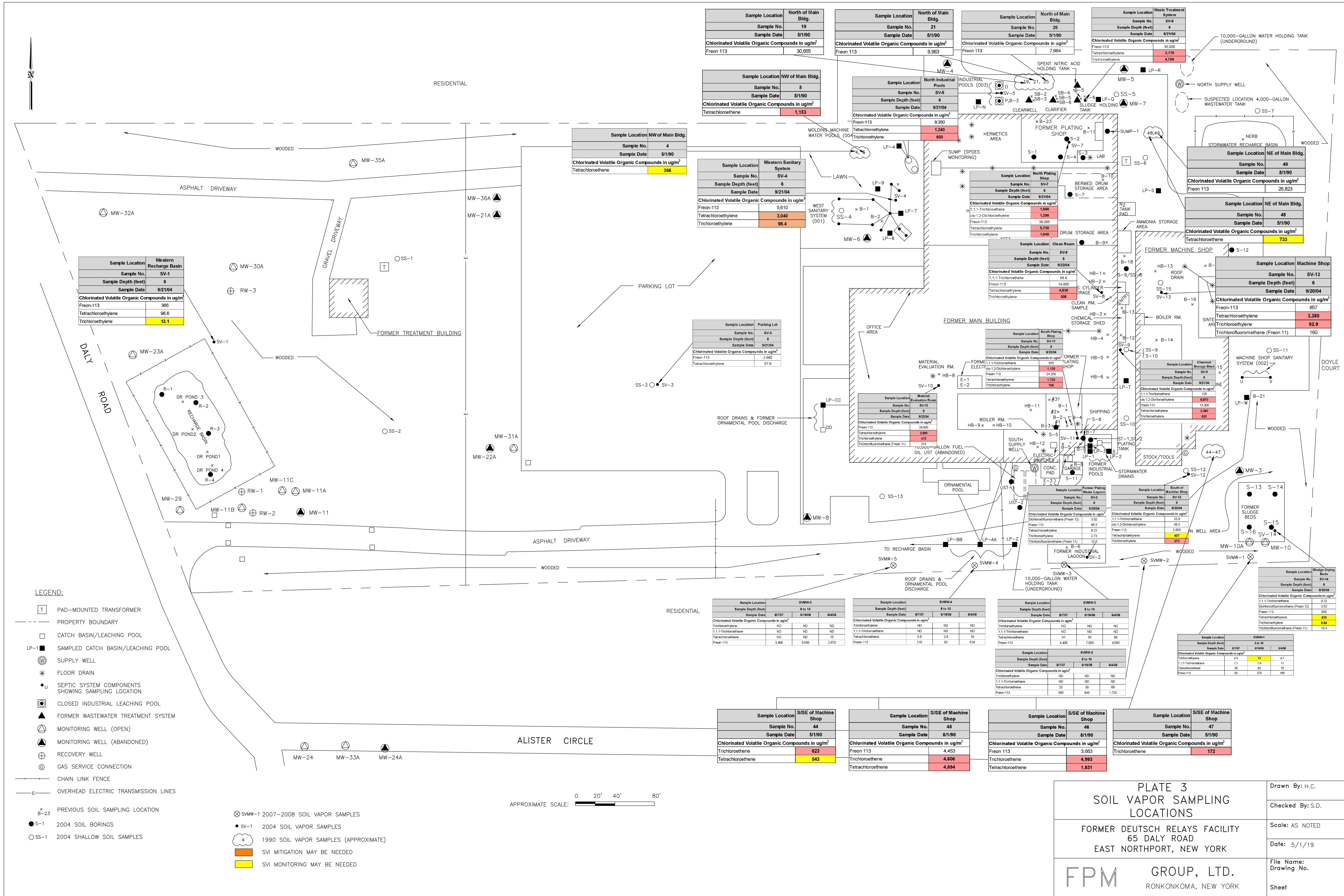


PLATE 3  
SOIL VAPOR SAMPLING  
LOCATIONS

FORMER DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, NEW YORK

FPM GROUP, LTD.  
RONKONKOMA, NEW YORK

Drawn By: H.C.

Checked By: S.D.

Scale: AS NOTED

Date: 5/1/19

File Name: Drawing No.

Sheet

## **APPENDIX D**

### **SOIL, GROUNDWATER, AND SOIL VAPOR DATA TABLES**

This Appendix includes the available tables for soil, groundwater and soil vapor data.

It should be noted that the soil data presented in these tables are compared to regulatory criteria that were applicable at the time the sampling was performed (1989 – 2004), which were the NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (Objectives) and, for leaching facilities, the SCDHS SOP 9-95 Action Levels and Cleanup Levels. The current regulatory criteria for soil are the Soil Cleanup Objectives (SCOs) described in 6 NYCRR Part 375, which became effective December 14, 2006.

During development of this SMP the soil data on these tables were compared to the 6 NYCRR SCOs for restricted residential use and commercial use, which are the anticipated uses of the Site when it is redeveloped. Soil data exceeding these criteria are presented on Plate 1 in Appendix C.

**TABLE 3.1.1**  
**WEST SANITARY WASTE DISPOSAL SYSTEM**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	B-1	B-2		MW-6	Primary Pool (Initial Sample)	Primary Pool (Post Remediation)	Secondary Pool (Initial Sample)	LP-7	LP-8	LP-9	SCDHS Action Levels	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet)	0-2	0-2	6.5-6.7	0-2	-	-	-	24-26	27-29	23-25		
Sample Date	5/22/90	5/22/90	5/24/90	5/22/90	6/5/01	1/10/02	12/27/01	9/24/04	9/24/04	9/24/04		
Volatile Organic Compounds in ug/kg												
Carbon Disulfide	ND	ND	ND	ND	190	ND	ND	ND	ND	ND	-	2,700
Toluene	ND	ND	ND	ND	650	ND	ND	ND	82	ND	3,000	1,500
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	19	ND	ND	2,800	1,400
Ethylbenzene	ND	ND	ND	ND	510	ND	ND	ND	15	ND	11,000	5,500
n-Propylbenzene	ND	ND	ND	ND	110	ND	ND	ND	ND	ND	5,000	3,700
p-Isopropyltoluene	ND	ND	ND	ND	410	ND	ND	ND	46	ND	7,800	10,000
1,3-Dichlorobenzene	ND	ND	ND	ND	1,200	ND	ND	ND	ND	ND	3,200	1,600
n-Butylbenzene	ND	ND	ND	ND	49	ND	ND	ND	17	ND	6,800	10,000
1,2,4,5-Tetramethylbenzene	ND	ND	ND	ND	620	ND	ND	ND	ND	ND	15,000	-
Naphthalene	ND	ND	ND	ND	170	ND	ND	ND	16	ND	15,000	13,000
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	72	ND	2,400	1,200
Nonane	ND	ND	ND	ND	14,000	ND	ND	NA	NA	NA	-	-
1,3,5-Trimethylbenzene	ND	ND	ND	ND	250	ND	ND	ND	ND	ND	5,200	3,300
1,2,4-Trimethylbenzene	ND	ND	ND	ND	490	ND	ND	ND	24	ND	4,800	10,000
Isopropylbenzene	ND	ND	ND	ND	45	ND	ND	ND	ND	ND	5,200	2,300
Chlorotoluenes	ND	ND	ND	ND	5,900	ND	ND	NA	NA	NA	3,600	-
sec-Butylbenzene	ND	ND	ND	ND	58	ND	ND	ND	ND	ND	10,000	10,000
1,4-Dichlorobenzene	ND	ND	ND	ND	2,000	ND	ND	ND	ND	ND	15,000	8,500
1,2-Dichlorobenzene	ND	ND	ND	ND	1,000	ND	ND	ND	ND	ND	15,000	7,900
1,2,4-Trichlorobenzene	ND	ND	ND	ND	1,000	ND	ND	ND	ND	ND	6,800	3,400
Octane	ND	ND	ND	ND	170	ND	ND	NA	NA	NA	-	-
Decane	ND	ND	ND	ND	3,500	ND	ND	NA	NA	NA	-	-
Semivolatile Organic Compounds in ug/kg												
Benzoic acid	NA	120 J	NA	NA	NA	ND	NA	NA	NA	NA	-	-
Phenanthrene	NA	70 J	NA	NA	NA	ND	NA	NA	NA	NA	75,000	50,000
Fluoranthene	NA	180 J	NA	NA	NA	ND	NA	NA	NA	NA	75,000	50,000
Pyrene	NA	150 J	NA	NA	NA	ND	NA	NA	NA	NA	75,000	50,000
Benzo(a)anthracene	NA	94 J	NA	NA	NA	ND	NA	NA	NA	NA	6,000	224
Chrysene	NA	110 J	NA	NA	NA	ND	NA	NA	NA	NA	800	400
Benzo(b)fluoranthene	NA	120 J	NA	NA	NA	ND	NA	NA	NA	NA	2,200	224
Benzo(k)fluoranthene	NA	75 J	NA	NA	NA	ND	NA	NA	NA	NA	2,200	224
Benzo(a)pyrene	NA	88 J	NA	NA	NA	ND	NA	NA	NA	NA	22,000	61
Indeno(1,2,3-cd)pyrene	NA	69 J	NA	NA	NA	ND	NA	NA	NA	NA	6,400	3,200

Notes:

Only compounds detected in one or more samples are shown.  
NYSDEC = New York State Department of Environmental Conservation  
ND = Not Detected  
NA = Not Analyzed  
ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram  
- = Not established  
**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.  
\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.  
J = Estimated value  
SCDHS = Suffolk County Department of Health Services (9/04 samples only).

**TABLE 3.1.1 (CONTINUED)**  
**WEST SANITARY WASTE DISPOSAL SYSTEM**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	B-1	B-2		MW-6	Primary Pool (Initial Sample)	Primary Pool (Post Remediation)	Secondary Pool (Initial Sample)	LP-7	LP-8	LP-9	SCDHS Action Levels	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet)	0-2	0-2	6.5-6.7	0-2	-	-	-	24-26	27-29	23-25		
Sample Date	5/22/90	5/22/90	5/24/90	5/22/90	6/5/01	1/10/02	12/27/01	9/24/04	9/24/04	9/24/04		
Metals in mg/kg												
Aluminum	6,170	6,370	1,600	13,600	ND	NA	NA	NA	NA	NA	-	-
Arsenic	5.7	3.9	0.44 B	2.4	ND	NA	NA	ND	ND	1.78	25	7.5
Barium	16.6 B	16.3 B	ND	26.8 B	ND	NA	NA	NA	NA	NA	-	300
Beryllium	0.25 B	0.21 B	ND	0.30 B	ND	NA	NA	ND	ND	0.06	8	0.16
Cadmium	ND	ND	ND	ND	3.0	NA	NA	2.28	5.59	32.6	10	10
Chromium	10.3	8.4	ND	15.7	28	NA	NA	5.44	18.1	50.6	100	50
Cobalt	2.6 B	3.0 B	1.0 B	3.6 B	ND	NA	NA	NA	NA	NA	-	30
Copper	ND	ND	ND	ND	270	NA	NA	86.6	283	1,470	500	25
Iron	6,610	6,240	1,750	11,900	ND	NA	NA	NA	NA	NA	-	2,000
Lead	26.4	22.5	ND	18.4	32	NA	NA	12.3	79.8	127	400	400*
Magnesium	ND	ND	127 B	ND	ND	NA	NA	NA	NA	NA	-	-
Manganese	81.4	98.4	24.5	108	ND	NA	NA	NA	NA	NA	-	-
Mercury	ND	0.19	ND	ND	ND	NA	NA	ND	2.03	1.64	2	0.1
Nickel	3.9 B	4.1 B	ND	5.8 B	ND	NA	NA	14.1	36.2	187	1,000	13
Potassium	493 B	461 B	204 B	569 B	ND	NA	NA	NA	NA	NA	-	-
Selenium	0.29 B	0.22 B	ND	0.60 B	ND	NA	NA	NA	NA	NA	-	2
Silver	ND	ND	ND	ND	ND	ND	ND	10.6	57.4	109	100	-
Vanadium	12.2	10.3 B	2.9 B	23.3	ND	NA	NA	ND	NA	NA	-	150
Zinc	ND	ND	ND	35.3	ND	NA	NA	NA	NA	NA	-	20
Total Petroleum Hydrocarbons (M8015DRO) in mg/kg	NA	NA	NA	NA	NA	85	NA	NA	NA	NA	-	-
Pesticides in ug/kg												
4,4'-DDE	NA	71	NA	NA	NA	NA	NA	NA	NA	NA	-	2,100
4,4'-DDD	NA	57	NA	NA	NA	NA	NA	NA	NA	NA	-	2,900
4,4'-DDT	NA	180	NA	NA	NA	NA	NA	NA	NA	NA	-	2,100
alpha-Chlordane	NA	7.4 J	NA	NA	NA	NA	NA	NA	NA	NA	-	540
Cyanide in mg/kg	NA	NA	NA	NA	NA	NA	NA	ND	7.49	5.66	-	-
PCBs in ug/kg												
PCB 1254	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	-	1.0 (surface) 10.0 (subsurface)
TCLP Metals in ug/l												RCRA Regulatory Levels
Arsenic	ND	44.6	ND	ND	NA	NA	NA	NA	NA	NA	-	5,000
Barium	351 J	412 J	192 J	253 J	NA	NA	NA	NA	NA	NA	-	100,000
Cadmium	10.5 J	6.2 J	ND	ND	NA	NA	NA	NA	NA	NA	-	1,000
Lead	30.1 J	94.4 J	ND	13.6 J	NA	NA	NA	NA	NA	NA	-	5,000

Notes:

Only compounds detected in one or more samples are shown.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

J = Estimated value

mg/kg = milligrams per kilogram

- = Not established

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

B = Concentration less than the method detection limit but greater than the instrument detection limit.

SCDHS = Suffolk County Department of Health Services

☐ = Boxed values exceed SCDHS Action Levels (9/04 samples only).



**TABLE 3.2.1**  
**MACHINE SHOP SANITARY WASTE DISPOSAL SYSTEM**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Primary Pool	Primary/Secondary Pools	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	Outfall 002	Drain#5/6	
Sample Date	6/5/01	11/25/02	
Volatile Organic Compounds in ug/kg			
Sec-butylbenzene	ND	219.9	-
P-isopropyltoluene	ND	442.3	-
1,2,4-Trimethylbenzene	ND	93.32	-
1,3,5-Trimethylbenzene	ND	145.33	-
Metals in mg/kg			
Aluminum	1,400	NA	-
Barium	13.0	12.49	300
Calcium	9,600	NA	-
Chromium	ND	12.86	50
Copper	64.0	57	25
Iron	3,400	5,956	2,000
Lead	ND	13.63	400*
Magnesium	6,000	NA	-
Manganese	20.0	NA	-
Nickel	ND	12.77	13
Potassium	150	NA	-
Silver	ND	0.99	-
Zinc	31.0	47.54	20

Notes:

Only compounds detected in one or more samples are shown.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

- = Not Established

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance has established a residential screening level of 400 mg/kg.

**TABLE 3.3.1**  
**NORTH INDUSTRIAL LEACHING POOL SYSTEM**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	B-3	North Industrial Pool	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet)	0-2	—	
Sample Date	5/22/90	6/5/01	
<b>Volatile Organic Compounds in ug/kg</b>	ND	ND	-
<b>Metals in mg/kg</b>			
Aluminum	6,750	890	-
Arsenic	1.9 B	ND	7.5
Barium	16.8 B	ND	300
Calcium	ND	730	-
Chromium	10.4	ND	50
Cobalt	2.2 B	ND	30
Copper	ND	<b>56.0</b>	25
Iron	<b>6,490</b>	<b>2,600</b>	2,000
Lead	12	ND	400*
Magnesium	ND	690	-
Manganese	57.8	39.0	-
Nickel	3.9 B	<b>67.0</b>	13
Potassium	486 B	ND	-
Selenium	0.28 B	ND	2
Vanadium	13.3	ND	150
Zinc	<b>24.8</b>	ND	20
<b>TCLP Metals in ug/l</b>			<b>RCRA Regulatory Levels</b>
Arsenic	23.6	NA	5,000
Barium	302 J	NA	100,000
Lead	28.8 J	NA	5,000

Notes:

Only compounds detected in one or more samples are shown.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

ug/l = micrograms per liter

mg/kg = milligrams per kilogram

- = Not established.

B = Concentration less than the method detection limit but greater than the instrument detection limit.

J = Estimated value

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.



**TABLE 3.4.1**  
**MOLDING MACHINE COOLING WATER LEACHING POOLS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Molding Machine Cooling Water Effluent	NYSDEC Class GA Effluent Limitations	Molding Machine Cooling Water Pools Sediment			SCDHS Action Levels
Sample No.	SPDES Outfill #4		LP-4	LP-5	LP-6	
Sample Date	10/2/01		9/22/04	9/22/04	9/22/04	
Volatile Organic Compounds in ug/l			Volatile Organic Compounds in ug/kg			
Freon 113	95	5	ND	ND	ND	12,000
Metals in ug/l			Metals in mg/kg			
Aluminum	2,950	2,000	NA	NA	NA	-
Arsenic	NA	-	0.81	1.24	0.75	25
Cadmium	1,010	10	ND	ND	ND	10
Chromium	NA	-	3.21	5.81	2.54	100
Copper	2,390	1,000	76.8	117	63.7	500
Iron	3,180	600	NA	NA	NA	-
Lead	200	50	3.97	10.5	4.71	400
Magnesium	2,900	35,000	NA	NA	NA	-
Manganese	360	600	NA	NA	NA	-
Mercury	NA	-	ND	ND	ND	2
Nickel	270	200	2.12	4.74	2.76	1,000
Silicon	7,310	-	NA	NA	NA	-
Silver	40	100	2.13	9.33	2.71	100
Strontium	550	-	NA	NA	NA	-
Titanium	140	-	NA	NA	NA	-
Zinc	1,800	5,000	NA	NA	NA	-
Cyanide in mg/kg	NA	-	ND	ND	ND	-

Notes:

Only detected analytes are shown. See laboratory reports for complete data.

ug/l = micrograms per liter

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

ND = Not detected

NA = Not analyzed

- = Not established

NYSDEC = New York State Department of Environmental Conservation

SCDHS = Suffolk County Department of Health Services

**Bold** shaded values exceed NYSDEC Class GA Effluent Limitations (10/2/01 sample) or SCDHS Action Levels (9/22/04 samples).

**TABLE 3.5.1**  
**FORMER WASTEWATER TREATMENT SYSTEM**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Clearwell				Clarifier									Sludge Storage Tank	Nitric Acid Tank Area	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	SB-2		SB-3		SB-4			SB-5			SB-6			B-5	MW-7	
Sample Depth (feet)	5.5-7.0	9.5-11	5.5-7	9.5-11	3.0-4.5	7.0-9.5	13.0-14.5	3.0-4.5	7.0-9.5	13.0-14.5	3.0-4.5	7.0-9.5	13.0-14.5	0-2	0-2	
Sample Date	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	9/1/89	5/22/90	5/22/90	
Volatile Organic Compounds in ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	-
<b>Metals in mg/kg</b>																
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,800	5,770	-
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1	1.2 B	7.5
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.6 B	ND	300
Cadmium	0.008	ND	ND	ND	0.005	0.14	0.040	0.006	ND	0.020	ND	0.009	0.005	ND	ND	10
Chromium	2.2	1.4	1.2	1.6	1.1	3.4	3.3	1.3	1.3	4.5	0.35	3.9	2.9	20.2	7.3	50
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1 B	2.1 B	30
Copper	2.4	2.0	1.1	1.7	0.90	40.0	17.0	0.60	0.80	4.0	0.30	2.1	1.4	ND	ND	25
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,100	5,190	2,000
Lead	1.9	0.90	0.60	0.65	3.8	1.2	1.8	0.80	1.4	1.6	0.35	0.80	1.1	28.8	5.0	400*
Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.0	53.0	-
Nickel	1.5	1.5	0.75	0.75	0.75	18.0	7.0	0.75	0.50	4.2	ND	1.8	1.7	5.6 B	ND	13
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	402 B	309 B	-
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.44 B	0.24 B	2
Silver	ND	ND	ND	ND	ND	0.35	0.15	0.23	0.05	0.35	ND	0.05	0.10	ND	ND	-
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.6	10.7 B	150
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35.6	ND	20
Cyanide in mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	-
<b>TCLP Metals in ug/l</b>															<b>RCRA Regulatory Levels</b>	
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	27.2	5,000
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	289 J	239 J	100,000
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	11.9	5,000
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.3 J	14.0 J	5,000

Notes:

Only compounds detected in one or more samples are shown.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

*FPM*

**TABLE 3.6.1**  
**UNDERGROUND STORAGE TANK SOIL SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Abandoned Fuel Oil UST		NYSDEC Recommended Soil Cleanup Objectives
Sample No.	UST-1	UST-2	
Sample Depth (feet)	14-16	14-16	
Sample Date	9/23/04	9/23/04	
<b>NYSDEC STARS Volatile Organic Compounds in ug/kg</b>	ND	ND	-
<b>NYSDEC STARS Semivolatile Organic Compounds in ug/kg</b>	ND	ND	-

Notes:

Only detected compounds are reported. See laboratory report for complete analytical data.

ND = Not Detected

ug/kg = micrograms per kilogram

NYSDEC = New York State Department of Environmental Conservation

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

**TABLE 3.7.1**  
**STORMWATER CATCH BASIN/LEACHING POOL SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Catch Basin No.	N			Q				R			S		T					SCDHS Action Levels	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	Storm Drain #1	LP-N	B-22	CB-Q2	LP-Q			Storm Drain #3	CB-R	LP-R	Storm Drain #4	LP-S	Storm Drain #9	CB-T	LP-T				
Sample Date	11/25/02	9/22/04	9/10/03	11/24/03	9/22/04	9/22/04	9/22/04	11/25/02	9/10/03	9/22/04	11/25/02	9/22/04	11/25/02	9/10/03	9/22/04	9/23/04	9/23/04		
Sample Depth (feet below base of basin)	-	0-0.5	0-0.5	20	0-0.5	1-2	20	-	0-0.5	0-0.5	-	0-0.5	-	0-0.5	0-0.5	7	11		
Volatile Organic Compounds in ug/kg																			
Tetrachlorethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	ND	2,800	1,400
Chloroform	55.49	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600	300
Carbon Tetrachloride	77.01	ND	ND	ND	965.9	ND	ND	ND	ND	ND	ND	ND	965.9	ND	ND	ND	ND	1,200	600
Sec-Butylbenzene	127.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	931	ND	ND	ND	ND	10,000	10,000
O-Xylene	158.54	ND	ND	ND	ND	ND	ND	111.8	ND	ND	119.5	ND	5,734.9	ND	ND	ND	ND	2,400	1,200
M-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,485.8	ND	ND	ND	ND	2,400	1,200
MTBE	ND	ND	ND	ND	ND	ND	ND	1,262.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,200	120
Toluene	ND	ND	ND	ND	ND	ND	ND	378.96	ND	ND	60	ND	427.12	ND	ND	ND	ND	3,000	1,500
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	94.8	ND	ND	ND	ND	4,800	10,000
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	184.3	ND	ND	ND	ND	5,200	3,300
Benzene	ND	ND	ND	ND	ND	ND	ND	322.4	ND	ND	ND	ND	23.77	ND	ND	ND	ND	120	60
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,919.85	ND	ND	ND	ND	800	400
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	536.8	ND	ND	ND	ND	11,000	5,500
Freon 113	NA	ND	40	ND	ND	ND	ND	NA	31	ND	NA	ND	NA	8.19	ND	ND	ND	12,000	6,000
Semivolatile Organic Compounds in mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	-	-
Metals in mg/kg																			
Aluminum	NA	NA	13,100	1,090	NA	NA	NA	NA	6,710	NA	NA	NA	NA	3,040	NA	NA	NA	-	-
Antimony	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-
Arsenic	ND	1.65	4.04	ND	2.42	0.55	0.86	ND	1.91	3.07	ND	3.12	ND	ND	1.04	ND	ND	25	7.5
Barium	6.78	NA	50.9	ND	NA	NA	NA	9.16	22.1	NA	4.58	NA	20	ND	NA	NA	NA	-	300
Beryllium	NA	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	ND	8	0.16
Cadmium	2.79	0.99	2.9	ND	0.91	ND	ND	ND	2.19	3.06	2.08	3.54	36.88	1.42	4.35	ND	ND	10	10
Calcium	NA	NA	8,840	695	NA	NA	NA	NA	18,100	NA	NA	NA	NA	17,600	NA	12.7	3.34	-	-
Chromium	1.73	5.58	21.8	6.91	11.9	3.25	9.95	10.61	14.8	16.5	85	15.7	75.6	9.86	33.1	NA	NA	100	50
Cobalt	NA	NA	7.92	ND	NA	NA	NA	NA	4.43	NA	NA	NA	NA	2.93	NA	NA	NA	-	30
Copper	14.61	16.9	67.4	16.3	185	17.1	8.51	24.55	76	116	109.2	178	291.5	28.5	137	26.7	2.61	500	25
Iron	4,966	NA	15,500	2,370	NA	NA	NA	8,922	10,300	NA	6,727	NA	6,047	7,110	NA	NA	NA	-	2,000
Lead	10.47	11.9	51.1	1.75	27.0	2.78	1.41	12.41	21.9	32.3	34.56	13.3	97.3	9.01	40.6	4.75	8.37	400	400*
Magnesium	NA	NA	4,570	465	NA	NA	NA	NA	8,940	NA	NA	NA	NA	1,830	NA	NA	NA	-	-
Manganese	NA	NA	249	35.4	NA	NA	NA	NA	110	NA	NA	NA	NA	86.2	NA	NA	NA	-	-
Mercury	ND	ND	0.313	ND	ND	ND	ND	ND	0.15	0.25	ND	ND	ND	0.073	0.25	ND	ND	2	0.1
Nickel	14.94	10.2	98.9	14.5	148	21.1	10.5	29.34	88.1	123	255.7	548	182.3	23.5	76.9	12.5	1.57	1,000	13
Potassium	NA	NA	801	96.7	NA	NA	NA	NA	290	NA	NA	NA	NA	89.1	NA	NA	NA	-	-
Selenium	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	NA	ND	ND	NA	NA	NA	-	2
Silver	0.24	ND	8.59	4.35	5.95	1.55	1.61	ND	7.64	13.8	18.82	24.6	21.7	ND	2.59	0.66	ND	100	-
Sodium	NA	NA	279	ND	NA	NA	NA	NA	226	NA	NA	NA	NA	ND	NA	NA	NA	-	-
Titanium	NA	NA	0.163	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	-	-
Vanadium	NA	NA	41.7	3.16	NA	NA	NA	NA	22.4	NA	NA	NA	NA	5.32	NA	NA	NA	-	150
Zinc	38.3	NA	156	7.15	NA	NA	NA	37.18	80	NA	73.5	NA	83.4	49.2	NA	NA	NA	-	20
Cyanide in mg/kg	NA	ND	ND	4.19	105	7.12	2.11	NA	ND	2.62	NA	ND	NA	ND	0.77	ND	ND	-	-
PCBs (total) in mg/kg																			
ND	NA	ND	ND	NA	NA	NA	NA	NA	0.642	NA	NA	NA	NA	0.081	0.09	0.52	3.48	-	1.0 (surface) 10.0 (subsurface)

Notes:

Only compounds detected in one or more samples are shown. See laboratory reports for complete data.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

SCDHS = Suffolk County Department of Health Services

□ = Boxed values exceed SCDHS Action Levels (2004 samples only)

**TABLE 3.7.1 (CONTINUED)**  
**STORMWATER CATCH BASIN/LEACHING POOL SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Catch Basin No.	W						Z			AA			BB		CC			DD	SCDHS Action Levels	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	B-21	CB-W2	CB-W4	CB-W20	LP-W		CB-Z	CB-Z2	LP-Z	CB-AA	CB-AA2	LP-AA	CB-BB	LP-BB	CB-CC	LP-CC		CB-DD		
Sample Date	9/10/03	11/24/03	11/24/03	11/24/03	9/22/04	9/22/04	9/9/03	11/25/03	9/23/04	9/10/03	11/24/03	9/23/04	9/9/03	9/23/04	9/10/03	9/23/04	9/23/04	9/9/03		
Sample Depth (feet below base of basin)	0-0.5	2	4	20	8-12	24	0-0.5	2	0-1	0-0.5	2	0-2	0-0.5	0-2	0-0.5	0-2	6-8	0-0.5		
Volatile Organic Compounds in ug/kg																				
Tetrachlorethylene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	2,800	1,400
Chloroform	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	600	\
Carbon Tetrachloride	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	1,200	600
Sec-Butylbenzene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	10,000	10,000
O-Xylene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	2,400	1,200
M-Xylene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	2,400	1,200
MTBE	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	1,200	120
Toluene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	6	ND	ND	3,000	1,500
1,2,4-Trimethylbenzene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	4,800	10,000
1,3,5-Trimethylbenzene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	5,200	3,300
Benzene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	120	60
1,1-Dichloroethylene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	800	400
Ethylbenzene	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	11,000	5,500
Freon 113	15	NA	NA	ND	6	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	12,000	6,000
Semivolatile Organic Compounds in mg/kg																				
Metals in mg/kg																				
Aluminum	2,030	NA	NA	1,010	NA	NA	3,090	NA	NA	1,550	NA	NA	937	NA	3,960	NA	NA	2,290	-	-
Antimony	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	-	-
Arsenic	1.1	NA	NA	ND	ND	ND	ND	NA	1.03	ND	NA	1.08	ND	2.08	2.39	1.55	1.55	ND	25	7.5
Barium	ND	NA	NA	ND	NA	NA	23.5	NA	NA	ND	NA	NA	ND	NA	14.1	NA	NA	ND	-	300
Beryllium	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	8	0.16
Cadmium	0.636	NA	NA	ND	ND	ND	2.66	NA	1.19	50.3	0.345	1.11	0.422	0.53	1.15	0.56	ND	ND	10	10
Calcium	1,270	NA	NA	2,740	NA	NA	634	NA	NA	329	NA	NA	144	NA	610	NA	NA	186	-	-
Chromium	11.1	NA	NA	5.71	2.20	1.66	426	6.65	6.98	24	NA	16.7	5.88	6.77	14.8	7.70	5.97	9.05	100	50
Cobalt	5.11	NA	NA	2.85	NA	NA	3.21	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	-	30
Copper	2,900	805	70.8	77.3	24.7	3.08	453	NA	59.8	213	NA	121	32.7	36.3	72.5	23.8	9.48	16.9	500	25
Iron	7,000	NA	NA	3,890	NA	NA	14,300	NA	NA	6,510	NA	NA	2,440	NA	4,940	NA	NA	3,300	-	2,000
Lead	89.8	NA	NA	20.6	3.54	0.99	820	32.2	33.3	92.2	NA	36.3	29.6	10.3	233	26.1	2.88	24.2	400	400*
Magnesium	950	NA	NA	1,010	NA	NA	931	NA	NA	565	NA	NA	308	NA	975	NA	NA	416	-	-
Manganese	62.3	NA	NA	59.4	NA	NA	53	NA	NA	54.1	NA	NA	34.3	NA	39.5	NA	NA	30.9	-	-
Mercury	0.172	NA	NA	0.044	ND	ND	0.174	NA	ND	0.097	NA	ND	0.018	ND	0.231	ND	ND	0.026	2	0.1
Nickel	1,740	104	104	13	3.19	0.93	297	NA	35.1	116	NA	6.33	19	28.6	12.6	4.71	5.02	6.03	1,000	13
Potassium	125	NA	NA	80	NA	NA	172	NA	NA	153	NA	NA	150	NA	473	NA	NA	183	-	-
Selenium	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	-	2
Silver	2.52	NA	NA	ND	ND	ND	28.8	NA	0.80	2.84	NA	ND	ND	ND	1.76	ND	ND	ND	100	-
Sodium	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	-	-
Titanium	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	-	-
Vanadium	12	NA	NA	5.82	NA	NA	245	NA	NA	20.7	NA	NA	4.51	NA	26.7	NA	NA	11	-	150
Zinc	119	NA	NA	33.4	NA	NA	118	NA	NA	45.8	NA	NA	6.5	NA	39	NA	NA	38.4	-	20
Cyanide in mg/kg																				
Cyanide	ND	NA	NA	ND	ND	ND	14.4	NA	0.81	ND	NA	0.50	ND	ND	ND	ND	ND	ND	-	-
PCBs (total) in mg/kg																				
PCBs	ND	NA	NA	0.041	NA	NA	0.389	NA	0.03	0.176	NA	ND	ND	ND	0.439	ND	ND	ND	-	1.0 (surface) 10.0 (subsurface)

Notes:

Only compounds detected in one or more samples are shown. See laboratory reports for complete data.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

SCDHS = Suffolk County Department of Health Services

[ ] = Boxed values exceed SCDHS Action Levels (2004 samples only).

**TABLE 3.8.1**  
**SOUTH INDUSTRIAL LEACHING POOLS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Tumbling Waste Pool	X			Y				SCDHS Action Levels	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	LP-3	Storm Drain #7	CB-X	LP-2	Storm Drain #8	CB-Y	CB-Y2	LP-1		
Sample Date	9/24/04	11/25/02	9/9/03	9/22/04	11/25/02	9/8/03	11/25/03	9/22/04		
Sample Depth (feet below base of structure)	0-1	-	0-0.5	0-0.5	-	0-0.5	2	0-0.5		
Volatile Organic Compounds in ug/kg										
MTBE	ND	854.9	ND	ND	ND	ND	NA	ND	1,200	120
Toluene	ND	105.2	ND	ND	ND	ND	NA	ND	3,000	1,500
1,2,4-Trimethylbenzene	ND	120	ND	ND	ND	ND	NA	ND	4,800	10,000
Benzene	ND	309.3	ND	ND	161.13	ND	NA	ND	120	60
Tetrachloroethylene	ND	ND	ND	100	311.4	ND	NA	ND	2,800	1,400
Trichloroethylene	ND	ND	ND	17	ND	ND	NA	ND	1,400	700
Semivolatile Organic Compounds in ug/kg	ND	NA	NA	ND	NA	NA	NA	ND	-	-
Metals in mg/kg										
Aluminum	NA	NA	946	NA	NA	3,780	NA	NA	-	-
Arsenic	2.39	ND	ND	0.71	ND	ND	ND	0.76	25	7.5
Barium	NA	6.02	ND	NA	2.62	18.6	NA	NA	-	300
Cadmium	ND	0.27	0.489	2.13	0.35	10.5	2.94	10.2	10	10
Calcium	NA	NA	273	NA	NA	905	NA	NA	-	-
Chromium	9.23	42.32	8.16	18.9	11.07	25.6	NA	38.8	100	50
Cobalt	NA	NA	ND	NA	NA	6.1	NA	NA	-	30
Copper	26.4	207.8	33	71.4	28.3	140	NA	523	500	25
Iron	NA	4,663	2,800	NA	1,733	8,440	NA	NA	-	2,000
Lead	20.1	50.4	8.16	53.7	15.59	28	NA	43.5	400	400*
Magnesium	NA	NA	259	NA	NA	883	NA	NA	-	-
Manganese	NA	NA	100	NA	NA	51.7	NA	NA	-	-
Mercury	ND	ND	0.018	ND	ND	0.265	NA	0.42	2	0.1
Nickel	17.6	39.71	3.77	49.1	7.29	91.6	NA	97.4	1,000	13
Potassium	NA	NA	97.9	NA	NA	339	NA	NA	-	-
Silver	ND	4.26	ND	0.65	1.33	6.93	NA	24.2	100	-
Vanadium	NA	ND	3.97	NA	ND	13.2	NA	NA	-	150
Zinc	NA	51	52	NA	42.75	127	NA	NA	-	20
Cyanide in mg/kg	2.33	NA	ND	0.57	NA	ND	NA	ND	-	-
PCBs (total) in mg/kg	0.02	NA	ND	0.22	NA	ND	NA	0.15	-	1.0 (surface) 10.0 (subsurface)

**Notes:**

Only compounds detected in one or more samples are shown.  
 NYSDEC = New York State Department of Environmental Conservation  
 SCDHS = Suffolk County Department of Health Services  
 ND = Not Detected  
 NA = Not Analyzed

ug/kg = micrograms per kilogram  
 mg/kg = milligrams per kilogram  
**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.  
☐ = Boxed values exceed SCDHS Action Levels (recent samples only).  
 \*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

**TABLE 3.9.1**  
**SOUTH PLATING SHOP SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample No.	Old Plating Shop Subsurface Soil #1	Old Plating Shop Subsurface Soil #2	Old Plating Shop Subsurface Soil #3	B-1	B-2	B-3	B-4	B-5	B-6	B-7	Concrete	S-5	S-6	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet below floor)	-	-	-	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.25	0-0.25	
Sample Date	12/12/02	12/12/02	12/12/02	9/8/03	9/8/03	9/9/03	9/9/03	9/9/03	9/9/03	9/9/03	9/10/03	9/20/04	9/22/04	
<b>Volatile Organic Compounds in ug/kg</b>														
Chloroform	81.15	137.2	76.92	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.11 J	ND	ND	1,500
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.52 J	ND	ND	1,200
Freon-113	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	9	6,000
<b>Semivolatile Organic Compounds in ug/kg</b>														
bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	4,300	50,000
<b>Metals in mg/kg</b>														
Aluminum	NA	NA	NA	3,950	3,510	2,170	3,370	2,450	9,960	5,990	5,250	2,470	2,480	-
Antimony	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Arsenic	ND	ND	0.11	1.05	1.11	ND	ND	ND	2.21	1.69	1.9	1.55	1.39	7.5
Barium	5.56	7.8	8.88	11	16.2	ND	13.5	ND	22.9	24.8	26	8.61	9.29	300
Beryllium	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16
Cadmium	NA	NA	NA	ND	ND	ND	ND	ND	0.365	0.946	ND	ND	1.75	10
Calcium	NA	NA	NA	405	3,280	834	2,460	4,520	4,900	38,100	63,500	1,270	625	-
Chromium	NA	NA	NA	6.68	4.78	3.3	4.09	3.42	11.3	10.7	11.9	4.57	14.8	50
Cobalt	NA	NA	NA	2.35	3.33	25.1	2.62	ND	2.58	3.39	13.8	2.03	1.48	30
Copper	2,985	419.04	17.24	5.33	6.3	22.7	4.45	6.49	36.6	178	106	3.15	122	25
Iron	NA	NA	NA	5,080	4,670	2,630	3,710	2,870	8,980	6,210	4,800	3,620	4,720	2,000
Lead	11.54	10.6	6.5	7.05	3.1	9.82	44.5	18.7	17.5	6.55	4.06	3.07	12.5	400*
Magnesium	NA	NA	NA	646	821	534	931	976	1,270	1,930	3,170	592	432	-
Manganese	NA	NA	NA	94.5	120	56.7	62.4	53	135	110	126	91.2	34.2	-
Mercury	ND	ND	ND	ND	ND	0.013	ND	ND	0.035	0.022	0.541	ND	ND	0.1
Nickel	275.9	38.7	4.5	6.9	3.08	30.5	3.31	2.22	13.5	60.1	19.2	13.1	14.9	13
Potassium	NA	NA	NA	590	318	1,210	601	349	433	445	392	798	152	-
Selenium	1.87	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Silver	ND	10.8	ND	ND	0.683	5.14	ND	ND	ND	ND	5.09	2.05	2.02	-
Sodium	NA	NA	NA	275	167	223	464	144	124	184	428	551	281	-
Thallium	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Vanadium	NA	NA	NA	7.61	6.77	4.33	6.44	5.31	18.4	11	6.01	5.30	10.3	150
Zinc	23.76	16.15	14.3	9.79	11.5	44	8.44	8.32	22.7	23	12.4	7.98	51.0	20
Cyanide in mg/kg	0.5	0.47	ND	1.5	ND	ND	ND	ND	ND	ND	9.13	ND	7.77	-
TCPLP Metals in ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-
PCBs (total) in mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	0.15	1.0 (surface) 10.0 (subsurface)
TPH (M418.1)	NA	NA	20	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	-

Notes:

Only compounds detected in one or more samples are shown.  
NYSDEC = New York State Department of Environmental Conservation  
ND = Not Detected  
NA = Not Analyzed  
ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram  
ug/l = micrograms per liter  
**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.  
\*The USEPA's Interim Guidance for lead has established a residential screening level of 400 mg/kg.

**TABLE 3.10.1**  
**NORTH PLATING SHOP SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample No.	B-11	B-23 Concrete	S-1	S-2	S-3	S-4	Sump-1	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet below floor)	2-25	-	0-0.25	0-0.25	0-0.25	0-0.25	0-0.5	
Sample Date	9/10/03	9/10/03	9/21/04	9/21/04	9/22/04	9/21/04	9/21/04	
Volatile Organic Compounds in ug/kg								
Tetrachloroethylene	ND	ND	35	ND	11	26	5	1,400
Freon-113	NA	NA	ND	ND	7	ND	ND	6,000
Semivolatile Organic Compounds in ug/kg	NA	NA	ND	ND	ND	ND	ND	-
Metals in mg/kg								
Aluminum	2,300	NA	6,740	3,060	6,830	7,590	1,170	-
Antimony	ND	NA	ND	ND	ND	ND	1.11	-
Arsenic	ND	NA	2.61	1.49	2.65	3.53	ND	7.5
Barium	ND	NA	16.3	7.97	19.6	18.4	5.46	300
Cadmium	ND	NA	ND	ND	ND	ND	0.94	10
Calcium	9,210	NA	560	1,910	847	392	1,730	-
Chromium	12.2	NA	6.96	5.10	7.06	13.2	2.18	50
Cobalt	ND	NA	2.92	2.26	15.6	3.32	1.15	30
Copper	3.69	NA	4.53	2.73	4.44	5.70	9.67	25
Iron	3,470	NA	7,910	3,490	7,800	9,890	2,610	2,000
Lead	1.78	NA	9.73	3.08	8.27	10.7	13.2	400*
Magnesium	723	NA	853	472	943	910	383	-
Manganese	70.5	NA	79.6	52.0	76.5	68.5	40.6	-
Mercury	ND	NA	ND	ND	ND	ND	ND	0.1
Nickel	7.63	NA	4.59	68.7	4.75	5.82	12.6	13
Potassium	317	NA	223	208	310	279	198	-
Selenium	ND	NA	ND	ND	1.26	1.02	ND	2
Sodium	153	NA	347	554	286	342	400	-
Vanadium	4.58	NA	12.2	5.24	12.3	16.2	3.09	150
Zinc	5.47	NA	21.7	8.96	18.9	21.8	47.0	20
Cyanide in mg/kg	ND	NA	ND	ND	ND	ND	ND	-
PCBs (total) in mg/kg	NA	NA	NA	NA	ND	NA	NA	1.0 (surface) 10.0 (subsurface)

Notes:

Only compounds detected in one or more samples are shown.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

- = Not established

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.



**TABLE 3.18.1**  
**MAIN BUILDING SUB-FLOOR SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Clean Room						Bell Oven	Materials Lab	Paint Shop		Coil Room	Boiler Room	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	HB-1	HB-2	HB-3	HB-4	HB-5	HB-6	HB-7	HB-8	HB-9	HB-10	HB-11	HB-12	
Sample Depth (feet)	0-4	0-4	0-4	0-4	0-4	0-4	0-4	0-4	0-4	0-4	0-4	0-4	
Sample Date	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	9/7/01	
Volatile Organic Compounds in ug/kg													
Tetratrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	ND	700
Metals in mg/kg													
Barium	NA	NA	NA	6.26	NA	NA	12.3	8.26	NA	NA	7.85	NA	300
Chromium	NA	NA	NA	5.23	NA	NA	6.1	5.42	NA	NA	5.66	NA	50
Lead	NA	NA	NA	3.55	NA	NA	30.7	2.18	NA	NA	1.75	NA	400*
Total Petroleum Hydrocarbons (M418.1) in mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-

Notes:

Only compounds detected in one or more samples are shown. See lab reports for complete data.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

- = No NYSDEC Recommended Soil Cleanup Objective established.

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

*FPM*

TABLE 3.18.2  
SHALLOW SOIL SAMPLE RESULTS  
DEUTSCH RELAYS, INC. FACILITY  
65 DALY ROAD, EAST NORTHPORT, NEW YORK

Sample Location	West Side of Property				West Side of Main Building	North and East Sides of Property				Between Buildings			Southeast and East Sides of Property						Beneath Main Building										Beneath Machine Shop		NYSDEC Recommended Soil Cleanup Objectives	USEPA Generic Soil Screening Levels (Residential)	
Sample No.	SS-1		SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	S-12	SS-8/S-9	SS-9/S-10	SS-10	SS-11	SS-12	SS-13		S-11	S-15	SS-14	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	SS-15	SS-16				
Sample Depth (feet)	0-0.25	0.25-0.5	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0.25-0.5	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25				
Sample Date	9/21/04	9/21/04	9/21/04	9/21/04	9/21/04	9/21/04	9/21/04	9/21/04	9/20/04	9/20/04	9/20/04	9/23/04	9/20/04	9/20/04	9/21/04	9/21/04	9/20/04	9/20/04	9/20/04	9/21/04	9/21/04	9/22/04	9/21/04	9/20/04	9/22/04	9/20/04	9/20/04	9/20/04	9/21/04				
Volatile Organic Compounds in ug/kg																																	
Tetrachloroethylene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	35	ND	11	26	ND	ND	ND	ND	ND	ND	1,400	10,000		
Xylene (total)	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	15	ND	13	ND	1,200	160,000,000			
Freon-113	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	6	ND	ND	ND	NA	ND	ND	ND	ND	ND	7	ND	ND	9	ND	ND	ND	ND	6,000	-		
Semivolatile Organic Compounds in ug/kg																																	
bis(2-Ethylhexyl)phthalate	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	4,300	ND	ND	340	ND	50,000	35,000		
Metals in mg/kg																																	
Aluminum	13,000	NA	7,180	1,290	5,490	6,180	2,840	2,220	1,890	4,320	3,670	3,150	2,170	2,160	11,800	NA	2,000	4,630	2,280	6,740	3,060	6,830	7,590	2,470	2,480	5,600	9,630	5,640	5,950	-	-		
Arsenic	5.05	4.41	3.09	ND	3.27	2.37	2.34	1.18	1.02	2.00	2.15	1.30	1.47	1.32	13.4	4.95	1.10	2.35	1.77	2.61	1.49	2.65	3.53	1.55	1.39	2.80	4.79	3.93	2.88	7.5	2-5*		
Barium	27.4	NA	12.6	3.86	18.6	16.4	21.5	6.65	4.46	12.2	10.6	9.73	7.08	8.70	29.3	NA	9.84	11.4	8.11	16.3	7.97	19.6	18.4	8.61	9.29	17.5	22.6	32.3	17.2	300	5,500		
Cadmium	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	1.75	ND	0.66	ND	ND	10	70			
Calcium	161	NA	88.9	72.6	1,160	435	1,550	119	526	695	338	227	12,000	2,240	1,210	NA	406	245	1,150	560	1,910	847	392	1,270	625	484	4,320	57,100	867	-	-		
Chromium	15.1	NA	6.93	1.81	9.21	6.69	7.69	2.48	3.84	4.76	6.53	5.10	3.58	3.83	17.5	NA	5.72	6.49	3.12	6.96	5.10	7.06	13.2	4.57	14.8	7.12	12.3	25.8	7.42	50	230		
Cobalt	3.90	NA	1.88	0.88	2.71	2.94	3.81	1.05	1.13	2.44	2.16	1.91	1.60	1.45	4.01	NA	1.75	2.70	1.48	2.92	2.26	15.6	3.32	2.03	1.48	3.27	3.17	4.10	2.85	30	-		
Copper	10.3	NA	6.19	1.38	9.40	4.30	8.03	9.50	2.31	3.98	4.12	3.00	4.16	3.09	13.4	NA	6.87	42.3	2.93	4.53	2.73	4.44	5.70	3.15	122	4.55	57.3	6.80	5.19	25	-		
Iron	15,300	NA	8,370	1,750	7,110	7,180	5,890	2,480	2,440	4,840	4,540	3,910	3,060	3,000	12,600	NA	2,860	5,840	2,870	7,910	3,490	7,800	9,890	3,620	4,720	6,690	11,700	16,300	6,940	2,000	-		
Lead	30.0	NA	21.0	1.32	21.9	8.29	4.29	4.53	2.09	5.35	3.62	2.86	3.88	4.05	26.0	NA	4.79	10.3	2.50	9.73	3.08	8.27	10.7	3.07	12.5	4.58	57.4	5.53	8.80	400**	400		
Magnesium	1,270	NA	594	198	829	844	1,580	219	423	535	589	570	7,150	567	1,410	NA	495	682	425	853	472	943	910	592	432	1,050	1,070	1,670	775	-	-		
Manganese	113	NA	39.6	29.3	102	67.1	126	65.2	43.2	48.1	56.7	62.6	86.3	47.3	106	NA	79.2	70.2	54.8	79.6	52.0	76.5	68.5	91.2	34.2	93.4	97.1	112	102	-	-		
Nickel	8.33	NA	4.58	1.42	4.91	4.31	5.31	2.15	1.40	3.25	3.33	2.92	2.54	1.97	9.09	NA	3.97	52.4	1.88	4.59	68.7	4.75	5.82	13.1	14.9	4.54	6.39	7.96	4.15	13	1,600		
Potassium	329	NA	167	82.4	280	179	600	92.4	90.8	363	205	317	226	159	340	NA	252	175	270	223	208	310	279	798	152	360	572	898	248	-	-		
Selenium	1.36	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	1.26	1.02	ND	ND	ND	1.09	ND	ND	2	390		
Silver	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	1.02	ND	ND	ND	ND	ND	2.05	2.02	ND	ND	ND	ND	-	390		
Sodium	270	NA	240	264	268	287	300	342	264	293	269	314	290	222	305	NA	311	258	331	347	554	286	342	551	281	314	444	720	820	-	-		
Vanadium	27.5	NA	16.7	2.95	12.5	11.7	10.3	4.89	4.22	7.50	6.76	6.20	5.53	4.48	23.9	NA	6.49	8.96	4.26	12.2	5.24	12.3	16.2	5.30	10.3	10.0	18.6	13.6	10.8	150	550		
Zinc	27.8	NA	12.8	5.95	26.9	21.9	20.7	27.4	6.77	13.4	12.1	9.37	11.7	7.03	31.1	NA	68.4	17.9	7.72	21.7	8.96	18.9	21.8	7.98	51.0	15.1	58.9	16.7	17.9	20	23,000		
Cyanide in mg/kg	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	2.57	ND	ND	ND	ND	ND	ND	7.77	ND	ND	ND	ND	-	1,600		
PCBs (total) in mg/kg	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	0.15	NA	NA	NA	NA	1.0 (subsurface) 10.0 (subsurface)	-			

Notes:

Only detected compounds are reported. See laboratory report for complete data.  
ND = Not Detected  
ug/kg = micrograms per kilogram  
mg/kg = milligrams per kilogram  
NYSDEC = New York State Department of Environmental Conservation  
USEPA = United States Environmental Protection Agency

- = Not established  
\* = The Suffolk County Department of Health Services has determined that the background level for arsenic in Suffolk County is 2 to 5 mg/kg.  
\*\* = The USEPA's Interim Lead Hazard Guidance establishes a residential screening level of 400 mg/kg.  
**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.  
☐ = Boxed values exceed USEPA Generic Soil Screening Levels (Residential).

**TABLE 3.11.1**  
**MACHINE SHOP SOIL SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	HB-13	HB-14	B-14	B-15	B-16	B-17	SS-15	SS-16	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet below floor)	0-4	0-4	0-0.5	0-0.5	0-0.5	0-0.5	0-0.25	0-0.25	
Sample Date	9/7/01	9/7/01	9/10/03	9/10/03	9/10/03	9/10/03	9/20/04	9/21/04	
Volatile Organic Compounds in ug/kg									
Freon 113	ND	ND	ND	5.82	ND	13	ND	ND	6,100
Tetrachloroethene	35	ND	ND	ND	ND	ND	ND	ND	1,400
Xylene (total)	ND	ND	ND	ND	ND	ND	13	ND	1,200
Semivolatile Organic Compounds in ug/kg									
bis(2-Ethylhexyl)phthlate	ND	ND	ND	ND	ND	ND	340	ND	50,000
Metals in mg/kg									
Aluminum	NA	NA	4,400	5,340	6,170	8,470	5,640	5,950	-
Antimony	NA	NA	ND	ND	ND	ND	ND	ND	-
Arsenic	NA	ND	1.13	1.07	1.36	2.19	3.93	2.88	7.5
Barium	NA	12.1	ND	16.1	12.1	15.4	32.3	17.2	300
Beryllium	NA	NA	ND	ND	ND	ND	ND	ND	0.16
Cadmium	NA	ND	ND	ND	ND	ND	ND	ND	10
Calcium	NA	NA	3,890	9,910	4,410	768	57,100	867	-
Chromium	NA	100	5.73	6.74	7.77	12.3	25.8	7.42	50
Cobalt	NA	NA	2.36	2.1	3.4	ND	4.10	2.85	30
Copper	NA	NA	8.39	3.18	3.48	7.59	6.80	5.19	25
Iron	NA	NA	5,190	5,120	6,090	7,970	16,300	6,940	2,000
Lead	NA	28.8	4.94	12.5	4.84	17	5.53	8.80	400*
Magnesium	NA	NA	762	1,080	878	894	1,670	775	-
Manganese	NA	NA	89.8	78	112	95	112	102	-
Mercury	NA	ND	0.018	0.017	0.026	0.036	ND	ND	0.1
Nickel	NA	NA	3.74	4.51	4.67	5.3	7.96	4.15	13
Potassium	NA	NA	243	616	258	397	898	248	-
Selenium	NA	ND	ND	ND	ND	ND	ND	ND	2
Silver	NA	ND	ND	ND	ND	ND	ND	ND	-
Sodium	NA	NA	104	193	114	138	720	820	-
Thallium	NA	NA	ND	ND	ND	ND	ND	ND	-
Vanadium	NA	NA	6.96	7.99	9.69	16.8	13.6	10.8	150
Zinc	NA	NA	12.3	11.3	13.9	47.3	16.7	17.9	20
TPH (M418.1) in mg/kg	ND	190	NA	NA	NA	NA	NA	NA	-
Cyanide in mg/kg	NA	NA	ND	ND	ND	ND	ND	ND	-

**Notes:**

Only compounds detected in one or more samples are shown.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per

mg/kg = milligrams per kilogram

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

**TABLE 3.12.1**  
**DRUM/CHEMICAL STORAGE AREAS SAMPLING DATA**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Drum Storage Shed South of Main Building		Chemical Storage Shed East of Main Building			Bermed Drum Storage South of North Plating		Drum Storage South of North Plating		Drum Storage Northeast of Machine Shop			Freon Storage East of Main Building		NYSDEC Recommended Soil Cleanup Objectives
Sample No.	B-8	S-11	B-12	B-13	S-10/SS-9	B-10	S-7	B-9	S-8	B-19	B-20	S-12	B-18	S-9/SS-8	
Sample Depth (feet)	0-0.5	0-0.25	0-0.5	0-0.5	0-0.25	0-0.5	0-0.25	0-0.5	0-0.25	0-0.5	0-0.5	0-0.25	1-1.5	0-0.25	
Sample Date	9/9/03	9/20/04	9/10/03	9/10/03	9/20/04	9/10/03	9/20/04	9/10/03	9/20/04	9/10/03	9/10/03	9/20/04	9/10/03	9/20/04	
Volatile Organic Compounds in ug/kg															
cis-1,2-Dichloroethene	ND	ND	58	210	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250
Ethylbenzene	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	ND	5,500
Freon 113	ND	ND	ND	ND	ND	ND	ND	8.89	ND	5.93	ND	ND	ND	ND	6,000
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	2.78 J	ND	ND	ND	ND	ND	ND	1,400
Total Xylenes	ND	ND	ND	ND	ND	97	15	ND	ND	ND	ND	ND	ND	ND	1,200
Semivolatile Organic Compounds in ug/kg	NA	ND	NA	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	NA	-
Metals in mg/kg															
Aluminum	5,240	2,000	18,300	18,800	3,670	5,440	5,600	7,800	9,630	4,880	3,440	1,890	4,360	4,320	-
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Arsenic	1.17	1.10	2.85	2.54	2.15	1.33	2.80	2.38	4.79	1.17	ND	1.02	ND	2.00	7.5
Barium	16.3	9.84	29.1	37.2	10.6	15.2	17.5	14.7	22.6	ND	ND	4.46	ND	12.2	300
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	0.66	ND	ND	ND	ND	ND	10
Calcium	818	406	421	163	338	9,870	484	1,190	4,320	1,040	359	526	337	695	-
Chromium	8.34	5.72	15.9	16.1	6.53	13	7.12	8.53	12.3	6.23	4.1	3.84	3.96	4.76	50
Cobalt	8.82	1.75	3.47	3.29	2.16	ND	3.27	2.17	3.17	ND	ND	1.13	ND	2.44	30
Copper	16.1	6.87	5.31	5.67	4.12	5.13	4.55	5.05	57.3	3.23	2.24	2.31	2.33	3.98	25
Iron	6,400	2,860	14,400	15,900	4,540	5,700	6,690	7,750	11,700	4,260	3,090	2,440	3,940	4,840	2,000
Lead	13.4	4.79	10.6	8.44	3.62	4.53	4.58	6.1	57.4	5.34	2.92	2.09	2.16	5.35	400*
Magnesium	681	495	1,660	1,580	589	1,350	1,050	1,130	1,070	894	433	423	335	535	-
Manganese	153	79.2	113	130	56.7	82.8	93.4	87.5	97.1	70.3	87.5	43.2	55.2	48.1	-
Mercury	0.023	ND	ND	0.027	ND	ND	ND	0.024	ND	0.017	ND	ND	ND	ND	0.1
Nickel	13.1	3.97	8.73	8.39	3.33	6.6	4.54	5.02	6.39	3.14	2.26	1.40	2.52	3.75	13
Potassium	361	252	496	464	205	657	360	489	572	168	133	90.8	393	363	-
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	1.09	ND	ND	ND	ND	ND	2
Silver	1.09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Sodium	111	311	ND	185	269	161	314	132	444	ND	ND	264	133	293	-
Thallium	ND	ND	0.119	0.121	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Vanadium	18.1	6.49	27.7	27.7	6.76	9.26	10.0	12.6	18.6	7.68	4.98	4.22	6.72	7.50	150
Zinc	60	68.4	25.6	28.7	12.1	14.5	15.1	17.1	58.9	13.7	9.54	6.77	8.11	13.4	20
Cyanide in mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
PCBs in mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	1.0 (surface) 10.0 (subsurface)

Notes:

Only compounds detected in one or more samples are shown.  
NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

\*The USEPA Interim Guidance for lead has established a residential screening level of 400 mg/kg.

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

- = Not established

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

**TABLE 3.13.1  
STORMWATER RECHARGE BASINS SAMPLE RESULTS  
DEUTSCH RELAYS, INC. FACILITY  
65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Western Basin									Northeastern Basin				SCDHS Action Levels	NYSDEC Recommended Soil Cleanup Objectives
Sample No.	Storm Water Recharge	DRPOND-1	DRPOND-2	DRPOND-3	DRPOND-4	R-1	R-2	R-3	R-4	Stormwater Sump	NERB	R-5			
Sample Depth (feet)	-	-	-	-	-	0-0.5	0-0.5	0-0.5	0-0.5	-	0-0.5	0-0.5	0.5-1		
Sample Date	8/2/90	10/19/95	10/19/95	10/19/95	10/19/95	9/23/04	9/23/04	9/23/04	9/23/04	8/2/90	9/10/03	9/22/04	9/22/04		
Volatile Organic Compounds in ug/kg															
Methylene chloride	NA	1.3 JB	ND	0.6 JB	ND	ND	ND	ND	ND	NA	ND	ND	ND	200	100
Toluene	NA	ND	2.3	ND	2.0 J	ND	ND	ND	ND	NA	ND	ND	ND	3,000	1,500
Semivolatile Organic Compounds in ug/kg															
Fluoranthene	NA	NA	NA	NA	NA	750	ND	ND	790	NA	NA	ND	ND	75,000	50,000
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	ND	ND	ND	450	NA	NA	ND	ND	2,200	61
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	ND	ND	ND	550	NA	NA	ND	ND	2,200	610
Chrysene	NA	NA	NA	NA	NA	ND	ND	ND	390	NA	NA	ND	ND	800	400
Pyrene	NA	NA	NA	NA	NA	ND	ND	ND	640	NA	NA	ND	ND	75,000	50,000
Metals in mg/kg															
Aluminum	1,920	1,550	5,040	1,950	6,310	6,920	1,250	932	1,950	4,010	2,320	3,740	1,150	-	-
Arsenic	0.65 B	1.3	3.9	1.0	3.9	3.53	ND	1.08	ND	0.70 B	ND	1.66	ND	25	7.5
Barium	5.6 B	5.7	32.6	5.9	32.5	55.4	16.0	9.23	22.0	9.7 B	ND	11.5	3.57	-	300
Beryllium	0.17 B	0.12	0.39	0.13	0.42	ND	ND	ND	ND	0.27 B	ND	ND	ND	8	0.16
Cadmium	0.37 B	0.24	7.5	0.36	5.2	ND	ND	ND	ND	ND	ND	0.66	ND	10	10
Calcium	1.76 BJ	152	1,210	156	1,300	261	103	77.3	184	182 BJ	69.4	277	76.8	-	-
Chromium	4.2	14.8	200	15.6	230	18.4	5.77	3.05	6.01	13.7	5.34	13.3	2.59	100	50
Cobalt	0.78 B	0.92	3.8	0.94	4.4	5.67	3.93	1.16	2.48	1.2 B	ND	2.31	ND	-	30
Copper	224 J	91.3	1,000	91.8	953	215	26.7	14.2	43.7	184 J	43.3	306	57.9	500	25
Iron	2,100	5,230	22,500	3,570	13,600	8,910	2,740	3,000	3,690	3,160	3,860	4,980	1,520	-	2,000
Lead	13.6	68.4	616	68.8	529	95.8	12.2	9.74	30.4	67.9	14.5	45.5	6.52	400	400*
Magnesium	296 B	277	1,120	253	1,120	771	182	126	275	378 B	268	594	215	-	-
Manganese	40.6	69.0	95.9	55.4	171	121	314	46.2	89.8	15.5	41.9	66.6	36.3	-	-
Mercury	0.16 J	ND	0.38	ND	0.23	0.30	0.92	ND	ND	ND	0.036	ND	ND	2	0.1
Nickel	3.8 B	14.2	234	18.5	165	31.7	7.75	3.46	8.70	27.7	5.66	18.4	3.44	1,000	13
Potassium	187 B	74.6	267	99.2	327	378	79.1	72.1	121	271 B	112	172	88.0	-	-
Selenium	0.52 B	0.85	1.5	ND	1.2	2.26	ND	ND	1.03	0.51 B	ND	ND	ND	-	2
Silver	ND	1.7	14.7	2.6	13.5	3.01	ND	ND	ND	4.7	ND	0.62	ND	100	-
Sodium	120 B	82.6	146	68.5	203	353	265	219	286	189 B	ND	352	202	-	-
Vanadium	5.4 B	9.1	59.5	8.7	56.9	18.9	4.49	4.02	6.45	12.8	7.29	14.5	3.83	-	150
Zinc	22.9 J	22.7	315	25.9	259	72.6	18.6	9.51	20.7	40.9 J	28.4	61.0	13.1	-	20
Cyanide in mg/kg															
	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	-	-
PCBs (total) in mg/kg															
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.08	ND	-	1.0 (surface) 10.0 (subsurface)

Notes:

Only compounds detected in one or more samples are shown. See laboratory reports for complete data.

NYSDEC = New York State Department of Environmental Conservation

SCDHS = Suffolk County Department of Health Services

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

- = Not established

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Guidance screening level for lead in a residential setting is 400 mg/kg.

□ = Boxed values exceed SCDHS Action Levels (9/04 samples only).

