
ADDENDA I
REMEDIAL
INVESTIGATION
WORKPLAN



**REMEDIAL INVESTIGATION WORK PLAN
FORMER DAMASCUS ROAD LANDFILL
SITE NO. _____**

Prepared for:

**Town of Southampton
116 Hampton Road
Southampton, NY 11968**

Prepared by:

**Amec Environment & Engineering, PC
Bayside, NY**

Amec No. 3612182388

MARCH 2019



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Submitted by:

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TABLE OF CONTENTS

GLOSSARY OF ACRONYMS AND ABBREVIATIONS.....v

1.0 INTRODUCTION1

2.0 SITE BACKGROUND AND PHYSICAL SETTING1

 2.1 SITE LOCATION/DESCRIPTION.....1

 2.2 SITE HISTORY.....2

 2.3 PREVIOUS INVESTIGATIONS.....2

 2.4 PHYSICAL SETTING3

 2.5 FILE REVIEW4

3.0 WORK PLAN OBJECTIVES, SCOPE, AND RATIONALE5

 3.1 WORK PLAN OBJECTIVES5

 3.2 SCOPE OF WORK AND RATIONALE5

 3.3 GENERAL FIELD ACTIVITIES.....6

 3.3.1 Mobilization6

 3.3.2 Health and Safety7

 3.3.2 Community Air Monitoring Program7

 3.3.3 Decontamination Procedures7

 3.3.4 Investigation Derived Waste Management7

 3.4 INVESTIGATION ACTIVITIES.....8

 3.4.1 Utility Clearance8

 3.4.2 Drilling of Groundwater Profile Borings Downgradient of the Landfill8

 3.4.3 Drilling, Installation and Sampling of Off-Site Groundwater Monitoring
 Wells9

 3.4.4 Drilling of Groundwater Profile Borings Around the Southern and Eastern
 Boundaries of the Landfill10

 3.4.5 Drilling, Installation and Sampling of Landfill Boundary Groundwater
 Monitoring Wells10

 3.4.6 Installation of Soil Borings on the Landfill.....10

 3.4.7 Installing, Developing, and Sampling of Temporary Water Table Monitoring
 Wells on the Landfill.....11

 3.4.8 Conducting Horizontal and Vertical Survey of the Sample Locations and
 Monitoring Wells and Preparing a Water Table Elevation Map.....12

4.0 REMEDIAL INVESTIGATION AND REPORTING13

 4.1 REPORTING13

 4.2 SCHEDULE14

5.0 REFERENCES.....15

LIST OF TABLES

1. PROPOSED FIELD TASKS, ANALYSIS AND RATIONALE
2. SAMPLE CONTAINER DETAILS FOR GROUNDWATER AND SOIL

LIST OF FIGURES

1. SITE LOCATION MAP
2. PROPOSED OFF-SITE BORINGS AND MONITORING WELLS
3. PROPOSED ON-SITE BORINGS AND MONITORING WELLS
4. TYPICAL MONITORING WELL DESIGN

APPENDICES

- APPENDIX A: SITE SPECIFIC QUALITY ASSURANCE PROJECT PLAN
- APPENDIX B: SITE SPECIFIC HEALTH AND SAFETY PLAN
- APPENDIX C: RECORDS SEARCH REPORT
- APPENDIX D: FIELD DATA RECORDS
- APPENDIX E: FIELD SAMPLING PROTOCOLS TO AVOID CROSS-CONTAMINATION OF PER AND POLYFLUOROALKYL SUBSTANCES

Certification

I, Eric Weinstock, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Work 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).



Eric Weinstock, NYSPG #229

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Amec	Amec Environment & Engineering, PC
BCP	Brownfield Cleanup Agreement
bgs	below ground surface
COC	Contaminant of Concern
DUSR	Data Usability Summary Report
EDR	Environmental Data Resources
EM	electromagnetic
°F	degrees Fahrenheit
FDR	Field Data Record
ft	foot/feet
GPR	ground penetrating radar
HASP	Health and Safety Plan
IDW	investigation-derived waste
msl	mean sea level
ng/L	nanogram per liter or parts per trillion
NY	New York
NYCRR	New York Codes, Rules, and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYDOS	New York Department of State
PCBs	polychlorinated biphenyls

GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

PDF	portable data file
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PPE	personal protection equipment
PVC	polyvinyl chloride
QA	Quality Assurance
QAPP	Quality Assurance Program Plan
QC	Quality Control
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
SC	Site Characterization
Site	Damascus Road Landfill
SVOC	semi-volatile organic compound
TAL	target analyte list
TCLP	toxicity characteristic leaching procedure
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
VOC	volatile organic compounds

1.0 INTRODUCTION

Amec Environment and Engineering, PC (Amec), has prepared this Remedial Investigation Work Plan (RIWP) on behalf of the Town of Southampton (the Volunteer) for the property located at the end of Damascus Road, East Quogue, Suffolk County, NY (the Site). A site location map is included as Figure 1. This RIWP presents the proposed investigation scope of work for the Site. The Volunteer has enrolled the Site in the Brownfield program under New York State Department of Environmental Conservation (NYDEC) for the cleanup and redevelopment of the property into a solar energy development facility. This RIWP has been prepared in accordance with the guideline set forth in NYSDEC’s DER-10 Technical Guidance for Site Investigation and Remediation.

The Quality Assurance Project Plan (QAPP) is presented in Appendix A; the Site-specific Health and Safety Plan (HASP) is presented in Appendix B.

2.0 SITE BACKGROUND AND PHYSICAL SETTING

Information collected by Amec for site historical activities include: a records search using Environmental Data Resources, Inc. (EDR), records review at the Town of Southampton, New York (NY), and interviews with Town employees. This information was reviewed to help prepare the scope of work for the RI field activities. The information collected from these sources is summarized below.

2.1 SITE LOCATION/DESCRIPTION

The Site currently consists of a 12.32-acre property comprised of vacant land. During the preparation of the RIWP there were no active operations at the Site. The former landfill is accessible through a gate at the end of Damascus Road, however, there is no gate or fencing around the perimeter of the Site. Beyond the entrance, the undeveloped land consists of a large open area in the center and forested areas or vegetation overgrowth on the remainder of the lot. The open areas of the Site include mounded ground and debris consisting of car parts, tires, and household waste scattered throughout. A well head still exists on the property and is assumed to be the well that was used to supply water to a former structure. This area is not serviced by public sewer, therefore it is assumed the structure was serviced with an on-site septic system. The Suffolk County tax map designates the subject property as District: 0900, Section: 288, Block: 01, Lot: 35 and District: 0900, Section: 314, Block: 02, Lot: 1.17 (Raynor, Marcks, & Carrington Surveying, 2006). The subject property is currently owned by the Town of Southampton. The neighborhood surrounding the property is a suburban and rural area of Suffolk County and adjacent land use consists primarily of residential properties.

2.2 SITE HISTORY

According to previous reports, the Site operated as a landfill receiving municipal waste from the 1930s until 1973. During the active operation of the landfill, the Site is reported to have received waste almost entirely from businesses and residences within the Village of Quogue. There is no apparent evidence that the former landfill received hazardous waste. After 1973, the Site was used for the occasional dumping of metal goods (such as old cars), landscaping debris, and fill material. Around 1975, an animal shelter was situated on the property and was serviced by an on-site well, a heating oil tank, and a septic system (D&B 2007, D&B 2009, and Amec 2018). Firemen have practiced using "jaws of life" hydraulic rescue tools on old cars located on the landfill. Other than that, the Town has no knowledge of any fire training being performed at the landfill.

2.3 PREVIOUS INVESTIGATIONS

Amec obtained and reviewed various reports which detail previous investigations completed at the subject property. The following presents a summary and findings of each investigation as reported.

Phase II Environmental Site Assessment by Dvirka and Bartilucci (D&B) dated January 2007 - Soil samples were collected from six locations. No groundwater samples were included in this investigation. A geophysical survey was also performed which determined that underground heating oil tank serving the animal shelter was removed. VOCs, SVOCs, pesticides and PCBs were not detected in the surface soil samples above the unrestricted use Soil Cleanup Objectives (SCOs). Of the metals tested, only zinc was detected above the unrestricted use SCO (NYSDEC, December 2006). None of the subsurface soil samples exceed the unrestricted SCOs for the five analytical parameter groups mentioned above. Analysis for per and poly-fluoroalkyl substances (PFAS) compounds was not conducted.

Supplemental Phase II Environmental Site Assessment by D&B dated December 2009 - An additional 15 subsurface soil samples were collect across the site. None of the samples contained VOCs or SVOCs at concentrations in excess of the unrestricted use SCOs. The pesticides DDT, DDE and DDD were detected at concentrations in excess of the residential SCOs. The PCB Arochlor 1254 was detected in excess of the unrestricted use SCO. The metal zinc was also detected at concentrations in excess of the residential use SCO. Analysis for PFAS compounds was not conducted.

NYSDEC Division of Materials Management, Interactive Landfill Initiative, Landfill Site Summary, Quogue Landfill, 2018 - The NYSDEC installed three wells on the landfill in January 2018. In February 2018, the NYSDEC arranged for sampling of three water table monitoring wells that were installed at the landfill. Groundwater samples were analyzed for VOCs, SVOCs, Metals, PFAS, anions,

alkalinity, COD, hardness, TDS, and TOC. The laboratory analytical data showed that the water samples collected from the monitoring wells did not exceed the current NYS Technical and Operational Guidance Series (TOGS) (NYSDEC, June 1998) for groundwater. PFAS levels (which are not included in the NYS TOGS) were detected at concentrations exceeding the EPA final Health Advisory (HA) of 70 ng/L (nanograms per liter or parts per trillion) for the combined values of Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) in one of the three wells. (A council appointed by New York State has recommend a groundwater standard of 10 ng/L for PFOS and PFOA, however, this standard has not been promulgated as yet.) The concentrations measured in the groundwater sample from MW-2 contained PFOS at 11,200 ng/L and PFOA at 424 ng/L. The concentrations for the groundwater sample collected from MW-3, the other downgradient well, was 5.8 ng/L for PFOS and non-detect PFOA. The concentration for the water sample collected from well MW-1, the upgradient well, was non-detect for PFOS and 3.6 ng/L for PFOA. The results suggest that the detections measured in well MW-2 may be from a localized source.

Per- and Polyfluoroalkyl Substances Groundwater Sampling Report, Damascus Road Landfill, End of Damascus Road, East Quogue, NY 11942 - Amec re-sampled the three landfill wells in August 2018. The laboratory analytical data collected confirmed that the groundwater in MW-2 contains elevated PFOS and PFOA at concentrations in excess of the EPA HA of 70 ng/l, but were present at slightly lower concentrations than those measured in February 2018. PFOS was detected in the water sample from well MW-2 at 4,050 ng/l and PFOA was detected at 96.6 ng/l. There were no exceedances of the EPA HAs in the groundwater samples collected from MW-1 and MW-3.

2.4 PHYSICAL SETTING

Topography

The Site is an approximately 12.32 acre property which consists of a large open area in the center and in the remainder areas generally consists of forested land or vegetation overgrowth. With the exception of some grounded mounds in the open areas, the Site slopes to the south with elevations ranging from approximately 50 to 40 feet above mean sea level (msl).

Surface Water Hydrology

The Site consists of paved roads at the entrance from Damascus Road, the remainder is forested land. There are no surface water bodies located on the Site.

Groundwater Hydrology

Based on water level maps available on the United States Geological Survey's website, the groundwater below the landfill flows in a southeasterly direction towards the Quantuck Bay. Regionally, groundwater flows southeasterly. Groundwater occurs below the landfill at a depth of approximately 40 feet. Precipitation seeps into the ground surface and recharges the Upper Glacial formation. The groundwater flows towards the Quantuck Bay.

Geology

The site is underlain by sands and gravels of the Upper Glacial formation to a depth of approximately 200 feet. This is followed, in turn, by the Magothy formation, the Raritan Clay, the Lloyd Sand and crystalline bedrock. The Gardiners Clay and the Jameco Gravel also exist downgradient of the site in the in the 200 to 400 foot depth range. Precipitation seep into the ground surface and recharges the Upper Glacial formation. Regionally, groundwater flows southeasterly and towards the Quantuck Bay.

Fish and Wildlife Resource Impact Analysis (FWRIA)

The Site consists of large open areas and forested land. Some small animals likely exists at the Site. There are no surface water bodies and as such there is no possibility for fish at the Site. However, PFAS contamination is understood to be present in the subsurface; specifically in the groundwater. The direction of groundwater flow at the Site is to southeast and ultimately drains to Quantuck Bay which is approximately 3/4 of a mile away. Due to distance of the nearest body of surface water, the potential adverse impact resulting from site-related contaminants to fish resources in Quantack Bay is minimal.

Since PFAS contamination is present in the subsurface and there are no surface water bodies at the Site or in the path of the drainage route to the bay the pathway for wildlife resources to encounter the contamination is not likely.

2.5 FILE REVIEW

In November 2018, Amec prepared a Records Search Report which details a records review for the former Damascus Road Landfill. This included a review of an environmental data package from EDR, a review of previous environmental investigative reports, and interviews with Town officials. The following provides notable findings of the Records Search Report:

- The EDR Radius Report identifies the Old Quogue Landfill (referred to as Damascus Road Landfill in this report) in East Quogue, NY as a state hazardous waste site. The EDR report indicates that this listing is associated with a two-acre municipal landfill on a sixteen-acre lot that was active from the 1930s until 1973.

- Fire insurance maps covering the property were not identified.
- The earliest available aerial photograph dates back to 1947 which depicts an unpaved road indicating site activity at the time.
- Amec interviewed Mr. Francis Zappone, a representative of the Town, who indicated that after extensive research on their part, the Town did not find evidence of authorized or unauthorized fire training having been performed at the subject property.

The Records Search Report is provided as Appendix C.

3.0 WORK PLAN OBJECTIVES, SCOPE, AND RATIONALE

3.1 WORK PLAN OBJECTIVES

This RIWP describes the field and laboratory procedures that will be used to evaluate the nature and extent of impacted groundwater in the vicinity of the Site. For the purpose of this RIWP, the contaminants of concern are PFAS. The media of concern are groundwater below and downgradient of the landfill, and subsurface soils and fill at the Site.

3.2 SCOPE OF WORK AND RATIONALE

The following subsections describe the activities planned during the field investigation portion of the RI. Investigation activities will include:

- Drilling groundwater profile borings downgradient of the landfill and collection of groundwater samples to evaluate the horizontal and vertical nature of PFAS in the off-site groundwater;
- Installing, developing, and sampling off-site monitoring wells installed based on the vertical profile borings;
- Drilling groundwater profile borings around the southern and eastern boundaries of the landfill and collection of groundwater samples to evaluate the horizontal and vertical nature of PFAS in the groundwater at the landfill boundary;
- Drilling soil borings on the landfill to evaluate if PFAS is present within the soils and fill between the ground surface and the water table;
- Installing, developing, and sampling temporary water table monitoring wells on the landfill to evaluate the distribution of PFAS in the groundwater below the site; and,
- Conducting horizontal and vertical survey of the sample locations and monitoring wells to determine the direction of groundwater flow.

The proposed field tasks and analysis are included in Table 1. Proposed sampling locations are presented on Figures 2 and 3.

The RI will be conducted in accordance with the specifications presented in the Site specific QAPP, included as Appendix A to this Site RIWP. Quality Control (QC) and Quality Assurance (QA) procedures for sample handling and sample shipment, and QA/QC sample frequencies are presented in the QAPP. Site specific Health and Safety procedures for on-site activities are presented in the HASP, included as Appendix B. Laboratory analyses will be performed by Alpha Laboratories and will comply with the NYSDEC Analytical Services Protocols (NYSDEC, 2005).

Soil and groundwater samples will be analyzed for PFAS by USEPA 537. In addition one soil sample from the landfill and one groundwater sample from a monitoring well will be analyzed for TCL VOCs, TCL SVOCs, TAL metals, TCL pesticides and TCL PCBs.

Analytical sample results will be compared to the following Standards, Criteria and Guidelines (SCGs):

- Soil Samples. Analytical results will be compared to the 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 Soil Cleanup Objectives (NYS, 2006b).
- Groundwater and Surface Water Samples. Analytical results will be compared to the NYS Class GA Groundwater Quality Standards from 6 NYCRR Parts 700-705 (NYS, 2006c).
- PFAS in groundwater. These will be compared to the USEPA issued Drinking Water Health Advisories (HA) of 70 nanograms per liter for the combined concentration of perfluorooctanoic acid and perfluorooctane sulfonic acid and a Regional Screening Level of 380 micrograms per liter for residential tap water for Perfluorobutanesulfonic acid.

3.3 GENERAL FIELD ACTIVITIES

General field activities, including coordination of access with abutting property owner(s), mobilization, health and safety, and decontamination, are described in the following subsections.

3.3.1 Mobilization

Upon NYSDEC approval of this RIWP, AMEC and its subcontractors will mobilize to the Site and begin the RI activities. Mobilization will include obtaining utility clearances and acquisition of the following:

- transportation to and from the Site;
- health and safety clothing and monitoring equipment;
- decontamination supplies and equipment; and
- sampling equipment.

A field team orientation meeting will be held on-site with Amec personnel and subcontractors to familiarize field workers with Site history, health and safety requirements, equipment calibration procedures, and other field procedures.

3.3.2 Health and Safety

The Site specific HASP is provided as Appendix B to this document. Based on available Site information, Amec anticipates that the RI activities will be conducted in Level D personal protective equipment (PPE). Specific field investigation activities and the required level of PPE are set forth in the Site specific HASP. Criteria for upgrading or downgrading the specified level of protection are also provided in the Site specific HASP.

3.3.2 Community Air Monitoring Program

The proposed RI activities includes intrusive work including borehole drilling. To monitor potential VOCs from drilling activities, the Amec field representative will monitor the downwind perimeter of the immediate work area (i.e. exclusion zone) with a photo ionization detector periodically during work activities. If ambient air concentration of the total organic vapors exceeds 5 ppm above established pre-work background levels, work activities will be halted and monitoring will continue. When the total organic level readily decreases below the 5 ppm over pre-work established background levels, work activities can resume with continued monitoring.

3.3.3 Decontamination Procedures

Non-disposable field sampling equipment including soil trowels, water level indicators and other down-hole equipment will be decontaminated by scrubbing the sample collection equipment with potable water and Alconox, rinsing with potable water, rinsing with deionized water, and then allowing the equipment to air dry. Deionized water used for the final rinse during decontamination of sampling equipment will be laboratory certified “PFAS-free” water. For larger equipment (e.g., drill rig and large downhole drilling and sampling equipment), decontamination will be conducted with potable water using a high-pressure washer and then rinsed using potable water.

3.3.4 Investigation Derived Waste Management

It is anticipated that investigation derived waste (IDW) resulting from this work will include drill cutting and purge water. Drilling cuttings will be generated as a result of groundwater boring, soil boring, and monitoring well installation. To the extent possible, drill cuttings will be used as backfill in boring locations that will not be converted to permanent monitoring wells. Drill cuttings from borings which will be converted to permanent monitoring wells will be placed in 55-gallon DOT-approved

drums, marked for its contents, and staged along the paved area of the subject property. After the drilling activities are completed, a waste characterization sample will be collected of the soil cuttings. Sampling collected for waste profiling of IDW will not be subject to additional QA/QC samples. Once a waste profile is available, the soil will be disposed of at a permitted disposal facility.

Purge water will be generated as a result of development and sampling activities. The development water will be pumped into separate 55-gallon DOT-approved drums, marked for its contents, and staged along the paved area of the property pending disposal to a permitted disposal facility.

3.4 INVESTIGATION ACTIVITIES

3.4.1 Utility Clearance

Prior to initiating drilling activities, Dig Safely New York will be contacted and a geophysical survey will be conducted to ensure that the drilling locations are not in the area of underground utilities.

3.4.2 Drilling of Groundwater Profile Borings Downgradient of the Landfill

A series of off-site groundwater profile borings will be performed at the locations shown on Figure 2 which were selected using the results of PFAS detections in homeowner wells in the area as a guide. For consistency, the method proposed is similar to the procedures used by Suffolk County Department of Health Services (SCDHS) when they perform vertical profile borings in this area. Soil borings will be advanced using a Hollow Stem Auger (HSA) drill rig to a depth of 100 feet. Soil samples will be collected at 10 foot intervals using a split-barrel soil sampler. The soil samples will be logged for geologic characterization. Once the borings achieve a depth of 100 feet below grade, a 10-foot long, 2-inch diameter Schedule 40 PVC 0.010-inch slotted (10-slot) well screen attached to 2-inch diameter Schedule 40 PVC pipe will be set at the bottom of the boring.

The well will be purged using a Teflon free submersible pump (Monsoon™ or equivalent) and new or dedicated high density polyethylene (HDPE) tubing. The wells will be purged at a rate between 100 and 500 milliliters per minute. Field personnel will document water quality parameters (i.e. temperature, specific conductivity, dissolved oxygen, pH, oxygen reduction potential, and turbidity) on a groundwater sampling log. Appendix D contains the groundwater sampling log that will be used. Water quality readings will be documented every three to five minutes. Purging will continue until the readings of the water quality parameters have stabilized or up to a maximum of two hours. The stabilization requirement is defined as three consecutive readings within 0.1 for pH, 3% for conductivity, 10 mV for ORP, 10% for DO, and 50 NTUs for turbidity to the extent possible. A sample

will then be collected directly from the pump discharge for the analysis of PFAS. Since this is “screening” level data, duplicate samples, matrix spike (MS) and matrix spike duplicate (MSD) samples will not be collected during this sampling activity. Given the low detection limits associated with laboratory PFAS analysis, and the many potential sources of trace levels of PFAS, field personnel will take precautions to limit the potential for false positive detections of PFAS as described in Appendix E, Field Sampling Protocols to Avoid Cross-contamination of PFAS.

Once the 100 foot depth sample is collected, the PVC pipe and well screen will be lifted up 10 feet using the drill rig and the process of water sampling will be repeated. This will continue until the water table is encountered. Once the 10 foot long well screen encounters the water table interface, it will be allowed to remain in place for use as a water level and groundwater monitoring point. The screen will be set approximately 7 feet into the water table and 3 feet above the water table. A grout seal will be placed in the upper 5 feet of the boring and the well will be completed with a flush-mounted cover.

3.4.3 Drilling, Installation and Sampling of Off-Site Groundwater Monitoring Wells

After the laboratory data from the off-site profile borings is obtained, it will be reviewed with the NYSDEC. With the Department’s approval, a HSA drill rig will re-mobilize to the site. Additional 10-foot long, 2-inch diameter Schedule 40 PVC 10-slot well screens attached to 2-inch diameter Schedule 40 PVC pipe will be set at each of the off-site locations to confirm the information obtained from the profile borings and for use in future monitoring. Once the installation of the monitoring wells are completed, the wells will be developed by surging and pumping. Well development activities will continue until the well produces clear, sediment-free water with a development goal of 10 NTUs. Well development water handling and disposal actions are discussed in Section 3.3.4. A diagram of a typical monitoring well installation is included as Figure 4. It is envisioned that a total of three wells will be installed at each location.

No earlier than 14 days after the development, the monitoring wells will be sampled in accordance with the United States Environmental Protection Agency’s (EPA) Low-Flow Groundwater Sampling Procedures. Sampling of these additional monitoring wells will be performed following the same procedures outlined above in the section on profile borings (Section 3.4.2). Since this is not screening level data, we will collect the following quality control samples: one tubing field blank, one water level meter field blank, one duplicate field sample, one MS, and one MSD during this groundwater sampling event.

3.4.4 Drilling of Groundwater Profile Borings Around the Southern and Eastern

Boundaries of the Landfill

To horizontally and vertically evaluate the extent of PFAS contamination in the groundwater, temporary groundwater profile borings will be installed along the southeast perimeter of the Site. The results of the profile borings installed downgradient of the landfill will be used as a guide in determining the depth of the landfill perimeter borings. A HSA drill rig will be mobilized to the site. The same procedures used for the off-site profile boring will be employed at the perimeter drill sites. Groundwater sampling will begin at bottom of the boring and will continue at 10-foot intervals until the water table is encountered (i.e. at approximately 40 feet bg). Since this is "screening" level data, duplicate samples, MS and MSD samples will not be collected during this sampling activity.

3.4.5 Drilling, Installation and Sampling of Landfill Boundary Groundwater Monitoring

Wells

After the laboratory data from the landfill boundary profile borings is obtained, it will be reviewed with the NYSDEC. With the Department's approval, a HSA drill rig will re-mobilize to the site. Additional 10-foot long, 2-inch diameter Schedule 40 PVC 10-slot well screens attached to 2-inch diameter Schedule 40 PVC pipe will be set at each of the landfill boundary locations to confirm the information obtained from the profile borings and for use in future monitoring. Once the installation of the monitoring wells are completed, the wells will be developed by surging and pumping. Well development activities will continue until the well produces clear, sediment-free water with a development goal of 10 NTUs. Well development water will be discharged to the surface of the landfill. A diagram of a typical monitoring well installation is included as Figure 4. It is envisioned that a total of three wells will be installed at each location.