**TABLE 3.14.1**  
**FORMER PLATING WASTE LAGOON/SLUDGE-DRYING BEDS SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Former Plating Waste Tank		Former Plating Waste Lagoon			Former Sludge-Drying Beds					NYSDEC Recommended Soil Cleanup Objectives
Sample No.	ST-1 (In Tank)	ST-2 (Below Grade)	B-6	B-7		S-13	S-14	S-15		S-16	
Sample Depth (feet)	0-1	4	0-2	0-2	65-67	3-5	1-2	0-0.25	8-10	7-9	
Sample Date	9/23/04	9/24/04	5/22/90	5/22/90	5/23/90	9/20/04	9/20/04	9/20/04	9/20/04	9/20/04	
Volatile Organic Compounds in ug/kg											
Tetrachloroethene	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	1,400
Semivolatile Organic Compounds in ug/kg											
Fluoranthene	ND	ND	NA	70 J	NA	ND	ND	ND	ND	ND	50,000
Pyrene	ND	ND	NA	39 J	NA	ND	ND	ND	ND	ND	50,000
Chrysene	ND	ND	NA	45 J	NA	ND	ND	ND	ND	ND	400
Di-n-octylphthalate	ND	ND	NA	17 J	NA	ND	ND	ND	ND	ND	50,000
Benzo(b)fluoranthene	ND	ND	NA	53 J	NA	ND	ND	ND	ND	ND	224
Benzo(k)fluoranthene	ND	ND	NA	29 J	NA	ND	ND	ND	ND	ND	224
Benzo(a)pyrene	ND	ND	NA	34 J	NA	ND	ND	ND	ND	ND	61
Pesticides in ug/kg	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	-
PCBs in mg/kg	ND	ND	NA	0.042 J	NA	NA	NA	NA	NA	NA	1.0 (surface) 10.0 (subsurface)
Metals in mg/kg											
Aluminum	NA	NA	3,400	5,140	1,550	2,360	4,720	4,630	3,720	4,710	-
Arsenic	1.88	0.97	3.2	2.0 B	0.41 B	1.37	2.76	2.35	1.86	1.93	7.5
Barium	NA	NA	ND	15.8 B	6.8 B	8.49	15.4	11.4	11.5	17.7	300
Beryllium	ND	ND	ND	0.21 B	ND	ND	ND	ND	ND	ND	0.16
Calcium	NA	NA	ND	ND	ND	215	1,630	245	321	330	-
Chromium	6.59	3.41	5.5	10.3	ND	11.3	18.1	6.49	8.22	14.1	50
Cobalt	NA	NA	1.8 B	3.0 B	0.75 B	1.61	3.02	2.70	2.61	3.68	30
Copper	3.74	7.02	ND	24.5	ND	10.0	14.7	42.3	136	369	25
Iron	NA	NA	3,730	5,780	1,880	3,630	6,440	5,840	5,060	6,300	2,000
Lead	3.89	4.64	3.5	23.6	ND	5.61	9.31	10.3	10.3	10.7	400*
Magnesium	NA	NA	ND	ND	117 B	430	1,140	682	644	812	-
Manganese	NA	NA	57.2	78.8	43.6	61.5	116	70.2	74.1	91.0	-
Nickel	2.50	11.3	3.8 B	20.2	ND	5.74	16.1	52.4	74.2	158	13
Potassium	NA	NA	254 B	451 B	ND	148	167	175	216	208	-
Selenium	NA	NA	4.1	ND	ND	ND	ND	ND	ND	ND	2
Silver	ND	1.73	ND	2.2	ND	ND	ND	1.02	ND	ND	-
Sodium	NA	NA	ND	ND	198 B	215	228	258	301	236	-
Vanadium	NA	NA	6.1 B	13.9	2.3 B	5.74	10.2	8.96	7.28	9.46	150
Zinc	NA	NA	ND	33.1	ND	13.6	16.7	17.9	25.3	26.6	20
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	0.13	ND	0.1
Cyanide in mg/kg	ND	0.56	NA	NA	NA	ND	0.52	2.57	3.46	8.50	-
TCLP Metals in ug/l											RCRA Regulatory Levels
Arsenic	NA	NA	ND	25.0	ND	NA	NA	NA	NA	NA	5,000
Barium	NA	NA	240 J	792 J	208 J	NA	NA	NA	NA	NA	100,000
Cadmium	NA	NA	16.9	7.3 J	ND	NA	NA	NA	NA	NA	1,000
Chromium	NA	NA	ND	11.5	ND	NA	NA	NA	NA	NA	5,000
Lead	NA	NA	ND	44.9 J	ND	NA	NA	NA	NA	NA	5,000

**Notes:**

Only compounds detected in one or more samples are shown. See laboratory reports for complete data.

NYSDEC = New York State Department of Environmental Conservation

ND = Not Detected

NA = Not Analyzed

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

- = Not established

**Bold** shaded values exceed NYSDEC Recommended Soil Cleanup Objectives.

\*The USEPA's Interim Lead Guidance establishes a residential screening level of 400 mg/kg.

*FPM*

**TABLE 3.15.1**  
**ELECTRICAL ROOM WIPE SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location	Former Electrical Generator Room		Southeast Transformers			TSCA Surface Standard
Sample No.	E-1	E-2	E-3	E-4	E-5	
PCBs in ug/100 cm <sup>2</sup>						
PCB 1254	1.35	1.43	ND	ND	ND	100
PCB 1260	0.96	1.18	243	418	163	100
Total PCBs	2.31	2.61	243	418	163	100

Notes:

ug/100 cm<sup>2</sup> = micrograms per 100 square centimeters

ND = Not detected

TSCA = Toxic Substances Control Act

Surface Standard for PCBs as per TSCA regulations 40 CFR 761.125

**Bold** shaded values exceed TSCA Surface Standard.

Table 1  
Summary of Soil Sampling Analytical Results  
Deutsch Relays-65 Daly Road East Northport, NY  
BVNA Project No: 12012-000214.00

Location Depth (ft bg)	NYSDEC Unrestricted Use Soil Cleanup Objectives (Note 1)	NYSDEC Protection of Groundwater (Note 1)	NYSDEC CP-51 Residential Supplemental Soil Cleanup Objectives (Note 2)	NYSDEC CP-51 Protection of Groundwater Supplemental Soil Cleanup Objectives (Note 2)	PC-1 460-44695-11 9/13/2012 1 20-22 feet bg. mg/kg			PC-1 460-44695-12 9/13/2012 1 50-52.1 feet bg. mg/kg			PC-2 460-44139-10 9/1/2012 1 40-42 feet bg. mg/kg			PC-2 460-44139-11 9/1/2012 1 55-56.7 feet bg. mg/kg			PC-3 460-44139-7 8/31/2012 1 12-13.8 feet bg. mg/kg			PC-3 460-44139-8 8/31/2012 1 55-57 feet bg. mg/kg			PC-4 460-44139-3 8/30/2012 1 20-22 feet bg. mg/kg			PC-4 460-44139-4 8/30/2012 1 55-57 feet bg. mg/kg		
Lab Sample ID					Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL
Sampling Date																												
Dilution Factor																												
Depth																												
Units																												
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	0.68	0.68	NS	NS	ND		0.00014	ND		0.00013	ND		0.00014	ND		0.00014	ND		0.00012	ND		0.00015	ND		0.00015	ND		0.00016
1,1-Dichloroethane	0.27	0.27	NS	NS	ND		0.00012	ND		0.00011	ND		0.00011	ND		0.00012	ND		0.0001	ND		0.00012	ND		0.00013	ND		0.00014
1,1-Dichloroethene	0.33	0.33	NS	NS	ND		0.0002	ND		0.00019	ND		0.0002	ND		0.0002	ND		0.00018	ND		0.00022	ND		0.00022	ND		0.00024
Chloroethane	NS	NS	NS	1.9	ND		0.00035	ND		0.00033	ND		0.00034	ND		0.00035	ND		0.00031	ND		0.00037	ND		0.00039	ND		0.00041
cis-1,2-Dichloroethene	0.25	0.25	NS	NS	ND		0.00012	ND		0.00011	ND		0.00011	ND		0.00012	ND		0.0001	ND		0.00012	ND		0.00013	ND		0.00014
Freon 113	NS	NS	100	6	ND		0.00012	ND		0.00011	ND		0.00011	0.00017	J		ND		0.0001	ND		0.00012	ND		0.00013	ND		0.00014
Tetrachloroethene	1.3	1.3	NS	NS	ND		0.00013	ND		0.00012	ND		0.00012	0.00027	J		0.00013	J		ND		0.00014	0.0002	J		ND		0.00015
trans-1,2-DCE	0.19	0.19	NS	NS	ND		0.00014	ND		0.00013	ND		0.00014	ND		0.00014	ND		0.00012	ND		0.00015	ND		0.00015	ND		0.00016
Trichloroethene	0.47	0.47	NS	NS	ND		0.00013	ND		0.00012	ND		0.00012	ND		0.00013	ND		0.00011	ND		0.00014	ND		0.00014	ND		0.00015
Vinyl chloride	0.02	0.02	NS	NS	ND		0.00036	ND		0.00034	ND		0.00035	ND		0.00036	ND		0.00032	ND		0.00039	ND		0.0004	ND		0.00043

Location Depth (ft bg)	NYSDEC Unrestricted Use Soil Cleanup Objectives (Note 1)	NYSDEC Protection of Groundwater (Note 1)	NYSDEC CP-51 Residential Supplemental Soil Cleanup Objectives (Note 2)	NYSDEC CP-51 Protection of Groundwater Supplemental Soil Cleanup Objectives (Note 2)	PC-5 460-44695-17 9/14/2012 1 40-41.6 feet bg. mg/kg			PC-5 460-44695-18 9/14/2012 1 50-51.6 feet bg. mg/kg			PC-6 460-44695-9 9/12/2012 1 30-32 feet bg. mg/kg			PC-6 460-44695-10 9/12/2012 1 50-52 feet bg. mg/kg			PC-7 460-44695-15 9/14/2012 1 40-41.8 feet bg. mg/kg			PC-7 460-44695-16 9/14/2012 1 50-51.6 feet bg. mg/kg			**PC-7 **460-44695-19 9/14/2012 1 50-51.6 feet bg. mg/kg			PC-8 460-44695-13 9/13/2012 1 10-12 feet bg. mg/kg					
Lab Sample ID					Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL			
Sampling Date																															
Dilution Factor																															
Depth																															
Units																															
Volatile Organic Compounds (VOCs)																															
1,1,1-Trichloroethane	0.68	0.68	NS	NS	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00016	ND		0.00013	ND		0.00012
1,1-Dichloroethane	0.27	0.27	NS	NS	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00013	ND		0.00011	ND		0.00011	ND		0.0001
1,1-Dichloroethene	0.33	0.33	NS	NS	ND		0.0002	ND		0.00019	ND		0.00019	ND		0.00018	ND		0.00019	ND		0.00023	ND		0.00019	ND		0.00019	ND		0.00018
Chloroethane	NS	NS	NS	1.9	ND		0.00034	ND		0.00033	ND		0.00034	ND		0.00032	ND		0.00032	ND		0.0004	ND		0.00032	ND		0.00032	ND		0.00031
cis-1,2-Dichloroethene	0.25	0.25	NS	NS	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00013	ND		0.00011	ND		0.00011	ND		0.0001
Freon 113	NS	NS	100	6	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00011	ND		0.00013	ND		0.00011	ND		0.00011	ND		0.0001
Tetrachloroethene	1.3	1.3	NS	NS	ND		0.00012	ND		0.00012	0.00019	J		ND		0.00012	ND		0.00012	ND		0.00014	ND		0.00012	ND		0.00012	ND		0.00011
trans-1,2-DCE	0.19	0.19	NS	NS	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00013	ND		0.00016	ND		0.00013	ND		0.00013	ND		0.00012
Trichloroethene	0.47	0.47	NS	NS	ND		0.00012	ND		0.00012	ND		0.00012	ND		0.00012	ND		0.00012	ND		0.00014	ND		0.00012	ND		0.00012	ND		0.00011
Vinyl chloride	0.02	0.02	NS	NS	ND		0.00035	ND		0.00034	ND		0.00035	ND		0.00033	ND		0.00033	ND		0.00041	ND		0.00033	ND		0.00033	ND		0.00032

Notes and Abbreviations:

NS: No Standard

ND: Not Detected

mg/kg: Milligrams per Kilogram

Q: Laboratory Data Qualifier

MDL: Minimum Detection Limit

\*\* : Field duplicate samples

NYSDEC: New York State Department of Environmental Conservation

J : Result is above the MDL but below the calibration range. The concentration provided is an approximate value.

Note 1: This threshold is based on table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives from NYSDEC regulation subpart 375-6: Remedial Program Soil Cleanup Objectives. Units are mg/kg.

Note 2: This threshold is based on Table 1. Supplemental Soil Cleanup Objectives from NYCDEC Policy CP-51/ Soil Clenup Guidance. Units are parts per million, or ppm, which is equivalent to mg/kg.



Table 1  
Summary of Soil Sampling Analytical Results  
Deutsch Relays-65 Daly Road East Northport, NY  
BVNA Project No: 12012-000214.00

Location Depth (ft bg)	NYSDEC Unrestricted Use Soil Cleanup Objectives (Note 1)	NYSDEC Protection of Groundwater (Note 1)	NYSDEC CP-51 Residential Supplemental Soil Cleanup Objectives (Note 2)	NYSDEC CP-51 Protection of Groundwater Supplemental Soil Cleanup Objectives (Note 2)	PC-8 460-44695-14 9/14/2012 1 40-42 feet bg. mg/kg			PC-9 460-44695-6 9/11/2012 1 32-33.6 feet bg. mg/kg			PC-9 460-44695-7 9/11/2012 1 50-51.6 feet bg. mg/kg			PC-10 460-44695-4 9/11/2012 1 45-47.3 feet bg. mg/kg			PC-10 460-44695-5 9/11/2012 1 50-52.2 feet bg. mg/kg			PC-11 460-44139-12 9/4/2012 1 10-12 feet bg. mg/kg			PC-11 460-44139-13 9/4/2012 1 40-42 feet bg. mg/kg			PC-12 460-44139-1 8/29/2012 1 12-13.2 feet bg. mg/kg		
Lab Sample ID					Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL
Sampling Date																												
Dilution Factor																												
Depth																												
Units																												
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	0.68	0.68	NS	NS	ND		0.00013	ND		0.00014	ND		0.00014	ND		0.00013	ND		0.00013	ND		0.00014	ND		0.00015	ND		0.00012
1,1-Dichloroethane	0.27	0.27	NS	NS	ND		0.00011	ND		0.00012	ND		0.00012	ND		0.00011	ND		0.00011	ND		0.00012	ND		0.00013	ND		0.0001
1,1-Dichloroethene	0.33	0.33	NS	NS	ND		0.00019	ND		0.0002	ND		0.00021	ND		0.0002	ND		0.00019	ND		0.0002	ND		0.00022	ND		0.00018
Chloroethane	NS	NS	NS	1.9	ND		0.00033	ND		0.00035	ND		0.00037	ND		0.00034	ND		0.00033	ND		0.00035	ND		0.00039	ND		0.00031
cis-1,2-Dichloroethene	0.25	0.25	NS	NS	ND		0.00011	ND		0.00012	ND		0.00012	ND		0.00011	ND		0.00011	ND		0.00012	ND		0.00013	ND		0.0001
Freon 113	NS	NS	100	6	0.00027	J		ND		0.00012	ND		0.00012	ND		0.00011	ND		0.00011	ND		0.00012	ND		0.00013	ND		0.0001
Tetrachloroethene	1.3	1.3	NS	NS	0.00025	J		ND		0.00013	ND		0.00013	ND		0.00012	ND		0.00012	0.0042		0.00013	ND		0.00014	ND		0.00011
trans-1,2-DCE	0.19	0.19	NS	NS	ND		0.00013	ND		0.00014	ND		0.00014	ND		0.00013	ND		0.00013	ND		0.00014	ND		0.00015	ND		0.00012
Trichloroethene	0.47	0.47	NS	NS	ND		0.00012	ND		0.00013	ND		0.00013	ND		0.00012	ND		0.00012	ND		0.00013	ND		0.00014	ND		0.00011
Vinyl chloride	0.02	0.02	NS	NS	ND		0.00034	ND		0.00037	ND		0.00038	ND		0.00035	ND		0.00034	ND		0.00036	ND		0.0004	ND		0.00032

Location Depth (ft bg)	NYSDEC Unrestricted Use Soil Cleanup Objectives (Note 1)	NYSDEC Protection of Groundwater (Note 1)	NYSDEC CP-51 Residential Supplemental Soil Cleanup Objectives (Note 2)	NYSDEC CP-51 Protection of Groundwater Supplemental Soil Cleanup Objectives (Note 2)	PC-12 460-44139-2 8/29/2012 1 55-57 feet bg. mg/kg			PC-13 460-44695-1 9/10/2012 1 30-32 feet bg. mg/kg			PC-13 460-44695-2 9/10/2012 1 55-56.1 feet bg. mg/kg			**PC-13 **460-44695-3 9/10/2012 1 55-56.6 feet bg. mg/kg			PC-14 460-44139-14 9/5/2012 1 40-42 feet bg. mg/kg			PC-14 460-44139-15 9/5/2012 1 50-52 feet bg. mg/kg			PC-15 460-44139-5 8/31/2012 1 12-13.3 feet bg. mg/kg			PC-15 460-44139-6 8/31/2012 1 55-57 feet bg. mg/kg		
Lab Sample ID					Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL	Results	Q	MDL
Sampling Date																												
Dilution Factor																												
Depth																												
Units																												
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	0.68	0.68	NS	NS	ND		0.00013	ND		0.00015	ND		0.00014	ND		0.00016	ND		0.00013	ND		0.00014	ND		0.00015	ND		0.00013
1,1-Dichloroethane	0.27	0.27	NS	NS	ND		0.00011	ND		0.00013	ND		0.00012	ND		0.00013	ND		0.00011	ND		0.00012	ND		0.00013	ND		0.00011
1,1-Dichloroethene	0.33	0.33	NS	NS	ND		0.00018	ND		0.00022	ND		0.0002	ND		0.00023	ND		0.00019	ND		0.0002	ND		0.00022	ND		0.00018
Chloroethane	NS	NS	NS	1.9	ND		0.00032	ND		0.00038	ND		0.00036	ND		0.0004	ND		0.00034	ND		0.00035	ND		0.00039	ND		0.00032
cis-1,2-Dichloroethene	0.25	0.25	NS	NS	ND		0.00011	ND		0.00013	ND		0.00012	ND		0.00013	ND		0.00011	ND		0.00012	ND		0.00013	ND		0.00011
Freon 113	NS	NS	100	6	ND		0.00011	ND		0.00013	ND		0.00012	ND		0.00013	ND		0.00011	ND		0.00012	ND		0.00013	ND		0.00011
Tetrachloroethene	1.3	1.3	NS	NS	ND		0.00012	0.00018	J		ND		0.00013	ND		0.00015	ND		0.00012	ND		0.00013	0.00015	J		ND		0.00012
trans-1,2-DCE	0.19	0.19	NS	NS	ND		0.00013	ND		0.00015	ND		0.00014	ND		0.00016	ND		0.00013	ND		0.00014	ND		0.00015	ND		0.00013
Trichloroethene	0.47	0.47	NS	NS	ND		0.00012	ND		0.00014	ND		0.00013	ND		0.00015	ND		0.00012	ND		0.00013	ND		0.00014	ND		0.00012
Vinyl chloride	0.02	0.02	NS	NS	ND		0.00033	ND		0.00039	ND		0.00037	ND		0.00041	ND		0.00035	ND		0.00036	ND		0.0004	ND		0.00033

Notes and Abbreviations:

NS: No Standard

ND: Not Detected

mg/kg: Milligrams per Kilogram

Q: Laboratory Data Qualifier

MDL: Minimum Detection Limit

\*\*: Field duplicate samples

NYSDEC: New York State Department of Environmental Conservation

J : Result is above the MDL but below the calibration range. The concentration provided is an approximate value.

Note 1: This threshold is based on table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives from NYSDEC regulation subpart 375-6: Remedial Program Soil Cleanup Objectives. Units are mg/kg.

Note 2: This threshold is based on Table 1. Supplemental Soil Cleanup Objectives from NYCDEC Policy CP-51/ Soil Clenup Guidance. Units are parts per million, or ppm, which is equivalent to mg/kg.

**TABLE 3.19.1**  
**GROUNDWATER SAMPLE RESULTS**  
**DEUTSCH RELAYS, INC. FACILITY**  
**65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Well No.	MW-10	MW-10A	MW-14B	MW-31A	MW-34B	MW-37A	NYSDEC Class GA Ambient Water Quality Standards
Sample Date	9/27/04	9/27/04	9/27/04	9/27/04	9/27/04	9/27/04	
<b>Volatile Organic Compounds in ug/l</b>							
1,1,1-Trichloroethane	2	2	ND	ND	ND	ND	5
Tetrachloroethene	<b>100</b>	<b>99</b>	ND	ND	3	ND	5
Trichloroethene	2	3	ND	ND	ND	ND	5
1,2-Dichloroethylene	1 (cis-)	ND	ND	ND	ND	ND	5
Freon-113	<b>47</b>	<b>45</b>	ND	ND	ND	ND	5

Notes:

Only detected parameters are reported. See laboratory report for complete data.

ND = Not Detected

ug/l = micrograms per liter

NYSDEC = New York State Department of Environmental Conservation

**Bold** shaded values exceed NYSDEC Class GA Ambient Water Quality Standards.

TAR F 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
CCOW	06/26/96	6.47	0.124	0.0	8.36	12.10	
	09/05/96	6.23	0.143	0.0	6.86	12.70	
	12/18/96	6.81	0.153	0.0	8.87	11.30	
	03/25/97	7.22	0.138	0.0	10.4	9.60	
	06/26/97	6.61	0.133	0.0	10.09	19.30	Faulty temperature probe
	09/16/97	7.34	0.128	1.0	10.19	13.70	
	12/17/97	7.21	0.142	1.0	0.39	10.00	Faulty dis. oxygen probe
	03/24/98	6.8	0.133	2.0	11	10.40	
	06/09/98	7.16	0.126	4.0	12.38	11.90	
	09/24/98	6.6	0.150	0.0	10.9	12.00	
	12/03/98	6.67	0.138	0.0	9.93	12.30	
	03/17/99	6.94	0.143	0.0	10.32	10.70	
	06/02/99	7.24	0.130	0.0	9.88	14.30	
	09/01/99	6.57	0.130	0.0	14.65	12.80	
	12/29/99	7.1	0.19	1.0	7.3	10.20	
	03/15/00	6.81	0.140	3.0	10.2	11.10	
	06/20/00	7.6	0.230	0.0	9.7	13.00	
	09/12/00	NR	NR	NR	NR	NR	
	12/19/00	7.6	0.130	NA	8.1	10.00	Faulty turbidity probe
	03/20/01	6.90	0.110	0.0	1	10.10	
	09/18/01	6.77	0.130	0.0	0.02	14.60	
	12/13/01	7.20	0.106	2.0	8.23	12.00	
	06/03/02	7.34	0.120	7.6	5.95	12.72	
	06/24/03	7.58	0.290	143.0	9.71	13.13	
	06/15/04	6.65	0.150	2.5	12.5	12.06	
	06/15/05	-	-	-	-	-	Parameters stabilized - data lost
	06/21/06	6.56	0.118	23.0	12.76	12.85	
	06/12/07	6.28	0.133	14.9	11.99	13.73	
	6/20/2008	6.46	0.193	12.0	10.32	14.32	
	6/10/2009	7.61	0.146	36.4	10.23	13.37	
	6/9/2010	7.17	0.270	0.0	9.89	12.63	
	6/7/2011	6.97	0.340	320.0	11.98	12.00	
	6/11/2012	7.11	0.119	11.1	12.27	12.41	
WROW-1	06/26/96	6.58	0.021	0.0	11.8	13.60	
	09/05/96	6.75	0.020	0.0	8.81	15.20	
	12/18/96	6.18	0.018	0.0	11.36	12.30	
	03/25/97	6.66	0.021	1.0	10.43	10.90	
	06/26/97	7.75	0.020	0.0	10.61	14.30	
	09/16/97	6.55	0.024	2.0	9.54	15.20	
	12/17/97	NR	NR	NR	NR	NR	
	03/24/98	6.13	0.022	0.0	10.61	11.30	
	06/09/98	6.55	0.024	8.0	11.73	13.90	
	09/24/98	6.23	0.023	0.0	10.72	13.30	
	12/03/98	6.10	0.018	0.0	10.2	13.00	
	03/17/99	6.09	0.019	0.0	11.3	11.90	
	06/02/99	6.35	0.018	0.0	11.72	12.80	
	09/01/99	6.40	0.230	0.0	14.84	14.90	
	12/29/99	7.40	0.030	3.0	8	11.90	
	03/15/00	6.85	0.015	44.0	10.9	12.00	
	06/20/00	6.00	0.020	0.0	11.4	13.00	
	09/12/00	6.7	0.02	0	10.7	14	
	12/19/00	5.50	0.020	NA	8.4	12.00	Faulty turbidity probe
	03/20/01	5.09	0.018	0.0	0.46	12.20	
	09/18/01	6.96	0.020	1.0	0.39	15.30	
	12/12/01	5.73	0.020	75.0	7.88	11.80	
	03/06/02	5.81	0.020	10.2	11.21	12.31	
	06/03/02	6.81	0.020	105.0	6.18	13.27	
	09/19/02	6.03	0.027	1.3	7.29	15.70	
	12/16/02	5.01	0.030	6.5	9.83	11.60	
	03/06/03	6.34	0.025	0.0	11.4	10.40	
	06/24/03	6.52	0.020	130.0	10.18	13.20	
	09/18/03	-	-	-	-	-	Parameters stabilized - data lost - pocket PC failure
	12/16/03	6.15	0.020	8.4	11.72	12.20	
	03/30/04	6.07	0.033	0.0	10.87	11.80	
	06/09/04	6.06	0.020	0.9	11.77	12.90	
	09/03/04	4.68	0.020	55.3	13.13	13.09	
	12/02/04	6.14	0.020	12.3	11.58	12.00	
	03/31/05	6.20	0.180	22.6	10.75	12.20	
	06/15/05	6.13	0.020	9.4	10.36	13.00	
	09/27/05	6.19	0.020	1.8	10.69	15.50	
	11/28/05	6.21	0.010	NA	10.41	14.40	Faulty turbidity probe
	12/28/05	6.01	0.026	6.1	11.4	11.40	
	03/29/06	6.09	0.014	11.2	12.15	12.72	
	06/21/06	6.23	0.018	28.0	14.73	17.72	
	9/27/2006	5.69	0.000	121.0	9.34	16.15	
	12/19/2006	5.97	0.022	18.6	10.91	12.80	
	3/19/2007	6.22	0.018	1.1	11.07	12.50	
	06/12/07	6.26	0.020	16.8	11.9	11.30	
	09/19/07	5.93	0.260	11.3	8.13	21.30	
	11/28/07	6.09	0.025	21.7	12.33	13.55	
	03/05/08	5.79	0.087	26.8	5.25	15.40	
	06/17/08	5.17	0.031	20.4	6.78	16.50	
	09/24/08	5.11	0.020	4.8	12.02	13.56	
	11/25/08	5.79	0.026	1.0	12.85	13.30	
	01/22/09	5.99	0.086	37.5	6.45	15.72	
	06/10/09	5.87	0.012	7.1	5.79	13.61	
	08/05/09	6.37	0.036	16.2	13.15	16.30	
	10/20/09	5.82	0.020	3.0	8.62	13.98	
	03/09/10	5.95	0.020	2.4	20.03	12.91	
	06/09/10	6.13	0.024	14.4	14.71	12.85	
	09/29/10	4.96	0.024	18.4	7.47	14.26	
	12/16/10	5.83	0.026	32.4	14.01	12.93	
	03/01/11	5.61	0.078	58.3	10.25	11.20	New Pumps Installed
	06/07/11	5.40	0.033	6.0	8.27	14.00	
	09/23/11	6.11	0.06	1.0	6.01	23.24	
	11/29/11	5.36	0.031	0.0	8.38	14.45	
	03/30/12	5.42	0.03	0.0	5.05	13.40	
	06/15/12	5.12	0.03	0.0	7.3	14.02	
	09/25/12	5.57	0.029	0.0	6.96	15.95	
	12/06/12	5.57	0.031	1.8	15.84	11.63	
	04/01/13	5.84	0.029	0.0	10.91	8.39	
	06/20/13	5.40	0.027	0.0	11.8	14.24	
	09/16/13	5.80	0.032	0.0	9.83	15.72	
	11/04/13	5.36	0.031	6.1	11.69	12.11	

TABLE 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
WROW-2	06/26/96	5.53	0.016	0.0	9.55	13.50	
	09/05/96	5.47	0.021	0.0	9.84	13.20	
	12/18/96	5.39	0.019	0.0	9.96	11.90	
	03/25/97	5.85	0.023	22.0	9.55	11.40	
	06/26/97	6.15	0.016	0.0	8.48	13.50	
	09/16/97	5.84	0.020	0.0	10.44	13.70	Faulty dis. oxygen probe
	12/17/97	6.77	0.024	0.0	0.5	11.50	
	03/24/98	5.85	0.026	1.0	10.81	11.20	
	06/09/98	6.16	0.022	0.0	11.87	13.20	
	09/24/98	6.03	0.023	0.0	10.72	12.80	
	12/03/98	5.37	0.022	0.0	9.14	12.00	
	03/17/99	5.46	0.240	0.0	8.96	11.60	
	06/03/99	5.33	0.023	0.0	9	13.40	
	09/01/99	5.15	0.330	11.0	12.91	12.40	
	12/29/99	6.65	0.030	6.0	6.13	12.10	
	03/15/00	5.80	0.030	1.0	7.83	12.70	
	06/20/00	6.00	0.030	0.0	9.3	12.00	
	09/12/00	5.8	0.03	0	8.6	14	Faulty turbidity probe
	12/19/00	5.40	0.040	NA	7.5	12.00	
	03/20/01	4.22	0.500	1.0	0.33	11.90	
	09/18/01	5.13	0.420	0.0	0.2	13.10	
	12/12/01	4.95	0.049	1.3	6.63	12.10	
	03/06/02	5.26	0.048	0.5	9.2	12.66	
	06/03/02	5.57	0.050	21.0	5.42	12.73	
	09/19/02	4.58	0.064	130.0	6.74	14.00	
	12/13/02	4.30	0.060	21.0	8.37	12.10	
	03/06/03	5.32	0.104	6.3	9.66	11.15	parameters stabilized - data lost - rocket PC failure
	06/24/03	-	0.070	142.0	8.72	13.00	
	09/18/03	-	-	-	-	-	
	12/31/03	6.71	0.080	9.8	9.52	12.80	
	03/03/04	5.31	0.074	22.0	8.1	12.10	
	06/09/04	5.02	0.063	13.0	11.1	13.02	
	9/27/2004	5.43	0.074	6.3	11.08	13.11	
	12/2/2004	5.5	0.080	8.5	9.68	12.50	
	3/31/2005	5.38	0.114	21.3	8.54	12.55	
	6/15/2005	5.31	0.070	7.4	8.53	13.20	
	9/27/2005	5.45	0.072	0.0	10.8	15.80	Faulty turbidity probe
	11/28/2005	5.41	0.063	NA	10.86	13.89	
	12/28/2005	5.3	0.063	21.4	8.38	12.10	
	4/14/2006	5.32	0.105	7.3	9.71	13.20	
	6/21/2006	6.02	0.062	26.0	7.56	17.74	
	9/28/2006	6.36	0.034	31.3	5.38	14.87	
	12/19/2006	5.95	0.017	10.0	7.81	13.70	
	3/19/2007	5.78	0.098	1.9	5.45	12.60	
	6/14/2007	4.39	0.119	64.4	6.78	13.37	
	9/19/2007	5.25	0.200	42.8	16.03	17.73	
	11/28/2007	5.84	0.069	55.0	5.16	13.48	
	3/5/2008	5.41	0.032	3.1	12.78	12.80	
	6/17/2008	5.29	0.045	17.5	10.74	14.60	
	9/24/2008	4.9	0.030	5.4	4.2	14.39	
	11/26/2008	5.96	0.270	1.0	3.4	15.00	
	1/22/2009	6	0.240	32.6	14.66	12.36	
	6/10/2009	5.32	0.152	10.9	6.42	15.75	
	8/4/2009	4.69	0.108	3.6	8.14	13.90	
	10/20/2009	5.3	0.101	1.8	5.11	14.47	
	3/9/2010	5.63	0.167	6.7	6.7	14.37	
	6/9/2010	5.2	0.186	0.0	12.58	13.60	
	9/28/2010	4.78	0.108	0.1	6.35	13.27	
	12/16/2010	5.03	0.101	0.1	11.28	13.24	
	3/1/2011	5.32	0.446	76.5	9.76	13.00	New Bladder Pump installed
	6/7/2011	4.41	0.123	0.0	8.52	14.28	
	9/23/2011	5.48	0.118	2.2	7.03	18.41	
	11/29/2011	4.9	0.113	3.3	8.87	13.39	
	3/30/2012	5.06	0.111	0.0	4.72	14.10	
	06/15/12	4.95	0.115	3.5	7.23	14.52	
	09/25/12	5.17	0.117	10.4	5.11	15.85	
	12/06/12	5.33	0.118	1.8	11.68*	11.70	* Dissolved Oxygen fluctuated between 12.13 and 11.68
	04/01/13	5.41	0.117	0.0	9.00	11.10	
	06/20/13	5.11	0.112	0.0	9.51	14.87	
	09/16/13	5.8	0.032	0.0	9.83	15.72	
	09/16/13	5.53	0.122	0.0	11.36	15.55	
	11/04/13	5.26	0.126	0.0	12.60	11.19	
MW-9A	06/10/98	6.18	0.260	0.0	11.96	14.30	
	06/03/99	7.73	0.121	0.0	12.38	13.70	
	06/19/00	6.00	0.070	0.0	10.1	14.00	
	01/25/06	8.20	0.105	0.0	5.24	12.18	
MW-10	06/13/12	5.44	0.096	6.0	7.45	17.05	
	06/19/13	5.46	0.102	3.6	7.77	18.16	
MW-10A	04/14/06	5.80	0.200	21	6.8	16.20	
	06/21/06	5.73	0.087	12	8.29	16.31	
	12/19/06	5.51	0.131	5.4	6.46	15.30	
	01/18/07	5.98	0.076	7	6.70	15.94	
	06/12/07	4.72	0.000	145	0.03	17.40	
	10/11/07	5.40	0.144	128	5.92	17.80	
	01/24/08	5.80	0.207	0.0	8.01	16.36	
	06/19/08	5.09	0.147	20.3	5.64	17.35	
	06/10/09	5.49	0.240	17.7	2.85	16.53	
	06/08/11	5.67	0.228	11.0	6.08	17.03	
	06/12/12	5.63	0.246	8.6	8.97	15.83	
	06/19/13	5.60	0.206	5.2	7.44	16.85	

TARIF 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-11A	06/14/96	5.82	0.071	41.0	7.25	15.70	
	06/26/96	7.05	0.100	19.0	6.52	15.60	
	07/11/96	7.20	0.101	2.0	6.37	15.50	
	07/18/96	6.68	0.070	0.0	6.28	15.80	
	07/25/96	6.49	0.072	3.0	6.47	15.50	
	08/01/96	6.34	0.047	49.0	5.83	15.20	
	08/08/96	6.74	0.042	16.0	6.6	16.00	
	08/21/96	5.98	0.036	38.0	7.71	15.30	
	08/28/96	5.59	0.045	0.0	8.36	15.00	
	09/05/96	5.86	0.042	0.0	5.87	15.60	
	09/11/96	5.88	0.045	1.0	6.26	15.40	
	09/18/96	4.87	0.058	1.0	5.32	15.10	
	09/26/96	6.22	0.060	0.0	5.09	14.90	
	10/17/96	6.02	0.052	0.0	5.66	15.10	
	11/12/96	6.18	0.053	0.0	7.07	14.40	
	12/17/96	5.44	0.046	10.0	7.27	16.00	
	01/22/97	5.90	0.037	1.0	9.03	14.60	
	02/26/97	5.99	0.440	0.0	9.39	14.70	
	03/26/97	6.54	0.045	1.0	8.03	14.40	
	04/23/97	7.09	0.034	0.0	9.06	15.20	
	05/14/97	6.30	0.036	0.0	11.99	15.00	
	06/25/97	6.03	0.024	11.0	9.82	16.20	
	07/15/97	8.06	0.031	0.0	12.11	16.70	
	08/28/97	11.42	0.032	11.0	2.67	16.30	
	09/16/97	5.38	0.031	0.0	9.94	16.60	Faulty dis. oxygen probe
	10/20/97	6.07	0.027	1.0	1.61	15.80	
	12/17/97	7.84	0.028	2.0	0.01	14.30	
	03/24/98	5.36	0.027	0.0	8.82	14.30	
	06/10/98	5.72	0.027	10.0	10.69	16.00	
	09/24/98	4.75	0.025	5.0	8.83	15.90	
	12/03/98	5.35	0.024	1.0	7.34	15.80	
	03/17/99	5.43	0.030	2.0	4.25	15.40	
	06/02/99	4.42	0.037	0.0	2.42	16.10	
	09/01/99	5.10	0.054	3.0	0.57	16.20	
	12/30/99	5.76	0.054	4.0	1.79	16.00	
	03/15/00	5.60	0.038	1.0	2.2	15.60	
	06/19/00	6.00	0.050	0.0	1.5	16.00	Faulty turbidity probe
	09/12/00	6.0	0.05	0	1.1	16	
	12/20/00	6.00	0.060	NA	0.2	15.00	
	03/20/01	4.70	0.060	NA	0.2	16.00	
	09/18/01	5.29	0.060	8.0	0.26	15.80	
	12/12/01	5.32	0.059	0.5	0.79	14.90	
	06/03/02	5.51	0.060	49.3	1.41	16.11	
	06/24/03	5.66	0.040	41.3	4.32	15.77	
	06/10/04	5.05	0.043	9.8	9.1	15.36	
	06/16/05	4.71	0.001	69.3	8.07	16.84	
	09/27/05	4.65	0.048	30.2	2.79	16.05	
	01/26/06	4.98	0.037	0.0	9.11	15.17	
	06/22/06	6.51	0.042	44.0	9.09	15.30	
	12/20/06	6.32	0.060	178.0	2.03	14.00	
	01/19/07	6.95	0.055	14.0	6.16	12.46	
	06/13/07	6.48	0.100	56.5	8.81	15.60	Faulty turbidity probe
	10/09/07	5.92	0.085	61.5	4.28	15.61	
	1/22/2008	7.33	0.154	0.0	8.99	12.80	
	6/19/2008	5.67	0.090	39.2	2.21	18.00	
	6/11/2009	6.8	0.066	15.1	3.71	17.53	
	6/9/2011	5.54	0.094	131.0	2.38	26.83	
	6/12/2012	6.50	0.136	64.5	4.39	15.95	
	6/18/2013	6.42	0.090	107.0	0.51	16.71	
MW-11B	07/25/96	5.52	0.036	11.0	9.46	16.10	
	10/17/96	6.28	0.039	3.0	9.33	14.80	
	12/17/96	5.85	0.036	10.0	10.43	14.30	
	03/26/97	6.81	0.046	19.0	9.85	13.80	
	06/25/97	5.83	0.038	1.0	11.05	15.30	
	09/16/97	5.42	0.040	0.0	10.44	15.90	
	12/17/97	NR	NR	NR	NR	NR	
	03/24/98	6.09	0.046	1.0	9.35	13.50	
	06/10/98	6.26	0.047	0.1	11.11	14.70	
	09/24/98	5.66	0.045	0.0	9.42	15.30	
	12/03/98	5.77	0.039	0.0	8.66	14.60	
	03/17/99	5.97	0.040	0.0	8.72	13.70	
	06/02/99	5.09	0.036	0.0	8.94	15.10	
	09/01/99	5.18	0.039	0.0	12.5	15.70	
	12/30/99	6.20	0.040	1.0	6.3	14.70	
	03/15/00	5.00	0.032	1.0	9.02	14.20	
	06/19/00	6.40	0.040	0.0	9	15.00	Faulty turbidity probe
	09/12/00	5.90	0.400	0.0	9.80	15.00	
	12/20/00	6.20	0.030	NA	0.4	14.00	
	03/20/01	5.80	0.030	NA	0.2	14.00	
	09/18/01	6.79	0.030	0.0	0.2	14.90	
	12/12/01	5.87	0.039	0.0	6.54	14.50	
	06/03/02	6.20	0.040	16.4	5.26	15.84	
	06/24/03	5.84	0.037	44.0	8.68	14.68	
	06/10/04	5.22	0.031	0.5	9.95	14.40	
	06/16/05	5.24	0.037	0.8	7.9	16.43	
	09/27/05	4.93	0.033	13.1	8.38	15.58	
	01/26/06	6.05	0.042	0.0	13.68	14.28	
	06/22/06	5.49	0.030	19.0	10.63	14.99	
	12/20/06	6.12	0.440	10.8	7.88	13.90	
	01/19/07	5.94	0.027	0.0	7.9	13.82	
	06/13/07	4.84	0.050	17.3	7.71	15.00	Faulty turbidity probe
	10/09/07	4.97	0.042	18.8	8.94	15.48	
	01/22/08	5.76	0.167	0.0	9.38	12.08	
	06/18/08	4.36	0.048	1.7	8.51	14.60	
	06/11/09	5.45	0.039	0.0	5.09	15.25	
	06/10/10	5.72	0.050	7.8	7.19	15.59	
	06/09/11	5.58	0.057	7.1	5.72	19.40	
	06/12/12	5.50	0.072	6.6	7.12	14.96	
	06/18/13	5.76	0.092	4.2	7.25	15.07	

TARIF 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-11C	06/20/96	7.23	0.135	29.0	5.74	15.70	
	06/26/96	7.57	0.089	10.0	4.19	16.00	
	07/11/96	7.15	0.076	0.0	4.42	15.50	
	07/18/96	6.96	0.079	1.0	5.83	16.00	
	07/25/96	6.81	0.063	3.0	6.13	15.70	
	08/01/96	6.84	0.045	3.0	5.72	15.80	
	08/08/96	6.45	0.049	33.0	5.9	15.70	
	08/21/96	6.58	0.044	11.0	6.35	15.50	
	09/18/96	5.30	0.052	27.0	7.12	15.30	
	10/17/96	6.57	0.048	0.0	8.33	15.20	
	11/12/96	6.62	0.038	0.0	9.01	13.90	
	12/17/96	5.91	0.028	10.0	9.52	14.40	
	03/26/97	7.03	0.039	13.0	7.89	14.00	
	06/25/97	6.28	0.032	1.0	8.43	15.60	Faulty dis. oxygen probe
	09/16/97	5.73	0.044	0.0	9.41	16.00	
	12/17/97	7.01	0.065	0.0	0	13.60	
	03/24/98	6.52	0.073	1.0	9.78	12.50	
	06/10/98	6.57	0.071	0.0	11.14	15.00	
	09/01/99	6.02	0.083	16.0	14.93	16.10	
	12/30/99	6.41	0.070	169.0	7.73	14.70	
	06/19/00	6.90	0.080	0.0	11.7	15.00	Faulty turbidity probe
	09/12/00	7.00	0.080	50.0	12.40	16.00	
	12/20/00	6.40	0.100	NA	0.40	15.00	
	03/20/01	5.50	0.100	11.0	0.3	15.00	
	09/18/01	5.53	0.120	2.0	0.3	15.00	
	12/12/01	6.55	0.120	157.0	7.95	14.80	
	06/03/02	7.05	0.090	70.2	6.09	15.84	
	06/24/03	6.58	0.020	0.0	11.44	10.40	
	06/10/04	5.71	0.059	173.0	11.58	18.25	Faulty turbidity probe
	06/16/05	5.50	0.075	34.4	8.48	16.62	
	09/27/05	5.64	0.053	NA	13.72	16.04	
	01/26/06	5.42	0.026	0.0	10.43	14.28	
	06/22/06	5.93	0.052	26.0	13.38	15.56	
	12/20/06	5.84	0.062	55.9	7.7	14.60	
	01/19/07	6.28	0.049	37.3	11.03	14.11	
	06/13/07	5.19	0.090	11.3	7.94	15.20	Faulty turbidity probe
	10/09/07	4.57	0.089	33.0	3.92	15.65	
	01/22/08	5.64	0.181	0.0	8.74	12.76	
	06/18/08	4.46	0.099	12.8	7.87	14.70	
	06/11/09	5.73	0.065	11.5	9.26	15.25	
	06/10/10	5.84	0.087	0.0	5.01	14.77	
	06/08/11	6.58	0.078	15.6	10.69	14.46	
	06/12/12	5.70	0.090	7.0	3.23	14.70	
	06/18/13	5.95	0.099	4.4	5.79	16.45	
MW-12A	06/18/96	3.70	0.220	10.0	5.8	14.30	
	09/11/96	4.57	0.223	0.0	4.55	14.60	
	12/17/96	4.75	0.251	0.0	4.96	12.90	Faulty turbidity/temp probe
	03/25/97	4.19	0.338	32.0	9.04	12.40	
	06/25/97	4.36	0.280	185.0	9.12	25.60	Faulty dis. oxygen probe
	09/17/97	4.60	0.321	0.0	10.9	14.70	
	12/17/97	4.11	0.456	0.0	0	12.90	
	03/24/98	4.49	0.509	1.0	10.21	12.70	
	06/09/98	4.45	0.463	0.0	11.88	14.10	
	06/02/99	4.44	0.280	0.0	7.69	14.20	
	09/01/99	4.07	0.249	0.0	10.36	14.50	
	12/29/99	4.55	0.190	2.0	7.18	14.00	
	06/20/00	4.80	0.240	0.0	7.8	14.00	Faulty turbidity probe
	09/12/00	4.7	0.22	0	8.3	14	
	12/19/00	3.70	0.020	NA	5.9	14.00	
	03/20/01	4.56	0.205	2.0	0.23	13.50	
	09/18/01	4.60	0.220	0.0	0.15	14.20	
	12/13/01	4.54	0.198	1.6	2.21	13.90	
	06/03/02	4.28	0.230	0.6	2.7	14.57	
	06/24/03	4.39	0.140	142.0	6.08	14.63	
	06/09/04	4.53	0.190	76.6	8.71	14.45	
	06/15/05	3.80	0.377	0.0	4.99	16.02	
	06/22/06	4.07	0.170	12.0	8.59	14.54	
	06/12/07	4.50	0.170	11.5	4.9	15.60	
	06/08/10	6.27	0.058	16.2	4.51	16.62	
	06/14/12	4.06	0.219	0.0	7.13	14.21	
	06/17/13			Well is buried and could not be located.			
MW-12B	06/18/96	3.80	0.170	10.0	7.50	15.30	
	09/11/96	5.92	0.196	0.0	7.30	14.90	
	12/17/96	6.46	0.215	0.0	6.73	13.20	Faulty turbidity probe
	03/25/97	5.76	0.191	25.0	11.51	11.90	
	06/25/97	5.68	0.162	300.0	9.05	12.70	Faulty dis. oxygen probe
	09/17/97	6.12	0.196	0.0	11.87	14.60	
	12/17/97	5.85	0.232	0.0	0.00	11.90	
	03/24/98	6.02	0.206	1.0	10.28	12.30	
	06/09/98	6.07	0.177	0.0	12.13	14.10	
	09/24/98	5.96	0.198	0.0	8.45	14.30	
	12/03/98	5.83	0.181	0.0	6.46	13.70	
	03/17/99	5.71	0.178	1.0	6.69	13.90	
	06/18/99	5.26	0.181	0.0	5.96	14.60	
	09/01/99	5.70	0.194	0.0	9.33	14.90	
	12/29/99	6.13	0.170	0.0	5.84	13.70	
	03/15/00	4.97	0.122	1.0	7.13	13.50	
	06/20/00	6.20	0.120	0.0	7.80	14.00	Faulty turbidity probe
	09/12/00	6.30	0.120	0.0	8.00	14.00	Faulty probe
	12/19/00	5.00	0.120	NA	7.7	13.00	
	06/03/02	NA	NA	NA	NA	NA	
	06/24/03	6.10	0.080	96.6	8.39	16.41	
	06/08/04	5.22	0.077	0.0	8.88	14.48	
	06/14/05	4.98	0.130	0.0	6.34	16.15	
	09/27/05	4.97	0.123	6.3	6.51	15.98	
	01/27/06	5.33	0.067	0.0	11.28	14.68	
	06/20/06	5.39	0.081	5.0	8.22	15.50	
	12/18/06	5.52	0.093	1.2	7.06	14.90	
	01/18/07	5.48	0.075	0.0	6.38	14.66	
	06/14/07	4.69	0.130	18.0	5.12	15.40	
	10/10/07	4.95	0.140	16.7	6.37	15.96	
	01/23/08	5.58	0.184	0.0	8.95	14.31	
	06/19/08	4.91	0.135	4.4	8.44	15.56	
	06/10/09	4.99	0.110	35.3	2.27	15.06	
	06/09/10	5.53	0.138	39.2	5.07	14.15	
	06/09/11	5.44	1.810	9.7	5.29	15.18	
	09/23/11	5.46	0.175	5.0	8.03	15.21	
	11/29/11	5.40	0.185	18.5	6.63	14.36	
	03/30/12	5.48	0.190	0.0	5.54	13.68	
	06/14/12	5.05	0.202	0.0	7.75	14.11	
	09/25/12	5.42	0.201	8.4	5.18	14.92	
	12/06/12	5.67	0.202	8.6	10.56	10.96	
	04/01/13	5.66	0.208	0.0	9.63	14.94	
	06/17/13			Well is buried and sample could not be collected.			

TARIF 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-13A	06/09/98	5.96	0.151	0.0	10.51	15.70	
	06/03/99	5.84	0.045	0.0	9.62	16.00	
	06/19/00	6.50	0.030	0.0	9.2	16.00	
	06/03/02	6.27	0.040	15.7	5.64	16.03	
	06/24/03	5.95	0.030	101	9.39	15.67	
	06/15/05	5.18	0.046	0.0	8.1	17.03	
	09/27/05	4.67	0.026	0.4	9.09	15.74	
	01/26/06	5.55	0.027	0.0	9.01	14.17	
	06/21/06	5.72	0.026	7	10.92	16.05	
	12/19/06	5.74	0.082	3.6	8.36	15.00	
	01/19/07	5.80	0.065	0.0	8.4	14.25	
	06/12/07	5.51	0.080	0.0	9.54	17.60	
	10/10/07	4.80	0.046	0.4	9.9	16.26	
	01/23/08	5.90	0.079	0.0	10.18	14.43	
	06/18/08	4.42	0.055	1.4	9.25	15.27	
	06/10/09	5.64	0.060	0.0	3.45	15.32	
	06/09/10	5.20	0.129	0.0	7.53	14.34	
	06/07/11	5.60	0.189	0.0	8.13	14.32	
	06/12/12	5.32	0.205	0.0	7.47	14.67	
	06/20/13	5.34	0.133	0.0	13.55	15.24	
MW-14B	06/09/98	10.81	0.527	25.0	13.26	15.70	
	06/03/99	10.50	0.209	1.0	3.6	13.70	
	06/21/00	12.40	1.100	0.0	2.4	12.00	
	09/27/05	6.10	0.132	9.6	9.8	15.50	
	01/25/06	9.58	0.074	1.30	4.89	12.29	
	12/18/06	8.84	0.148	50.2	9.64	14.90	
	01/18/07	8.85	0.075	25.8	5.50	12.37	
	06/14/07	8.99	0.200	29.2	1.43	13.20	
	10/10/07	8.89	0.188	31.9	2.99	13.74	
	01/24/08	7.19	0.447	6.6	6.03	12.40	
	06/20/08	8.53	0.378	4.8	.34	14.95	
	06/10/09	11.39	1.450	29.2	0	13.82	
	06/09/10	12.02	2.540	42.1	1.08	14.78	
	06/09/11	10.92	1.030	28.2	0.39	12.91	
	06/13/12	10.54	0.819	33.4	0.45	13.79	
	06/17/13	11.65	2.600	18.8	0.83	19.48	
MW-17	06/09/98	8.04	0.088	58.0	12.33	14.70	
	06/03/99	8.19	0.061	0.0	9.46	12.00	
	06/21/00	11.00	0.170	0.0	5.3	12.00	
MW-18	06/09/98	7.54	0.148	80.0	9.79	15.80	
	06/03/99	7.67	0.224	16.0	9.1	13.70	
	06/21/00	10.60	0.190	0.0	2.3	13.00	Faulty dis. oxygen probe
MW-19	09/16/97	10.40	3.000	24.0	11.97	13.70	
	12/17/97	7.96	0.148	20.0	0.46	11.20	
	03/24/98	7.49	0.135	23.0	11.38	11.40	
	06/09/98	6.76	0.079	18.0	11.7	13.00	
	09/24/98	6.69	0.113	16.0	6.94	12.80	
	12/03/98	6.61	0.086	20.0	0.79	11.60	
	03/17/99	6.51	0.284	73.0	2.61	10.40	
	06/03/99	7.05	0.171	124.0	1.27	14.10	
	09/01/99	6.27	0.180	40.0	0.46	12.80	
	12/29/99	7.06	0.150	18.0	1.63	12.00	
	03/15/00	6.90	0.280	50.0	3	12.10	
	06/20/00	8.00	0.200	81.0	0.7	12.00	Faulty turbidity probe
	09/14/00	6.1	0.10	40	7.6	16	
	12/19/00	6.10	0.090	NA	1.3	11.00	
	03/20/01	6.73	0.915	845.0	0.6	11.60	
	09/18/01	7.53	0.330	176.0	0.67	13.50	
	12/12/01	8.56	0.279	186.0	1.12	11.70	
	03/06/02	9.02	0.343	77.6	1.75	11.64	
	06/03/02	9.65	0.400	93.9	1.38	13.37	
	06/24/03	7.93	4.950	999+	2.14	13.92	parameters stabilized - data lost
	06/15/04	7.53	4.430	30.9	9.75	22.42	
	06/16/05						
	06/29/06	7.40	1.450	36.2	0	12.73	
	06/14/07	6.05	1.490	380.0	0	14.90	
	06/19/08	6.16	0.462	50.8	4.9	15.39	*Turbidity too great for instrument to read
	06/09/09	6.97	0.678	622.0	0	15.34	
	06/08/10	7.51	0.289	800*	0.61	18.07	
MW-20	06/09/98	6.14	0.213	0.0	11.62	13.60	
	06/03/99	5.63	0.213	0.0	6.75	14.20	
	06/20/00	6.20	0.210	0.0	7.3	13.00	
	06/03/02	5.67	0.240	36.9	4.24	12.84	
	06/24/03	5.57	0.200	167	7.0	13.05	
	06/09/04	5.16	0.178	112	10.55	12.88	
	06/15/05	5.35	0.253	38.4	5.49	14.85	
	06/21/06	5.66	0.185	37	7.91	13.61	
	06/12/07	5.36	0.190	18.7	7.89	13.00	
	06/12/12	5.28	0.288	5.8	7.88	14.67	
MW-21A	06/14/96	5.80	0.130	19.0	6.5	17.70	
	09/26/96	6.89	0.137	0.0	2.72	15.00	
	12/17/96	5.92	0.099	10.0	3.21		
	03/26/97	6.40	0.084	0.0	9.11	13.00	
	06/25/97	5.92	0.080	2.0	3.27	15.60	
	09/16/97	4.96	0.062	0.0	11.49	16.70	
MW-22A	06/14/96	5.50	0.025	8.0	10.3	17.00	
	09/26/96	6.01	0.025	0.0	9.09	14.80	
	12/17/96	6.48	0.022	0.0	9.5	14.60	
	03/26/97	6.95	0.030	34.0	9.72	13.00	
	06/25/97	6.67	0.030	0.0	9.97	15.10	
	09/16/97	5.28	0.023	41.0	10.66	16.70	

TAR F 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-23A	09/26/96	6.81	0.078	0.0	8.13	15.60	
	12/17/96	6.10	0.034	0.0	10.58	14.40	
	03/26/97	7.51	0.047	2.0	9.49	12.80	
	06/25/97	6.77	0.036	0.0	8.61	15.60	
	09/16/97	5.76	0.035	44.0	10.58	16.30	
	12/17/97	6.12	0.050	0.0	7.68	14.50	
	03/24/98	7.65	0.043	0.0	10.02	12.70	
	06/10/98	6.22	0.040	0.0	13.06	15.10	
	06/02/99	5.40	0.035	0.0	9.39	14.60	
	12/30/99	6.46	0.040	1.0	6.14	14.20	
	06/19/00	6.70	0.040	0.0	8.7	14.00	Faulty turbidity probe
	09/12/00	7.4	0.4	0.0	9.3	15	
	12/20/00	6.60	0.040	NA	0.4	13.00	
	03/20/01	6.56	0.047	1.0	0.4	12.70	
	09/18/01	5.53	0.040	0.0	0.33	14.90	
	12/12/01	6.30	0.047	0.0	6.47	13.50	
	06/03/02	6.46	0.050	5.7	5.13	15.47	
	06/24/03	6.50	0.040	126.0	8.8	14.40	
	06/10/04	5.75	0.077	0.0	10.49	14.19	
	06/15/05	6.19	0.104	0.0	7.76	15.85	
	09/27/05	5.35	0.081	102.0	8.15	14.76	
	01/26/06	5.63	0.070	0.0	7.25	13.71	
	06/22/06	6.23	0.084	5.0	10.03	16.60	
	12/19/06	5.99	0.105	7.2	7.59	14.10	
	01/19/07	6.09	0.083	0.0	7.99	13.48	
	06/13/07	5.44	0.140	1.8	7.31	14.40	
	10/09/07	5.12	0.130	53.4	8.14	14.69	
	01/23/08	5.95	0.233	0.7	9.3	13.50	
	6/18/2008	4.84	0.137	2.1	7.98	14.23	
	6/10/2009	6.19	0.122	2.6	7.37	14.75	
	6/10/2010	5.96	0.128	0.0	8.03	13.64	
	6/8/2011	5.79	0.132	0.1	6.55	14.01	
	6/13/2012	5.67	0.136	2.1	7.12	13.54	
	9/25/2012	NS	NS	NS	NS	NS	
	6/19/2013	5.69	0.125	1.9	7.45	14.03	
MW-24	06/18/96	5.77	0.180	18.0	2.16	16.00	
	09/05/96	5.54	0.167	0.0	2.94	15.80	
	12/18/96	6.59	0.239	0.0	3.66	14.10	
	01/22/97	5.90	0.037	1.0	9.03	14.60	
	02/26/97	5.91	0.224	0.0	4.97	14.30	
	03/26/97	5.67	0.243	2.0	4.7	13.80	
	04/23/97	6.74	0.189	0.0	4.58	14.30	
	06/25/97	5.99	0.135	0.0	3.21	15.60	
	07/15/97	7.55	0.165	0.0	12.3	16.30	
	08/28/97	6.72	0.140	0.0	2.56	16.00	
	09/16/97	5.43	0.153	0.0	10.56	16.20	
	10/20/97	6.00	0.173	0.0	1.19	14.30	
	12/17/97	6.59	0.140	0.0	4.94	14.20	
	03/24/98	5.59	0.190	0.0	9.7	13.50	
	06/10/98	5.60	0.149	0.0	11.45	14.80	
	09/24/98	NR	NR	NR	NR	NR	
	12/03/98	5.48	0.120	0.0	0.8	14.80	
	03/17/99	5.56	0.105	0.0	0.75	14.80	
	06/02/99	5.73	0.090	0.0	0.72	15.10	
	09/01/99	5.27	0.106	0.0	0.12	15.30	
	12/30/99	5.55	0.090	2.0	0.93	15.10	
	03/15/00	5.12	0.068	5.0	1.5	14.70	Faulty turbidity probe
	06/19/00	6.10	0.080	0.0	0.9	15.00	
	12/20/00	5.60	0.070	NA	0.3	14.00	
	03/20/01	4.70	0.070	10.0	0.2	15.00	
	09/18/01	6.61	0.080	38.0	0.45	15.30	
	12/12/01	5.06	0.078	7.1	1.5	14.60	
	06/03/02	5.50	0.080	16.4	1.66	15.55	
	06/24/03	6.00	0.070	163.0	4.38	15.47	
	06/16/05	5.28	0.066	68.6	9.95	14.86	
	06/22/06	5.09	0.060	10.0	2.98	15.37	
	06/12/07	4.85	0.059	150.0	4.65	16.95	
	6/20/97	5.22	0.030	1.0	10.43	16.00	
	06/13/12	5.17	0.090	1.9	3.89	15.23	
MW-24A	09/05/96	5.43	0.027	0.0	10.78	16.70	
	12/18/96	6.23	0.028	0.0	8.39	14.90	
	03/26/97	5.61	0.030	5.0	8.96	14.50	
	05/14/97	6.36	0.199	0.0	11.91	14.60	
	06/25/97	5.89	0.024	0.0	9.91	16.50	
	09/16/97	4.98	0.025	0.0	9.66	16.60	



TAR F 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-25	06/18/96	9.70	0.180	20.0	8.7	14.00	
	09/11/96	7.33	0.204	36.0	9.26	14.20	
	12/17/96	10.57	0.216	0.0	7.25	12.80	Faulty turbidity/temp probe
	03/25/97	6.45	0.228	12.0	9.21	11.20	
	06/25/97	6.00	0.198	47.0	9.24	22.00	Faulty dis. oxygen probe
	09/16/97	6.61	0.200	9.0	11.64	13.80	
	12/17/97	6.44	0.213	10.0	0.06	11.50	
	03/24/98	6.05	0.170	8.0	10.76	11.60	
	06/09/98	6.00	0.140	20.0	12.53	13.00	
	09/01/99	5.04	0.166	25.0	12.1	13.60	
	12/29/99	6.33	0.130	100.0	7.35	12.70	
	06/20/00	6.70	0.110	3.0	9.5	13.00	Faulty turbidity probe
	09/12/00	6.5	0.11	15	9.6	13	
	12/19/00	5.50	0.110	NA	7.6	12.00	
	03/20/01	6.50	0.105	99.0	0.44	12.10	
	09/18/01	6.65	0.100	78.0	0.34	13.10	
	12/13/01	6.27	0.096	127.0	8.03	12.30	
	06/03/02	6.58	0.106	88.7	6.73	13.51	
	06/24/03	6.18	0.090	170.0	11.82	13.59	
	06/09/04	5.47	0.710	78.0	9.99	13.55	
	06/15/05	6.12	0.088	45.0	10.48	14.84	
	06/22/06	5.96	0.080	160.0	9.9.1	13.71	
	06/12/07	6.67	0.120	64.9	10.47	13.30	
	06/09/11	5.81	0.159	20.1	6.17	14.69	
	09/23/11	6.40	0.206	14.8	7.28	15.65	
	11/29/11	5.75	0.191	26.0	7.7	14.95	
	03/30/12	6.35	0.217	78.3	5.73	12.63	
	06/14/12	5.78	0.202	60.1	7.7	15.39	
	09/25/12	6.17	0.177	69.6	4.97	15.62	
	12/06/12	6.24	0.175	51.7	11.11	11.82	
	04/01/13	NS	NS	NS	NS	NS	Difficulties encountered when lowering the pump. Samples could not be collected.
	06/17/13	6.53	0.191	40.1	8.48	18.53	
	09/17/13	6.18	0.228	3.1	10.55	14.83	In an earlier reading the water appeared more turbid than Horiba's reading.
	11/04/13	5.97	0.231	5.5	11.31	13.57	
MW-26	06/18/96	10.10	0.300	20.0	10.9	14.00	
	09/11/96	8.69	0.248	26.0	6.45	14.20	
	12/17/96	8.11	0.223	49.0	7.48	12.40	Faulty turbidity/temp probe
	03/25/97	9.74	0.216	7.0	7.72	11.90	
	06/25/97	7.54	0.227	49.0	8.91	22.20	
	09/17/97	10.36	0.174	5.0	12.62	14.00	
	06/09/98	7.79	0.234	56.0	11.45	13.70	
	06/18/99	5.99	0.190	0.0	7.77	13.80	
	06/20/00	7.20	0.120	0.0	9.4	14.00	
MW-27	06/18/96	7.30	0.100	12.0	7.5	14.70	
	09/11/96	6.89	0.112	12.0	8.37	15.10	
	12/17/96	7.33	0.057	26.0	7.21	13.30	Faulty turbidity/temp probe
	03/25/97	6.70	0.101	33.0	8.41	12.00	
	06/25/97	5.59	0.060	299.0	10.24	22.30	
	09/17/97	6.70	0.090	1.0	11.82	14.70	
MW-28	06/18/96	8.70	0.200	10.0	6.2	14.00	
	09/11/96	7.83	0.174	10.0	7.17	14.10	
	12/17/96	7.72	0.166	0.0	5.81	12.60	Faulty turbidity/temp probe
	03/25/97	7.04	0.161	6.0	7.02	11.50	
	06/25/97	6.40	0.159	42.0	9.41	21.10	Faulty dis. oxygen probe
	09/17/97	7.43	0.168	8.0	12.29	13.90	
	12/17/97	10.29	0.168	0.0	0.35	11.80	
	03/24/98	9.67	0.151	1.0	10.48	11.90	
	06/09/98	7.84	0.113	9.0	11.99	13.10	
	12/03/98	5.75	0.940	45.0	6.91	13.10	
	03/17/99	5.64	0.112	76.0	6.45	13.00	
	06/02/99	6.25	0.122	38.0	5.58	13.70	
	09/01/99	6.40	0.114	48.0	7.66	13.80	
	12/29/99	6.77	0.110	51.0	4.04	12.80	
	03/15/00	5.14	0.175	18.0	7.04	13.10	
	06/20/00	7.80	0.120	4.0	11	13.00	Faulty turbidity probe
	09/12/00	7.2	0.12	3	11.8	14	
	12/19/00	6.00	0.120	NA	9.1	12.00	
	03/20/01	6.78	0.180	28.0	0.37	12.40	
	09/18/01	6.60	0.150	15.0	0.32	13.70	
	12/13/01	6.37	0.122	341.0	7.82	13.40	
	06/03/02	6.86	0.132	99.9	6.56	14.05	
	06/24/03	7.00	0.110	219.0	10.43	14.03	
	06/09/04	6.20	0.090	405.0	11.52	13.89	
	06/15/05	6.16	0.980	27.3	10.43	15.39	
	06/22/06	6.80	0.087	0.0	12.68	14.58	Pumped 2 well volumes
	06/13/07	6.30	0.070	29.3	10.29	14.00	
	06/08/11	5.84	0.146	30.6	10.05	14.25	
	11/29/11	5.46	0.154	7.6	9.87	13.55	
	03/30/12	5.20	0.176	0.0	4.77	12.10	
	06/14/12	5.49	0.162	0.0	10.38	13.41	
	09/25/12	5.71	0.161	0.0	5.41	13.99	
	12/06/12	5.23	0.141	0.0	13.3	11.50	
	03/28/13	6.09	0.219	0.0	11.44	10.55	
	06/17/13	5.30	0.173	0.0	9.28	13.80	
	09/17/13	5.90	0.174	0.0	9.49	12.99	
	11/04/13	5.66	0.175	0.0	12.09	11.19	