No earlier than 14 days after the development, the monitoring wells will be sampled in accordance with the EPA's Low-Flow Groundwater Sampling Procedures. Sampling of these additional monitoring wells will be performed following the same procedures outlined above in the section on profile borings. Since this is not screening level data, we will collect the following quality control samples: one tubing field blank, one water level meter field blank, one duplicate field sample, one MS, and one MSD during this groundwater sampling event.

3.4.6 Installation of Soil Borings on the Landfill

A HSA drill rig will be mobilized to the Site to advance a total of nine soil borings to the top of the water table. The locations are illustrated on Figure 3, however, the orientation of the borings may change based on the results of the landfill boundary profile borings. NYSDEC will be advised of any

changes to the positioning of the boring prior to performing the work. As the drill rig advances the boring either a split-barrel soil sampler or a Geoprobe macro core sampler will be used to collect continuous soil samples. Soil characteristics will be documented on a field data record. One discrete soil sample will be collected for laboratory analysis of PFAS at 2 to 4 feet and 6 to 8 feet below ground surface. An additional sample will be collected at the interface between fill material and native material (if encountered) and at any major changes in lithology. The boring will continue until the water table is encountered. The following QA/QC samples will be collected for soil samples: a field blank, duplicate sample, MS, and MSD.

3.4.7 Installing, Developing, and Sampling of Temporary Water Table Monitoring Wells on the Landfill

The boreholes that will result from the soil borings installation discussed in Section 3.4.6 will be used for the installation of temporary monitoring wells. The drill rig will be used to advance the existing borehole an additional ten feet. The monitoring wells will consist of 10-foot long, 2-inch diameter, 10 slot well screens with the top of the well screen placed at or close to the top of the water table. The remainder of the wells will consist of a 2-inch diameter schedule 40 PVC piping with sufficient riser to reach slightly above the ground surface. The monitoring wells will be completed with number a surficial bentonite seal and a watertight j-plug.

Once the installation of the monitoring wells are completed, the wells will be developed by surging and pumping. Well development activities will continue until the well produces clear, sediment-free water with a development goal of 50 NTUs. Well development water will be discharged to the surface of the landfill.

No earlier than 14 days after the development, the monitoring wells will be sampled in accordance with the EPA's Low-Flow Groundwater Sampling Procedures. First, depth-to-water measurements will be collected from the monitoring wells. Due to the depth to water at the Site, a Teflon free submersible pump (Monsoon™ or equivalent) and new or dedicated high density polyethylene (HDPE) tubing will be lowered into the well. The wells will be purged at a target rate of between 100 and 500 milliliters per minute. Field personnel will document water quality parameters (i.e. temperature, specific conductivity, dissolved oxygen, pH, oxygen reduction potential, and turbidity) on a groundwater sampling log. Appendix E contains the groundwater sampling log that will be used. Water quality readings will be documented every three to five minutes. Purging will continue until the readings of the water quality parameters have stabilized or up to a maximum of two hours. The stabilization requirement is defined as three consecutive readings within 0.1 for pH, 3% for conductivity, 10 mV for ORP, 10% for DO, and 10

NTUs for turbidity to the extent possible. Once the water quality parameters have stabilized, a water sample will be collected and submitted for laboratory analysis of PFAS. As indicated on Table 2, the following QA/QC samples will be collected for groundwater samples: a field blank, duplicate sample, MS, and MSD.

3.4.8 Conducting Horizontal and Vertical Survey of the Sample Locations and Monitoring Wells and Preparing a Water Table Elevation Map

A NYS licensed surveyor will survey the newly installed monitoring wells and sample locations. Horizontal locations will be tied to the New York State (NYS) Plane Coordinate System using North American Datum of 1983. Vertical elevations of the new monitoring wells will be tied to msl, North Atlantic Vertical Datum of 1988, and measured to an accuracy of 0.01 ft. Horizontal well measurements will be to an accuracy of 0.1 ft.

A synoptic round of depth to water levels will be conducted once all of the wells are installed including the newly installed wells and from the existing off-site wells identified on Figure 2. These readings will be used in concert to prepare a site-wide water table elevation maps and to determine the direction of groundwater flow.

4.0 REMEDIAL INVESTIGATION AND REPORTING

4.1 REPORTING

Upon completion of field investigations and receipt of validated laboratory analytical data, Amec will complete the RI report that meets the requirements of DER-10.

Data will be validated in accordance with DER-10 guidance a Data Usability Summary Report (DUSR) will be The DUSR review includes the following evaluations:

- Lab Report Narrative Review
- Data Package Completeness and chain of custody records
- Sample Preservation and Holding Times
- Initial/Continuing Calibration (including tunes for Gas chromatography/Mass spectrometry)
- QC Blanks
- Laboratory Control Samples
- Matrix Spike/Matrix Spike Duplicates
- Surrogate Spikes (if applicable)
- Internal Standard Response and Retention Times
- Field Duplicates
- Target Analyte Identification and Quantitation
- Raw Data Checks, Calculation Checks, and Transcription Verifications
- Reporting Limits
- Electronic Data Qualification and Verification

Raw data checks, calculation checks, and transcription verifications will be performed only if QC issues are noted during the review that require further evaluation.

At a minimum, the RI report will include:

Executive Summary

Introduction

Site Background

A description of the work performed

Well construction logs

Elevation Surveys

Groundwater data summary tables with comparison to EPA Drinking Water Advisories for Per and Polyfluoroalky compounds, May 2016

Soil data summary tables with a comparison to standards and guidance

Qualitative Exposure Assessment

Summary and Conclusions

Recommendations

Figures showing locations of samples collected, contaminant distribution and groundwater surface contours.

Boring logs, FDRs, and environmental sampling data will be included as appendices.

A Draft RI report will be submitted to the NYSDEC for review and comment. Upon receipt of NYSDEC comments, Amec will revise the report to address comments and submit a draft report in portable data file (PDF) format. Analytical data will be uploaded to EQUIS and laboratory deliverables will also be submitted electronically (PDF and electronic data deliverable) with the report.

4.2 SCHEDULE

The following schedule has been prepared outlining the anticipated timeframe will be required to implement this RI once the RIWP has been approved.

<u>Event:</u>	<u>Schedule:</u>
RIWP approved by NYSDEC	Day 1
End of 30 Day Public Comment Period	6 weeks after approval of RIWP
Remedial Investigation Field Work	3 months after end of comment period
Chemical Analysis and DUSR	2 months after completion of field activities
Preparation of RI Report	2 months after receipt of validated laboratory data

5.0 REFERENCES

New York State Department of Environmental Conservation, DER-10, Technical Guidance for Site Investigation and Remediation, 2010.

Environmental Protection Agency, Drinking Water Advisories for Per and Polyfluoroalkyl compounds, May 2016

NYSDEC Technical Operational TOGS Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998

Dvirka & Bartilucci Phase II Environmental Site Assessment, Damascus Road, East Quogue, New York
January 2007

Dvirka & Bartilucci Phase II Environmental Site Assessment, Damascus Road, East Quogue, New York
December 2009

FIGURES

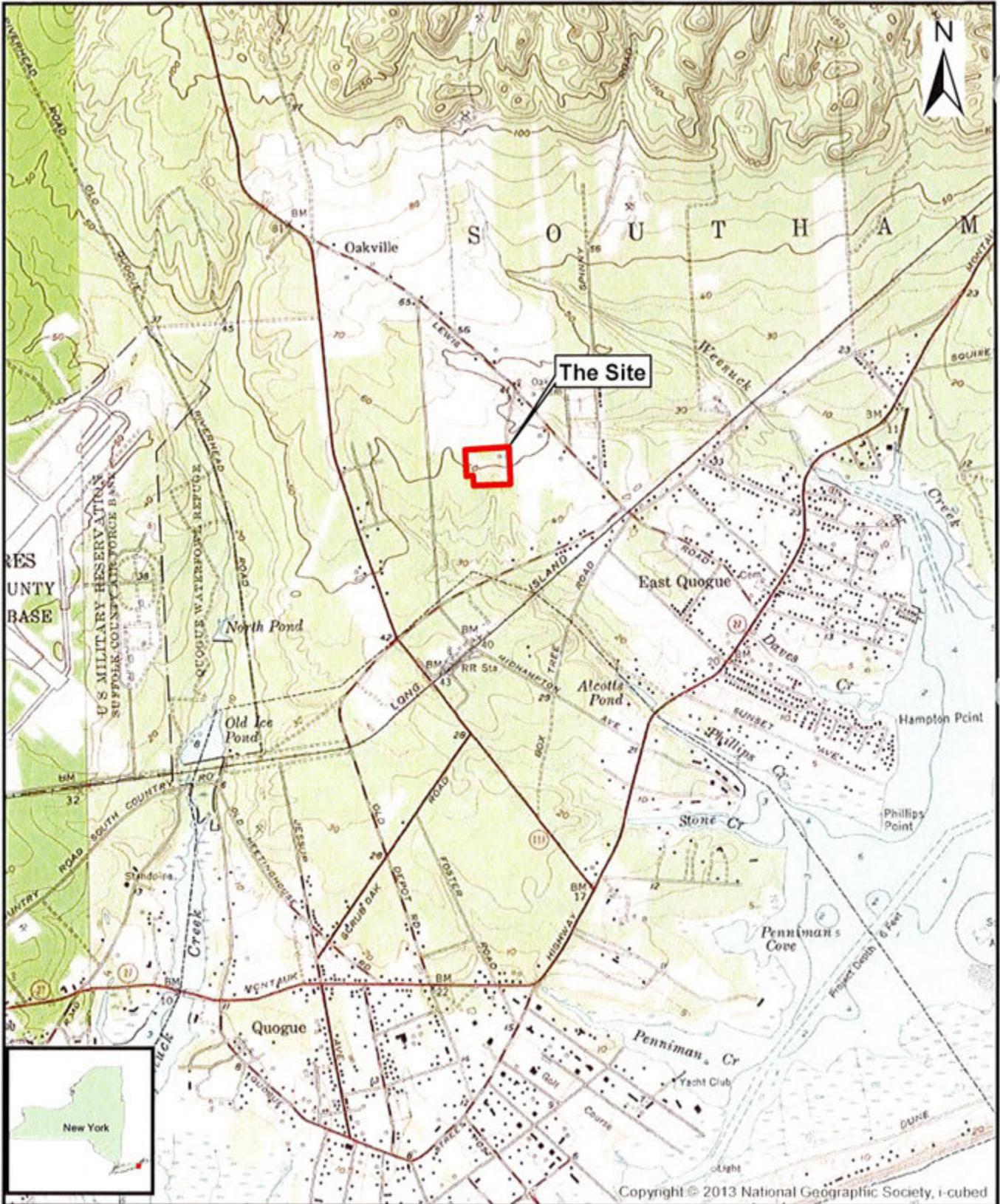


Figure 1
Site Location Map

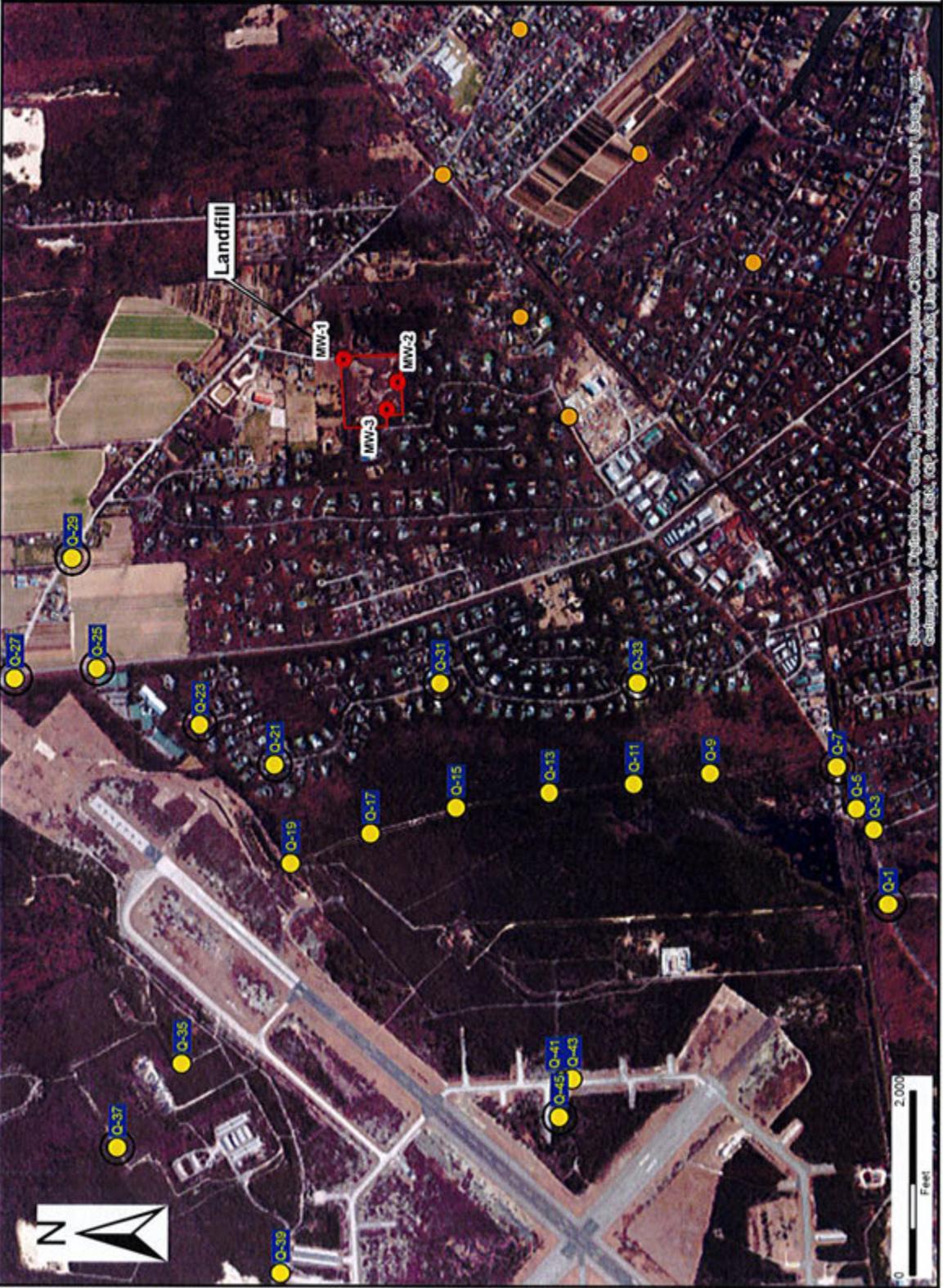
Damascus Road Landfill
East Quogue, New York 11942



Prepared/Date: JCL 10/04/18 Checked/Date: EAW 10/04/18



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Legend

- Existing Onsite Monitoring Wells
- Proposed Off-Site Groundwater Vertical Profile Boring
- Existing Off-Site Monitoring Wells
- Existing Off-Site Monitoring Wells Proposed For Use In Water Level Monitoring



Figure 2
Proposed Off-Site Borings and Monitoring Wells
Damascus Road Landfill
East Quogue, New York 11942

Source: Aerial Imagery, Google Earth, and other sources. © 2010 Amec, LLC. All rights reserved.



Feet

2,000



Source: Soil, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Geomatics, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Figure 3
Proposed On-Site Boring and Monitoring Wells

Damascus Road Landfill
East Quogue, New York 11942

- Legend:
- Existing Monitoring Wells
 - Soil Boring and Water Table Monitoring Well
 - ⊗ Groundwater Boring with Samples at 10 Foot Intervals



TABLES

TABLE 1
Proposed Field Activity, Rationale and Analysis

Media	Analysis	Data Quality Objectives	Rationale
Soil	PFAS VOCs, SVOCs, Pesticides, PCBs and Metals one sample	Investigation	For use in identifying PFAS sources in soil
Groundwater (from groundwater borings)	All samples --	Screening	For use in deciding placement of well screens in permanent wells
Groundwater (from temporary wells on landfill)	All samples --	Investigation	For use in identifying PFAS in groundwater below the landfill
Groundwater (from permanent monitoring wells)	All samples one sample	Investigation	For use in monitoring PFAS concentrations over time

Table 2
Sample Container Details for Groundwater and Soil

Matrix and Parameters	Number Samples	Container / Preservative	Number of QA/QA Samples						Holding Time
			MS	Ms Duplicate	Duplicate	Trip Blank	Field Blank		
Groundwater TCL VOCs (USEPA Method 8260C) + 10 TICs TCL SVOCs (USEPA 8270D) + 20 TIC TAL Metals (Filtered and Unfiltered)(USEPA Method 6010C/7471A) TCL Pesticides TCL PCBs PFAS (USEPA Method 537) see attached table for Reporting Limits	1	Two 40 ml vials / HCL / Ice	1 per 20	1 per 20	1 per 20	1 per event	1 per event	14 days	
	1	Two 250 ml amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	7 days	
	1	One 500 ml plastic bottle / Acid & Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	6 months (28 days for Hg)	
	1	Two 120 ml amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	7 days	
	1	Two 120 ml amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	7 days	
	160*	Two 250 ml plastic bottle / Trizma / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	14 days	
	Soil TCL VOCs (USEPA Method 8260C) + 10 TICs TCL SVOCs (USEPA 8270D) + 20 TIC TAL Metals (USEPA Method 6010C/7471A) TCL Pesticides TCL PCBs PFAS (USEPA Method 537) see attached table for Reporting Limits	1	Three enco samplers / Ice	1 per 20	1 per 20	1 per 20	1 per event	1 per event	48 hours
		1	One 4 oz amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	14 days
		1	One 4 oz amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	6 months (28 days for Hg)
		1	One 4 oz amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	14 days
1		One 4 oz amber glass / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	14 days	
1		One 8 oz plastic container / Ice	1 per 20	1 per 20	1 per 20	NA	1 per event	28 days	
18*									

* This is an estimate given the proposed scope of work. The actual number of samples to be collected may vary slightly based on field conditions.

APPENDIX A

SITE SPECIFIC QUALITY ASSURANCE PROJECT PLAN (QAPP)

**Quality Assurance Project Plan
Damascus Road Landfill
East Quogue, New York**

1.1 Introduction - The following Quality Assurance Project Plan (QAPP) has been prepared by Amec E&E, PC specifically for the Remedial Investigation Work Plan (Work Plan) in connection with the Damascus Road Landfill located in East Quogue, New York. This Work Plan was prepared and approved as stated below.

Eric Weinstock

Prepared by: _____
Eric A. Weinstock, Principal Scientist

Date: 2-26-2019

1.2 QAPP - Table of Contents

The following elements are included in this QAPP:

- Title Page and Introduction
- Table of Contents
- Project Description
- Project Organization
- Quality Assurance Objectives for Data Measurements
- Sampling Procedure
- Sample and Document Custody Procedures
- Calibration Procedures and Frequency
- Analytical Procedures
- Data Reduction, Validation and Reporting
- Internal Quality Control Checks
- Performance and System Audits
- Preventive Maintenance
- Data Measurement Assessment Procedures
- Corrective Action
- Quality Assurance Reports and Management

1.3 Project Description - The Remedial Investigation Work Plan subject to this QAPP has been prepared to address the following issues:

- PFAS has been detected in the groundwater beneath the Site at concentrations exceeding the EPA Drinking Water Advisories established in May 2016
- A Remedial Investigation is being implemented to evaluate PFAS contamination at the Site

The methods that will be used include: groundwater sampling and soil sampling. These are described in detail in the Work Plan.

1.4 Project Organization – Eric Weinstock will serve as the Project Manager (PM) and will be responsible for the overall scheduling and performance of all investigative activities.

Chris Ricardi will serve as the Quality Assurance Officer (QAO) for this project and his resume is attached to the QAPP. His duties will include:

- Review of laboratory data packages
- Interface with laboratory
- Performance of Field Audits

Experienced Amec staff will perform and/or oversee completion of all the field activities described in this plan.

1.5 Quality Assurance Objectives and Data Measurement

Chemical Analysis – All environmental samples will be delivered to a NYSDOH ELAP-Certified laboratory contracted to Amec E&E, PC for chemical analysis. This data is intended to determine the potential for soil to contain site derived contaminants. The laboratory will follow the NYSDEC – Analytical Services Protocol dated 2005 for soil samples and the analytical reports will be prepared in NYSDEC ASP Category B deliverables. All samples will be placed in iced-filled coolers and delivered to the laboratory within 48 hours of collection. The samples will be maintained at a temperature of 4+/-2° C. The laboratory will be instructed to report the 10 highest VOC and 20 highest SVOC tentatively identified compounds (TICs).

Quality assurance objectives are generally defined in terms of five parameters:

- **Representativeness** - Representativeness is the degree to which sampling data accurately and precisely represents site conditions, and is dependent on sampling and analytical variability. The Work Plan has been designed to assess the presence of the constituents in the target media at the time of sampling. The Work Plan presents the rationale for sample quantities and location. The Work Plan also presents field sampling methodologies and laboratory analytical methodologies.

The use of the prescribed field and laboratory analytical methods with associated holding times and preservation requirements are intended to provide representative data. Further discussion of QC checks is presented in Section 1.11.

- **Comparability** - Comparability is the degree of confidence with which one data set can be compared to another data set. Comparability between this investigation and to the extent possible, with existing data will be maintained through consistent sampling and analytical methodology set forth in the QAPP; the Work Plan; the NYSDEC ASP analytical methods

(2005) with NYSDEC ASP QA/QC requirements; and through use of QA/QC procedures and appropriately trained personnel.

- **Completeness** - Completeness is defined as a measure of the amount of valid data obtained from a sampling event compared to the amount that was expected to be obtained under normal conditions. This will be determined upon assessment of the analytical results.
- **Precision** - Precision is the measure of reproducibility of sample results. The goal is to maintain a level of analytical precision consistent with the objectives of the Work Plan. To maximize precision, sampling and analytical procedures will be followed. All work for the investigation phase of this project will adhere to established protocols presented in the QAPP, and the Work Plan. Checks for analytical precision will include the analysis of matrix spike duplicated, laboratory duplicates, and field duplicates. Checks for field measurement precision will include obtaining duplicate field measurements. Further discussion of precision QC checks is provided in Section 1.11.
- **Accuracy** - Accuracy is the deviation of a measurement from the true value of a known standard. Both field and analytical accuracy will be monitored through initial and continuing calibration of instruments. In addition, internal standards, matrix spikes, blank spikes, and surrogates (e.g. system monitoring compounds) will be used to assess the accuracy of the laboratory analytical data.

1.6 Sampling Procedures - The sampling procedures that will be employed are discussed in detail in the Work Plan.

1.7 Sample and Document Custody Procedures

- **General** - The Chain-of-Custody program allows for the tracing of possession and handling of the sample from its time of collection through its chemical analysis in the laboratory. The chain-of-custody program at this site will include:
 - Sample labels
 - Chain-of-Custody records
 - Field records
- **Decontamination Procedure for Sampling Devices**

Some of the sampling devices are dedicated and will only be used once. Non-disposable field sampling equipment including soil trowels, water level indicators, and other down-hole equipment will be decontaminated by scrubbing the sample collection equipment with potable water and Alconox, rinsing with potable water, rinsing with deionized water, and then allowing the equipment to air dry. Deionized water used for the final rinse during decontamination of sampling equipment will be laboratory certified "PFAS-free" water. For larger equipment (e.g., drill rig and large downhole drilling and sampling equipment), decontamination will be conducted with potable water using a high-pressure washer and then rinsed using potable water.

- **Sample Container Details**

Details of the type of containers, the method of sample preservation and the number of QA/QC samples are included on Table 1 of the QAPP.

- **Sample Labels** - To prevent misidentification of samples, a label will be affixed to the sample container and will contain the following information:

- Site Name
 - Sample identification number
 - Date and time of collection
 - Initials of Sampler
 - Preservation (if any)
 - Type of analysis to be conducted.
- **Chain-of-Custody Records** - To establish the documentation necessary to trace sample possession from the time of collection, a chain-of-custody record will be filled out and will accompany samples at all times. The record will contain the following information:
 - Project name:
 - Printed name and signature of samplers
 - Sample Identification
 - Date and time of collection
 - Sampling location
 - Number of containers for each sample
 - Signature of individuals involved in sample transfer
(when relinquishing and accepting samples)
 - Inclusive dates and times of possession.
 - **Field Records** - Field records will be maintained during each sampling effort in a logbook. All aspects of sample collection, handling and visual observations will be recorded. All sample collection equipment, field analytical equipment and equipment utilized to make physical measurements will be identified in the field logbook.