TARIF 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-29	06/26/96	6.73	0.000	6.0	8.01	19.30	
	07/11/96	6.30	0.026	0.0	10.51	16.10	
	07/18/96	5.55	0.028	7.0	9.53	16.40	
	07/25/96	5.64	0.029	1.0	9.28	15.70	
	08/01/96	5.62	0.024	0.0	7.7	15.40	
	08/08/96	5.91	0.023	4.0	8.59	16.20	
	08/21/96	5.76	0.023	0.0	8.69	15.40	
	08/28/96	5.01	0.028	0.0	9.36	15.10	
	09/05/96	7.57	0.027	10.0	6.7	15.60	
	09/11/96	5.92	0.028	0.0	9.4	15.70	
	10/17/96	6.33	0.025	0.0	8.57	14.70	
	12/17/96	5.44	0.022	10.0	10.74	14.20	
	03/26/97	6.48	0.039	3.0	9.32	13.10	
	06/25/97	5.71	0.029	1.0	10.19	15.20	
	09/16/97	5.37	0.028	0.0	9.91	16.20	
	06/10/98	5.89	0.031	0.0	11.75	15.00	
	06/02/99	4.65	0.024	3.0	9.1	14.80	
	06/19/00	5.80	0.030	0.0	9	15.00	
	06/03/02	6.20	0.040	28.1	5.01	15.49	
	06/24/03	5.92	0.040	51.5	7.87	15.07	
	06/10/04	5.42	0.053	138.0	9.81	14.79	
	06/16/05	5.41	0.062	42.9	5.09	16.55	
	09/27/05	5.09	0.050	14.3	6.94	15.99	
	01/26/06	5.61	0.041	0.0	9.66	14.73	
	06/22/06	5.63	0.050	46.0	9.73	14.91	
	12/20/06	5.92	0.060	16.1	0.98	14.90	
	01/19/07	6.08	0.041	8.1	1.46	14.68	
	06/13/07	4.92	0.060	14.3	0	15.10	
	10/09/07	5.05	0.058	36.7	0	15.47	
	1/23/2008	6.08	0.179	7.5	5.32	14.10	
	6/18/2008	5.31	0.076	16.7	4.21	16.80	
	6/11/2009	5.89	0.050	28.5	0	16.96	
	6/8/2010	5.75	0.067	49.1	1.87	17.03	
	6/8/2011	5.22	0.088	8.8	1.43	16.79	
	6/13/2012	5.8	0.069	35.0	0.69	15.91	
	6/19/2013	5.64	0.069	14.6	1.01	16.88	
MW-30A	10/07/96	7.23	0.143	8.0	3.3	14.80	
	12/17/96	6.41	0.178	10.0	4.51	16.40	
	03/26/97	10.57	0.261	48.0	3.45	13.60	
	04/23/97	11.17	0.243	0.0	5.03	13.80	
	05/14/97	11.35	0.286	0.0	12.72	14.40	
	06/25/97	8.15	0.086	44.0	2.85	15.90	
	07/15/97	8.82	0.076	0.0	12.08	16.90	
	08/28/97	9.73	0.071	8.0	2.72	16.20	
	09/16/97	6.09	0.059	19.0	10.65	16.50	
	10/20/97	6.98	0.057	3.0	2.19	15.10	
	12/17/97	NR	NR	NR	NR	NR	
	03/24/98	6.06	0.071	18.0	9.37	13.80	
	06/10/98	5.92	0.057	0.0	11.91	15.30	
	09/24/98	NR	NR	NR	NR	NR	
	12/03/98	5.53	0.630	15.0	7.21	14.70	
	03/17/99	5.79	0.069	8.0	7.48	13.30	
	06/18/99	5.25	0.071	0.0	7.42	15.50	
	09/01/99	5.49	0.082	3.0	10.15	16.90	
	12/30/99	6.10	0.090	24.0	6.1	14.60	
	03/15/00	5.56	0.078	23.0	7.52	14.10	
	06/19/00	6.30	0.090	0.0	7.8	15.00	Faulty turbidity probe
	09/14/00	6.1	0.10	40	7.6	16	
	12/20/00	6.30	0.110	NA	0.5	12.00	
	03/20/01	5.10	0.120	10.0	0.4	14.00	
	06/03/02	6.30	0.160	238.0	4.46	17.01	
	06/24/03	6.28	0.117	154.0	7.25	16.66	
	06/09/04	5.44	0.110	16.2	8.54	15.10	
	09/03/04	4.69	0.134	27.4	8.37	15.51	
	06/14/05	5.19	0.125	5.4	5.58	16.55	
	09/27/05	5.03	0.107	37.4	7.03	16.03	
	01/27/06	5.25	0.084	0.0	13.01	14.41	
	06/21/06	5.51	0.106	38.0	9.21	14.90	
	12/19/06	5.42	0.095	5.5	5.04	17.30	
	01/22/07	5.10	0.081	10.5	5.21	15.29	
	06/15/07	5.02	0.160	14.1	2.33	16.70	
	10/11/07	5.10	0.138	8.2	2.62	16.71	
	01/24/08	5.71	0.149	10.7	6.1	15.66	
	06/18/08	4.91	0.143	8.9	2.09	16.33	
	06/10/09	6.27	0.099	37.6	4.77	16.75	Turbidity > 55 NTU
	06/08/10	5.74	0.100	44.7	2.48	16.83	
	06/09/11	5.59	0.099	7.6	1.27	21.14	
	06/13/12	6.00	0.119	158.0	2.27	15.51	
	06/19/13	5.50	0.144	8.9	4.41	17.12	
MW-31A	12/17/96	9.24	0.175	55.0	2.51	14.40	
	03/26/97	10.38	0.129	33.0	9.3	13.10	
	06/25/97	9.45	0.133	36.0	4.25	16.10	
	09/16/97	7.09	0.179	31.0	11.43	15.90	
	09/27/05	5.37	0.053	126.0	2.63	15.08	
	01/26/06	6.00	0.020	0.0	2.65	15.24	
	12/20/06	6.64	0.073	31.5	0.35	17.40	
	01/22/07	5.58	0.032	14.1	1.3	15.64	
	06/14/07	5.38	0.050	26.2	0	16.00	
	10/11/07	5.98	0.072	32.8	0	17.39	
	01/24/08	5.68	0.068	50.0	6.02	15.59	
	06/19/08	5.10	0.067	26.3	0.73	16.88	
	06/09/09	5.17	0.120	25.5	0.41	17.61	
	06/08/10	6.08	0.046	24.7	0.65	17.33	
	06/08/11	5.79	0.045	26.7	0.45	15.10	
	06/12/12	5.82	0.052	10.8	0.59	16.13	
	06/18/13	5.51	0.034	11.6	0.48	16.78	

TARIF 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-32A	12/17/96	6.41	0.033	10.0	2.58	15.80	
	03/26/97	7.71	0.105	15.0	9.76	12.70	
	06/25/97	7.24	0.091	1.0	2.4	15.00	
	09/16/97	6.14	0.079	0.0	10.51	15.90	
	06/10/98	6.37	0.067	10.0	12.14	14.30	
	06/02/99	5.82	0.037	0.0	3.01	14.40	
	06/19/00	6.30	0.040	0.0	6.1	14.00	
	06/03/02	6.05	0.070	1.0	4.19	14.01	
	06/24/03	6.55	0.070	167	10.91	14.18	
	06/09/04	5.98	0.068	11.6	11.81	13.84	
	06/15/05	5.59	0.087	0.5	8.9	15.72	
	06/21/06	6.21	0.097	20	14.58	14.11	
	06/13/07	5.57	0.100	10.3	10.75	14.00	
	06/14/12	5.93	0.153	0.0	8.85	13.83	
MW-33A	10/07/96	7.66	0.532	4.0	3.02	15.10	
	12/18/96	7.55	0.738	0.0	3.75	14.70	
	01/22/97	7.25	0.635	0.0	3.19	14.40	
	02/26/97	7.08	0.593	0.0	3.26	14.90	
	03/26/97	6.7	0.581	1.0	5.49	14.30	
	04/23/97	7.58	0.463	0.0	4.54	14.90	
	05/14/97	7.48	0.513	0.0	12.05	15.40	
	06/25/97	7.03	0.557	0.0	2.31	15.90	
	07/15/97	7.86	0.553	0.0	12.54	16.50	
	08/28/97	7.2	0.563	1.0	2.54	16.30	
	09/16/97	6.33	0.448	0.0	11.61	16.40	
	10/20/97	6.92	0.413	1.0	1.21	15.20	
	12/17/97	7.35	0.440	0.0	3.52	14.90	
	03/24/98	6.66	0.549	5.0	9.86	13.40	
	06/10/98	6.64	0.373	0.0	12.07	15.10	
	09/24/98	NR	NR	NR	NR	NR	
	12/03/98	6.42	0.196	7.0	0.81	15.00	
	03/17/99	6.45	0.228	1.0	0.71	14.80	
	06/02/99	6.23	0.144	0.0	0.66	15.30	
	09/01/99	5.99	0.135	10.0	0.12	15.60	
	12/30/99	6.56	0.110	34.0	1.3	14.90	
	03/15/00	7.45	0.377	257.0	1.28	14.40	
	08/22/00	6.4	0.140	8.0	0.9	16.00	Faulty turbidity probe
	09/12/00	6.7	0.11	7.0	0.9	16	
	12/20/00	6.8	0.100	NA	0.4	14.00	
	03/20/01	10.08	0.663	248.0	0.58	14.9	
	09/18/01	7.72	0.014	60.0	0.38	16.1	
	12/12/01	7.39	0.107	98.0	0.63	14.7	
	06/03/02	7.71	0.128	94.7	1.07	15.78	
	06/24/03	6.86	0.08	220.0	2.26	15.3	
	06/10/04	6.02	0.81	83.9	6.39	14.91	
	06/16/05	5.86	0.151	40.6	0	16.68	
	09/27/05	5.37	0.069	5.2	0.51	17.26	
	01/26/06	6.02	1.058	12.5	8.46	13.22	
	06/22/06	6.23	0.004	66.0	0.72	15.17	
	12/20/06	5.93	0.071	15.7	0.24	14.70	
	01/19/07	5.94	0.062	26.3	2.24	13.99	
	06/12/07	5.53	0.068	68.3	2.29	15.39	
	10/10/07	4.98	0.102	21.4	0.31	15.57	
	01/23/08	5.74	0.166	33.0	5.77	14.49	
	06/18/08	4.81	0.093	12.9	1.32	15.15	
	06/10/09	6.25	0.096	26.9	2.10	16.13	
	06/10/10	5.72	0.091	5.1	1.80	14.87	
	06/08/11	6.05	0.102	9.9	0.99	15.11	
	06/12/12	5.19	0.098	0.5	0.99	15.31	
	06/20/13	5.68	0.086	0.0	1.43	14.92	
MW-34A	10/07/96	6.86	0.153	1.0	3.78	14.60	
	12/17/96	7.18	0.168	0.0	3.7	14.00	
	03/26/97	7.05	0.152	0.0	3.25	13.80	
	06/25/97	6.66	0.132	0.0	4.13	15.20	
	09/16/97	6.63	0.128	0.0	10.43	15.50	
	12/17/97	6.87	0.130	0.0	4.51	14.20	
	03/24/98	5.93	0.190	0.0	10.7	11.70	
	06/10/98	5.81	0.187	0.0	14.14	13.20	
	09/24/98	NR	NR	NR	NR	NR	
	12/03/98	5.60	0.149	0.0	1.11	13.80	
	03/17/99	5.57	0.138	0.0	1.84	13.40	
	06/02/99	5.61	0.145	0.0	2.45	13.90	
	09/01/99	5.26	0.158	1.0	1.45	14.10	
	12/29/99	6.00	0.150	9.0	2.96	13.00	
	03/15/00	4.78	0.105	0.0	3.34	13.40	
	08/22/00	5.10	0.100	0.0	4.8	14.00	Faulty turbidity probe
	09/12/00	5.80	0.100	0.0	5.00	14.00	
	12/20/00	5.90	0.110	NA	0.40	12.00	
	03/20/01	5.66	0.113	0.0	0.21	13.50	
	09/18/01	5.39	0.130	0.0	0.26	13.50	
	12/13/01	5.04	0.118	0.4	3.94	13.30	
	06/03/02	5.36	0.149	16.0	3.12	14.08	
	06/24/03	5.35	0.090	131.0	4.78	13.67	
	06/09/04	5.76	0.076	0.0	5.4	13.30	
	06/16/05	4.88	0.106	0.0	2.21	15.25	
	09/27/05	4.38	0.087	1.8	3.76	13.92	
	01/26/06	4.79	0.080	0.0	4.51	12.22	
	06/22/06	5.05	0.175	36.0	5.29	13.42	
	12/19/06	5.04	0.159	4.7	2.73	13.90	
	01/19/07	5.00	0.123	0.2	3.41	13.32	
	06/12/07	4.87	0.251	17.1	6.07	13.82	
	10/10/07	4.27	0.355	5.0	2.97	13.95	
	01/23/08	4.84	0.420	0.0	7.25	13.12	
	06/17/08	4.50	0.260	3.7	5.00	13.47	
	06/10/09	4.65	0.116	0.5	0.00	14.39	
	06/10/10	5.53	0.117	0.1	3.05	12.96	
	06/08/11	5.76	0.109	0.3	3.06	13.77	
	09/27/11	6.30	0.130	28.6	3.66	14.89	
	11/29/11	5.59	0.108	1.7	1.12	14.11	
	03/29/12	5.70	0.103	1.1	7.01	13.91	
	06/12/12	5.29	0.099	0.0	3.24	14.46	
	09/25/12	5.22	0.105	0.0	3.47	14.71	
	12/06/12	5.25	0.112	0.7	5.01	12.67	
	04/01/13	5.01	0.119	0.0	3.91	12.99	
	06/18/13	4.84	0.127	0.0	2.01	17.13	
	09/17/13	5.60	0.228	0.4	9.84	13.88	
	11/04/13	5.78	0.110	0.0	12.40	13.24	

TARIF 2  
GROUNDWATER QUALITY PARAMETERS - STABILIZED VALUES  
DEUTSCH RELAYS FACILITY  
65 DALY ROAD  
EAST NORTHPORT, LONG ISLAND, NEW YORK

Well Number	Sample Date	pH	Conductivity (ms)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Comments
MW-34B	03/26/97	7.67	0.139	21.0	4.52	13.50	Faulty probe
	06/25/97	7.77	0.124	12.0	5.12	15.50	
	09/16/97	7.20	0.100	12.0	11.09	15.60	
	09/28/05	NA	NA	NA	NA	NA	
	01/27/06	2.10	0.041	0.0	7.78	15.45	
	12/19/06	5.32	0.057	6.9	1.93	16.70	
	01/22/07	4.81	0.045	13.5	3.31	15.49	
	06/14/07	4.33	0.080	3.7	0.49	15.60	
	10/10/07	4.88	0.077	11.1	1.31	15.19	
	01/23/08	4.88	0.077	11.1	1.31	15.19	
	06/09/11	5.29	0.066	6.6	3.66	17.02	
	09/27/11	4.72	0.064	75.7	6.99	18.11	
	11/29/11	5.38	0.071	16.1	5.12	14.66	
	03/29/12	5.54	0.057	2.6	5.24	14.97	
	06/13/12	5.23	0.054	0.0	5.19	16.95	
	09/25/12	5.34	0.063	0.0	4.95	15.73	
	12/06/12	5.34	0.065	0.0	10.53	14.53	
	04/01/13	5.08	0.056	0.0	7.82	17.95	
	06/18/13	4.43	0.058	3.0	7.23	15.82	
	09/17/13	5.85	0.063	0.0	9.85	14.56	
	11/04/13	5.57	0.063	0.0	11.51	14.46	
MW-35A	12/17/96	6.41	0.149	3.0	2.92	14.20	
	03/26/97	7.60	0.165	6.0	3.41	13.10	
	06/25/97	6.94	0.124	0.0	3.69	15.10	
	09/16/97	6.05	0.091	0.0	11.18	15.60	
	06/03/02	5.84	0.049	77.3	4.17	14.86	
	09/19/02	5.60	0.700	60.0	7.57	14.80	
	06/24/03	6.40	0.040	148.0	10.59	14.33	
	06/09/04	5.74	0.037	41.0	11.75	13.87	
	06/15/05	5.48	0.073	3.8	9.36	15.60	
	09/27/05	5.28	0.038	21.5	10.43	14.43	
	01/26/06	5.36	0.030	0.0	10.18	13.27	
	6/21/2006	5.78	0.055	26.0	14	13.70	
	12/20/2006	5.87	0.074	15.8	10.66	13.90	
	1/19/2007	6.07	0.063	10.0	10.55	13.46	
	6/13/2007	4.93	0.060	23.7	10.7	13.70	
	10/9/2007	4.47	0.088	140.0	5.67	14.60	
	1/22/2008	5.44	0.120	5.7	10.36	11.46	
	6/18/2008	4.88	0.106	38.1	12.32	13.87	
	6/11/2009	6.52	0.087	22.4	10.05	14.55	
	6/10/2010	6.14	0.095	23.5	13.83	13.33	
	6/9/2011	6.14	0.058	9.5	10.22	13.33	
	6/12/2012	5.19	0.098	0.5	0.99	15.31	
	6/15/2012	5.78	0.136	1.9	10.2	14.25	
	6/19/2013	5.66	0.159	0.0	11.82	15.17	
MW-36A	12/17/96	6.47	0.108	49.0	4.2	14.70	
	03/26/97	7.44	0.127	50.0	8.91	13.80	
	06/25/97	7.06	0.121	47.0	3.69	16.60	
	09/16/97	6.09	0.080	41.0	11.45	16.70	
MW-37A	12/17/96	6.22	0.132	5.0	7.27	12.20	Faulty turbidity/temp probe
	03/25/97	5.25	0.152	2.0	8.55	11.50	
	06/25/97	4.95	0.146	90.0	9.51	21.00	
	09/16/97	5.55	0.182	6.0	11.7	13.70	
	06/14/12	4.95	0.100	21.8	7.42	15.82	
MW-38A	12/18/96	6.13	0.022	0.0	9.15	14.00	
	03/26/97	6.01	0.023	38.0	9.2	13.40	
	06/25/97	6.10	0.025	13.0	9.05	15.70	
	09/16/97	5.13	0.027	48.0	10.8	16.20	
	06/10/98	5.90	0.028	0.0	12.95	15.40	

NOTES

- 1) NR - No reading taken due to insufficient volume of
- 2) NS- Not Sampled
- 3)  $\mu$ s - Microsiemens
- 4) NTU - Nephelometric Turbidity Units
- 5) mg/L - Milligrams per Liter
- 6) C - Degrees Celsius

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 65 Daly Rd., East Northport, NY

Sample Description:

Work Order: 18K1177

Date Received: 11/28/2018

Field Sample #: MW12A\_112818

Sample ID: 18K1177-01

Start Date/Time: 11/28/2018 9:00:00AM

Sample Matrix: Ground Water

Stop Date/Time: 11/28/2018 9:30:00AM

**1,4-Dioxane by isotope dilution GC/MS**

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	0.41	0.20	0.033	µg/L	1		SW-846 8270D	11/28/18	11/30/18 18:13	IMR
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
1,4-Dioxane-d8	15.4		15-110				11/30/18 18:13			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 65 Daly Rd., East Northport, NY

Sample Description:

Work Order: 18K1177

Date Received: 11/28/2018

Field Sample #: MW31A

Sample ID: 18K1177-02

Start Date/Time: 11/28/2018 11:00:00AM

Sample Matrix: Ground Water

Stop Date/Time: 11/28/2018 11:45:00AM

**1,4-Dioxane by isotope dilution GC/MS**

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	ND	0.22	0.035	µg/L	1		SW-846 8270D	11/28/18	11/30/18 18:33	IMR
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
1,4-Dioxane-d8	20.2		15-110				11/30/18 18:33			

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 65 Daly Rd., East Northport, NY

Sample Description:

Work Order: 18K1176

Date Received: 11/28/2018

Field Sample #: MW12A\_112818

Sample ID: 18K1176-01

Start Date/Time: 11/28/2018 9:00:00AM

Sample Matrix: Ground Water

Stop Date/Time: 11/28/2018 9:30:00AM

## Semivolatile Organic Compounds by - GC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	7.9	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorohexanoic acid (PFHxA)	14	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluoroheptanoic acid (PFHpA)	3.5	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorobutanoic acid (PFBA)	2.2	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluoropentanoic acid (PFPeA)	12	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	2.7	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorohexanesulfonic acid (PFHxS)	2.1	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorooctanoic acid (PFOA)	8.4	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorooctanesulfonic acid (PFOS)	7.0	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorononanoic acid (PFNA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
NMeFOSAA	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
NEtFOSAA	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 22:50	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
13C-PFHxA	88.3	70-130	12/11/18 22:50
13C-PFDA	86.1	70-130	12/11/18 22:50
d5-NEtFOSAA	84.3	70-130	12/11/18 22:50

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 65 Daly Rd., East Northport, NY

Sample Description:

Work Order: 18K1176

Date Received: 11/28/2018

Field Sample #: MW31A

Sample ID: 18K1176-02

Start Date/Time: 11/28/2018 11:00:00AM

Sample Matrix: Ground Water

Stop Date/Time: 11/28/2018 11:45:00AM

## Semivolatile Organic Compounds by - GC/MS-MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorohexanoic acid (PFHxA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluoroheptanoic acid (PFHpA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorobutanoic acid (PFBA)	2.3	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluoropentanoic acid (PFPeA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorooctanoic acid (PFOA)	3.9	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorooctanesulfonic acid (PFOS)	2.8	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorononanoic acid (PFNA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
NMeFOSAA	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
NEtFOSAA	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	2.0	ng/L	1		SOP 434-PFAAS	12/6/18	12/11/18 23:03	KAF
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
13C-PFHxA	97.0		70-130				12/11/18 23:03			
13C-PFDA	106		70-130				12/11/18 23:03			
d5-NEtFOSAA	95.7		70-130				12/11/18 23:03			



TABLE 1  
Summary of Constituents Detected

Sample ID	USEPA - Target Shallow Soil Gas Concentration Corresponding to Target Indoor Air Concentration Where the Soil Gas to Indoor Air Attenuation Factor = 0.1* C <sub>soil-gas</sub>	SVMW-1	SVMW-1	PSV-1-IAL	PSV-1-TA		SVMW-2	SVMW-2	PSV-2-IAL	PSV-2-TA		SVMW-3	SVMW-3	PSV-3-IAL *	PSV-3-TA
Lab Sample No.		720218	756895	2157	766916		720219	756894	3006	766914		720220	75893	3051	766913
Sampling Date		8/7/2007	6/19/2008	9/4/2008	9/4/2008		8/7/2007	6/19/2008	9/4/2008	9/4/2008		8/7/2007	6/19/2008	9/4/2008	9/4/2008
Matrix		AIR	AIR	AIR	AIR		AIR	AIR	AIR	AIR		AIR	AIR	AIR	AIR
Dilution Factor		1	1		1		2	4				20	31.1		15.4
Units		ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3
VOLATILE COMPOUNDS (GC/MS)															
Trichloroethene (TCE)	2.2	4.5	13	4.3	4.7		Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected
1,1,1-Trichloroethane	22000	7.1	7.6	14	11		Not Detected	Not Detected	Not Detected	2.4		Not Detected	Not Detected	Not Detected	Not Detected
Tetrachloroethene (PCE)	81	35	62	55	75		23	30	69	37		41	54	Not Detected	88
1,1,2-Trichloro-1,2,2-trifluoroethane	300000	63	270	159	160		360	840	1720	500		4400	7000	289	4500

Sample ID	USEPA - Target Shallow Soil Gas Concentration Corresponding to Target Indoor Air Concentration Where the Soil Gas to Indoor Air Attenuation Factor = 0.1* C <sub>soil-gas</sub>	DUPLICATE = (SVMW-3)	DUPLICATE = (SVMW-3)	DUP-IAL= (PSV-3)	DUP-TA= (PSV-3)		SVMW-4	SVMW-4	PSV-4-IAL	PSV-4-TA		SVMW-5	SVMW-5	PSV-5-IAL	PSV-5-TA
Lab Sample No.		720223	756896	2158	766915		720221	756892	3013	766912		720222	756890	2034	766911
Sampling Date		8/7/2007	6/19/2008	9/4/2008	9/4/2008		8/7/2007	6/19/2008	9/4/2008	9/4/2008		8/7/2007	6/19/2008	9/4/2008	9/4/2008
Matrix		AIR	AIR	AIR	AIR		AIR	AIR	AIR	AIR		AIR	AIR	AIR	AIR
Dilution Factor		20	35.9		31		1	1		1.5		20	22		10
Units		ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3
VOLATILE COMPOUNDS (GC/MS)															
Trichloroethene (TCE)	2.2	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected
1,1,1-Trichloroethane	22000	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected
Tetrachloroethene (PCE)	81	52	81	77	160		5.6	2.8	19	12		Not Detected	Not Detected	15	Not Detected
1,1,2-Trichloro-1,2,2-trifluoroethane	300000	3900	8400	2770	6700		210	92	524	280		3400	5000	2670	2800

Not Detected : constituent was not detected above the laboratory minimum detection limit.

\* Potentially Damaged Suma Canister

Sample Location	SVMW-5		
Sample Depth (feet)	8 to 10		
Sample Date	8/7/2007	6/19/2008	9/4/08
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>			
Trichloroethylene	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Tetrachloroethene	ND	ND	15
Freon-113	3,400	5,000	2,670

Sample Location	SVMW-4		
Sample Depth (feet)	8 to 10		
Sample Date	8/7/2007	6/19/2008	9/4/08
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>			
Trichloroethylene	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Tetrachloroethene	5.6	2.8	19
Freon-113	210	92	524

Sample Location	SVMW-3		
Sample Depth (feet)	8 to 10		
Sample Date	8/7/2007	6/19/2008	9/4/08
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>			
Trichloroethylene	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Tetrachloroethene	41	54	88
Freon-113	4,400	7,000	4,500

Sample Location	SVMW-2		
Sample Depth (feet)	8 to 10		
Sample Date	8/7/2007	6/19/2008	9/4/08
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>			
Trichloroethylene	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Tetrachloroethene	23	30	69
Freon-113	360	840	1,720

Sample Location	SVMW-1		
Sample Depth (feet)	8 to 10		
Sample Date	8/7/2007	6/19/2008	9/4/08
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>			
Trichloroethylene	4.5	13	4.7
1,1,1-Trichloroethane	7.1	7.6	11
Tetrachloroethene	35	62	75
Freon-113	63	270	160

Sample Location	NE of Main Bldg.
Sample No.	49
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon 113	26,823

Sample Location	NE of Main Bldg.
Sample No.	48
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Tetrachloroethene	733



Sample Location	S/SE of Machine Shop
Sample No.	47
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Trichloroethene	172

Sample Location	S/SE of Machine Shop
Sample No.	46
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon 113	3,663
Trichloroethene	4,993
Tetrachloroethene	1,831

Sample Location	S/SE of Machine Shop
Sample No.	45
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon 113	4,453
Trichloroethene	4,606
Tetrachloroethene	4,884

Sample Location	S/SE of Machine Shop
Sample No.	44
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Trichloroethene	623
Tetrachloroethene	543

Sample Location	North of Main Bldg.
Sample No.	25
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon 113	7,664

Sample Location	North of Main Bldg.
Sample No.	21
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon 113	9,963

Sample Location	North of Main Bldg.
Sample No.	19
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon 113	30,655

Sample Location	NW of Main Bldg.
Sample No.	5
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Tetrachloroethene	1,153



Sample Location	NW of Main Bldg.
Sample No.	4
Sample Date	5/1/90
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Tetrachloroethene	366

Sample Location	Sludge Drying Beds
Sample No.	SV-14
Sample Depth (feet)	6
Sample Date	9/20/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
1,1,1-Trichloroethane	8.32
Dichlorodifluoromethane (Freon 12)	3.52
Freon-113	935
Tetrachloroethylene	435
Trichloroethylene	9.84
Trichlorofluoromethane (Freon 11)	15.4

Sample Location	Machine Shop
Sample No.	SV-13
Sample Depth (feet)	6
Sample Date	9/20/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	857
Tetrachloroethylene	3,380
Trichloroethylene	92.9
Trichlorofluoromethane (Freon 11)	160

Sample Location	South of Machine Shop
Sample No.	SV-12
Sample Depth (feet)	6
Sample Date	9/20/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
1,1,1-Trichloroethane	33.9
cis-1,2-Dichloroethylene	48.4
Freon-113	2,650
Tetrachloroethylene	407
Trichloroethylene	273

Sample Location	South Plating Shop
Sample No.	SV-11
Sample Depth (feet)	6
Sample Date	9/22/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
1,1,1-Trichloroethane	555
cis-1,2-Dichloroethylene	1,130
Freon-113	24,200
Tetrachloroethylene	1,720
Trichloroethylene	765

Sample Location	Material Evaluation Room
Sample No.	SV-10
Sample Depth (feet)	6
Sample Date	9/22/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	24,900
Tetrachloroethylene	2,900
Trichloroethylene	415
Trichlorofluoromethane (Freon 11)	274

Sample Location	Chemical Storage Shed
Sample No.	SV-9
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
1,1,1-Trichloroethane	128
cis-1,2-Dichloroethylene	8,870
Freon-113	13,300
Tetrachloroethylene	3,380
Trichloroethylene	820

Sample Location	Clean Room
Sample No.	SV-8
Sample Depth (feet)	6
Sample Date	9/22/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
1,1,1-Trichloroethane	88.8
Freon-113	14,800
Tetrachloroethylene	4,830
Trichloroethylene	508



Sample Location	North Plating Shop
Sample No.	SV-7
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
1,1,1-Trichloroethane	1,660
cis-1,2-Dichloroethylene	1,290
Freon-113	39,800
Tetrachloroethylene	5,730
Trichloroethylene	1,040

Sample Location	Waste Treatment System
Sample No.	SV-6
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	35,000
Tetrachloroethylene	3,170
Trichloroethylene	4,700

Sample Location	North Industrial Pools
Sample No.	SV-5
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	9,350
Tetrachloroethylene	1,240
Trichloroethylene	600

Sample Location	Western Sanitary System
Sample No.	SV-4
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	5,610
Tetrachloroethylene	3,040
Trichloroethylene	98.4

Sample Location	Parking Lot
Sample No.	SV-3
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	2,880
Tetrachloroethylene	57.9

Sample Location	Former Plating Waste Lagoon
Sample No.	SV-2
Sample Depth (feet)	6
Sample Date	9/20/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Dichlorodifluoromethane (Freon 12)	3.02
Freon-113	65.5
Tetrachloroethylene	6.21
Trichloroethylene	2.73
Trichlorofluoromethane (Freon 11)	12.0

Sample Location	Western Recharge Basin
Sample No.	SV-1
Sample Depth (feet)	6
Sample Date	9/21/04
Chlorinated Volatile Organic Compounds in ug/m <sup>3</sup>	
Freon-113	366
Tetrachloroethylene	96.6
Trichloroethylene	13.1

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	16			16			16		
Lab Sample ID	OA010228121000			BA010228121004			SS010228121005		
Sample Date & Time	2/28/12 10:00			2/28/12 10:04			2/28/12 10:05		
Sample Date & Time End	2/29/12 8:40			2/29/12 8:35			2/29/12 8:34		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	7.9	1.50		520.0	15.00	D	79.0	1.50	
Ethylbenzene	0.0	0.35	U	0.7	0.35		1.5	0.35	
Trichlorofluoromethane	1.2	0.45		1.4	0.45		2.8	0.45	
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	0.0	0.70	U	0.0	0.70	U
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	0.93	U	0.0	0.93	U
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
Benzene	0.6	0.26		0.5	0.26		0.0	0.26	U
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.4	0.34		0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	2.3	0.54		58.0	0.54	
Toluene	1.1	0.30		8.2	0.30		2.1	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	1.1	0.44	
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.0	0.21	U	1.0	0.21	
1,2,4-Trimethylbenzene	0.0	0.39	U	1.0	0.39		1.2	0.39	
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	0.6	0.35		1.4	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	46.0	0.61		5000.0	28.00	D
m-Xylene & p-Xylene	0.5	0.35		2.1	0.35		3.7	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	0.0	0.94	U	8.1	0.94		37.0	0.94	
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.5	0.25		0.4	0.25		0.0	0.25	U
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	0.8	0.39	
Chloromethane	1.0	0.41		1.1	0.41		0.0	0.41	U
Cyclohexane	0.0	0.69	U	1.1	0.69		0.0	0.69	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.8	0.48	
1,4-Dichlorobenzene	0.0	0.48	U	0.5	0.48		0.0	0.48	U
Dichlorodifluoromethane	2.4	0.40		12.0	0.40		0.9	0.40	
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.5	0.32	
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample



**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	20			20			20		
Lab Sample ID	OA010228121344			BA010228121346			SS010228121348		
Sample Date & Time	2/28/12 13:44			2/28/12 13:46			2/28/12 13:48		
Sample Date & Time End	2/29/12 12:31			2/29/12 12:31			2/29/12 12:27		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	8.1	1.50		36.0	1.50		2.4	1.50	
Ethylbenzene	0.0	0.35	U	0.0	0.35	U	1.8	0.35	
Trichlorofluoromethane	1.1	0.45		1.1	0.45		1.0	0.45	
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	0.0	0.70	U	0.0	0.70	U
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	0.93	U	0.0	0.93	U
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
Benzene	0.6	0.26		0.0	0.26	U	0.0	0.26	U
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.0	0.34	U	0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	0.0	0.54	U	3.9	0.54	
Toluene	1.3	0.30		0.0	0.30	U	0.8	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
1,2,4-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	1.3	0.39	
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	0.0	0.35	U	1.8	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	1.1	0.61		400.0	6.10	D
m-Xylene & p-Xylene	0.6	0.35		0.0	0.35	U	4.2	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	0.0	0.94	U	0.0	0.94	U	45.0	9.40	D
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.5	0.25		0.0	0.25	U	0.0	0.25	U
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Chloromethane	1.0	0.41		1.1	0.41		0.0	0.41	U
Cyclohexane	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	1.2	0.48	
1,4-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
Dichlorodifluoromethane	2.4	0.40		2.1	0.40		0.0	0.40	U
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	18			18			18		
Lab Sample ID	OA010229121151			BA010229121154			SS010229121155		
Sample Date & Time	2/29/12 11:51			2/29/12 11:54			2/29/12 11:55		
Sample Date & Time End	3/1/12 10:32			3/1/12 10:29			3/1/12 10:27		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	4.9	1.50		270.0	7.50	D	5.3	1.50	
Ethylbenzene	0.0	0.35	U	3.7	0.35		1.1	0.35	
Trichlorofluoromethane	1.2	0.45		1.2	0.45		1.1	0.45	
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	6.0	0.70		0.0	0.70	U
2,2,4-Trimethylpentane	0.0	0.93	U	6.6	0.93		0.0	0.93	U
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
Benzene	0.4	0.26		3.1	0.26		0.0	0.26	U
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.4	0.34		0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	1.5	0.54		3.8	0.54	
Toluene	1.1	0.30		30.0	0.30		0.5	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.8	0.44	
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
1,2,4-Trimethylbenzene	0.0	0.39	U	3.2	0.39		0.0	0.39	U
1,3,5-Trimethylbenzene	0.0	0.39	U	0.8	0.39		0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	4.1	0.35		0.9	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	1.3	0.61		34.0	0.61	
m-Xylene & p-Xylene	0.0	0.35	U	13.0	0.35		2.3	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	1.3	0.94		13.0	0.94		39.0	0.94	
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.5	0.25		0.5	0.25		0.0	0.25	U
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	12.0	0.39	
Chloromethane	1.2	0.41		1.0	0.41		0.0	0.41	U
Cyclohexane	0.0	0.69	U	2.4	0.69		0.0	0.69	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,4-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
Dichlorodifluoromethane	2.4	0.40		2.3	0.40		0.0	0.40	U
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	0.4	0.32		0.0	0.32	U
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	11			11			11		
Lab Sample ID	OA010301120923			BA010301120926			SS010301120927		
Sample Date & Time	3/1/12 9:23			3/1/12 9:26			3/1/12 9:27		
Sample Date & Time End	3/2/12 8:10			3/2/12 8:05			3/2/12 8:03		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	3.5	1.50		120.0	1.50		8.6	1.50	
Ethylbenzene	0.0	0.35	U	1.1	0.35		1.5	0.35	
Trichlorofluoromethane	1.1	0.45		1.1	0.45		1.0	0.45	
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	0.0	0.70	U	0.0	0.70	U
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	0.93	U	0.0	0.93	U
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
Benzene	0.5	0.26		0.8	0.26		0.0	0.26	U
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.0	0.34	U	0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	0.0	0.54	U	1.7	0.54	
Toluene	0.8	0.30		2.9	0.30		0.6	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
1,2,4-Trimethylbenzene	0.0	0.39	U	0.5	0.39		1.0	0.39	
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	0.7	0.35		1.4	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	0.0	0.61	U	20.0	0.61	
m-Xylene & p-Xylene	0.4	0.35		1.9	0.35		3.4	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	0.0	0.94	U	0.0	0.94	U	47.0	0.94	
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.4	0.25		0.5	0.25		0.0	0.25	U
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Chloromethane	1.0	0.41		1.0	0.41		0.0	0.41	U
Cyclohexane	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	1.0	0.48	
1,4-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
Dichlorodifluoromethane	2.4	0.40		2.4	0.40		0.0	0.40	U
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	21			21			21		
Lab Sample ID	OA010301121304			BA010301121311			SS010301121312		
Sample Date & Time	3/1/12 13:04			3/1/12 13:11			3/1/12 13:12		
Sample Date & Time End	3/2/12 12:02			3/2/12 11:59			3/2/12 11:57		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	4.0	1.50		30.0	1.50		4.8	1.50	
Ethylbenzene	0.0	0.35	U	0.0	0.35	U	2.2	0.35	
Trichlorofluoromethane	1.2	0.45		1.8	0.45		0.0	0.45	U
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	2.2	0.70		1.2	0.70	
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	0.93	U	1.7	0.93	
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	0.0	0.69	U	3.2	0.69		0.0	0.69	U
Benzene	0.5	0.26		0.8	0.26		1.6	0.26	
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.0	0.34	U	0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	0.0	0.54	U	3.8	0.54	
Toluene	0.8	0.30		1.9	0.30		1.5	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.0	0.21	U	0.9	0.21	
1,2,4-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.9	0.39	
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	0.0	0.35	U	0.5	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	0.6	0.61		20.0	0.61	
m-Xylene & p-Xylene	0.5	0.35		1.0	0.35		2.5	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	0.0	0.94	U	0.0	0.94	U	41.0	0.94	
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.5	0.25		0.5	0.25		0.0	0.25	U
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	0.9	0.39	
Chloromethane	1.0	0.41		1.0	0.41		0.0	0.41	U
Cyclohexane	0.0	0.69	U	0.0	0.69	U	0.8	0.69	
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,4-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
Dichlorodifluoromethane	2.2	0.40		2.4	0.40		0.0	0.40	U
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID Lab Sample ID Sample Date & Time Sample Date & Time End	15 OA010313121319 3/13/12 13:19 3/14/12 11:35			15 BA010313121322 3/13/12 13:22 3/14/12 11:31			15 SS010313121325 3/13/12 13:25 3/14/12 11:27		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	3.80	U	0.0	17.00	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	5.90	U	0.0	25.00	U
1,4-Dioxane	0.0	0.72	U	0.0	7.60	U	0.0	33.00	U
Ethanol	6.0	1.50		890.0	290.00	D	180.0	69.00	
Ethylbenzene	0.0	0.35	U	0.0	3.70	U	0.0	16.00	U
Trichlorofluoromethane	1.3	0.45		0.0	4.70	U	0.0	20.00	U
Hexachlorobutadiene	0.0	0.85	U	0.0	9.00	U	0.0	39.00	U
n-Hexane	0.7	0.70		0.0	7.40	U	0.0	32.00	U
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	9.90	U	0.0	42.00	U
tert-Butyl alcohol	0.0	0.97	U	0.0	10.00	U	0.0	44.00	U
Methylene chloride	1.2	0.69		0.0	7.30	U	0.0	32.00	U
Benzene	0.5	0.26		0.0	2.70	U	0.0	12.00	U
Benzyl chloride	0.0	0.83	U	0.0	8.70	U	0.0	38.00	U
Styrene	0.0	0.34	U	0.0	3.60	U	0.0	15.00	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	5.80	U	0.0	25.00	U
Tetrachloroethene	0.6	0.54		0.0	5.70	U	120.0	25.00	
Toluene	1.5	0.30		5.2	3.20		0.0	14.00	U
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	6.30	U	0.0	27.00	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	4.60	U	0.0	20.00	U
1,1,2-Trichloroethane	0.0	0.44	U	0.0	4.60	U	0.0	20.00	U
Trichloroethene	0.0	0.21	U	0.0	2.30	U	0.0	9.80	U
1,2,4-Trimethylbenzene	0.0	0.39	U	0.0	4.10	U	0.0	18.00	U
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	4.10	U	0.0	18.00	U
Vinyl chloride	0.0	0.20	U	0.0	2.20	U	0.0	9.30	U
o-Xylene	0.0	0.35	U	0.0	3.70	U	0.0	16.00	U
Methyl tert-butyl ether	0.0	0.58	U	0.0	6.10	U	0.0	26.00	U
1,1,2-Trichlorotrifluoroethane	0.6	0.61		100.0	6.50		9800.0	60.00	D
m-Xylene & p-Xylene	0.7	0.35		0.0	3.70	U	0.0	16.00	U
Bromodichloromethane	0.0	0.54	U	0.0	5.70	U	0.0	24.00	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	6.50	U	0.0	28.00	U
2-Butanone (MEK)	1.0	0.94		0.0	10.00	U	0.0	43.00	U
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	8.60	U	0.0	37.00	U
Bromoform	0.0	0.83	U	0.0	8.70	U	0.0	38.00	U
Bromomethane	0.0	0.31	U	0.0	3.30	U	0.0	14.00	U
Carbon tetrachloride	0.6	0.25		0.0	2.70	U	0.0	11.00	U
Chlorobenzene	0.0	0.37	U	0.0	3.90	U	0.0	17.00	U
Dibromochloromethane	0.0	0.68	U	0.0	7.20	U	0.0	31.00	U
Chloroethane	0.0	0.21	U	0.0	2.20	U	0.0	9.60	U
Chloroform	0.0	0.39	U	0.0	4.10	U	0.0	18.00	U
Chloromethane	1.1	0.41		0.0	4.40	U	0.0	19.00	U
Cyclohexane	0.0	0.69	U	0.0	7.30	U	0.0	31.00	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	5.10	U	0.0	22.00	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	5.10	U	0.0	22.00	U
1,4-Dichlorobenzene	0.0	0.48	U	13.0	5.10		25.0	22.00	
Dichlorodifluoromethane	2.5	0.40		0.0	4.20	U	0.0	18.00	U
1,1-Dichloroethane	0.0	0.32	U	0.0	3.40	U	0.0	15.00	U
1,2-Dichloroethane	0.0	0.32	U	0.0	3.40	U	0.0	15.00	U
1,1-Dichloroethene	0.0	0.32	U	0.0	3.30	U	0.0	14.00	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	3.30	U	0.0	14.00	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	3.30	U	0.0	14.00	U
1,2-Dichloropropane	0.0	0.37	U	0.0	3.90	U	0.0	17.00	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	3.80	U	0.0	17.00	U

Notes: All units in micrograms per cubic meter (µg/m³)  
 U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.  
 D - Indicates samples was diluted, for dilution factor please see the lab report.  
 B - method blank contamination  
 E - estimated results - outside of calibration range  
 BA - Basement Air Sample  
 SS - Subslab Air Sample  
 OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID Lab Sample ID Sample Date & Time Sample Date & Time End	duplicate VIX1 0/0/00 0:00 0/0/00 0:00			duplicate VIX2 0/0/00 0:00 0/0/00 0:00			duplicate VIX3 0/0/00 0:00 0/0/00 0:00		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	7.80	U	0.0	17.00	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	12.00	U	0.0	25.00	U	0.0	0.56	U
1,4-Dioxane	0.0	16.00	U	0.0	33.00	U	0.0	0.72	U
Ethanol	2200.0	33.00		160.0	69.00		8.6	1.50	
Ethylbenzene	0.0	7.50	U	0.0	16.00	U	0.0	0.35	U
Trichlorofluoromethane	0.0	9.70	U	0.0	20.00	U	1.5	0.45	
Hexachlorobutadiene	0.0	18.00	U	0.0	39.00	U	0.0	0.85	U
n-Hexane	0.0	15.00	U	0.0	32.00	U	0.8	0.70	
2,2,4-Trimethylpentane	0.0	20.00	U	0.0	42.00	U	0.0	0.93	U
tert-Butyl alcohol	0.0	21.00	U	0.0	44.00	U	0.0	0.97	U
Methylene chloride	0.0	15.00	U	0.0	32.00	U	1.4	0.69	
Benzene	0.0	5.50	U	0.0	12.00	U	0.6	0.26	
Benzyl chloride	0.0	18.00	U	0.0	38.00	U	0.0	0.83	U
Styrene	0.0	7.40	U	0.0	15.00	U	0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	12.00	U	0.0	25.00	U	0.0	0.55	U
Tetrachloroethene	0.0	12.00	U	140.0	25.00		0.0	0.54	U
Toluene	0.0	6.50	U	0.0	14.00	U	1.5	0.30	
1,2,4-Trichlorobenzene	0.0	13.00	U	0.0	27.00	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	9.40	U	0.0	20.00	U	0.0	0.44	U
1,1,2-Trichloroethane	0.0	9.40	U	0.0	20.00	U	0.0	0.44	U
Trichloroethene	0.0	4.60	U	0.0	9.80	U	0.0	0.21	U
1,2,4-Trimethylbenzene	0.0	8.50	U	0.0	18.00	U	0.5	0.39	
1,3,5-Trimethylbenzene	0.0	8.50	U	0.0	18.00	U	0.0	0.39	U
Vinyl chloride	0.0	4.40	U	0.0	9.30	U	0.0	0.20	U
o-Xylene	0.0	7.50	U	0.0	16.00	U	0.0	0.35	U
Methyl tert-butyl ether	0.0	12.00	U	0.0	26.00	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	110.0	13.00		10000.0	69.00	D	0.7	0.61	
m-Xylene & p-Xylene	0.0	7.50	U	0.0	16.00	U	0.5	0.35	
Bromodichloromethane	0.0	12.00	U	0.0	24.00	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	13.00	U	0.0	28.00	U	0.0	0.61	U
2-Butanone (MEK)	0.0	20.00	U	0.0	43.00	U	1.0	0.94	
4-Methyl-2-pentanone (MIBK)	0.0	18.00	U	0.0	37.00	U	0.0	0.82	U
Bromoform	0.0	18.00	U	0.0	38.00	U	0.0	0.83	U
Bromomethane	0.0	6.70	U	0.0	14.00	U	0.0	0.31	U
Carbon tetrachloride	0.0	5.40	U	0.0	11.00	U	0.6	0.25	
Chlorobenzene	0.0	8.00	U	0.0	17.00	U	0.0	0.37	U
Dibromochloromethane	0.0	15.00	U	0.0	31.00	U	0.0	0.68	U
Chloroethane	0.0	4.60	U	0.0	9.60	U	0.0	0.21	U
Chloroform	0.0	8.40	U	0.0	18.00	U	0.0	0.39	U
Chloromethane	0.0	8.90	U	0.0	19.00	U	1.2	0.41	
Cyclohexane	0.0	15.00	U	0.0	31.00	U	0.0	0.69	U
1,2-Dichlorobenzene	0.0	10.00	U	0.0	22.00	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	10.00	U	0.0	22.00	U	0.0	0.48	U
1,4-Dichlorobenzene	11.0	10.00		29.0	22.00		0.0	0.48	U
Dichlorodifluoromethane	0.0	8.50	U	0.0	18.00	U	2.6	0.40	
1,1-Dichloroethane	0.0	7.00	U	0.0	15.00	U	0.0	0.32	U
1,2-Dichloroethane	0.0	7.00	U	0.0	15.00	U	0.0	0.32	U
1,1-Dichloroethene	0.0	6.90	U	0.0	14.00	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	6.90	U	0.0	14.00	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	6.90	U	0.0	14.00	U	0.0	0.32	U
1,2-Dichloropropane	0.0	8.00	U	0.0	17.00	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	7.80	U	0.0	17.00	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	19			19			19		
Lab Sample ID	OA010319120927			BA010319120929			SS010319120930		
Sample Date & Time	3/19/12 9:27			3/19/12 9:29			3/19/12 9:30		
Sample Date & Time End	3/20/12 8:07			3/20/12 8:03			3/20/12 8:02		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	17.0	1.50		280.0	3.00	D	5.6	1.50	
Ethylbenzene	0.0	0.35	U	0.7	0.35		2.2	0.35	
Trichlorofluoromethane	1.3	0.45		1.3	0.45		1.4	0.45	
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	1.0	0.70		0.0	0.70	U
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	0.93	U	0.0	0.93	U
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	1.1	0.69		0.0	0.69	U	1.3	0.69	
Benzene	0.3	0.26		0.6	0.26		0.0	0.26	U
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.4	0.34		0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	0.0	0.54	U	1.4	0.54	
Toluene	0.7	0.30		3.6	0.30		0.8	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.5	0.44	
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
1,2,4-Trimethylbenzene	0.0	0.39	U	0.5	0.39		1.0	0.39	
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	0.7	0.35		1.8	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	7.2	0.61		1300.0	12.00	D
m-Xylene & p-Xylene	0.4	0.35		1.9	0.35		4.8	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	0.0	0.94	U	1.9	0.94		42.0	19.00	D
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.5	0.25		0.5	0.25		0.0	0.25	U
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	7.7	0.39	
Chloromethane	1.2	0.41		1.6	0.41		1.9	0.41	
Cyclohexane	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	1.2	0.48	
1,4-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
Dichlorodifluoromethane	2.4	0.40		2.4	0.40		0.0	0.40	U
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample

**TABLE 1**  
**SUB-SLAB, INDOOR, AND AMBIENT AIR SAMPLING RESULTS**  
**DEUTSCH RELAYS (1-52-003)**  
**EAST NORTHPORT**

Client ID	5			5			5		
Lab Sample ID	OA010326121345			BA010326121347			SS010326121348		
Sample Date & Time	3/26/12 13:45			3/26/12 13:47			3/26/12 13:48		
Sample Date & Time End	3/27/12 12:06			3/27/12 12:04			3/27/12 12:02		
	Result	LRL	Q	Result	LRL	Q	Result	LRL	Q
trans-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.0	0.56	U	0.0	0.56	U	0.0	0.56	U
1,4-Dioxane	0.0	0.72	U	0.0	0.72	U	0.0	0.72	U
Ethanol	2.9	1.50		130.0	1.50		18.0	1.50	
Ethylbenzene	0.0	0.35	U	0.8	0.35		1.3	0.35	
Trichlorofluoromethane	1.2	0.45		1.2	0.45		1.8	0.45	
Hexachlorobutadiene	0.0	0.85	U	0.0	0.85	U	0.0	0.85	U
n-Hexane	0.0	0.70	U	1.0	0.70		0.0	0.70	U
2,2,4-Trimethylpentane	0.0	0.93	U	0.0	0.93	U	0.0	0.93	U
tert-Butyl alcohol	0.0	0.97	U	0.0	0.97	U	0.0	0.97	U
Methylene chloride	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
Benzene	0.3	0.26		0.5	0.26		0.3	0.26	
Benzyl chloride	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Styrene	0.0	0.34	U	0.0	0.34	U	0.0	0.34	U
1,1,2,2-Tetrachloroethane	0.0	0.55	U	0.0	0.55	U	0.0	0.55	U
Tetrachloroethene	0.0	0.54	U	7.4	0.54		5.7	0.54	
Toluene	0.4	0.30		2.5	0.30		2.0	0.30	
1,2,4-Trichlorobenzene	0.0	0.59	U	0.0	0.59	U	0.0	0.59	U
1,1,1-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
1,1,2-Trichloroethane	0.0	0.44	U	0.0	0.44	U	0.0	0.44	U
Trichloroethene	0.0	0.21	U	0.9	0.21		0.6	0.21	
1,2,4-Trimethylbenzene	0.0	0.39	U	0.4	0.39		0.4	0.39	
1,3,5-Trimethylbenzene	0.0	0.39	U	0.0	0.39	U	0.0	0.39	U
Vinyl chloride	0.0	0.20	U	0.0	0.20	U	0.0	0.20	U
o-Xylene	0.0	0.35	U	1.0	0.35		0.8	0.35	
Methyl tert-butyl ether	0.0	0.58	U	0.0	0.58	U	0.0	0.58	U
1,1,2-Trichlorotrifluoroethane	0.0	0.61	U	1.1	0.61		52.0	0.61	
m-Xylene & p-Xylene	0.0	0.35	U	3.0	0.35		2.6	0.35	
Bromodichloromethane	0.0	0.54	U	0.0	0.54	U	0.0	0.54	U
1,2-Dibromoethane (EDB)	0.0	0.61	U	0.0	0.61	U	0.0	0.61	U
2-Butanone (MEK)	0.0	0.94	U	30.0	0.94		58.0	4.70	D
4-Methyl-2-pentanone (MIBK)	0.0	0.82	U	0.0	0.82	U	0.0	0.82	U
Bromoform	0.0	0.83	U	0.0	0.83	U	0.0	0.83	U
Bromomethane	0.0	0.31	U	0.0	0.31	U	0.0	0.31	U
Carbon tetrachloride	0.4	0.25		0.5	0.25		0.5	0.25	
Chlorobenzene	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
Dibromochloromethane	0.0	0.68	U	0.0	0.68	U	0.0	0.68	U
Chloroethane	0.0	0.21	U	0.0	0.21	U	0.0	0.21	U
Chloroform	0.0	0.39	U	0.0	0.39	U	14.0	0.39	
Chloromethane	1.1	0.41		1.5	0.41		1.5	0.41	
Cyclohexane	0.0	0.69	U	0.0	0.69	U	0.0	0.69	U
1,2-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,3-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
1,4-Dichlorobenzene	0.0	0.48	U	0.0	0.48	U	0.0	0.48	U
Dichlorodifluoromethane	2.3	0.40		2.2	0.40		0.7	0.40	
1,1-Dichloroethane	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloroethane	0.0	0.32	U	1.8	0.32		0.9	0.32	
1,1-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
cis-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
trans-1,2-Dichloroethene	0.0	0.32	U	0.0	0.32	U	0.0	0.32	U
1,2-Dichloropropane	0.0	0.37	U	0.0	0.37	U	0.0	0.37	U
cis-1,3-Dichloropropene	0.0	0.36	U	0.0	0.36	U	0.0	0.36	U

Notes: All units in micrograms per cubic meter (µg/m³)

U - Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary dilution factor.

D - Indicates samples was diluted, for dilution factor please see the lab report.

B - method blank contamination

E - estimated results - outside of calibration range

BA - Basement Air Sample

SS - Subslab Air Sample

OA - Outdoor Air Sample



**APPENDIX E**  
**SOIL BORING AND MONITORING WELL CONSTRUCTION LOGS**  
**GROUNDWATER ELEVATION DATA**

This Appendix includes all of the available boring logs and monitoring well construction logs for the Site wells that have not been previously abandoned. A table with groundwater elevation data is also included in this Appendix.

[illegible]

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
25								
30								
								Light brown sand some large gravel.
35								
								Light brown sand some large gravel.
40								
								Light brown sand.
45								
								Light brown sand.
50								
55								

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
60								Light brown medium sand, some fine sand, trace small gravel.
65								
		SS-1	64-66	Dry	Full			
70								
		SS-2	69-71	Dry	Full			Light brown medium sand with rust brown thin strips.
75								
		SS-3	73-75	Dry	Full			
80								
		SS-04	78-79	Dry	Full			Light brown medium sand, wet at 79-80.
			79-80	Wet				
85								
90								
								End of borehole.

<b>BORING REPORT</b>		EDER ASSOCIATES CONSULTING ENGINEERS, P.C. 480 FOREST AVENUE, LOCUST VALLEY, NY 11560 8000 EXCELSIOR DRIVE, MADISON, WI 53717 315 W. HURON STREET, SUITE 220, ANN ARBOR MI 48104 519 PLEASANT HOME ROAD, SUITE 3-C, AUGUSTA, GA 30907 9471 BAYMEADOWS ROAD, SUITE 106, JACKSONVILLE, FL 32256 427 RIVERVIEW EXECUTIVE PARK, TRENTON, NJ 08611				<b>SHEET    1       OF    4</b>					
DATE STARTED: November 24, 1992		DATE FINISHED: November 25, 1992		BORING NO. MW16							
CLIENT: Deutsch Relay				PROJECT NO.: 563-10							
PROJECT NAME & LOCATION: Deutsch Relay - East Northport				PREPARED BY: A. Giaimo							
DRILLING CONTRACTOR: ADT			LOGGED BY: A. Giaimo		DRILLER: Steve Wolf						
EQUIPMENT:	CASING:	SOIL SAMPLER:		CORE BARREL	AUGER	MON. WELL (MW)	DRILL RIG AND METHOD				
		SPLIT SPOON				PIPE      CAP					
TYPE:	2	2			Hollow Stem		Hollow Stem Auger				
SIZE:		24"			6"						
HAMMER WT/FALL		140 lb/30"		BIT:							
SURFACE ELEVATION:				SURFACE CONDITIONS:							
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.			
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS/6" OR CORE TIME	STRATA DEPTH/ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%			
		TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY						
0								Light brown medium coarse sand.			
5											
10											
15											
20											

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
25								Dark brown medium sand, trace silt.
30								
35								
40								
45								
50								
55								Dark brown sand, some 1" round stones trace silt.

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%						
60								Light brown sand coarse.						
65										Rust brown sand medium and coarse.				
70												Light brown and brown coarse sand some pea size gravel.		
75		Ss-1	70-72	Dry	Full									Brown sand medium and fine.
80		SS-2	74-76	Dry	Full									
85		SS-3	79-81	Dry	Full									
90		SS-4	85-86	Dry	Full									
90		SS-5	89-91	Dry	Full									

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
95								
		SS-6	94-96	Dry	Full			Rust color, medium sand. Wet at 95-96.
100				Wet				
103								
105								End of borehole.
110								
115								
120								
125								



BORING REPORT		EDER ASSOCIATES CONSULTING ENGINEERS Locust Valley, NY; Madison, WI; Ann Arbor MI; Augusta, GA; Jacksonville, FL; Tampa, FL; Trenton, NJ				SHEET 1 OF 3					
DATE STARTED: 8/5/93		DATE FINISHED: 8/27/93		BORING NO. MW-17A							
CLIENT: Deutsch Relays: Continental Ave.				PROJECT NO.: 563-12							
PROJECT NAME & LOCATION: Deutsch, Northport				PREPARED BY: Mark Ryvkin							
DRILLING CONTRACTOR: ADT			LOGGED BY: Mark Ryvkin		DRILLER: Carry Ellison						
EQUIPMENT:	CASING:	SOIL SAMPLER:		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD			
		S/SPOON				PIPE	CAP				
TYPE:	bk stl 100 ft					PVC	PVC	Failing 7W 0-100 - HSA 100-415 mud rotary			
SIZE:	6.0" I.D.					2"	2"				
HAMMER WT/FALL				BIT: 5 7/8"							
SURFACE ELEVATION:				SURFACE CONDITIONS: Paved							
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.			
DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%			
0								Brown f-m SAND, little gravel, trace silt			
25									Brown m-c SAND with gravel		
50										Yellow-brown m-c SAND with gravel	
75											
100											Getting more clayey
125											Brown f-m SAND little gray f gravel
											Getting more clayey

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVER Y	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
150								<p>Light gray m-c SAND</p> <p>Light brown CLAY with m-c sand</p> <p>Changing to dark brown CLAY, tr. sand</p> <p>Red brown CLAY, soft, no sand</p> <p>Brown gray CLAY</p> <p>Brown gray CLAY with yellow mottling</p> <p>The same with orange mottling</p> <p>Gray CLAY</p> <p>Gray brown CLAY</p>
175								
200								
225								
250								
275								
300								

DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVER Y	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%		
325								<p>Gray reddish CLAY occasional orange mottling</p> <p>Gray soft CLAY with brown, orange mottling</p> <p>Changing to sandy CLAY</p> <p>v.f. SAND with silt</p> <p>Silty clayey SAND</p> <p>Changing to more clayey</p> <p>EOB @ 415'</p> <p>Note: boring log prepared based on cuttings and gamma log data</p>		
350										
375										
400										
425										

BORING REPORT		EDER ASSOCIATES CONSULTING ENGINEERS Locust Valley, NY; Madison, WI; Ann Arbor MI; Augusta, GA; Jacksonville, FL; Tampa, FL; Trenton, NJ				SHEET 1 OF 2						
DATE STARTED: 8/30/93		DATE FINISHED: 9/10/93		BORING NO. MW-18								
CLIENT: Deutsch Relays				PROJECT NO.: 563-12								
PROJECT NAME & LOCATION: Deutsch, Northport NW corner of Sears Parking Lot				PREPARED BY: Mark Ryvkin								
DRILLING CONTRACTOR: ADT			LOGGED BY: Mark Ryvkin		DRILLER: Carry Ellison							
EQUIPMENT:	CASING:	SOIL SAMPLER:		CORE BARREL	AUGER	MON. WELL (MW)		DRILL RIG AND METHOD				
		S/SPOON				PIPE	CAP					
TYPE:	blk steel 80				---	PVC	PVC	Mud rotary				
SIZE:	7 1/4 OD 6.0 ID					2"	2"					
HAMMER WT/FALL				BIT: 5 7/8"								
SURFACE ELEVATION:				SURFACE CONDITIONS: Paved								
WATER LEVEL AT		FT. AFTER		HRS.		FT. AFTER		HRS.				
DEPTH BELOW GRADE	OVA READINGS	SAMPLE				BLOWS/6" OR CORE TIME	STRATA DEPTH/ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=20-30% AND=35-50%				
		TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVERY							
0								m-c SAND with gravel				
50												
100										Brown reddish sand CLAY		
150											Getting more sandy, loss of water some boulders	
200												Sandy CLAY, minor loss of water
												Gray brown dense sandy CLAY

[illegible]



DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVER Y	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
200								<u>SAND AND CLAY</u> white orange clay with multicolor mottling and bright brown sand
250								Seams of light brown f-w SAND w/ mica and white clays
290								
300								White, reddish, brown CLAYS inter- bedded with brown quartz f-e sand, gravel, a lot of mica
350								Seams of light brown SAND and white, brown, reddish black CLAYS
370								EOB @ 372'
								Note: Boring log prepared based on analysis of cuttings and gamma log data





DEPTH BELOW GRADE	OVA READINGS	TYPE AND NO.	DEPTH (FROM-TO)	MOISTURE CONTENT	RECOVER Y	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION & REMARKS TRACE=0-10% LITTLE=10-20% SOME=0-30% AND=35-50%
250								<p>The same as above white SAND with mica</p> <p>Increase in gravelly material</p> <p>f-m SAND with seams of clay</p> <p>Multi colored clays at 302</p> <p>EOB @ 302'</p> <p>Note: Boring log prepared based on analysis of cuttings and gamma log data</p>
300								

Clayton Environmental Consultants							Log of Monitoring Well WROW1	
PROJECT: <i>Deutsch Relays</i>							LOCATION: <i>East Northport, NY</i>	
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:	
DATE STARTED: <i>6/7/95</i>							INITIAL H2o LEVEL:	
DATE FINISHED: <i>6/28/95</i>							FINAL H2o LEVEL:	
DRILLING METHOD: <i>Mud Rotary</i>							TOTAL DEPTH: <i>455 Feet</i>	
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
5							Asphalt	
10							Brown and Black, c-f SAND, some Silt, some Gravel	
15							c-f Sand, some Gravel, little Silt	
20								
25								
30								
35								
40								
45							COBBLES	
50								
55							c-f SAND, some Gravel, little Silt	
60							COBBLES	
65							c-f SAND, some Gravel, little Silt	
70								
75								
80								
85								
90								
95								
100							coarse GRAVEL, some Sand, trace Silt	
105								
110								
115								
120	WROW1-							
125								
130							c-f SAND, little Silt, trace Gravel	
135								
140								
145								
150								
155							Gray, Silty CLAY, trace Gravel, trace Sand	
160								
165								
170	WROW1-2						Gray, Green, White, Silty CLAY, some fine Sand	
175								

PROJECT: *Deutsch Relays*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
80								
85								
90								
95								
100								
105								
110								
115								
120								
125								
130								
135								
140								
145								
150	WROW1-3						Green, m-f SAND some Silt (micaceous)	
155								
160								
165								
170								
175								
180							Silty CLAY	
185								
190								
195								
200								
205								
210								
215								
220								
225								
230	WROW1-4						White Silty CLAY, little fine Sand	
235								
240								
245								
250								
255								
260								
265								
270	WROW1-5						Black, stiff, CLAY	
275							Silty CLAY, little Sand	
							Gray, m-f SAND, some Silt	

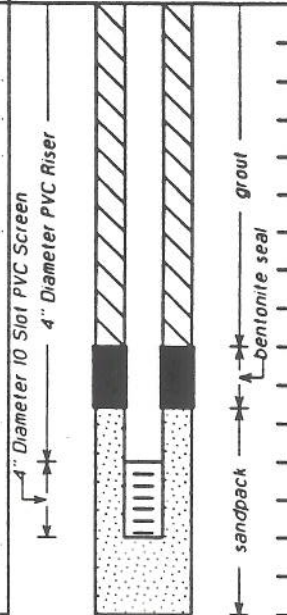
4" Diameter PVC Riser

grout

PROJECT: *Deutsch Relays*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
380								
385							Gray CLAY, little m-f SAND (lignite, mica)	
390							Gray SILT, little m-f Sand lignite, mica), trace white Clay	
395							light Gray CLAY, little Sand (lignite, white Clay)	
400								
405							Black CLAY, little Gray m-f Sand and Silt	
410	WROW1-6							
415								
420								
425								
430							Gray SAND, some Silt, little Gravel	
435							-271.84/MSL 435	
440								
445							Gray CLAY, little Silt	
450							Gray SAND and Gravel, little Silt	
455							End of boring.	
460								
465								
470								
475								
480								
485								
490								
495								
500								
505								
510								
515								
520								
525								
530								
535								
540								
545								
550								
555								
560								
565								
570								
575								





Clayton Environmental Consultants					<b>Log of Monitoring Well WROW2</b>				
PROJECT: <i>Deutsch Relays</i>					LOCATION: <i>East Northport, NY</i>				
PROJECT NO.: <i>61735.08</i>					SURFACE ELEVATION: <i>MSL</i>				
DATE STARTED: <i>6/29/95</i>					INITIAL H2o LEVEL: <i>Below Grade</i>				
DATE FINISHED: <i>7/11/95</i>					FINAL H2o LEVEL: <i>Below Grade</i>				
DRILLING METHOD: <i>Mud Rotary</i>					TOTAL DEPTH: <i>335 Feet</i>				
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>					GEOLOGIST: <i>Allen Attenborough</i>				

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
5							Asphalt	
10						Brown and Black, c-f SAND, some Silt, some Gravel		
15						c-f Sand, some Gravel, little Silt		
20								
25								
30								
35								
40								
45								
50								
55								
60								
65								
70								
75								
80								
85								
90								
95								
100						Brown CLAY and SILT		
105						Brown c-f SAND and Gravel, little Silt (losing mud)		
110								
115								
120								
125								
130								
135								
140						White CLAY and Sand		
145						Brown c-f SAND, little Silt (mica)		
150								
155								
160								
165								
170								
175								

PROJECT: *Deutsch Relays*

LOCATION: *East Northport, NY*

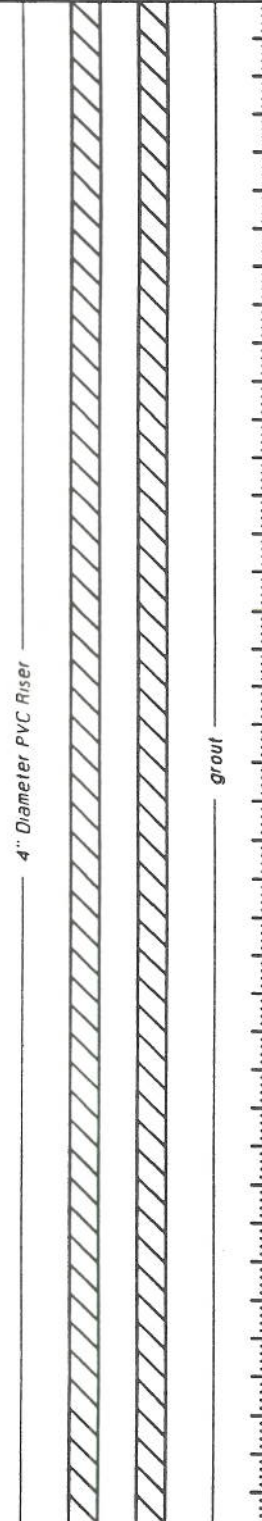
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
80							White CLAY, some Sand	<p>4" Diameter PVC Riser</p> <p>4" Diameter 10 Slot PVC Screen</p> <p>bentonite seal</p> <p>sandpack</p> <p>End of Borehole</p>
85								
90							Green m-f Sand, some Silt	
95								
100							Brown m-f SAND, little white Clay	
105								
110								
115								
120								
125								
130								
135								
140								
145								
150								
155								
160								
165								
170								
175								
180								
185								
190							Brown c-f SAND, little Silt	<p>sandpack</p> <p>bentonite seal</p>
195								
200								
205								
210								
215								
220								
225								
230								
235								
240								
245								
250								
255								
260								
265								
270								
275								
280								
285								
290								
295								
300								
305								
310								
315								
320								
325								
330								
335								
340								
345								
350								
355								
360								
365								
370								
375								

Clayton Environmental Consultants							Log of Monitoring Well CCOW	
PROJECT: <i>Deutsch Relays</i>							LOCATION: <i>East Northport, NY</i>	
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION: <i>MSL</i>	
DATE STARTED: <i>7/17/95</i>							INITIAL H2o LEVEL: <i>Below Grade</i>	
DATE FINISHED: <i>8/4/95</i>							FINAL H2o LEVEL: <i>Below Grade</i>	
DRILLING METHOD: <i>Mud Rotary</i>							TOTAL DEPTH: <i>490 Feet</i>	
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
5							Asphalt	<p>4" Diameter PVC Riser</p> <p>grout</p>
10							Brown c-f SAND, some Silt	
15							Brown c-f Sand, some Silt, some Gravel & Cobbles	
20								
25								
30							Brown c-f Sand, and GRAVEL, trace Silt	
35								
40								
45								
50								
55								
60							Brown c-f SAND, some Silt, trace Gravel	
65								
70								
75							Brown c-f SAND, some Silt, some Gravel	
80								
85							Brown, c-f SAND, some Silt, little Gravel	
90								
95								
100								
105								
110								
115								
120								
125							Brown m-f SAND, some Silt, trace Gravel	
130								
135								
140								
145							Brown c-f SAND, little Silt, some Gravel (pieces of yellow Clay)	
150								
155							Brown m-f SAND, some Silt, trace Gravel	
160								
165								
170							Brown c-f SAND, little Silt, little Gravel	
175								



PROJECT: *Deutsch Relays*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
80							Brown m-f SAND, some Silt, trace Gravel	 <p>4" Diameter PVC Riser</p> <p>grout</p>
85								
90								
95								
200	CCOW-1							
205								
210							Brown CLAY, some fine Sand	
215								
220								
225								
230								
235								
240							Gray and Black CLAY, little Silt, little Sand	
245								
250								
255								
260							Brown CLAY, some fine Sand (some Black Clay)	
265								
270								
275								
280								
285								
290								
295								
300	CCOW-2						Brown m-f SAND, some Silt (muscovite mica)	
305								
310								
315								
320							Brown CLAY, little Sand	
325								
330								
335								
340								
345								
350								
355								
360	CCOW-3						Brown m-f Sand, some Silt	
365							Brown c-f SAND, some Gravel, little Silt	
370								
375								
380								



PROJECT: *Deutsch Relays*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
380								
385								
390								
395								
400	CCOW-4						Brown CLAY, some Sand	
405								
410							Brown c-f SAND, some Gravel, some Clay	
415								
420								
425								
430								
435								
440								
445								
450								
455								
460								
465								
470								
475								
480								
485								
490								
495							End of Borehole	
500								
505								
510								
515								
520								
525								
530								
535								
540								
545								
550								
555								
560								
565								
570								
575								

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# Log of Monitoring Well MW21A

PROJECT: *Deutsch Relays*

LOCATION: *East Northport, NY*

PROJECT NO.: *61735.08*

SURFACE ELEVATION:

DATE STARTED: *5/16/95*

INITIAL H<sub>2</sub>O LEVEL: *78.0 Below Grade*

DATE FINISHED: *5/22/95*

FINAL H<sub>2</sub>O LEVEL: *Below Grade*

DRILLING METHOD: *8 in. Hollow Stem Auger*

TOTAL DEPTH: *165 Feet*

DRILLING COMPANY: *Aquifer Drilling and Testing*

GEOLOGIST: *Allen Attenborough*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
10			0	10			Brown c-f SAND, some c-f Gravel, little Silt	
20								
30								
40							Brown, c-f SAND, little Silt, little f. Gravel	
50	U1		0					
60								
70								
80	MW21-1		0				↓ Water at 78.0 ft below grade	
90	U2		0					
100	MW21-2		0					
110	MW21-3		0					
120	MW21-4		0				Brown, c-f SAND, some Gravel, little Silt	
130								
140	MW21-5		0					
150								
160	MW21-6		0					
170							End of Boring	

Clayton Environmental Consultants							Log of Monitoring Well MW22A	
PROJECT: <i>Deutsch Relays</i>							LOCATION: <i>East Northport, NY</i>	
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:	
DATE STARTED: <i>5/23/95</i>							INITIAL H <sub>2</sub> O LEVEL: <i>76.0 Below Grade</i>	
DATE FINISHED: <i>5/24/95</i>							FINAL H <sub>2</sub> O LEVEL: <i>Below Grade</i>	
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>165 ft. Feet</i>	
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
5							Dark Brown Organic SILT, little Gravel	<p style="text-align: center;">4" Diameter PVC Riser</p> <p style="text-align: center;">4" Diameter 10 Slot PVC Screen</p> <p style="text-align: center;">sandpack</p> <p style="text-align: center;">bentonite seal</p> <p style="text-align: center;">grout</p>
10						Brown, dry, m-f SAND, some c-f Gravel, little Silt		
15						Yellow (10yr7/6), m-f SAND, little Silt, little Gravel		
20								
25								
30								
35								
40								
45								
50								
55								
60								
65								
70								
75								
80	MW22-1		0			↓ Water at 76.0 Yellow (10yr7/6), c-f SAND, little Silt, little f. Gravel		
85								
90								
95								
100	MW22-2		0					
105								
110								
115								
120								
125								
130	MW22-3		0			Yellow (10yr7/6), c-f SAND, little Silt, trace Gravel		
135								
140								
145								
150								
155								
160	MW22-4		0					
165								
170						End of Boring		
175								



Clayton Environmental Consultants							Log of Monitoring Well MW23A	
PROJECT: <i>Deutsch Relays</i>							LOCATION: <i>East Northport, NY</i>	
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:	
DATE STARTED: <i>5/26/95</i>							INITIAL H <sub>2</sub> O LEVEL: <i>64.8 Below Grade</i>	
DATE FINISHED: <i>5/31/95</i>							FINAL H <sub>2</sub> O LEVEL: <i>Below Grade</i>	
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>160 Feet</i>	
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
5							Brown Organic SILT, some Sand, little Gravel	<p>4" Diameter PVC Riser</p> <p>4" Diameter 10 Slot PVC Screen</p> <p>grout</p> <p>bentonite seal</p> <p>sandpack</p>
10							Brown Organic SILT and Coarse Gravel, some Sand	
15							Yellow c-f SAND, some Silt, some Gravel	
20							Yellow c-f SAND, some Silt, little Gravel	
25								
30								
35								
40								
45								
50								
55								
60								
65							↓ water level at 64.8 ft below grade	
70								
75								
80	MW23A-1		0					
85								
90								
95								
100	MW23A-2		0					
105								
110								
115								
120	MW23A-3		0					
125								
130								
135								
140	MW23A-4		0					
145								
150								
155								
160	MW23A-5		0				End of Boring	
165								
170								
175								

Clayton Environmental Consultants							Log of Monitoring Well MW24A	
PROJECT: <i>Deutsch Relays</i>							LOCATION: <i>East Northport, NY</i>	
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:	
DATE STARTED: <i>6/5/95</i>							INITIAL H2o LEVEL: <i>83 ft. Below Grade</i>	
DATE FINISHED: <i>6/8/95</i>							FINAL H2o LEVEL: <i>ft. Below Grade</i>	
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>165 Feet</i>	
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
5							Brown Organic SILT, some Sand, little Gravel	
10							Brown Organic SILT and Coarse Gravel, some Sand	
15							Yellow c-f SAND, some Silt, some Gravel	
20								
25							Yellow c-f SAND, some Silt, little Gravel	
30								
35								
40								
45								
50								
55								
60								
65								
70								
75								
80							▼ Water at 83.0 ft.	
85								
90								
95								
00								
05								
10								
15								
20								
25								
30								
35								
40								
45								
50								
55								
60								
65							End of Boring	
70								
75								

Clayton Environmental Consultants							Log of Monitoring Well MW11-C		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>81735.34</i>							SURFACE ELEVATION:		
DATE STARTED: <i>06/05/96</i>							INITIAL H2o LEVEL: <i>Below Grade</i>		
DATE FINISHED: <i>06/06/96</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>Mud Rotary</i>							TOTAL DEPTH: <i>159 Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>John Gavras</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
5									
10									
15									
20									
25									
30									
35									

Clayton Environmental Consultants							Log of Monitoring Well MW11-C		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
40									
45									
50									
55									
60									
65									
70									
75	SSI	II	0						



Clayton Environmental Consultants					Log of Monitoring Well MW11-C				
PROJECT: <i>Deutsch Relays, Inc.</i>					LOCATION: <i>East Northport, NY</i>				
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
	1.5'	30 82 88					B: .25'-1.5', light Tan clayey Silt, little Sand		
							Light Tan, Orange Tan micaceous silty Sand		
80	SS2	8	0						
	1.5'	41 43 83					Orange Tan, m-f Sand, some micaceous Silt		
85	SS3 0.92'	17 31 29 34	0				Light Tan/Orange tan, micaceous silty f. Sand, trace Gravel		
90	SS4 0.8'	12 13 28 42	0				Light Tan/Orange tan, micaceous silty m-f Sand		
95	SS5 1.83'	11 33 34 44	0				Light Brown micaceous Silt and f.Sand		
100	SS6 1'	38 79 100 100/4"	0				Light Brown micaceous silty f. Sand		
105	SS7 1.41'	13 34 25 35	0				A: Light Tan/Orange m-f Sand, some Silt, trace Gravel		
110	SS8 1.08'	22 28 33 47	0				B: Poorly sorted Sand, trace f. Gravel C: Light tan m-f Sand, some Silt A: Light Brown micaceous Silt, little Clay		
115	SS9	13	0						




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# Log of Monitoring Well MW11-C

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
	1.87'	35 38 50					B: Light Brown micaceous Silt, some f. Sand C: Light Brown micaceous Silt, some Clay Light Brown micaceous Silt, trace f. Sand and Clay	<p>2" Diameter PVC Riser</p> <p>2" Diameter 10 Slot PVC Screen</p> <p>2" Diameter PVC Blank</p> <p>grout</p> <p>bentonite seal</p> <p>sandpack</p>
120	SS10 1.92'	13 25 35 80	0				A: Light Brown micaceous Silt, trace f. Sand and Clay	
125	SS11 1.25'	15 32 44 48	0				B: Light Brown micaceous Silt, and f. Sand Light Brown Micaceous Silt and f. Sand	
130	SS12 1.41'	30 45 48 81	0				Light Brown micaceous Silt and f. Sand	
135	SS13	23 44 53 83	0				Light Brown micaceous silty m-f SAND	
140	SS14 1.87'	30 38 42 45	0				Light Brown micaceous silty m-f SAND, trace m-f Gravel	
145	SS15 0.825'	23 44 50 83	0				Light Brown micaceous silty m-f SAND	
150	SS18 1.125'	17 40 51 83	0					
155								

Clayton Environmental Consultants							Log of Monitoring Well MW11-C	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160							End of Boring	 ↓ sandpack
165								
170								
175								
180								
185								
190								
195								

Clayton Environmental Consultants							Log of Monitoring Well MW21A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:		
DATE STARTED: <i>5/18/95</i>							INITIAL H2o LEVEL: <i>78.0 Below Grade</i>		
DATE FINISHED: <i>5/22/95</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>165 Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
							Brown c-1 SAND, some c-1 Gravel, little Silt	<p>2" Diameter PVC Riser</p> <p>grout</p>	
5									
10									
15									
20									
25									
30									
35									

Clayton Environmental Consultants							Log of Monitoring Well MW21A			
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>			
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM		
			VALUES	PROFILE						
			0	10						
40							Brown, c-f SAND, little Silt, little f. Gravel			
45										
50	UI		0							
55										
60										
65										
70										
75										

Clayton Environmental Consultants						Log of Monitoring Well MW21A		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
80	MW21-1		0				↓ Water at 78.0 ft below grade	<p>2" Diameter PVC Riser</p> <p>bentonite seal</p> <p>sandpack</p> <p>2" Diameter 10 Slot PVC Screen</p>
85								
90	U2 MW21-2		0 0					
95								
100	MW21-3		0					
105								
110								
115								



Clayton Environmental Consultants							Log of Monitoring Well MW21A	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
120	MW21-4		0				Brown, c-1 SAND. some Gravel. little Silt	
125								
130								
135	MW21-5		0					
140								
145								
150								
155								

Clayton Environmental Consultants							Log of Monitoring Well MW21A	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160	MW21-B		0					
165							End of Boring	
170								
175								
180								
185								
190								
195								

Clayton Environmental Consultants							Log of Monitoring Well MW22A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:		
DATE STARTED: <i>5/23/95</i>							INITIAL H2o LEVEL: <i>78.0 Below Grade</i>		
DATE FINISHED: <i>5/24/95</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>165 ft. Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10			Dark Brown Organic SILT, little Gravel Brown, dry, m-f SAND, some c-f Gravel, little Silt Yellow (10yr7/8), m-f SAND, little Silt, little Gravel	<p>2" Diameter PVC Riser</p> <p>grout</p>	
5									
10									
15									
20									
25									
30									
35									



Clayton Environmental Consultants							Log of Monitoring Well MW22A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
40									
45									
50									
55									
60									
65									
70									
75									

2" Diameter PVC Riser

grout

Clayton Environmental Consultants						Log of Monitoring Well MW22A		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
80	MW22-1		0				▼ Water at 78.0  Yellow (10yr7/8), c-f SAND, little Silt, little f. Gravel	<p>2" Diameter PVC Riser</p> <p>grout</p>
85								
90								
95								
100	MW22-2		0					
105								
110								
115								

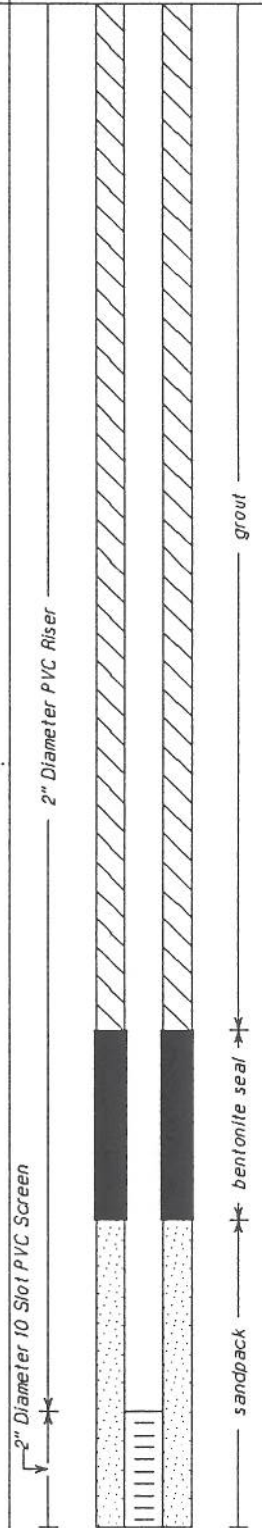
Clayton  
Environmental Consultants

# Log of Monitoring Well MW22A

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
120								
125								
130	MW22-3		0					
135							Yellow (10yr 7/8), c-f SAND, little Silt, trace Gravel	
140								
145								
150								
155								



Clayton Environmental Consultants							Log of Monitoring Well MW22A	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
160	MW22-4		0					<p>2" Diameter PVC Screen</p> <p>sandpack</p>
165							End of Boring	
170								
175								
180								
185								
190								
195								

Clayton Environmental Consultants							Log of Monitoring Well MW23A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>61735.08</i>							SURFACE ELEVATION:		
DATE STARTED: <i>5/26/95</i>							INITIAL H2o LEVEL: <i>64.8 Below Grade</i>		
DATE FINISHED: <i>5/31/95</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>160 Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
5							Brown Organic SILT, some Sand, little Gravel Brown Organic SILT and Coarse Gravel, some Sand	<p>2" Diameter PVC Riser</p> <p>grout</p>
10							Yellow c-f SAND, some Silt, some Gravel	
15								
20							Yellow c-f SAND, some Silt, little Gravel	
25								
30								
35								



Clayton Environmental Consultants							Log of Monitoring Well MW23A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
40									
45									
50									
55									
60									
65							↓ Water level at 64.8 ft below grade		
70									
75									

2" Diameter PVC Riser

grout

Clayton Environmental Consultants						Log of Monitoring Well MW23A		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
80	MW23A-1		0					
85								
90								
95								
100	MW23A-2		0					
105								
110								
115								

Clayton Environmental Consultants						Log of Monitoring Well MW23A		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
120	MW23A-3		0					<p>2" Diameter 10 Slot PVC Screen → 2" Diameter PVC Riser</p> <p>sandpack</p>
125								
130								
135								
140	MW23A-4		0					
145								
150								
155								



Clayton Environmental Consultants							Log of Monitoring Well MW23A	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160	MW23A-5		0				End of Boring	
165								
170								
175								
180								
185								
190								
195								

Clayton Environmental Consultants							Log of Monitoring Well MW24A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>81735.08</i>							SURFACE ELEVATION:		
DATE STARTED: <i>8/5/95</i>							INITIAL H2o LEVEL: <i>83 ft. Below Grade</i>		
DATE FINISHED: <i>8/8/95</i>							FINAL H2o LEVEL: <i>ft. Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>185 Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
5							Brown Organic SILT, some Sand, little Gravel Brown Organic SILT and Coarse Gravel, some Sand	<p>2" Diameter PVC Riser</p> <p>grout</p>	
10							Yellow c-1 SAND, some Silt, some Gravel		
15									
20							Yellow c-1 SAND, some Silt, little Gravel		
25									
30									
35									

Clayton Environmental Consultants							Log of Monitoring Well MW24A			
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>			
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM		
			VALUES	PROFILE						
			0	10						
40										
45										
50										
55										
60										
65										
70										
75										

2" Diameter PVC Riser

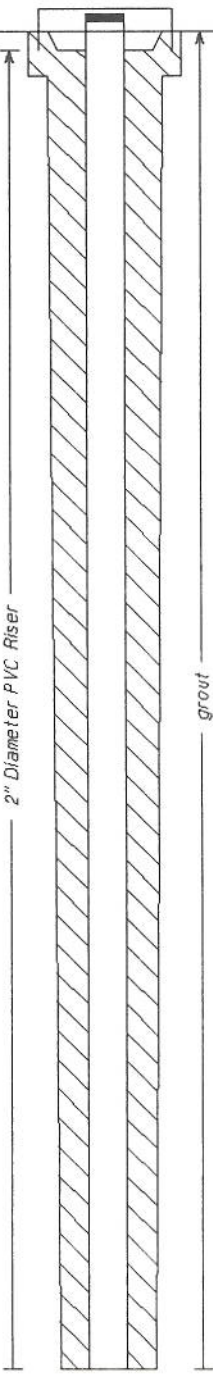
grout

Clayton Environmental Consultants							Log of Monitoring Well MW24A		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
80									
85							▼ Water at 83.0 ft.		
90									
95									
100									
105									
110									
115									



Clayton Environmental Consultants							Log of Monitoring Well MW24A	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160							End of Boring	
165								
170								
175								
180								
185								
190								
195								



Clayton Environmental Consultants						Log of Monitoring Well MW24					
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>					
PROJECT NO.: <i>81735.34</i>						SURFACE ELEVATION:					
DATE STARTED: <i>8/10/98</i>						INITIAL H2o LEVEL: <i>ft. Below Grade</i>					
DATE FINISHED: <i>8/10/98</i>						FINAL H2o LEVEL: <i>ft. Below Grade</i>					
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>						TOTAL DEPTH: <i>89 Feet</i>					
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>						GEOLOGIST: <i>Allen Attenborough</i>					
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM			
			VALUES	PROFILE							
			0	10							
							m-1 SAND, some Silt, trace f. Gravel				
5							m-1 SAND, some Silt and Gravel (and cobbles) Brown, SILT, m-1 Sand Orange, m-1 SAND, some Silt				
10							Grey, m-1 SAND and Silt, some Gravel (cobbles)				
15							Brown, m-1 SAND, little <sup>+</sup> Silt				
20											
25											
30											
35											

Clayton Environmental Consultants						Log of Monitoring Well MW24		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
40								
45								
50								
55								
60								
65	SS1 2.0'	8 23 52 85	0				A:1.6' Brown m-f SAND, some Silt, little Gravel	<p>2" Diameter PVC Riser</p> <p>2" Diameter 10 Slot PVC Screen</p> <p>sandpack</p> <p>bentonite seal</p> <p>grout</p>
							B:0.4' Brown, micaceous, Silty CLAY	
70	SS2 1.1'	28 87 00/5*	0				Brown, m-f SAND, some Silt	
75	SS3	38	0					



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# Log of Monitoring Well MW24

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
	0.8'	82 00/5					Alternating layers of Brown and Yellow, m-f SAND, trace Silt	<p>2" Diameter 10 Slot PVC Screen</p> <p>sandpack</p>
80	SS4 1.4'	17 24 35	0				Brown, m-f SAND, trace Silt, trace Gravel (micaceous)	
	SS5 1.8'	55 7 22 35 43	0					
85								
90							End of Boring	
95								
100								
105								
110								
115								

Clayton Environmental Consultants							Log of Monitoring Well MW25	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
PROJECT NO.: <i>61735.34</i>							SURFACE ELEVATION:	
DATE STARTED: <i>1/18/96</i>							INITIAL H2o LEVEL: <i>Below Grade</i>	
DATE FINISHED: <i>1/25/96</i>							FINAL H2o LEVEL: <i>Below Grade</i>	
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>180 ft. bgs Feet</i>	
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
5								
10								
15								
20								
25								
30								
35								

Clayton Environmental Consultants							Log of Monitoring Well MW25		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
40									
45									
50									
55									
60									
65									
70									
75									

Clayton Environmental Consultants							Log of Monitoring Well MW25		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
80									
85									
90									
95									
100									
105									
110									
115									

2" Diameter PVC Riser

grout

Clayton Environmental Consultants						Log of Monitoring Well MW25		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10			Yellow m-f SAND, some Silt, trace Gravel	
120								
125								
130								
135								
140								
145								
150	MW28-1							
155								



Clayton Environmental Consultants							Log of Monitoring Well MW25	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160								
165								
170							Yellow m-f SAND, some Silt	
175								
180	MW28-2						End of Boring	
185								
190								
195								

Clayton Environmental Consultants							Log of Monitoring Well MW26		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>01735.34</i>							SURFACE ELEVATION:		
DATE STARTED: <i>12/28/95</i>							INITIAL H2o LEVEL: <i>Below Grade</i>		
DATE FINISHED: <i>1/10/96</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>210 ft. bgs Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10			Yellow m-f SAND, some Silt, trace Gravel	<p>2" Diameter PVC Riser</p> <p>grout</p>	
5									
10									
15									
20									
25									
30									
35									

Clayton Environmental Consultants							Log of Monitoring Well MW26			
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>			
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM		
			VALUES	PROFILE						
			0	10						
40										
45										
50										
55										
60										
65										
70										
75										

2" Diameter PVC Riser

grout



Clayton Environmental Consultants							Log of Monitoring Well MW26		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
80									
85									
90									
95									
100									
105									
110									
115									

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# Log of Monitoring Well MW26

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
120								<p>2" Diameter PVC Riser</p> <p>bentonite seal</p> <p>2" Diameter 10 Slot PVC Screen</p> <p>sandpack</p>
125								
130								
135								
140	MW26-1							
145								
150							Brown, m-1 SAND, some Silt, trace Gravel	
155								

Clayton Environmental Consultants							Log of Monitoring Well MW26	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160								
165								
170	MW26-2							
175								
180								
185							Brown, c-1 SAND, some Gravel, some Silt	
190								
195								

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# Log of Monitoring Well MW26

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
200	MW26						Brown CLAY, (minor amount of grey clay)	
205								
210							End of Boring	
215								
220								
225								
230								
235								

Clayton Environmental Consultants							Log of Monitoring Well MW27		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>81735.34</i>							SURFACE ELEVATION:		
DATE STARTED: <i>1/26/96</i>							INITIAL H2o LEVEL: <i>Below Grade</i>		
DATE FINISHED: <i>2/01/96</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>225 Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
5							Dark Brown, c-f SAND, some c. Gravel, some silt	<p>2" Diameter PVC Riser</p> <p>grout</p>	
							Dark Brown, c-f Sand and c. Gravel, little Silt		
10							Yellow, c-f SAND, some Silt, little Gravel		
15									
20							Yellow, c-f SAND, some silt, little f. Gravel		
25									
30									
35									

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# Log of Monitoring Well MW27

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
40								
45								
50								
55								
60								
65								
70								
75								



Clayton Environmental Consultants							Log of Monitoring Well MW27			
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>			
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM		
			VALUES	PROFILE						
			0	10						
80										
85										
90										
95										
100							CLAY			
							Yellow, c-f SAND, some Silt, trace f. Gravel			
105										
110										
115										

Clayton Environmental Consultants							Log of Monitoring Well MW27	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
120								<p>2" Diameter PVC Riser</p> <p>2" Diameter 10 Slot PVC Screen</p> <p>bentonite seal</p> <p>sandpack</p> <p>grout</p>
125								
130								
135								
140	MW27-1							
145								
150								
155								



Clayton Environmental Consultants							Log of Monitoring Well MW27	
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>	
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
160								
165								
170	MW27-2						Yellow, m-f SAND, little Silt	
175								
180								
185								
190								
195								

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# Log of Monitoring Well MW27

PROJECT: *Deutsch Relays, Inc.*

LOCATION: *East Northport, NY*

DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
200	MW27-3		0	10			CLAY (Clay on Hydropunch)	
205								
210								
215								
220							Tight Silt or Clay	
225							End of Boring	
230								
235								

Clayton Environmental Consultants							Log of Monitoring Well MW29		
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>		
PROJECT NO.: <i>61735.34</i>							SURFACE ELEVATION:		
DATE STARTED: <i>06/12/96</i>							INITIAL H2o LEVEL: <i>Below Grade</i>		
DATE FINISHED: <i>06/12/96</i>							FINAL H2o LEVEL: <i>Below Grade</i>		
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>							TOTAL DEPTH: <i>111 Feet</i>		
DRILLING COMPANY: <i>Aquifer Drilling and Testing</i>							GEOLOGIST: <i>Allen Attenborough</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	10					
5							Brown, m-f SAND, some Gravel, some silt	<p>2" Diameter PVC Riser</p> <p>grout</p>	
10									
15							Yellow, c-f SAND, some Silt, little Gravel		
20									
25									
30									
35									

Clayton Environmental Consultants							Log of Monitoring Well MW29			
PROJECT: <i>Deutsch Relays, Inc.</i>							LOCATION: <i>East Northport, NY</i>			
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM		
			VALUES	PROFILE						
			0	10						
40										
45										
50										
55							Brown, m-f SAND, some silt, trace Gravel		2" Diameter PVC Riser	grout
60										
65										
70							Brown, damp m-f SAND and Silt			
75										

Clayton Environmental Consultants						Log of Monitoring Well MW29		
PROJECT: <i>Deutsch Relays, Inc.</i>						LOCATION: <i>East Northport, NY</i>		
DEPTH feet	SAMPLE NO.	BLOWS/FT.	PID (ppm)		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	10				
80								
85								
90								
95								
100	SS1 2.0'	8 17 22 22	0				Brown, wet CLAY, some m-1 Sand A:1.1', Brown, CLAY, trace f. Sand (wet) B:0.9', Brown, m-1 SAND, some Silt (micaceous) Same	
105	SS2 2.0'	3 13 43 51	0				End of Boring	
110								
115								



Clayton Environmental Consultants							Log of Monitoring Well MW-30A	
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>	
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>155.91 (MSL)</i>	
DATE STARTED: <i>09/10/96</i>							INITIAL H2o LEVEL: <i>(BGS)</i>	
DATE FINISHED: <i>09/12/96</i>							FINAL H2o LEVEL: <i>77.06 (BGS)</i>	
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>155 Feet</i>	
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>	
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	
5								
10								
15								
20								
25								
30								
35								

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## Log of Monitoring Well MW-30A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
40								
45								
50								
55								
60								
65								
70								
75								

2" Blank PVC

Bentonite grout

Clayton  
Environmental Consultants

# Log of Monitoring Well MW-30A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80	144	ss80					10YR 4/6 Dark yellowish brown m-f SAND, Little (-) f Gravel, Trace (-) Silt: quartz and muscovite present.	<p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Bentonite seal</p> <p>Filter pack (#2 sand)</p> <p>2" Slotted (0.02) PVC</p>
85	170	ss85					Similar	
90	127	ss90					10YR 4/6 Dark yellowish brown f SAND, Some Silt, Little (+) Clay: quartz and muscovite, leaves chalky residue in hand, clay is random throughout sample.	
95	123	ss95					2.5Y 5/4 Light olive brown f SAND, And Silt, Trace (-) f Gravel: gritty, clayey texture.	
00	86	ss100					Similar	
105	115	ss105					10YR 5/8 Yellowish brown SILT, Some (-) f Sand, Trace (-) Clay: sample lacks the moisture present in previous samples.	
110	117	ss110					10YR 5/3 Brown m-f SAND, Some (-) Silt: quartz and muscovite.	<p>2" Slotted (0.02) PVC</p>
115	200	ss115						



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# Log of Monitoring Well MW-30A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
20	170	ss120					7.5YR 5/8 Strong brown m-f SAND, Some (-) Silt: quartz, muscovite and moist.	
							Similar	
25	131	ss125					Similar	
30	119	ss130					7.5YR 5/8 Strong brown m-f SAND, Some Silt: appears to be less dense than previous sample.	
35	263	ss135					Split-Spoon lost down hole. No sample collected.	
40	120	ss140					7.5YR 4/6 Strong brown SILT, Little (+) Clay, Trace (+) f Sand: more clay present in clumps, occasional black inclusions with high frequency of mica.	
45	100	ss145					Similar	
50	163	ss150					7.5YR 4/6 Strong brown SILT, Little (+) Clay: no sand present, somewhat finer than previous sample.	
55								

Clayton Environmental Consultants							<h2 style="margin: 0;">Log of Monitoring Well MW-31A</h2>		
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>		
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>160.49 (MSL)</i>		
DATE STARTED: <i>09/13/96</i>							INITIAL H2o LEVEL: <i>(BGS)</i>		
DATE FINISHED: <i>09/17/96</i>							FINAL H2o LEVEL: <i>70.76 (BGS)</i>		
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>115 Feet</i>		
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>		

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	
5								
10								
15								
20								
25								
30								
35								

Clayton Environmental Consultants							Log of Monitoring Well MW-31A		
PROJECT: DEUTSCH RELAYS, INC.							LOCATION: EAST NORTHPORT, NEW YORK		
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	200					
40						Bur			
45									
50									
55									
60									
65									
70									
75									

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# Log of Monitoring Well MW-31A

PROJECT: DEUTSCH RELAYS, INC.

LOCATION: EAST NORTHPORT, NEW YORK

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80	118	ss80					2.5Y 5/4 Light olive brown c-f SAND, And (-) f Gravel, Trace Silt: quartz, muscovite and irregular gravel present (moist).	<p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Bentonite seal</p> <p>Filter pack (#2 sand)</p> <p>2" Slotted (0.02) PVC</p> <p>Bentonite grout and backfill</p>
85	90	ss85					Similar	
90	111	ss90					10YR 5/4 Yellowish brown m-f SAND, Trace (+) Gravel: quartz and muscovite present, well sorted.	
95	116	ss95					10YR 5/4 Yellowish brown m-f SAND, Little (-) Silt, Trace (-) f Gravel and Clay: predominantly sand, occasional gravel and clay.	
00	60	ss100					10YR 5/4 Yellowish brown m-f SAND, And (-) Silt, Trace (-) f Gravel: similar to previous sample.	
105	101	ss105					10YR 5/6 Yellowish brown m-f SAND, And (-) Silt: no gravel, black inclusions with increased mica.	
110	45	ss110					10YR 6/6 Brownish yellow CLAY, Little Silt: significant clay sample.	
115								



Clayton Environmental Consultants							Log of Monitoring Well MW-32A		
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>		
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>151.11 (MSL)</i>		
DATE STARTED: <i>09/18/96</i>							INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>		
DATE FINISHED: <i>09/19/96</i>							FINAL H <sub>2</sub> O LEVEL: <i>72.25 (BGS)</i>		
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>125 Feet</i>		
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>		
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	200		Bur	No samples taken	<p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Seal</p> <p>Concrete</p>	
5									
10									
15									
20									
25									
30									
35									

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## Log of Monitoring Well MW-32A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
						Bur			
40									
45									
50									
55									
60									
65									
70									
75	68	ss75							

2" Blank PVC

Bentonite grout

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# Log of Monitoring Well MW-32A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
80	77	ss80					10YR 5/6 Yellowish brown m-f SAND, Some Silt: muscovite and quartz, molds well.	
85	91	ss85					2.5Y 5/4 Light olive brown m-f SAND, Some (-) Silt: muscovite and quartz, doesn't mold as well.	
90	92	ss90					Multi-colored m-f SAND, Some Silt, Occ. f Gravel: some organic material, muscovite and quartz.	
95	94	ss95					Two discreet layers: 2.5Y 6/4 Light yellowish brown m-f SAND, Some Silt: quartz and muscovite. 10YR 7/4 Very pale brown CLAY, Little (-) Silt: does not appear to be a significant layer.	
100	107	ss100					7.5YR 5/6 Strong brown m-f SAND, Some (-) Silt, Trace Clay: molds well.	
105	112	ss105					7.5yr 5/6 Strong brown m-f SAND, Some (-) Silt: more coarse than previous sample.	
110	113	ss110					10YR 5/6 Yellowish brown f SAND, And (-) Silt: molds well.	
115	126	ss115					Similar	

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# Log of Monitoring Well MW-32A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				<div> <div>2" Slotted (0.02) PVC</div> <div>Filter pack (#2 sand)</div> <div>Seal</div> <div>Back fill</div> </div>
20								
25								
30								
35								
40								
45								
50								
55								



Clayton Environmental Consultants							<b>Log of Monitoring Well MW-33A</b>		
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>		
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>147.86 (MSL)</i>		
DATE STARTED: <i>09/23/96</i>							INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>		
DATE FINISHED: <i>09/24/96</i>							FINAL H <sub>2</sub> O LEVEL: <i>69.39 (BGS)</i>		
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>105 Feet</i>		
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>		

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	<p style="text-align: right; margin-right: 50px;">Concrete</p> <p style="text-align: right; margin-right: 50px;">Seal</p> <p style="text-align: right; margin-right: 50px;">2" Blank PVC</p> <p style="text-align: right; margin-right: 50px;">Bentonite grout</p>
5								
10								
15								
20								
25								
30								
35								

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# Log of Monitoring Well MW-33A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		<p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Seal</p> <p>Filter pack (#2 sand)</p>
40								
45								
50								
55								
60								
65								
70								
75								

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# Log of Monitoring Well MW-33A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80	142	ss80					10YR 5/6 Yellowish brown m-f SAND, Some (+) Silt: molds well, quartz and muscovite present.	<p>2" Blank PVC</p> <p>2" Slotted (0.02") PVC</p> <p>Filter pack (#2 sand)</p> <p>Bentonite seal</p> <p>Backfill</p>
85	100	ss85					7.5YR 5/8 Strong brown f SAND, And Silt: molds well, small black inclusion with increased frequency of mica.	
90	162	ss90					10YR 5/4 Yellowish brown m-f SAND, Little (-) Silt: moist, quartz and mica present, slightly different appearance than previous sample, appears to have a higher percentage of medium size grains.	
95	175+	ss95					Similar	
00	147	ss100					10YR 5/6 m-f SAND, Little Silt: moist, similar to ss95.	
105								
110								
115								

Clayton Environmental Consultants						<b>Log of Monitoring Well MW-34A</b>	
PROJECT: <i>DEUTSCH RELAYS, INC.</i>						LOCATION: <i>EAST NORTHPORT, NEW YORK</i>	
PROJECT NO.: <i>61735.40</i>						SURFACE ELEVATION: <i>148.4 (MSL)</i>	
DATE STARTED: <i>09/26/96</i>						INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>	
DATE FINISHED: <i>09/27/96</i>						FINAL H <sub>2</sub> O LEVEL: <i>69.42 (BGS)</i>	
DRILLING METHOD: <i>MUD-ROTARY</i>						TOTAL DEPTH: <i>115 Feet</i>	
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>						GEOLOGIST: <i>JAMES J. WILKINS</i>	

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	<p style="text-align: right; margin-right: 50px;">Concrete</p> <p style="text-align: center; margin-top: 100px;">2" Blank PVC</p> <p style="text-align: center; margin-top: 100px;">Bentonite grout</p>
5								
10								
15								
20								
25								
30								
35								

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## Log of Monitoring Well MW-34A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	200		Bur			
40									
45									
50									
55									
60									
65									
70									
75									

2" Blank PVC

Bentonite grout



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# Log of Monitoring Well MW-34A

PROJECT: DEUTSCH RELAYS, INC.

LOCATION: EAST NORTHPORT, NEW YORK

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80	93	ss80					Two layers: 2.5Y 6/4 Light yellowish brown m-f SAND, Trace Silt: well sorted, quartz and muscovite present. 5YR 4/6 Yellowish red f SAND, Some (+) Silt, Trace (-) Clay: molds well, somewhat dry.	
85	91	ss85					7.5YR 5/6 Strong brown f SAND, Some (-) Silt: moist.	
90	75	ss90					10YR 5/6 Yellowish brown m-f SAND, Trace (-) Silt: quartz and muscovite present, well sorted.	
95	95	ss95					10YR 5/6 Yellowish brown c-f SAND: moist.	
00		ss100					10YR 5/4 Yellowish brown m-f SAND: well sorted, moist.	
105	51	ss105					7.5YR 4/6 Strong brown f SAND, Some Silt: not as moist as previous black inclusions with increased mica.	
110	50	ss110					7.5YR 5/6 Strong brown SILT, And Clay:	
115								

Clayton Environmental Consultants							Log of Monitoring Well MW-34B		
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>		
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>148.27 (MSL)</i>		
DATE STARTED: <i>10/08/96</i>							INITIAL H2o LEVEL: <i>(BGS)</i>		
DATE FINISHED: <i>10/09/96</i>							FINAL H2o LEVEL: <i>69.52 (BGS)</i>		
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>180 Feet</i>		
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>		
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	200		Bur	No samples taken		
5									
10									
15									
20									
25									
30									
35									

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## Log of Monitoring Well MW-34B

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
40								
45								
50								
55								
60								
65								
70								
75								



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## Log of Monitoring Well MW-34B

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
80						Bur			
85									
90									
95									
00									
105									
110									
115	47	ss115							

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# Log of Monitoring Well MW-34B

PROJECT: DEUTSCH RELAYS, INC.

LOCATION: EAST NORTHPORT, NEW YORK

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
120	170	ss120					7.5YR 4/4 Brown SILT, Little f (-) Sand, Trace (+) Clay: black inclusions with mica.	
125	68	ss125					7.5YR 4/6 Strong brown m-f SAND, And Silt: molds well, moist, mica and quartz.	
130	94	ss130					Similar to ss115	
135	98	ss135					7.5YR 5/8 Strong brown c-f SAND, And (-) c-f Gravel: no silt, very coarse, poorly sorted.	
40	84	ss140					10YR 4/6 Dark yellowish brown c-f SAND, Little f Gravel, Trace Silt:	
45		ss145					7.5YR 4/6 Strong brown SILT, Little Clay, Trace f Sand: dense, molds well, moist.	
150	137	ss150					7.5YR 6/6 Reddish yellow Clay, Some (-) Silt:	
155	97	ss155					10YR 5/6 Yellowish brown m-f SAND, Little (-) Silt:	

2" Blank PVC

Bentonite grout

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# Log of Monitoring Well MW-34B

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
60	220	ss160					Similar to ss145	<p>2" Blank PVC</p> <p>2" Slotted (0.02) PVC</p> <p>Filter pack (#2 sand)</p> <p>Seal</p> <p>Bentonite grout and backfill</p> <p>Bentonite grout</p>
65	120	ss165					10YR 5/6 Yellowish brown c-f SAND, Some Clay: alternating layers.	
70	200	ss170					10YR 5/6 Yellowish brown c-f SAND, Trace (-) Silt: poorly sorted, moist, does not mold.	
75	46	ss175					Similar	
80							7.5YR 6/6 Reddish yellow Clay: solid.	
85								
90								
95								

Clayton Environmental Consultants						<b>Log of Monitoring Well MW-35A</b>	
PROJECT: <i>DEUTSCH RELAYS, INC.</i>						LOCATION: <i>EAST NORTHPORT, NEW YORK</i>	
PROJECT NO.: <i>61735.40</i>						SURFACE ELEVATION: <i>165.57 (MSL)</i>	
DATE STARTED: <i>09/30/96</i>						INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>	
DATE FINISHED: <i>10/01/96</i>						FINAL H <sub>2</sub> O LEVEL: <i>86.37 (BGS)</i>	
DRILLING METHOD: <i>MUD-ROTARY</i>						TOTAL DEPTH: <i>135 Feet</i>	
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>						GEOLOGIST: <i>JAMES J. WILKINS</i>	

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	
5								
10								
15								
20								
25								
30								
35								



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## Log of Monitoring Well MW-35A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
40								
45								
50								
55								
60								
65								
70								
75								

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# Log of Monitoring Well MW-35A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80								
85								
90	107	ss90					10YR 5/8 Yellowish brown m-f SAND, Trace (-) Silt: occ. coarse sand, quartz and muscovite, well sorted.	<p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Bentonite seal</p>
95	112	ss95					10YR 5/8 Yellowish brown m-f SAND, Trace Silt: dense with thin black layers, quartz and muscovite.	
00	86	ss100					10YR 4/6 Dark Yellowish brown m-f SAND, Little Silt, Trace Clay: clay present at bottom of spoon.	
105	65	ss105					10YR 5/6 Yellowish brown f SAND, Some (+) Silt, Trace Clay: clay present at top of spoon, moist, molds well.	
110	98	ss110					2.5Y 5/4 Light olive brown f SAND, And (+) Silt, Trace (-) Clay: moist, molds well, light in color.	
115	120	ss115						

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# Log of Monitoring Well MW-35A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
20	126	ss120					7.5YR 4/4 Brown Clay, And (-) Silt: bottom of spoon is m-f sand.	<p>2" Blank PVC</p> <p>2" Slotted (0.02) PVC</p> <p>Filter pack (#2 sand)</p> <p>Bentonite grout and backfill</p>
25	142	ss125					10YR 4/6 Dark yellowish brown f SAND, Little (+) Silt: moist, molds well.	
30	126	ss130					7.5 YR 4/6 Strong brown f SAND, And (+) Silt: moist, dense, mica.	
35							7.5YR 4/6 Strong brown f SAND, Some (+) Silt: appears more coarse than previous sample.	
40								
45								
50								
55								

Clayton Environmental Consultants							<b>Log of Monitoring Well MW-36A</b>		
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>		
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>162.09 (MSL)</i>		
DATE STARTED: <i>10/02/96</i>							INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>		
DATE FINISHED: <i>10/03/96</i>							FINAL H <sub>2</sub> O LEVEL: <i>82.77 (BGS)</i>		
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>126 Feet</i>		
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>		

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	<p style="text-align: right; margin-right: 50px;">Concrete</p> <p style="text-align: center; margin-top: 100px;">2" Blank PVC</p> <p style="text-align: center; margin-top: 100px;">Bentonite grout</p>
5								
10								
15								
20								
25								
30								
35								



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## Log of Monitoring Well MW-36A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
			0	200		Bur			
40									
45									
50									
55									
60									
65									
70									
75									

2" Blank PVC


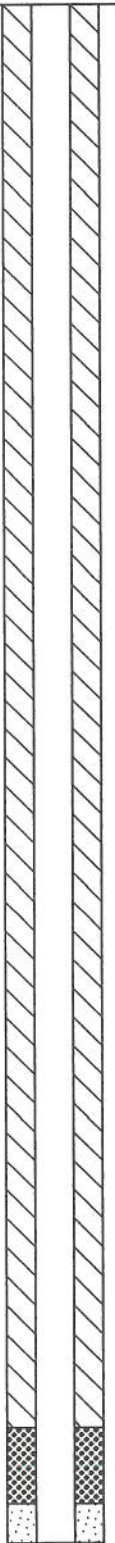
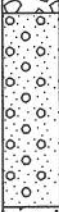
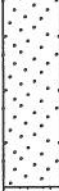


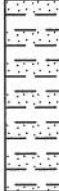
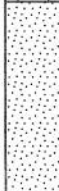

Bentonite grout

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# Log of Monitoring Well MW-36A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80	150+	ss80					No sample recovered, gravel jammed in spoon.	 <p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Seal</p> <p>Filter pack (#2 sand)</p>
85	91	ss85					10YR 6/6 Brownish yellow c-f SAND, Trace (-) Silt: clean sand, quartz and muscovite.	
90	80	ss90					Similar	
95	112	ss95					7.5YR 4/6 Strong brown f SAND, Some Silt, Trace Clay: moist and dense	
00	93	ss100					Similar	
105	150	ss105					First half of sample is 10YR 5/6 Yellowish brown CLAY, Some Silt; Second half of sample is 10YR 5/6 f SAND, And Silt: black inclusions with increased mica, moist.	
110	123	ss110					10YR 5/6 Yellowish brown f SAND, Little (+) Silt: mica, quartz.	
115	90	ss115						

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# Log of Monitoring Well MW-36A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
120	91	ss120					7.5YR 5/6 Strong brown f SAND, And Silt: black inclusions with mica.	
125	115	ss125					Similar	
130							Similar	
135								
140								
145								
150								
155								

Clayton Environmental Consultants							Log of Monitoring Well MW-37A	
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>	
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>165.84 (MSL)</i>	
DATE STARTED: <i>10/10/96</i>							INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>	
DATE FINISHED: <i>10/11/96</i>							FINAL H <sub>2</sub> O LEVEL: <i>87.83 (BGS)</i>	
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>150 Feet</i>	
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>	
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	
5								
10								
15								
20								
25								
30								
35								

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## Log of Monitoring Well MW-37A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
				0 200		Bur			
40									
45									
50									
55									
60									
65									
70									
75									



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## Log of Monitoring Well MW-37A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM	
			VALUES	PROFILE					
80						Bur			
85									
90									
95									
00									
105									
110									
115	154	ss115							

2" Blank PVC

Bentonite grout

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# Log of Monitoring Well MW-37A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200				
20	155	ss120					10YR 4/6 Dark yellowish brown m-f SAND, Some Silt: quartz and mica.	
125							10YR 5/8 Yellowish brown m-f SAND, And Silt, Trace Clay:	
30								
135	100	ss135					10YR 4/4 Dark yellowish brown m-f SAND, And Silt:	
40								
45	173	ss145					10YR 4/4 Dark yellowish brown c-f SAND, Trace Silt:	
150								
155								

Clayton Environmental Consultants							Log of Monitoring Well MW-38A	
PROJECT: <i>DEUTSCH RELAYS, INC.</i>							LOCATION: <i>EAST NORTHPORT, NEW YORK</i>	
PROJECT NO.: <i>61735.40</i>							SURFACE ELEVATION: <i>149.56 (MSL)</i>	
DATE STARTED: <i>10/14/96</i>							INITIAL H <sub>2</sub> O LEVEL: <i>(BGS)</i>	
DATE FINISHED: <i>10/15/96</i>							FINAL H <sub>2</sub> O LEVEL: <i>71.57 (BGS)</i>	
DRILLING METHOD: <i>MUD-ROTARY</i>							TOTAL DEPTH: <i>120 Feet</i>	
DRILLING COMPANY: <i>R &amp; L WELL DRILLING</i>							GEOLOGIST: <i>JAMES J. WILKINS</i>	
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur	No samples taken	<p>2" Blank PVC</p> <p>Bentonite grout</p> <p>Seal</p> <p>Concrete</p>
5								
10								
15								
20								
25								
30								
35								



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## Log of Monitoring Well MW-38A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
40								
45								
50								
55								
60								
65								
70								
75								

Clayton  
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# Log of Monitoring Well MW-38A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

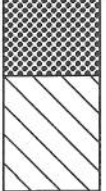
DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200		Bur		
80								
85								
90								
95								
00	184	ss100					10YR 4/4 Dark yellowish brown SILT, And f Sand, Trace (+) Clay:	
105	142	ss105					Similar	
110								
115	137	ss115						

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## Log of Monitoring Well MW-38A

PROJECT: *DEUTSCH RELAYS, INC.*

LOCATION: *EAST NORTHPORT, NEW YORK*

DEPTH feet	Blows	Sample No.	PID ppm		GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
			VALUES	PROFILE				
			0	200			10YR 4/4 Dark yellowish brown SILT, Some (-) f Sand, Little (-) Clay:	
120								
125								
30								
135								
40								
45								
150								
155								

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-9	168.50	94.20	9/24/1998	72.00	96.50
			12/3/1998	76.20	92.30
MW-9A	168.35	50.85	9/24/1998	67.10	101.25
			12/3/1998	83.85	84.50
MW-10	169.67	92.17	9/24/1998	67.90	101.77
			12/3/1998	90.55	79.12
			7/2/2002	88.61	81.06
			8/1/2002	88.94	80.73
			9/18/2002	89.18	80.49
			10/18/2002	89.32	80.35
			11/19/2002	89.31	80.36
			12/16/2002	89.29	80.38
			1/7/2003	89.05	80.62
			2/13/2003	88.45	81.22
			3/11/2003	88.45	81.22
			4/8/2003	88.10	81.57
			5/7/2003	88.14	81.53
			6/16/2003	87.60	82.07
			7/15/2003	86.50	83.17
			8/20/2003	86.06	83.61
			9/5/2003	86.03	83.64
			10/29/2003	85.35	84.32
			11/25/2003	88.29	81.38
			12/16/2003	84.25	85.42
			3/3/2004	ND	ND
			4/9/2004	84.76	84.91
			5/13/2004	84.99	84.68
			6/8/2004	85.79	83.88
			7/22/2004	85.51	84.16
			8/19/2004	85.36	84.31
			9/3/2004	86.41	83.26
			10/27/2004	84.71	84.96
			11/17/2004	ND	ND
			12/2/2004	84.60	85.07
			1/20/2005	86.78	82.89
			3/31/2005	85.19	84.48
			4/27/2005	84.53	85.14
			6/14/2005	85.37	84.30
			9/27/2005	85.21	84.46
			11/28/2005	87.12	82.55
			12/28/2005	85.36	84.31
			1/25/2006	82.26	87.41
			2/21/2006	82.00	87.67
			3/29/2006	81.84	87.83
			5/3/2006	81.75	87.92
			6/20/2006	81.36	88.31
			9/27/2006	81.21	88.46
			12/18/2006	81.18	88.49
			2/16/2007	81.01	88.66
			3/19/2007	82.36	87.31
			6/12/2007	81.69	87.98
			9/19/2007	82.44	87.23
			10/9/2007	82.75	86.92
			11/28/2007	83.51	86.16
			1/22/2008	84.29	85.38
			3/5/2008	84.48	85.19
			6/17/2008	84.14	85.53
			9/24/2008	84.73	84.94
			11/25/2008	84.84	84.83
			1/22/2009	84.77	84.90
			6/9/2009	85.45	84.22
			8/4/2009	84.80	84.87
			3/9/2010	85.51	84.16
			6/7/2010	82.33	87.34
			9/29/2010	83.54	86.13
			12/7/2010	84.33	85.34
			3/1/2011	85.60	84.07
			6/7/2011	84.58	85.09
			9/23/2011	84.39	85.28
			11/29/2011	84.65	85.02
			3/23/2012	85.72	83.95
			9/25/2012	96.40	73.27
			12/6/2012	86.99	82.68
			4/1/2012	87.65	82.02
			6/18/2013	87.15	82.52
			9/16/2013	87.00	82.67
			11/5/2013	87.62	82.05

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-10A	169.38	51.38	9/24/1998	68.25	101.13
			12/3/1998	81.45	87.93
			7/2/2002	95.18	74.20
			8/1/2002	95.70	73.68
			9/18/2002	95.44	73.94
			10/18/2002	96.33	73.05
			11/19/2002	96.38	73.00
			12/16/2002	96.37	73.01
			1/7/2003	96.21	73.17
			3/11/2003	96.04	73.34
			4/8/2003	95.33	74.05
			5/7/2003	95.57	73.81
			6/16/2003	94.75	74.63
			7/15/2003	93.60	75.78
			8/20/2003	92.85	76.53
			9/5/2003	93.49	75.89
			10/29/2003	92.13	77.25
			11/25/2003	95.42	73.96
			12/16/2003	91.03	78.35
			3/3/2004	ND	ND
			4/9/2004	91.86	77.52
			5/13/2004	92.43	76.95
			6/8/2004	92.81	76.57
			7/22/2004	92.56	76.82
			8/19/2004	91.66	77.72
			9/3/2004	92.44	76.94
			10/27/2004	91.06	78.32
			11/17/2004	ND	ND
			12/2/2004	90.76	78.62
			1/20/2005	92.59	76.79
			3/31/2005	90.91	78.47
			4/27/2005	90.19	79.19
			6/14/2005	91.04	78.34
			9/27/2005	90.91	78.47
			11/28/2005	92.89	76.49
			12/28/2005	91.14	78.24
			1/25/2006	87.93	81.45
			2/21/2006	88.83	80.55
			3/29/2006	88.83	80.55
			5/3/2006	88.63	80.75
			6/20/2006	87.53	81.85
			9/27/2006	88.09	81.29
			12/18/2006	87.14	82.24
			1/18/2007	87.15	82.23
			2/16/2007	86.98	82.40
			3/19/2007	88.76	80.62
			6/12/2007	86.44	82.94
			9/19/2007	87.28	82.10
			10/9/2007	87.59	81.79
			11/28/2007	88.35	81.03
			1/22/2008	88.71	80.67
			3/5/2008	88.77	80.61
			6/17/2008	88.83	80.55
			9/24/2008	89.52	79.86
			11/25/2008	89.54	79.84
			1/22/2009	89.61	79.77
			6/9/2009	90.20	79.18
			8/4/2009	89.50	79.88
			3/9/2010	90.22	79.16
			6/7/2010	87.38	82.00
			9/29/2010	88.33	81.05
			12/7/2010	88.97	80.41
			3/1/2011	88.91	80.47
			6/7/2011	89.50	79.88
			9/23/2011	89.51	79.87
			11/29/2011	89.65	79.73
			3/28/2012	90.61	78.77
			9/25/2012	91.44	77.94
			12/6/2012	91.98	77.4
			4/1/2013	92.54	76.84
			6/18/2013	91.99	77.39
			9/16/2013	92.08	77.3
			11/5/2013	92.72	76.66

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-11A	145.48	47.45	9/24/1998	72.00	73.48
			12/3/1998	72.50	72.98
			3/6/2002	73.15	72.33
			6/3/2002	73.85	71.63
			7/2/2002	74.17	71.31
			8/1/2002	75.68	69.80
			9/18/2002	73.70	71.78
			10/18/2002	75.67	69.81
			11/19/2002	76.45	69.03
			12/16/2002	72.45	73.03
			1/7/2003	76.43	69.05
			2/13/2003	76.33	69.15
			3/11/2003	76.25	69.23
			4/8/2003	74.98	70.50
			5/7/2003	75.29	70.19
			6/16/2003	75.79	69.69
			7/15/2003	73.20	72.28
			8/20/2003	72.09	73.39
			9/5/2003	ND	ND
			10/29/2003	69.51	75.97
			11/25/2003	74.32	71.16
			12/16/2003	74.13	71.35
			3/3/2004	72.97	72.51
			4/9/2004	73.01	72.47
			5/13/2004	73.15	72.33
			6/8/2004	73.10	72.38
			7/22/2004	72.70	72.78
			8/19/2004	72.61	72.87
			9/3/2004	72.58	72.90
			10/27/2004	72.05	73.43
			11/17/2004	ND	ND
			12/2/2004	71.06	74.42
			1/20/2005	73.00	72.48
			3/31/2005	70.10	75.38
			4/27/2005	69.24	76.24
			6/14/2005	70.29	75.19
			9/27/2005	70.10	75.38
			11/28/2005	72.16	73.32
			12/28/2005	69.63	75.85
			1/25/2006	69.79	75.69
			2/21/2006	69.72	75.76
			3/29/2006	69.65	75.83
			5/3/2006	69.53	75.95
			6/20/2006	66.07	79.41
			9/27/2006	69.92	75.56
			12/18/2006	63.71	81.77
			1/18/2007	63.51	81.97
			2/16/2007	68.51	76.97
			3/19/2007	69.87	75.61
			6/12/2007	63.31	82.17
			9/19/2007	63.82	81.66
			10/9/2007	64.11	81.37
			11/28/2007	64.88	80.60
			1/22/2008	65.11	80.37
			3/5/2008	65.15	80.33
			6/17/2008	65.33	80.15
			9/24/2008	66.17	79.31
			11/25/2008	66.18	79.30
			1/22/2009	66.29	79.19
			6/9/2009	66.82	78.66
			8/4/2009	66.55	78.93
			3/9/2010	66.80	78.68
			6/7/2010	64.10	81.38
			9/29/2010	65.04	80.44
			12/7/2010	65.62	79.86
			3/1/2011	66.01	79.47
			6/7/2011	66.10	79.38
			9/23/2011	65.65	79.83
			11/29/2011	66.41	79.07
			3/29/2012	67.27	78.21
			9/25/2012	89.17	56.31
			12/6/2012	68.17	77.31
			4/1/2013	MW-11A could not be located.	
			6/18/2013	68.69	76.79
			9/16/2013	MW-11A is sealed shut.	
			11/5/2013	MW-11A is sealed shut.	