All calculations, results and calibration data for field sampling, field analytical and field physical measurement equipment will also be recorded in the field logbook. Entries will be dated and initialed. Entries will be made in ink, and will be legible.

1.8 Calibration Procedures and Frequency - The contracted laboratory will follow calibration procedures as outlined in the EPA methods.

1.9 Analytical Procedures - All laboratory analysis will follow NYSDEC ASP (2005) protocols with Category B deliverables. The following samples will be collected for QA/QC purposes: 1 duplicate sample, 1 matrix spike, and 1 matrix spike duplicate per every twenty field samples per sample matrix; 1 trip blank per sampling event (as applicable); and 1 field blank per sampling event for each type of sampling tool used to collect samples. A qualified data validator will review the laboratory data and a Data Usability Summary Report (DUSR) will be prepared.

1.10 Data Reduction, Validation and Reporting

- **Field Data** - All field data recorded in logbooks or on log sheets will be evaluated in the Office and transferred to word processor text by field personnel or clerical staff. PID readings will be included on the logs. The QAO and/or PM will review this data for accuracy and completeness. Construction diagrams will be prepared for all monitoring wells installed under the oversight of Amec E&E, PC.

- **Laboratory Data** - The laboratory will transfer the instrument readings to laboratory report forms. A qualified validator (not the QAO) will perform independent data validation of all analytical data using NYSDEC DUSR protocols.

The Data Validator will provide Amec with a Data Validation Summary Report, the resume of the Data Validator is attached. The QAO will review the summary report as well as other field data and prepare a Data Usability Report. Amec will prepare summary tables of the validated analytical data using an imported spreadsheet received directly from the laboratory.

1.11 Internal Quality Control Checks

Both field and laboratory quality control checks are proposed for this project. In the event that there are any deviations from these checks, the Project Manager and Quality Assurance Officer will be notified. The proposed field and laboratory control checks are discussed below.

Field Quality Control Checks

- **Field Measurements** - To verify the quality of data collected using field instrumentation, at least one duplicate measurement will be obtained per day and reported for all field analytical measurements.
- **Sample Containers** - Certified-clean sample containers will be supplied by the contracted laboratory.
- **Field Duplicates** – Field duplicates will be collected to check reproducibility of the sampling methods. Field duplicates will be prepared as discussed in the Work Plan. Field duplicates will be analyzed one every 20 field samples per matrix (i.e. soil or groundwater).
- **Field Rinse Blanks** – Field rinse blanks are used to monitor the cleanliness of the sampling equipment and the effectiveness of the cleaning procedures. Field rinse blanks will be prepared by filling sample containers with analyte-free water (supplied by the laboratory), which has been routed through a cleaned sampling device. Field rinse blanks will be analyzed once for each sampling program listed in the Work Plan. For example, one field rinse blank will be collected for the groundwater profile borings, one will be collected for the soil boring installation, and another for the low-flow groundwater sampling of the monitoring wells.
- **Trip Blanks** – Trip blanks will be used to assess whether site samples have been exposed to non-site-related volatile constituents during storage and transport. Trip blanks will be analyzed at a frequency of once per sampling event, and will be analyzed for volatile organic constituents. A trip blank will consist of a container filled with analyte-free water (supplied by the laboratory), which remains unopened with field samples throughout the sampling event. Trip blanks will only be analyzed for volatile organic constituents.

1.12 Performance and Systems Audits

Performance and systems audits will be completed in the field and the laboratory during the investigation phase of this project as described below.

- **Field Audits** – Amec's Project Manager and Quality Assurance Officer will monitor field performance and field meter calibrations to verify that measurements are taken according to established protocols. The Project Manager will review all field logs. In addition, the Project

Manager and the Quality Assurance Officer will review the field rinse and trip blank data to identify potential deficiencies in field sampling and cleaning procedures.

- **Laboratory Audits** – The contracted laboratory will perform internal audits consistent with NYSDEC ASP (2005).

1.13 Preventive Maintenance

Preventive maintenance schedules have been developed for both field and laboratory instruments. A summary of the maintenance activities to be performed is presented below.

- **Field Instruments and Equipment** - Prior to any field sampling, each piece of field equipment will be inspected to assure it is operational. If the equipment is not operational, it must be serviced prior to use. All meters which require charging or batteries will be fully charged or have fresh batteries. If instrument servicing is required, it is the responsibility of the field personnel to follow the maintenance schedule and arrange for prompt service.
- **Laboratory Instruments and Equipment** - The laboratory will document Laboratory instrument and equipment procedures. Documentation includes details of any observed problems, corrective measure(s), routine maintenance, and instrument repair (which will include information regarding the repair and the individual who performed the repair).

Preventive maintenance of laboratory equipment generally will follow the guidelines recommended by the manufacturer. A malfunctioning instrument will be repaired immediately by in-house staff or through a service call from the manufacturer.

1.14 Data Assessment Procedures

The analytical data generated during implementation of the Work Plan will be evaluated with respect to precision, accuracy, and completeness. The procedures utilized when assessing data precision, accuracy, and completeness are presented below.

- **Data Precision Assessment Procedures** - Field precision is difficult to measure because of temporal variations in field parameters. However, precision will be controlled through the use of experienced field personnel, properly calibrated meters, and duplicate field measurements. Field duplicates will be used to assess precision for the entire measurement system including sampling, handling, shipping, storage, preparation and analysis.

Laboratory data precision for organic analyses will be monitored through the use of matrix spike duplicate sample analyses. For other parameters, laboratory data precision will be monitored through the use of field duplicates and/or laboratory duplicates.

The precision of data will be measured by calculation of the standard deviation (SD) and the coefficient of variation (CV) of duplicate sample sets. The SD and CV are calculated for duplicate sample sets by:

$$SD = (A-B)/1.414$$
$$CV = ((A-B)/1.414)/((A+B)/2)$$

Where:

A = Analytical result from one of two duplicate measurements

B = Analytical result from the second measurement.

Where appropriate, A and B may be either the raw measurement or an appropriate mathematical transformation of the raw measurement (e.g., the logarithm of the concentration of a substance).

Alternately, the relative percent difference (RPD) can be calculated by the following equation:

$$\text{RPD} = \frac{(A-B)}{(A+B)/2} \times 100$$

$$\text{RPD} = 1.414 (\text{CV})(100)$$

- **Data Accuracy Assessment Procedures** - The accuracy of field measurements will be controlled by experienced field personnel, properly calibrated field meters, and adherence to established protocols. The accuracy of field meters will be assessed by review of calibration and maintenance logs.

Laboratory accuracy will be assessed via the use of matrix spikes, surrogate spikes, and internal standards. Where available and appropriate, QA performance standards will be analyzed periodically to assess laboratory accuracy. Accuracy will be calculated as a percent recovery as follows:

$$\text{Accuracy} = \frac{A-X}{B} \times 100$$

Where:

A = Value measured in spiked sample or standard

X = Value measured in original sample

B = True value of amount added to sample or true value of standard

This formula is derived under the assumption of constant accuracy over the original and spiked measurements. If any accuracy calculated by this formula is outside of the acceptable levels, data will be evaluated to determine whether the deviation represents unacceptable accuracy, or variable, but acceptable accuracy. Accuracy objectives for matrix spike recoveries and surrogate recovery objectives are identified in the NYSDEC, ASP (2005).

- **Data Completeness Assessment Procedures** - Completeness of a field or laboratory data set will be calculated by comparing the number of samples collected or analyzed to the proposed number.

$$\text{Completeness} = \frac{\text{No. Valid Samples Collected or Analyzed}}{\text{No. Proposed Samples Collected or Analyzed}} \times 100$$

As general guidelines, overall project completeness is expected to be at least 90 percent. The assessment of completeness will require professional judgment to determine data usability for intended purposes.

1.15 Corrective Action

Corrective actions are required when field or analytical data are not within the objectives specified in this QAPP, or the Work Plan. Corrective actions include procedures to promptly investigate, document, evaluate, and correct data collection and/or analytical procedures. Field and laboratory corrective action procedures for this project are described below.

- **Field Procedures** - When conducting the investigative fieldwork, if a condition is noted that would have an adverse effect on data quality, corrective action will be taken so as not to repeat this condition. Condition identification, cause and corrective action implemented will be documented as a memo to the project file and reported to the Project Manager.

Examples of situations, which would require corrective actions, are provided below:

- Protocols as defined by the QAPP and the Work Plan have not been followed;
- Equipment is not in proper working order or properly calibrated;
- QC requirements have not been met; and
- Issues resulting from performance or systems audits.

Project field personnel will continuously monitor ongoing work performance in the normal course of daily responsibilities.

- **Laboratory Procedures** - In the laboratory, when a condition is noted to have an adverse effect on data quality, corrective action will be taken so as not to repeat this condition. Condition identification, cause and corrective action to be taken will be documented, and reported to the Quality Assurance Officer.

Corrective action may be initiated, at a minimum, under the following conditions:

- Specific laboratory analytical protocols have not been followed;
- Predetermined data acceptance standards are not obtained;
- Equipment is not in proper working order or calibrated;
- Sample and test results are not completely traceable;
- QC requirements have not been met; and
- Issues resulting from performance or systems audits.

Laboratory personnel will continuously monitor ongoing work performance in the normal course of daily responsibilities.

1.16 Quality Assurance Reports and Management

- **Internal Reporting** - The analytical laboratory will submit analytical reports using NYSDEC ASP (2005), Category B requirements. The analytical reports will be submitted to the Data Validator (not the Quality Assurance Officer) for review. Supporting data (i.e., historic data, related field or laboratory data) will also be reviewed to evaluate data quality, as appropriate. The Quality Assurance Officer (not the Data Validator) will incorporate results of data validation reports (if any) and assessments of data usability into a summary report. This report will be filed in the project file and will include the following:

- Assessment of data accuracy, precision, and completeness for field & laboratory data;
- Results of the performance and systems audits;
- Significant QA/AC problems, solutions, corrections, and potential consequences;
- Analytical data validation report; and

- Data Usability Summary Report.

- **Reporting** - The Remedial Investigation Report will contain a separate QA/QC section including the DUSR and a summary of data collected and/or used as appropriate to the project DQOs. The Quality Assurance Officer will prepare the QA/QC summary tables and reports and memoranda documenting the data assessment and validation.

APPENDIX B

SITE SPECIFIC HEALTH AND SAFETY PLAN

Wood Environment & Infrastructure Solutions, Inc.
Short Form HASP

Site: Damascus Road Landfill Job #/Task # 3612182388
 Street Address: Dead End of Damascus Road Landfill
 Proposed Date(s) of Investigation: Spring to Winter 2019
 Prepared by: Jazmin Logan Date: February 2019
 Approved by: Eric Weinstock Date: February 2019
 Site Description: **(attach map)** A 12.31-acre property consisting of vacant land located in East Quogue, New York.
 Comments: Wood (Amec) activities will be limited to the oversight of the installation of soil borings /groundwater borings /monitoring wells, soil logging / sampling, discrete groundwater sampling, and low-flow groundwater sampling.

*Approval also serves as certification of a Hazard Assessment as required by 29 CFR 1910.132

EMERGENCY CONTACTS

NAME	TELEPHONE NUMBERS		DATE OF PRE-EMERGENCY NOTIFICATION (if applicable)
	Office	Cell	
Fire Department:	911		
Hospital:	NYC Health + Hospitals/Elmhurst		
WorkCare (Early case management)	1-888-449-7787		
Police Department:	911		
	Office	Cell	
Site Health And Safety Officer: Eric Weinstock	516-622-2254	516-413-6643	
Client Contact: Frank Zappone (Deputy Director of the Town of Southampton)	631-283-6055 x1865		
Project Manager: Eric Weinstock	516-622-2254	516-413-6643	
NYSDEC Project Manager: Melissa Sweet	518-402-9614		
*Eastern Group HSE Manager: Cindy Sundquist	207-828-3309	207-650-7593 (Cell) 207-892-4402 (Home)	
Corporate VP of HSE – Vlad Ivensky	610-877-6144	484-919-5175 (Cell) 215-947-0393 (Home)	
OTHER: Ambulance	911		
Health & Safety Coordinator – Glen Gordon	207 828 3348	774 270 0418	

*See Incident Flow Chart for additional Group HSE Manager's Contact Information

**Wood Environment & Infrastructure Solutions, Inc.
Short Form HASP**



TASKS

Wood	Other contractor	Task Description
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Soil boring logging and sampling
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Discrete groundwater sampling
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Low-flow groundwater sampling
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Installation of soil borings
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Installation of groundwater profile borings
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Installation of permanent monitoring wells
<input type="checkbox"/>	<input type="checkbox"/>	

AHAs: Check and attach all that apply (add applicable AHAs not already listed):

Activity Specific AHAs:

<input checked="" type="checkbox"/>	Mobilization/Demobilization and Site Preparation
<input checked="" type="checkbox"/>	Field Work - General
<input checked="" type="checkbox"/>	Field Work - Oversight
<input checked="" type="checkbox"/>	Decontamination
<input checked="" type="checkbox"/>	Groundwater Sampling
<input checked="" type="checkbox"/>	Soil Sampling
<input type="checkbox"/>	Soil Vapor Sampling
<input checked="" type="checkbox"/>	Working with Preservatives (Acids)
<input type="checkbox"/>	Utility Clearance Activities
<input type="checkbox"/>	Drilling Operation (MACTEC Driller)
<input type="checkbox"/>	Geoprobe (MACTEC Geoprobe Operator)

Hazard Specific AHAs:

<input checked="" type="checkbox"/>	Insect Stings and Bites
<input type="checkbox"/>	Gasoline
<input type="checkbox"/>	Excavations and Backfilling
<input type="checkbox"/>	Stream/Wetlands Work
<input type="checkbox"/>	

Dates of Required Training and Medical Surveillance (add additional training topics, as required):

Job duties:	Site Manager	SHSO / Field Tech	Field Tech	
Names:	Erik Weinstock	Jazmin Logan	Erik Vosburgh	
	Dates	Dates	Dates	Dates
Medical Surveillance	6/06/2018	03/04/2018	November 2018	
-Exam Type (A⁴, B, C)				
40-Hour Initial	11/02/1984	5/42/2012	11/20/2018	
8-Hour Supervisor ³		4/8/2016		
8-Hour Refresher	2/01/2019	2/01/2019		
First Aid		12/23/2016		
CPR		12/23/2016		
Hazard Communication	2/01/2019	2/4/2017		

² At least one worker must be trained in First Aid/CPR and should received Bloodborne Pathogen Training

³ Required for Site Manager and Site Health and Safety Officer

⁴ **Medical Surveillance Exam A has no respiratory clearance so can only be used for Level D PPE.** Exam A (basic HAZWOPER), Exam B (respirator & HAZWOPER under 40 years old), Exam C (respirator & HAZWOPER over 40 years old), Exam E (DOT), Exam F (asbestos monitoring), Exam G (lead monitoring) etc. **Contact HSE Coordinator or Cindy Sundquist to determine type of exam employee received.**

Known or Suspected Contaminants (include PELs/TLVs):

Contaminants of Concern (COC) (Attach Fact Sheets*)	Maximum Concentrations		PEL/TLV
	Soil (mg/kg)	Water/Groundwater (µg/l)	
PFOS	-	11,200	
PFOA	-	424	

Wood Environment & Infrastructure Solutions, Inc.
Short Form HASP

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*Workers must be made aware of the signs, symptoms, and first aid for each COC. Information is located on the COC fact sheet

Air Monitoring Action Levels:

PID/FID Reading ¹	Detector Tube ¹	Dust Meter ¹	LEL ² /O ₂ ¹	Action
< 150ppm				Continue to monitor with PID and LEL. Work at Level D
< 150ppm				Stop work. Evacuate the area, move upwind. Reevaluate.
			>10% LEL	Stop work. Evacuate area. Consider return with ventilation system and spark proof/intrinsically safe equipment.
			<19.5% O ₂	Stop work and evacuate area.

¹ Sustained readings measured in the breathing zone

² Readings at measured at the source (borehole, well, etc.)

HAZARD IDENTIFICATION SUMMARY

Complete the checklist for summarizing the hazards identified in the JHAs

Standard Hazards					
<input type="checkbox"/> Falling Objects	<input checked="" type="checkbox"/> Slips and trips	<input checked="" type="checkbox"/> Pinch points	<input checked="" type="checkbox"/> Rotating equipment		
<input checked="" type="checkbox"/> Falls	<input checked="" type="checkbox"/> Power equipment/tools	<input type="checkbox"/> Elevated work surfaces	<input type="checkbox"/> _____		
Eye Hazards					
<input checked="" type="checkbox"/> Particulates	<input checked="" type="checkbox"/> Liquid splashes	<input type="checkbox"/> Welding Arc	<input type="checkbox"/> _____		
Hearing Hazards					
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Impact noise	<input checked="" type="checkbox"/> High frequency noise	<input type="checkbox"/> High ambient noise		
Respiratory Hazards					
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Dust/aerosols/particulates	<input checked="" type="checkbox"/> Organic Vapors	<input type="checkbox"/> Acid Gases	<input type="checkbox"/> O ₂ deficient	<input type="checkbox"/> Metals <input type="checkbox"/> Asbestos
Chemical Hazards					
<input type="checkbox"/> None	<input type="checkbox"/> Organic solvents	<input type="checkbox"/> Reactive metals	<input type="checkbox"/> PCBs		
<input type="checkbox"/> Acids / bases	<input type="checkbox"/> Oxidizers	<input type="checkbox"/> Volatiles/Semi-volatiles	<input checked="" type="checkbox"/> PFAS _____		
Environmental Hazards					
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Cold Stress	<input checked="" type="checkbox"/> Heat Stress	<input type="checkbox"/> Wet location	<input checked="" type="checkbox"/> Bio hazards (snakes, insects, spiders, poisonous plants, etc.)	
<input type="checkbox"/> Explosive vapors	<input type="checkbox"/> Confined space	<input type="checkbox"/> Engulfment Hazard	<input type="checkbox"/> _____		
Electrical Hazards					
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Energized equipment or circuits	<input checked="" type="checkbox"/> Overhead utilities	<input checked="" type="checkbox"/> Underground utilities	<input type="checkbox"/> Wet location	
Fire Hazards					
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Cutting, welding, or grinding generated sparks or heat sources	<input type="checkbox"/> Flammable materials present	<input type="checkbox"/> Oxygen enriched location		
Ergonomic Hazards					
<input checked="" type="checkbox"/> Lifting	<input checked="" type="checkbox"/> Bending	<input type="checkbox"/> Twisting	<input type="checkbox"/> Pulling/tugging	<input type="checkbox"/> Repetitive motion	<input checked="" type="checkbox"/> Carrying

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Short Form HASP



Computer Use in the:		<input checked="" type="checkbox"/> Office	<input type="checkbox"/> Field	<input type="checkbox"/> _____	<input type="checkbox"/> _____
Radiological Hazards					
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Alpha	<input type="checkbox"/> Beta	<input type="checkbox"/> Gamma/X-rays	<input type="checkbox"/> Neutron	<input type="checkbox"/> Radon
Other Hazards					
<input type="checkbox"/>					

PPE and Monitoring Instruments

Initial Level of PPE *					
<input checked="" type="checkbox"/> Level D	<input type="checkbox"/> Modified Level D	<input type="checkbox"/> Level C	* Cannot use Short Form HASP for Level B or A work		
Standard PPE					
<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Safety boots	<input checked="" type="checkbox"/> Safety glasses	<input type="checkbox"/> Chem. Resistant Boots	<input checked="" type="checkbox"/> High visibility vest	<input type="checkbox"/> Other: _____
Eye and Face Protection					
<input type="checkbox"/> Face shield	<input type="checkbox"/> Vented goggles	<input type="checkbox"/> Unvented goggles	<input type="checkbox"/> Indirect vented goggles		
Hearing Protection					
<input checked="" type="checkbox"/> Ear plugs	<input type="checkbox"/> Ear Muffs	<input type="checkbox"/> Ear plugs and muffs	<input type="checkbox"/> Other _____		
Respiratory Protection					
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Dust mask	<input type="checkbox"/> Full Face APR	<input type="checkbox"/> Half Face APR	Cartridge Type: _____	Change Cartridges: _____
Protective Clothing					
<input type="checkbox"/> Work uniform	<input type="checkbox"/> White uncoated Tyvek®	<input type="checkbox"/> Poly-coated Tyvek®	<input type="checkbox"/> Saranex®		
<input type="checkbox"/> Boot covers	<input checked="" type="checkbox"/> Reflective vest	<input type="checkbox"/> Chaps or Snake Legs	<input type="checkbox"/> Other _____		
Hand Protection					
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Cotton gloves	<input type="checkbox"/> Leather gloves	<input type="checkbox"/> Glove liners	<input type="checkbox"/> Cut-resistant gloves	<input type="checkbox"/> Other _____
<input type="checkbox"/> Outer Gloves: List Type _____			<input type="checkbox"/> Inner Gloves: List Type _____		
Monitoring Instruments Required*					
Periodic monitoring shall be conducted when the possibility of an IDLH condition or flammable atmosphere has developed or when there is indication that exposures may have risen over permissible exposure limits or published exposure levels since prior monitoring. Situations where it shall be considered whether the possibility that exposures have risen are as follows: <ul style="list-style-type: none"> ▪ When work begins on a different portion of the site. ▪ When contaminants other than those previously identified are being handled. ▪ When a different type of operation is initiated (e.g., drum opening as opposed to exploratory well drilling.) ▪ When employees are handling leaking drums or containers or working in areas with obvious liquid contamination (e.g., a spill or lagoon.) 					
<input type="checkbox"/> LEL/O ₂ Meter	<input checked="" type="checkbox"/> PID:	<input type="checkbox"/> 10.0-10.6 eV Lamp	<input type="checkbox"/> FID	<input type="checkbox"/> Hydrogen Sulfide/Carbon Monoxide	
<input type="checkbox"/> Dräger Pump (or equivalent) List Tubes _____	<input type="checkbox"/> Dust Meter:	<input type="checkbox"/> Respirable dust	<input type="checkbox"/> Other _____		
		<input type="checkbox"/> Total dust			

*Monitoring instruments will be calibrated daily in accordance with manufacturer's instructions. Results will be recorded in the field logbook.

Chemicals Brought to the Site:

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List all chemicals brought to the site (e.g., preservatives, decon solutions, calibration gases, gasoline, etc.).

Chemicals (Note: Name listed must match name on label and MSDS)	SDS Attached?
ALCONOX	<input checked="" type="checkbox"/>
TRIZMA	<input checked="" type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>

Chemicals will be kept in their original containers. If transferred to another container, aside from days use by one individual, the new container will be clearly labeled with the name of the chemical (product identifier), signal word, hazard statement, pictogram(s), precautionary statement, and name, address and telephone number of the chemical manufacturer, importer or other responsible party.

Work Zones:

The work zones will be defined relative to the location of the work activity. The Exclusion Zone is considered the area within a 10-foot diameter of the sampling location. The Contamination Reduction Zone is considered to be the area with in a 20-foot diameter of the sampling location. The Decontamination Zone is to be located upwind of the work area. Work zones will be maintained through the use of:

- Warning Tape
- Cones and Barriers
- Visual Observations

Decontamination Procedures and Equipment:

Note: See Decontamination JHA for further information

Level D Decontamination Procedures

- | | |
|---|---|
| Decontamination Solution: | Detergent and Water |
| Station 1: Equipment Drop | Deposit equipment used on-site (tools, sampling devices and containers, monitoring instruments, radios, etc. on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool-down station may be set up within this area. |
| Station 2: Outer Boots, and Gloves Wash and Rinse (if worn) | Scrub outer boots, and outer gloves decon solution or detergent water. Rinse off using copious amounts of water. |
| Station 3: Outer Boot and Glove Removal (if worn) | Remove outer boots and gloves. Deposit in plastic bag. |
| Station 4: Inner glove removal | Remove inner gloves and place in plastic bag. |
| Station 5: Field Wash | Hands and face are thoroughly washed. Shower as soon as possible. |

Modified Level D and Level C PPE Decontamination Procedures

- | | |
|---------------------------|---|
| Decontamination Solution: | Detergent and Water |
| Station 1: Equipment Drop | Deposit equipment used on-site (tools, sampling devices and containers, monitoring instruments, radios, etc. on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool-down station may be set up within this area. |

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Short Form HASP**

Station 2: Outer Garment, Boots, and Gloves Wash and Rinse	Scrub outer boots, outer gloves, and splash suit with decon solution or detergent water. Rinse off using copious amounts of water.
Station 3: Outer Boot and Glove Removal	Remove outer boots and gloves. Deposit in container with plastic liner.
Station 4: Canister or Mask (Level C only) Change	If worker leaves exclusion zone to change canister (or mask), this is the last step in the decontamination procedure. Worker's canister is exchanged, new outer gloves and boot covers are donned, joints are taped, and worker returns to duty.
Station 5: Boot, Gloves and Outer Garment Removal	Boots, chemical resistant splash suit, and inner gloves are removed and deposited in separate containers lined with plastic.
Station 6: Face Piece Removal (Level C only)	Facepiece is removed. Avoid touching face with fingers. Facepiece is deposited on plastic sheet.
Station 7: Field Wash	Hands and face are thoroughly washed. Shower as soon as possible.