**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-11B	144.71	-64.69	9/24/1998	67.10	77.61
			12/3/1998	67.60	77.11
			3/6/2002	70.30	74.41
			6/3/2002	71.23	73.48
			7/2/2002	71.76	72.95
			8/1/2002	72.30	72.41
			9/18/2002	71.52	73.19
			10/18/2002	72.84	71.87
			11/19/2002	73.21	71.50
			12/16/2002	73.21	71.50
			1/7/2003	73.20	71.51
			2/13/2003	73.15	71.56
			3/11/2003	73.08	71.63
			4/8/2003	72.26	72.45
			5/7/2003	72.53	72.18
			6/16/2003	71.75	72.96
			7/15/2003	70.62	74.09
			8/20/2003	69.20	75.51
			9/5/2003	70.51	74.20
			10/29/2003	68.90	75.81
			11/25/2003	72.11	72.60
			12/16/2013	70.87	73.84
			3/3/2004	70.20	74.51
			4/9/2004	70.26	74.45
			5/13/2004	71.03	73.68
			6/8/2004	69.58	75.13
			7/22/2004	69.34	75.37
			8/19/2004	69.54	75.17
			9/3/2004	69.11	75.60
			10/27/2004	70.06	74.65
			11/17/2004	ND	ND
			12/2/2004	69.74	74.97
			1/20/2005	69.18	75.53
			3/31/2005	67.42	77.29
			4/27/2005	66.63	78.08
			6/14/2005	67.64	77.07
			9/27/2005	67.49	77.22
			11/28/2005	71.33	73.38
			12/28/2005	69.35	75.36
			1/25/2006	66.48	78.23
			2/21/2006	65.61	79.10
			3/29/2006	65.64	79.07
			5/3/2006	65.35	79.36
			6/20/2006	63.69	81.02
			9/27/2006	65.25	79.46
			12/18/2006	63.36	81.35
			1/18/2007	63.16	81.55
			2/16/2007	65.60	79.11
			3/19/2007	65.38	79.33
			6/12/2007	62.91	81.80
			9/19/2007	63.44	81.27
			10/9/2007	63.76	80.95
			11/28/2007	64.51	80.20
			1/22/2008	64.79	79.92
			3/5/2008	64.58	80.13
			6/17/2008	65.00	79.71
			9/24/2008	65.73	78.98
			11/25/2008	65.77	78.94
			1/22/2009	65.89	78.82
			6/9/2009	66.91	77.80
			8/4/2009	66.66	78.05
			3/9/2010	66.21	78.50
			6/7/2010	63.69	81.02
			9/29/2010	64.34	80.37
			12/7/2010	65.28	79.43
			3/1/2011	66.70	78.01
			6/7/2011	65.48	79.23
			9/23/2011	66.29	78.42
			11/29/2011	65.30	79.41
			3/29/2012	66.65	78.06
			9/25/2012	67.57	77.14
			12/6/2012	68.77	75.94
			4/1/2013	68.64	76.07
			6/18/2013	68.07	76.64
			9/16/2013	68.31	76.40
			11/5/2013	68.84	75.87

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-11C	145.57	13.90	9/24/1998	67.90	77.67
			12/3/1998	68.30	77.27
			3/6/2002	71.00	74.57
			6/3/2002	72.02	73.55
			7/2/2002	72.51	73.06
			8/1/2002	73.05	72.52
			9/18/2002	72.25	73.32
			10/18/2002	73.57	72.00
			11/19/2002	73.92	71.65
			12/16/2002	73.90	71.67
			1/7/2003	73.87	71.70
			2/13/2003	73.71	71.86
			3/11/2003	73.72	71.85
			4/8/2003	72.90	72.67
			5/7/2003	73.15	72.42
			6/16/2003	72.39	73.18
			7/15/2003	71.26	74.31
			8/20/2003	70.20	75.37
			9/5/2003	71.20	74.37
			10/29/2003	69.93	75.64
			11/25/2003	72.56	73.01
			12/16/2003	71.20	74.37
			3/3/2004	70.85	74.72
			4/9/2004	70.99	74.58
			5/13/2004	71.34	74.23
			6/8/2004	70.26	75.31
			7/22/2004	70.02	75.55
			8/19/2004	70.19	75.38
			9/3/2004	69.90	75.67
			10/27/2004	70.86	74.71
			11/17/2004	ND	ND
			12/2/2004	70.31	75.26
			1/20/2005	69.83	75.74
			3/31/2005	66.05	79.52
			4/27/2005	65.38	80.19
			6/14/2005	66.81	78.76
			9/27/2005	66.68	78.89
			11/28/2005	70.78	74.79
			12/28/2005	70.01	75.56
			1/25/2006	65.78	79.79
			2/21/2006	66.40	79.17
			3/29/2006	66.36	79.21
			5/3/2006	66.09	79.48
			6/20/2006	64.38	81.19
			9/27/2006	66.01	79.56
			12/18/2006	63.91	81.66
			1/18/2007	63.75	81.82
			2/16/2007	66.01	79.56
			3/19/2007	66.15	79.42
			6/12/2007	63.47	82.10
			9/19/2007	64.01	81.56
			10/9/2007	64.30	81.27
			11/28/2007	65.09	80.48
			1/22/2008	65.35	80.22
			3/5/2008	65.39	80.18
			6/17/2008	65.52	80.05
			9/24/2008	66.24	79.33
			11/25/2008	66.23	79.34
			1/22/2009	66.32	79.25
			6/9/2009	66.37	79.20
			8/4/2009	66.13	79.44
			3/9/2010	66.94	78.63
			6/7/2010	64.24	81.33
			9/29/2010	64.93	80.64
			12/7/2010	65.51	80.06
			3/1/2011	66.59	78.98
			6/7/2011	66.25	79.32
			9/23/2011	66.35	79.22
			11/29/2011	66.54	79.03
			3/29/2012	67.40	78.17
			9/25/2012	MW-11C has pumps installed. Okay to sample, but appears to be an obstruction when gauging. Unable to guage MW-11C.	
			12/6/2012	68.90	76.67
			4/1/2013	MW-11C has pumps installed. Okay to sample, but appears to be an obstruction when gauging. Unable to guage MW-11C.	
			6/18/2013	68.87	76.70
			9/16/2013	MW-11C has pumps installed. Okay to sample, but appears to be an obstruction when gauging. Unable to guage MW-11C.	
			11/5/2013	MW-11C appears to have an obstruction. Unable to guage MW-11C.	



**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-12A	145.72	45.28	9/24/1998	68.25	77.47
			12/3/1998	68.55	77.17
			3/6/2002	71.45	74.27
			6/3/2002	72.57	73.15
			7/2/2002	72.80	72.92
			8/1/2002	73.35	72.37
			9/19/2002	73.47	72.25
			10/18/2002	74.90	70.82
			11/19/2002	74.57	71.15
			12/16/2002	74.69	71.03
			1/7/2003	75.45	70.27
			2/13/2003	74.41	71.31
			3/11/2003	74.54	71.18
			4/8/2003	73.91	71.81
			5/7/2003	74.06	71.66
			6/16/2003	73.38	72.34
			7/15/2003	72.45	73.27
			8/20/2003	71.86	73.86
			9/5/2003	72.10	73.62
			10/29/2003	70.36	75.36
			11/25/2003	73.20	72.52
			12/16/2003	70.38	75.34
			3/3/2004	71.56	74.16
			4/9/2004	72.56	73.16
			5/13/2004	72.89	72.83
			6/8/2004	77.15	68.57
			7/22/2004	70.52	75.20
			8/19/2004	72.26	73.46
			9/3/2004	ND	ND
			10/27/2004	73.50	72.22
			11/17/2004	ND	ND
			12/2/2004	72.49	73.23
			1/20/2005	70.75	74.97
			3/31/2005	69.15	76.57
			4/27/2005	68.42	77.30
			6/14/2005	69.36	76.36
			9/27/2005	69.03	76.69
			11/28/2005	72.09	73.63
			12/28/2005	70.36	75.36
			1/25/2006	67.01	78.71
			2/21/2006	67.69	78.03
			3/29/2006	67.47	78.25
			5/3/2006	67.01	78.71
			6/20/2006	65.35	80.37
			9/27/2006	65.96	79.76
			12/18/2006	65.25	80.47
			2/16/2007	65.07	80.65
			3/19/2007	65.90	79.82
			6/12/2007	64.61	81.11
			9/19/2007	65.20	80.52
			10/9/2007	65.48	80.24
			11/28/2007	66.13	79.59
			1/22/2008	66.45	79.27
			3/5/2008	67.14	78.58
			6/17/2008	66.69	79.03
			9/24/2008	67.54	78.18
			11/25/2008	67.73	77.99
			1/22/2009	68.48	77.24
			6/9/2009	68.02	77.70
			8/12/2009	67.83	77.89
			3/9/2010	68.00	77.72
			6/7/2010	66.25	79.47
			9/29/2010	66.85	78.87
			12/7/2010	66.67	79.05
			3/1/2011	67.67	78.05
			6/7/2011	67.38	78.34
			9/23/2011	67.79	77.93
			11/29/2011	67.93	77.79
			3/29/2012	68.62	77.10
			9/25/2012	69.64	76.08
			12/6/2012	70.10	75.62
			4/1/2013	70.55	75.17
			6/18/2013	Well is buried. Gauging could not be completed.	

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-12B	145.56	-36.33	9/24/1998	69.15	76.41
			12/3/1998	69.40	76.16
			3/6/2002	72.19	73.37
			6/3/2002	74.25	71.31
			7/2/2002	73.50	72.06
			8/1/2002	74.05	71.51
			9/19/2002	74.27	71.29
			10/18/2002	74.17	71.39
			11/19/2002	75.33	70.23
			12/16/2002	75.47	70.09
			1/7/2003	74.64	70.92
			2/13/2003	75.32	70.24
			3/11/2003	75.40	70.16
			4/8/2003	74.84	70.72
			5/7/2003	74.94	70.62
			6/16/2003	74.33	71.23
			7/15/2003	73.43	72.13
			8/20/2003	72.88	72.68
			9/5/2003	73.60	71.96
			10/29/2003	71.53	74.03
			11/25/2003	74.63	70.93
			12/16/2003	71.25	74.31
			3/3/2004	72.33	73.23
			4/9/2004	73.26	72.30
			5/13/2004	72.89	72.67
			6/8/2004	71.47	74.09
			7/22/2004	71.25	74.31
			8/19/2004	71.33	74.23
			9/3/2004	ND	ND
			10/27/2004	71.68	73.88
			11/17/2004	ND	ND
			12/2/2004	70.87	74.69
			1/20/2005	71.81	73.75
			3/31/2005	69.92	75.64
			4/27/2005	69.26	76.30
			6/14/2005	70.14	75.42
			9/27/2005	69.93	75.63
			11/28/2005	73.50	72.06
			12/28/2005	71.78	73.78
			1/25/2006	67.81	77.75
			2/21/2006	66.88	78.68
			3/29/2006	66.69	78.87
			5/3/2006	67.01	78.55
			6/20/2006	66.18	79.38
			9/27/2006	66.67	78.89
			12/18/2006	65.99	79.57
			1/18/2007	66.09	79.47
			2/16/2007	65.71	79.85
			3/19/2007	66.57	78.99
			6/12/2007	65.37	80.19
			9/19/2007	65.93	79.63
			10/9/2007	66.20	79.36
			11/28/2007	66.81	78.75
			1/22/2008	67.14	78.42
			3/5/2008	66.49	79.07
			6/17/2008	67.40	78.16
			9/24/2008	68.28	77.28
			11/25/2008	68.44	77.12
			1/22/2009	67.75	77.81
			6/9/2009	68.71	76.85
			8/4/2009	67.56	78.00
			3/9/2010	67.69	77.87
			6/7/2010	65.50	80.06
			9/29/2010	66.17	79.39
			12/7/2010	67.33	78.23
			3/1/2011	68.28	77.28
			6/7/2011	68.08	77.48
			9/23/2011	68.46	77.10
			11/29/2011	68.65	76.91
			3/29/2012	69.25	76.31
			9/25/2012	70.35	75.21
			12/6/2012	70.90	74.66
			4/1/2013	71.39	74.17
			6/18/2013	Well is buried. Sampling and gauging could not be completed.	

TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA

DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-13 Well Closed on 01/07/03	157.93	91.18			
MW-13A	162.54	47.72	12/3/1998	71.65	86.28
			3/6/2002	76.28	81.65
			6/3/2002	77.50	80.43
			7/2/2002	77.70	80.23
			8/1/2002	78.00	79.93
			9/19/2002	78.25	79.68
			10/18/2002	78.48	79.45
			11/19/2002	78.55	79.38
			12/16/2002	78.46	79.47
			1/7/2003	78.24	79.69
			2/13/2003	77.59	80.34
			3/11/2003	77.66	80.27
			4/8/2003	77.17	80.76
			5/7/2003	77.25	80.68
			6/16/2003	76.74	81.19
			17/15/03	75.59	82.34
			8/20/2003	74.99	82.94
			9/5/2003	74.98	82.95
			10/29/2003	74.21	83.72
			11/25/2003	76.95	80.98
			12/16/2003	73.80	84.13
			3/3/2004	75.70	82.23
			4/9/2004	75.63	86.91
			5/13/2004	76.21	86.33
			6/8/2004	75.00	87.54
			7/22/2004	74.70	87.84
			8/19/2004	74.43	88.11
			9/3/2004	ND	ND
			10/27/2004	74.96	87.58
			11/17/2004	ND	ND
			12/2/2004	74.17	88.37
			1/20/2005	75.22	87.32
			3/31/2005	74.13	88.41
			4/27/2005	73.51	89.03
			6/14/2005	74.29	88.25
			9/27/2005	74.06	88.48
			11/28/2005	76.23	86.31
			12/28/2005	74.51	88.03
			1/25/2006	71.22	91.32
			2/21/2006	**	**
			3/29/2006	70.89	91.65
			5/3/2006	70.80	91.74
			6/20/2006	70.41	92.13
			9/27/2006	70.80	91.74
			12/18/2006	71.06	91.48
			1/18/2007	71.17	91.37
			2/16/2007	70.94	91.60
			3/19/2007	71.31	91.23
			6/12/2007	70.51	92.03
			9/19/2007	71.19	91.35
			10/9/2007	71.48	91.06
			11/28/2007	72.27	90.27
			1/22/2008	73.02	89.52
			3/5/2008	73.17	89.37
			6/17/2008	72.85	89.69
			9/24/2008	73.42	89.12
			11/25/2008	73.58	88.96
			1/22/2009	73.41	89.13
			6/9/2009	74.09	88.45
			8/4/2009	73.68	88.86
			3/9/2010	74.10	88.44
			6/7/2010	71.05	91.49
			9/29/2010	72.24	90.30
			12/7/2010	67.33	95.21
			2/28/2011	74.26	88.28
			6/7/2011	73.36	89.18
			9/23/2011	73.12	89.42
			11/29/2011	73.37	89.17
			3/29/2012	74.47	88.07
			9/25/2012	75.30	87.24
			12/6/2012	75.75	86.79
			4/1/2013	76.42	86.12
			6/18/2013	75.82	86.72
			9/16/2013	75.76	86.78
			11/5/2013	76.40	86.14

**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-14B	182.14	-46.26	12/3/1998	108.35	73.79
			6/1/2002	111.94	70.20
			7/2/2002	112.20	69.94
			8/1/2002	112.90	69.24
			9/19/2002	113.48	68.66
			10/18/2002	113.97	68.17
			11/19/2002	114.49	67.65
			12/16/2002	114.76	67.38
			1/7/2003	114.68	67.46
			2/13/2003	114.81	67.33
			3/11/2003	ND	ND
			4/8/2003	114.59	67.55
			5/7/2003	114.67	67.47
			6/16/2003	114.20	67.94
			7/15/2003	113.56	68.58
			8/20/2003	112.92	69.22
			9/5/2003	112.78	69.36
			10/29/2003	111.97	70.17
			11/25/2003	113.25	68.89
			12/16/2003	112.09	70.05
			3/3/2004	111.44	70.70
			4/9/2004	110.98	71.16
			5/13/2004	112.43	69.71
			6/8/2004	110.56	71.58
			7/22/2004	110.30	71.84
			8/19/2004	111.46	70.68
			9/3/2004	ND	ND
			10/27/2004	111.13	71.01
			11/17/2004	ND	ND
			12/2/2004	110.27	71.87
			1/20/2005	111.06	71.08
			3/31/2005	109.21	72.93
			4/27/2005	108.56	73.58
			6/14/2005	109.43	72.71
			9/27/2005	109.24	72.90
			11/28/2005	111.18	70.96
			12/28/2005	109.36	72.78
			1/25/2006	107.20	74.94
			2/21/2006	107.04	75.10
			3/29/2006	106.73	75.41
			5/3/2006	ND	ND
			6/20/2006	105.45	76.69
			9/27/2006	105.48	76.66
			12/18/2006	ND	ND
			1/18/2007	105.86	76.28
			2/16/2007	105.53	76.61
			3/19/2007	104.98	77.16
			6/12/2007	104.60	77.54
			9/19/2007	105.04	77.10
			10/9/2007	105.30	76.84
			11/28/2007	105.74	76.40
			1/22/2008	105.93	76.21
			3/5/2008	105.90	76.24
			6/17/2008	106.35	75.79
			9/24/2008	107.47	74.67
			11/25/2008	107.70	74.44
			1/22/2009	107.63	74.51
			6/9/2009	107.78	74.36
			8/4/2009	107.81	74.33
			3/9/2010	107.51	74.63
			6/7/2010	105.64	76.50
			9/29/2010	105.79	76.35
			12/7/2010	106.10	76.04
			3/1/2011	106.90	75.24
			6/7/2011	107.12	75.02
			9/23/2011	108.02	74.12
			11/29/2011	107.95	74.19
			3/29/2012	108.37	73.77
			9/25/2012	109.58	72.56
			12/6/2012	109.99	72.15
			4/1/2013	110.43	71.71
			6/18/2013	109.90	72.24
			9/16/2013	110.48	71.66
			11/5/2013	110.75	71.39
MW-15 Well Closed on 01/07/03	173	94.1			

**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-17 Well Closed on 01/07/03	174.24	-218.76	9/24/1998	101.10	73.14
			12/3/1998	111.70	62.54
			12/16/2002	119.15	55.09
			1/7/2003	118.85	55.39
			9/24/1998	101.10	60.71
MW-18 Well Closed on 01/07/03	161.81	-127.67	12/3/1998	99.10	62.71
			3/13/2002	ND	ND
			7/2/2002	105.90	55.91
			8/1/2002	107.60	54.21
			9/19/2002	107.95	53.86
			10/18/2002	107.27	54.54
			11/19/2002	106.90	54.91
			12/16/2002	106.53	55.28
			1/7/2003	106.42	55.39
			9/24/1998	101.10	62.50
			12/3/1998	100.25	63.35
MW-19	163.6	-127.49	6/3/2002	106.10	57.50
			7/2/2002	107.62	55.98
			8/1/2002	109.09	54.51
			9/19/2002	109.60	54.00
			10/18/2002	108.61	54.79
			11/19/2002	108.33	55.27
			12/16/2002	107.80	55.80
			1/7/2003	107.86	55.74
			2/13/2003	107.58	56.02
			3/11/2003	ND	ND
			4/8/2003	107.08	56.52
			5/7/2003	107.57	56.03
			6/16/2003	106.16	57.44
			7/15/2003	106.60	57.00
			8/20/2003	105.64	57.96
			9/5/2003	104.80	58.80
			10/29/2003	103.71	59.89
			11/25/2003	107.02	56.58
			12/16/2003	102.70	60.90
			3/3/2004	102.15	61.45
			4/9/2004	102.43	61.17
			5/13/2004	103.35	60.25
			6/8/2004	102.56	61.04
			7/22/2004	104.05	59.55
			8/19/2004	103.78	59.82
			9/3/2004	ND	ND
			10/27/2004	103.94	59.66
			11/17/2004	ND	ND
			12/2/2004	102.36	61.24
			1/20/2005	104.91	58.69
			3/31/2005	100.68	62.92
			4/27/2005	99.98	63.62
			6/14/2005	100.83	62.77
			9/27/2005	100.67	62.93
			11/28/2005	102.71	60.89
			12/28/2005	100.93	62.67
			1/25/2006	***	***
			2/21/2006	96.73	66.87
			3/29/2006	97.00	66.60
			5/3/2006	97.04	66.56
			6/20/2006	98.24	65.36
			9/27/2006	98.00	65.60
			12/18/2006	96.21	67.39
			2/16/2007	96.05	67.55
			3/19/2007	**	**
			6/21/2007	98.02	65.58
			9/19/2007	98.63	64.97
			10/9/2007	99.58	64.02
			11/28/2007	98.31	65.29
			1/22/2008	98.27	65.33
			3/5/2008	98.31	65.29
			6/17/2008	99.64	63.96
			9/24/2008	101.66	61.94
			1/22/2009	99.73	63.87
			6/9/2009	98.78	64.82
			8/4/2009	100.92	62.68
			3/9/2010	99.17	64.43
			6/7/2010	97.25	66.35
			9/29/2010	98.83	64.77
			12/7/2010	106.10	57.50
			2/28/2011	98.48	65.12
			6/7/2011	100.74	62.86
			11/29/2011	99.05	64.55
			3/29/2012	99.05	64.55

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-20	158.35	-73.27	12/3/1998	93.95	64.40
			3/6/2002	97.25	61.10
			6/3/2002	99.60	58.75
			7/2/2002	100.78	57.57
			8/1/2002	102.16	56.19
			9/19/2002	102.99	55.36
			10/18/2002	102.57	55.78
			11/19/2002	102.11	56.24
			12/16/2002	101.80	56.55
			1/7/2003	101.62	56.73
			2/13/2003	101.33	57.02
			3/11/2003	101.06	57.29
			4/8/2003	100.00	58.35
			5/7/2003	100.15	58.20
			6/16/2003	100.02	58.33
			7/15/2003	100.07	58.28
			8/20/2003	99.27	59.08
			9/5/2003	98.60	59.75
			10/29/2003	98.63	59.72
			11/25/2003	100.36	57.99
			12/16/2003	96.67	61.68
			3/3/2004	96.02	62.33
			4/9/2004	95.04	63.31
			5/13/2004	96.56	61.79
			6/8/2004	96.45	61.90
			7/22/2004	97.53	60.82
			8/19/2004	96.45	61.90
			9/3/2004	ND	ND
			10/27/2004	97.48	60.87
			11/17/2004	ND	ND
			12/2/2004	96.46	61.89
			1/20/2005	98.36	59.99
			3/31/2005	94.31	64.04
			4/27/2005	93.81	64.54
			6/14/2005	94.58	63.77
			9/27/2005	94.43	63.92
			11/28/2005	97.03	61.32
			12/28/2005	95.36	62.99
			1/25/2006	91.55	66.80
			2/21/2006	90.08	68.27
			3/29/2006	89.79	68.56
			5/3/2006	90.74	67.61
			6/20/2006	91.91	66.44
			9/27/2006	91.95	66.40
			12/18/2006	90.25	68.10
			2/16/2007	90.08	68.27
			3/19/2007	++	++
			6/12/2007	91.74	66.61
			9/19/2007	92.36	65.99
			10/9/2007	93.23	65.12
			11/28/2007	92.28	66.07
			1/22/2008	92.08	66.27
			3/5/2008	92.02	66.33
			6/17/2008	93.34	65.01
			9/24/2008	95.38	62.97
			11/25/2008	94.42	63.93
			1/22/2009	92.42	65.93
			6/9/2009	92.51	65.84
			8/4/2009	94.41	63.94
			6/7/2010	91.09	67.26
			9/29/2010	92.70	65.65
			12/7/2010	91.94	66.41
			2/28/2011	92.10	66.25
			6/7/2011	94.09	64.26
			9/23/2011	94.35	64.00
			11/29/2011	93.05	65.30
			3/29/2012	93.07	65.28
			9/25/2012	97.40	60.95
			12/6/2012	95.91	62.44
			4/1/2013	95.53	62.82
			6/18/2013	96.50	61.85
			9/16/2013	97.43	60.92
			11/5/2013	97.00	61.35
MW-21A Well Closed on 01/07/03	156.62	71.4	12/3/1998	66.80	89.82
			7/2/2002	72.70	83.92
			8/1/2002	72.91	83.71
			9/19/2002	74.27	82.35
			10/18/2002	73.38	83.24
			11/19/2002	73.29	83.33
			12/16/2002	73.21	83.41
			1/7/2003	73.11	83.51

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-22A Well Closed on 01/07/03	155.75	10.09	12/3/1998	79.20	76.55
			7/2/2002	83.28	72.47
			8/1/2002	83.80	71.95
			9/19/2002	83.64	72.11
			10/18/2002	84.20	71.55
			11/19/2002	84.67	71.08
			12/16/2002	84.62	71.13
			1/7/2003	84.60	71.15
MW-23A	145.07	35.36	12/3/1998	68.65	76.42
			3/6/2002	71.15	73.92
			6/3/2002	72.25	72.82
			7/2/2002	72.69	72.38
			8/1/2002	73.17	71.90
			9/19/2002	74.88	70.19
			10/18/2002	73.70	71.37
			11/19/2002	74.10	70.97
			12/16/2002	74.09	70.98
			1/7/2003	74.09	70.98
			2/13/2003	73.85	71.22
			3/11/2003	73.95	71.12
			4/8/2003	73.70	71.37
			5/7/2003	73.32	71.75
			6/16/2003	72.58	72.49
			7/15/2003	73.00	72.07
			8/20/2003	70.79	74.28
			9/5/2003	71.43	73.64
			10/29/2003	70.86	74.21
			11/25/2003	73.56	71.51
			12/16/2003	ND	ND
			3/3/2004	70.99	74.08
			4/9/2004	70.84	74.23
			5/13/2004	71.73	73.34
			6/8/2004	70.50	74.57
			7/22/2004	70.24	74.83
			8/19/2004	71.96	73.11
			9/3/2004	ND	ND
			10/27/2004	71.54	73.53
			11/17/2004	ND	ND
			12/2/2004	71.05	74.02
			1/20/2005	70.71	74.36
			3/31/2005	ND	ND
			4/27/2005	67.87	77.20
			6/14/2005	68.56	76.51
			9/27/2005	68.42	76.65
			11/28/2005	71.16	73.91
			12/28/2005	69.41	75.66
			1/25/2006	66.85	78.22
			2/21/2006	66.75	78.32
			3/29/2006	66.71	78.36
			5/3/2006	66.45	78.62
			6/20/2006	64.70	80.37
			9/27/2006	66.44	78.63
			12/18/2006	63.57	81.50
			1/18/2007	63.38	81.69
			2/16/2007	63.49	81.58
			3/19/2007	**	**
			6/12/2007	63.11	81.96
			9/19/2007	63.77	81.30
			10/9/2007	63.98	81.09
			11/28/2007	64.74	80.33
			1/22/2008	64.96	80.11
			3/5/2008	65.01	80.06
			6/17/2008	65.21	79.86
			9/24/2008	65.96	79.11
			11/25/2008	66.03	79.04
			1/22/2009	66.07	79.00
			6/9/2009	66.60	78.47
			8/4/2009	66.35	78.72
			3/9/2010	67.21	77.86
			6/7/2010	63.90	81.17
			9/29/2010	64.71	80.36
			12/7/2010	65.28	79.79
			2/28/2011	63.81	81.26
			6/7/2011	65.90	79.17
			9/23/2011	65.99	79.08
			11/29/2011	66.21	78.86
			3/29/2012	67.07	78.00
			9/25/2012	NS	NS
			12/6/2012	68.57	76.50
			4/1/2013	MW-23A could not be located.	
			6/18/2013	68.45	76.62
			9/16/2013	68.68	76.39
			11/5/2013	69.21	75.86

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-24	142.82	75.2	9/24/1998	65.75	77.07
			12/3/1998	66.15	76.67
			3/6/2002	68.70	74.12
			6/3/2002	69.91	72.91
			7/2/2002	70.30	72.52
			8/1/2002	70.80	72.02
			9/19/2002	71.40	71.42
			10/18/2002	71.48	71.34
			11/19/2002	71.71	71.11
			12/16/2002	71.70	71.12
			1/7/2003	71.71	71.11
			3/11/2003	71.56	71.26
			4/8/2003	70.66	72.16
			5/7/2003	70.91	71.91
			6/16/2003	69.30	73.52
			7/15/2003	68.53	74.29
			8/20/2003	68.00	74.82
			9/5/2003	69.00	73.82
			10/29/2003	ND	ND
			11/25/2003	71.00	71.82
			12/16/2003	69.37	73.45
			3/3/2004	68.55	74.27
			4/9/2004	68.28	74.54
			5/13/2004	68.27	74.55
			6/8/2004	68.00	74.82
			7/22/2004	67.79	75.03
			8/19/2004	67.04	75.78
			9/3/2004	ND	ND
			10/27/2004	68.49	74.33
			11/17/2004	ND	ND
			12/2/2004	68.01	74.81
			1/20/2005	68.14	74.68
			3/31/2005	65.75	77.07
			4/27/2005	65.06	77.76
			6/14/2005	65.54	77.28
			9/27/2005	65.19	77.63
			11/28/2005	67.95	74.87
			12/28/2005	66.36	76.46
			1/25/2006	64.32	78.50
			2/21/2006	64.25	78.57
			3/29/2006	64.18	78.64
			5/3/2006	63.92	78.90
			6/20/2006	62.20	80.62
			9/27/2006	63.86	78.96
			12/18/2006	61.28	81.54
			2/16/2007	63.14	79.68
			3/19/2007	64.00	78.82
			6/12/2007	68.86	73.96
			9/19/2007	61.43	81.39
			10/9/2007	61.69	81.13
			11/28/2007	62.43	80.39
			1/22/2008	62.80	80.02
			3/5/2008	62.74	80.08
			6/17/2008	62.93	79.89
			9/24/2008	63.68	79.14
			11/25/2008	63.65	79.17
			1/22/2009	**	**
			6/9/2009	64.31	78.51
			8/4/2009	64.05	78.77
			3/9/2010	64.20	78.62
			6/7/2010	61.61	81.21
			9/29/2010	62.43	80.39
			12/7/2010	62.98	79.84
			2/28/2011	63.59	79.23
			6/7/2011	63.58	79.24
			9/23/2011	63.72	79.10
			11/29/2011	63.93	78.89
			3/29/2012	64.81	78.01
			9/25/2012	65.66	77.16
			12/6/2012	66.24	76.58
			4/1/2013	66.61	76.21
			6/18/2013	66.15	76.67
			9/16/2013	66.44	76.38
			11/5/2013	67.00	75.82



**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-24A Well Closed on 01/07/03	143.4	-2.27	9/24/1998	65.55	77.85
			12/3/1998	65.95	77.45
			3/6/2002	68.43	74.97
			6/3/2002	69.89	73.51
			7/2/2002	70.22	73.18
			8/1/2002	70.75	72.65
			9/19/2002	70.40	73.00
			10/18/2002	71.45	71.95
			11/19/2002	71.64	71.76
			12/16/2002	71.63	71.77
			1/7/2003	71.41	71.99
			9/24/1998	7.60	151.18
			12/3/1998	81.80	76.98
MW-25	158.78	14.48	3/6/2002	84.70	74.08
			6/3/2002	85.85	72.93
			7/2/2002	86.05	72.73
			8/1/2002	86.62	72.16
			9/19/2002	86.60	72.18
			10/18/2002	87.37	71.41
			11/19/2002	87.80	70.98
			12/16/2002	87.83	70.95
			1/7/2003	87.78	71.00
			2/13/2003	85.70	73.08
			3/11/2003	87.77	71.01
			4/8/2003	87.09	71.69
			5/7/2003	87.25	71.53
			6/16/2003	86.50	72.28
			7/15/2003	85.50	73.28
			8/20/2003	86.50	72.28
			9/5/2003	85.30	73.48
			10/29/2003	84.28	74.50
			11/25/2003	86.37	72.41
			12/16/2003	71.93	86.85
			3/3/2004	84.80	73.98
			4/9/2004	83.67	75.11
			5/13/2004	84.52	74.26
			6/8/2004	84.02	74.76
			7/22/2004	83.75	75.03
			8/19/2004	83.67	75.11
			9/3/2004	ND	ND
			10/27/2004	83.37	75.41
			11/17/2004	ND	ND
			12/2/2004	82.71	76.07
			1/20/2005	83.76	75.02
			3/31/2005	82.32	76.46
			4/27/2005	81.71	77.07
			6/14/2005	82.51	76.27
			9/27/2005	82.36	76.42
			11/28/2005	84.91	73.87
			12/28/2005	83.14	75.64
			1/25/2006	80.27	78.51
			2/21/2006	80.15	78.63
			3/29/2006	80.06	78.72
			5/3/2006	79.60	79.18
			6/20/2006	78.58	80.20
			9/27/2006	79.32	79.46
			12/18/2006	78.33	80.45
			2/16/2007	78.17	80.61
			3/19/2007	79.35	79.43
			6/12/2007	77.81	80.97
			9/19/2007	78.29	80.49
			10/9/2007	78.61	80.17
			11/28/07	79.32	79.46
			1/22/2008	79.53	79.25
			3/5/2008	79.57	79.21
			6/17/2008	79.81	78.97
			9/24/2008	80.63	78.15
			11/25/2008	80.72	78.06
			1/22/2009	80.77	78.01
			6/9/2009	81.19	77.59
			8/4/2009	81.02	77.76
			3/9/2010	81.18	77.60
			6/7/2010	78.65	80.13
			9/29/2010	79.36	79.42
			12/7/2010	79.95	78.83
			3/1/2011	89.10	69.68****
			6/7/2011	80.51	78.27
			9/23/2011	80.76	78.02
			11/29/2011	81.04	77.74
			3/29/2012	81.68	77.10
			9/25/2012	82.75	76.03
			12/6/2012	83.28	75.50
			4/1/2013	83.75	75.03
			6/18/2013	82.19	76.59
			9/16/2013	83.55	75.23
			11/5/2013	84.03	74.75

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-26 Well Closed on 01/07/03	148.05	18	12/3/1998	71.20	76.85
			3/6/2002	74.15	73.90
			6/3/2002	75.25	72.80
			7/2/2002	75.49	72.56
			8/1/2002	76.00	72.05
			9/19/2002	76.10	71.95
			10/18/2002	76.80	71.25
			11/19/2002	77.23	70.82
			12/16/2002	77.31	70.74
			1/7/2003	77.29	70.76
MW-27 Well Closed on 01/07/03	144.39	14.67	12/3/1998	67.45	76.94
			3/6/2002	70.43	73.96
			6/3/2002	71.55	72.84
			7/2/2002	71.80	72.59
			8/1/2002	72.30	72.09
			9/19/2002	ND	ND
			1/7/2003	73.50	70.89
			12/16/2002	73.66	70.73
			9/24/1998	70.90	76.50
			12/3/1998	71.10	76.30
MW-28	147.4	-13.22	3/6/2002	73.98	73.42
			6/3/2002	75.50	71.90
			7/2/2002	75.30	72.10
			8/1/2002	75.85	71.55
			9/19/2002	76.03	71.37
			10/18/2002	76.68	70.72
			11/19/2002	77.15	70.25
			12/16/2002	77.34	70.06
			1/7/2003	77.29	70.11
			2/13/2003	77.19	70.21
			3/11/2003	77.26	70.14
			4/8/2003	76.60	70.80
			5/7/2003	76.74	70.66
			6/16/2003	76.26	71.14
			7/15/2003	75.28	72.12
			8/20/2003	74.66	72.74
			9/5/2003	74.75	72.65
			10/29/2003	ND	ND
			11/25/2003	75.98	71.42
			12/16/2003	74.54	72.86
			3/3/2004	ND	ND
			4/9/2004	74.26	73.14
			5/13/2004	73.89	73.51
			6/8/2004	73.24	74.16
			7/22/2004	73.02	74.38
			8/19/2004	72.56	74.84
			9/3/2004	ND	ND
			10/27/2004	73.61	73.79
			11/17/2004	ND	ND
			12/2/2004	73.33	74.07
			1/20/2005	73.47	73.93
			3/31/2005	71.73	75.67
			4/27/2005	71.02	76.38
			6/14/2005	71.99	75.41
			9/27/2005	71.70	75.70
			11/28/2005	72.84	74.56
			12/28/2005	71.15	76.25
			1/25/2006	69.59	77.81
			2/21/2006	69.47	77.93
			3/29/2006	69.33	78.07
			5/3/2006	68.79	78.61
			6/20/2006	67.96	79.44
			9/27/2006	68.43	78.97
			12/18/2006	67.75	79.65
			2/16/2007	67.58	79.82
			3/19/2007	**	**
			6/12/2007	67.15	80.25
			9/19/2007	67.71	79.69
			10/9/2007	67.99	79.41
			11/28/2007	68.61	78.79
			1/22/2008	68.88	78.52
			3/5/2008	68.94	78.46
			6/17/2008	69.15	78.25
			9/24/2008	70.00	77.40
			11/25/2008	70.21	77.19
			1/22/2009	70.21	77.19
			6/9/2009	70.50	76.90
			8/4/2009	70.36	77.04
			3/9/2010	68.63	78.77
			6/7/2010	68.01	79.39
			9/29/2010	68.61	78.79
			12/7/2010	69.10	78.30
			3/1/2011	70.09	77.31
			6/7/2011	69.82	77.58
			9/23/2011	72.50	74.90
			11/29/2011	70.42	76.98
			3/29/2012	71.05	76.35
			9/25/2012	72.14	75.26
			12/6/2012	72.63	74.77
			4/1/2013	72.15	75.25
			6/18/2013	72.59	74.81
			9/16/2013	72.93	74.47
			11/5/2013	73.35	74.05

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-29	144.43	72.8	9/24/1998	68.50	75.93
			12/3/1998	68.90	75.53
			6/3/2002	71.30	73.13
			7/2/2002	72.44	71.99
			8/1/2002	72.98	71.45
			9/19/2002	71.48	72.95
			10/18/2002	73.29	71.14
			11/19/2002	73.84	70.59
			12/16/2002	73.82	70.61
			1/7/2003	73.80	70.63
			2/13/2003	73.61	70.82
			3/11/2003	ND	ND
			4/8/2003	72.67	71.76
			5/7/2003	72.95	71.48
			6/16/2003	72.24	72.19
			7/15/2003	70.97	73.46
			8/20/2003	69.84	74.59
			9/5/2003	71.25	73.18
			10/29/2003	69.50	74.93
			11/25/2003	72.77	71.66
			12/16/2003	71.53	72.90
			3/3/2004	70.60	73.83
			4/9/2004	70.86	73.57
			5/13/2004	71.55	72.88
			6/8/2004	70.20	74.23
			7/22/2004	69.96	74.47
			8/19/2004	68.74	75.69
			9/3/2004	69.96	74.47
			10/27/2004	70.16	74.27
			11/17/2004	ND	ND
			12/2/2004	68.88	75.55
			1/20/2005	69.96	74.47
			3/31/2005	57.78	86.65
			4/27/2005	57.10	87.33
			6/14/2005	58.04	86.39
			9/27/2005	57.71	86.72
			11/28/2005	60.48	83.95
			12/28/2005	60.79	83.64
			1/25/2006	60.70	83.73
			2/21/2006	66.63	77.80
			3/29/2006	66.59	77.84
			5/3/2006	66.41	78.02
			6/20/2006	64.00	80.43
			9/27/2006	66.47	77.96
			12/18/2006	62.87	81.56
			1/18/2007	62.68	81.75
			2/16/2007	65.71	78.72
			3/19/2007	66.42	78.01
			6/12/2007	62.41	82.02
			9/19/2007	62.97	81.46
			10/9/2007	63.26	81.17
			11/28/2007	64.02	80.41
			1/22/2008	64.28	80.15
			3/5/2008	64.33	80.10
			6/17/2008	64.50	79.93
			9/24/2008	65.23	79.20
			11/25/2008	65.26	79.17
			1/22/2009	65.35	79.08
			6/9/2009	65.88	78.55
			8/4/2009	65.60	78.83
			3/9/2010	66.02	78.41
			6/7/2010	61.96	82.47
			9/29/2010	63.96	80.47
			12/7/2010	64.54	79.89
			3/1/2011	55.60	88.83****
			6/7/2011	65.13	79.30
			9/23/2011	65.30	79.13
			11/29/2011	65.52	78.91
			3/29/2012	66.31	78.12
			9/25/2012	67.75	76.68
			12/6/2012	67.84	76.59
			4/1/2013	67.95	76.48
			6/18/2013	68.75	75.68
			9/16/2013	67.09	77.34
			11/5/2013	68.50	75.93

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-30A	150.86	41.22	9/24/1998	76.60	74.28
			12/3/1998	76.35	74.53
			3/6/2002	79.20	71.68
			6/3/2002	80.01	70.87
			7/2/2002	80.51	70.37
			8/1/2002	80.75	70.13
			9/19/2002	79.52	71.36
			10/18/2002	81.39	69.49
			11/19/2002	81.82	69.06
			12/16/2002	83.20	67.68
			1/7/2003	82.78	68.10
			2/13/2003	81.52	69.36
			3/11/2003	81.55	69.33
			4/8/2003	80.86	70.02
			5/7/2003	81.33	69.55
			6/16/2003	80.35	70.53
			7/15/2003	78.90	71.98
			8/20/2003	77.52	73.36
			9/5/2003	79.34	71.54
			10/29/2003	ND	ND
			11/25/2003	80.49	70.39
			12/16/2003	78.98	71.90
			3/3/2004	79.10	71.78
			4/9/2004	78.56	72.30
			5/13/2004	77.64	73.22
			6/8/2004	78.54	72.32
			7/22/2004	77.91	72.95
			8/19/2004	79.05	71.81
			9/3/2004	77.80	73.06
			10/27/2004	77.35	73.51
			11/17/2004	ND	ND
			12/2/2004	76.59	74.27
			1/20/2005	78.35	72.51
			3/31/2005	71.15	79.71
			4/27/2005	70.56	80.30
			6/14/2005	74.68	76.18
			9/27/2005	74.38	76.48
			11/28/2005	77.03	73.83
			12/28/2005	75.43	75.43
			1/25/2006	72.16	78.70
			2/21/2006	75.10	75.76
			3/29/2006	75.16	75.70
			5/3/2006	74.91	75.95
			6/20/2006	73.74	77.12
			9/27/2006	75.23	75.63
			12/18/2006	69.12	81.74
			1/18/2007	69.10	81.76
			2/16/2007	73.96	76.90
			3/19/2007	74.89	75.97
			6/12/2007	68.71	82.15
			9/19/2007	69.26	81.60
			10/9/2007	69.53	81.33
			11/28/2007	70.31	80.55
			1/22/2008	70.58	80.28
			3/5/2008	70.67	80.19
			6/17/2008	70.78	80.08
			9/24/2008	71.50	79.36
			11/25/2008	72.87	77.99
			1/22/2009	71.62	79.24
			6/9/2009	72.16	78.70
			8/4/2009	71.98	78.88
			3/9/2010	72.15	78.71
			9/29/2010	70.28	80.58
			12/7/2010	70.87	79.99
			3/1/2011	71.93	78.93
			6/7/2011	71.42	79.44
			9/23/2011	71.52	79.34
			11/29/2011	71.75	79.11
			3/29/2012	72.62	78.24
			9/25/2012	MW-30A was not found at location depicted on map (Figure 1).	
			12/6/2012	74.08	76.78
			4/1/2013	74.54	76.32
			6/18/2013	74.00	76.86
			9/16/2013	74.20	76.66
			11/5/2013	74.78	76.08

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-31A	155.32	59.82	9/24/1998	7.60	147.72
			12/3/1998	66.30	89.02
			6/3/2002	72.49	82.83
			7/2/2002	72.72	82.60
			8/1/2002	73.00	82.32
			9/19/2002	73.95	81.37
			10/18/2002	73.45	81.87
			11/19/2002	73.51	81.81
			12/16/2002	73.37	81.95
			1/7/2003	73.28	82.04
			4/8/2003	ND	ND
			5/7/2003	ND	ND
			6/16/2003	ND	ND
			7/15/2003	71.20	84.12
			8/20/2003	71.26	84.06
			9/5/2003	70.66	84.66
			10/29/2003	ND	ND
			11/25/2003	72.01	83.31
			12/16/2003	68.70	86.62
			3/3/2004	70.94	84.38
			4/9/2004	71.25	84.07
			5/13/2004	ND	ND
			6/8/2004	69.81	85.51
			7/22/2004	69.57	85.75
			8/19/2004	68.59	86.73
			9/3/2004	69.51	85.81
			10/27/2004	70.12	85.20
			11/17/2004	ND	ND
			12/2/2004	69.20	86.12
			1/20/2005	70.48	84.84
			3/31/2005	70.36	84.96
			4/27/2005	69.66	85.66
			6/14/2005	70.53	84.79
			9/27/2005	70.34	84.98
			11/28/2005	73.68	81.64
			12/28/2005	71.96	83.36
			1/25/2006	67.21	88.11
			2/21/2006	66.25	89.07
			3/29/2006	66.09	89.23
			5/3/2006	65.86	89.46
			6/20/2006	66.14	89.18
			9/27/2006	65.84	89.48
			12/18/2006	67.57	87.75
			1/18/2007	67.87	87.45
			2/16/2007	67.43	87.89
			3/19/2007	66.66	88.66
			6/12/2007	67.18	88.14
			9/19/2007	68.06	87.26
			10/9/2007	68.32	87.00
			11/28/2007	69.17	86.15
			1/22/2008	69.96	85.36
			3/5/2008	70.02	85.30
			6/17/2008	69.81	85.51
			9/24/2008	70.38	84.94
			11/25/2008	72.71	82.61
			1/22/2009	70.40	84.92
			6/9/2009	69.51	85.81
			8/4/2009	70.64	84.68
			3/9/2010	71.16	84.16
			6/7/2010	68.12	87.20
			9/29/2010	69.30	86.02
			12/7/2010	70.03	85.29
			3/1/2011	103.96	51.36****
			6/7/2011	70.04	85.28
			9/23/2011	70.02	85.30
			11/29/2011	70.37	84.95
			3/28/2012	71.42	83.90
			9/25/2012	72.10	83.22
			12/6/2012	72.69	82.63
			4/1/2013	73.29	82.03
			6/18/2013	72.79	82.53
			9/16/2013	72.73	82.59
			11/5/2013	73.35	81.97

**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-32A	146.12	36.51	12/3/1998	69.05	77.07
			3/6/2002	71.83	74.29
			6/3/2002	72.92	73.20
			7/2/2002	73.27	72.85
			8/1/2002	73.80	72.32
			9/19/2002	73.67	72.45
			10/18/2002	74.31	71.81
			11/19/2002	74.65	71.47
			12/16/2002	74.80	71.32
			1/7/2003	74.61	71.51
			2/13/2003	74.39	71.73
			3/11/2003	74.51	71.61
			4/8/2003	73.71	72.41
			5/7/2003	73.92	72.20
			6/16/2003	73.10	73.02
			7/15/2003	72.00	74.12
			8/20/2003	71.43	74.69
			9/5/2003	72.09	74.03
			10/29/2003	71.08	75.04
			11/25/2003	73.56	72.56
			12/16/2003	68.83	77.29
			3/3/2004	71.60	74.52
			4/9/2004	71.93	74.19
			5/13/2004	72.19	73.93
			6/8/2004	71.02	75.10
			7/22/2004	70.82	75.30
			8/19/2004	70.56	75.56
			9/3/2004	70.70	75.42
			10/27/2004	71.36	74.76
			11/17/2004	ND	ND
			12/2/2004	69.98	76.14
			1/20/2005	71.73	74.39
			3/31/2005	69.00	77.12
			4/27/2005	68.19	77.93
			6/14/2005	69.24	76.88
			9/27/2005	68.89	77.23
			11/28/2005	71.01	75.11
			12/28/2005	69.32	76.80
			1/25/2006	67.26	78.86
			2/21/2006	67.18	78.94
			3/29/2006	67.08	79.04
			5/3/2006	66.87	79.25
			6/20/2006	65.67	80.45
			9/27/2006	66.86	79.26
			12/18/2006	64.61	81.51
			2/16/2007	64.43	81.69
			3/19/2007	66.91	79.21
			6/12/2007	64.17	81.95
			9/19/2007	64.78	81.34
			10/9/2007	65.01	81.11
			11/28/2007	65.79	80.33
			1/22/2008	66.02	80.10
			3/5/2008	66.07	80.05
			6/17/2008	66.25	79.87
			9/24/2008	66.99	79.13
			11/25/2008	67.00	79.12
			1/22/2009	67.02	79.10
			6/9/2009	67.64	78.48
			8/4/2009	67.39	78.73
			3/9/2010	67.63	78.49
			6/7/2010	64.83	81.29
			9/29/2010	65.79	80.33
			12/7/2010	66.32	79.80
			2/28/2011	66.85	79.27
			6/7/2011	66.98	79.14
			9/23/2011	67.09	79.03
			11/29/2011	67.25	78.87
			3/29/2012	68.08	78.04
			9/25/2012	69.00	77.12
			12/6/2012	69.50	76.62
			4/1/2013	MW-32A could not be located.	
			6/18/2013	69.49	76.63
			9/16/2013	69.71	76.41
			11/5/2013	70.27	75.85

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-33A	142.91	64.23	9/24/1998	65.60	77.31
			12/3/1998	66.00	76.91
			3/6/2002	68.58	74.33
			6/3/2002	69.76	73.15
			7/2/2002	70.13	72.78
			8/1/2002	70.61	72.30
			9/19/2002	69.65	73.26
			10/18/2002	71.30	71.61
			11/19/2002	71.63	71.28
			12/16/2002	71.52	71.39
			1/7/2003	71.50	71.41
			2/13/2003	71.34	71.57
			3/11/2003	71.41	71.50
			4/8/2003	70.14	72.77
			5/7/2003	70.71	72.20
			6/16/2003	69.16	73.75
			7/15/2003	68.14	74.77
			8/20/2003	67.58	75.33
			9/5/2003	68.94	73.97
			10/29/2003	ND	ND
			11/25/2003	70.66	72.25
			12/16/2003	68.81	74.10
			3/3/2004	68.42	74.49
			4/9/2004	69.03	73.88
			5/13/2004	69.18	73.73
			6/8/2004	68.92	73.99
			7/22/2004	67.66	75.25
			8/19/2004	67.85	75.06
			9/3/2004	ND	ND
			10/27/2004	68.34	74.57
			11/17/2004	ND	ND
			12/2/2004	67.51	75.40
			1/20/2005	68.07	74.84
			3/31/2005	65.25	77.66
			4/27/2005	64.64	78.27
			6/14/2005	65.37	77.54
			9/27/2005	65.03	77.88
			11/28/2005	68.23	74.68
			12/28/2005	66.41	76.50
			1/25/2006	64.09	78.82
			2/21/2006	64.12	78.79
			3/29/2006	64.11	78.80
			5/3/2006	66.45	76.46
			6/20/2006	61.78	81.13
			9/27/2006	63.79	79.12
			12/18/2006	61.80	81.11
			1/18/2007	60.97	81.94
			2/16/2007	61.21	81.70
			3/19/2007	63.91	79.00
			6/12/2007	60.77	82.14
			9/19/2007	61.31	81.60
			10/9/2007	61.59	81.32
			11/28/2007	62.37	80.54
			1/22/2008	62.71	80.20
			3/5/2008	62.65	80.26
			6/17/2008	62.84	80.07
			9/24/2008	63.56	79.35
			11/25/2008	63.69	79.22
			1/22/2009	63.77	79.14
			6/9/2009	64.19	78.72
			8/4/2009	63.95	78.96
			3/9/2010	64.30	78.61
			6/10/2010	61.42	81.49
			9/29/2010	62.37	80.54
			12/7/2010	62.94	79.97
			2/28/2011	63.42	79.49
			6/7/2011	63.50	79.41
			9/23/2011	63.58	79.33
			11/29/2011	63.80	79.11
			3/29/2012	64.69	78.22
			9/25/2012	65.58	77.33
			12/6/2012	66.30	76.61
			4/1/2013	66.50	76.41
			6/18/2013	66.13	76.78
			9/16/2013	66.31	76.60
			11/5/2013	66.89	76.02

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-34A	143.24	43.81	9/24/1998	65.20	78.04
			12/3/1998	65.55	77.69
			3/6/2002	68.45	74.79
			6/3/2002	69.63	73.61
			7/2/2002	69.93	73.31
			8/1/2002	70.60	72.64
			9/19/2002	70.60	72.64
			10/18/2002	71.05	72.19
			11/19/2002	71.41	71.83
			12/16/2002	71.48	71.76
			1/7/2003	71.41	71.83
			2/13/2003	71.21	72.03
			3/11/2003	ND	ND
			4/8/2003	ND	ND
			5/7/2003	70.74	72.50
			6/16/2003	69.59	73.65
			7/15/2003	68.64	74.60
			8/20/2003	68.11	75.13
			9/5/2003	68.91	74.33
			10/29/2003	67.03	76.21
			11/25/2003	70.55	72.69
			12/16/2003	68.97	74.27
			3/3/2004	68.40	74.84
			4/9/2004	67.95	75.29
			5/13/2004	ND	ND
			6/8/2004	67.75	75.49
			7/22/2004	67.50	75.74
			8/19/2004	68.91	74.33
			9/3/2004	ND	ND
			10/27/2004	66.59	76.65
			11/17/2004	ND	ND
			12/2/2004	66.28	76.96
			1/20/2005	67.83	75.41
			3/31/2005	65.69	77.55
			4/27/2005	64.94	78.30
			6/14/2005	65.31	77.93
			9/27/2005	65.09	78.15
			11/28/2005	67.74	75.50
			12/28/2005	66.04	77.20
			1/25/2006	63.94	79.30
			2/21/2006	**	**
			3/29/2006	63.77	79.47
			5/3/2006	63.55	79.69
			6/20/2006	62.11	81.13
			9/27/2006	63.32	79.92
			12/18/2006	61.60	81.64
			1/18/2007	61.93	81.31
			2/16/2007	63.71	79.53
			3/19/2007	63.49	79.75
			6/12/2007	61.12	82.12
			9/19/2007	61.69	81.55
			10/9/2007	62.03	81.21
			11/28/2007	62.73	80.51
			1/22/2008	62.99	80.25
			3/5/2008	63.08	80.16
			6/17/2008	63.25	79.99
			9/24/2008	63.98	79.26
			11/25/2008	64.03	79.21
			1/22/2009	64.09	79.15
			6/9/2009	64.59	78.65
			8/4/2009	64.34	78.90
			3/9/2010	64.59	78.65
			6/7/2010	61.98	81.26
			9/29/2010	62.76	80.48
			12/7/2010	63.31	79.93
			2/28/2011	64.07	79.17
			6/7/2011	63.92	79.32
			9/23/2011	64.15	79.09
			11/29/2011	64.20	79.04
			3/29/2012	65.14	78.10
			9/25/2012	67.12	76.12
			12/6/2012	66.74	76.50
			4/1/2013	66.47	76.77
			6/18/2013	66.55	76.69
			9/16/2013	66.80	76.44
			11/5/2013	67.35	75.89



**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-34B	143.26	-18.32	9/24/1998	65.35	77.91
			12/3/1998	65.70	77.56
			3/6/2002	68.60	74.66
			6/3/2002	69.79	73.47
			7/2/2002	70.03	73.23
			8/1/2002	70.60	72.66
			9/19/2002	70.34	72.92
			10/18/2002	71.21	72.05
			11/19/2002	71.55	71.71
			12/16/2002	71.62	71.64
			1/7/2003	71.55	71.71
			3/11/2003	ND	ND
			4/8/2003	ND	ND
			5/7/2003	70.91	72.35
			6/16/2003	69.90	73.36
			7/15/2003	68.97	74.29
			8/20/2003	68.40	74.86
			9/5/2003	69.08	74.18
			10/29/2003	67.78	75.48
			11/25/2003	70.38	72.88
			12/16/2003	69.13	74.13
			3/3/2004	68.55	74.71
			4/9/2004	68.56	74.70
			5/13/2004	67.20	76.06
			6/8/2004	67.89	75.37
			7/22/2004	67.64	75.62
			8/19/2004	67.88	75.38
			9/3/2004	ND	ND
			10/27/2004	68.29	74.97
			11/17/2004	ND	ND
			12/2/2004	66.65	76.61
			1/20/2005	67.78	75.48
			3/31/2005	65.96	77.30
			4/27/2005	65.29	77.97
			6/14/2005	66.14	77.12
			9/27/2005	63.94	79.32
			11/28/2005	66.41	76.85
			12/28/2005	64.97	78.29
			1/25/2006	64.06	79.20
			2/21/2006	**	**
			3/29/2006	63.88	79.38
			5/3/2006	63.46	79.80
			6/20/2006	62.32	80.94
			9/27/2006	63.39	79.87
			12/18/2006	61.86	81.40
			1/18/2007	61.81	81.45
			2/16/2007	63.48	79.78
			3/19/2007	63.49	79.77
			6/12/2007	61.35	81.91
			9/19/2007	61.93	81.33
			10/9/2007	62.23	81.03
			11/28/2007	63.00	80.26
			1/22/2008	63.21	80.05
			3/5/2008	63.29	79.97
			6/17/2008	63.46	79.80
			9/24/2008	64.22	79.04
			11/25/2008	64.29	78.97
			1/22/2009	64.34	78.92
			6/9/2009	64.82	78.44
			8/4/2009	64.41	78.85
			3/9/2010	64.81	78.45
			6/7/2010	62.20	81.06
			9/29/2010	62.99	80.27
			12/7/2010	63.50	79.76
			2/28/2011	63.92	79.34
			6/7/2011	64.12	79.14
			9/23/2011	64.26	79.00
			11/29/2011	64.43	78.83
			3/29/2012	65.33	77.93
			9/25/2012	67.32	75.94
			12/6/2012	66.84	76.42
			4/1/2013	66.16	77.10
			6/18/2013	66.75	76.51
			9/16/2013	67.00	76.26
			11/5/2013	67.56	75.70

**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
MW-35A	160.5	40.94	12/3/1998	83.55	76.95
			6/3/2002	87.44	73.06
			7/2/2002	87.82	72.68
			8/1/2002	84.50	76.00
			9/19/2002	87.11	73.39
			10/18/2002	88.79	71.71
			11/19/2002	89.14	71.36
			12/16/2002	89.12	71.38
			1/7/2003	89.11	71.39
			2/13/2003	88.87	71.63
			3/11/2003	88.95	71.55
			4/9/2003	88.14	72.36
			5/7/2003	88.37	72.13
			6/16/2003	87.60	72.90
			7/15/2003	86.49	74.01
			8/20/2003	85.53	74.97
			9/5/2003	86.50	74.00
			10/29/2003	85.10	75.40
			11/25/2003	88.15	72.35
			12/16/2003	85.71	74.79
			3/3/2004	86.10	74.40
			4/9/2004	86.31	74.19
			5/13/2004	85.78	74.72
			6/8/2004	85.51	74.99
			7/22/2004	85.29	75.21
			8/19/2004	ND	ND
			9/3/2004	85.22	75.28
			10/27/2004	86.13	74.37
			11/17/2004	ND	ND
			12/2/2004	85.21	75.29
			1/20/2005	86.44	74.06
			3/31/2005	83.41	77.09
			4/27/2005	82.78	77.72
			6/14/2005	83.61	76.89
			9/27/2005	84.34	76.16
			11/28/2005	87.38	73.12
			12/28/2005	85.56	74.94
			1/25/2006	82.09	78.41
			2/21/2006	81.76	78.74
			3/29/2006	81.69	78.81
			5/3/2006	81.50	79.00
			6/20/2006	80.26	80.24
			9/27/2006	ND	ND
			12/18/2006	78.81	81.69
			1/18/2007	78.63	81.87
			2/16/2007	80.72	79.78
			3/19/2007	81.56	78.94
			6/12/2007	78.39	82.11
			9/19/2007	78.90	81.60
			10/9/2007	79.24	81.26
			11/28/2007	79.97	80.53
			1/22/2008	80.27	80.23
			3/5/2008	80.32	80.18
			6/17/2008	80.61	79.89
			9/24/2008	81.18	79.32
			11/25/2008	81.19	79.31
			1/22/2009	81.29	79.21
			6/9/2009	81.84	78.66
			8/4/2009	81.59	78.91
			3/9/2010	81.83	78.67
			6/7/2010	79.06	81.44
			9/29/2010	79.94	80.56
			12/7/2010	85.84	74.66
			3/1/2011	81.60	78.90
			6/7/2011	81.11	79.39
			9/23/2011	81.21	79.29
			11/29/2011	81.40	79.10
			3/29/2012	82.31	78.19
			9/25/2012	83.17	77.33
			12/6/2012	83.73	76.77
			4/1/2013	81.40	79.10
			6/18/2013	83.67	76.83
			9/16/2013	83.85	76.65
			11/5/2013	84.43	76.07

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
36A Well Closed on 01/07/03	157		12/3/1998	79.70	77.30
			6/3/2002	83.61	73.39
			7/2/2002	83.98	73.02
			8/1/2002	84.52	72.48
			9/19/2002	84.21	72.79
			10/18/2002	84.97	72.03
			11/19/2002	85.31	71.69
			12/16/2003	85.30	71.70
			1/7/2003	85.23	71.77
MW-37A	160.85	36.24	12/3/1998	83.90	76.95
			3/6/2002	86.76	74.09
			6/3/2002	87.91	72.94
			7/2/2002	88.13	72.72
			8/1/2002	88.68	72.17
			9/19/2002	88.37	72.48
			10/18/2002	89.62	71.23
			11/19/2002	89.85	71.00
			12/16/2002	89.87	70.98
			1/7/2003	89.85	71.00
			2/13/2003	89.74	71.11
			3/11/2003	89.78	71.07
			4/8/2003	89.10	71.75
			5/7/2003	89.27	71.58
			6/16/2003	88.69	72.16
			7/15/2003	87.52	73.33
			8/20/2003	ND	ND
			9/5/2003	87.35	73.50
			10/29/2003	86.39	74.46
			11/25/2003	88.47	72.38
			12/16/2003	87.30	73.55
			3/3/2004	86.80	74.05
			4/9/2004	85.36	75.49
			5/13/2004	85.89	74.96
			6/8/2004	86.30	74.55
			7/22/2004	85.80	75.05
			8/19/2004	85.94	74.91
			9/3/2004	ND	ND
			10/27/2004	86.57	74.28
			11/17/2004	ND	ND
			12/2/2004	85.36	75.49
			1/20/2005	86.59	74.26
			3/31/2005	84.30	76.55
			4/27/2005	83.71	77.14
			6/14/2005	84.51	76.34
			9/27/2005	ND	ND
			11/28/2005	87.74	73.11
			12/28/2005	85.89	74.96
			1/25/2006	82.24	78.61
			2/21/2006	82.16	78.69
			3/29/2006	82.07	78.78
			5/3/2006	81.58	79.27
			6/20/2006	80.56	80.29
			9/27/2006	81.32	79.53
			12/18/2006	80.31	80.54
			2/16/2007	80.13	80.72
			3/19/2007	81.33	79.52
			6/12/2007	79.75	81.10
			9/19/2007	80.31	80.54
			10/9/2007	80.63	80.22
			11/28/2007	81.23	79.62
			1/22/2008	81.56	79.29
			3/5/2008	81.60	79.25
			6/17/2008	81.84	79.01
			9/24/2008	82.65	78.20
			11/25/2008	82.78	78.07
			1/22/2009	83.04	77.81
			6/9/2009	83.21	77.64
			8/4/2009	83.08	77.77
			3/9/2010	83.19	77.66
			6/7/2010	80.71	80.14
			9/29/2010	81.34	79.51
			12/7/2010	81.83	79.02
			3/1/2011	82.91	77.94
			6/7/2011	82.51	78.34
			9/23/2011	82.91	77.94
			11/29/2011	83.03	77.82
			3/29/2012	83.77	77.08
			6/11/2012	84.39	76.46
			9/25/2012	84.76	76.09
			12/6/2012	85.35	75.50
			4/1/2013	85.61	75.24
			6/18/2013	85.20	75.65
			9/16/2013	85.54	75.31
			11/5/2013	86.02	74.83

**TABLE 4**  
**SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY**  
**65 DAILY ROAD**  
**EAST NORTHPORT, SUFFOLK COUNTY, NY**  
**SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
<b>MW-38A</b> <b>Well</b> <b>Closed</b> <b>on</b> <b>01/07/03</b>	<b>144.54</b>	<b>44.56</b>	12/3/1998	68.30	76.24
			12/16/2002	73.77	70.77
			1/7/2003	73.69	70.85
<b>WROW 1</b>	<b>158.5</b>	<b>-276.09</b>	12/3/1998	96.60	61.90
			3/6/2002	98.64	59.86
			6/3/2002	102.75	55.75
			7/2/2002	106.13	52.37
			8/1/2002	107.55	50.95
			9/19/2002	107.90	50.60
			10/18/2002	105.07	53.43
			11/19/2002	104.14	54.36
			12/16/2002	103.91	54.59
			1/7/2003	102.32	56.18
			2/13/2003	103.71	54.79
			3/11/2003	102.90	55.60
			4/8/2003	102.89	55.61
			5/7/2003	103.22	55.28
			6/16/2003	103.43	55.07
			7/15/2003	104.29	54.21
			8/20/2003	103.95	54.55
			10/29/2003	103.81	55.69
			11/25/2003	103.28	55.22
			12/16/2003	99.80	58.70
			3/3/2004	99.05	59.45
			4/9/2004	100.66	57.84
			5/13/2004	101.71	56.79
			6/8/2004	100.55	57.95
			7/22/2004	102.45	56.05
			8/19/2004	103.11	55.39
			9/3/2004	ND	ND
			10/27/2004	102.53	55.97
			11/17/2004	ND	ND
			12/2/2004	101.30	57.20
			1/20/2005	102.63	55.87
			3/31/2005	96.34	62.16
			4/27/2005	95.63	62.87
			6/14/2005	96.58	61.92
			9/27/2005	96.41	62.09
			11/28/2005	98.37	60.13
			12/28/2005	96.64	61.86
			1/25/2006	93.08	65.42
			2/21/2006	92.65	65.85
			3/29/2006	92.86	65.64
			5/3/2006	92.18	66.32
			6/20/2006	96.96	61.54
			9/27/2006	94.69	63.81
			12/18/2006	91.26	67.24
			2/16/2007	92.09	66.41
			3/19/2007	93.41	65.09
			6/12/2007	95.25	63.25
			9/19/2007	94.19	64.31
			10/9/2007	95.00	63.50
			11/28/2007	94.80	63.70
			1/22/2008	94.62	63.88
			3/5/2008	93.19	65.31
			6/17/2008	96.62	61.88
			9/24/2008	97.18	61.32
			11/25/2008	95.23	63.27
			1/22/2009	94.13	64.37
			6/9/2009	93.86	64.64
			8/4/2009	97.44	61.06
			3/9/2010	94.51	63.99
			9/29/2010	94.79	63.71
			12/7/2010	93.50	63.77
			2/28/2011	93.50	65.00
			6/7/2011	98.50	60.00
			9/23/2011	97.42	61.08
			11/29/2011	96.17	62.33
			3/29/2012	93.48	65.02
			9/25/2012	102.40	56.10
			12/6/2012	99.43	59.07
			4/1/2013	96.56	61.94
			6/18/2013	100.61	57.89
			9/16/2013	99.85	58.65
			11/5/2013	98.35	60.15

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
WROW 2	158.57	-161.58	9/24/1998	95.40	63.17
			12/3/1998	94.80	63.77
			3/6/2002	97.85	60.72
			6/3/2002	100.46	58.11
			7/2/2002	101.20	57.37
			8/1/2002	103.28	55.29
			9/19/2002	103.95	54.62
			10/18/2002	103.45	55.12
			11/19/2002	102.68	55.89
			12/16/2002	102.28	56.29
			1/7/2003	102.32	56.25
			2/13/2003	101.95	56.62
			3/11/2003	101.52	57.05
			4/8/2003	100.42	58.15
			5/7/2003	100.80	57.77
			6/16/2003	100.50	58.07
			7/15/2003	100.84	57.73
			8/20/2003	101.12	57.45
			10/29/2003	100.04	58.53
			11/25/2003	102.45	56.12
			12/16/2003	97.30	61.27
			3/3/2004	96.65	61.92
			4/9/2004	96.83	61.74
			5/13/2004	97.67	60.90
			6/8/2004	97.38	61.19
			7/22/2004	98.60	59.97
			8/19/2004	97.89	60.68
			9/3/2004	ND	ND
			10/27/2004	98.26	60.31
			11/17/2004	ND	ND
			12/2/2004	96.35	62.22
			1/20/2005	99.78	58.79
			3/31/2005	95.36	63.21
			4/27/2005	94.79	63.78
			6/14/2005	95.53	63.04
			9/27/2005	95.29	63.28
			11/28/2005	97.34	61.23
			12/28/2005	95.58	62.99
			1/25/2006	92.19	66.38
			2/21/2006	91.27	67.30
			3/29/2006	91.56	67.01
			5/3/2006	91.36	67.21
			6/20/2006	92.94	65.63
			9/27/2006	92.58	65.99
			12/18/2006	90.80	67.77
			2/16/2007	90.62	67.95
			3/19/2007	90.85	67.72
			6/12/2007	92.78	65.79
			9/19/2007	93.07	65.50
			10/9/2007	94.03	64.54
			11/28/2007	93.09	65.48
			1/22/2008	92.89	65.68
			3/5/2008	92.62	65.95
			6/17/2008	94.22	64.35
			9/24/2008	97.78	60.79
			11/25/2008	95.73	62.84
			1/22/2009	93.27	65.30
			6/9/2009	93.03	65.54
			8/4/2009	95.12	63.45
			3/9/2010	93.02	65.55
			9/29/2010	93.48	65.09
			12/7/2010	92.85	65.72
			2/28/2011	92.60	65.97
			6/7/2011	95.02	63.55
			9/23/2011	94.86	63.71
			11/29/2011	93.07	65.50
			3/29/2012	94.05	64.52
			9/25/2012	98.40	60.17
			12/6/2012	96.59	61.98
			4/1/2013	95.98	62.59
			6/18/2013	102.50	56.07
			9/16/2013	98.58	59.99
			11/5/2013	98.27	60.30

**TABLE 4  
SUMMARY OF RELATIVE GROUNDWATER ELEVATION DATA**

**DEUTSCH RELAYS FACILITY  
65 DAILY ROAD  
EAST NORTHPORT, SUFFOLK COUNTY, NY  
SITE 152003**

WELL NO.	TOP-OF-CASING ELEVATION	TOP OF SCREEN ELEVATION	DATE	DEPTH TO GROUNDWATER	RELATIVE GROUNDWATER ELEVATION
CCOW	261.38	-217.66	9/24/1998	95.40	165.98
			12/3/1998	94.80	166.58
			6/3/2002	201.37	60.01
			7/2/2002	202.70	58.68
			8/1/2002	204.10	57.28
			9/19/2002	204.19	57.19
			10/18/2002	204.47	56.91
			11/19/2002	>200	
			12/16/2002	203.66	57.72
			1/7/2003	ND	ND
			2/13/2003	ND	ND
			3/11/2003	ND	ND
			4/8/2003	>200	
			5/7/2003	202.22	59.16
			6/16/2003	201.92	59.46
			7/15/2003	201.72	59.66
			8/20/2003	201.40	59.98
			9/5/2000	200.43	60.95
			10/29/2003	199.32	62.06
			11/25/2003	201.13	60.25
			12/16/2003	198.95	62.43
			3/3/2004	198.35	63.03
			4/9/2004	199.58	61.80
			5/13/2004	201.63	59.75
			6/8/2004	198.88	62.50
			7/22/2004	199.20	62.18
			8/19/2004	200.78	60.60
			9/3/2004	ND	ND
			10/27/2004	200.26	61.12
			11/17/2004	ND	ND
			12/2/2004	198.60	62.78
			1/20/2005	200.17	61.21
			3/31/2005	197.25	64.13
			4/27/2005	195.78	65.60
			6/14/2005	197.43	63.95
			9/27/2005	197.41	63.97
			11/28/2005	199.67	61.71
			12/28/2005	197.75	63.63
			1/25/2006	194.39	66.99
			2/21/2006	193.98	67.40
			3/29/2006	193.44	67.94
			5/3/2006	ND	ND
			6/20/2006	194.06	67.32
			9/27/2006	194.26	67.12
			12/18/2006	ND	ND
			2/16/2007	194.01	67.37
			3/19/2007	192.70	68.68
			6/12/2007	193.99	67.39
			9/19/2007	194.70	66.68
			10/9/2007	195.12	66.26
			11/28/2007	194.45	66.93
			1/22/2008	194.40	66.98
			3/5/2008	194.19	67.19
			6/17/2008	195.27	66.11
			6/9/2009	195.38	66.00
			9/29/2010	164.49	96.89
			12/7/2010	194.22	67.16
			2/28/2011	194.80	66.58
			6/7/2011	195.85	65.53
			9/23/2011	196.90	64.48
			11/29/2011	195.52	65.86
			9/25/2012	199.15	62.23
			12/6/2012	197.88	63.50
			4/1/2103	197.81	63.57
			6/18/2013	198.40	62.98
			9/16/2013	199.20	62.18
			11/5/2013	199.30	62.08

**NOTES**

- 1) +- Top-of-casing elevations obtained from the January 3, 2002 surveying event conducted by Borbas Surveying and Mapping, LLC.
- 2) ND - No Data.
- 3) NS - Not Sampled.
- 4) LNAPL - Light Non-Aqueous Phase Liquid (also referred to as free product).
- 5) All measurements in feet unless otherwise noted.
- 6) \* - Based on visual observation.
- 7) \*\* - obstruction that prevented a reading
- 8) \*\*\* - missing from observation notes
- 9) \*\*\*\* - possible field or transcription error
- 10) MW-4 was paved over
- 11) MW-12A and MW-12B were noted buried during the 2nd Quarter 2013 GW sampling event.

## **APPENDIX F**

### **EXCAVATION WORK PLAN**

As noted in Section 2.5.1 of the Site Management Plan (SMP) for this Site, extensive soil sampling has been performed and only very limited areas of the Site include residual soil with constituents exceeding the 6 NYCRR Part 375-6 Soil Cleanup Objectives (SCOs) for restricted residential or commercial uses, which are the anticipated uses for the Site. The exceedances were noted for copper and mercury only; no exceedances were noted for any Site-related VOCs.

This Excavation Work Plan (EWP) will be applicable for the identified areas of residual soil only and is not applicable to other soil on the Site. The identified areas of residual soil include:

- The soil at the R-2 location on the floor of the western recharge basin at a depth of 0 to 0.5 feet exceeds the restricted residential use SCO for mercury, but does not exceed the commercial use SCO;
- Two samples (#1 and #2) from approximately two feet below the former floor of the plating shop in the former Main Building exhibited exceedances of the commercial use SCO for copper;
- The soil at a depth of 0 to 0.5 feet at the R-5 location on the floor of the northeast recharge basin exceeds the commercial use SCO for copper; and
- The soil at a depth of 7 to 9 feet at the S-16 location below the floor of the former sludge-drying beds exceeds the commercial use SCO for copper.

A Community Air Monitoring Plan (CAMP) to be used during activities under this EWP is included in the Health and Safety Plan (HASP) in Appendix J of the SMP.

#### **F.1 NOTIFICATION**

At least 15 days prior to the start of any activity that is anticipated to encounter residual contaminated soil, the Site owner or their representative will notify the NYSDEC. Table F.1.1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

**Table F.1.1: Notifications\***

<b>Name/Role</b>	<b>Phone/Email Address</b>
<b>NYSDEC DER Project Manager:</b> Melissa Sweet, PE	(518) 402-9614, melissa.sweet@dec.ny.gov
<b>NYSDEC Regional HW Engineer:</b> Walter Parish, PE	(631) 444-0240, walter.parish@dec.ny.gov
<b>NYSDEC Site Control:</b> Kelly Lewandowski	(518) 402-9553, kelly.lewandowski@dec.ny.gov

\* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation(s), plans/drawings for site re-grading, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction and post-excavation sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix J of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

## **F.2 SOIL SCREENING METHODS**

Visual, olfactory and instrument-based (e.g. photoionization detector or PID) soil screening will be performed by a qualified environmental professional during all excavations into



known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed in areas where residual soil has been identified, such as excavations for foundations and utility work.

Soils will be segregated based on previous environmental data and screening results into material that requires offsite disposal and material that requires testing to determine if the material can be reused onsite. Further discussion of offsite disposal of materials and onsite reuse is provided in the following sections of this Appendix.

### **F.3 SOIL STAGING METHODS**

Stockpiles of residual soil will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles of residual soil will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles of residual soil will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC.

### **F.4 MATERIALS EXCAVATION AND LOAD-OUT**

A qualified environmental professional or person under their supervision will oversee all invasive work involving residual soil and the excavation and load-out of all excavated residual soil.

The owner of the property (remedial party) and its contractors are responsible for safe execution of all invasive and other work performed under this EWP.

The presence of utilities and easements in the residual soil excavation areas will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this EWP is posed by utilities or easements.

Vehicles loaded with residual soil leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and New York State Department of Transportation (NYSDOT) requirements and all other applicable transportation requirements.

A truck wash for trucks loaded with residual soil will be operated onsite, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks loaded with residual soil will be washed at the truck wash before leaving the Site. Truck wash waters will be collected and disposed of offsite in an appropriate manner.

Locations where vehicles carrying residual soil exit the Site will be inspected daily for evidence of offsite soil tracking. The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the areas of the Site where residual soil is present are clean of soil and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived residual soil.

#### **F.5 RESIDUAL SOIL TRANSPORT OFFSITE**

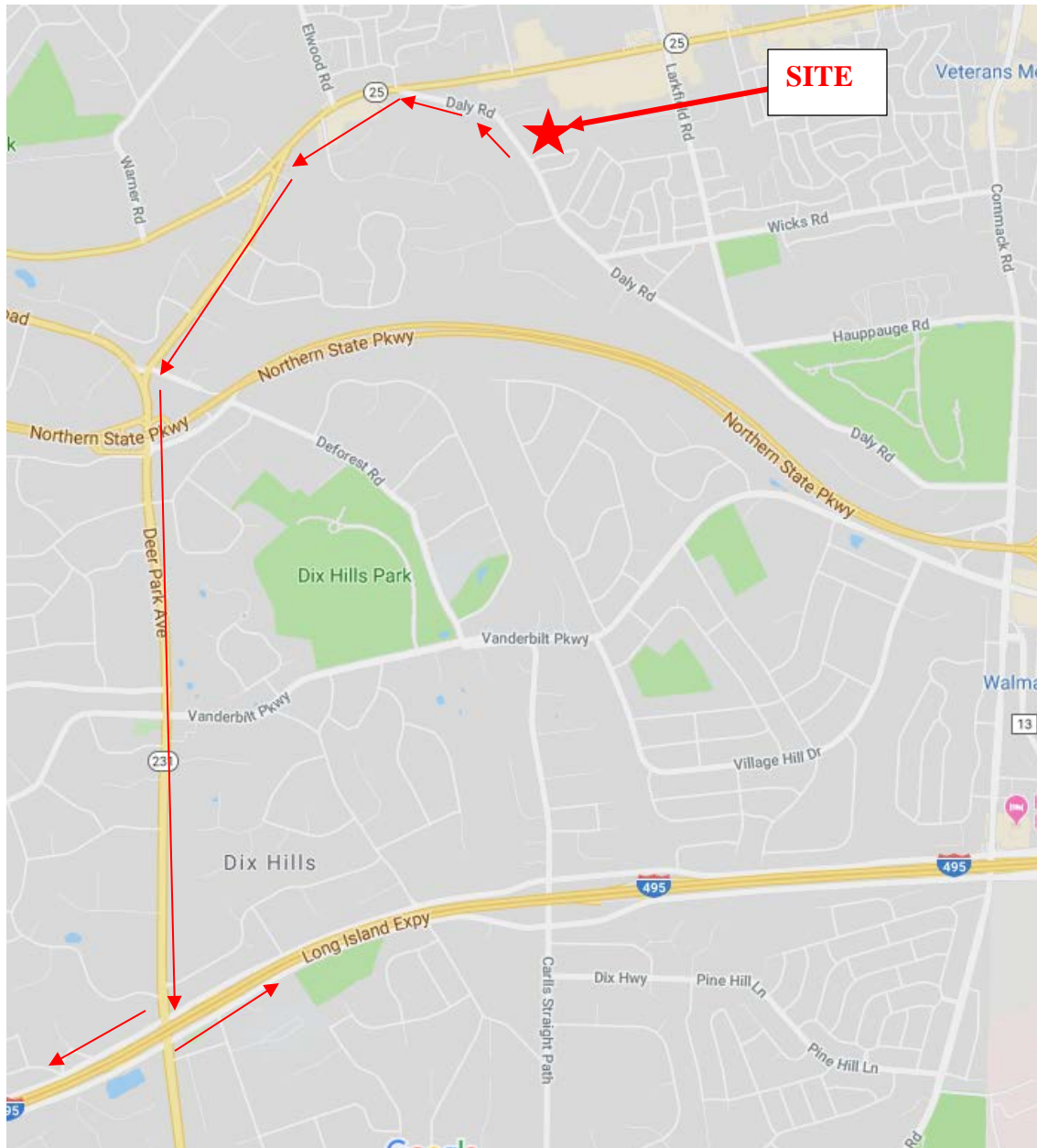
All transport of residual soil will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Residual soil transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

The truck transport route is shown on the map on the next page and is as follows:

- Exit to Daly Road and turn right, heading northwest to Jericho Turnpike (Rt. 25);
- Turn left onto Jericho Turnpike and travel west a short distance to Deer Park Road (Rt. 231);
- Turn left onto Deer Park Road and travel south approximately 2 miles to the Long Island Expressway (Rt. 495); and
- Take the Long Island Expressway east or west to the final destination.

Trucks will be prohibited from stopping and idling in the neighborhood outside the Site. Queuing of trucks will be performed onsite in order to minimize offsite disturbance. Offsite queuing will be prohibited.



### Truck Transport Route

All trucks loaded with Site-derived residual soil will exit the vicinity of the Site using only this approved truck route. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) limiting total distance to major highways; (c) promoting safety in access to highways; and (d) overall safety in transport.

## **F.6 RESIDUAL SOIL DISPOSAL OFFSITE**

All residual soil excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. Unregulated offsite management of residual from this Site will not occur without formal NYSDEC approval.

Offsite disposal locations for excavated residual soil will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility, if appropriate (i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the PRR. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous residual soil taken offsite will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

## **F.7 RESIDUAL SOIL REUSE ONSITE**

The qualified environmental professional will ensure that procedures defined for residual soil reuse in this EWP are followed and that unacceptable material does not remain onsite. Contaminated residual soil that remains present onsite in development areas will be placed below a demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse onsite will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing onsite will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused onsite.

## **F.8 FLUIDS MANAGEMENT**

Groundwater is not anticipated to be encountered during excavation activities due to the depth to groundwater (70 to 95 feet below grade). Nevertheless, as liquids to be removed from the Site during excavation activities will be handled, transported and disposed in accordance with

applicable local, State, and Federal regulations. Dewatering, fluids will not be recharged back to the land surface or subsurface of the Site, and will be managed offsite, unless prior approval is obtained from NYSDEC.

In the unlikely event that discharge of water generated during large-scale construction activities is to be directed to surface waters (i.e. a local pond, stream or river), then this discharge will be performed under a SPDES permit.

## **F.9 COVER SYSTEM**

This Site does not require a cover system and no cover system is planned. In the unlikely event that any residual soil exceeding restricted residential or commercial use SCOs is identified onsite and this soil is not completely removed under this EWP, then a cover system may be necessary. If a cover system becomes necessary, then the NYSDEC will be notified and a cover system design will be submitted.

## **F.10 BACKFILL FROM OFFSITE SOURCES**

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in the SMP prior to receipt at the Site. Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site. A Request to Import/Reuse Fill or Soil form, which can be found at <http://www.dec.ny.gov/regulations/67386.html>, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use criteria, the resulting soil quality standards are listed in Table 327-6.8(b) (restricted residential and commercial). Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

## **F.11 STORMWATER POLLUTION PREVENTION**

In the event that redevelopment projects at the Site exceed one acre in size, a Stormwater Pollution Prevention Plan that conforms to the requirements of the NYSDEC Division of Water guidelines and NYS regulations will be developed. For redevelopment projects at the Site that are less than one acre, the following will be performed at a minimum:

- Silt fencing or hay bales will be installed around the entire perimeter of the construction area.
- Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.
- Accumulated sediments will be removed as required to keep the barrier and hay bale checks functional.
- All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.
- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

## **F.12 EXCAVATION CONTINGENCY PLAN**

If underground storage tanks (USTs) or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification

to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

### **F.13 ODOR CONTROL PLAN**

Based on the nature of the residual soil, objectionable odors are not anticipated during activities subject to this EWP. This odor control plan is capable of controlling emissions of nuisance odors offsite in the unlikely event that any such odors develop. Specific odor control methods to be used on a routine basis will include limiting the areas of open excavations with the potential to produce odors, promptly removing and properly disposing of materials with the potential to produce odors, and temporarily covering areas of odorous materials if encountered.

If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events within one day of the odor event occurrence. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party any measures that are implemented will be discussed in the report documenting the excavation activities.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and/or (c) using foams to cover exposed odorous soils, if necessary. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for offsite disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

#### **F.14 DUST CONTROL PLAN**

A dust suppression plan that addresses dust management during invasive onsite work involving residual soil will include, at a minimum:

- Dust suppression will be achieved through the use of a dedicated onsite water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- Onsite roads will be limited in total area to minimize the area required for water truck sprinkling.

#### **F.15 OTHER NUISANCES**

If required by the local municipality, a plan for rodent control will be developed and utilized by the contractor prior to and during site clearing, site grubbing, and all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

#### **F.16 REPORTING**

A report is to be submitted to the NYSDEC within 90 days of completion of the activities performed under this EWP. This report will contain a summary of the activities performed; a summary of all data gathered and results, information about any residual soil or other contaminated media that was removed from the Site: the volume, contamination levels, and area from which residual materials were removed; and any other information that may indicate a change to the “remaining contamination” that is at the Site. Such changes may require revision of the SMP.



## **APPENDIX G**

### **SITE MANAGEMENT FORMS**

- **Site-Wide Inspection Form**
- **Groundwater Sampling Form**
- **Canister Sampling Form**

**Site-Wide Inspection List  
Deutsch Relays, Inc. Site  
65 Daly Road, East Northport, New York**

**Date of Inspection:** \_\_\_\_\_

Site-wide inspections will be performed annually, at a minimum. A site-wide inspection shall also be performed after severe events that may affect the monitoring wells.

The following inspection form shall be completed during each site-wide inspection. Supporting documentation shall be attached, as necessary. The completed site-wide inspection checklist and supporting documentation shall be included in the Periodic Review Report (PRR).

**Compliance with Institutional Controls**

Institutional Controls (ICs) are required for this Site to restrict Site usage and will be implemented with an environmental easement. These ICs are described in Section 3.2 of the Site Management Plan (SMP) and the IC checklist will become applicable following the filing of the environmental easement. The following checklist will be completed during each Site-wide inspection following recording of the environmental easement to confirm compliance with the Site ICs:

- The Site may only be used for restricted residential, commercial, or industrial or uses unless the express written waiver of the NYSDEC or relevant agency is obtained. Confirm that Site usage is compliant with the usage restriction: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  
- The use of the groundwater underlying the property is prohibited without necessary water quality treatment, as determined by the NYSDOH or SCDHS to render it safe for use as drinking water or for industrial uses, and the user must first notify and obtain written approval to do so from the NYSDEC or relevant agency. Confirm that no unauthorized private wells have been installed: \_\_\_\_\_  
\_\_\_\_\_

- Data and information pertinent to site management must be reported at the frequency and in the manner defined in the SMP. Confirm that the required site management information reporting is in compliance with the SMP: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Activities that will disturb the remaining contaminated material must be performed in accordance with the SMP. Confirm that any such activities are compliant with the SMP: \_\_\_\_\_  
\_\_\_\_\_
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified in the environmental easement. Confirm that Site access was provided, if applicable: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- The potential for vapor intrusion must be evaluated for any buildings developed in the area of the IC boundaries, and appropriate actions to address exposures must be implemented. Confirm that any buildings developed within the area of the IC boundaries have been evaluated for potential vapor intrusion and, if applicable, and appropriate actions to address exposures have been implemented: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Vegetable gardens and farming on the Site are prohibited. Confirm that no vegetable gardens or farming are present on the Site: \_\_\_\_\_  
\_\_\_\_\_

## General Site Conditions

Provide a written description of the Site conditions at the time of the site-wide inspection. Attach digital photographs or other supporting information as needed: \_\_\_\_\_

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Annual inspections and certifications must be conducted in accordance with the SMP. Confirm compliance with annual inspections and certifications: \_\_\_\_\_

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Groundwater and other environmental or public health monitoring, and reporting of information thus obtained, must be performed in a manner specified in the SMP until the monitoring program is terminated. Confirm that the required monitoring and reporting are in accordance with the SMP: \_\_\_\_\_

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Onsite environmental monitoring devices, including but not limited to groundwater monitoring wells, will be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP until the monitoring program is terminated. Confirm that monitoring devices have been protected and/or replaced: \_\_\_\_\_

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Provide a discussion and assessment of ongoing groundwater monitoring, well replacement/repair, residual soil management, vapor intrusion evaluations, and other applicable and pertinent activities. Attach supporting documentation as necessary: \_\_\_\_\_

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### **Compliance with Schedules**

The SMP includes a schedule for groundwater monitoring and site-wide inspections. Discuss compliance with the groundwater monitoring and inspection schedules: \_\_\_\_\_

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### **Site Records**

The Site records include, but are not limited to, groundwater monitoring reports, site-wide inspection checklists, non-routine notifications to the NYSDEC, regulatory agency correspondence, reports, and the PRR. Confirm that each type of Site record is up to date and provide comments: \_\_\_\_\_

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## Inspector Information

Name and Affiliation of Inspector: \_\_\_\_\_

\_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Reason for Inspection: \_\_\_\_\_

\_\_\_\_\_

List additional inspections or activities conducted in association with this inspection: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Well Sampling Form**  
**Deutsch Relays, Inc. Site**  
**65 Daly Road, East Northport, New York**

Well No.: \_\_\_\_\_ Well Diameter: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_

Weather: \_\_\_\_\_ Finish Time: \_\_\_\_\_

Sampled By (full name and affiliation): \_\_\_\_\_

Depth to Bottom of Well: \_\_\_\_\_ Feet.

Depth to Water: \_\_\_\_\_ Feet.

Height of Water Column: \_\_\_\_\_ Feet.

Water Volume in Casing: \_\_\_\_\_ Gallons.

Water Volume to be Purged: \_\_\_\_\_ Gallons.

Water Volume Actually Purged: \_\_\_\_\_ Gallons.

Purge Method: \_\_\_\_\_

Physical Appearance/Comments: \_\_\_\_\_

**FIELD MEASUREMENTS:**

<b>Time</b>	<b>Gallons</b>	<b>pH</b>	<b>Cond. (uS)</b>	<b>Temp. (°F)</b>	<b>Turbidity (NTU)</b>

Sampling and Analytical Methods: \_\_\_\_\_

Laboratory Name and Location: \_\_\_\_\_

Condition of Well: \_\_\_\_\_

Condition of Surface Completion: \_\_\_\_\_

Recommended Repairs/Maintenance: \_\_\_\_\_

**Well Maintenance Form  
Deutsch Relays, Inc. Site  
65 Daly Road, East Northport, New York**

Well No.: \_\_\_\_\_

Nature of Maintenance: \_\_\_\_\_

Name and Affiliation of Maintenance Personnel: \_\_\_\_\_

Describe Maintenance in detail: \_\_\_\_\_

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Additional Comments: \_\_\_\_\_

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Attach all supporting documentation including location of maintenance work, digital photographs, sketches, invoices, equipment instructions, manuals, etc.



## CANISTER FIELD SAMPLING RECORD

**Project:** \_\_\_\_\_

**Site Location:** \_\_\_\_\_

Sample ID	_____	Canister ID	_____
Sampler	_____	Canister Volume	_____
Location	_____	Flow Controller ID	_____
Height	_____	Flow Controller Setting	_____
Sample Type (sub-slab, soil gas, amb, indoor)		_____	

Reading	Date	Time	Vacuum
Initial Canister Vacuum			
Final Canister Vacuum			

**Weather or Ambient Conditions:** \_\_\_\_\_

**Purge Data:** \_\_\_\_\_

**Helium Check Data:** \_\_\_\_\_

**Comments:** \_\_\_\_\_

## **APPENDIX H**

### **FIELD SAMPLING PLAN**

This Field Sampling Plan (FSP) has been prepared by FPM Group (FPM) for the Deutsch Relays, Inc. Site located at 65 Daly Road, East Northport, New York (hereinafter referred to as the “Site”). The Site is currently in the New York State Inactive Hazardous Waste Disposal Site Remedial Program as Site No. 152003, which is administered by New York State Department of Environmental Conservation (NYSDEC). This FSP is part of the Site Management Plan (SMP) for the Site and includes the field sampling procedures for site management activities. A Quality Assurance Project Plan (QAPP) is also included in the SMP (Appendix I); the QAPP includes quality assurance/quality control (QA/QC) procedures to be used for sampling and analytical activities.

The selected remedial actions for the Site have been completed and are documented in detail in the SMP. Monitoring of the remaining contamination at the Site is detailed in the SMP and includes monitoring of residual groundwater impacts from select volatile organic compounds (VOCs). A Site plan showing the groundwater monitoring wells is presented on Figure H.1.

The Site also includes extremely limited areas of residual soil impacts. The Excavation Work Plan (EWP) provided in Appendix F of the SMP outlines the procedures required to be implemented in the event the remaining residual contamination is disturbed. Soil sampling may be necessary if residual soil is removed.

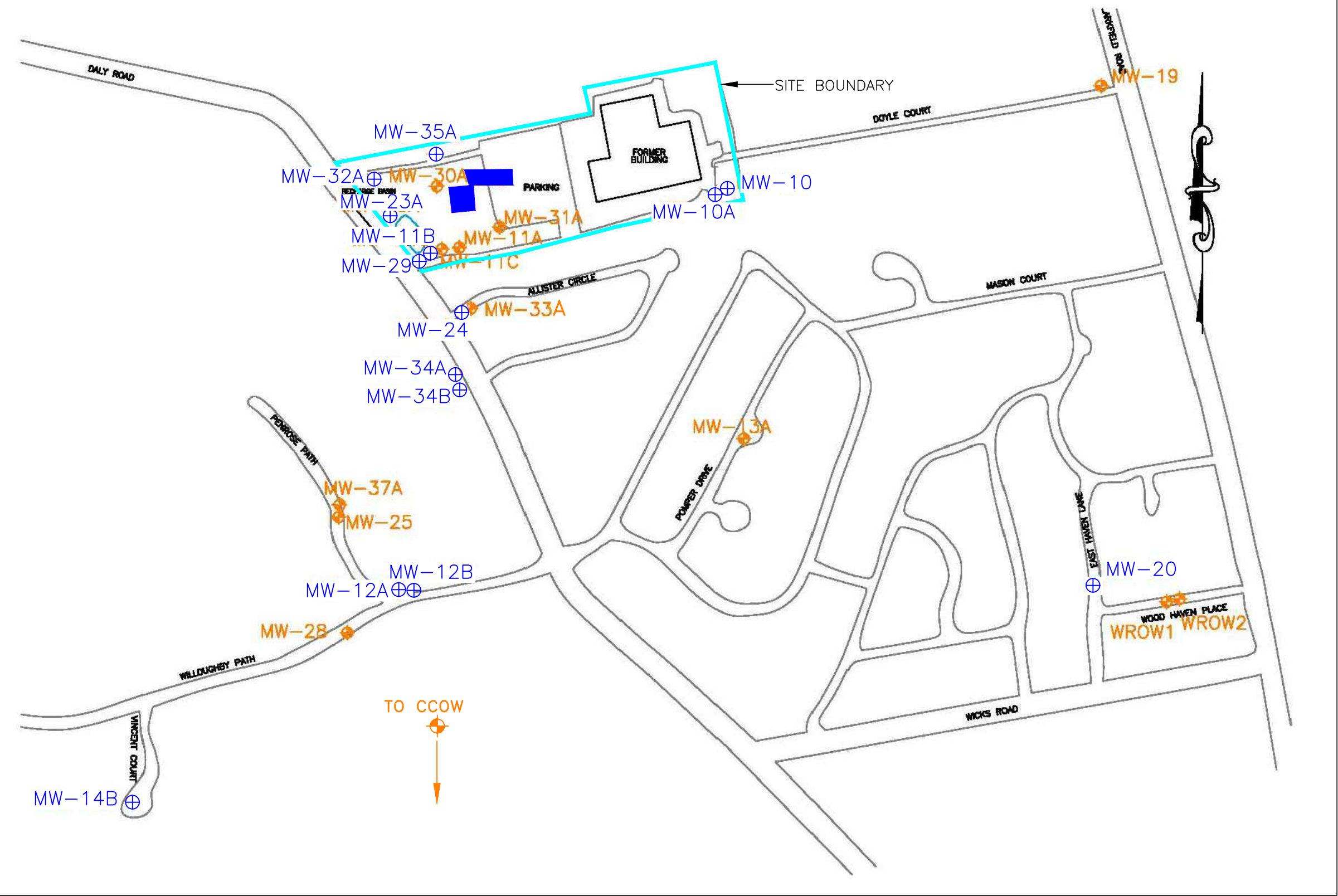
#### **H.1 Sampling Procedures**

Procedures for groundwater monitoring at the Site are described in Section 4.3.1 of the SMP and in the sections below. Soil sampling procedures are described below in the event that soil sampling becomes necessary. All sampling work will be overseen by a qualified environmental professional (QEP).

All sample locations during site management activities will be recorded and identified by unique latitude/longitude coordinates (decimal degrees), as required by the NYSDEC’s environmental information management system (EIMS). This information will be included in the electronic data deliverables (EDDs) to be uploaded to the EIMS.

An Analytical Methods/Quality Assurance Summary Table showing the number and types of primary samples by matrix, analytical parameters and methods, QA/QC samples, and sample containers, preservation, and holding times is shown on Table H.1.1.

H:\EB at DALY RD\SITE MANAGEMENT\GROUNDWATER MON WELL LOCATIONS.dwg, 11/4/2020 9:11:27 AM, DWG To PDF.pc3



LEGEND:

- ⊕ MW-25 MONITORING WELL LOCATION
- ⊕ MW-10 MONITORING WELL TO BE SAMPLED

FPM GROUP		
FIGURE H.1 GROUNDWATER MONITORING WELL LOCATIONS DEUTSCH RELAYS, INC. SITE EAST NORTHPORT, NEW YORK		
Drawn By:H.C.	Checked By:S.D.	Date: 11/3/20

**TABLE H.1.1  
SAMPLING MATRIX  
DEUTSCH RELAYS, INC. SITE  
65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location/Type	Matrix	Number/ Frequency	Analysis	Sample Bottles Preservation	Holding Time
Monitoring Wells	Groundwater	14/once-per-five-quarters	VOCs, Method 8260	Two glass VOA vials with HCL	14 days
Soil Samples (beneath former Main Building plating shop, R-5 in northeast recharge basin, S-16 former sludge-drying beds, R-2 in western recharge basin)	Soil	As needed	VOCs, Method 8260	One glass VOA vial with MeOH, two Glass VOA vials with water	Frozen within 48 hours of collection, 14 days until analysis
			TAL metals, Methods 6010B and 7471	One 8 ounce Glass w/Teflon Lined Cap	6 months (28 days for mercury)
Sub-slab Soil Vapor/Air	Vapor/Air	As needed	TO-15	Summa cannister	14 days
Equipment blanks	Lab water	One per day of groundwater or soil sampling	VOCs, Method 8260	Two glass VOA vials with HCL	14 days
			TAL metals, Methods 6010B and 7470	One 500 ml Plastic with Nitric Acid	28 days
Trip blanks	Lab water	One per cooler with groundwater or soil VOC samples	Same as primary samples	Two glass VOA vials with HCL	14 days
Blind duplicates	All Matrixes	One per 10 environmental samples	Same as primary samples	Same As Primary Samples	Same as Primary Samples
MS/MSD	Groundwater or soil	One per 20 soil or groundwater samples	Same as primary samples	Same As Primary Samples	Same as Primary Samples

Notes:

VOCs = Volatile organic compounds

MS/MSD = Matrix spike/matrix spike duplicate.

HCL = hydrochloric acid

*FPM*

### H.1.1 Groundwater Sampling Procedures

A network of monitoring wells was installed to monitor groundwater conditions at the Site. Groundwater monitoring will be performed on a once-per-five-quarter basis at select wells to assess the anticipated continued decrease in Site-related VOC concentrations following the completion of remediation. The select wells are MW-10, MW-24, MW-29, MW-10A, MW-12A, MW-32A, MW-23A, MW-34B, MW-12B, MW-14B, MW-11B, MW-34A, MW-35A, and MW-20. The sampling frequency may not be modified unless the approval of the NYSDEC is first obtained in writing.

At each well to be sampled, the depth to the static water level and depth of the well will be measured. A decontaminated pump with dedicated polyethylene tubing will be used to conduct low-flow purging and sampling. Field parameters, including pH, turbidity, specific conductivity, dissolved oxygen (DO), and temperature, will be monitored during purging and when all stability parameters vary by less than 10 percent and the turbidity is less than 50 NTU, the wells will be sampled. Well sampling forms documenting the well purging and sampling procedures will be completed.

Following purging, sampling will be performed. Samples will be obtained directly from the pump tubing. The retrieved samples will be decanted into laboratory-supplied sample containers. Each sample container will be labeled, and the labeled containers will be placed in a cooler with ice to depress the sample temperature to four degrees Celsius. A chain of custody form will be completed and kept with the cooler to document the sequence of sample possession. At the end of each day, the filled cooler will be transported by FPM or overnight courier to the selected NYSDOH ELAP-certified laboratory. The groundwater samples will be analyzed for VOCs using EPA SW846 Method 8260.

The resulting groundwater chemical analytical data will be used to document groundwater quality. The associated water level data will be used to evaluate the Site-specific groundwater flow direction(s).

### H.1.2 Soil Sampling Procedures

In the event that soil sampling becomes necessary, the samples will be obtained utilizing either dedicated or decontaminated soil sampling equipment. The retrieved samples will be visually examined and screened with a calibrated photoionization detector (PID) by the QEP, and then placed into laboratory-provided glassware appropriate for the analysis to be performed. Upon completion of soil sampling, the glassware will be sealed, labeled, managed, transported, and tracked as described in Section H.3 below.

### H.1.3 Soil Vapor Intrusion Sampling Procedures

No buildings were present onsite at the time the SMP was prepared. It is planned to redevelop the Site, but the nature and scope of redevelopment have not yet been defined. As noted in Section 4.2 of the SMP, soil vapor intrusion (SVI) testing will be performed prior to occupancy of any new buildings constructed onsite. The scope of the SVI testing will be determined for each building based on discussions with the NYSDEC and NYSDOH and it is anticipated that a work plan will be developed for such testing. In the event that SVI testing is conducted, the sampling procedures will be in accordance with NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October 2006 and subsequent updates).

SVI sampling is anticipated to be performed using sub-slab vapor implants, indoor air sampling locations, and outdoor air sampling locations. The SVI work plan(s) will include details concerning the locations and construction of the sampling points. The anticipated SVI sampling procedures are generally summarized in the following paragraphs.

At each sub-slab implant location to be sampled the manhole covering the sub-slab vapor implant will be opened and polyethylene tubing will be attached to the implant and extended to above grade. One to three implant volumes of air will be purged through the polyethylene tubing using an air pump to ensure that a representative sample is obtained and to confirm the integrity of the bentonite seal of the implant. The purge rate will not exceed 0.2 liters per minute. The seal will be evaluated by confining a helium tracer gas over the implant area and checking with a helium meter. Following purging and the seal integrity check, the sub-slab soil vapor sample will be collected into laboratory-supplied Summa canisters equipped with calibrated flow controller. The flow controller will be set so as not to exceed 0.2 liters per minute and to collect the sample over an approximate 8-hour or 24-hour period, commensurate with the proposed use of the building. Upon completion of sampling, the canister will be sealed, labeled, managed, transported, and tracked as described in Section H.3. The sample will be analyzed for VOCs using the TO-15 Method.

It is anticipated that indoor air and outdoor (ambient) air sampling will be performed concurrently with sub-slab soil vapor sampling. The laboratory-provided Summa canisters for these air samples will be placed at a height of approximately three feet above grade within the building in proximity to the sub-slab vapor sampling locations, and outdoors in proximity to the building. Each canister will be equipped with flow controller such that the canister is filled at a rate of less than 0.2 liters per minute over an approximate 8-hour or 24-hour period, commensurate with the proposed use of the building. Upon completion of sampling, the canisters will be sealed, labeled, managed, transported, and tracked as described in Section H.3 below. The indoor air and outdoor air samples will be analyzed for VOCs using the TO-15 low-level Method.

## H.2 Quality Assurance/Quality Control Samples

QA/QC procedures will be utilized during site management work to ensure that the resulting chemical analytical data accurately represent conditions at the Site. The following sections include descriptions of the procedures to be used for collection and management of QA/QC samples.

QA/QC samples will be collected and utilized to evaluate the potential for field or laboratory contamination and to evaluate the laboratory's analytical precision and accuracy. The Analytical Methods/Quality Assurance Summary presented on Table H.1.1 shows the number and types of QA/QC samples by matrix, analytical parameters and methods, sample containers, preservation, and holding times. The specific types of QA/QC samples to be collected are described below.

### ➤ Equipment Blank Samples

Decontamination procedures will be evaluated by the use of equipment blank samples. These samples consist of aliquots of laboratory-supplied water that are poured over or through the dedicated or decontaminated sampling equipment and then submitted to the laboratory for analysis. An equipment blank sample will be prepared for each day that groundwater or soil sampling is conducted at the Site and will be analyzed for the target constituents for that day. The equipment blanks will be labeled in a manner to prevent identification by the analytical laboratory.

### ➤ Trip Blank Samples

Trip blank samples will be utilized to evaluate the potential for VOC cross-contamination between groundwater or soil samples in the same cooler. Trip blank samples consist of laboratory-provided containers filled with laboratory water that are sealed in sample bottles at the laboratory and that are transported to and in the field with the other groundwater sample containers. A trip blank will be shipped with each group of groundwater samples and will be managed in the field and analyzed in the laboratory in the same manner as the primary environmental samples.

### ➤ Blind Duplicate Samples

Blind duplicate samples will be obtained at a frequency of at least one per every 20 groundwater, soil, and vapor/air samples and will be used to attest to the precision of the laboratory. A blind duplicate consists of a separate aliquot of sample collected at the same time, in the same manner, and analyzed for the same parameters as the primary environmental sample. The blind duplicate samples are labeled in a manner such that they cannot be identified by the laboratory. The sample results are compared to those of the associated primary environmental sample to evaluate if the results are similar.

➤ MS/MSD Samples

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one per 20 groundwater or soil samples. The purpose of the MS/MSD samples is to confirm the accuracy and precision of laboratory results based on a particular matrix. The MS/MSD results will be evaluated during the preparation of the Data Usability Summary Reports (DUSRs) as discussed in the QAPP (Appendix I).

### **H.3 Sample Management and Analysis**

Each sample container will be labeled with the Site name, sample location, date and time of sampling, and analysis to be performed. The labeled containers for groundwater and/or soil samples will be placed in a cooler with ice to depress the sample temperature to four degrees Celsius. The sealed Summa cannisters will be packed in a shipping container. A chain of custody form will be completed and kept with the cooler or shipping container to document the sequence of sample possession. At the end of each day, the filled cooler/shipping container will be sealed and transported by FPM or overnight courier to the selected NYSDOH ELAP-certified laboratory.

All samples will be submitted to a New York State Department of Health ELAP-certified laboratory under chain of custody. All samples will be analyzed for the targeted analytes as specified in Table H.1.1 and in accordance with the NYS ASP with Category B deliverables.



# **APPENDIX I**

## **QUALITY ASSURANCE PROJECT PLAN**

This Quality Assurance Project Plan (QAPP) has been prepared by FPM Group (FPM) for the Deutsch Relays, Inc. Site located at 65 Daly Road, East Northport, New York (hereinafter referred to as the “Site”). The Site is currently in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program as Site No. 152003, which is administered by New York State Department of Environmental Conservation (NYSDEC). This QAPP is part of the Site Management Plan (SMP) for the Site and includes the quality assurance and quality control (QA and QC) procedures for Site sampling activities. Sampling procedures are summarized herein and more fully documented in the Field Sampling Plan (FSP, Appendix H to the SMP).

The remedial actions for the Site have been completed and are documented in detail in the SMP. Management of the remaining contamination at the Site is detailed in the SMP and includes groundwater monitoring at select wells for volatile organic compounds (VOCs). Groundwater monitoring will be conducted to document the anticipated continued decline of Site-related VOCs in groundwater. A Site plan showing the groundwater monitoring wells is presented on Figure I.1.

Very limited areas of residual soil remain present onsite. The Excavation Work Plan (EWP) provided in Appendix F of the SMP outlines the procedures to be implemented in the event that activities will disturb the remaining residual soil. Soil sampling may be necessary if the residual soil is disturbed.

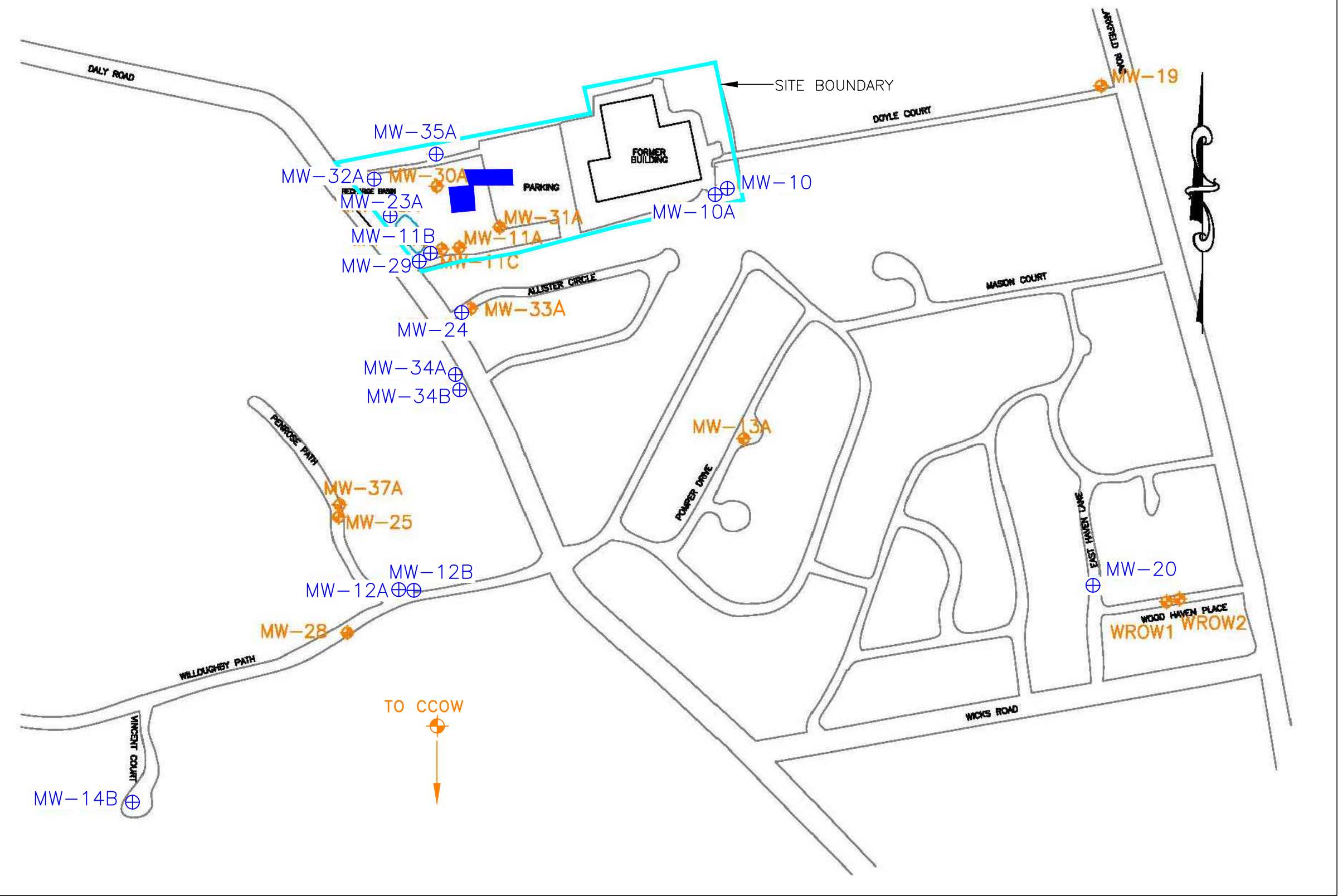
Soil vapor intrusion (SVI) testing will be conducted for new buildings to be constructed on the Site, which is presently vacant. As discussed in Section 4.2 of the SMP and H.1.3 of the FSP, a work plan is anticipated to be prepared for any such testing, with submittal to and approval by the NYSDDEC prior to conducting the testing. The anticipated sampling procedures are outlined in Section H.1.3 of the FSP and below, and may be modified based on subsequent work plan(s).

### **G.1 Data Quality Objectives**

The Data Quality Objectives (DQOs) will be applicable to all data-gathering for monitoring activities at the Site. DQOs will be incorporated into sampling, analysis, and QA tasks associated with monitoring activities.

The data users for this project are FPM Group (FPM), the New York State Department of Environmental Conservation (NYSDEC), and the New York State Department of Health (NYSDOH). The Site owner will also be provided with the data. No other data users are anticipated. The collected data are intended to be used to evaluate groundwater conditions. If soil

H:\EB at DALY RD\SITE MANAGEMENT\FIGURE 1.1 GW MW LOCATIONS.dwg, 11/4/2020 4:24:32 PM, DWG To PDF.pc3



LEGEND:

- ⊕ MW-25 MONITORING WELL LOCATION
- ⊕ MW-10 MONITORING WELL TO BE SAMPLED

FPM GROUP		
FIGURE I.1 GROUNDWATER MONITORING WELL LOCATIONS DEUTSCH RELAYS, INC. SITE EAST NORTHPORT, NEW YORK		
Drawn By:H.C.	Checked By:S.D.	Date: 11/4/20

disturbance occurs in areas where residual soil is present, soil sampling data may also be used to assess the potential presence of residual soil. SVI testing results are anticipated to be used to evaluate the potential for SVI for new buildings.

## **I.2 Standards, Criteria, and Guidance**

The remedial measures for this Site were consistent with remedial action objectives developed based on the use of the Site and on potential impacts to the surrounding community and environment. The selected standards, criteria and guidance (SCGs) for this Site include:

- For groundwater, the NYSDEC Class GA Ambient Water Quality Standards established in the NYSDEC Water Quality Regulations for Surface Waters and Groundwaters (6 NYCRR Parts 700-705, revised March 8, 1998) have been selected as the SCGs. These standards are well-established water quality standards for fresh groundwater that has the potential to be utilized for water supply.
- For soil, the NYSDEC Part 375-6 Soil Cleanup Objectives have been established as the SCGs. These NYSDEC Objectives are applicable to soil and were formulated to be protective of human health and the environment.
- For sub-slab soil vapor and indoor air, the guidance in the NYSDOH Guidance Document for Evaluating Soil Vapor Intrusion in the State of New York (October 2006, with subsequent updates) is the applicable SCG. This guidance is used to establish no further action, monitoring, and mitigation levels for VOCs in indoor air and sub-slab soil vapor.

## **I.3 Sampling**

Procedures for groundwater monitoring at the Site are described in detail in the FSP and Section 4.3.1 of the SMP. Soil sampling procedures are also provided in the FSP, in the event that soil sampling becomes necessary. SVI testing procedures for new buildings are also provided in the FSP. All sampling work will be overseen by a qualified environmental professional (QEP). All laboratory testing is anticipated to be performed by Alpha Analytical of Westboro, MA, which is NYSDOH-ELAP-certified for all of the anticipated analyses.

All sample locations during site management activities will be recorded and identified by unique latitude/longitude coordinates (decimal degrees), as required by the NYSDEC's environmental information management system (EIMS). This information will be included in the electronic data deliverables (EDDs) to be uploaded to the EIMS.

An Analytical Methods/Quality Assurance Summary Table showing the number and types of primary samples by matrix, analytical parameters and methods, QA/QC samples, and sample containers, preservation, and holding times is shown on Table I.3.1.

**TABLE I.3.1  
SAMPLING MATRIX  
DEUTSCH RELAYS, INC. SITE  
65 DALY ROAD, EAST NORTHPORT, NEW YORK**

Sample Location/Type	Matrix	Number/ Frequency	Analysis	Sample Bottles Preservation	Holding Time
Monitoring Wells	Groundwater	14/once-per-five-quarters	VOCs, Method 8260	Two Glass VOA vials with HCL	14 days
Soil Samples (beneath former Main Building plating shop, R-5 in northeast recharge basin, R-2 in western recharge basin, S-16 former sludge-drying beds)	Soil	As needed	TAL metals, Methods 6010B and 7471	One 8 ounce Glass w/Teflon Lined Cap	6 months (28 days for mercury)
			VOCs, Method 8260	One glass VOA vial with MeOH, two glass VOC vials with water	Frozen within 48 hours of collection, 14 days until analysis
Sub-slab Soil Vapor/Air Samples	Vapor/Air	As needed	TO-15	Summa cannister	14 days
Equipment blanks	Lab water	One per day of groundwater or soil sampling	VOCs, Method 8260	Two glass VOA vials with HCL	14 days
			TAL metals, Methods 6010B and 7470	One 500 ml Plastic with Nitric Acid	28 days
Trip blanks	Lab water	One per cooler with VOC soil or groundwater samples	Same as primary samples	Two glass VOA vials with HCL	14 days
Blind duplicates	All Matrixes	One per 10 environmental samples	Same as primary samples	Same As Primary Samples	Same as Primary Samples
MS/MSD	Groundwater or soil	One per 20 soil or groundwater samples	Same as primary samples	Same As Primary Samples	Same as Primary Samples

**Notes:**

VOCs = Volatile organic compounds

MS/MSD = Matrix spike/matrix spike duplicate.

HCL = hydrochloric acid

*FPM*

➤ Groundwater Sampling Procedures

A network of monitoring wells has been installed to monitor groundwater conditions at the Site. Groundwater monitoring will be performed on a once-per-five-quarter basis at 14 wells. The sampling frequency may not be modified unless the approval of the NYSDEC is first obtained in writing.

At each well to be sampled, the depth to the static water level and depth of the well will be measured. A decontaminated pump with dedicated polyethylene tubing will be used to purge each well using low-flow techniques. During purging field parameters, including pH, turbidity, specific conductivity, dissolved oxygen (DO), and temperature, will be monitored. When all stability parameters vary by less than 10 percent and the turbidity is less than 50 NTU, the wells will be sampled. Well sampling forms documenting the well purging and sampling procedures will be completed.

Following purging, sampling will be performed. Samples will be obtained directly from the pump tubing. The retrieved samples will be decanted into laboratory-supplied sample containers. Each sample container will be labeled, and the labeled containers will be placed in a cooler with ice to depress the sample temperature to four degrees Celsius. A chain of custody form will be completed and kept with the cooler to document the sequence of sample possession. At the end of each day, the filled cooler will be transported by FPM or overnight courier to the selected NYSDOH ELAP-certified laboratory. The groundwater samples will be analyzed for VOCs using EPA SW846 Method 8260.

The resulting groundwater chemical analytical data will be used to document groundwater quality and the associated water level data will be used to evaluate the Site-specific groundwater flow direction(s).

➤ Soil Sampling Procedures

In the event that soil sampling becomes necessary, the samples will be obtained utilizing either dedicated or decontaminated soil sampling equipment. The retrieved samples will be visually examined and screened with a calibrated PID by the QEP, and then placed into laboratory-provided glassware. Upon completion of soil sampling, the glassware will be sealed, labeled, managed, transported, and tracked as described below.

➤ Soil Vapor Intrusion Sampling Procedures

SVI testing will be performed prior to occupancy of any new buildings constructed onsite. The scope of the SVI testing will be determined for each building based on discussions with the NYSDEC and NYSDOH and it is anticipated that a work plan will be developed for such testing.

In the event that SVI testing is conducted, the sampling procedures will be in accordance with *NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October 2006 and subsequent updates).

SVI sampling is anticipated to be performed using sub-slab vapor implants, indoor air sampling locations, and outdoor air sampling locations. The SVI work plan(s) will include details concerning the locations and construction of the sampling points. The anticipated SVI sampling procedures are generally summarized as follows:

At each sub-slab implant location to be sampled the manhole covering the sub-slab vapor implant will be opened and polyethylene tubing will be attached to the implant and extended to above grade. One to three implant volumes of air will be purged through the polyethylene tubing using an air pump to ensure that a representative sample is obtained and to confirm the integrity of the bentonite seal of the implant. The purge rate will not exceed 0.2 liters per minute. The seal will be evaluated by confining a helium tracer gas over the implant area and checking with a helium meter. Following purging and the seal integrity check, the sub-slab soil vapor sample will be collected into laboratory-supplied Summa canisters equipped with calibrated flow controller. The flow controller will be set so as not to exceed 0.2 liters per minute and to collect the sample over an approximate 8-hour or 24-hour period, commensurate with the proposed use of the building. Upon completion of sampling, the canister will be sealed, labeled, managed, transported, and tracked as described in Section H.3. The sample will be analyzed for VOCs using the TO-15 Method.

It is anticipated that indoor air and outdoor (ambient) air sampling will be performed concurrently with sub-slab soil vapor sampling. The laboratory-provided Summa canisters for these air samples will be placed at a height of approximately three feet above grade within the building in proximity to the sub-slab vapor sampling locations, and outdoors in proximity to the building. Each canister will be equipped with flow controller such that the canister is filled at a rate of less than 0.2 liters per minute over an approximate 8-hour or 24-hour period, commensurate with the proposed use of the building. Upon completion of sampling, the canisters will be sealed, labeled, managed, transported, and tracked as described in Section H.3 below. The indoor air and outdoor air samples will be analyzed for VOCs using the TO-15 low-level Method.

#### **I.4 Quality Assurance/Quality Control Procedures**

QA/QC procedures will be utilized during the site management work to ensure that the resulting chemical analytical data accurately represent conditions at the Site. The following sections include descriptions of the QA/QC procedures to be utilized.

➤ Equipment Decontamination Procedures

All non-disposable equipment (i.e., pumps, etc.) used during sampling activities will be decontaminated by washing in a potable water and Alconox solution and rinsing in potable water prior to use at each location to reduce the potential for cross-contamination. All sampling equipment will be either dedicated disposable equipment or will be decontaminated prior to use at each location. The decontamination procedures utilized for all non-disposable sampling equipment will be as follows:

1. The equipment will be scrubbed in a bath of potable water and low-phosphate detergent followed by a potable water rinse;
2. The equipment will be rinsed with distilled water; and
3. The equipment will be allowed to air dry, if feasible, and wrapped in clean protective materials for storage and transportation.

➤ QA/QC Samples

QA/QC samples will be collected and utilized to evaluate the potential for field or laboratory contamination and to evaluate the laboratory's analytical precision and accuracy. The Analytical Methods/Quality Assurance Summary presented on Table I.3.1 shows the number and types of QA/QC samples by matrix, analytical parameters and methods, sample containers, preservation, and holding times. The specific types of QA/QC samples to be collected are described below.

Decontamination procedures will be evaluated by the use of equipment blank samples. These samples consist of aliquots of laboratory-supplied water that are poured over or through the dedicated or decontaminated sampling equipment and then submitted to the laboratory for analysis. An equipment blank sample will be prepared for each day that groundwater or soil sampling is conducted at the Site and will be analyzed for the target constituents for that day. The equipment blanks will be labeled in a manner to prevent identification by the analytical laboratory.

Trip blank samples will be utilized to evaluate the potential for VOC cross-contamination between groundwater or soil samples in the same cooler. Trip blank samples consist of laboratory-provided containers filled with laboratory water that are sealed in sample bottles at the laboratory and that are transported to and in the field with the other sample containers. A trip blank will be shipped with each group of groundwater and soil samples and will be managed in the field and analyzed in the laboratory in the same manner as the primary environmental samples.

Blind duplicate samples will be obtained at a frequency of at least one per every 20 groundwater, soil, or soil vapor/air samples and will be used to attest to the precision of the

laboratory. A blind duplicate consists of a separate aliquot of sample collected at the same time, in the same manner, and analyzed for the same parameters as the primary environmental sample. The blind duplicate samples are labeled in a manner such that they cannot be identified by the laboratory. The sample results are compared to those of the primary environmental sample to evaluate if the results are similar.

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one per 20 groundwater or soil samples. The purpose of the MS/MSD samples is to confirm the accuracy and precision of laboratory results based on a particular matrix. The MS/MSD results will be evaluated during the preparation of the Data Usability Summary Reports (DUSRs) as discussed below.

➤ Chain-of-Custody Procedures

For each day of sampling, chain-of-custody (COC) sheets will be completed and submitted to the laboratory with the samples collected that day. A copy of each COC sheet will be retained by FPM for sample tracking purposes. Each COC sheet will include the project name, the sampler's signature, the sampling locations, and intervals, and the analytical parameters requested.

➤ Data Usability Summary Reports

All chemical analytical results will be evaluated using the sample data packages, sample data summary packages, and case narratives provided by the analytical laboratory. The data evaluation will be performed to verify that the analytical results are of sufficient quality to be relied upon to assess the concentrations of the targeted constituents in the environmental matrices at the Site. A DUSR shall be prepared for each data package following the “Guidance for the Development of Data Usability Summary Reports” provided by the NYSDEC. The anticipated DUSR preparer is Richard Baldwin, PG of Ramboll, who is independent of this project; his resume is included at the end of this QAPP.

## **I.5 Sample Analysis**

All samples will be submitted to Alpha Analytical, which is a NYSDOH ELAP-certified laboratory. All samples will be analyzed for the targeted analytes as specified in Table I.3.1 and in accordance with the NYS ASP with Category B deliverables.

The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.

## **I.6 Data Evaluation and Reporting**

The data collected will be assembled, reviewed, and evaluated following each sampling event. The groundwater samples will be used to assess the anticipated continued improvement in



groundwater quality following the completion of remediation at the Site. The soil samples, if collected, will be used to evaluate the potential for residual soil to remain present onsite. The SVI samples will be used to evaluate the potential for SVI for new buildings.

Data reporting will be as specified in Section 5 of the SMP.

## **I.7 Project Organization**

The Project Manager and field supervisor for this project will be John S. Bukoski, PG. Mr. Bukoski will also serve as the Health and Safety Officer. The overall Program Manager will be Stephanie Davis, PG, and the QAO will be Ben Cancemi, PG. Resumes for these personnel are included at the end of this document. Subcontracted services will consist of laboratory services.



Mr. Bukoski is an Environmental Scientist with diversified experience in both the Federal and private sector, including groundwater and soil investigations and evaluation, soil remediation projects, soil vapor intrusion evaluation, aquifer testing and interpretation, design and management of soil and groundwater remediation projects, groundwater flow modeling, evaluation of site compliance with environmental regulations, air quality evaluations, and environmental permitting.

Functional Role	Title	Years of Experience
Project Manager	Environmental Scientist	19

## Personal Data

### Education

B.S./1998/Environmental Science/SUNY Buffalo

### Registration and Certifications

Professional Geologist, NY #438

OSHA 40-hr and current 8-hr Health and Safety Training Course (1999-present)

OSHA-Approved 8-hr Health and Safety Training Refresher Courses (2000-Present)

OSHA-Approved 8-hr Site Safety Supervisor Training Course (2008)

MTA NYC Transit Track Safety Certification

National Groundwater Association

Long Island Association of Professional Geologists

Advanced Technologies for Natural Attenuation Certification

### Employment History

1999-present FPM Group

1991-1998 Sutherland's Office Centre

1985-1991 United States Marine Corps

## Detailed Experience

### Site Investigations

- Performed Phase I Environmental Site Assessments and Phase II Investigations for numerous sites in New York State, including commercial buildings, aerospace facilities, former research and development facilities, and large manufacturing plants.
- Provided oversight and coordination for ongoing investigation and remedial projects at numerous New York State Inactive Hazardous Waste Disposal (Superfund) Sites, Voluntary Cleanup Program (VCP) Sites, and Brownfield Cleanup Program (BCP) Sites. Investigations included Site Characterization (SC), Remedial Investigation/Feasibility Studies (RI/FS), and RCRA Facility Investigations. Remedial services have included contaminated soil removals; UIC closures, ORC

and HRC injections; design, installation and operation of air sparge/soil vapor extraction (AS/SVE) systems; sub-slab depressurization systems (SSDS) and, capping.