Site Communication:

- Verbal
- Two-way radio
- Cellular telephone
- Hand signals
 - Hand gripping throat Out of air, can't breathe
 - Grip partner's wrist or both hands around waist Leave area immediately
 - Hands on top of head Need assistance
 - Thumbs up OK, I am all right, I understand
 - Thumbs down No, negative
- Horn
- Siren
- Other:

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Emergency Equipment:

The following emergency response equipment is required for this project and shall be readily available:

- Field First Aid Kit (including bloodborne pathogen kit/supplies)
- Fire Extinguisher (ABC type)
- Eyewash (Note: 15 minutes of free-flowing fresh water)
- Other: _____

EMERGENCY PROCEDURES

- The SHSO (or alternate) should be immediately notified via the on-site communication system. The HSO assumes control of the emergency response.
- The SHSO notifies the Project Manager and client contact of the emergency.
- If the emergency involves an injury to an AMEC employee, the HSE Coordinator or Site Manager are to implement the AMEC Early Injury Case Management program. See procedures and Flow Diagram below:
- If applicable, the SHSO shall notify off-site emergency responders (e.g. fire department, hospital, police department, etc.) and shall inform the response team as to the nature and location of the emergency on-site.
- If applicable, the SHSO evacuates the site. Site workers should move to the predetermined evacuation point (See Site Map).
- For small fires, flames should be extinguished using the fire extinguisher. Large fires should be handled by the local fire department.
- In an unknown situation or if responding to toxic gas emergencies, appropriate PPE, including SCBAs (if available), should be donned. If appropriate PPE is unavailable, site workers should evacuate and call in emergency personnel.
- For chemical spills, follow the job specific JHA for spill containment
- If chemicals are accidentally spilled or splashed into eyes or on skin, use eyewash and wash affected area. Site worker should shower as soon as possible after incident.
- If the emergency involves toxic gases, workers will back off and reassess. Prior to re-entering the work zone, the area must be determined to be safe. Entry will be using Level B PPE and utilize appropriate monitoring equipment to verify that the site is safe.
- An injured worker shall be decontaminated appropriately.
- Within 24 hours after any emergency response, the Incident Analysis Report (and Vehicle Incident Report if vehicle incident) shall be completed and returned to the Group HSE Manager. Injuries requiring medical treatment beyond first aid (as well as work-related vehicle incidents) will require the employee to submit a post incident drug test.

AMEC Early Injury Case Management Program

NON-EMERGENCY INCIDENT	EMERGENCY INCIDENT
<p>Steps 1 & 2 must be completed before seeking medical attention other than local first aid.</p> <ol style="list-style-type: none"> 1. Provide first-aid as necessary. Report the situation to your immediate supervisor AND HSE coordinator (all incidents with the 	<ol style="list-style-type: none"> 1. Provide emergency first aid. Supervisor on duty must immediately call 911 or local emergency number; no employee may respond to outside queries without prior

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Short Form HASP



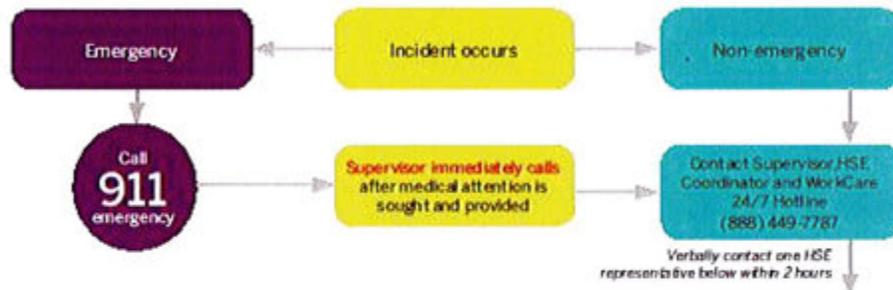
<p>apparent starting event should be reported within 1 hour of occurrence).</p> <p>2. Injured employee:</p>	<p>authorization. Any outside media calls concerning this incident must be referred immediately to Lauren Gallagher at 602-757-3211.</p> <p>2. Once medical attention is sought and provided, the supervisor must:</p>
<p>Call WorkCare 24/7 Hotline* (888) 11-XPRTS or (888) 449-7787</p>	
<p>WorkCare will assess the situation and determine whether the incident requires further medical attention. During this process, WorkCare will perform the following:</p> <ul style="list-style-type: none"> • Explain the process to the caller. • Determine the nature of the concern. • Provide appropriate medical advice to the caller. • Determine appropriate path forward with the caller. • Maintain appropriate medical confidentiality. • Help caller to execute path forward, including referral to the appropriate local medical facility. • Send an email notification to the Corporate HSE Department. 	<p>WorkCare will be responsible for performing the following:</p> <ul style="list-style-type: none"> • Contact the treating physician. • Request copies of all medical records from clinic. • Send an email update to the Corporate HSE Department.
<p>3. IMMEDIATELY after contacting WorkCare send a brief email notification AND inform verbally (direct contact is required) ONE of HSE corporate representatives See Figure 11.3.</p> <p>4. Make all other local notifications and client notifications.</p> <p>5. Local Supervisor, HSE Coordinator, SSHO and any applicable safety committees to complete preliminary investigation, along with the initial Incident Report within 24 hours.</p> <p>6. Corporate Loss Prevention Manager to complete Worker's Compensation Insurance notifications as needed.</p> <p>7. Corporate HSE to conduct further incident notifications, investigation, include in statistics, classify, and develop lessons learned materials.</p> <p>* - NOTE: Step 2 is only applicable to the North-American operations and to incidents involving AMEC personnel. High potential near misses, subcontractors' incidents, regulatory inspections, spills and property damages above \$1,000 should be reported immediately, following directions from Step 3.</p>	

Site Specific Procedures are as follows:

INCIDENT FLOW CHART

Incident flow chart

Call immediately



E&I Corporate HSE department contact list

Name/email	Office location	Contact information
Bruce Voss bruce.voss@amecfw.com	Cathedral City, CA	760.202.3737 (office) 951.897.6381 (cell)
Chad Barnes chad.barnes@amecfw.com	Phoenix, AZ	602.733.6000 (office) 480.495.9846 (cell)
Cindy Sundquist cynthia.sundquist@amecfw.com	Portland, ME	207.828.3309 (office) 207.650.7593 (cell) 207.892.4402 (home)
Gabe Sandholm gabe.sandholm@amec.com	Minneapolis, MN	612.252.3785 (office) 206.683.9190 (cell)
John Mazur john.mazur@amec.com	Wilmington, NC	910.444.2978 (office) 910.431.2330 (cell) 910.681.0538 (home)
Lori Dowling lori.dowling@amec.com	Prince George, BC	250.564.3243 (office)
Philip Neville philip.neville@amec.com	Thorold, ON	905.687.6616 (office) 905.380.4465 (cell)
Tim Kihn tim.kihn@amec.com	Edmonton, AB	780.944.6363 (office) 780.717.5058 (cell)
Vladimir Ivensky (can call 24/7) vladimir.iversky@amec.com	Plymouth Meeting, PA	610.877.6144 (office) 484.919.5175 (cell) 215.947.0393 (home)
Kirby Lastinger kirby.lastinger@amec.com	Lakeland, FL	836-667-2345 x207 (office) 863-272-4775 (cell)

*High potential near misses, subcontractor incidents, regulatory inspections, spills, and property damage should be reported within 60 minutes to one of the above HSE Representatives.
WITHIN 24 HOURS - Local Supervisor, HSE Coordinator, Project HSE Officer, and any applicable safety committees must complete preliminary investigation, along with the initial Incident Analysis Report Form and forward it to the Corporate HSE Department

Rev. Feb 15/16



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Short Form HASP

FIELD TEAM REVIEW: I acknowledge that I understand the requirements of this HASP, and agree to abide by the procedures and limitations specified herein. I also acknowledge that I have been given an opportunity to have my questions regarding the HASP and its requirements answered prior to performing field activities. Health and safety training and medical surveillance requirements applicable to my field activities at this site are current and will not expire during on-site activities.

Name: _____	Date: _____

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Short Form HASP**

wood.

Routes to Emergency Medical Facilities

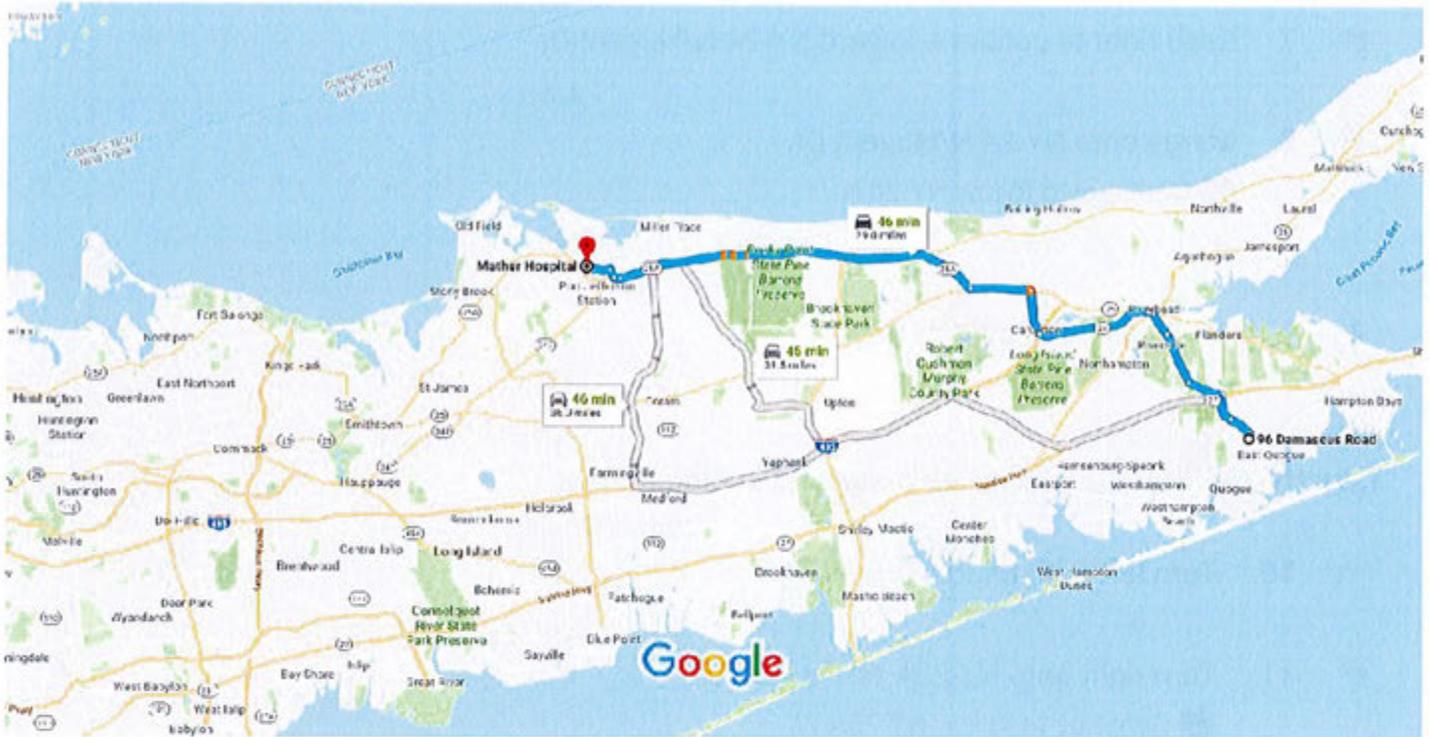
HOSPITAL(for Immediate emergency treatment):

Facility Name: Mather Hospital

Address: 75 N Country Road, Port Jefferson, Brookhaven, NY

Telephone Number: 631-473-1320

DIRECTIONS TO PRIMARY HOSPITAL:



Map data ©2019 Google 2 mi

96 Damascus Rd

East Quogue, NY 11942

Take Quogue Riverhead Rd to Nugent Dr in Riverside

10 min (6.0 mi)

- ↑ 1. Head north on Damascus Rd toward Lewis Rd 0.2 mi
- ↶ 2. Turn left onto Lewis Rd 0.8 mi
- ↑ 3. Continue straight onto Quogue Riverhead Rd 2.2 mi
- 📍 4. At the traffic circle, take the 1st exit and stay on Quogue Riverhead Rd 2.0 mi
- ↑ 5. Continue onto Riverleigh Ave 0.9 mi

Follow NY-24 N to Edwards Ave S in Brookhaven

- 5 min (4.4 mi)
- 6. At the traffic circle, take the 3rd exit onto Nugent Dr
 - 7. Keep right to continue toward NY-24 N/Nugent Dr
0.2 mi
 - 8. Merge onto NY-24 N/Nugent Dr
420 ft
[Continue to follow NY-24 N](#)
4.2 mi
 - 9. Continue onto Edwards Ave S
3 min (1.6 mi)

Take NY-25A W to Crystal Brook Hollow Rd in Mount Sinai

- 26 min (15.7 mi)
- 10. Turn left onto Middle Country Rd
2.2 mi
 - 11. Turn right onto NY-25A W/Parker Rd
[Continue to follow NY-25A W](#)
7.9 mi
 - 12. Use the left 2 lanes to turn left onto NY-25A W/N Country Rd
[Continue to follow NY-25A W](#)
[Pass by Astoria Bank \(on the right in 0.7 mi\)](#)
5.3 mi
 - 13. Keep right to continue on Hallock Ave
0.2 mi

Follow Crystal Brook Hollow Rd and N Country Rd to your destination in Port Jefferson

- 3 min (1.2 mi)
- 14. Turn right onto Crystal Brook Hollow Rd
0.4 mi
 - 15. Turn left onto N Country Rd
0.8 mi
 - 16. Turn right
164 ft

↩ 17. Turn left

i Destination will be on the right

272 ft

Mather Hospital

75 N Country Rd, Port Jefferson, NY 11777

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

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Short Form HASP**

wood.

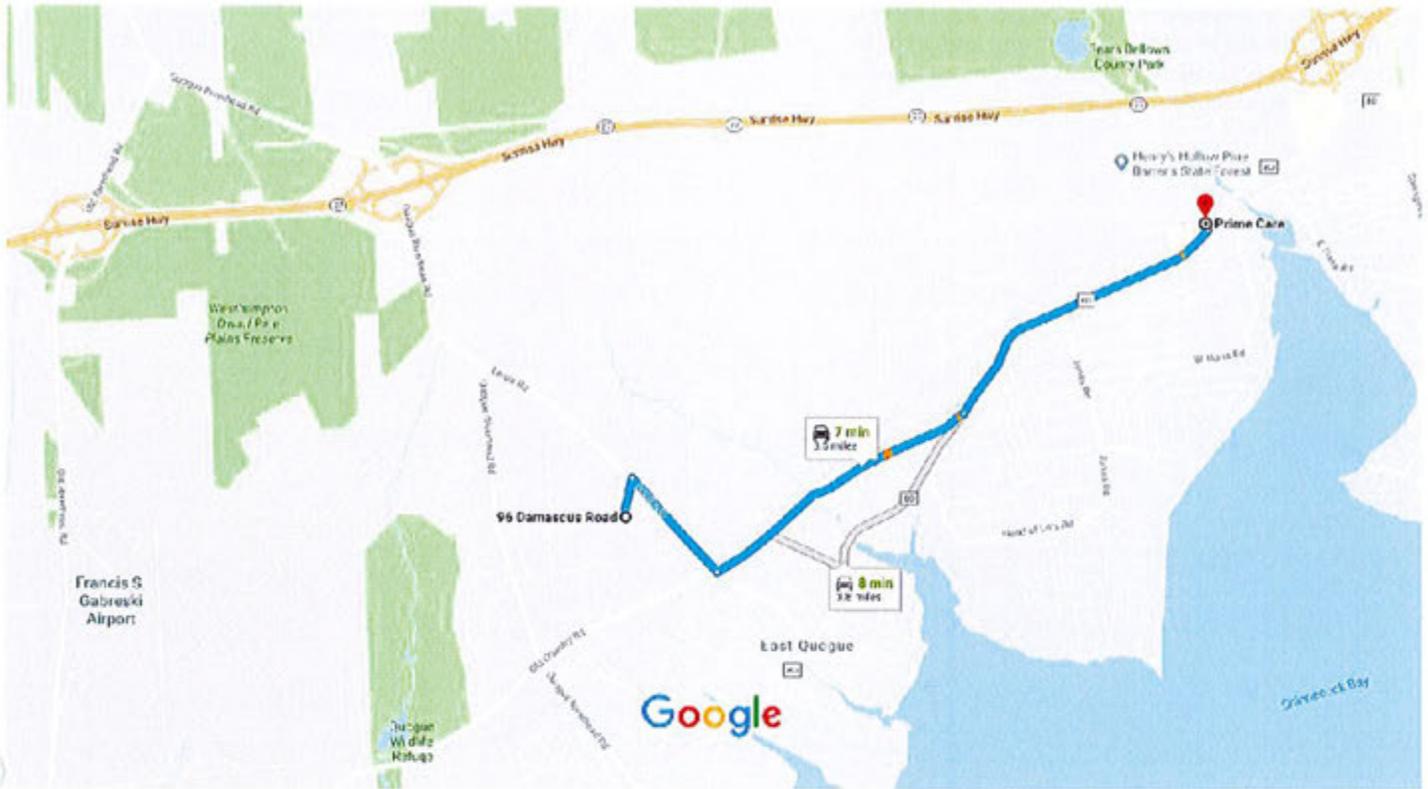
CLINIC (for non-emergency medical treatment)

Facility Name: Prime Care

Address: 240 W Montauk Highway, Hampton Bays, Southampton, NY 11946

Telephone Number: 631-728-4500

DIRECTIONS TO CLINIC:



Map data ©2019 Google 2000 ft

96 Damascus Rd

East Quogue, NY 11942

- ↑ 1. Head north on Damascus Rd toward Lewis Rd 0.2 mi
- ↘ 2. Turn right onto Lewis Rd 0.6 mi
- ↙ 3. Turn left onto Old Country Rd 1.3 mi
- ↙ 4. Turn left onto County Rd 80 E 1.4 mi
- ↙ 5. Turn left 141 ft

i Destination will be on the right

Prime Care

240 W Montauk Hwy, Hampton Bays, NY 11946

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route

Tailgate Safety Meeting Report

Check One:

- Initial Kickoff Safety Meeting Regular/Daily Tailgate Safety Meeting Unscheduled Tailgate Safety Meeting

Date: _____ Site: _____

Site Manager: _____ Site Health and Safety Officer: _____
Print Print

Order of Business

Topics Discussed (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Scope of Work | <input type="checkbox"/> Decontamination Procedures for Personnel and Equipment |
| <input type="checkbox"/> Site History/Site Layout | <input type="checkbox"/> Physical Hazards and Controls (e.g., overhead utility lines) |
| <input type="checkbox"/> Personnel Responsibilities | <input type="checkbox"/> Anticipated Weather (snow, high winds, rain) |
| <input type="checkbox"/> Training Requirements | <input type="checkbox"/> Temperature Extremes (heat or cold stress symptoms and controls) |
| <input type="checkbox"/> Hazard Analysis of Work Tasks (chemical, physical, biological and energy health hazard effects) | <input type="checkbox"/> Biological Hazards and Controls (e.g., poison ivy, spiders) |
| <input type="checkbox"/> Applicable SOPs (e.g., Hearing Conservation Program, Safe Driving, etc.) | <input type="checkbox"/> Site Control (visitor access, buddy system, work zones, security, communications) |
| <input type="checkbox"/> Safe Work Practices | <input type="checkbox"/> Sanitation and Illumination |
| <input type="checkbox"/> Engineering Controls | <input type="checkbox"/> Logs, Reports, Recordkeeping |
| <input type="checkbox"/> Chemical Hazards and Controls | <input type="checkbox"/> Incident Reporting Procedures |
| <input type="checkbox"/> Signs and symptoms of over exposure to site chemicals | <input type="checkbox"/> Near Misses/Hazard ID including worker suggestions to correct and work practices to avoid similar occurrences |
| <input type="checkbox"/> Medical Surveillance Requirements | <input type="checkbox"/> General Emergency Procedures (e.g., locations of air horns and what 1 or 2 blasts indicate) |
| <input type="checkbox"/> Action Levels | <input type="checkbox"/> General Emergency Response Procedures (e.g., earthquake response, typhoon response, etc.) |
| <input type="checkbox"/> Monitoring Instruments and Personal Monitoring | <input type="checkbox"/> Medical Emergency Procedures (e.g., exposure control precautions, location of first aid kits, etc.) |
| <input type="checkbox"/> Perimeter Monitoring, Type and Frequency | <input type="checkbox"/> Route to Hospital and Medical Care Provider Visit Guidelines |
| <input type="checkbox"/> PPE Required/PPE Used | <input type="checkbox"/> Site/Regional Emergency Response Procedures (e.g., exposure control precautions, location of first aid kits, etc.) |
| <input type="checkbox"/> Define PPE Levels, Donning, Doffing Procedures | <input type="checkbox"/> Hazardous Materials Spill Procedures |

Safety Suggestions by Site Workers: _____

Action Taken on Previous Suggestions: _____

Injuries/Incidents/Personnel Changes since last meeting: _____

PPE Selection Guidelines

When selecting the appropriate PPE for the job, consider the following:

- **Safety glasses** – general eye protection – source of hazard, typically coming from straight on, required at most sites
- **Tinted Safety Glasses** – same as above, but when working in direct sunlight. May need two both tinted and un-tinted if working in both sunlight and shade/overcast skies.
- **Safety goggles** – needed for splash hazard, more severe eye exposures coming from all directions. Non-vented or indirect venting for chemical splash, non-vented for hazardous gases or very fine dust, vented for larger particulates coming from all directions.
- **Face shield** – needed to protect face from cuts, burns, chemicals (corrosives or chemicals with skin notation), etc.
- **Safety boots** – needed if danger of items being dropped on foot that could injure foot
- **Hard hat** – danger from items falling on head – any overhead work, tools, equipment, etc. that is above the head and could fall on head if item fails, or falls off work platform. Typically required at most sites as a general PPE
- **Thin, chemical protective inner gloves** (e.g., thin Nitrile, PVC – do not use latex – many people are allergic to latex) – needed to protect hands from incidental contact with low risk contamination at very low concentrations (ppb or low ppm concentrations in groundwater or soil) or used in combination with outer gloves as a last defense against contamination. Need to specify type
- **Outer gloves** – thicker gloves (e.g., Nitrile, Butyl, Viton, etc.) – used when potential for high concentrations of contaminants (e.g., floating product, percent ranges of contaminant, opening drums, handling pure undiluted chemicals, etc.). Need to specify type.
- **Leather gloves, leather palm, cotton** – good in protecting hands against cuts – no protection from chemicals. May be used in combination with chemical protective gloves.
- **Boot Covers** – when there is contamination in surface soils or working surface in general. When safety boots need protection from contact with contaminants.
- **White (uncoated) Tyveks** – protect clothing from getting dirty, good for protection against solid, non-volatile chemicals (e.g., asbestos, metals) – no chemical protection.
- **Polycoated Tyveks** – least protective of chemical protective clothing. Used when some risk of contamination getting on skin or clothing. Usually, lower ppm ranges of contaminants.
- **Saranex** – Greater protection against contamination than Polycoated Tyveks. Used to protect against PCBs or higher concentrations of contaminants in the soil or groundwater.
- **Other Chemical protective clothing** – if significant risk of dermal exposure, contact H&S to determine best kind.
- **Long sleeved shirts, long pants** – if working in areas with poison ivy/oak/sumac, poisonous insects, etc. and no chemicals exposure. May want to use uncoated Tyveks for work in areas where poisonous plants are known to be to protect clothing.
- **Cartridge Respirator (Level C PPE)** – Need to calculate change schedule (contact Division EH&S Manager for this) to determine length of use. To be able to use cartridge respirators, need to know contaminants, estimate levels to be encountered in the breathing zone, need to ensure that cartridge will be effective against COCs, and need to be able to monitor for COCs using PID, FID, Dräger tubes, etc. If can't do any of these, then Level B PPE is probably going to be needed.
- **High Visibility Vest** – needed for any road work (within 15 feet of a road) or when working on a site with vehicular traffic or working around heavy equipment. Needed if work tasks would take employee concentration away from movement of vehicles and workers would have to rely on the other driver's ability to see the employee in order not to hit them. This includes heavy equipment as well as cars and trucks, on public roads or the jobsite. Not needed if wearing Polycoated Tyveks – as they are already high visibility.
- **Reflective Vest** – see above, but for use at night.
- **Hearing Protection** – needed if working at noise levels above 85 dBA on a time weighted average. If noise measurements are not available, use around noisy equipment, or in general, if you have to raise your voice to be heard when talking to someone standing two feet away.
- **Protective Chaps** – required when using a machete or chain saw or any other cut hazard to legs.