- Managed site investigation activities, including soil vapor and air sampling, soil sampling and analysis, groundwater sampling and analysis, and geotechnical evaluation for numerous sites in New York State in support of negotiations for property purchases and redevelopment.
- Investigated several petroleum-contaminated spill sites at Griffiss AFB, Rome, NY. Performed soil and groundwater sampling via Geoprobe, installed groundwater wells for monitoring and assessment of attenuation. Proposed remediation technologies for soil and groundwater contamination. Analyzed chemical data and prepared Site Investigation (SI) Reports and closure reports.
- Investigated several chlorinated solvent-contaminated sites at Griffiss AFB, Rome, NY. Performed aquifer testing to establish direction of groundwater flow. Collected groundwater samples and analyzed the chemical data to identify the constituents of concern. Proposed remediation technologies for groundwater contamination.
- Supervised drilling installation, development, and sampling of monitoring wells at numerous sites throughout New York State. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions. Prepared investigation reports identifying site history, contaminant characteristics, sampling methods, and site-specific lithology.
- Managed landfill monitoring projects at several landfills in Suffolk County. Collected and evaluated methane and groundwater monitoring data. Prepared reports documenting monitoring results and provided recommendations regarding methane collection, stormwater runoff, capping, and other landfill management strategies.

- Performed long-term monitoring projects at several landfills at Griffiss AFB. Collected groundwater, leachate, and surface water samples. Evaluated resulting data and prepared monitoring reports for state and federal agency review.

#### **Remediation**

- Performed investigation and remedial activities at several NYSDEC BCP sites in New York City. Prepared Remedial Investigation and Remedial Work Plans; coordinated with the owner, contractors, and the NYSDEC; conducted citizen participation activities; performed waste characterization, waste profiles, and waste management; developed Site Management Plans for NYSDEC approval.
- Performed waste characterization of a 90,000-cy construction soil stockpile at a municipal sewer facility. Responsibilities included development and implementation of Sampling and Analysis Plan (SAP), evaluation of lab data, preparation of Field Sampling Summary Reports (FSSR), coordination with disposal facilities, and preparation of waste profiles.
- Developed pilot test plans, evaluated pilot test results, and prepared conceptual designs for several air sparge/soil vapor extraction (AS/SVE) systems to treat petroleum and/or chlorinated solvent VOCs. Provided construction oversight for system installation. Performed routine system operation monitoring and evaluated system performance. Prepared system installation and monitoring reports.
- Assisted in the design of a soil remediation plan and performed construction and soil remediation oversight for a metal parts plating and manufacturing facility in Suffolk County, New York. Remediated numerous leaching pools impacted with petroleum compounds and metals. Prepared a UIC Closure Report for USEPA approval.
- Assisted in the design and oversight of indoor underground storage tank abandonment program, leaching pool remediation plan, and managed contractor support for several manufacturing facilities in Suffolk County, New York.

#### **Hydrogeologic Evaluations**

- Performed well design (gravel pack size, screen size, etc.) for numerous groundwater wells and variable depths on Long Island. Experience includes sieve analyses, well construction and development methods.
- Performed aquifer pumping and slug tests and evaluated hydrologic properties using the computer

program AQTESOLV for several sites in New York City and Long Island.

- Participated in multi-day, multi-well aquifer pumping test for New York City Transit (NYCT). Responsible for operating and maintaining data logging equipment, coordinating manual water level measurements, and analyzing resulting drawdown data.
- Performed water level and water quality monitoring at several sites in Nassau and Suffolk Counties. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration.
- Supervised drilling, installation and development of groundwater monitoring wells at three sites within Griffiss AFB, NY and numerous sites in New York City and Long Island. Performed aquifer testing and constructed groundwater elevation contour maps to delineate plumes and predict contaminant plume migration.

#### **Landfills**

- Managed ongoing groundwater and methane monitoring programs for Town of East Hampton landfills. Responsibilities included field team coordination, communications with the Town, report scheduling, data package review, and report preparation for distribution to the client and NYSDEC.
- Managed and conducted quarterly methane monitoring at Springs-Fireplace Road and Montauk Landfills for the Town of East Hampton. Tabulated resulting data, evaluated historic methane monitoring results, and recommended appropriate actions including methane monitoring well installations and a methane extraction system. Performed off-site methane monitoring on private property confirm methane containment. Prepared quarterly monitoring reports for submittal to the Town and NYSDEC.
- Performed monthly methane monitoring and prepared monitoring reports for all Town of Islip Landfills. Monitoring program included onsite and offsite methane wells, methane collection systems, and flare systems. Data was recorded electronically and downloaded to computer for formatting prior to delivery to Town. Prepared monthly monitoring reports for submittal to the Town and NYSDEC.
- Produced quarterly and annual monitoring reports for all monitoring programs at Town of Smithtown landfill. Project included tabulation and reporting of groundwater and methane monitoring data, solid waste and recycling collection data, yard waste

composting operations, and landfill leachate collection and disposal data.

#### **Water Quality Monitoring**

- Conducted groundwater monitoring for the Town of Riverhead, including sampling a multi-depth monitoring well network, analysis and interpretation of analytical and hydrogeologic data, and monitoring reporting in accordance with NYSDEC requirements. Responsibilities including sampling, communications with the Town, laboratory data package review, and report preparation for distribution to the client and NYSDEC.
- Conducted investigation and remedial projects at several New York State BCP Sites. Tasks included contaminated soil removal, groundwater remediation and long-term monitoring, groundwater plume evaluation, and preparation and submittal of annual reports to the NYSDEC.
- Coordinated and performed onsite and offsite groundwater monitoring at various petroleum release sites on Long Island, the New York metropolitan area and in Westchester County in accordance with NYSDEC requirements. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions. Prepared work plans identifying site history, contaminant characteristics, sampling methods, and site-specific lithology. Monitoring programs generally included installation and sampling of a multi-depth monitoring well network utilizing standard or low flow sampling techniques, analysis and interpretation of analytical and hydrogeologic data, and reporting.
- Performed water level and water quality monitoring at an industrial site in Mattituck, NY. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration. Prepared reports, coordinated with the property owner and NYSDEC, and developed a closure plan.
- Conducted numerous investigations and remediation of contaminated cesspool and stormwater drain pool systems in Nassau and Suffolk County. Fully conversant with County regulations for investigation and cleanup of leaching pool systems, including Action Levels and Cleanup Standards, groundwater monitoring criteria, and remedial requirements.

#### **Griffiss Air Force Base**

- Conducted several Site Investigations for AFCEE. Performed soil and groundwater sampling, aquifer testing, and recommended cleanup procedures necessary for the closure and conversion of the Base. Responsible for compliance with all applicable laws including CERCLA, SARA, RCRA, and NCP.

#### **Roslyn Air National Guard Station**

- Conducted several Site Investigations for Roslyn ANG base closure work. Performed soil and groundwater sampling, aquifer testing, and mold evaluations. Prepared reports documenting recommended cleanup procedures necessary for the closure and conversion of the Base. Responsible for compliance with all applicable laws including CERCLA, SARA, RCRA, and NCP.

#### **Health and Safety**

- Prepared numerous health and safety plans for remediation and construction sites and served as health and safety officer at a variety of work sites.
- Performed health and safety monitoring at investigation and remediation sites during intrusive activities. Monitoring included calibration and operation of photoionization detectors (PIDs), flame-ionization detectors (FIDs), dust monitors, and combustible gas indicators (CGI). Compared results to applicable action levels and undertook preventative/protective measures as necessary.
- Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors at several sites throughout New York State. Recorded observations and compared to applicable action levels. Implemented calibration and operation programs and training for noise meters, particulate monitors, PIDs, and FIDs.
- Performed screening for radiation at several sites. Operated Geiger counters in different radiation modes and compared data to background readings.

#### **Miscellaneous Projects**

- Performed unexploded ordnance evaluations and mapping for the United States Marine Corps at several munitions ranges in 29 Palms, California, and Camp Lejeune, North Carolina.
- Conducted land survey and mapping for the United States Marine Corps at several artillery ranges in 29 Palms, California and Camp LeJeune, North Carolina.



Mr. Cancemi has diversified experience in geology and hydrogeology. His professional experience includes groundwater and soil investigations, design and management of soil remediation projects, installation and maintenance of groundwater containment and remediation systems, aquifer testing and interpretation, geotechnical studies, evaluation of site compliance with environmental regulations and environmental permitting.

Functional Role	Title	Years of Experience
Quality Assurance Officer	Senior Hydrogeologist	22

## Personal Data

### Education

M.S./2001/Hydrogeology/SUNY Stony Brook  
B.S./1995/Geology/SUNY Stony Brook

### Registration and Certifications

New York State Professional Geologist, #7051  
Certified Professional Geologist – American Institute of Professional Geologists  
NYC Office of Environmental Remediation – Gold Certified Professional  
OSHA 40-hour HAZWOPER and Current 8-hour Health and Safety Training and Current Annual Physical  
OSHA 8-hour HAZWOPER Supervisor  
OSHA 10-hour Construction Safety and Health  
OSHA Permit-Required Confined Space Training  
Long Island Geologists  
National Groundwater Association

### Employment History

2001-Present	FPM Group
1998-2001	Burns & McDonnell Engineering Company
1997-1998	Groundwater and Environmental Services
1996-1997	Advanced Cleanup Technologies

## Detailed Experience

### Hydrogeologic Evaluations

- **Project Manager, Lower Manhattan, NY. NYCT.** Coordinated and performed constant head hydraulic conductivity (packer) testing in boreholes located in fractured bedrock in lower Manhattan, NY to evaluate fracture connectivity with the nearby Hudson and East Rivers and determine hydraulic conductivity and related parameters such that water management procedures could be implemented for redevelopment of the New South Ferry Subway Station.

- **Project Manager, Manhattan, NY. NYCT** Coordinated and performed a hydrogeologic investigation, including utility clearing, soil borings, rock coring, packer testing, aquifer pumping testing, data collection, and interpretation, to evaluate subsurface conditions and determine geologic parameters for a proposed subway extension of the NYC Transit No.7 Subway Line.
- **Project Manager, Various Sites Long Island, NYC, and Westchester County, NY** Performed aquifer pumping and slug tests and evaluated hydrologic properties using the computer program AQTESOLV.

### Site Investigations

- **Program Manager** for ongoing investigation and remedial projects at several New York State Inactive Hazardous Waste Disposal sites, Voluntary Cleanup Program (VCP) sites, and NYC OER e-designated sites. Investigations have included site characterization, Remedial Investigations/Feasibility Studies (RI/FS), and Resource Conservation and Recovery Act (RCRA) facility investigations and closures. Remedial services have included contaminated soil removal; design, installation, and operation of air sparge/soil vapor extraction (AS/SVE) systems and sub-slab depressurization systems (SSDS), capping, and other remedial services.
- **Program Manager NYSDEC BCP Site, Brooklyn, NY** Coordinated and performed an investigation, implemented remedial measures and regulatory reporting at a former dry-cleaning facility in Brooklyn, NY, including soil, groundwater and soil vapor sampling to assess onsite chlorinated solvent impacts. Remedial actions included conducting pilot testing for installation of a sub-slab depressurization system (SSDS), coordinating the installation of vapor barrier and SSDS. Prepared a Final Engineering Report documenting remedial activities and a Site Management Plan for continued site monitoring.



- **Program Manager, NYSDEC Inactive Hazardous Waste Site, Garden City, NY** Coordinated and performed an investigation, implemented remedial measures and regulatory reporting for a former printing facility in Garden City, NY, including soil, groundwater and soil vapor sampling to assess onsite chlorinated solvent impacts. Remedial actions included pilot testing and installation of an air sparge/soil vapor extraction (AS/SVE) system and SSDS, coordinating the installation of an SSDS, removal of contaminated soils from two areas and removal of impacted sediments from twelve leaching structures. Prepared a Final Engineering Report documenting remedial activities.
- **Program Manager, NYC Redevelopment Site, Queens NY.** Program Manager for environmental activities at a NYC Voluntary Cleanup Program Site. Environmental activities included preparation of a Phase I report, completion of a remedial investigation, preparation of associated work plans, implementation of a community air monitoring program for site activities, excavation and disposal of impacted soils, management and disposal of clean soils, and regulatory reporting.
- **Project Manager Remedial Investigation NYSDEC BCP Site, Queens, NY** Coordinated and performed an investigation at a vacant commercial property Far Rockaway, NY, including soil, groundwater and soil vapor sampling to assess onsite chlorinated solvent impacts from an adjoining offsite source. Prepared Remedial Work Plan and Report and provided monthly updates.
- **Project Manager, Site Investigation, Former Aerospace Facilities, Long Island, NY** Coordinated and performed soil and groundwater sampling and soil vapor studies at several aerospace manufacturing facilities on Long Island, NY. Assessments included an evaluation of past manufacturing and facility operations, storage and use of solvents, petroleum and manufacturing-derived wastes, and impacts to soils, soil vapor, and groundwater. Areas of concern were identified for further evaluation and/or corrective action.
- **Project Manager, Municipal Landfill Monitoring, Town of East Hampton, NY** Coordinated and performed long term groundwater monitoring at two closed Town of East Hampton, NY municipal landfills, including the sampling a multi-depth monitoring well network, analysis and interpretation of analytical and hydrogeologic data, and regulatory reporting in accordance with NYSDEC Part 360 requirements.
- **Project Manager, Site Investigation, Former agricultural facilities, Long Island, NY** Coordinated and performed soil and groundwater investigations at various agricultural and horticultural properties to evaluate impacts of past herbicide and pesticide usage on the underlying soil and groundwater.
- **Program Manager, Municipal Landfill Gas Monitoring, Town of East Hampton, NY** Managed and performed routine methane monitoring at two Town of East Hampton landfills for compliance with NYSDEC requirements and to evaluate potential offsite migration to the surrounding community. Monitored indoor air with a flame ionization detector (FID) to evaluate impacts to buildings.
- **Hydrogeologist, Groundwater Modeling, Town of East Hampton, NY** Assisted with groundwater flow modeling for the Springs-Fireplace Road Landfill to evaluate the nature and extent of the landfill plume, its likely downgradient extent, and its fate.
- **Program Manager, Petroleum Release Sites, Various NYC, Long Island and Westchester County** Coordinated and performed onsite and offsite monitoring at petroleum release sites on Long Island, the New York metropolitan area, and in Westchester County in accordance with NYSDEC Spill program requirements. The monitoring programs generally included sampling multi-depth monitoring well networks utilizing low-flow sampling techniques, analysis/interpretation of analytical and hydrogeologic data, and regulatory reporting.
- **Project Manager, Site Investigation, Logan International Airport, Boston, MA.** Coordinated a soil and groundwater sampling program to evaluate environmental conditions at Terminal A, Logan International Airport, East Boston, Massachusetts. The program included an assessment of the current fuel hydrant system and other locations of potential environmental concern using non-destructive air vacuum extraction-clearing techniques combined with direct-push sampling.

- **Project Manager, Site Investigation, Pyrotechnics Facility, Suffolk County, NY.** Managed and performed a soil and groundwater investigation, a remedial soil excavation, and groundwater monitoring at a pyrotechnics manufacturing facility in Suffolk County, NY. The work was performed under the direction of the Suffolk County Department of Health Services (SCDHS) to investigate and remediate contamination from historic use of perchlorate-containing materials at the facility.
- **Project Manager, Site Investigation, Automobile Franchise, Westchester County, NY.** Coordinated and performed soil, groundwater and soil vapor investigations at several automobile dealerships in Westchester County, NY to evaluate potential impacts from petroleum and chemical solvent storage and usage and onsite waste water disposal systems.
- **Project Manager, Site, Investigation, Former mercury thermometer manufacturing facility, NYC, NY.** Coordinated and performed soil and soil vapor intrusion study at a former mercury thermometer manufacturing facility in NYC. Assessments included an evaluation of past manufacturing and facility operations, storage and use of mercury, manufacturing-derived wastes, and impacts to soils and soil vapor Areas of concern were identified for further evaluation and remedial action.

#### **Phase I Environmental Site Assessments**

- **Project Manager, Various Northeastern and Mid-Atlantic States.** Performed numerous Phase I Environmental Site Assessments (ESAs) for commercial and industrial properties throughout the Northeastern and Mid-Atlantic States for various clients including trucking companies, major airlines, telecommunication companies, chemical/ petroleum storage facilities, aerospace manufacturing facilities, machine shops, retail shopping centers, auto dealerships and service stations.

#### **Remediation**

- **Project Manager, Remediation, Former Landfill, Suffolk County, NY.** Managed remedial activities at a NY State Environmental Restoration Program (ERP) Site situated at a former hospital landfill in Northport, NY. Responsibilities contractor management and oversight, soil disposal management, confirmatory testing, data review, and

preparation of remedial work plan and final engineering report for remedial activities.

- **Project Manager, Remediation - AS/SVE, Various Sites, NYC and Long Island.** Performed pilot testing, design, installation and procurement of numerous multi-depth soil vapor extraction (SVE) and air sparge (AS) remediation systems on Long Island and in the NYC metropolitan area to remediate chlorinated solvents and petroleum. Conducted remediation system operation and maintenance, and evaluations of system performance.
- **Project Manager, Remediation - UIC Structures, Nassau and Suffolk County, NY.** Performed numerous storm water and sanitary leaching structure (UIC) cleanouts utilizing excavation and/or vacuum assisted equipment to remove contaminated sediments and liquids. Conducted waste characterization and profiling, pipe camera surveys, and structure locating utilizing water-soluble dyes and electronic locating equipment.
- **Project Manager, Remediation Sub-Slab Depressurization Systems, NYC, Nassau and Suffolk Counties, NY** Conceptually designed and oversaw the installation of a sub-slab depressurization system (SSDS) at several commercial properties in the NYC and Long Island to mitigate chlorinated solvent impacts. SSDS monitoring was conducted to ensure proper operation and emissions compliance of with NYSDEC air discharge guidelines.
- **Project Manager, Remediation System O & M, NYC and Long Island.** Operated and maintained remediation systems, including SVE, groundwater pump and treat, AS, dual-phase extraction, SSDS and free-phase petroleum recovery systems.
- **Project Manager, Remediation. White Plains, NY.** Managed and coordinated a petroleum spill investigation to evaluate the nature and extent of a fuel oil release at an office building in White Plains, NY. The investigation included excavation and removal of a 5,000-gallon UST situated over 20 feet below grade, tightness testing of the UST and associated piping, a soil and groundwater investigation, free product recovery utilizing vacuum-enhanced fluid recovery techniques, and coordination and reporting to the NYSDEC and Westchester County Department of Health.

**Health and Safety**

- **HASP and CAMP Plan Preparation, Various Sites.** Prepared community air monitoring and health and safety plans for several NYSDEC inactive hazardous waste, brownfield cleanup program, volunteer cleanup program, petroleum spill, and NYC e-designation program sites
- **HASP Monitoring, Various Sites.** Performed health and safety monitoring at investigation and remediation sites during intrusive activities. Calibrated and operated photoionization detectors (PID) and flame-ionization detectors (FID) for organic vapors and combustible gas indicators (CGI) for methane. Compared results to applicable action levels and took preventative/protective measures as necessary.
- **CAMP Monitoring, Various Sites.** Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors. Recorded observations and compared to applicable action levels. Calibrated and operated noise meters, particulate monitors, and PID/FID.
- **Radiation Screening, Various Sites.** Performed screening for radiation at select sites. Operated Geiger counter in different radiation modes and obtained and evaluated background readings.
- **Mercury Screening.** Performed screening of mercury vapor for several projects. Operated and experienced with Jerome and Lumex Mercury Vapor Analyzers.

**Expert Witness/Technical Services**

- **Expert Witness Services, Glen Cove Waterfront Redevelopment.** Provided expert witness services regarding environmental conditions and remedial procedures for redevelopment of a former industrial and commercial area in Glen Cove, NY.
- **Technical Services, multiple sites, Town of Brookhaven.** Provided technical services regarding environmental conditions at various commercial and residential sites within the municipality to evaluate potential compliance issues with Town code. Services included coordinating subsurface investigations, sampling of various media, methane surveys, tidal surveys, technical oversight of investigation activities.
- **Technical Services, multiple sites, Town of Huntington.** Provide technical review of environmental investigations and soil management plans prepared for proposed development for the Planning Division to assess if the proposed development has been properly evaluated in accordance with town requirements.

**MGP Site Experience**

- **Field Team Leader, Property Transfer of MGP sites.** Conducted soil and groundwater sampling at several Nicor MGP sites in Illinois prior to property transfer to Con Edison. Coordinated sampling crews, oversaw sampling and sample management, and implemented HASP monitoring.
- **Project Manager, Geophysical Investigation at Brooklyn Union Greenpoint MGP site.** Developed and implemented a geophysical investigation at an MGP site that was subject to differential settlement. Coordinated with client and subcontractors, oversaw survey activities, implemented HASP, interpreted results, and prepared a report to document the completed work.

**Other**

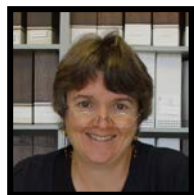
- **Project Manager, RCRA Closure, Nassau County, NY** Coordinated RCRA closure activities and performed confirmatory sampling at a former package manufacturing and printing facility in Nassau County, NY. Project duties included preparation of a closure work plan, contractor procurement, a subsurface site investigation, rinsewater sampling, and regulatory agency reporting and coordination, and preparation of a closure report.
- **Project Manager, Former Landfill, Suffolk County, NY.** Prepared a remedial design (RD) work plan for a former hospital landfill on Long Island. The RD work plan included a summary of past investigations, a materials management plan for the excavation and disposal of contaminated soils and debris, a post-excavation sampling plan, a site restoration plan, community air monitoring plan (CAMP), health and safety plan (HASP) and a quality assurance and quality control (QA/QC) plan.



- **Project Manager, Air Monitoring, Nassau County, NY.** Managed and performed monthly soil gas sampling and quarterly indoor air quality sampling at an elementary school in southwestern Nassau County, NY. The monitoring and associated NYSDEC reporting were performed to ensure that a gasoline groundwater plume migrating through the school

property was not impacting indoor air at the school.

- **Project Manager, Environmental Compliance, Multiple Sites.** Performed compliance inspections to assess issues of potential environmental concern at manufacturing, aviation, trucking, retail, and not-for-profit facilities.



Ms. Davis has diversified experience in geology and hydrogeology. Her professional technical experience includes groundwater, soil, and soil vapor investigations, design and management of soil and groundwater remediation projects, design and installation of groundwater containment systems, design and evaluation of soil vapor intrusion mitigation systems, groundwater flow modeling, aquifer testing and interpretation, evaluation of site compliance with environmental regulations, and personnel training. Ms. Davis presently manages several large-scale investigation and remedial programs, including program scopes, budgets, staffing, and schedules.

Functional Role	Title	Years of Experience
Program Manager	Senior Project Manager	30+

## Personal Data

### Education

M.S./1984/Geology/University of Southern California  
B.S./1981/Geology/Bucknell University

### Registration and Certifications

New York Professional Geologist #000247, 2017  
Certified Professional Geologist #9487, (AIPG) 1995  
California Registered Geologist #5192, 1991  
Pennsylvania Professional Geologist #PG-000529-G, 1994  
OSHA-approved 40-hour Health and Safety Training Course (1990)  
OSHA-approved 8-hour Health and Safety Training Refresher Courses (1991-Present)  
OSHA-approved 8-hour Site Safety Supervisor Training Course (2008)  
National Ground Water Association  
Long Island Association of Professional Geologists  
USEPA Triad Training for Practitioners  
NYC OER Gold Certified Professional

### Employment History

1993-Present FPM Group  
1992-1993 Chevron Research and Technology Co.  
1990-1992 Chevron Manufacturing Co.  
1984-1990 Chevron Exploration, Land, and Production Company

### Continuing Education

- o Treatment of Contaminated Soil and Rock
- o Groundwater Pollution and Hydrology
- o Environmental Law and Regulation
- o Remedial Engineering
- o Soil and Foundation Engineering
- o Environmental Geochemistry
- o Project Management Professional (PMP) training

## Detailed Experience

### Site Investigations

- **Program Manager** for ongoing investigation and remedial projects at several New York State Inactive Hazardous Waste Disposal sites, Voluntary Cleanup Program (VCP) sites, and Brownfield

Cleanup Program (BCP) sites, and NYCOER e-designated sites. Investigations have included site characterization, Remedial Investigation/Feasibility Studies (RI/FS), and Resource Conservation and Recovery Act (RCRA) facility investigations and closures. Remedial services have included contaminated soil removal, in-situ chemical treatment, design, installation, and operation of air sparge/soil vapor extraction (AS/SVE) systems and sub-slab depressurization systems (SSDs), capping, and other remedial measures.

- **Program Manager, NYS Inactive Hazardous Waste Disposal Site, Greenpoint, NY.** Responsible for project scoping, cost estimation, subcontracting, field services, report preparation, and agency negotiations for a former manufacturing facility. Services included an RI, an FS, implementation of an Interim Remedial Measure (IRM), and an underground utility survey. A Remedial Action Work Plan (RAWP) was also prepared for an associated petroleum spill.
- **Program Manager, NYS BCP Site, Far Rockaway, NY.** Managed all aspects of pre-application investigation, BCP application, RI Work Plan development and implementation, and Citizen Participation Plan (CPP) for a chlorinated solvent site. Responsible for scope development, NYSDEC and NYSDOH coordination, budget, schedule, staffing, and report management.
- **Program Manager, Site Characterization (SC) for NYS Inactive Hazardous Waste Disposal Site, Flushing, NY.** Responsible for SC scope development, budget, schedule, SC Work Plan and report review, staffing, and agency negotiations for a chlorinated solvent site undergoing residential redevelopment.
- **Program Manager, Investigation and Remedial Services, NYS BCP Sites, Far Rockaway, NY.** Managed scope, budget, schedule, staffing and quality assurance for pre-application investigations of several associated BCP sites. Prepared the BCP applications and supporting documentation for the environmental issues, including chlorinated

solvents, a petroleum spill, petroleum tanks, and historic fill.

- **Program Manager, Environmental Services for Senior Living Developer, Long Island, NY.** Performs environmental analyses and directs investigation and remedial activities for property acquisition and redevelopment for senior residential facilities. Services included Phase I ESAs, investigation and remediation cost estimation, Phase II investigations, Site Management Plans, and transaction and regulatory agency negotiations.
- **Program Manager, Environmental Services for Commercial Real Estate Developer, Long Island, NY.** Managed all Phase I ESA, Phase II investigations, and remediation projects for a major commercial real estate developer. Projects included environmental services associated with purchase and redevelopment of office buildings, aerospace facilities, former research and development facilities, and large manufacturing plants. Remedial services have included RCRA closures, UIC closures, tank removals, and large excavations.
- **Program Manager, RI/FS, RAWP, and Remedial Services, Levittown, NY.** Managed all aspects of RI/FS for a Class 2 Inactive Hazardous Waste Disposal (Superfund) site involving chlorinated solvents. Responsibilities included RI/FS scope, budget and schedule development, RI/FS work plan, HASP, CAMP, and QAPP, coordination with client, tenants, and regulatory agencies, report review, remedial approach development, conceptual design, and cost estimation. Developed RAWP and negotiated the remedial scope with the NYSDEC. Remedial services included implementation of AS/SVE, SSDS, and site management.
- **Program Manager, Environmental Investigation and Remediation, Communication Facility, Long Island, NY.** Responsible for all aspects of investigation and remediation of a former communications facility during property acquisition and redevelopment for a medical facility use. Services included Phase I ESA, facility investigation scope, budget, staffing, and reporting, and remediation cost estimation. Environmental issues included obsolete communications and facility equipment, USTs, underground injection control systems, asbestos and other hazardous materials, and transaction and regulatory agency negotiations.
- **Project Manager, RCRA Facilities Investigation (RFI), Barksdale AFB, LA.** Responsible for all aspects of field program planning, solicitation and selection of subcontractors, mobilization and establishment of a field office, supervising multiple field crews, installation and sampling of monitoring wells, collection and soil samples, data tracking and management and preparation of an RFI report. The scope of work included characterization of the nature and extent of groundwater and soil contamination at thirteen Solid Waste Management Units (SWMUs), performing a Base-wide evaluation of background contaminant concentrations, and developing a long-term monitoring (LTM) program for the Base.
- **Field Services Manager, UST Investigation, Plattsburgh AFB, NY, AFCEE.** Responsible for field crew training, coordination of sampling crews at multiple sites, sample labeling, handling, tracking, and shipping, field data management and remote field office management. The scope of work included collection of over 450 groundwater samples to characterize groundwater conditions in the vicinity of 150 USTs using a Geoprobe sampling rig, well points, and rapid turnaround-time analysis.
- **Program Manager Environmental Investigation for Supermarket Developer, Long Island, NY.** Conducted site investigations, including soil vapor sampling, soil sampling and analysis, groundwater sampling and analysis, and geotechnical evaluation for numerous sites in Suffolk County, New York. The resulting data were utilized by a major supermarket company in the negotiations for the purchase of the properties and in the property remediation prior to development.
- **Project Manager, Site Investigation, Bronx, NY.** Managed field sampling and data analysis activities, including soil vapor analysis, soil sample analysis, and groundwater sampling and analysis at an active commercial bus terminal. Made recommendations for site remediation, including UST removal, soil excavation and disposal, and free-phase product extraction.
- **Project Manager, RCRA Facilities Investigation, City of Richmond, CA.** Prepared RFI work plan, incorporating existing geologic, chemical, and historical data, evaluating newly-acquired site data, and developing recommendations for further investigation and remedial action at a former municipal landfill.
- **Project Manager, Site Investigation, Bay Shore, NY, Manufacturing facility.** Managed onsite and offsite soil and groundwater sampling program. Compiled and evaluated data and prepared a comprehensive report of the investigation results for approval by the SCDHS and NYSDEC. Proposed remediation technologies for onsite soil

contamination and onsite and offsite groundwater contamination.

- **Project Manager, Site Investigation for FAA, Newark Airport, NJ.** Managed and conducted a soil and groundwater sampling program adjacent to Runway 29. Analyzed chemical analytical data and developed recommendations.
- **Project Manager, Remedial Investigation, Richmond Refinery, CA.** Supervised and conducted drilling, soil sampling, cone penetrometer testing, and well installation at a refinery process water effluent treatment system and former municipal landfill.
- **Program Manager, major New York Metro area automobile dealer.** Managed all investigation and remedial activities for a major automobile retailer with multiple facilities. Sites included tanks, petroleum spills, underground injection control (UIC) systems, soil vapor intrusion issues, and hazardous waste management. Responsible for work scope and budget preparation, staffing and oversight, client and regulatory agency interactions, addressing insurance issues, reporting and certification, and project closeouts.
- **Program Manager, SWTP groundwater monitoring program, Town of East Hampton.** Managed groundwater monitoring and reporting for the Scavenger Waste Treatment Plant (SWTP). Responsibilities included oversight of well installation, purging and sampling the SWTP groundwater monitoring wells, and providing data to the Town for reporting purposes.
- **Program Manager, Site Assessments for Transportation Hub development, Suffolk County, NY.** Manages Phase I ESAs, Phase II investigations, and remediation required for client acquisition of multiple parcels for redevelopment. Coordinates and oversees each project, interfaces with counsel and regulatory agency representatives, and develops comprehensive cost estimates.
- **Expert Environmental Review Services, Nationwide Sites for Real Estate Developers.** Reviews environmental investigation and remediation reports for several major real estate developers, advises clients regarding environmental concerns for property acquisition and redevelopment, develops comprehensive cost estimates, coordinates with construction contractors, architects, regulators and attorneys regarding environmental concerns.
- **Expert Environmental Consulting Services, Multiple Sites, Town of Brookhaven, NY.** Performed site inspections, investigations, and remedial cost estimation in response to Town

Attorney requests. Assisted with Town Code revision and litigation. Coordinated with Town personnel, outside counsel, regulatory agency representatives, and law enforcement officers regarding environmental concerns.

- **Program Manager, Large Agricultural Property, Jamesport, NY.** Responsible for investigation scoping, budget and schedule, remedial cost estimates, staffing, and client interactions for evaluation of a large agricultural property for a property transaction.

#### Remediation

- **Program Manager, NYSDEC BCP site, NY City, major real estate developer.** In responsible charge of all investigation and remedial activities at a NYSDEC BCP site in New York City. Prepared the RI and Remedial Work Plan; coordinated with the owner, contractors, and NYSDEC; prepared for and conducted citizen participation activities; supervised all waste characterization, profile preparation, and waste management; developed the Final Engineering Report (FER) and Site Management Plan (SMP) for NYSDEC approval; and ensured that all remedial requirements were met such that the Certificate of Completion (COC) was issued. Continuing activities include coordination of the ongoing site management, communications with the NYSDEC and NYSDOH, and preparation of the Periodic Review Reports (PRRs).
- **Program Manager, Major Oil Storage Facility (MOSF) closure, Glen Harbor, NY.** Responsibilities included coordination of the work scope with the NYSDEC and NCDOH, development of work plans for tanks, UIC, and petroleum spill closure, budget and schedule development, staffing and oversight, reporting and certification, and closeout of all environmental issues such that residential redevelopment could proceed.
- **Program Manager, Delineation and Remedial Services, NYS Spill Site, Amityville, NY.** Successfully managed all aspects of investigation remediation, and closure of a #6 fuel oil spill at a hospital site. Work included spill delineation, waste characterization, removal and proper disposal of about 4,000 tons of impacted soil and 6,000 gallons of petroleum, oversight, reporting, and regulatory agency negotiations.
- **Program Manager, Delineation and Remedial Services, NYS Spill Site, St. James, NY.** Responsible for client and agency coordination, budget, schedule, staffing, remedial design and



reporting for a petroleum release at a service station property with offsite impacts.

- **Program Manager, RCRA Closure Site, Freeport, NY.** Successfully managed all aspects of RCRA Closure of a former printing facility, including scope, budget and schedule development, Closure Plan, NYSDEC interactions, QAPP, specifications for contractor services, remediation, and Closure Report.
- **Program Manager, Sub-slab depressurization system (SSDS), Brooklyn, NY.** Managed all aspects of SSDS implementation, including delineation sampling, remedial design, budget and schedule, construction services testing, reporting, and O&M manual development for a former dry cleaner site in an active shopping center.
- **Program Manager, SSDS, Bronx, NY.** Responsible for all aspects of SSDS implementation for a former dry cleaner site in a mixed-use building, including delineation sampling, SSDS design, construction contractor services, testing, reporting, and O&M manual development.
- **Program Manager, Investigation and Remediation for Nassau County, NY Subdivision Approval.** Coordinated investigation and remediation of a former school facility for redevelopment with multi-family housing. Services included Phase I ESA, Phase II investigation, NCDOH Remedial Work Plan development and implementation, and Remedial Action Reports. Issues addressed included soil, USTs, UICs, transformer areas, and water supply well closure.
- **Project Manager, Soil Remediation of metal plating facility, Hauppauge, NY.** Planned remedial project and managed contractor support for soil remediation. Project was completed and approved by SCDHS.
- **Program Manager, Investigation and Remediation of Former Agricultural Properties.** Responsible for all aspects of investigation and remedial plans required for redevelopment of former agricultural properties in Suffolk County, NY. Prepared Soil Management Plans (SMPs) and received regulatory agency approvals.
- **Remedial Design, AS/SVE projects.** Developed pilot test plans, evaluated pilot test results, and prepared conceptual designs for several air sparge/soil vapor extraction (AS/SVE) systems to treat petroleum and/or chlorinated solvent VOCs. These systems were subsequently installed and operated. Provides ongoing review of system operations and remedial monitoring results.
- **Program Manager, Waste soil management, Brooklyn, NY.** In responsible charge of several

task orders for waste characterization of a 90,000-cy construction soil stockpile at a municipal sewer facility. Responsibilities included development and implementation of Sampling and Analysis Plan (SAP), coordination of staffing, review of lab data, preparation of Field Sampling Summary Reports, coordination with disposal facilities, and preparation of waste profiles.

- **Program Manager, NYS Inactive Hazardous Waste Disposal (Superfund) site, Hicksville, NY.** Responsibilities included developing and implementing pre-demolition investigations, developing and implementing remedial actions (source removal) in conjunction with retail redevelopment, conceptual design and installation of sub-slab depressurization systems (SSDSs), and maintaining the ongoing OM&M program.
- **Project Manager, Remedial project, Patchogue, NY.** Designed and performed indoor underground storage tank abandonment program and leaching pool remediation plan, and managed contractor support for closure activities at a metal tape manufacturing facility. SCDHS provided oversight and approval.
- **Senior Hydrogeologist, Groundwater Containment System, Richmond, CA.** Contributed to the design of a groundwater containment and remediation system for a former municipal landfill, including subsurface groundwater barrier walls and extraction wells. Coordinated technical aspects of groundwater barrier wall construction, including routing, permitting, material selection, and field activities.
- **Project Manager, Soil remediation, Carle Place, NY.** Designed remedial plan and supervised soil remediation activities at an active construction site involving excavation and disposal of 5,000 tons of PCB-, metal-, and petroleum-contaminated soil. NYSDEC oversaw and approved the completed remediation.
- **Project Manager, Multiple UIC investigations and closures, Suffolk and Nassau Counties, NY** Responsible for investigation and remediation of contaminated cesspool and stormwater drain pool systems. Fully conversant with SCDHS SOP 9-95 and USEPA UIC regulations for investigation and cleanup of leaching pool systems, including Action Levels and Cleanup Standards, groundwater monitoring criteria, and remedial requirements.
- **Project Coordinator, UIC Closure, Hempstead, NY.** Coordinated and supervised all aspects of waste management for a UIC closure, including disposal facility review, waste sampling and classification, manifesting, project closeout, and taxation issues.

**Hydrogeologic Evaluations**

- **Project Manager, Well Permitting, East Hampton, NY.** Prepared Engineer's Report for Long Island Well Permit for a 230-gpm irrigation supply well. Responsible for evaluation of well interference, salt water upconing, impacts from contaminants, and other factors affecting the proposed well. Performed well design (gravel pack size, screen size, etc.). Familiar with sieve analyses, well construction and development methods.
- **Senior Hydrogeologist, groundwater modeling, East Hampton, NY.** Utilized Visual Modflow to evaluate impact from a contaminant plume on a proposed SCWA wellfield. Model development included evaluation of recharge, aquifer properties, subsurface stratigraphy, boundary conditions, plume source and concentration, and wellfield locations and pumping rates.
- **Hydrogeologist, aquifer testing, Manhattan, NY. NYCT.** Participated in a multi-day, multi-well aquifer pumping test for NYCT subway extension. Responsible for operating and maintaining data logging equipment, coordinating manual water level measurements, and analyzing resulting drawdown data.
- **Hydrogeologist, aquifer evaluation, Brooklyn, NY.** Evaluated subsurface geologic conditions for subway site utilizing existing boring logs, topographic, and historic map data.
- **Hydrogeologist, aquifer testing, Queens, NY.** Performed slug tests on monitoring wells at an East Side Access site, and evaluated hydrologic properties using the HYDROLOGIC ISOAQC computer program.
- **Hydrogeologist, Remedial well installation, USEPA Superfund site, Deer Park, NY.** Supervised drilling, installation and development of groundwater extraction, injection, and monitoring wells at a USEPA Superfund site. Interpreted aquifer and well performance from development data and recommended modification of drilling and development procedures.
- **Hydrogeologist, Aquifer testing, Manhattan, NY.** Performed aquifer pumping and slug tests and evaluated hydrologic properties using the AQTESOLV computer program. Results were used to address dewatering and construction concerns for subway tunnels.
- **Hydrogeologist, Aquifer evaluation, Mattituck Airport, Mattituck, NY.** Performed water level and water quality monitoring at a NYSDEC Superfund site. Constructed groundwater elevation contour

maps and utilized chemical analytical data to predict contaminant plume migration.

- **Senior Hydrogeologist, DEIS services, Lazy Point, NY.** Prepared detailed evaluations of groundwater conditions and potential impacts for a water main extension to Lazy Point for a draft Environmental Impact Statement (DEIS). Evaluated current and historic groundwater data and analytical models to determine potential impacts for both Lazy Point and the drinking water source area and prepared associated portions of the DEIS.

**Landfills**

- **Program Manager, Greenhouse gas monitoring program, Town of Islip, NY.** Responsibilities include scope and budget management, staffing, client and USEPA coordination, reporting review, and troubleshooting.
- **Project Manager, Landfill Closure Investigations, Town of East Hampton, NY.** Prepared Closure Investigation work plans, including Hydrogeologic investigations, methane investigations, surface leachate investigations, and vector investigations. Prepared final Closure Investigation Reports, approved by the NYSDEC.
- **Project Manager, Landfill monitoring networks, Town of East Hampton, NY.** Supervised installation of groundwater and methane monitoring wells at the landfills, including hollow-stem auger and mud-rotary well installations, split-spoon soil sampling and boring log preparation, oversight and interpretation of wireline electric logging, and completion of initial baseline monitoring events.
- **Hydrogeologist, Landfill groundwater monitoring, NJ.** Performed groundwater sampling at a radio tower facility constructed on a landfill. Analyzed results and made recommendations.
- **Program Manager, Landfill monitoring programs, Town of East Hampton, NY.** Supervises ongoing groundwater and methane monitoring programs, including field team coordination, communications with the Town, report scheduling, data review, and report review prior to distribution to the client and NYSDEC. Negotiated with NYSDEC for reduced monitoring frequencies based on historic monitoring results.
- **Senior Hydrogeologist, Landfill plume modeling, Town of East Hampton, NY.** Conducted groundwater flow modeling to evaluate the nature and extent of a landfill plume and its fate. Findings were presented at public meetings and were used to determine the configuration of the landfill's groundwater monitoring network.

- **Hydrogeologist, Septage lagoon Superfund site, Town of East Hampton, NY.** Conducted sampling of former septage lagoons at a landfill. Evaluated the resulting data and prepared a delisting petition for this NYSDEC Superfund site.
- **Hydrogeologist, containment system modeling, Richmond, CA.** Used FLOWPATH modeling program to predict groundwater flow directions and evaluate extraction well locations and pumping rates for a groundwater containment and remediation system at a former municipal landfill.
- **Program Manager, Landfill gas monitoring program, Town of Islip, NY.** Manages monthly methane monitoring for all landfills, including onsite and offsite monitoring wells, methane collection systems, and flare systems. Data is recorded electronically and downloaded to computer for formatting prior to expedited delivery to Town.
- **Program Manager, Landfill monitoring reporting program, Town of Smithtown, NY.** Supervised and reviewed quarterly and annual monitoring reports for all monitoring programs at the landfills for Town compliance with NYSDEC requirements, including tabulation and reporting of groundwater and methane monitoring data, solid waste and recycling collection data, yard waste composting operations, and landfill leachate collection and disposal data.
- **Program Manager, Landfill remediation, Town of Huntington, NY.** An historic landfill was removed from parkland under the NYSDEC's ERP. Responsibilities included work scope development, schedule and budget management, staffing, client and regulatory agency coordination and reporting, and report review and certification.
- **Program Manager, Landfill Financial Assurance Reporting, Town of Smithtown, NY.** Prepares annual Financial Assurance Reports as per Town landfill closure requirements. Services include summarizing landfill closure and monitoring costs, calculating total costs over a 30-year period, evaluating available Town funds using Comptroller's financial reports, assessing available funds using NYSDEC-required procedures, and preparing annual reports.

### Environmental Data Analysis

Ms. Davis has participated in multiple sessions of environmental geochemistry training provided by environmental geochemists, including physical chemistry, thermodynamics, ionic interactions, complexation, biologic effects, and other basic principles. Training also included field sampling procedures and effects on chemical data, chemical analytical methods and equipment, and QA/QC

procedures and interpretation. Attended periodic environmental chemistry training sessions hosted by environmental laboratories and participated in hands-on training in data and QA/QC evaluation.

- **Data Evaluation, multiple projects.** Reviewed and evaluated numerous soil, groundwater, product, indoor/ambient air, and soil vapor chemical analytical datasets, including evaluation of batch and site-specific QA/QC samples, laboratory narratives, comparison to regulatory agency criteria, historic data, and background data.
- **Quality Assurance Project Plans (QAPPs), multiple projects.** Developed and implemented numerous QAPPs, including QAPP design, sample delivery group (SDG) evaluations, sampling procedures and sequences, and QA/QC sample preparation/collection.
- **Data Usability Summary Reports (DUSRs), multiple projects.** Prepared DUSRs for numerous chemical analytical datasets for projects overseen by USEPA, NYSDEC and other regulatory agencies, including soil, groundwater, soil vapor, indoor air, and ambient air datasets.
- **DUSR Preparation for Major RCRA Closure, Great Neck, NY.** Prepared DUSRs for over 90 sites during RCRA closure of a major manufacturing facility. Coordinated with sampling personnel, laboratories and regulatory agency chemists to resolve QA/QC issues. Completed work under tight schedules to meet client deadlines.
- **Electronic Data Deliverables (EDDs), multiple projects.** Implemented protocols and procedures for all FPM sites for which NYSDEC EDDs are required. Responsibilities included staff training, data package QA/QC, client interactions, budget and schedule impact assessments, and dissemination of EDD training information.
- **Data Evaluation, multiple sites.** Performed forensic assessments of historic environmental chemical analytical data to resolve apparent discrepancies with modern data and other inconsistencies.
- **Leachate test assessments.** Assessed leachate test protocols and results to determine the most applicable methods to evaluate and develop soil cleanup objectives for non-regulated compounds.
- **Organic parameter breakdown assessments.** Interpreted numerous organic parameter datasets to evaluate breakdown sequences, likely original parameters, and rates of degradation.
- **Insitu remediation assessments, multiple sites.** Formulated chemical treatment plans for insitu remediation, including assessment of contaminant



concentrations and distribution, chemical processes and indicators, natural attenuation indicators, additional stoichiometric demands, and hydrogeologic factors.

### **Community Impacts**

- **Community Monitoring Plans, multiple hazardous waste sites.** Developed Community Air Monitoring Plans (CAMPs) for investigation and remediation projects, including monitoring procedures, action levels, and mitigation measures for odors, traffic, noise, dust, and/or vapors with the potential to affect surrounding communities. Each CAMP was approved by the NYSDEC and NYSDOH and was implemented under agency oversight. Presented CAMP findings at numerous community meetings. Addressed community and agency questions and issues.
- **Odor Abatement, NYSDEC BCP site, NYC, NY.** Developed and implemented an odor abatement plan for highly-odorous soil discovered during a remedial project. The site was surrounded by three public schools; complaints following discovery of odorous soil resulted in a job shutdown until the nuisance was abated. The odor abatement plan was prepared and implemented within 24 hours and involved immediate covering of the odorous soil followed by spot excavation and removal during non-school hours (night work) and the use of odor-controlling foam. The removal was completed within one week without further incident. The NYSDEC and NYSDOH approved the completed work, allowing the job to recommence.
- **Vector Assessment, transfer station, Town of East Hampton, NY.** Conducted inspections of intense fly infestations at a Town transfer station building to identify the locations and migration pathways of flies inside the building and to develop an abatement plan. This plan was successfully implemented and abated the nuisance flies.
- **Soil Vapor Intrusion Assessments, multiple sites.** Developed and implemented air and soil vapor investigations of residential and commercial properties, as approved by the NYSDEC/NYSDOH, to evaluate potential air quality impacts and determine if mitigation or monitoring was necessary. Monitoring/mitigation designs were developed for NYSDEC/NYSDOH approval.
- **CAMP Monitoring, multiple sites.** Conducted odor, dust, noise, and organic vapor monitoring in communities surrounding environmental sites. Data were collected and interpreted in accordance with NYSDEC and/or NYSDOH guidance and the results were submitted to these agencies together with recommendations for mitigation, if appropriate.

- **Project Manager, Environmental data assessment, Windmill Village, Town of East Hampton, NY.** Evaluated environmental data obtained during due diligence testing for a proposed housing development. Recommended additional sampling and confirmed the absence of impacts.

### **Expert Witness/Technical Services**

- **Expert Witness/Technical Services, residential project, Glen Harbor, NY.** Provided expert witness and technical services regarding environmental conditions and remedial procedures for residential redevelopment of a former oil terminal, including preparing and obtaining NYSDEC and NCDOH approval of remedial work plans, preparing remedial cost estimates and schedules, and providing testimony at a public hearing before the Town Board from which a change of zone was requested. The proposed change of zone, although subject to considerable public opposition, was approved, allowing redevelopment and associated remediation of the property to move forward.
- **Expert Witness/Technical Services, petroleum spill site, Westbury, NY.** Provided expert witness and technical services to a petroleum company defending NYSDEC cost recovery claims for a petroleum spill. The spill site involved two very large petroleum releases at gasoline stations adjoining the defendant's property. Services provided included evaluating tank tests, groundwater, soil and soil vapor chemical analytical data, petroleum fingerprint data, remediation activities and costs. Prepared numerous detailed timelines of activities, large displays of site information and subsurface conditions, and cost allocation calculations. Conducted a detailed subsurface investigation to evaluate stratigraphic conditions.
- **Expert Witness/Technical Services, petroleum spill site, Brooklyn, NY.** Provided expert witness and technical services to a petroleum company for investigation and remediation cost allocation for a petroleum spill. The spill site included two releases: an historic release related to the client's operations and a recent release related to a contractor's faulty spill bucket installation. Services provided included evaluating groundwater and soil chemical analytical data, assessment of free-phase product migration and removal, and a review of remediation activities. Prepared detailed timelines of plume growth and migration, displays of site information and subsurface conditions, and assessments of future remedial scopes and costs.



Provided technical support and presentations during mediation.

- **Expert Technical Services, chlorinated solvent site, Far Rockaway, NY.** Provided expert witness services for federal court litigation, including Expert Reports, Affidavits, depositions, and counsel support. Oversaw supporting technical services, including conducting an RI and additional investigations and developing remedial approaches and cost estimates.
- **Expert Technical Services, solvent plume site, Nassau County, NY.** Provided technical support to a property owner subject to a USEPA investigation as the potential source of a large chlorinated solvent plume, including evaluation of a plume-wide RI/FS, detailed review of property historic information, multiple meetings with the USEPA, client and counsel, and identification of additional potential source areas.
- **Expert Technical Services, solvent plume site, Nassau County, NY.** Provided technical support to a property owner subject to litigation as a potential source of chlorinated solvent impacts to a public supply well, including evaluation of a plume-wide RI/FS and related investigation reports, detailed review of property historic information, meetings with the plaintiff, client and counsel, and identification of more likely chlorinated solvent sources.
- **Expert Technical Services, contaminated fill sites, Town of Brookhaven, NY.** Provided expert technical and witness services for several Town sites where illegal disposal of contaminated fill was suspected. Services provided included site inspections, preparation of investigation scopes and budgets, preparation of technical reports, Expert Reports, and Affidavits, participating in depositions and negotiations, and counsel support. Oversaw supporting technical services, including conducting investigations and developing remedial approaches and cost estimates.
- **Expert Technical Services, development site, Village of Larchmont, NY.** Assisted the Village in successfully opposing the construction of a very large superstore in the adjoining community, including evaluating previous environmental investigations, developing cost estimates and scopes of work for a full environmental site assessment, preparing scoping cost estimates for likely remediation scenarios, preparing technical documents in support of the Village's position, and making a presentation at a public hearing. The proposed project was subsequently withdrawn.
- **Expert Hydrogeologist Services, development site, Town of Carmel, NY.** Provided technical evaluation of a proposed water district. The proposed water district would impact existing residents due to limited available water supplies and likely impact on existing wells. The work included evaluation of aquifer pumping tests, determining impacts on nearby wells, assessment of likely increased water demand, preparation of supporting documents, and presentations at project hearings. The proposed project was subsequently conditionally approved by the NYSDEC with significant modifications to protect the water rights of existing residents.
- **Expert Technical Services, development site, Village of Laurel Hollow, NY.** Provided technical evaluations of potential impacts from a proposed development site, including soil and drainage conditions, loss of protected vegetation, and slope issues.
- **Expert Technical Services, development site, Village of North Haven, NY.** Provided technical evaluations of a proposed development site, including soil and drainage conditions, geomorphic features, and slope issues.
- **Expert Technical Services, road construction projects, Westchester County, NY.** Provided technical services to assess impacts from proposed road construction projects on the Kensico Reservoir and other New York City water supply system facilities. This work included evaluating stormwater pollutant loading calculations, assessing impacts to wetlands, promoting application of more accurate stormwater runoff calculation methods, assessing proposed stormwater management techniques, presenting at public meetings, preparing technical statements for submittal to regulatory agencies, and participating in the NYSDOT SWPPP Guidance committee.
- **Expert Witness Affidavits, multiple projects.** Prepared affidavits regarding environmental conditions at client properties in support of pending legal actions, including landfill issues, wetlands and navigable waterway issues, and petroleum spills.

#### Health and Safety

- **Health and safety monitoring, multiple sites.** Implemented HASP monitoring at investigation and remediation sites during intrusive activities, including calibration and operation of photoionization detector (PID) and flame ionization detector (FID) for organic vapors, combustible gas indicator (CGI) for methane, dust meter for

particulates, and noise monitor. Compared results to applicable action levels and implemented protective measures as necessary.

- **CAMP monitoring, multiple sites.** Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors. Recorded observations and compared to applicable action levels. Calibrated and operated noise meters, particulate monitors, and PID/FID. Prepared CAMP monitoring reports and presented results to regulatory agencies and the public.
- **Radiation screening, multiple sites.** Performed screening for radiation at select sites, including operating Geiger counter in different radiation modes and obtaining background readings.

#### **Miscellaneous Projects**

- **Phase I Environmental Site Assessments (ESAs).** Performed numerous Phase I ESAs for industrial, commercial, and residential sites in the metropolitan New York area. Presently supervises the Phase I ESA program, including budgets, staffing, quality control and report preparation.
- **Environmental Trainer.** Conducted aquifer pumping and soil vapor extraction test training. Instructed classes for site investigation methods, aquifer pumping test analysis, soil classifications, and risk assessment.
- **Project Management.** Performs a wide range of project management functions, including development and management of project budgets and schedules, coordination of field and office staffing, document preparation, review, editing, and interaction with clients, regulatory, legal, real estate, consultant, and compliance personnel.
- **Field Mapping Studies.** Organized, supervised, and conducted field mapping studies in Alaska.
- **Downhole Logging.** Directed petroleum well site geophysical logging operations and interpreted geophysical well logs.
- **Geophysical Data Interpretation.** Processed and interpreted seismic reflection data and constructed seismic velocity models.
- **Regulatory Evaluations.** Assisted and reviewed regulator's revision of proposed risk assessment-based UST cleanup guidelines. Reviewed proposed USEPA NPDES permits for remediation system effluent.
- **Geologic Mapping.** Constructed and interpreted structural and stratigraphic cross sections, and structure contour, fault surface, isochore, and isopach maps.

#### **Regulatory Compliance**

- **RCRA compliance audits.** Conducted inspections and reporting regarding underground and aboveground storage tanks (USTs and ASTs), hazardous waste storage facilities, waste management and reporting requirements, and hazardous waste storage area closures in compliance with RCRA.
- **CERCLA Compliance.** Oversees and coordinates Phase I ESAs for compliance with CERCLA requirements for a wide variety of facilities, including operating and historic industrial sites, manufacturing plants, abandoned facilities, and multi-property Brownfield sites.
- **Superfund Sites.** Managed multiple investigation and remedial projects at state and federal Superfund sites. Is very familiar with all phases of CERCLA projects, including PA/SI, RI, FS, RD and RA. Has supervised and directed activities at many Superfund sites from investigation through closure.
- **Clean Water Act Projects.** Conducted investigation and remediation of Class V underground injection control (UIC) systems, investigation and acquisition of UIC discharge permits, and discharges into surface water bodies.
- **Clean Air Act Compliance Projects.** Conducted facility investigations for emissions sources, including paint booths, fume hoods, process discharges and other point sources. Sampled and evaluated remediation system discharges for CAA compliance, and recommended emissions treatment when required.

#### **Representative DOD Projects**

- **Barksdale RFI, Barksdale AFB, LA, \$520K-**Lead Geologist for RFI for multiple Base-wide sites at Barksdale AFB, including landfills, petroleum spills, fire training areas, sewage treatment plans, and chemical spills. Managed field crews and sampling of soil, groundwater, and waste, performed sample and waste management, and coordinated with Base representatives. Prepared RFI Report, including analytical data reports, CS, and recommendations.
- **Barksdale LTM Program, Barksdale AFB, LA, \$1.7M-**Lead Geologist for LTM Program for Base-wide Barksdale groundwater, including landfills, petroleum spills, fire training areas, sewage treatment plants, and chemical spills. Supervised field crews, managed samples and waste, prepared LTM Reports and made recommendations for LTM optimization.

- **Site Characterization, Plattsburgh AFB, NY, \$720K**-Field Team Leader for SC investigation of fuel oil USTs and petroleum spills at Base housing, officers' quarters, and support building prior to transition of these areas to other uses. Working for AFCEE, developed and conducted an SC for over 200 USTs, including soil and groundwater sampling to identify petroleum contamination. Supervised several field crews in an accelerated sampling program to complete the SC prior to winter conditions. Prepared SC Report submitted to and approved by the NYSDEC.

#### **MGP Site Experience**

- **Field Sampling Services. Soil Investigation, Brooklyn Union Greenpoint MGP site.** Conducted soil sampling and screening activities during tank removal activities at this former MGP facility. Tasks included visual observations, screening with a calibrated PID, soil sampling, interfacing with the client, subcontractors and NYSDEC personnel, and report preparation.
- **Program Manager. Soil Vapor Intrusion Investigation and Mitigation, Brooklyn MGP site.** Developed and implemented a soil vapor intrusion (SVI) investigation following the discovery of chlorinated solvents in soil vapor beneath a shopping center constructed on an MGP site. Managed all scheduling, budget and contract issues. Reviewed results and developed an SVI mitigation plan to address the chlorinated solvent vapors. Oversaw design and installation of a sub-slab depressurization system (SSDS) to address SVI. This work was completed on time and within budget.
- **Field Team Supervisor. Soil Remediation, Brooklyn Union Coney Island MGP site.** Responsible for coordinating all field activities associated with segregation and removal of lead-paint impacted soil from MGP waste at this NYSDEC-listed MGP site. Conducted pre-excavation waste characterization, implemented HASP, oversaw subcontractor and FPM staff, coordinated with client and NYSDEC, managed waste manifesting, conducted community air monitoring, and prepared remediation report.

# RICHARD BALDWIN, CPG, PG

## Principal Consultant

Richard Baldwin has nearly 30 years of environmental experience, with particular expertise in storm recovery and remedial actions, resiliency, flood-event evaluation, environmental investigations, waterway studies, building material surveys and indoor air quality (IAQ) investigation at industrial, private, federal and publicly-owned facilities. He is well versed in collecting and analyzing soil, soil vapor, groundwater, bottom sediment and water column samples. He has designed and implemented Remedial Investigations (RIs), remediation work plans, evasive species identification and eradication, bathymetric surveys, geotechnical evaluations, regulatory permit evaluation/acquisition, contractor evaluation/oversight, and public awareness and education. Rich has experience in evaluating potential environmental impacts of projects including golf courses, housing developments, senior housing, schools and retail shopping centers. Mr. Baldwin has extensive experience in evaluating complex laboratory data packages to ensure that they are precise, accurate, repeatable and comparable.

He earned a BA in geology from San Francisco State University and is a licensed Professional Geologist in New York and in Pennsylvania, and an American Institute of Professional Geologists Certified Professional Geologist. He is an Adjunct Professor in the Earth Sciences Department at State University of New York at Stony Brook.

## EDUCATION

Graduate Course Work, San Jose State University, 1985-1988  
BA, Geology, San Francisco State University, 1982

## ENVIRONMENTAL DATA ANALYSES

Mr. Baldwin has received multiple sessions of environmental geochemistry training provided by environmental geochemists, including physical chemistry, thermodynamics, ionic interactions, complexation, biologic effects, and other basic principles. Training also included field sampling procedures and effects on chemical data chemical analytical methods and equipment, and QA/QC procedures and interpretation.

Mr. Baldwin has reviewed and evaluated numerous soil, groundwater, product, indoor/ambient air and soil vapor chemical analytical datasets, including evaluation of batch and site-specific QA/QC samples, laboratory narratives, comparison to regulatory agency criteria, historic data, and background data.



## CONTACT INFORMATION

**Richard Baldwin, CPG, PG**

[rbaldwin@ramboll.com](mailto:rbaldwin@ramboll.com)  
+1 (631) 987-6710

Ramboll  
Long Island / New York City  
Metro Area  
PO Box 137  
35 Railroad Avenue  
Center Moriches, NY 11934  
United States of America

Mr. Baldwin has been responsible for the development and implementation of numerous Quality Assurance Project Plans (QAPP), including QAPP design, sample delivery group (SDG) evaluations, sampling procedures and sequences, and QA/QC sample preparation/collection.

Mr. Baldwin has attended periodic environmental chemistry training sessions hosted by environmental laboratories and participated in hands-on training in data and QA/QC evaluation.

Mr. Baldwin has prepared Data Usability Summary Reports (DUSRs) for numerous chemical analytical datasets for projects overseen by the USEPA, NYSDEC and other regulatory agencies. Datasets evaluated have included soil, groundwater, soil vapor, indoor air and ambient air.

Mr. Baldwin has performed forensic assessments of historic environmental chemical analytical data to resolve apparent discrepancies with modern data and other dataset inconsistencies.

Mr. Baldwin has interpreted numerous organic parameter datasets to evaluate breakdown sequences, likely original parameters and rates of degradation.

Mr. Baldwin has formulated numerous chemical treatment plans for in-situ remediation of environment contaminants, including assessment of contaminant concentrations and distribution, chemical processes and indicators, natural attenuation indicators, additional stoichiometric demands and hydrogeologic factors.

## GENERAL EXPERIENCE

Mr. Baldwin has extensive experience in the selection, design, installation and maintenance of a wide range of soil and groundwater remediation systems. Remedial systems have included both active and passive free-product recovery, traditional groundwater pump and treat, soil-vapor extraction, air sparging, bioventing, bioremediation, excavation impacted-soil management and natural attenuation.

Mr. Baldwin has been responsible for conducting and supervising many permit-acquisition and compliance projects associated with sewage discharges, State Pollutant Discharge Elimination System (SPDES) discharges, wetlands, etc. He has conducted these services in a wide-range of venues including New York City, Town of Southold, City of Glen Cove, Cape Cod, Suffolk County, etc.

Mr. Baldwin has been involved in hundreds of subsurface soil and groundwater investigations ranging from Phase I & II Environmental Site Assessments (ESAs) to Remedial Investigations. Investigation and delineation techniques have included soil borings, groundwater monitoring well networks, hydropunch/GeoProbe sampling, surface and bore-hole geophysical methods, soil-gas surveys, aquifer testing, surface water and sediment sampling, waste characterization (soils piles, drums, USTs, ASTs, landfills, etc.), test pits, and computer fate and transport modeling. Materials investigated have included petroleum products (heating/fuel oil and gasoline), PCB oils, coal tar, heavy metals, chlorinated solvents, explosives, pesticides, herbicides and buried medical waste.

Mr. Baldwin has also been the principal-in-charge of many building materials investigations associated with the potential presence of asbestos-containing materials (ACM), lead-based paint (LBP), fugitive dusts, volatile organic compounds (VOCs), etc. Many of these projects lead to the design and implementation of abatement projects.

## PROJECT EXPERIENCE

**FPM Group, Multiple Sites, NY:** Mr. Baldwin provided FPM Group with independent data validation services and prepared NYSDEC, DER-10-compliant DUSRs for multiple sites located in Suffolk and Nassau Counties and New York City. Projects have included multiple matrices including soil, groundwater and soil vapor/indoor air for multiple NYSDEC analyte groups including TCL VOCs, TCL SVOCs, TCL PCBs, TCL pesticides, TAL metals, PFAS and 1,4-dioxane.



**ConEd, New York City, NY:** Participated in a long-term stormwater monitoring project at several ConEd facilities. The work included the collection and analyses of quarterly composite samples of liquids from on-site stormwater abatement systems per each facility's New York City Department of Environmental Protection (NYCDEP) discharge permit.

**Living with the Water Competition, Boston, MA:** Mr. Baldwin was a key player in this resiliency design competition for Hundred Acre Wharf design team. In this design, resilient flood protection and climate change adaptation measures were blended into an urban waterfront. The Harbor Walk levee's human-scaled descent into the water encouraged a culture to "live with water" while protecting the 100 Acres and Gillette against the 100- and 500-year return period floods. Design decisions were based on an accurate characterization of flood risk, developed using state-of-the-art, high resolution, multi-dimensional hydrodynamic models (ADCIRC) and sea level rise projections adopted by NOAA and the Army Corps of Engineers. Simulations were performed to define coastal flooding in time and space due to the full range of tides and the 100 and 500-year return period floods for current conditions and the years 2050 and 2100 and three different sea level rise scenarios. An analysis of flooding due to precipitation was performed with an assessment of conditions (e.g., high wind and snow) that could occur coincident with flooding and the effects of sea level rise on groundwater elevations.