Incident Report Forms

1. Incident Analysis Report (IAR)
2. Vehicle Incident Report (VIR)
3. Ground Disturbance Incident Report (GDR)



INCIDENT ANALYSIS REPORT (IAR)

Incident Potential Severity

Check one

Initial Report:
Update:
Final Report:

Amec Foster Wheeler E&I
Confidential - Privileged

Letter: Select One
Number: Select One
Investigation Level: Select One
[Severity Matrix \(LINK\)](#)

Group: Select One Group HSE Manager: _____ Incident Review Panel Team (if applicable): _____

Incident Date: _____ Report Date: _____

Section 1 – General Information

Employee Name: _____ Sex: M F Date of Birth: _____ Age Range: Select One

Job Position: Select One Hire Date: _____ Time employee began work: _____ Time of incident: _____ am | pm

Business Line: Select One Department Number: _____ Project Manager: _____

Project Name: _____ Project Number: _____ Client: _____

Employee home office: _____ State/Province: _____ Immediate Supervisor: _____ Hours employee worked during last 7 days: _____ hrs

Location: Select One Is this a Company controlled work site: Yes No Incident Assigned to: Select One

Location description: _____

Section 2 – Incident Type - Process (mark at least ONE BOLD TYPE and all that apply)

- Fatality** **Environmental** **Injury/Illness Incident** If Injury/illness: Select One
- Security** **Near Miss/Hazard ID** **Property Damage** If Damage: Select One 3rd Party?
- Hospitalization **Regulatory Inspection** **Notice of Violation or Citation** Agency Reportable
- Motor Vehicle Incident Involving Injury Other (describe): _____

Outcome/Result: Select One If "other", specify: _____ Source of Hazard: Select One If "other", specify: _____

Immediate Cause: Select One

A. If **injury/illness**: Indicate the part of the body: Select One If "other", specify: _____

Indicate body part location: Select One If "other", specify: _____

Injury Type: Select One If "other" specify: _____ Illness Type: Select One If "other", specify: _____

Bleeding? Select One If yes, "First Aider" name: _____ Contact with blood/infectious material? Select One

Exposure Control Precautions taken by First Aider (check all that apply):

- None (If none, contact WorkCare) Gloves Previous HBV Immunization
- Immediate Personal Hygiene One-way CPR valve Recommended for HBV Immunization
- Eye protection Face mask Other (describe): _____

Blood contaminated work area / surface? If contaminated, describe cleanup/disposal: _____

Medical treatment provided (i.e. prescriptions, referrals, etc.). If medical treatment, describe: _____

Physical limitations received from physician? If limitations, describe: _____ Modified Work Offer provided.

Second medical opinion? If second opinion, describe: _____

Workers Compensation claim filed? If filed, claim number: _____

B. If **property damage**: describe what happened and estimate (\$) of damage to all objects involved? _____

C. If **environmental**: Environmental incident category: Pollution Event Non-conformance

Was Regulatory Action Taken: Select One If "Yes" describe: _____

Type of pollution event: Select One Type of substance: Select One Name, CAS#, physical state: _____

Quantity: _____ Substance Unit: Select One Source of release: Select One If "other", specify: _____

Duration of Breach: Select One Receiving Environment: Select One If "other", specify: _____

Level of Non-conformance: Select One Describe Non-conformance: _____

- D. If **security**: Security Incident Type: Select One If Physical: Select One If Criminal: Select One If Intellectual: Select One
- E. If an **inspection by a regulatory agency**, what agency, who were the inspectors, inspector contact information? ____

Section 3 – Incident Description

Attach and number additional pages, as needed, to ensure all details related to the incident are captured.

- A. List the names of all persons involved in the incident, and employer information: ____
- B. List the names of any witnesses, their employer, and a local/company telephone number or address: ____
- C. Name of Employee's supervisor: ____ Contact phone number for supervisor: ____
- D. What specific job/task or action was the employee(s) doing just prior to the incident: ____
- E. Was a tool or equipment involved? Yes No What was it: ____ Last Inspection Date: ____ Defects: ____
- F. Explain in **detail** what happened: ____
- G. Explain in **detail** what object or substance directly harmed the employee: ____
- H. What were the weather conditions at time of incident?: ____
- I. What was the lighting like at time of incident? Bright Shadows Dark Other: ____
- J. List any damaged equipment or property (other than motor vehicles). Provide model and serial number **and** estimated costs to repair/replace damaged equipment or property, if applicable: ____

Section 4 - Incident Analysis

- A. Was a Health and Safety Plan (HASP) or Activity Hazard Analysis (AHA) completed for the work being performed? Yes No
If "yes", Who prepared the document?: ____
- B. Who and when was the last manager (Project, Unit, etc.) at the site of the incident?: ____
- C. When and what safety training **directly related** to the incident has the person(s) involved had?: ____
- D. List attached documentation (HASP acknowledgement forms, kickoff/daily/weekly meetings, inspections, photographs): ____

Section 5 - Incident Investigation Results and Corrective Actions

This section to be completed by the Group HSE Manager/IRP with support from location where incident occurred, in accordance with [A-Z List of Accident Causes](#) and [Glossary of A-Z Causes](#) (click links).

Causal Factors (Acts or Omissions / Conditions)

(Attach and number any additional pages as needed to completely address this section)

	IMMEDIATE CAUSE	IMMEDIATE CAUSE SUB-TYPE	DESCRIPTION
1	Select One	_____	_____
2	Select One	_____	_____
3	Select One	_____	_____
4	Select One	_____	_____

Root Cause(s) Analysis - The below items represents major root cause categories which have been determined to be Less Than Adequate (LTA). A more detailed determination of the root cause will be facilitated, if needed, by the applicable Group HSE Manager / IRP.

	ROOT CAUSE TYPE	ROOT CAUSE SUB-TYPE	DESCRIPTION
1	Select One	_____	_____

2	Select One	_____	_____
3	Select One	_____	_____
4	Select One	_____	_____

Amec Foster Wheeler Safety Rules and Safety Essentials

Safety Rules Select all applicable breaches of rules or <input type="checkbox"/> None		Safety Essentials Select all applicable breaches of behavioral expectations or <input type="checkbox"/> None	
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Isolation (energy)	<input type="checkbox"/> Always Take Care	<input type="checkbox"/> You Must Intervene
<input type="checkbox"/> Working at Height	<input type="checkbox"/> Dropped Objects (height)	<input type="checkbox"/> Follow the Rules	<input type="checkbox"/> Manage Any Change
<input type="checkbox"/> Suspended Loads	<input type="checkbox"/> Excavations	<input type="checkbox"/> Do a Risk Assessment	<input type="checkbox"/> Wear the Correct PPE
<input type="checkbox"/> Driving	<input type="checkbox"/> Overhead electricity		
<input type="checkbox"/> Permit to Work	<input type="checkbox"/> Personal Security		

Corrective Actions

Root Cause #	Corrective Actions Taken (Attach additional pages as needed to completely address this section)	Responsible Person	Proposed Completion Date	Closed on Date	Verified by and Date Verified
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Section 6 - Notifications, Certification & Approvals

Check the appropriate boxes indicating the applicable reports have been made to the following applicable organizations:

- Auto Insurance Carrier was called Group HSE Manager Notified
 WorkCare was called Post-Incident Drug/Alcohol Testing Performed

Incident Report prepared by: _____

Employee (s): _____	Date: _____	Employee's Supervisor: _____	Date: _____
------------------------	----------------	---------------------------------	----------------

HSE Coordinator/Project/Unit Manager: _____	Date: _____	Group HSE Manager: _____	Date: _____
--	----------------	-----------------------------	----------------



VEHICLE INCIDENT REPORT (VIR)
Amec Foster Wheeler E&I
 Confidential - Privileged

Section 1 - General Information

Date of Incident: _____

Time incident occurred: _____ am | pm | Illumination: Dark Dusk Light | Road Condition: Dry Wet Icy/snow

Were police summoned to scene? Yes No Police Department and Location: _____

Report #: _____ Officer's Name: _____ Officer's Badge Number: _____

Section 2 - Company Driver and Vehicle

Driver's name: _____ D/L #: _____ State: _____

Driver's home office address: _____ Driver's Phone #: _____

Company Vehicle #: _____ Year: _____ Model: _____ License #: _____ State: _____

Company car?: Yes No Personal Vehicle?: Yes No Rental Vehicle?: Yes No

If rental, rented from: _____

Passenger/Witness Name(s): _____ Address: _____ Telephone: _____

Passenger/Witness Name(s): _____ Address: _____ Telephone: _____

Damage to vehicle: _____

Was an employee injured?: Yes No If yes, please describe: _____

Injuries to others?: Yes No If yes, please describe: _____

Vehicle was being used for: Company business Yes No Personal business Yes No

Towed?: Yes No If yes, by whom?: _____ To Where?: _____

Section 3 - Other Driver and Vehicle Information

Driver's Name: _____ D/L #: _____ State: _____

Current address: _____ City: _____ State: _____

Telephone: _____ Work: _____ Cell: _____

Registered Owner's Name: _____ Address: _____ City: _____ State: _____

(verify registration document)

The Other Vehicle: Make: _____ Model: _____ Year: _____ License #: _____ State: _____

Insurance company name: _____ Address: _____ Phone #: _____

Policy No.: _____ Contact Person: _____ Phone #: _____

Passenger/Witness Name(s): _____ Address: _____ Telephone: _____

Passenger/Witness Name(s): _____ Address: _____ Telephone: _____

Damage: *(Make note of pre-existing damage and take pictures if possible – you may attach additional pages if necessary):* _____

Injuries to other driver/passengers: _____

Section 4 - Approvals (signatures required)

Form completed by (please print): _____ Date: _____

Office/Project Manager (please print): _____ Date: _____

Signature: _____

Signature: _____

Things to Do First In The Event Of a Motor Vehicle Incident



GENERAL INFORMATION

1. Do not decide on your own whether a particular incident is "covered" by insurance. Should there be any doubt, it is always preferable to report an occurrence, as this allows underwriters, the Risk Management Department and insurance adjusters to determine if a covered loss has taken place.
2. Policy Conditions do require that all losses and occurrences, which may result in a claim be promptly reported.
3. Do not admit liability or offer your opinion of liability to anyone.
4. Complete this IAR/VIR form promptly and forward with all applicable supporting documentation. It is essential both division and location information be provided.
5. For automobile collisions within the **United States**, please indicate on the IAR form that you have contacted Zurich at:
Zurich Insurance Company
1-800-987-3373 or
1-877-928-4531
24 hours a day, 7 days a week
6. For automobile collisions within **Canada**, please indicate on the IAR form that you have contacted Zurich at:
Crawford Adjusters Canada
Claims Alert
1-888-218-2346
24 hours a day, 7 days a week
7. Information on the use of rental and personal vehicles at work and insurance are at the links for **Canada** and **US**.

The more details you have the better but, don't delay reporting if you don't have all of the information - that may be obtained later. A Zurich trained operator will answer your call and ask for all relevant information regarding the incident. The initial information required includes:

- Your division,
- Office location and division contact name – advise that you are an AMEC Company
- Name, drivers license and phone number of the driver involved in the loss
- Description of the vehicle which he/she was driving (i.e., year, make, model, license plate number, serial number)
- Date, time and location of incident
- Passenger information (if applicable)
- Third party information (i.e., name, phone number, address, vehicle information, insurance information)
- If any injuries occurred (if applicable)
- Police information
- Witness information (if applicable)

Call 911 if there are serious injuries!

If you are injured or think you were injured, contact your supervisor and call WorkCare at 888-449-7787. Your supervisor will notify your HSE Coordinator and your Group HSE Manager. For additional instructions on what to do, go to Amec Foster Wheeler's HSE website at:

http://ee.amecnet.com/she/sheweb/incident_reporting.htm

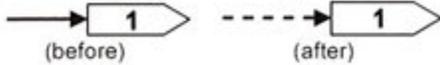
1. **Call for an officer if the incident occurred on public property** (streets, highways or roads). Disputes often arise between the parties involved as to who was at fault; therefore, a police report is important. If an officer is unable to attend the scene of the collision, a counter police report may be filed at most stations. Insurance companies rely on police reports to determine liability.
2. **Complete the Incident Investigation Report and the Vehicle Incident Report forms.** It is important that both these forms are completed in detail. Include a diagram of the incident on the provided sheet. Incomplete information may lead to delays in processing associated claims and in helping to prevent this type of incident from occurring again.
3. **Give only information that is required by the authorities or as directed by Amec Foster Wheeler** contractual requirements.
4. **Sign only those statements required by the authorities or as directed by Amec Foster Wheeler** contractual requirements. Do not sign away your or the company's rights.

Vehicle Incident Diagram

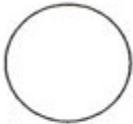
This or a similar diagram must be completed with all VIRs

Instructions:

1. Number each vehicle and show directions 
2. Use a solid line to show path before incident and use a dotted line to show path after incident



3. Show pedestrian/non-motorist by: 
4. Show railroad by: 
5. Indicate north by arrow as: 
6. Show street or highway names or numbers
7. Show signs, signals, warning and traffic controls.



Indicate North
by Arrow

Prepared by: _____

Date: _____

GROUND DISTURBANCE INCIDENT REPORT (GDR)

Amec Foster Wheeler E&I

Section 1 – General Information

Employee Name: _____ Time of incident: _____ am | pm Time Reported: _____ am | pm Report Date: _____
 Project Name: _____ Project Number: _____ Client: _____

List of All Parties Present

Name	Company	Telephone No.	Role
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Describe the chronological description of the incident and response: _____

Section 2 – Date and Location of Event

A. *Date of Event: _____ (MM/DD/YYYY)

B. *Country _____ *State _____ *County _____ City _____

C. Street address _____ Nearest Intersection _____

D. *Right of Way where event occurred

E. Public: City Street State Highway County Road Interstate Highway Public-Other

F. Private: Private Business Private Land Owner Private Easement

G. Pipeline Power /Transmission Line Dedicated Public Utility Easement

Federal Land Railroad Data not collected Unknown/Other

List attached documentation (Public Utility Locates, Private Utility Locates, Copy of notifications submitted to Owner or other utility Owners, photographs): _____

Section 3 – Affected Facility Information

*What type of facility operation was affected?

Cable Television Electric Natural Gas Liquid Pipeline Sewer (Sanitary Sewer)

Steam Telecommunications Water Unknown/Other

*What type of facility was affected?

Distribution Gathering Service/Drop Transmission Unknown/Other

Was the facility part of a joint trench?

Unknown Yes No

Was the facility owner a member of One-Call Center?

Unknown Yes No

Section 4 – Excavation Information

*Type of Excavator

- | | | | | | |
|-------------------------------------|---------------------------------|------------------------------------|---|--|-----------------------------------|
| <input type="checkbox"/> Contractor | <input type="checkbox"/> County | <input type="checkbox"/> Developer | <input type="checkbox"/> Farmer | <input type="checkbox"/> Municipality | <input type="checkbox"/> Occupant |
| <input type="checkbox"/> Railroad | <input type="checkbox"/> State | <input type="checkbox"/> Utility | <input type="checkbox"/> Data not collected | <input type="checkbox"/> Unknown/Other | |

*Type of Excavation Equipment

- | | | | | |
|---|---|---|---|---|
| <input type="checkbox"/> Auger | <input type="checkbox"/> Backhoe/Trackhoe | <input type="checkbox"/> Boring | <input type="checkbox"/> Drilling | <input type="checkbox"/> Directional Drilling |
| <input type="checkbox"/> Explosives | <input type="checkbox"/> Farm Equipment | <input type="checkbox"/> Grader/Scraper | <input type="checkbox"/> Hand Tools | <input type="checkbox"/> Milling Equipment |
| <input type="checkbox"/> Probing Device | <input type="checkbox"/> Trencher | <input type="checkbox"/> Vacuum Equipment | <input type="checkbox"/> Data Not Collected | <input type="checkbox"/> Unknown/Other |

*Type of Work Performed

- | | | | | |
|---|---|---|--|---|
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Cable Television | <input type="checkbox"/> Curb/Sidewalk | <input type="checkbox"/> Bldg. Construction | <input type="checkbox"/> Bldg. Demolition |
| <input type="checkbox"/> Drainage | <input type="checkbox"/> Driveway | <input type="checkbox"/> Electric | <input type="checkbox"/> Engineering/Survey | <input type="checkbox"/> Fencing |
| <input type="checkbox"/> Grading | <input type="checkbox"/> Irrigation | <input type="checkbox"/> Landscaping | <input type="checkbox"/> Liquid Pipeline | <input type="checkbox"/> Milling |
| <input type="checkbox"/> Natural Gas | <input type="checkbox"/> Pole | <input type="checkbox"/> Public Transit Auth. | <input type="checkbox"/> Railroad Maint. | <input type="checkbox"/> Road Work |
| <input type="checkbox"/> Sewer (San/Storm) | <input type="checkbox"/> Site Development | <input type="checkbox"/> Steam | <input type="checkbox"/> Storm Drain/Culvert | <input type="checkbox"/> Street Light |
| <input type="checkbox"/> Telecommunication | <input type="checkbox"/> Traffic Signal | <input type="checkbox"/> Traffic Sign | <input type="checkbox"/> Water | <input type="checkbox"/> Waterway Improvement |
| <input type="checkbox"/> Data Not Collected | <input type="checkbox"/> Unknown/Other | | | |

Section 5 – Pre-Excavation Notification

*Was the One-Call Center notified?

- Yes No If Yes, which One-Call Center?

Ticket number:

Was Private Contract Locator used?

- Yes No

Section 6 – Locating and Marking

*Type of Locator

- Utility Owner Contract Locator Data Not Collected

*Were facility marks visible in the area of excavation?

- Yes No Data Not Collected

*Were facilities marked correctly?

- Yes No Data Not Collected

What technology was used to locate utilities?

- | | | | |
|-----------------------------------|---|--|--|
| <input type="checkbox"/> Maps | <input type="checkbox"/> Active(transmitter+receiver) | <input type="checkbox"/> Passive (receiver only) | <input type="checkbox"/> GPR |
| <input type="checkbox"/> Acoustic | <input type="checkbox"/> Magnetic | <input type="checkbox"/> Infrared | <input type="checkbox"/> Unknown/Other |

What Factors affected the ability to locate services?

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> Soil Type: _____ | <input type="checkbox"/> Non-Grounded | <input type="checkbox"/> Common Bonded | <input type="checkbox"/> Depth |
| <input type="checkbox"/> Electromagnetic interference | <input type="checkbox"/> Parallel facilities | <input type="checkbox"/> Congested facilities | <input type="checkbox"/> Unknown/Other |

Section 7 – Excavator Downtime

Did Excavator incur down time?

- Yes No

If yes, how much time?

- Unknown Less than 1 hour 1 hour 2 hours 3 or more hours Exact Value _____ If

Estimated cost of down time?

- | | | | | | |
|----------------------------------|--|---|--|---|---|
| <input type="checkbox"/> Unknown | <input type="checkbox"/> \$0 | <input type="checkbox"/> \$1 to 500 | <input type="checkbox"/> \$501 to 1,000 | <input type="checkbox"/> \$1,001 to 2,500 | <input type="checkbox"/> \$2,501 to 5,000 |
| | <input type="checkbox"/> \$5,001 to 25,000 | <input type="checkbox"/> \$25,001 to 50,000 | <input type="checkbox"/> \$50,001 and over | Exact Value _____ | |

Section 8 – Description of Damage

*Was there damage to a facility? <input type="checkbox"/> Yes <input type="checkbox"/> No (i.e. near miss)	
*Did the damage cause an interruption in service? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Data Not Collected <input type="checkbox"/> Unknown/Other	
If yes, duration of interruption <input type="checkbox"/> Unknown <input type="checkbox"/> Less than 1 hour <input type="checkbox"/> 1 to 2 hrs <input type="checkbox"/> 2 to 4 hrs <input type="checkbox"/> 4 to 8 hrs <input type="checkbox"/> 8 to 12 hrs <input type="checkbox"/> 12 to 24 hrs <input type="checkbox"/> 1 to 2 days <input type="checkbox"/> 2 to 3 days <input type="checkbox"/> 3 or more days <input type="checkbox"/> Data Not Collected Exact Value _____	
Approximately how many customers were affected? <input type="checkbox"/> Unknown <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 to 10 <input type="checkbox"/> 11 to 50 <input type="checkbox"/> 51 or more Exact Value _____	
Estimated cost of damage / repair/restoration <input type="checkbox"/> Unknown <input type="checkbox"/> \$0 <input type="checkbox"/> \$1 to 500 <input type="checkbox"/> \$501 to 1,000 <input type="checkbox"/> \$1,001 to 2,500 <input type="checkbox"/> \$2,501 to 5,000 <input type="checkbox"/> \$5,001 to 25,000 <input type="checkbox"/> \$25,001 to 50,000 <input type="checkbox"/> \$50,001 and over Exact Value _____	
Number of people injured <input type="checkbox"/> Unknown <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 to 9 <input type="checkbox"/> 10 to 19 <input type="checkbox"/> 20 to 49 <input type="checkbox"/> 50 to 99 <input type="checkbox"/> 100 or more Exact Value _____	
Number of fatalities <input type="checkbox"/> Unknown <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 to 9 <input type="checkbox"/> 10 to 19 <input type="checkbox"/> 20 to 49 <input type="checkbox"/> 50 to 99 <input type="checkbox"/> 100 or more Exact Value _____	
Was there a Product Release? Product Release: <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> N/A Type: _____ If Yes, Incident Type is Environmental Report. Volume: _____ Spill Controls: _____ Repair Process: _____	

Section 9 – Description of the Root Cause [Link to GDR Root Cause Tip Card](#)

Please choose one	
One-Call Notification Practices Not Sufficient <input type="checkbox"/> No notification made to the One-Call Center <input type="checkbox"/> Notification to one-call center made, but not sufficient <input type="checkbox"/> Wrong information provided to One Call Center	Locating Practices Not Sufficient <input type="checkbox"/> Facility could not be found or located <input type="checkbox"/> Facility marking or location not sufficient <input type="checkbox"/> Facility was not located or marked <input type="checkbox"/> Incorrect facility records/maps
Excavation Practices Not Sufficient <input type="checkbox"/> Failure to maintain marks <input type="checkbox"/> Failure to support exposed facilities <input type="checkbox"/> Failure to use hand tools where required <input type="checkbox"/> Failure to test-hole (pot-hole) <input type="checkbox"/> Improper backfilling practices <input type="checkbox"/> Failure to maintain clearance <input type="checkbox"/> Other insufficient excavation practices	Miscellaneous Root Causes <input type="checkbox"/> One-Call Center error <input type="checkbox"/> Abandoned facility <input type="checkbox"/> Deteriorated facility <input type="checkbox"/> Previous damage <input type="checkbox"/> Data Not Collected <input type="checkbox"/> Other

Provide explanation of selected root cause/s: _____

Section 10 - Notifications, Certification & Approvals

Check the appropriate boxes indicating the applicable reports have been made to the following applicable organizations:

One Call was called Spills Reporting Agency Notified

Emergency Responders (Fire) was called Post-Incident Drug/Alcohol Testing Performed

List of All Agencies Contacted

Name/Agency	Phone #	Date	Time

Incident Report prepared by: _____

Employee (s): _____

Date: _____

Employee's Supervisor: _____

Date: _____

HSE Coordinator/Project/Unit Manager: _____

Date: _____

Group HSE Manager: _____

Date: _____

Activity Hazard Analysis (AHAs)

1. Mobilization-Demobilization and Site Preparation
 2. Field Work General
 3. Field Work Oversight
 4. Decontamination
 5. Groundwater Sampling
 6. Soil Sampling
7. Working with Preservatives (Acids)



AHA - - Mobilization/Demobilization and Site Preparation Activity Description

Activity/Work Task:	Mobilization/Demobilization and Site Preparation					Overall Risk Assessment Code (RAC) (Use highest code)	M
Project Location:	Damascus Road Landfill					Risk Assessment Code (RAC) Matrix	
Contract Number:	3216182388		Probability				
Date Prepared:	7/03/2012	Date Accepted:					
Prepared by (Name/Title):	Ryan Mankowski/Staff Environmental Scientist						
Reviewed by (Name/Title):							
Notes: (Field Notes, Review Comments, etc.)	<p>Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)</p> <p>This AHA involves the following:</p> <ul style="list-style-type: none"> Establishing site specific measures <p>This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site HASP for additional requirements. Contractor to follow general site safety controls for Slips Trips and Falls, Biological hazards, cuts lacerations and pinch points, and emergency procedures.</p>						
Severity							
		Frequent	Likely	Occasional	Seldom	Unlikely	
Catastrophic		E	E	H	H	M	
Critical		E	H	H	M	L	
Marginal		H	M	M	L	L	
Negligible		M	L	L	L	L	
RAC Chart							
E = Extremely High Risk							
H = High Risk							
M = Moderate Risk							
L = Low Risk							
Job Steps		Hazards		Controls			RAC
1. Prepare for Site Visit		1A) N/A		<p>Prior to leaving for site:</p> <ul style="list-style-type: none"> Obtain and review HASP prior to site visit, if possible Determine PPE needs – bring required PPE to the site, if not otherwise being provided at the site (e.g., steel toed boots) Determine training and medical monitoring needs and ensure all required Health and Safety training and medical monitoring has been received and is current Ensure all workers are fit for duty (alert, well rested, and mentally and physically fit to perform work assignment) If respiratory protection is required/potentially required, ensure that training and fit-testing has occurred within the past year. Familiarize yourself with route to the site 			M

AHA - - Mobilization/Demobilization and Site Preparation Activity Description



Job Steps	Hazards	Controls	RAC
	1b) Vehicle defects	Inspect company owned/leased vehicle for defects such as: <ul style="list-style-type: none"> • Flat tires • Windshield wipers worn or torn • Oil puddles under vehicle • Headlights, brake lights, turn signals not working 	L
	1c) Insufficient emergency equipment, unsecured loads	Insufficient emergency equipment, unsecured loads: <ul style="list-style-type: none"> • Ensure vehicle has first aid kit and that all medications are current (if first aid kits are not provided at the site) • Ensure vehicle is equipped with warning flashers and/or flares and that the warning flashers work • Cell phones are recommended to call for help in the event of an emergency • Vehicles carrying tools must have a safety cage in place. All tools must be properly secured • Vehicles must be equipped with chocks if the vehicle is to be left running, unattended. • Ensure sufficient gasoline is in the tank 	L
2. Operating vehicles	2a) Collisions, unsafe driving conditions	Drive Defensively!: <ul style="list-style-type: none"> • Seat belts must be used at all times when operating any vehicle on company business. • Drive at safe speed for road conditions • Maintain adequate following distance • Pull over and stop if you have to look at a map • Try to park so that you don't have to back up to leave. • If backing in required, walk around vehicle to identify any hazards (especially low level hazards that may be difficult to see when in the vehicle) that might be present. Use a spotter if necessary 	M
3. Driving to the jobsite (mobilization)	3a) Dusty, winding, narrow roads	Dusty, winding, narrow roads <ul style="list-style-type: none"> • Drive confidently and defensively at all times. • Go slow around corners, occasionally clearing the windshield. 	M



AHA - - Mobilization/Demobilization and Site Preparation Activity Description

Job Steps	Hazards	Controls	RAC
	3b) Rocky or one-lane roads	Rocky or one-lane roads: <ul style="list-style-type: none"> • Stay clear of gullies and trenches, drive slowly over rocks. • Yield right-of-way to oncoming vehicles---find a safe place to pull over. 	M
	3c) Stormy weather, near confused tourists	Stormy weather, near confused tourists: <ul style="list-style-type: none"> • Inquire about conditions before leaving the office. • Be aware of oncoming storms. • Drive to avoid accident situations created by the mistakes of others. 	L
	3d) When angry or irritated	When angry or irritated: <ul style="list-style-type: none"> • Attitude adjustment; change the subject or work out the problem before driving the vehicle. Let someone else drive. 	M
	3c) Turning around on narrow roads	Turning around on narrow roads: <ul style="list-style-type: none"> • Safely turn out with as much room as possible. • Know what is ahead and behind the vehicle. • Use a backer if available. 	M
	3f) Sick or medicated	Sick or medicated: <ul style="list-style-type: none"> • Let others on the crew know you do not feel well. • Let someone else drive. 	M
	3g) On wet or slimy roads	On wet or slimy roads <ul style="list-style-type: none"> • Drive slow and safe, wear seatbelts. 	M
	3h) Animals on road	Animals on road <ul style="list-style-type: none"> • Drive slowly, watch for other animals nearby. • Be alert for animals darting out of wooded areas 	M
4. Gain permission to enter site	4a) Hostile landowner, livestock, pets	Hostile landowner, livestock, pets <ul style="list-style-type: none"> • Talk to land owner, be courteous and diplomatic • Ensure all animals have been secured away from work area 	L
5. Mobilization/ Demobilization of	5a) Struck by Heavy Equipment/Vehicles	Struck by heavy equipment: <ul style="list-style-type: none"> • Be aware of heavy equipment operations. 	M

AHA - - Mobilization/Demobilization and Site Preparation Activity Description



Job Steps	Hazards	Controls	RAC
Equipment and Supplies		<ul style="list-style-type: none"> Keep out of the swing radius of heavy equipment. Ground personnel in the vicinity of heavy equipment operations will be within the view of the operator at all times Employees shall wear a high visibility vest or T-shirt (reflective vest required if working at night). Ground personnel will be aware of the counterweight swing and maintain an adequate buffer zone. Ground personnel will not stand directly behind heavy equipment when it is in operation. 	
5b) Struck by Equipment/Supplies		<p>Struck by Equipment/Supplies:</p> <ul style="list-style-type: none"> Workers will maintain proper space around their work area, if someone enters it, stop work. When entering another worker's work space, give a verbal warning so they know you are there. 	L
5c) Overexertion Unloading/Loading Supplies		<p>Overexertion Unloading/Loading Supplies:</p> <ul style="list-style-type: none"> Train workers on proper body mechanics, do not bend or twist at the waist while exerting force or lifting. Tightly secure all loads to the truck bed to avoid load shifting while in transit. 	M
5d) Overexertion Unloading/Loading Supplies		<p>Caught in/on/between:</p> <ul style="list-style-type: none"> Do not place yourself between two vehicles or between a vehicle and a fixed object. 	M
5e) Slip/Trip/Fall		<p>Slip/Trip/Fall:</p> <ul style="list-style-type: none"> Mark all holes and low spots in area with banner tape. Instruct personnel to avoid these areas. Drivers will maintain 3 point contact when mounting/dismounting vehicles/equipment. Drivers will check surface before stepping, not jumping down. 	L
5f) Vehicle accident		<p>Vehicle accident:</p> <ul style="list-style-type: none"> Employees should follow AMEC vehicle operation policy and be aware of all stationary and mobile vehicles. 	L



AHA - - Mobilization/Demobilization and Site Preparation Activity Description

Job Steps	Hazards	Controls	RAC
6. Site Preparation	6a) Slip/Trip/Fall	Slip/Trip/Fall: <ul style="list-style-type: none"> Mark all holes and low spots in area with banner tape. Instruct personnel to avoid these areas 	L
7. Installation of soil erosion and sediment controls	7a) Overexertion	Overexertion: <ul style="list-style-type: none"> Workers will be trained in the proper method of placing erosion controls. Do not bend and twist at the waist while lifting or exerting force. 	M
	7b) Struck by Equipment/Supplies	Struck by Equipment/Supplies: <ul style="list-style-type: none"> Workers will maintain proper space around their work area, if someone enters it, stop work. When entering another worker's work space, give a verbal warning so they know you are there. 	M
8. Driving back from the jobsite	7c) See hazards listed under item #3	See safe work practices under item #3	M

Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
PPE (1/2 face respirator with P-100 cartridge, Hard Hat, safety glasses, gloves, steel toe work boots, high visibility safety vest, hearing protection) Note: When initially entering the site the following PPE must be donned: <ul style="list-style-type: none"> Work Uniform or Work Clothes Hard Hat Safety Glasses Steel Toe Boots Reflective Vests 	Competent / Qualified Personnel: Name – Position/Employer Training requirements: List specific certification (as applicable) Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting	Daily inspection of equipment per manufacturer's instructions. Tag tools that are defective and remove from service. Inspect power cord sets prior to use. Inspect all PPE prior to use



AHA - Field Work General

Activity/Work Task:	Field Work General		Overall Risk Assessment Code (RAC) (Use highest code)	L																																			
Project Location:	Damascus Road Landfill		Risk Assessment Code (RAC) Matrix																																				
Contract Number:	3216182388																																						
Date Prepared:	8-15-12	Date Accepted:	8-15-12																																				
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AHA - Field Work General

	3B) Falling objects	<p>3B) Protect head against falling objects.</p> <ul style="list-style-type: none"> • Wear your hardhat for protection from falling limbs and pinecones, and from tools and equipment carried by other crewmembers. • Stay out of the woods during extremely high winds. 	L
	3C) Damage to eyes	<p>3C) Protect eyes:</p> <ul style="list-style-type: none"> • Watch where you walk, especially around trees and brush with limbs sticking out. • Exercise caution when clearing limbs from tree trunks. Advise wearing eye protection. • Ultraviolet light from the sun can be damaging to the eyes; look for sunglasses that specify significant protection from UV-A and UV-B radiation. If safety glasses require, use one's with tinted lenses 	L
	3D) Bee and wasp stings	3D) See JHA for Insect Stings and Bites	L
	3E) Ticks and infected mosquitos	3E) See JHA for Insect Stings and Bites	L
	3F) Lifting Injuries (e.g., Back Injuries)	<p>3F) Lifting Injuries (e.g., Back Injuries)</p> <ul style="list-style-type: none"> • Site personnel will be instructed on proper lifting techniques. • Perform warm-up exercises before starting work. • DO NOT EXCEED THE MACTEC LIFTING LIMIT OF 50 POUNDS. • Use two people to lift, lower, or carry equipment or materials heavier than 50 pounds. • Mechanical devices should be used to reduce manual handling of materials. • Drive the field vehicle as close to the point that the heavy equipment/material will be used as long as the area is safe to drive into and you do not create hazards to you, your co-worker, or the vehicle. 	L
	3G) Slips/Trips/Falls	<p>3G) Slips/Trips/Falls</p> <ul style="list-style-type: none"> • Maintain work areas safe and orderly; unloading areas should be on even terrain; mark or repair possible tripping hazards. • Site SHSO inspect the entire work area to identify and mark hazards. • Be aware of work area conditions that can cause slip hazards such as ponding of water on concrete surfaces. Ponding of water on smooth surfaces, such as concrete, coupled with the warm or freezing weather conditions has the potential to cause slippery conditions such as growth of scum or ice, as applicable. Adding a layer of clean fill to the surface may prevent the growth of scum, and/or create a non-slippery walking surface. 	L
	3H) Vehicular Traffic	<p>3H) Vehicular Traffic</p> <ul style="list-style-type: none"> • Spotters will be used when backing up trucks and heavy equipment and when moving equipment. • High visibility vests will be worn when workers are exposed to vehicular traffic at the site or on public roads. 	L
	3I) Overhead Hazards	<p>3I) Overhead Hazards</p> <ul style="list-style-type: none"> • Personnel will be required to wear hard hats that meet ANSI Standard Z89.1. • All ground personnel will stay clear of suspended loads. • All equipment will be provided with guards, canopies or grills to protect the operator from falling or flying objects. • All overhead hazards will be identified prior to commencing work operations. 	L

AHA - Field Work General



	3J) Dropped Objects	3J) Dropped Objects <ul style="list-style-type: none"> Steel toe boots meeting ANSI Standard Z41 will be worn. 	L
	3K) Noise	3K) Noise <ul style="list-style-type: none"> Hearing protection will be worn with a noise reduction rating capable of maintaining personal exposure below 85 dBA (ear muffs or plugs); all equipment will be equipped with manufacturer's required mufflers. Hearing protection shall be worn by all personnel working in or near heavy equipment. 	L
	3L) Eye Injuries	3L) Eye Injuries <ul style="list-style-type: none"> Safety glasses meeting ANSI Standard Z87 will be worn. 	L
	3M) Heavy Equipment (overhead hazards, spills, struck by or against)	3M) Heavy Equipment <ul style="list-style-type: none"> Equipment will have seat belts. Operators will wear seat belts when operating equipment. Do not operate equipment on grades that exceed manufacturer's recommendations. Equipment will have guards, canopies or grills to protect from flying objects. Ground personnel will stay clear of all suspended loads. Ground personnel will wear high visibility vests Spill and absorbent materials will be readily available. Drip pans, polyethylene sheeting or other means will be used for secondary containment. Ground personnel will stay out of the swing radius of excavators. Eye contact with operators will be made before approaching equipment. Operator will acknowledge eye contact by removing his hands from the controls. Equipment will not be approached on blind sides. All equipment will be equipped with backup alarms and use spotters when significant physical movement of equipment occurs on-site. (i.e., other than in place excavation or truck loading). 	L
	3N) Struck by vehicle/equipment	3N) Struck by vehicle/equipment <ul style="list-style-type: none"> Be aware of heavy equipment operations. Keep out of the swing radius of heavy equipment. Ground personnel in the vicinity of heavy equipment operations will be within the view of the operator at all times and will wear high visibility vests. Ground personnel will be aware of the counterweight swing and maintain an adequate buffer zone. Ground personnel will not stand directly behind heavy equipment when it is in operation. Drivers will keep workers on foot in their vision at all times, if you lose sight of someone, Stop! 	L
	3O) Struck/cut by tools	3O) Struck/cut by tools <ul style="list-style-type: none"> Cut resistant work gloves will be worn when dealing with sharp objects. All hand and power tools will be maintained in safe condition. Guards will be kept in place while using hand and power tools. 	L



AHA - Field Work General

	<p>3P) Caught in/on/between</p> <ul style="list-style-type: none"> Workers will not position themselves between equipment and a stationary object. Workers will not wear long hair down (place in pony-tail and tuck into shirt) or jewelry if working with tools/machinery. 	<p>3P) Caught in/on/between</p> <ul style="list-style-type: none"> Workers will not position themselves between equipment and a stationary object. Workers will not wear long hair down (place in pony-tail and tuck into shirt) or jewelry if working with tools/machinery. 	L
	<p>3Q) Contact with Electricity/Lightning</p>	<p>3Q) Contact with Electricity/Lighting</p> <ul style="list-style-type: none"> All electrical tools and equipment will be equipped with GFCI. Electrical extension cords will be of the "Hard" or "Extra Hard" service type. All extension cords shall have a three-blade grounding plug. Personnel shall not use extension cords with damaged outer covers, exposed inner wires, or splices. Electrical cords shall not be laid across roads where vehicular traffic may damage the cord without appropriate guarding. All electrical work will be conducted by a licensed electrician. All utilities will be marked prior to excavation activities. All equipment will stay a minimum of 10 feet from overhead energized electrical lines (50 kV). This distance will increase by 4 inches for each 10 kV above 50 kV. Rule of Thumb: Stay 10 feet away from all overhead powerlines known to be 50 kV or less and 35 feet from all others.) The SHSO shall halt outdoor site operations whenever lightning is visible, outdoor work will not resume until 30 minutes after the last sighting of lightning. 	L
	<p>3R) Equipment failure</p>	<p>3R) Equipment failure</p> <ul style="list-style-type: none"> All equipment will be inspected before use. If any safety problems are noted, the equipment should be tagged and removed from service until repaired or replaced. 	L
	<p>3S) Hand & power tool usage, cuts, burns, etc.</p>	<p>3S) Hand & power tool usage</p> <ul style="list-style-type: none"> Inspect the tool daily. Remove broken or damaged tools from service. Use the tool for its intended purpose. Use in accordance with manufacturers instructions. 	L

AHA - Field Work General



	<p>3T) Burns and Exposure to Exhaust from Portable Propane Torch Use</p>	<p>3T) Portable propane torch usage</p> <ul style="list-style-type: none"> • Read the manual to become familiar with the propane torch and follow all safety precautions. Don PPE (safety glasses, heavy leather gloves) before using the torch. • Inspect the propane cylinder and the torch tip to ensure there are no defects, damage, etc. • Assemble the torch kit per instruction manual. The torch is designed to be used with the small propane cylinder, do not attempt to attach the torch to any other gas cylinder. • Do not use the torch in areas where gasoline or other liquids having flammable vapors are stored or used. • Do not smoke while igniting or operating the propane torch. • Have an ABC type fire extinguisher readily accessible to the work area. • Be sure the torch tip has a tight seal to the cylinder. If you smell gas, do not try to light the torch. Check the seal between the cylinder and torch. Do not attempt to light the torch until the seal is secure and no gas is leaking. • To ignite the torch flame, first position the point of the torch tip away from you. • If the unit requires a striker to ignite the torch, only use the striker provided with the unit. Never use a match or lighter to ignite torch. • Do not place hand or any part of your body in the path of the flame while lighting or operating the propane torch. • Never leave an ignited torch unattended while in operation. When not in use, the torch tip must be removed from the propane cylinder. • Be aware of the weather conditions. On bright sunny days, the torch flame may be barely visible. On windy days, the wind may carry the torch's heat back towards you. • The torch can produce combustion products such as carbon monoxide. Do not breathe in the exhaust. Propane vapors are heavier than air and can accumulate in low or confined areas. Use the torch only in a well ventilated area. • Heating a surface may cause heat to be conducted to adjoining surfaces that may be combustible or become pressurized when heated. Always check to make sure no unintended parts or materials are being heated. • Torch will be extremely hot, allow the torch to cool before touching it to remove it from the cylinder. • Never store a torch that is still hot. • When cooled, disconnect the torch from the cylinder for storage, and store them in a safe manner to prevent damage. <p style="text-align: center;">L</p>
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AHA - Field Work General

<p>4. Environmental health considerations</p>	<p>4A) HEAT Stress</p>	<p>4A) Take precautions to prevent heat stress</p> <ul style="list-style-type: none"> • Remain constantly aware of the four basic factors that determine the degree of heat stress (air temperature, humidity, air movement, and heat radiation) relative to the surrounding work environmental heat load. • Know the signs and symptoms of heat exhaustion, heat cramps, and heat stroke. Heat stroke is a true medical emergency requiring immediate emergency response action. <p>NOTE: The severity of the effects of a given environmental heat stress is decreased by reducing the work load, increasing the frequency and/or duration of rest periods, and by introducing measures which will protect employees from hot environments.</p> <ul style="list-style-type: none"> • Maintain adequate water intake by drinking water periodically in small amounts throughout the day (flavoring water with citrus flavors or extracts enhances palatability). • Allow approximately 2 weeks with progressive degrees of heat exposure and physical exertion for substantial acclimatization. • Acclimatization is necessary regardless of an employee's physical condition (the better one's physical condition, the quicker the acclimatization). Tailor the work schedule to fit the climate, the physical condition of employees, and mission requirements. <ul style="list-style-type: none"> • A reduction of work load markedly decreases total heat stress. • Lessen work load and/or duration of physical exertion the first days of heat exposure to allow gradual acclimatization. • Alternate work and rest periods. More severe conditions may require longer rest periods and electrolyte fluid replacement. <p style="text-align: right;">L</p>						
	<p>4B) Wet Bulb Globe Temperature (WBGT) Index</p>	<p>4B) WBGT</p> <ul style="list-style-type: none"> • Curtail or suspend physical work when conditions are extremely severe (see attached Heat Stress Index). • Compute a Wet Bulb Globe Temperature Index to determine the level of physical activity (take WBGT index measurements in a location that is similar or closely approximates the environment to which employees will be exposed). <p style="text-align: right;">L</p>						
		<p style="text-align: center;">WBGT THRESHOLD VALUES FOR INSTITUTING PREVENTIVE MEASURES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;">80-90 degrees F</td> <td style="width: 70%;">Fatigue possible with prolonged exposure and physical activity.</td> </tr> <tr> <td style="text-align: center;">90-105 degrees F</td> <td>Heat exhaustion and heat stroke possible with prolonged exposure and physical activity.</td> </tr> <tr> <td style="text-align: center;">105-130 degrees F</td> <td>Heat exhaustion and heat stroke are likely with prolonged heat exposure and physical activity.</td> </tr> </table>	80-90 degrees F	Fatigue possible with prolonged exposure and physical activity.	90-105 degrees F	Heat exhaustion and heat stroke possible with prolonged exposure and physical activity.	105-130 degrees F	Heat exhaustion and heat stroke are likely with prolonged heat exposure and physical activity.
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AHA - Field Work General



	4C) Cold Extremes	<p>4C) Take precautions to prevent cold stress injuries</p> <ul style="list-style-type: none"> Cover all exposed skin and be aware of frostbite. While cold air will not freeze the tissues of the lungs, slow down and use a mask or scarf to minimize the effect of cold air on air passages. Dress in layers with wicking garments (those that carry moisture away from the body – e.g., cotton) and a weatherproof slicker. A wool outer garment is recommended. Take layers off as you heat up; put them on as you cool down. Wear head protection that provides adequate insulation and protects the ears. Maintain your energy level. Avoid exhaustion and over-exertion which causes sweating, dampens clothing, and accelerates loss of body heat and increases the potential for hypothermia. Acclimate to the cold climate to minimize discomfort. Maintain adequate water/fluid intake to avoid dehydration. 	L
	4D) Wind	<p>4D) Effects of the wind</p> <ul style="list-style-type: none"> Wind chill greatly affects heat loss (see attached Wind Chill Index). Avoid marking in old, defective timber, especially hardwoods, during periods of high winds due to snag hazards. 	L
	4E) Thunderstorms	<p>4E) Thunderstorms</p> <ul style="list-style-type: none"> Monitor weather channels to determine if electrical storms are forecasted. Plan ahead and identify safe locations to be in the event of a storm. (e.g., sturdy building, vehicle, etc.) Suspend all field work at the first sound of thunder. You should be in a safe place when the time between the lightning and thunder is less than 30 seconds. Only return to work 30 minutes after the last strike or sound of thunder 	L
5. Check and calibrate industrial hygiene and other field instruments and equipment as required and as recommended by the manufacturer	5A) Exposure to Calibration Gases/Chemicals due to: <ul style="list-style-type: none"> Use of damaged instruments. 	<p>5A) Verify proper operation of the instrument prior to calibration. Calibrate instruments in an area with adequate ventilation and follow the manufacturer's recommendations.</p> <ul style="list-style-type: none"> Wear appropriate PPE to conduct calibrations as specified in the instrument manual. 	L



AHA - Field Work General

<p>5B) Exposure to Site contaminants due to:</p> <ul style="list-style-type: none">• Improper instrument calibration;• Misinterpretation of calibration results;• Improper instrument repair;• Improper use of instrument due to lack of training.	<p>5B) Calibrate the instrument in accordance with the manufacturer's recommendations (see instrument manual) using the applicable calibration standard and calibration procedure.</p> <ul style="list-style-type: none">• Perform calibrations at a frequency recommended by the manufacturer. Be aware of the instrument's limitations (e.g., detection limit, maximum sensitivity) and the conditions (e.g., humidity) that may affect correct operation or accuracy of that equipment. Possible sources of error that may affect the correct calibration of the instrument.• Use only calibration materials recommended by the manufacturer for calibration. Do not use substitutions.• Confirm that the connections between the instrument and the calibration gas/material is leak-free.• Record all instrument calibrations in the field logbook. Include the instrument ID (type/manufacture/serial number/lamp eV, etc.), calibration gas used (chemical and concentration), and instrument result.• Do not attempt to repair instrument. Return to the vendor for replacement. Report any damaged or malfunctioning instrument to the vendor.• All personnel must be familiar with operation of the instrument and understand:<ul style="list-style-type: none">- Theory of its operation including any alarms and their setpoints- Materials the instrument can and cannot detect.- Instrument's limitations- The expected responses to calibration gases/materials- Interfering gases/chemicals and their affects on the instrument readings- When re-zeroing is appropriate
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AHA - Field Work General



Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
PPE (1/2 face respirator with P-100 cartridge (upgrade), Hard Hat, safety glasses, gloves (per HASP), steel toe work boots, high visibility safety vest, hearing protection)	Competent / Qualified Personnel: Names provided in HASP (Position/Employer) Training requirements: Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting	Daily inspection of equipment per manufacturer's instructions. Tag tools that are defective and remove from service. Inspect power cord sets prior to use. Inspect all PPE prior to use