**HUD Rebuild by Design Stages 1, 2 and 3 for Nassau County, NY:** Mr. Baldwin was a key player of the recently completed HUD RBD Stages 1, 2 and 3 resiliency design competitions as part of the Interboro Team. RBD, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, was aimed at addressing structural and environmental vulnerabilities that Hurricane Sandy exposed in communities throughout the region and developing fundable solutions to better protect residents from future climate events. Because of the enormity of this challenge, the RBD process was developed to find better ways of implementing designs and informing policy. As part of RBD, the Interboro Team was responsible for developing a multi-layer hurricane defense for the southern coastline of Nassau County. The Interboro Team which developed a five-part resilience strategy, that when fully implemented, would protect the south shore, back bay and tributary stream areas of Nassau County from major meteorological events.

**Super Storm Sandy Recovery, Long Island and New York Metro Area:** Conducted Super Storm Sandy recovery operations for a major financial institution, many of whose facilities suffered damage during the storm. Within a few days of Sandy, Mr. Baldwin took part in several facility damage assessments in which the level of flooding and related damage (e.g., mold, building materials damage, etc.) were assessed. Many of these inspections were conducted in areas where power had not yet been re-established.

**Industrial Project, Glen Cove, NY:** Conduct of a large-scale New York State Department of Environmental Conservation (NYSDEC) Resource and Recovery Act (RCRA) Closure project conducted at a large, former industrial site located in Glen Cove, NY. Mr. Baldwin was responsible for preparing, submitting and receiving NYSDEC approval for all project-related work plans, and implementing the soil and groundwater investigation phases of the project. Based upon these data, the NYSDEC approved and oversaw to conduct a remedial action plan to address impacted soils across the 16-acre site. The project has been completed and the Closure Certification Report and Site Management Plan have been submitted to the NYSDEC.

**Commercial Properties, Syosset, NY (Nassau County):** Evaluation of several commercial / industrial facilities wherein Phase I / II ESA services were provided. Further, the project included the evaluation and reporting to the USEPA of evaluations of several of the facilities stormwater mitigation system in accordance with EPA UIC Well Program regulations. Mr. Baldwin was a critical evaluator of potential impacts to the subject properties associated with a VOC-impacted groundwater plume emanating from an upgradient, out-of-service landfill facility owned by a local municipality. He assisted the project attorneys in developing an acceptable indemnification agreement which protected his client

from any future liability of pre-existing environmental conditions and laid the responsibility on the former property owner.

**Ferry Terminal Project, Glen Cove, NY:** The City of Glen Cove Industrial Development Agency (IDA) had acquired Federal Stimulus Funding to develop a ferry terminal along their waterfront area in order to provide passenger ferry service from the North Shore of Long Island to the New York Metropolitan Area, and potentially to selected Connecticut locations. The selected site was part of the former Li Tungsten and Captains Cove Federal and New York State Department of Environmental Conservation (NYSDEC) Superfund Sites. Both sites were subject to remedial actions and were “closed” by both the United States Environmental Protection Agency (USEPA) and NYSDEC circa 2000. A wide range of contaminant types were potentially associated with both sites including solvents, petroleum, oils, heavy metals and radiation. The NYSDEC and IDA required the preparation of a Soil Management Plan (SMP) as potentially impacted soils and bottom sediments were potentially going to be encountered as part of the project. Mr. Baldwin successfully prepared and executed a Dredging / Excavation (D / E) Work Plan which detailed the requirements to field screen all excavated soils and dredge spoils with a radiation detector, photo-ionization detector (PID) and by visual / olfactory inspection.

Based upon the results of the field screening, excavated soils and dredge spoils were to be addressed by one of the following: 1) cleared for use as on-site backfill materials; 2) disposed of as non-hazardous, regulated materials; or, 3) as hazardous waste. Mr. Baldwin was also responsible for designing and implementing a sediment sampling and analyses program to: 1) evaluate ambient creek bottom conditions with respect to a wide-range of contaminant types; and, 2) confirm the chemical conditions of the “new sea floor” prior of dredging and excavation activities. Mr. Baldwin also successfully applied for a received a NYSDEC Case-specific Beneficial Use Determination (BUD) finding as part of a cost-effective materials disposal option, as well as successfully applying for a NYSEC Long Island Well permit required as part of continuing project support activities.

**Marina Property Assessment, Hampton Bays, NY:** The owner of this active marina facility was served with a Notice of Violation (NOV) by the NYSDEC for various environmental issues, mostly related to on-site petroleum storage / delivery systems, as well as impacts potentially associated with marine-activity uses such as vessel bottom paint removal and application, use of preserved woods, vessel maintenance activities, housing-keeping issues, etc. Mr. Baldwin was responsible, with input from the NYSDEC, for developing and implementing a Site Investigation Program to investigate potential soil and groundwater impacts associated with the aforementioned on-site practices.

Based upon the results of the investigation, it was concluded that the fuel distribution system was not leaking and that groundwater was not deleteriously impacted. Minor areas of impacted soil, likely from vessel bottom cleaning activities, were identified. Mr. Baldwin prepared and implemented a NYSDEC-approved Remedial Action Plan which included the following: 1) targeted removal of metals-impacted soils; 2) conversion of the existing gasoline/diesel UST/sub-grade distribution system to non-regulated biofuel use; 3) confirmation of facility use of aboveground storage tanks (ASTs) equipped with double-walled containment, 4) permitting a vessel-washing rinsate containment/treatment system; and, 5) use of asphaltic/concrete paving as engineering controls to minimize future potential user contact with remaining impacted soils.

**Landfill Gas Evaluation, Shopping Center, Uniondale, NY:** Mr. Baldwin provided environmental consulting services to the owner of a property improved with a strip mall including two large big box-type stores. Due to the presence of historic landfill materials, the on-site buildings were equipped with a sub-slab depressurization system (SSDS) to address methane vapors. The methane vapors required mitigation measures due to building occupants’ complaints of strong odors, and to address the potential build-up of methane within the building envelopes which could potentially result in an explosion hazard. The Client received correspondence from the Nassau County Department of Health (NCDH) inquiring why the methane SSDS was apparently not operating, if landfill-related vapors were still present requiring the operation of a SSDS and/or what remedial measures were to be implemented, if warranted. The services include the review of available historic documentation, inspection of the then

non-operating methane SSDS, measuring sub-slab vapor and indoor air conditions, providing guidance to the client regarding appropriate remedial measures and support with respect to regulatory communications.

**Expedited Due Diligence of Shopping Center, Centereach, NY:** A private developer/REIT was considering the purchase of a shopping center and, due to contract restraints, the client required the acquisition of due diligence information on an expedited basis. Based upon review of existing environmental reports, there had formerly been a dry cleaner at the facility. Additionally, the overall facility was improved with several on-site sanitary waste disposal systems and a stormwater abatement system consisting of several dozen dry wells. Due to the facility's location on Long Islands flow divide, a site-specific groundwater flow direction could not be determined. Therefore, several multi-depth monitoring wells were installed, surveyed and sampled to determine a site-specific groundwater flow direction. Additional monitoring wells were then installed and sampled to confirm groundwater quality conditions downgradient of on-site infrastructure of concern.

An expedited Phase II sampling program was designed and implemented to assess the highest-risk issues including potential impacts to groundwater and soil vapor associated with the former dry-cleaning uses and potential remediation costs associated with on-site cesspools and drywells. The results of the investigation indicated a high risk associated with potential soil vapor intrusion issues and the initial remedial costs to address the on-site leaching structures was higher than originally anticipated.

**Day Care Facility, Due Diligence, Soil Management and Soil Vapor Mitigation:** Based upon the results of previous Phase I/II ESA activities which identified the presence of impacted fill at the facility slated for development by a non-for-profit day care facility, designed and implemented a Soil Management Plan which allowed for the re-development of the site. Additionally, design, installed and operated a large-scale sub-slab depressurization system (SSDS) to address soil vapor intrusion concerns.

**Multiple Agricultural Properties, Suffolk County, NY:** These projects were typically related to the former legal application of pesticides to support agricultural operations on projects slated for residential re-development. Project work-flow components included the following: 1) Design and conduct of soil sampling and analyses programs designed to support residential re-use in accordance with SCDHS guidelines; 2) Conduct of pilot testing to evaluate various pesticide-impacted soil management techniques, including various vertical soil mixing options; 3) Preparation of SCDHS-compliant SMPs to be conducted during the re-development of the properties; and, 4) Oversight of execution of SMPs including air monitoring, collection/analyses of confirmatory soil samples and preparation of project close-out packages.

**Private Developer, Due Diligence and Soil Remediation of a Former Landfill Facility, Central Islip, NY:** This project included the conduct of Phase I/II activities for a nation-wide developer at this site which was the improved with infrastructure associated with a sewage treatment plant and landfill associated with a former psychiatric facility. The data indicated the presence of fill materials which were impacted by lead in contravention of regulatory guidance values. A SMP was designed and implemented in which on-site landfill materials were screened and tested. Screened materials containing acceptable levels of lead were used as on-site backfill while lead-impacted materials were disposed of off-site. The design and implementation of the SMP allowed the developer to deal with impacts in a cost-effective fashion and resulted in a profitable residential-use project.

**UIC Well Evaluation/Remediation, Multiple Clients, Nassau and Suffolk Counties, NY:** These projects included environmental investigation and remediation of multiple facilities located in both Suffolk County and Nassau County associated literally thousands of cesspool and stormwater drywell Underground Injection Control Wells (UIC). This Long Island-specific issue is due to the presence of a Federally-designated Sole Source Drinking Water aquifer underlying Long Island, and the long-standing practice of discharging liquid wastes and stormwater through UIC structures. Worked closely with



property owners and appropriate regulatory agencies to successfully remediate impacted UIC structures across Long Island with regulatory oversight provided with the SCDHS, Nassau County Department of Health and/or the USEPA.

**Cemetery Groundwater Study, Suffolk and Nassau Counties, NY:** A religious organization petitioned a western Long Island municipality to increase the size of an existing Nassau County cemetery facility. As part of their SEQRA review, the municipality raised the concern of the potential impacts of embalming fluids and other chemicals associated with interred bodies may have on the underlying aquifer system. The project included evaluating the typical types of embalming materials formerly and currently in use (e.g., formaldehyde, arsenic, lead, etc.), as well as radioactive materials typically utilized for hospital diagnostics and therapy purposes. Conduct of groundwater evaluations at two in-service facilities owned by the Client and collection of groundwater samples for analyses of VOCs, metals, alpha/beta/gamma emitters and typical radio-therapy/diagnostic drugs. Prepared a report summarizing the results of the two groundwater investigations for inclusion into the SEQRA-required DEIS.

**New York State Owned Educational Facility, Wassaic, NY:** The focus of this project was to evaluate the source area of methyl tertiary butyl ether (MTBE) which was detected the facility's potable water system (the source of the potable water was high-capacity wells completed in the local valley-fill aquifer). An additional project component was to design and implement an effective water treatment system in event that the MTBE exceeded NYSDEC standards in the future. Project work-flow components included the following: 1) Conduct of a surface geophysical survey utilizing seismic techniques between the identified source area and the potable water-supply well field to evaluate the depth and geometry of the unconsolidated materials/bedrock interface; 2) Conduct of a multi-depth groundwater investigation between the source area (gasoline service station) and the well field to confirm the nature and extent of contamination utilizing the direct-push sampling technique; 3) Design and installation of a multi-depth monitoring well network in the vicinity of the facility's potable water wells for aquifer testing purposes; 4) Conduct of a long-term aquifer pumping test, the data which were utilized to calculate the capture zone of the pumping, potable-water wells under operational conditions; 5) As an IRM, one impacted potable water well was converted to a remediation well to provide hydraulic capture of the MTBE plume prior to its impacting the remaining downgradient wells. The effluent was treated via a large-scale granulated-activated carbon (GAC) system for treatment of MTBE prior to its permitted discharge to a nearby stream; 6) A 40,000-pound GAC unit was also installed in standby mode to address the facility's drinking water should the concentrations of MTBE ever warrant treatment; and 7) Conduct of an AS/SVE pilot test at the source area (upgradient gasoline service station) to support the design of an effective, source area remediation program.

**Multiple NYCDDC Fire Department / Police Precinct Facilities, New York City, NY:** These projects were related to the letting of multiple contracts for site remedial activities associated with New York City fire department facilities and police precinct facilities by the New York City Department of Design and Construction (NYCDDC). Project work-flow components included the following: 1) Evaluating the geologies of several sites to evaluate and implement successful oxygen-releasing compound (ORC) projects; 2) Review of quarterly groundwater quality and potentiometric surface data to confirm existing conditions; 3) Assessing the best methodologies to implementing enhanced natural attenuation remedial techniques by addition of nutrients and non-native, engineered bacterial populations; and, 4) Conduct of hi-vac extractions to remove light, nonaqueous-phase liquids as a remedial measure.

**Rite Off RI/FS, IRM and Remedial System:** This was a NYSDEC Class II Inactive Hazardous Waste Site. Project work-flow components included the following: 1) Design and conduct of an on-site and off-site RI which including installation of several multi-depth wells, collecting and reviewing chemical analytical data, preparing potentiometric surface maps and conducting computer groundwater modeling (i.e., MODFLOW, MODPATH, AQTESOLVE and MT3D); 2) Design and conduct of an IRM which consisted

of removing the contaminated bottom sediments (e.g., source area materials) from impacted EPA-designated Class V injection wells; and, 3) Design and installation of the NYSDEC-approved remedy of an air sparge/soil vapor extraction (AS/SVE) system. Specific tasks including conducting AS and SVE pilot testing, overseeing installation of treatment wells, overseeing the design and installation of the treatment system, conduct of monthly operation and maintenance (O&M) activities and quarterly collection and analyses of groundwater samples from the on-site and off-site monitoring wells.

**Saint George Ferry Terminal Redevelopment, Staten Island, NY:** Provided environmental project support associated with the redevelopment of this ferry terminal related to the removal of out-of-service No. 6 fuel oil USTs, and associated impacted soil and groundwater. Project work-flow components included the following: 1) Design and installation of an on-site groundwater monitoring well network required to support the eventual de-watering of the area to allow for the removal of the USTs. Included soil logging, and evaluation of soils and groundwater for potential petroleum impacts; 2) Conduct of a tidal influence study to support groundwater modeling including the preparation of high-tide and low-tide potentiometric surface maps; 3) Design and conduct of an aquifer analyses program including a step-drawdown test (to evaluate appropriate aquifer testing flow rate) and conduct of a 72-hour aquifer pumping test to support the design of a de-watering system; 4) Conduct of computer modeling (VISUAL MODFLOW) utilizing the data associated with the aforementioned aquifer analyses to evaluate de-watering scenarios; and, 5) Design and installation of a coffer-dam-like system surrounding the USTs to minimize the amount of required de-watering to support their removal.

**Mitchell Park Development, Greenport, NY:** Managed one of the first NYSDEC Brownfield projects on Long Island which was funded utilizing NYS Environmental Bond Act funds. Project included the full evaluation of the geologic and environmental conditions of the property including the following work flow components: 1) Conduct of a geophysical survey including ground-penetrating radar (GPR) and electromagnetics to evaluate for the presence of out-of-service USTs and other subsurface infrastructure; 2) Conduct of soil borings and associated soil logging to confirm subsurface lithologic conditions of potential environmental impacts; 3) Installation and sampling of several on-site groundwater monitoring wells with preparation of associated potentiometric surface maps; 4) Conduct of a tidal influence study to evaluate potential effects that tides may have had on the migration of contaminants; 5) Oversaw the removal of several, on-site, out-of-service USTs with associated collection and analyses of confirmatory, end-point soil samples; and, 6) Evaluated the nature and extent of imported soils which contained arsenic associated with agricultural uses and developed a Soil Management Plan to address same.

**Blydenburgh Landfill Routine Groundwater Monitoring, Islip, NY:** Supervised quarterly groundwater sampling, data tabulation, statistical analyses and reporting for a Long Island landfill under NYSDEC Part 360 regulations. Project work-flow components included the following: 1) Oversaw and conducted QA/QC checks of field crews collecting the groundwater samples; 2) Tabulated and conducted statistical evaluation of existing groundwater quality data to evaluate pre-operational groundwater quality conditions to establish "trigger contaminant levels" to determine if the in-service landfill leachate collection system was failing; 3) Tabulated and evaluated validated quarterly groundwater quality data against pre-operational groundwater quality statistics; and, 4) Conducted annual statistical evaluations of all operational groundwater quality data to confirm landfill was in compliance with NYSDEC landfill protocols.

**Lockheed Martin Lake Success Site, Lake Success, NY:** Managed large-scale site activities at this major aerospace facility which included ongoing IRMs (soil vapor extraction and groundwater pump and treat systems), citizen participation activities, design and implementation of on-site remedies, an off-site RI/FS, regulatory compliance activities, client interactions, multi-task and multi-contractor scheduling, coordination of staff and tasks, and general program management.

Project work-flow components included the following: 1) Oversaw collection and analyses of samples from an extensive on-site and off-site groundwater monitoring well network; 2) Managed the existing groundwater IRM treatment system which consisted of large granulated-activated carbon (GAC) filters; 3) Evaluated nature and extent of groundwater contaminant plume via the preparation of iso-concentration contaminant maps; 3) Prepared potentiometric surface maps to confirm hydraulic capture analyses of in-service pump and treat system; 4) designed and implemented an off-site groundwater investigation which included the conduct of bore-hole geophysical surveys to establish subsurface lithologies and water-bearing zones, installation of several clusters of multi-depth monitoring wells, collection and analyses of groundwater samples, preparation of potentiometric surface maps and preparation of groundwater plume maps; 5) Design and implementation of an NYSEC-approved IRM which consisted of the removal of impacted materials (e.g., source materials) associated with the EPA Class V injection wells associated with a former solvent still; 6) Utilized a computer groundwater modeling program (VISUAL MODFLOW) to evaluate aquifer properties, contaminant fate and transport, and evaluate potential groundwater extraction and injection scenarios; and, 7) Evaluated data acquired from multiple nearby public water districts to evaluate spatial and time-related groundwater extraction practices for public consumption uses from the vicinity of the site.

### **U.S. Military Bases, Landfill Services, California and Nevada**

Mr. Baldwin was the Project Manager/Field Team Leader (FTL) for several large-scale investigations associated with mostly inactive landfill facilities located at Fort Ord, George Air Force Base and Concord Naval Weapons Station, all of which are located in California; and at Nellis Air Force Base which is located in Nevada. The scopes of service including evaluating the extent of landfilled materials via geophysical techniques and conduct of test pits, evaluating downgradient groundwater quality investigation and evaluating for the presence of unexploded ordinance.

### **CONTINUING EDUCATION**

- Princeton Groundwater Hydrogeology and Pollution course
- Environmental Law and Regulations Course, U.C. Berkeley Extension
- NGWA MODFLOW and MODPATH Modeling Course
- NGWA Visual MODFLOW Modeling Course

### **PROFESSIONAL REGISTRATIONS/CERTIFICATION/TRAINING**

- Professional Geologist, License No. 000255, New York State
- Professional Geologist, PG-000552-G, Commonwealth of Pennsylvania
- Certified Professional Geologist, CPG #9158, Amer. Inst. of Prof. Geologists
- OSHA Certification, 40-hour Health and Safety Training at Hazardous Waste Sites
- OSHA Certification, 8-hour Refresher Health and Safety Training at Hazardous Waste Sites
- OSHA Certification, 8-hour Management Training
- OSHA Certification, 8-hour Radiation Safety Training

## **APPENDIX J**

### **HEALTH AND SAFETY PLAN AND COMMUNITY AIR MONITORING PLAN**

This worker Health and Safety Plan (HASP) has been prepared by FPM Group (FPM) for New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal Site #152003, identified as the Deutsch relays, Inc. Site located at 65 Daly Road, East Northport, New York (Site). This HASP is part of the Site Management Plan (SMP) for the Site and includes measures for the protection of worker health and safety during site management activities, which include monitoring and sampling activities and may include excavations into residual materials.

A Community Air Monitoring Plan (CAMP) is also included in Section J.2 to address potential air emission issues that may affect the Site community.

This HASP and CAMP were prepared for the use of FPM and remedial contractors who may perform work during site management activities. In the event that site management activities are conducted by others, references to FPM and/or FPM personnel in this HASP and CAMP are intended to mean properly qualified, trained, and experienced environmental professionals.

#### **J.1 Worker Health and Safety Plan**

##### **J.1.1 Introduction**

This HASP has been written for compliance with "OSHA Hazardous Waste Operations Standards (29 CFR 1910.120)", the guidance documents, "Standard Operating Safety Guidelines (Office of Solid Waste and Emergency Response, 1992)" and the "Occupational Safety and Health Guidance Manual for Hazardous Waste Activities" (U.S. Department of Health and Human Services, 1985).

##### **J.1.2 Scope and Applicability of the HASP**

This HASP is designed to be applicable to locations where groundwater monitoring, excavation into residual materials, and soil sampling (affected activities) are performed at the Site by all parties that either perform or witness the activities on the Site. This HASP may also be modified or amended to meet specific needs of the proposed work.

This HASP will detail the Site safety procedures, Site background, and safety monitoring. Contractors will be required to adopt this HASP in full or to follow an FPM-approved HASP. The Health and Safety Officer (HSO) will be present at the Site to inspect the implementation of the HASP; however, it is the sole responsibility of the contractor(s) to comply with the HASP.

The HASP has been formulated as a guide to complement professional judgment and experience. The appropriateness of the information presented should always be evaluated with respect to unforeseen Site conditions which may arise.

##### **J.1.3 Site Work Zone and Visitors**

The Site work zone (a.k.a. exclusion zone) during the performance of the affected activities will be a 30-foot radius about the work location. This work zone may be extended if, in the judgment of the HSO, Site conditions warrant a larger work zone.

No visitors will be permitted within the work zone without the consent of the HSO. All visitors will be required to be familiar with, and comply with, the HASP. The HSO will deny access to those

whose presence within the work zone is unnecessary or those who are deemed by the HSO to be in non-compliance with the HASP.

All Site workers involved in the affected activities, including contractors, will be required to have 40-hour hazardous material training (eight-hour refresher courses annually), respirator fit test certification, and current medical surveillance as stated in 29 CFR 1910.120.

The HSO will also give an onsite health and safety discussion to all Site personnel, including the contractors, prior to initiating the affected activities. Workers not in attendance during the health and safety talk will be required to have the discussion with the HSO prior to entering the work zone.

Emergency telephone numbers and directions to the nearest hospital are shown in Table J.1.3.1 and will be kept at the Site in the possession of the HSO and will be available to all Site workers and visitors.

#### J.1.4 Key Personnel/Alternates

The Project Manager for the affected activities is John Bukoski, PG. Mr. Bukoski will also act as the HSO. An assistant project manager and assistant HSO may be designated for field activities.

#### J.1.5 Site Background

Based on the Site history and previous analyses of samples, the known chemicals of concern present at the Site include select VOCs, copper and mercury. These chemicals are present in groundwater, soil, and/or soil vapor at the Site. Remedial measures have included excavation and disposal of impacted soil and construction and operation of a groundwater extraction and treatment system. The anticipated activities to be conducted under the SMP include groundwater monitoring. If redevelopment of the Site occurs, then excavation into residual soil and soil sampling may also occur.

#### J.1.6 Task/Operation Health and Safety Analysis

This section presents health and safety analyses for groundwater monitoring and sampling and potential excavations into residual soil. In general, FPM will employ one to two persons at the Site. No excavation into residual soil, monitoring or sampling will be conducted by contractors without the presence of an FPM representative onsite. In the event that the HSO is not present on the Site, the Assistant HSO will implement the HASP. Levels of personal protection mentioned in this section are defined in Section J.1.9.

##### ➤ Groundwater Monitoring and Sampling Safety Analysis

Groundwater monitoring and sampling activities will be performed by FPM personnel. In general, FPM will employ one to two persons at the Site. No water level measurements or groundwater sampling activities are anticipated to be performed by contractors.

Organic vapor concentrations will be monitored in the work zone during groundwater sampling utilizing a Photovac MicroTIP photoionization detector (PID). The PID will be "zeroed" by exposing it to ambient air prior to sampling and the upper range will be calibrated using a calibration gas of 98 to 100 parts per million (ppm) isobutylene. Background concentrations will then be established in the work zone prior to initiating work and recorded in the HSO's field book. Upon initiating work, PID readings will be obtained from the vicinity of the sampling areas. At the discretion of the HSO, PID readings may be obtained more frequently. All readings and observations will be recorded in the HSO's field book. PID monitoring will be conducted by FPM personnel.

**TABLE J.1.3.1**

**EMERGENCY TELEPHONE NUMBERS AND  
DIRECTIONS TO HUNTINGTON HOSPITAL**

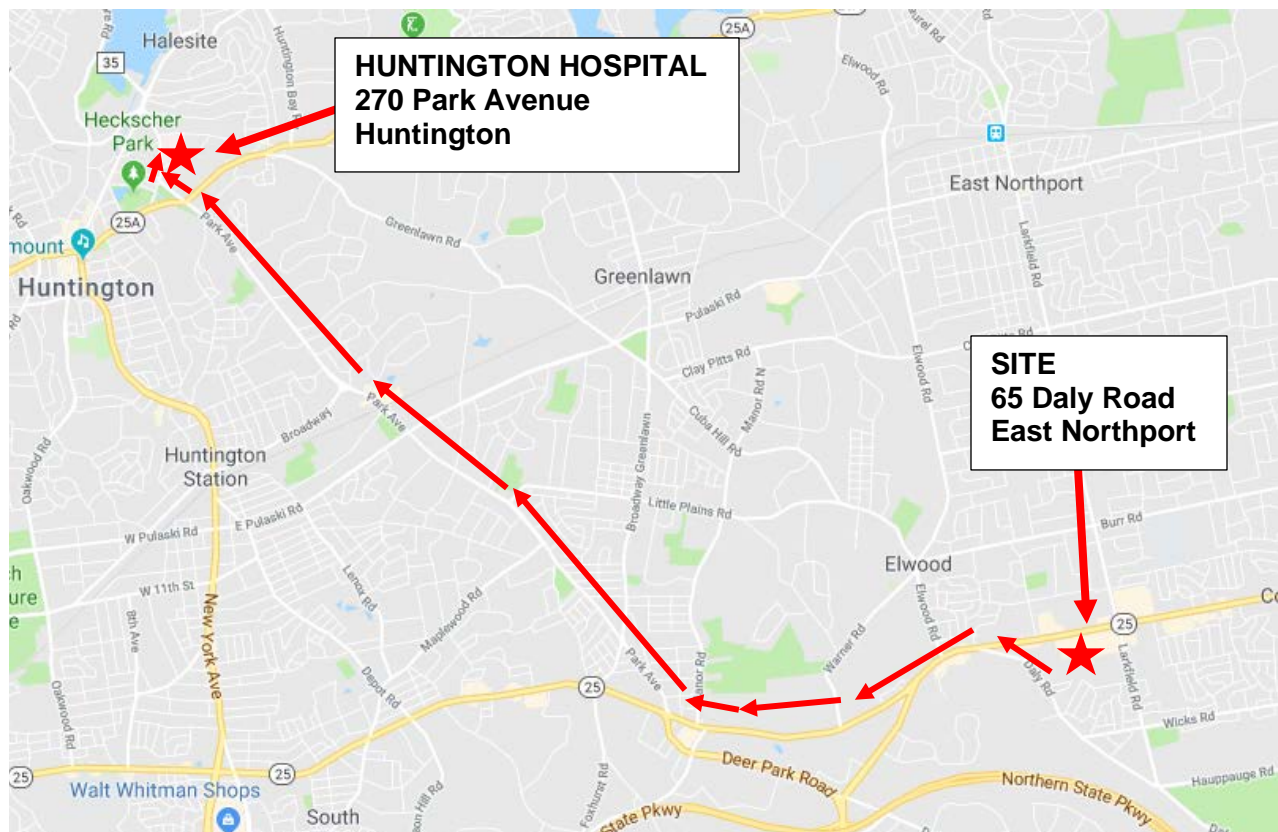
Police.....	911
Ambulance.....	911
Poison Control Center.....	212-689-9014
Huntington Hospital.....	631-351-2000

**FPM Contact Personnel (631-737-6200)**

Stephanie Davis, PG, Program Manager .....	Cell # 516-381-3400
John Bukoski, PG, Project Manager.....	Cell # 516-381-3535

**Directions to Huntington Hospital**

Exit the Site onto Daly Road and turn right. Travel approximately one-half mile to Jericho Turnpike (Route 25) and turn left. Travel approximately one mile west on Jericho Turnpike to Park Avenue and turn right onto Park Avenue. Go approximately three miles northwest on Park Avenue. Shortly after crossing Route 25A Huntington Hospital will be on the right at 270 Park Avenue. Follow the signs to the Emergency Room.



Steady-state PID readings greater than five ppm in the worker's breathing zone will require upgrading to Level C personal protective equipment (PPE), as described in Section J.1.9. Upon encountering PID levels greater than 50 ppm above background in the worker's breathing zone, all personnel will be evacuated from the work zone in the upwind direction. Specific evacuation routes will be discussed prior to commencement of work at each location based on the work location and wind direction. Level B conditions are not anticipated to be encountered; however, if Level B conditions arise, no Site work will be performed by FPM or contractors, a complete evaluation of the operation will be performed, and this HASP will be modified.

All personnel will be required to wear chemical-resistant gloves (such as butyl or nitrile) when the potential for dermal contact with groundwater is possible. This will include cleaning and handling of retrieved sampling equipment, water level indicators, pumps, and/or rope from the boreholes or wells. Dermal contact with groundwater and equipment that has been in contact with groundwater will be avoided. For handling sample containers, thin nitrile gloves may be used if dexterity is required. In addition, eye protection will be worn by samplers during periods when the potential for splashing of groundwater is present, such as during well purging.

➤ Excavation into Residual Soil Safety Analysis

Excavation into residual soil is not anticipated during site management activities but may occur during construction or other subsurface activities in the very limited areas where residual soil is present. Sampling may also occur if residual soil is disturbed or removed. Excavation, stockpiling, loading, and other activities associated with residual soil will be performed by an environmental remedial contractor with oversight by FPM. Soil sampling, if conducted, will be performed by an FPM environmental professional.

Excavation may involve the use of heavy equipment. Safety concerns include risk of injury due to being struck by equipment, being trapped between moving equipment parts, being struck by dropped materials, and hearing damage due to equipment noise. All personnel will take precautions against these risks when working in the vicinity of heavy equipment by being aware of equipment locations and movement, by wearing steel-toed boots and hard hats, and by using hearing protection if necessary. Site personnel who have not previously worked in the vicinity of heavy equipment will be paired with an experienced person for at least one day to familiarize themselves with heavy equipment operations and safety procedures. All mobile equipment will be equipped with audible alarms to indicate when the equipment is being operated in reverse.

Excavation procedures will result in open excavations at the Site. To minimize risks associated with open excavations, an effort will be made to minimize the number of open excavations. Any inactive excavations will be either closed or barricaded with construction fencing or other devices so as to minimize hazards. At the close of each working day, any excavations that are not closed will be secured. Excavations will not be left open during weekends or following the completion of excavation activities.

Excavation activities in areas of residual soil may result in exposure to subsurface soil vapors. During these activities, a calibrated PID with a 10.6 ev bulb will be used by the HSO to screen vapors in the work zone. The PID will be "zeroed" by exposing it to ambient air prior to excavation activities and the upper range will be calibrated using calibration gas of 98 to 100 ppm isobutylene. Background concentrations will then be established in the work zone prior to the commencement of excavation activities and recorded in the HSO's field book. Level C PPE will be donned if steady-state concentrations exceed five ppm above background. Steady-state readings, for this purpose, will be defined as readings exceeding five ppm above background for a minimum of ten seconds. Level C personal protection may include full-face air-purifying respirators with dust and



organic vapor cartridges (PPE is described in greater detail in Section J.1.9). All FPM and contractor personnel must be properly trained and fit-tested prior to donning respirators. If, at any time, PID readings exceed steady-state levels greater than 50 ppm above background or any conditions exist which the HSO determines will require Level B personal protective equipment, all work at the Site will cease immediately and all personnel will evacuate the work zone. Evacuation will occur in the upwind direction if discernable. Level B conditions are not anticipated to be encountered; however, if Level B conditions arise, no Site work will be performed by environmental professionals or contractors. A complete re-evaluation of the operation will be performed and this HASP will be modified.

To minimize the potential for dust inhalation at the Site, during excavations into residual soil the HSO will assess wind, vegetation, and soil moisture conditions and, if deemed necessary by the HSO, the affected area(s) will be wetted with potable water to suppress dust. If this measure is determined to be ineffective, the HSO may decide to upgrade personal protection to Level C respiratory protection to include respirators with dust cartridges. If extremely windy and dusty conditions exist, the HSO may choose to implement additional dust suppression measures or to postpone the excavation until such time as conditions improve.

All site personnel will be required to wear chemical-resistant nitrile gloves when the potential for dermal contact with Site residual soil is possible. Dermal contact with residual soil and equipment that has been in contact with residual soil will be avoided. Gloves will be periodically examined and will be discarded and replaced if indications of wear or deterioration are noted.

All excavations into residual soil will be inspected and documented daily by the HSO prior to the commencement of work activities. Evidence of cave-ins, sloughing, or surface cracks of excavations will result in the cessation of work until the necessary corrective measures/precautions are undertaken to protect workers.

Although minimal risks are associated with shallow open excavations, the work area will be secured with fencing and other devices to limit access. Any excavations that exceed five feet in depth will be additionally barricaded with construction fencing or other devices at the close of each working day so as to minimize their hazards. There will be no personnel entry into excavations exceeding five feet in depth unless the excavation is properly shored or the sides are laid back to a slope of not more than 1 on 1. A stairway, ladder, ramp, or other safe means of egress will be located in excavations that are four feet or more in depth so as to require no more than 25 feet of lateral travel for workers. Workers will not work in excavations with accumulated water.

Materials or equipment that could affect the stability of excavations or fall into excavations shall be placed at least five feet from the edges of open excavations.

➤ Other Safety Considerations

• COVID-19

If the COVID-19 pandemic is continuing at the time that field work is performed, then appropriate health and safety protocols will be implemented to prevent the spread of the virus. Based on information available at this time, these protocols will include social distancing, wearing of face coverings when working in indoor situations or when social distancing cannot be assured, frequent hand washing, and sanitizing of frequently-touched surfaces. Such protocols are already in place in FPM offices and while travelling for business purposes and, therefore, this HASP provides specific protocols for field work only. These protocols will be applicable to all FPM personnel and to subcontractor personnel while they are at the work site.



Social distancing will be accomplished by ensuring that workers remain at least six feet apart, as feasible, during field activities, including travel to and from field sites and while working in the field. This may be accomplished by having workers travel in separate vehicles, establishing separate work stations while onsite, and coordinating closely so that social distancing can be maintained.

Face coverings that fully cover the nose and mouth will be worn at all times while indoor work is performed or when social distancing cannot be assured, such as when travel in separate vehicles is not possible and when working cooperatively in the field with other personnel. Face coverings may be disposable single-use coverings that will be discarded each day or when they become soiled or damaged. FPM will provide disposable single-use coverings for all field personnel as needed. Field personnel may also choose to use cloth face coverings, provided they are maintained by the personnel in a clean and functional condition. If field personnel are working outdoors and alone, where there is no reasonable potential for compromised social distancing, then they do not need to wear a face covering at that time.

Field personnel will be encouraged to wash their hands frequently and potable water and hand soap will be maintained onsite for this purpose. Hand sanitizer may also be used, but only when the potential for sample cross-contamination is not present.

Frequently-touched surfaces, such as door handles, shared hand equipment, and similar items, will be sanitized on a daily basis prior to the start of work and if the affected surfaces become soiled. Commercial sanitizing products will be used for this purpose. Sanitizing will be performed on a limited basis if the potential for sample cross-contamination is present. Steps will be taken to reduce the need for sanitizing by assigning designated personnel to specific hand-held field equipment and wearing disposable gloves when handling shared equipment or frequently-touched surfaces.

These procedures will be reviewed at the time that field work is initiated and modified as needed in accordance with then-current NYSDOH and federal Center for Disease Control (CDC) recommendations and requirements.

- Noise

During site management activities that may generate potentially harmful levels of noise, the HSO will monitor noise levels with a Realistic™ hand-held sound level meter. Noise levels will be monitored in decibels (dBs) in the A-weighted, slow-response mode. Noise level readings which exceed the 29 CFR 1910.95 permissible noise exposure limits will require hearing protection (see Table J.1.6.1 for Permissible Noise Exposures).

Hearing protection will be available to all Site workers and will be required for exceedance of noise exposure limits. The hearing protection will consist of foam, expansion-fit earplugs (or other approved hearing protection) with a noise reduction rating of at least 29 dB. Hearing protection must alleviate worker exposure to noise to an eight-hour time-weighted average of 85 dB or below. In the event that the hearing protection is inadequate, work will cease until a higher level of hearing protection can be incorporated.

**TABLE J.1.6.1**  
**PERMISSIBLE NOISE EXPOSURES\***

Duration Per Day Hours	Sound Level dBA Slow Response
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
½	110

Notes: When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions:  $C_1/T_1 + C_2/T_2 + \dots + C_n/T_n$  exceeds unity, then, the mixed exposure should be considered to exceed the limit value.  $C_n$  indicates the total time of exposure at a specified noise level, and  $T_n$  indicates the total time of exposure permitted at that level.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

\*Standards derived from 29 CFR 1910.95

- Slip/Trip/Fall Preventative Measures

To reduce the potential for slipping, tripping, or falling, the work zone will be kept clear of unnecessary equipment. In addition, all Site workers will be required to wear work boots with adequate tread to reduce the potential for slipping (work boots must be leather or chemical-resistant and contain steel toes and steel shanks).

- Insects

Potential insect problems include, but are not limited to stinging insects such as bees, wasps, and hornets, and ticks. Prior to commencement of work, each work area will be surveyed for nests and hives to reduce the possibility of disturbing stinging insects. In addition, each Site worker will be asked to disclose any allergies related to insect stings or bites. The worker will be requested to keep his or her anti-allergy medicine on Site.

Tick species native to Long Island consist of the pinhead-sized deer tick and the much-larger dog tick. Ticks are likely to exist at the Site due to the presence of suitable habitat. All Site workers will be advised to avoid walking through vegetated areas and will be advised to check for ticks on clothing periodically.

- Potential Electrical and Other Utility Hazards

Potential electric hazards consist mainly of overhead and underground power lines. Other site utilities that may present hazards include telephone lines, gas lines, sewer lines, water lines, and

other overhead or underground utilities. Prior to commencement of work in the areas of the Site to which this HASP applies, all work locations will be inspected with respect to overhead lines. Work involving heavy equipment will not be performed when the horizontal distance between the equipment and overhead wires is less than 30 feet.

Underground potential utility hazards will be minimized by contacting the One-Call service to provide markouts of the utilities beneath adjoining public streets. A geophysical survey may also be utilized to mark out subsurface utilities prior to intrusive activities.

- Heat/Cold Stress

Heat stress may become a concern especially if protective clothing is donned that will decrease natural ventilation. To assist in reducing heat stress, an adequate supply of water or other liquids will be staged on the Site and personnel will be encouraged to rehydrate at least every two hours even if not thirsty. In addition, a shady rest area will be designated to provide shelter during sunny or warm days and Site workers will break for at least 10 minutes every two hours in the rest area, and, in very hot weather, workers wearing protective clothing may be rotated.

Indications of heat stress range from mild (fatigue, irritability, anxiety, decreased concentration, dexterity or movement) to fatal. Medical help will be obtained for serious conditions.

Heat-related problems are:

- Heat rash: caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreases ability to tolerate heat.
- Heat cramps: caused by profuse perspiration with inadequate fluid intake and chemical replacement (especially salts). Signs: muscle spasm and pain in the extremities and abdomen.
- Heat exhaustion: caused by increased stress on various organs to meet increased demands to cool the body. Signs: shallow breathing; pale, cool, moist skin; profuse sweating; dizziness and lassitude.
- Heat stroke: the most severe form of heat stress. Can be fatal. Medical help must be obtained immediately. Body must be cooled immediately to prevent severe injury and/or death. Signs: red, hot, dry skin; no perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

Cold exposure is a concern if work is conducted during cold weather, marginally cold weather during precipitation periods, or moderate to high wind periods. To assist in reducing cold exposure the following measures will be taken when cold exposure concerns are present:

- All personnel will be required to wear adequate and appropriate clothing. This will include head gear to prevent the high percentage loss of heat that occurs in this area (thermal liners for hard hats if hard hats are required).
- A readily-available warm shelter will be identified near the work zone.
- Work and rest periods will be scheduled to account for the current temperature and wind velocity conditions.

- Work patterns and the physical condition of workers will be monitored and personnel will be rotated, as necessary.
- Indications of cold exposure include shivering, dizziness, numbness, confusion, weakness, impaired judgment, impaired vision, and drowsiness. Medical help will be obtained for serious conditions if they occur.

Cold exposure-related problems are:

- Frost bite: Ice crystal formation in body tissues. The restricted blood flow to the injured part results in local tissue destruction.
- Hypothermia: Severe exposure to cold temperature resulting in the body losing heat at a rate faster than the body can generate heat. The stages of hypothermia are shivering, apathy, loss of consciousness, decreasing pulse and breathing rate, and death.

#### ➤ The Buddy System

All site management activities will be conducted by pairing off the Site workers in groups of two (or three if necessary). Each person (buddy) will be able to provide his or her partner with assistance, observe his or her partner for signs of chemical, cold, or heat exposure, periodically check the integrity of his or her partner's protective clothing, and notify the HSO or others if emergency help is needed. The buddy system will be instituted at the beginning of each work day. If new workers arrive on Site, a buddy will be chosen prior to the new worker entering the work zone.

#### ➤ Site Communications

Two sets of communication systems will be established at the Site for site management activities: internal communication among personnel onsite, and external communication between onsite and offsite personnel. Internal communication will be used to alert team members to emergencies, pass along safety information such as heat stress check, protective clothing check, etc., communicate changes in the work to be accomplished, and maintain Site control. Due to ambient noise, verbal communications may be difficult at times. The HSO will carry a whistle (and compressed air horn if respirators are donned) to signal Site workers. A single whistle blast will be the signal to immediately evacuate the work zone through the access control point. This signal will be discussed with all Site workers prior to commencement of work.

An external communication system between onsite and offsite personnel will be established to coordinate emergency response, report to the Project Manager, and maintain contact with essential offsite personnel. A field telephone will be available at all times in the HSO's vehicle. In addition, a backup telephone will be identified prior to the commencement of site management activities and this location will be relayed to all Site workers.

#### ➤ General Safe Work Practices

Standing orders applicable during site management operations are as follows:

- No smoking, eating, drinking, or application of cosmetics in the work zone.
- No matches or lighters in the work zone.

- All Site workers will enter/exit work zone through the Site access point.
- Any signs of contamination, radioactivity, explosivity, or unusual conditions will require evacuating the Site immediately and reporting the information to the HSO.
- Loose-fitting clothing and loose long hair will be prohibited in the work zone during heavy equipment operations.
- A signal person will direct the backing of work vehicles.
- Equipment operators will be instructed to check equipment for abnormalities such as oozing liquids, frayed cables, unusual odors, etc.

#### J.1.7 Personnel Training Requirements

All FPM personnel and contractor personnel conducting site management activities will receive adequate training prior to entering the Site. FPM and contractor personnel will, at a minimum, have completed OSHA-approved, 40-hour hazardous materials Site safety training and OSHA-approved, eight-hour safety refresher course within one year prior to commencing field work. In addition, each worker must have a minimum of three days of field experience under the direct supervision of a trained, experienced supervisor.

Prior to site management field work, the HSO will conduct an in-house review of the project with respect to health and safety with all FPM personnel who will be involved with field work at the Site. The review will include discussions of signs and symptoms of chemical exposure and heat/cold stress that indicate potential medical emergencies. In addition, review of PPE will be conducted to include the proper use of air-purifying respirators.

#### J.1.8 Medical Surveillance Program

All workers conducting site management activities must participate in a medical surveillance program in accordance with 29 CFR 1910.120. A medical examination and consultation must have been performed within the last twelve months to be eligible for field work.

The content of the examination and consultation will include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances, health hazards, and fitness for duty including the ability to wear required personal protective equipment under conditions (i.e., temperature extremes) that may be expected at the work Site.

All medical examinations and procedures shall be performed by, or under the supervision of, a licensed physician. The physician shall furnish a written opinion containing:

- The results of the medical examination and tests;
- The physician's opinion as to whether the employee has any detected medical conditions which would place the worker at increased risk of material impairment of the employee's health from work in hazardous waste operations;
- The physician's recommended limitations upon the worker assigned to the work; and
- A statement that the worker has been informed by the physician of the results of the medical examination and any further examination or treatment.
- An accurate record of the medical surveillance will be retained. The record will consist of at least the following information:

- The name and social security number of the employee;
- The physician's written opinions, recommended limitations, and results of examinations and tests; and
- Any worker medical complaints related to exposure to hazardous substances.

#### J.1.9 Personal Protective Equipment

##### ➤ General Considerations

The two basic objectives of the personal protective equipment (PPE) are to protect the wearer from safety and health hazards, and to prevent the wearer from incorrect use and/or malfunction of the PPE.

Potential Site hazards have been discussed previously in Section J.1.6. The duration of individual site management activities is estimated to be periods of one to two days. All work is expected to be performed during daylight hours and workdays, in general, are expected to be eight to ten hours in duration. Any work performed beyond daylight hours will require the permission of the HSO. This decision will be based on the adequacy of artificial illumination and the type and necessity of the task being performed.

Personal protection levels for the site management activities, based on past work at the Site, are anticipated to be Level D with a very limited possibility of upgrading to Level C. The equipment included for each level of protection is provided as follows:

##### ➤ Level C Protection

Level C personnel protective equipment includes:

- Air-purifying respirator, full-face
- Chemical-resistant clothing includes: Tyvek™ (spunbonded olefin fibers) for particulate and limited splash protection or Saranex™ (plastic film-laminated Tyvek) for permeation resistance to solvents.
- Coveralls\*, or
- Long cotton underwear\*
- Gloves (outer), chemical-resistant
- Gloves (inner), chemical-resistant
- Boots (outer), leather or chemical-resistant, steel toe and shank.
- Boot covers (outer), chemical-resistant (disposable)\*
- Hard hat (face shield)\*
- Escape mask\*
- 2-way radio communications (inherently safe)\*

(\*) optional

Meeting all of these criteria permits use of Level C protection:

- Oxygen concentrations are not less than 19.5% by volume.
- Measured air concentrations of identified substances will be reduced by the respirator below the substance's threshold limit value (TLV).
- Atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect any body area left unprotected by chemical-resistant clothing.
- Job functions do not require self-contained breathing apparatus.
- Direct readings are below 50 ppm on the PID.

➤ Level D Protection

Personnel protective equipment:

- Coveralls
- Gloves\*
- Boots/shoes, leather or chemical-resistant, steel toe and shank
- Safety glasses or chemical splash goggles\*
- Hard hat (face shield\*)
- Escape mask\*

(\*) optional

Meeting any of these criteria allows use of Level D protection:

- No contaminant levels above 5 ppm organic vapors or dusty conditions are present.
- Work functions preclude splashes, immersion, or the reasonable potential for unexpected inhalation of any chemicals above the TLV.

➤ Additional Considerations for Selecting Levels of Protection

Another factor that will be considered in selecting the appropriate level of protection is heat and physical stress. The use of protective clothing and respirators increases physical stress, in particular, heat stress on the wearer. Chemical protective clothing greatly reduces natural ventilation and diminishes the body's ability to regulate its temperature. Even in moderate ambient temperatures, the diminished capacity of the body to dissipate heat can result in one or more heat-related problems.

All chemical protective garments can be a contributing factor to heat stress. Greater susceptibility to heat stress occurs when protective clothing requires the use of a tightly-fitted hood against the respirator face piece, or when gloves or boots are taped to the suit. As more body area is covered, less cooling takes place, increasing the probability of heat stress.

Wearing protective equipment also increases the risk of accidents. It is heavy, cumbersome, decreases dexterity, agility, interferes with vision, and is fatiguing to wear. These factors all increase physical stress and the potential for accidents. In particular, the necessity of selecting a level of protection will be balanced against the increased probability of heat stress and accidents.

➤ Donning and Doffing Ensembles

• Donning an Ensemble

A routine will be established and practiced periodically for donning a Level C ensemble. Assistance may be provided for donning and doffing since these operations are difficult to perform alone. Table J.1.9.1 lists sample procedures for donning a Level C ensemble. These procedures should be modified depending on the particular type of suit and/or when extra gloves and/or boots are used.

• Doffing an Ensemble

Exact procedures for removing Level C ensembles must be established and followed to prevent contaminant migration from the work area and transfer of contaminants to the wearer's body, the doffing assistant, and others. Doffing procedures are provided in Table J.1.9.2. These procedures should be performed only after decontamination of the suited worker. They require a suitably attired assistant. Throughout the procedures, both worker and assistant should avoid any direct contact with the outside surface of the suit.

➤ Respirator Fit Testing

The fit or integrity of the facepiece-to-face seal of a respirator affects its performance. Most facepieces fit only a certain percentage of the population; thus, each facepiece must be tested on the potential wearer in order to ensure a tight seal. Facial features such as scars, hollow temples, very prominent cheekbones, deep skin creases, dentures or missing teeth, and the chewing of gum and tobacco may interfere with the respirator-to-face seal. A respirator shall not be worn when such conditions prevent a good seal. The worker's diligence in observing these factors shall be evaluated by periodic checks. Fit testing will comply with 29 CFR 1910.1025 regulations.

➤ Inspection

The PPE inspection program will entail five different inspections:

- Inspection and operational testing of equipment received from the factory or distributor;
- Inspection of equipment as it is issued to workers;
- Inspection after use;
- Periodic inspection of stored equipment; and
- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.

The inspection checklist is provided in Table J.1.9.3. Records will be kept of all inspection procedures. Individual identification numbers will be assigned to all reusable pieces of equipment and records should be maintained by that number. At a minimum, each inspection should record the ID number, date, inspector, and any unusual conditions or findings. Periodic review of these records may indicate an item or type of item with excessive maintenance costs or a particularly high level of down-time.



**TABLE J.1.9.1  
SAMPLE LEVEL C DONNING PROCEDURES**

1. Inspect the clothing and respiratory equipment before donning (see Inspection in subsection B.1.7).
2. Adjust hard hat or headpiece if worn, to fit user's head.
3. Standing or sitting, step into the legs of the suit; ensure proper placement of the feet within the suit; then gather the suit around the waist.
4. Put on chemical-resistant safety boots over the feet of the suit. Tape the leg cuff over the tops of the boots.
5. Don the respirator and adjust it to be secure, but comfortable.
6. Perform negative and positive respirator facepiece seal test procedures.
  - To conduct a negative-pressure test, close the inlet part with the palm of the hand or squeeze the breathing tube so it does not pass air, and gently inhale for about 10 seconds. Any inward rushing of air indicates a poor fit. Note that a leaking facepiece may be drawn tightly to the face to form a good seal, giving a false indication of adequate fit.
  - To conduct a positive-pressure test, gently exhale while covering the exhalation valve to ensure that a positive pressure can be built up. Failure to build a positive pressure indicates a poor fit.
7. Depending on type of suit:
  - Put on inner gloves (surgical gloves).
  - Additional overgloves, worn over attached suit gloves, may be donned later.
8. Put on hard hat.
9. Have assistant observe the wearer for a period of time to ensure that the wearer is comfortable, psychologically stable, and that the equipment is functioning properly.

**TABLE J.1.9.2  
DOFFING PROCEDURES**

1. Remove any extraneous or disposable clothing, boot covers, outer gloves, and tape.
2. Remove respirator by loosening straps and pulling straps over the top of the head and move mask away from head. Do not pull mask over the top of the head.
3. Remove arms, one at a time, from suit, avoiding any contact between the outside surface of the suit and wearer's body and lay the suit out flat behind the wearer. Leave internal gloves on, if any.
4. Sitting, if possible, remove both legs from the suit.
5. After suit is removed, remove internal gloves by rolling them off the hand, inside out.

**TABLE J.1.9.3**  
**PPE INSPECTION CHECKLIST**  
CLOTHING

Before use:

- Determine that the clothing material is correct for the specified task at hand.
- Visually inspect for imperfect seams, non-uniform coatings, tears, and/or malfunctioning closures.
- Hold up to light and check for pinholes.
- Flex product and observe for cracks or other signs of deterioration.
- If the product has been used previously, inspect inside and out for signs of chemical attack, including discoloration, swelling, and/or stiffness.

During the work task, periodically inspect for:

- Evidence of chemical attack such as discoloration, swelling, stiffening, and softening. Keep in mind, however, that chemical permeation can occur without any visible effects.
- Indication of physical damage, including closure failure, tears, punctures, and/or seam discontinuities.

GLOVES

Before use:

- Pressurize glove to check for pinholes. Either blow into glove, then roll gauntlet toward fingers or inflate glove and hold under water. In either case, no air should escape.

AIR-PURIFYING RESPIRATORS

- Inspect air-purifying respirators before each use to be sure they have been adequately cleaned.
- Check material conditions for signs of pliability, deterioration, and/or distortion.
- Examine cartridges to ensure that they are the proper type for the intended use, the expiration date has not been passed, and they have not been opened or used previously.
- Check faceshields and lenses for cracks, crazing, and/or fogginess.
- Air-purifying respirators will be stored individually in resealable plastic bags.

➤ Storage

Clothing and respirators will be stored properly to prevent damage or malfunction due to exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact. Storage procedures are as follows:

- Clothing: Potentially-contaminated clothing will be stored in a well-ventilated area separate from street clothing, with good air flow around each item, if possible. Different types and materials of clothing and gloves will be stored separately to prevent issuing the

wrong materials by mistake, and protective clothing will be folded or hung in accordance with manufacturer's recommendations.

- Respirators: After each use air-purifying respirators will be dismantled, washed, and placed in sealed plastic bags.

➤ PPE Maintenance

Specialized PPE maintenance will be performed only by the factory or an authorized repair person. Routine maintenance, such as cleaning, will be performed by the personnel to whom the equipment is assigned. Respirators will be cleaned at the end of each day with alcohol pads or, preferably, by washing with warm soapy water.

➤ Decontamination Methods

All personnel, clothing, equipment, and samples leaving the work zone area of the Site must be decontaminated to remove any harmful chemicals that may have adhered to them. Decontamination methods either (1) physically remove contaminants (2) inactivate contaminants by chemical detoxification or disinfection/sterilization, or (3) remove contaminants by a combination of both physical and chemical means. In many cases, gross contamination can be removed by physical means involving dislodging/displacement, rinsing, wiping off, and

evaporation. Contaminants that can be removed by physical means include dust, vapors, and volatile liquids. All reusable equipment will be decontaminated by rinsing in a bath of detergent and water (respirators, gloves to be reused). Monitoring equipment will be decontaminated by wiping with paper towels and water. All used PPE to be discarded will be disposed offsite as solid waste.

The effectiveness of the decontamination will be evaluated near the beginning of Site activities and will be modified if determined to be ineffective. Visual observation will be used for this purpose. The HSO will inspect decontaminated materials for discoloration, stains, corrosive effects, visible dirt, or other signs of possible residual contamination.

## **J.2 Community Air Monitoring Plan**

This Community Air Monitoring Plan (CAMP) will be implemented at the Site by FPM during intrusive activities involving residual soil and sampling of impacted Site media. Due to the nature of the residual impacts to groundwater, there is a limited potential for organic vapor emissions as these activities occur. In addition, there is the potential for dust to be associated with excavation and other intrusive activities. To address these concerns, organic vapor monitoring and dust monitoring will be performed.

Any CAMP monitoring results that exceed the action levels described below will be reported (or notice provided by another arrangement acceptable to the NYSDEC) when identified if a NYSDEC representative is present at the Site or within two hours by phone call or email to the NYSDEC Project manager when no NYSDEC representative is onsite. Exceedances of the CAMP action levels will also be summarized in an interim CAMP report, including the duration of the exceedance(s) and any response actions taken.

### **J.2.1 Organic Vapor Monitoring**

Under the CAMP, organic vapor concentrations will be monitored at the boundaries of the work zone. It will be the responsibility of the HSO to implement the plan and to ensure that proper action is taken in the event that any of the established action levels are exceeded.

To monitor organic vapors, a PID will be used and maintained in good operating condition. Calibration of the PID will be performed according to manufacturer's instructions. Background levels of organic vapors will be measured at the work zone boundary prior to beginning work and upwind of the work area periodically using a PID. Monitoring may be performed more frequently at the discretion of the HSO. Organic vapors will be monitored continuously at the downwind perimeter of the work area during ground intrusive activities.

PID readings will be recorded in the field logbook for both background and work area perimeter. Logbook recordings will include the time, location, and PID readings observed. Downwind perimeter levels will be recorded in the log whenever the level reaches 5 ppm above the background along with the action(s) taken to mitigate the level. If the level of organic vapors exceeds 5 ppm above the background at the downwind perimeter of the work area, work activities will be halted and monitoring continued. The vapor emission response plan will then be implemented.

#### **J.2.1.1 Vapor Emission Response Plan**

The vapor emission response plan includes the following trigger levels and responses:

- **Greater than 5 ppm at perimeter:**

In the event the level of organic vapors exceeds 5 ppm above the background at the downwind perimeter of the work area, activities will be halted and monitoring continued. If the organic vapor level then decreases to below 5 ppm above background, work activities can resume but organic vapor readings will be obtained more frequently as directed by the HSO.

- 5 ppm to 25 ppm at perimeter and less than 5 ppm at the work zone boundary:

If the level of organic vapors is greater than 5 ppm but less than 25 ppm over background at the downwind perimeter of the work area, activities will be halted, the source of the vapors will be identified and corrective actions will be taken. Monitoring will be continued and activities will resume if the organic vapor concentration at half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over background. More frequent intervals of monitoring will be performed as directed by the HSO.

- Above 25 ppm at perimeter:

If the level of organic vapors is above 25 ppm at the perimeter of the work area, activities will be shut down. Should such a shutdown be necessary, downwind air monitoring will continue as directed by the HSO to confirm that organic vapor concentrations decrease. Actions will be taken to abate the source of vapor emissions and activities will not resume until the source is controlled.

#### J.2.1.2 Major Vapor Emission Response Plan

The Major Vapor Emission Response Plan shall automatically be placed into effect if:

- Efforts to abate the emission source are unsuccessful and levels above 5 ppm persist for more than 30 minutes in the 20-foot zone; or
- The vapor levels are greater than 10 ppm above background in the 20-foot zone.

Upon activation of the Major Vapor Emission Response Plan, the following activities will be undertaken:

- All emergency response contacts as listed in the HASP will be notified;
- Air monitoring will be conducted at 30-minute intervals within the 20-foot zone. If two successive readings below action levels are measured, air monitoring will be halted or modified as directed by the HSO; or
- If air monitoring readings remain above action levels, work will be halted and further measures taken to reduce organic vapors.

If a Major Vapor Emission Response Plan is implemented, the NYSDEC and NYSODH will be contacted within 24 hours.

#### J.2.2 Dust Monitoring

Dust monitoring will be performed during intrusive site management activities with the potential to create dust by using a Miniram personal monitor calibrated according to the manufacturer's instructions. The Miniram will be operated continuously at the downwind perimeter of the work zone during intrusive activities and the HSO will record the readings in the field logbook. If measurable dust levels are noted, then readings will also be obtained upwind of the work zone. If the downwind particulate level exceeds the upwind level by more than 100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), then dust suppression techniques will be employed or work will be halted or controlled such that dust levels are reduced at the downwind perimeter to within  $150 \mu\text{g}/\text{m}^3$  of the upwind level.

Reasonable fugitive dust suppression techniques will be employed during all intrusive site management activities that may generate fugitive dust. Particulate (fugitive dust) monitoring will be employed during the handling of potentially contaminated soil or when onsite activities may generate fugitive dust from exposed potentially contaminated soil.

Particulate monitoring will be performed using a real-time particulate monitor and shall monitor particulate matter less than ten microns (PM10) with minimum performance standards in accordance with Appendix 1B of DER-10. Particulate levels will be monitored upwind and immediately downwind of the working area and integrated over a period not to exceed 15 minutes. To ensure the validity of the fugitive dust measurements, appropriate QA/QC measures will be employed, including periodic instrument calibration, operator training, daily instrument performance (span) checks, and record-keeping on daily log sheets.

The action level for fugitive dust will be established at  $150 \mu\text{g}/\text{m}^3$  (15-minute average). If particulate levels are detected in excess of  $150 \mu\text{g}/\text{m}^3$ , the upwind background level will be confirmed immediately. If the working area particulate measurement is greater than  $100 \mu\text{g}/\text{m}^3$  above the background level, additional dust suppression techniques will be implemented to reduce the generation of fugitive dust and corrective action will be taken to protect onsite personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of PPE for onsite personnel and implementing additional dust suppression techniques. Should the action level of  $150 \mu\text{g}/\text{m}^3$  continue to be exceeded, work will stop and the NYSDEC will be notified as described in Section J.2 above. The notification will include a description of the control measures implemented to prevent further exceedances.

Fugitive dust from contaminated soil that migrates offsite has the potential for transporting contaminants offsite. Although there may be situations when the monitoring equipment does not measure PM10 at or above the action level, visual observation may indicate that dust is leaving the Site. If dust is observed leaving the working area, additional dust suppression techniques will be employed. Activities that have a high dusting potential, such as solidification and treatment involving materials like kiln dust and lime, may require special measures to be considered.

The following techniques have been shown to be effective for controlling the generation and migration of dust during construction activities and will be used as needed during site management activities at the Site:

- Wetting equipment and excavation faces;
- Spraying water on buckets during excavation and dumping;
- Hauling materials in properly tarped or watertight containers;
- Restricting vehicle speeds to 10 mph;
- Covering excavated areas and material after excavation activity ceases; and
- Reducing the excavation size and/or number of excavations.

When techniques involving water application are used, care will be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will be considered to prevent overly wet conditions, conserve water, and provide an effective means of suppressing fugitive dust.

Evaluation of weather conditions is also necessary for proper fugitive dust control. When extreme wind conditions may make dust control ineffective, remedial actions may be suspended until wind speeds are reduced.

### J.2.3 Noise Monitoring

Due to the use of heavy equipment, there is a potential for noise to impact the surrounding community during certain site management activities. Work will be performed only during normal working hours when ambient noise levels are elevated due to ongoing activities in the surrounding community, which includes commercial and industrial uses. Therefore, the potential for noise impacts on the surrounding community is low.

However, if pedestrians or residents are present in the Site vicinity, it is possible for noise impacts to occur. To address these concerns and other safety concerns, pedestrians will be barred from entering the work zone. In addition, the HSO will periodically monitor noise levels at the work zone boundary and the closest property boundary with a Realistic<sup>™</sup> hand-held sound level meter during operation of powered equipment. Noise levels will be monitored in dBs in the A-weighted, slow-response mode. If noise level readings exceed an eight-hour time-weighted average of 85 dB at the work zone boundary or at the closest property boundary, the HSO will take appropriate measures to reduce noise exposure beyond these boundaries. These measures may include extension of the work zone boundary, issuing appropriate hearing protection devices as discussed in Section J.1.6 of this work plan, or other measures, as appropriate. In the event that the noise exposure measures are inadequate, work will cease until noise levels can be reduced to below 85 dB at the work zone boundary and/or at the closest property boundary.

### J.2.4 Excavation Safety Issues

Site management activities are not anticipated to result in open excavations or trenches at the Site. However, if excavations are conducted in areas where residual soil is present, then an open excavation or trench may result. Although the majority of the Site is fenced, to minimize risks associated with open excavations and trenches during site management, an effort will be made to minimize the number of open excavations and trenches. Any inactive excavations or trenches will either be closed or will be barricaded with construction fencing or other devices so as to minimize their hazards. Barricades will include fencing materials that completely enclose any open excavations/ trenches and extend to a height of at least three feet above grade. Barricades will be secured by posts driven into the ground or by weighted drums or pylons such that they cannot readily be removed. At the close of each working day, any excavations/trenches that are not closed will also be secured. Excavations/trenches will not be left open during weekends or following the completion of the work.