AHA - Field Work General

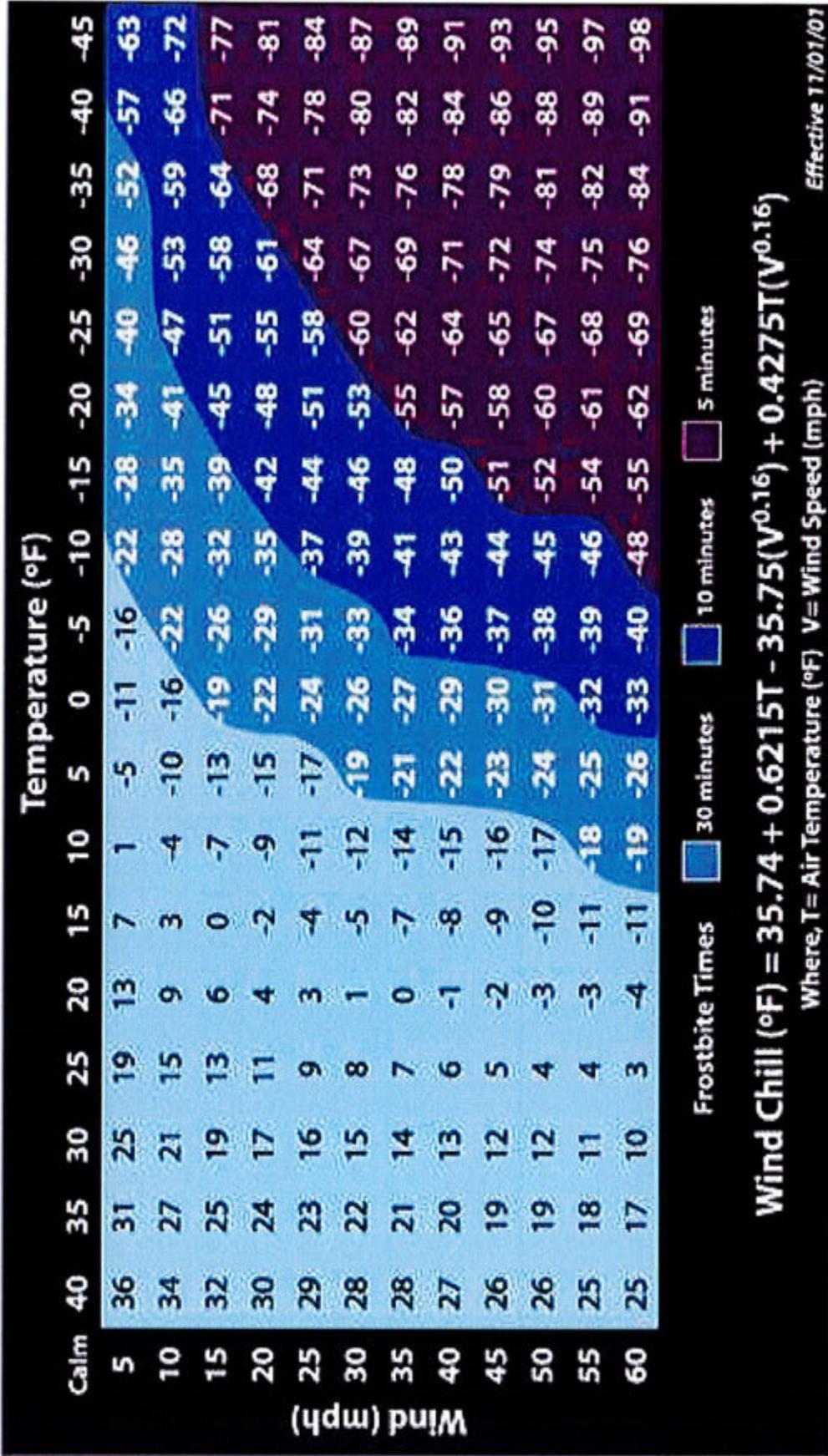
		Heat Index Chart																	
		% Relative Humidity																	
		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90		
T e m p e r a t u r e	110	108	112	117	123	130													
	105	102	105	108	113	117	122	130											
	100	97	98	102	104	107	110	115	120	126	132								
	95	91	93	95	96	98	100	104	106	109	113	119	124	130					
	90	86	87	88	89	91	92	95	97	98	100	103	106	110	114	117	121		
85	81	82	83	84	85	86	87	88	89	90	92	94	96	97	100	102			
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		Legend																	
80-89 degrees		Fatigue is possible with prolonged exposure and/or physical activity.																	
90-104 degrees		Sunstroke, heat cramps and heat exhaustion are possible with prolonged exposure and/or physical activity.																	
105-129 degrees		Sunstroke, heat cramps and heat exhaustion are likely. Heat stroke is possible with prolonged exposure and/or physical activity.																	
130+ degrees		Heatstroke/sunstroke is highly likely with continued exposure.																	



AHA - Field Work General



Wind Chill Chart



AHA - Field Work General



AHA - - Field Work Oversight Activity Description



Activity/Work Task:	Field Work Oversight			Overall Risk Assessment Code (RAC) (Use highest code)				L
Project Location:	Damascus Road Landfill							Risk Assessment Code (RAC) Matrix
Contract Number:	3216182388							
Date Prepared:	7/03/2012	Date Accepted:	8-16-2012	Severity Catastrophic Critical Marginal Negligible				Probability Frequent Likely Occasional Seldom Unlikely
Prepared by (Name/Title):	Ryan Mankowski/Staff Environmental Scientist							
Reviewed by (Name/Title):	Kendra Bavor, CSP							
Notes: (Field Notes, Review Comments, etc.)	This AHA involves the following: <ul style="list-style-type: none"> Establishing site specific measures This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site HASP for additional requirements. Contractor to follow general site safety controls for Slips Trips and Falls, Biological hazards, cuts lacerations and pinch points, and emergency procedures.							
Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above) "Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely. "Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.				RAC Chart E = Extremely High Risk H = High Risk M = Moderate Risk L = Low Risk				

Job Steps	Hazards	Controls	RAC
1. Prepare for site visit	1a) N/A	<ul style="list-style-type: none"> Obtain and review HASP prior to site visit, if possible Determine PPE needs – bring required PPE to the site, if not otherwise being provided at the site (e.g., steel toed boots) Determine training and medical monitoring needs and ensure all required Health and Safety training and medical monitoring has been received and is current Complete site specific/ client required training Ensure all workers are fit for duty (alert, well rested, and mentally and physically fit to perform work assignment) First aid kits shall be available at the work site and on each transport vehicle. Familiarize yourself with route to the site Check weather forecast. Pack appropriate clothing and other items (e.g., sunscreen) for anticipated weather conditions Verify that subsurface utilities have been identified. 	L



AHA -- Field Work Oversight Activity Description

<p>2. Traveling to the site by vehicle</p>	<p>2a) See JHA for Mobilization, Demobilization and Site Preparation</p>	<ul style="list-style-type: none"> ▪ See JHA for Mobilization, Demobilization and Site Preparation 	<p>L</p>
<p>3. Initial arrival—assess site conditions</p>	<p>3a) Communication with subcontractor and other site personnel</p>	<ul style="list-style-type: none"> ▪ Develop communication methods (agree on hand signals, warning alarms) ▪ Log all workers and visitor on and off the site. ▪ Let other crewmembers know when you see a hazard. ▪ Avoid working near known hazards. ▪ Always know the whereabouts of fellow crewmembers. ▪ Carry a radio and spare batteries or cell phone ▪ Hold and document Safety tailgate meetings ▪ Establish work zones, evacuation routes and rally locations. 	<p>L</p>
	<p>3b) Insect Bites and Stings</p>	<ul style="list-style-type: none"> ▪ Discuss the types of insects expected at the Site and be able to identify them. ▪ Look for signs of insects. ▪ Inform crew members if allergic to insects and what to do if you need assistance. ▪ Avoid wearing heavy fragrances. ▪ Carry first-aid and sting relief kits. ▪ Carry identification of known allergies and necessary emergency medication. ▪ Spray clothing with insect repellent as a barrier. ▪ Wear light colored clothing that fits tightly at the wrists, ankles, and waist. ▪ Cover trouser legs with high socks or boots. ▪ Tuck in shirt tails. 	<p>L</p>
	<p>3c) Poisonous plants</p>	<ul style="list-style-type: none"> ▪ Wear long sleeves, long pants and boots ▪ Ensure all field workers can identify the plants. Mark identified poisonous plants with high visibility spray paint if working at a fixed location. ▪ Look for signs of poisonous plants and demark area to aid in avoiding plant. ▪ Do not touch any plant part to any part of your body/clothing. ▪ Use commercially available products such as Ivy Block or Ivy Wash as appropriate. 	<p>L</p>

AHA - - Field Work Oversight Activity Description



<p>3d) Vermin, leaches, animal borne disease</p>	<ul style="list-style-type: none"> ▪ Survey the area for dens, nests, etc. ▪ Identify areas where biological hazards may be present. ▪ Wear long sleeve shirt and full length pants ▪ Be aware of your surroundings. ▪ Wear appropriate footwear (snake boots, etc.) ▪ Avoid high grass areas if possible ▪ Do not put hand/arm into/under an area that you cannot see into/under clearly ▪ Perform routine inspections for ticks, leaches, etc. of yourself and co-workers. 	<p style="text-align: right;">L</p>
<p>3e) Chemical Hazards</p>	<ul style="list-style-type: none"> ▪ Wear chemical resistant PPE as identified in the HASP ▪ Use monitoring equipment, as outlined in HASP, to monitor breathing zone ▪ Read MSDSs for all chemicals brought to the site ▪ Be familiar with hazards associated with site contaminants. ▪ Ensure that all containers are properly labeled 	<p style="text-align: right;">L</p>
<p>3f) Overhead Power Lines</p>	<ul style="list-style-type: none"> ▪ Identify the location of all overhead power lines at the site. ▪ Maintain clearances depending on voltage - All equipment will stay a minimum of 10 feet from overhead energized electrical lines (50 kV or less). This distance will increase by 4 inches for each 10 kV above 50 kV. Rule of Thumb: Stay 10 feet away from all overhead power lines known to be 50 kV or less and 35 feet from all others.) ▪ Re-locate work so it is not close to power lines ▪ Avoid storing materials under overhead power lines 	<p style="text-align: right;">L</p>
<p>3g) Underground Utilities</p>	<ul style="list-style-type: none"> ▪ All utilities will be marked prior to excavation activities ▪ For areas where utility locations cannot be verified, workers must hand dig for the first 3 feet ▪ Use lineman's gloves when locating underground power lines ▪ Work at adequate offsets from utility locations ▪ Immediately cease work if unknown utility markings are discovered. 	<p style="text-align: right;">L</p>



AHA -- Field Work Oversight Activity Description

<p>3h) Cold Stress</p>	<ul style="list-style-type: none"> ▪ Dress in layers with wicking garments (those that carry moisture away from the body – e.g., cotton) and a weatherproof slicker. A wool outer garment is recommended. ▪ Take layers off as you heat up; put them on as you cool down. ▪ Wear head protection that provides adequate insulation and protects the ears. ▪ Maintain your energy level. Avoid exhaustion and over-exertion which causes sweating, dampens clothing, and accelerates loss of body heat and increases the potential for hypothermia. ▪ Acclimate to the cold climate to minimize discomfort. ▪ Maintain adequate water/fluid intake to avoid dehydration. ▪ Be aware of signs of hypothermia, its prevention, detection and treatment. ▪ Have extra protection available, in case of an emergency such as blankets and heating devices. ▪ Don't work under extremely adverse weather conditions ▪ Stay in tune to current weather and extended forecasts. 	<p>L</p>
<p>3i) Heat Stress</p>	<ul style="list-style-type: none"> ▪ Remain constantly aware of the four basic factors that determine the degree of heat stress (air temperature, humidity, air movement, and heat radiation) relative to the surrounding work environmental heat load. ▪ Know the signs and symptoms of heat exhaustion, heat cramps, and heat stroke. Heat stroke is a true medical emergency requiring immediate emergency response action. ▪ Maintain adequate water intake by drinking water periodically in small amounts throughout the day (flavoring water with citrus flavors or extracts enhances palatability). ▪ Lessen work load and/or duration of physical exertion the first days of heat exposure to allow gradual acclimatization. ▪ Alternate work and rest periods. More severe conditions may require longer rest periods and electrolyte fluid replacement. 	<p>L</p>
<p>3j) Lightning and Thunder</p>	<ul style="list-style-type: none"> ▪ Monitor weather channels to determine if electrical storms are forecasted. ▪ Plan ahead and identify safe locations to be in the event of a storm. (e.g., sturdy building, vehicle, etc.) ▪ Suspend all field work at the first sound of thunder. You should be in a safe place when the time between the lightning and thunder is less than 30 seconds. 	<p>L</p>

AHA - - Field Work Oversight Activity Description



	3k) Severe Weather	<ul style="list-style-type: none"> ▪ Watch for clouds and incoming weather. ▪ Monitor weather forecasts. ▪ Train workers about weather and appropriate precautions. ▪ Identify a shelter and a safe place in event of tornado etc 	L
	3l) Sun	<ul style="list-style-type: none"> ▪ Keep body protected ▪ Wear sunscreen, wide brimmed hat or hardhat. ▪ Schedule work for cool part of day. ▪ Take breaks in the shade. 	L
	3m) High Crime Areas	<ul style="list-style-type: none"> ▪ Do not enter areas where threats are present. ▪ Contract security where applicable. Use the buddy system. ▪ Maintain contact with support such as radio or cell phone ▪ Do not work after dark. 	L
	3n) Operations conducted at an active facility	<ul style="list-style-type: none"> ▪ Stay well clear of operations being conducted at the facility ▪ Keep alert for moving materials, equipment or vehicles ▪ Determine client specific PPE needs prior to arriving at the site ▪ Determine client specific emergency response procedures and follow as appropriate ▪ Participate in client required safety training ▪ Get copies of Clients MSDSs for any client chemicals that workers may be exposed to. ▪ Provide MSDSs to client for all chemicals brought to the site. 	L
	3o) Remote Locations	<ul style="list-style-type: none"> ▪ Carry a two-way radio and know how to use it. ▪ Work in teams. Account for all at the end of the work day. ▪ Make sure someone on crew is certified in first aid. ▪ Carry a first aid kit. 	L



AHA -- Field Work Oversight Activity Description

	<p>3p) Set up Decon Station</p> <ul style="list-style-type: none"> ▪ Refer to MSDS for specific hazards associated with decon solutions ▪ Monitor breathing zone for decon solutions (e.g., methanol, hexane, etc.), if appropriate (see HASP) ▪ Removal of PPE will be performed by the following tasks in the listed order: <ul style="list-style-type: none"> ○ Gross boot wash and rinse and removal ○ Outer glove removal ○ Suit removal ○ Respirator removal (if worn). ○ Inner glove removal ▪ Contaminated PPE is to be placed in the appropriate, provided receptacles. ▪ Employees will wash hands, face, and any other exposed areas with soap and water. ▪ Portable eyewash stations and showers will be available should employees come into direct contact with contaminated materials. ▪ Decon solutions will be disposed of according to the work plan. 	L
4. Walk around the Site	<p>4a) Poisonous plants</p>	L
	<p>4b) Vermin, leaches, animal borne disease</p>	L
	<p>4c) Chemical Hazards</p>	L
	<p>4d) Slips/Trips/Falls</p> <ul style="list-style-type: none"> ▪ Wear slip resistant footwear preferably laced boots with a minimum 8" high upper and non-skid soles for ankle support and traction. ▪ Pay attention to where you place your feet ▪ Slow down and use extra caution around logs, rocks, and animal holes. ▪ Extremely steep slopes (>50%) can be hazardous under wet or dry conditions; consider an alternate route. ▪ Site SHSO will inspect the entire work area to identify and mark hazards. ▪ Clear area of trip hazards; mark or barricade those that cannot be moved; ▪ Use caution when walking around excavated areas ▪ Stay back at least 5 feet from excavated areas ▪ Use caution when walking on or around loose soil. ▪ Be aware of surroundings. Avoid muddy areas if possible. 	L

AHA - - Field Work Oversight Activity Description

5. Oversight during drilling, or construction operations	5a) Heavy Equipment/ Vehicles	<ul style="list-style-type: none"> ▪ Spotters will be used when backing up trucks and heavy equipment and when moving equipment. ▪ Ground personnel in the vicinity of vehicles or heavy equipment operations will be within the view of the operator at all times. ▪ Ground personnel will be aware of the swing radius and maintain an adequate buffer zone. ▪ Ground personnel will not stand directly behind heavy equipment when it is in operation. ▪ Personnel are prohibited from riding on the buckets, or elsewhere on the equipment except for designated seats with proper seat belts or lifts specifically designed to carry workers. Ground personnel will stay clear of all suspended loads. ▪ Ground personnel will wear high visibility vests ▪ Eye contact with operators will be made before approaching equipment. ▪ Wear appropriate safety glasses (tinted for sun). ▪ Watch where you walk, especially around trees and brush with protruding limbs. 	L
	5b) Eye Injury	<ul style="list-style-type: none"> ▪ Wear steel toed boots ▪ Wear insulated steel toed boots during winter ▪ Ensure shoes/boots have good traction ▪ Pay attention to where you place your feet, especially when walking on uneven terrain 	L
	5c) Foot Injury	<ul style="list-style-type: none"> ▪ Wear steel toed boots ▪ Wear insulated steel toed boots during winter ▪ Ensure shoes/boots have good traction ▪ Pay attention to where you place your feet, especially when walking on uneven terrain 	L
	5d) Head Injury	<ul style="list-style-type: none"> ▪ Wear hardhat ▪ Do not walk or work under scaffolding or other elevated work unless there are guardrails and toeboards in place ▪ Flag or mark protruding objects at head level 	L
	5e) Chemical Hazards	<ul style="list-style-type: none"> ▪ See Section 3E above ▪ Wash hands and face prior to consumption of food, beverage or tobacco. 	L
	5f) Dust - particulates (respiratory)	<ul style="list-style-type: none"> ▪ Use dust suppression methods ▪ Stand upwind of point of dust generation 	L
	5g) Overhead Power Lines	<ul style="list-style-type: none"> ▪ See Section 3F above. 	L
	5h) Underground Utilities	<ul style="list-style-type: none"> ▪ See Section 3G above 	L
	5i) Standing/Static Posture	<ul style="list-style-type: none"> ▪ Change posture on a frequent basis ▪ Stretch prior to any physical activity 	L
	5j) Slips/Trips/Falls	<ul style="list-style-type: none"> ▪ See Section 4D above 	L



AHA - - Field Work Oversight Activity Description

	<p>5k) Noise</p> <ul style="list-style-type: none"> ▪ Hearing protection will be worn with a noise reduction rating capable of maintaining personal exposure below 85 dBA (ear muffs or plugs). ▪ All equipment will be equipped with manufacturer's required mufflers. ▪ Hearing protection shall be worn by all personnel working in or near heavy equipment. ▪ Hearing protection will be worn when workers need to shout when standing two feet away from each other. ▪ Segregate noisy equipment from the operators ▪ Use sound dampening around noisy equipment 	L
	<p>5L) Moving Equipment</p> <ul style="list-style-type: none"> ▪ Clear area of obstructions and communicate with all workers involved that drilling is beginning ▪ Do not exceed manufacturer's recommended speed, force, torque, or other specifications. and penetrate the ground slowly with hands on the controls for at least the first foot of soil to minimize chance of auger kick-out ▪ Stay clear of rotating auger ▪ Use long-handled shovel to clear away cuttings when auger has stopped ▪ Do not wear loose clothing ▪ Wear appropriate PPE including leather gloves and steel-toed boots (See HASP) 	L
<p>6. Sampling Oversight</p>	<p>6a) Chemical Hazards</p> <ul style="list-style-type: none"> ▪ See Section 3E above ▪ Wash hands and face prior to consumption of food, beverage or tobacco. ▪ Calibrate meters in a clean, well ventilated area ▪ Store calibration gases in well vented area. Ensure chemical labels and warnings are legible. 	L

AHA - - Field Work Oversight Activity Description



	<p>6b) Personnel Decontamination</p>	<ul style="list-style-type: none"> ▪ Refer to MSDS for specific hazards associated with decon solutions ▪ Monitor breathing zone for decon solutions (e.g., methanol, hexane, etc.), if appropriate (see HASP) ▪ Removal of PPE will be performed by the following tasks in the listed order: <ul style="list-style-type: none"> ○ Gross boot wash and rinse and removal ○ Outer glove removal ○ Suit removal ○ Respirator removal (if worn). ○ Inner glove removal ▪ Contaminated PPE is to be placed in the appropriate, provided receptacles. ▪ Employees will wash hands, face, and any other exposed areas with soap and water. ▪ Portable eyewash stations and showers will be available should employees come into direct contact with contaminated materials. ▪ Decon solutions will be disposed of according to the work plan. 	<p>L</p>
	<p>6c) Lifting</p>	<ul style="list-style-type: none"> ▪ Good lifting techniques (lift with legs not back) ▪ Mechanical devices (e.g., hand truck, cart, forklift, etc.) should be used to reduce manual handling of materials and drums. ▪ Team lifting should be utilized if mechanical devices are not available. (mandatory for items over 50 lbs) ▪ Split heavy loads in to smaller loads ▪ Make sure that path is clear prior to lift. ▪ Redesign work area to avoid low lifts ▪ Stretch prior to lifting ▪ Maintain a healthy life style and level of physical fitness. 	<p>L</p>
	<p>6d) Hand Tools</p>	<ul style="list-style-type: none"> ▪ Cut resistant work gloves will be worn when dealing with sharp objects. ▪ All hand and power tools will be maintained in safe condition. ▪ Do not drop or throw tools. Tools shall be placed on the ground or work surface or handed to another employee in a safe manner. ▪ Guards will be kept in place while using hand and power tools. ▪ Daily inspections will be performed. ▪ Remove broken or damaged tools from service and tag out as defective ▪ No tampering with electrical equipment is allowed (e.g., splicing cords, cutting the grounding prong off plug, etc.) ▪ Do not use excessive force or impact ▪ Do not use tool improperly. Ensure all workers are trained 	<p>L</p>



AHA - - Field Work Oversight Activity Description

	6c) Slips/Trips/Falls	<ul style="list-style-type: none"> ▪ See Section 4D above. 	L
	6f) Struck by Vehicle	<ul style="list-style-type: none"> ▪ Ground personnel in the vicinity of vehicles operations will be within the view of the operator at all times. ▪ Ground personnel will not stand directly behind vehicles when it is in operation ▪ Drivers will keep workers on foot in their vision at all times, if you lose sight of someone, Stop! ▪ High visibility vests will be worn when workers are exposed to vehicular traffic at the site or on public roads. ▪ Try to park so that you don't have to back up to leave. ▪ If backing in required, walk around vehicle to identify any hazards (especially low level hazards that may be difficult to see when in the vehicle) that might be present. Use a spotter if necessary ▪ Place cones in the front and rear of the vehicle ▪ Prior to driving off, walk around vehicle to collect cones and identify any hazards - especially low level hazards that may be difficult to see when in the vehicle. ▪ Set up "Workers in the Road" or similar warning signs and cones to alert traffic. ▪ Use emergency flashers and roof top flashing light (recommended) to alert oncoming vehicular traffic. ▪ Remain alert at all times as to the traffic outside the vehicle. Step to the side of the road when distracted by by-standers. Keep unofficial personnel out of the work area. ▪ Exit vehicle with caution. ▪ Wear High Visibility Vest when outside the vehicle. ▪ Utilize vehicle as a shield from oncoming traffic, as practical 	L
7. IDW pickup oversight	7a) Foot Injury	<ul style="list-style-type: none"> ▪ See Section 5C above. 	L
	7b) Chemical Hazards	<ul style="list-style-type: none"> ▪ See Section 3E above. 	L
	7c) Lifting	<ul style="list-style-type: none"> ▪ See Section 6C above. 	L
	7d) Slips/Trips/Falls	<ul style="list-style-type: none"> ▪ See Section 4D above 	L
8. Return to office/home	8a) See Demobilization and Site Preparation JHA	<ul style="list-style-type: none"> ▪ See Mobilization/ Demobilization and Site Preparation JHA 	L

AHA - - Field Work Oversight Activity Description



Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
<p>PPE (1/2 face respirator with P-100 cartridge, Hard Hat, safety glasses, gloves, steel toe work boots, high visibility safety vest, hearing protection)</p>	<p>Competent / Qualified Personnel: Name – Position/Employer Training requirements: List specific certification (as applicable) Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting</p>	<p>Daily inspection of equipment per manufacturer's instructions. Tag tools that are defective and remove from service. Inspect power cord sets prior to use. Inspect all PPE prior to use</p>



AHA - Decontamination Activity Description

Activity/Work Task:	Decontamination		Overall Risk Assessment Code (RAC) (Use highest code)	M
Project Location:	Damascus Road Landfill			
Contract Number:	3216182388	Risk Assessment Code (RAC) Matrix		
Date Prepared:	8-15-12	Date Accepted:	8-15-12	
Prepared by (Name/Title):	Kendra Bavor			
Reviewed by (Name/Title):	Kendra Bavor, CSP			
Notes: (Field Notes, Review Comments, etc.)	<p>Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)</p> <p>This AHA involves the following:</p> <ul style="list-style-type: none"> Establishing site specific measures <p>This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site HASP for additional requirements. Contractor to follow general site safety controls for Slips Trips and Falls, Biological hazards, cuts lacerations and pinch points, and emergency procedures.</p>			
Job Steps	Hazards	Controls		
1. Establish Decontamination Station	1A) Materials Handling	1A) Materials Handling <ul style="list-style-type: none"> Use proper lifting techniques Use mechanical aids, if available, to move heavy items. 		
2. Decontamination / Steam cleaning.	2A) Struck by steam/hot water/pressure washing	2A) Struck by steam/hot water <ul style="list-style-type: none"> Workers not directly engaged in steam cleaning operations must stay clear. Workers using steam cleaning equipment must be trained on operation and safety devices/procedures using the owners/operators manual. Use face shield and safety glasses or goggles, if steam cleaning. Stay out of the splash/steam radius. Pressure washer must have dead man switch. Do not direct steam at anyone. Do not hold objects with your feet or hands. Ensure that direction of spray minimizes spread of contaminants of concern. Use shielding as necessary. 		
		RAC Chart E = Extremely High Risk H = High Risk M = Moderate Risk L = Low Risk		

AHA - Decontamination Activity Description



Job Steps	Hazards	Controls	RAC
	2B) Exposure to contaminants	2B) Exposure to contaminants <ul style="list-style-type: none"> Conduct air monitoring (see HASP). Wear proper PPE (see HASP). See MSDSs for hazards associated with the decon solutions used (if other than water alone is used). 	L
	2C) Slips/Trips/Falls	2C) Slips/Trips/Falls <ul style="list-style-type: none"> Be cautious as ground/plastic can become slippery Use boots or boot covers with good traction 	L
3. Vehicle Decontamination	3A) Vehicle traffic in and out of the CRZ	3A) Large Vehicle Traffic <ul style="list-style-type: none"> Always wear a hard hat, steel toe boots, and a high visibility vest (unless Tyveks are used and are high visibility). Vehicle drivers are not to exit the vehicle in the CRZ. Identify an individual to communicate with vehicle drivers and maintain order Trucks will be lined with plastic and kept out of direct contact with any contaminated materials during loading. Wear PPE when removing plastic lining from truck beds. If not in the vehicle, obtain eye contact with the driver, so he is aware of your presence and location in the CRZ. If you are driving the vehicle, be aware of personnel in the CRZ and maintain communication with the identified personnel. 	L
	3B) Exposure to contaminants	3B) Exposure to contaminants <ul style="list-style-type: none"> Use safety glasses or goggles. Polycoated Tyvek (if level of contamination poses dermal hazard or to keep work clothes dry), high visibility vest (if high visibility Tyveks are not used) hard hats, steel toe boots, and gloves while cleaning contaminated materials. Do not doff PPE until decontamination of the vehicle is complete and a decontamination certificate has been issued by the HSO. Conduct air monitoring (see HASP). See MSDSs for hazards associated with the decon solutions (if other than water alone is used). 	L
	3C) Slips/Trips/Falls	3C) Slips/Trips/Falls <ul style="list-style-type: none"> Be cautious as ground/plastic can become slippery Use boots or boot covers with good traction 	L
4. Equipment and Sample Decontamination	4A) Chemical exposure when handling contaminated sample jars and equipment	4A) Chemical exposure <ul style="list-style-type: none"> Wear PPE as outlined in the HASP. Refer to MSDS for specific hazards associated with decon solutions Monitor breathing zone for contaminants Monitor breathing zone for decon solutions (e.g., methanol, hexane, etc.) if appropriate (see HASP) 	M
	4B) Materials Handling related injuries	4B) Materials Handling related injuries <ul style="list-style-type: none"> Use proper lifting techniques when lifting heavy equipment Use two person lift for heavy coolers 	L



AHA - Decontamination Activity Description

Job Steps	Hazards	Controls	RAC
5. Personal Decontamination	4C) Exposure to contaminants	4C) Exposure to contaminants <ul style="list-style-type: none"> ▪ Avoid bringing contaminated materials via shoes and clothing into the CRZ by examining such prior to exiting the EZ. ▪ Removal of PPE will be performed by the following tasks in the listed order. <ul style="list-style-type: none"> ▪ Gross boot wash and rinse and removal ▪ Outer glove removal ▪ Suit removal ▪ Respirator removal (if worn). ▪ Inner glove removal ▪ Contaminated PPE is to be placed in the appropriate, provided receptacles. ▪ Respirators will be removed and decontaminated at a specified location within the CRZ by a designated technician, then placed in storage bag. ▪ Employees will wash hands, face, and any other exposed areas with soap and water. ▪ Portable eyewash stations and showers will be available should employees come into direct contact with contaminated materials. ▪ See MSDSs for hazards associated with the decontamination solutions used. ▪ Decon solutions will be disposed of according to the work plan. 	M

AHA - Decontamination Activity Description



Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
PPE (Safety glasses, gloves (HASP), steel toe work boots, high visibility safety vest, hearing protection.)	<p>Competent / Qualified Personnel: See HASP - Name – Position/Employer</p> <p>Training requirements: Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting</p>	<p>Daily inspection of equipment per manufacturer's instructions. Tag tools that are defective and remove from service.</p> <p>Inspect power cord sets prior to use.</p> <p>Inspect all PPE prior to use</p>



AHA - Groundwater Sampling Activity Description

Activity/Work Task:	Groundwater Sampling			Overall Risk Assessment Code (RAC) (Use highest code)				M
Project Location:	Damascus Road Landfill							Risk Assessment Code (RAC) Matrix
Contract Number:	3216182388							
Date Prepared:	8/15/2112	Date Accepted:	8-16-2012					
Prepared by (Name/Title):	Ryan Mankowski/Staff Environmental Scientist							
Reviewed by (Name/Title):	Kendra Bavor, CSP							
<p>Notes: (Field Notes, Review Comments, etc.)</p> <p>This AHA involves the following:</p> <ul style="list-style-type: none"> Establishing site specific measures <p>This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site HASP for additional requirements. Contractor to follow general site safety controls for Slips Trips and Falls, Biological hazards, cuts lacerations and pinch points, and emergency procedures.</p>								
Severity		Probability						
Frequent		Likely		Occasional		Seldom		Unlikely
Catastrophic		E		H		H		M
Critical		E		H		M		L
Marginal		H		M		L		L
Negligible		M		L		L		L
<p>Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)</p> <p>"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.</p> <p>"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible</p> <p>Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.</p>								
				RAC Chart				
				E = Extremely High Risk				
				H = High Risk				
				M = Moderate Risk				
				L = Low Risk				
Job Steps		Hazards		Controls				
1. Mobilization		3A) See JHA Mobilization/Demobilization/Site Preparation		1A) See JHA Mobilization/Demobilization/Site Preparation				
2. General Site Hazards		2A) See JHA Field Work - General		2A) See JHA Field Work - General				
		2B) Chemical exposure		2B) Chemical Exposure <ul style="list-style-type: none"> Read HASP TO determine air monitoring and PPE needs. 				
3. Calibrate monitoring equipment		4A) Exposure to calibration gases		4A) Exposure to calibration gases <ul style="list-style-type: none"> Review equipment manuals Calibrate in a clean, well ventilated area 				
				RAC				
				M				
				M				
				M				
				L				

AHA - Groundwater Sampling Activity Description



Job Steps	Hazards	Controls	RAC
4. Opening the well cap, taking water level readings	<p>5A) Contact with poisonous plants or the oil from poisonous plants</p> <p>5B) Contact with biting insects (i.e., spiders, bees, etc.) which may have constructed a nest in the well cap/well.</p>	<p>5A) Contact with poisonous plants or the oil from those plants:</p> <ul style="list-style-type: none"> ▪ Look for signs of poisonous plants and avoid. ▪ Ensure all field workers can identify the plants. Mark identified poisonous plants with spray paint if working at a fixed location. ▪ Wear PPE as described in the HASP. ▪ Do not touch any part of your body/clothing. ▪ Always wash gloves before removing them. ▪ Discard PPE in accordance with the HASP. ▪ Use commercially available products such as Ivy Block or Ivy Wash as appropriate. <p>5B) Contact with stinging/biting insects</p> <ul style="list-style-type: none"> ▪ Discuss the types of insects expected at the Site and be able to identify them. ▪ Look for signs of insects in and around the well. ▪ Wear Level of PPE as described in the HASP. At a minimum, follow guidelines in the JHA "Insects Stings and Bites." ▪ If necessary, wear protective netting over your head/face. ▪ Avoid contact with the insects if possible. ▪ Inform your supervisor and the Site Health and Safety Supervisor if you have any allergies to insects and insect bites. Make sure you have identification of your allergies with you at all times and appropriate response kits if applicable. ▪ Get medical help immediately if you are bitten by a black widow or brown recluse, or if you have a severe reaction to any spider bite or bee sting. 	M
	<p>5C) Exposure to hazardous Inhalation and contact with hazardous substances (VOC contaminated groundwater/soil); liquid splash; flammable atmospheres.</p>	<p>5C) Exposure to hazardous substances</p> <ul style="list-style-type: none"> ▪ Wear PPE as identified in HASP. ▪ Review hazardous properties of site contaminants with workers before sampling operations begin ▪ Immediately monitor breathing zone after opening well to determine exposure and verify that level of PPE is adequate – see Action Levels in HASP ▪ Monitor headspace in well. After the initial headspace reading (if required by the Work Plan), allow the well to vent for several minutes before obtaining water level and before sampling. ▪ When decontaminating equipment wear additional eye/face protection over the safety glasses such as a face shield. 	M
	<p>5D) Back strain due to lifting bailers or pumps and from moving equipment to well locations</p>	<p>5D) Back strain</p> <ul style="list-style-type: none"> ▪ Use mechanical aids when possible, if mechanical aids are not available, use two person lifts for heavy items. ▪ Use proper lifting techniques 	L
	<p>5E) Foot injuries from dropped equipment</p>	<p>5E) Foot injuries</p> <ul style="list-style-type: none"> ▪ Be aware when moving objects, ensure you have a good grip when lifting and carrying objects. ▪ Do not carry more than you can handle safely ▪ Wear Steel toed boots 	L



AHA - Groundwater Sampling Activity Description

Job Steps	Hazards	Controls	RAC
5. Collecting water samples	<p>6A) Fire/Explosion/Contamination hazard from refueling generators</p> <p>6B) Electrocutation</p>	<p>6A) Fire/Explosion/Contamination hazard from refueling generators</p> <ul style="list-style-type: none"> • Turn the generator off and let it cool down before refueling • Segregate fuel and other hydrocarbons from samples to minimize contamination potential • Transport fuels in approved safety containers. The use of containers other than those specifically designed to carry fuel is prohibited • See AHA for Gasoline use <p>6B) Electrocutation</p> <ul style="list-style-type: none"> • A ground fault circuit interrupter (GFCI) device must protect all AC electrical circuits. • Use only correctly grounded equipment. Never use three-pronged cords which have had the third prong broken off. • Make sure that the electrical cords from generators and power tools are not allowed to be in contact with water • Do not stand in wet areas while operating power equipment • Always make sure all electrically-powered sampling equipment is in good repair. Report any problems so the equipment can be repaired or replaced. • When unplugging a cord, pull on the plug rather than the cord. • Never do repairs on electrical equipment unless you are both authorized and qualified to do so. 	L
	6C) Exposure to contaminants	<p>6C) Exposure to Contaminants</p> <ul style="list-style-type: none"> • Stand up wind when sampling • Monitor breathing zone with appropriate monitoring equipment (see HASP) • Wear chemical resistant PPE as identified in HASP • See section 4C) under Safe Practices above 	M
	6D) Infectious water born diseases	<p>6D) Infectious water born diseases</p> <ul style="list-style-type: none"> • Wear chemical resistant gloves and other PPE – as identified in HASP • Prevent water from contacting skin • Wash exposed skin with soap and water ASAP after sampling event • Ensure that all equipment is adequately decontaminated using a 10% bleach solution 	L
	6E) Exposure to water preservatives	<p>6E) Exposure to water preservatives</p> <ul style="list-style-type: none"> • Work in a well ventilated area, upwind of samples • Wear chemical resistant PPE as identified in HASP • When preserving samples always add acid to water, avoid the opposite. • See Working With Preservatives JHA 	M
	6F) Slips/trips/falls	<p>6F) Slips/trips/falls</p> <ul style="list-style-type: none"> • Ground can become wet/muddy, created by spilled water • Place all purged water in drums for removal • Wear good slip resistant footwear 	M

AHA - Groundwater Sampling Activity Description



Job Steps	Hazards	Controls	RAC
	6G) Repetitive Motion and other Ergonomic Issues	6G) Ergonomic Issues <ul style="list-style-type: none"> Use mechanical means where possible to raise and lower equipment into well. Alternate raising and lowering equipment between field sampling team members, and alternate bailing the well. Use safe lifting techniques. 	L
6. Sample Processing	7A) Contaminated water	7A) Contaminated water <ul style="list-style-type: none"> Wear appropriate PPE as identified in HASP Decontaminate outside of bottles Prevent water from contacting skin Work in well ventilated area – upwind of samples Waste will be returned to the operation office for storage and disposal 	M
7. Shipping Samples	8A) Freeze burns, back strain, hazardous chemical exposure, sample leakage	8A) Freeze burns, back strain, hazardous chemical exposure, sample leakage <ul style="list-style-type: none"> Wear appropriate chemical resistant gloves as identified in HASP. Wear leather or insulated gloves when handling dry ice. Follow safe lifting techniques – get help lifting heavy coolers. Samples that contain hazardous materials under the DOT definition, must be packaged, manifested and shipped by personnel that have the appropriate DOT HAZMAT training. 	M

Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
PPE (Hard Hat, safety glasses, gloves, steel toe work boots, high visibility safety vest, hearing protection (See project specific HASP)	Competent / Qualified Personnel: See HASP (Name – Position/Employer) Training requirements: HAZCOM Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting	Daily inspection of equipment per manufacturer's instructions. Tag tools that are defective and remove from service. Inspect power cord sets prior to use. Inspect all PPE prior to use

AHA - Soil Sampling Activity Description



Job Steps	Hazards	Controls	RAC
	<p>4B) Contact with biting insects (i.e., spiders, bees, etc.)</p>	<p>4B) Contact with stinging/biting insects</p> <ul style="list-style-type: none"> • Discuss the types of insects expected at the Site and be able to identify them. • Look for signs of insects in and around the well. • Wear Level of PPE as described in the HASP. At a minimum, follow guidelines in the JHA "Insects Stings and Bites." • If necessary, wear protective netting over your head/face. • Avoid contact with the insects if possible. • Inform your supervisor and the Site Health and Safety Supervisor if you have any allergies to insects and insect bites. Make sure you have identification of your allergies with you at all times and appropriate response kits if applicable. • Get medical help immediately if you are bitten by a black widow or brown recluse, or if you have a severe reaction to any spider bite or bee sting. 	L
	<p>4C) Exposure to hazardous Inhalation and contact with hazardous substances (VOC contaminated soil); flammable atmospheres.</p>	<p>4C) Exposure to hazardous substances</p> <ul style="list-style-type: none"> • Wear PPE as identified in HASP. • Review hazardous properties of site contaminants with workers before sampling operations begin • Monitor breathing zone air in accordance with HASP to determine levels of contaminants present. • When decontaminating equipment wear additional eye/face protection over the safety glasses such as a face shield. 	L
	<p>4D) Back strain due to lifting or moving equipment to sampling locations</p>	<p>4D) Back strain</p> <ul style="list-style-type: none"> • Use mechanical aids when possible, if mechanical aids are not available, use two person lifts for heavy items. • Use proper lifting techniques 	M
	<p>4E) Foot injuries from dropped equipment</p>	<p>4E) Foot injuries</p> <ul style="list-style-type: none"> • Be aware when moving objects, ensure you have a good grip when lifting and carrying objects. • Do not carry more than you can handle safely • Wear steel toed boots 	M
5. Collecting soil samples	<p>5A) Working around drill rigs</p>	<p>5A) See JHA - Drilling</p>	M
	<p>5B) Encountering underground or overhead utilities</p>	<p>5B) Have all utilities located.</p>	H
	<p>5C) Fire/Explosion/Contamination hazard from refueling generators</p>	<p>5C) Fire/Explosion/Contamination hazard from refueling generators</p> <ul style="list-style-type: none"> • Turn the generator off and let it cool down before refueling • Segregate fuel and other hydrocarbons from samples to minimize contamination potential • Transport fuels in approved safety containers. The use of containers other than those specifically designed to carry fuel is prohibited • See JHA for Gasoline use 	M



AHA - Soil Sampling Activity Description

Job Steps	Hazards	Controls	RAC
	5D) Electrocution	5D) Electrocution <ul style="list-style-type: none"> ▪ A ground fault circuit interrupter (GFCI) device must protect all AC electrical circuits. ▪ Use only correctly grounded equipment. Never use three-pronged cords which have had the third prong broken off. ▪ Make sure that the electrical cords from generators and power tools are not allowed to be in contact with water ▪ Do not stand in wet areas while operating power equipment ▪ Always make sure all electrically-powered sampling equipment is in good repair. Report any problems so the equipment can be repaired or replaced. ▪ When unplugging a cord, pull on the plug rather than the cord. ▪ Never do repairs on electrical equipment unless you are both authorized and qualified to do so. 	M
	5E) Exposure to contaminants	5E) Exposure to Contaminants <ul style="list-style-type: none"> ▪ Stand up wind when sampling ▪ Monitor breathing zone with appropriate monitoring equipment (see HASP) ▪ Wear chemical resistant PPE as identified in HASP ▪ See section 4C) under Safe Practices above 	L
	5F) Exposure to preservatives	5F) Exposure to preservatives <ul style="list-style-type: none"> ▪ Work in a well ventilated area. upwind of samples ▪ Wear chemical resistant PPE as identified in HASP ▪ Review MSDSS 	M
	5G) Slips/trips/falls	5G) Slips/trips/falls <ul style="list-style-type: none"> ▪ Ground can become wet/muddy ▪ Wear good slip resistant footwear 	L
	5H) Lifting Injury	5H) Lifting injury <ul style="list-style-type: none"> ▪ Use proper lifting techniques when carrying quantities of samples ▪ Use proper ergonomics when hand digging for samples 	M
	5I) Eye injury	5I) Eye Injury <ul style="list-style-type: none"> ▪ Wear eye protection when using picks or similar devices to loosen soil 	M
	5J) Fire	5J) Fire <ul style="list-style-type: none"> ▪ When using gas powered auger, maintain fire watch whenever fueling or otherwise handling gasoline ▪ See JHA - Gasoline 	L
6. Soil sampling using floor corer	6A) Back injury	6A) Back Injury <ul style="list-style-type: none"> ▪ Use proper lifting techniques when moving floor corer and generator ▪ Use mechanical aids if available ▪ Use two person lift for heavy items. 	M

AHA - Soil Sampling Activity Description



Job Steps	Hazards	Controls	RAC
	6B) Electric Shock	6B) Electric Shock <ul style="list-style-type: none"> • Use electric cords free from defects • Keep cords out of water • Ensure all electrical equipment is properly grounded • Use GFCI 	M
	6C) Hearing	6C) Hearing <ul style="list-style-type: none"> • Wear hearing protection 	L
	6D) Fire	6D) Fire <ul style="list-style-type: none"> • When using generator, maintain fire watch whenever refuelling or otherwise handling gasoline • See JHA - Gasoline 	M
	6E) Contamination	6E) Contamination <ul style="list-style-type: none"> • Use appropriate PPE for the contaminants of concern (see HASP). • Minimize sample contact • Label sample in accordance with procedures • Monitor breathing zone levels. 	L

Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
PPE (1/2 face respirator with P-100 cartridge, Hard Hat, safety glasses, gloves, steel toe work boots, high visibility safety vest, hearing protection)	Competent / Qualified Personnel: Name – Position/Employer Training requirements: List specific certification (as applicable) Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting	Daily inspection of equipment per manufacturer's instructions. Tag tools that are defective and remove from service. Inspect power cord sets prior to use. Inspect all PPE prior to use



AHA - Working with Preservatives Activity Description

Activity/Work Task:	Working with Preservatives (Acids)			Overall Risk Assessment Code (RAC) (Use highest code)				L																																			
Project Location:	Damascus Road Landfill							Risk Assessment Code (RAC) Matrix <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="2" rowspan="2">Severity</th> <th colspan="4">Probability</th> </tr> <tr> <th>Frequent</th> <th>Likely</th> <th>Occasional</th> <th>Seldom</th> <th>Unlikely</th> </tr> </thead> <tbody> <tr> <td>Catastrophic</td> <td>Critical</td> <td style="text-align: center;">E</td> <td style="text-align: center;">E</td> <td style="text-align: center;">H</td> <td style="text-align: center;">H</td> <td style="text-align: center;">H</td> <td style="text-align: center;">M</td> </tr> <tr> <td>Marginal</td> <td></td> <td style="text-align: center;">H</td> <td style="text-align: center;">H</td> <td style="text-align: center;">M</td> <td style="text-align: center;">M</td> <td style="text-align: center;">L</td> <td style="text-align: center;">L</td> </tr> <tr> <td>Negligible</td> <td></td> <td style="text-align: center;">M</td> <td style="text-align: center;">L</td> </tr> </tbody> </table>	Severity		Probability				Frequent	Likely	Occasional	Seldom	Unlikely	Catastrophic	Critical	E	E	H	H	H	M	Marginal		H	H	M	M	L	L	Negligible		M	L	L	L	L	L
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Date Prepared:	6/25/2013	Date Accepted:	2/27/19																																								
Prepared by (Name/Title):	Kenneth McRowe/Project Geologist																																										
Reviewed by (Name/Title):	Jazmin Logan / Project Geologist																																										
<p>This AHA involves the following:</p> <ul style="list-style-type: none"> Establishing site specific measures for working with sample preservatives Majority of site sampling is for PCBs <p>This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site HASP for additional requirements.</p>																																											
<p>Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)</p> <p>"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.</p> <p>"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible</p> <p>Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.</p>																																											
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Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
PPE (safety glasses, gloves), ventilate if necessary First aid kit with eye wash or water for eye wash available if needed	Competent / Qualified Personnel: All AMEC employees Training requirements: HAZCOM PPE Site Specific HASP Orientation Toolbox safety meeting Task kick-off meeting	Daily inspection of equipment per manufacturer's/suppliers instructions. Inspect all PPE prior to use Check preservative expiration dates prior to use

Job Steps	Hazards	Controls
1. Opening the box of ampoules	1A) Cuts or punctures with a knife <ul style="list-style-type: none"> Use appropriate techniques when handling a knife. Always cut away from you. 	RAC L

AHA - Working with Preservatives Activity Description



Job Steps	Hazards	Controls	RAC
2. Breaking top of glass ampoule	1B) Broken ampoules in the box. Cuts from the broken glass.	<ul style="list-style-type: none"> Broken ampoules in the box. Cuts from the broken glass. Wear safety glasses and protective gloves. Dispose of the preservative and broken glass by approved methods. 	L
	1C) Broken ampoules in the box. Breathing fumes.	<ul style="list-style-type: none"> Broken ampoules in the box. Breathing fumes. Wear safety glasses and protective gloves. Always work in a well-ventilated area. 	L
	2A) Cuts from the broken glass.	<ul style="list-style-type: none"> Cuts from the broken glass Wear safety glasses and protective gloves. Use a paper towel to wrap ampoule in to snap the top or use an ampoule breaker. Always point the ampoule away from you when you snap off the top. 	L
	2B) Skin contact chemical burns.	<ul style="list-style-type: none"> Skin contact chemical burns. Wear safety glasses and protective gloves. Fumes may come into contact with the perspiration on your skin and rehydrate to form an acid. If your skin itches, flush affected area for 15 minutes with water. 	L
3. Adding acid to sample	2C) Eye contact	<ul style="list-style-type: none"> Eye contact Wear safety glasses. If acid splashes in the eyes, flush eyes for 15 minutes with water. Seek medical advice. 	L
	2D) Breathing fumes	<ul style="list-style-type: none"> Breathing fumes HNO₃ and HCL have high vapor pressure. Always work in a well-ventilated area. 	L
	3A) Chemical reaction	<ul style="list-style-type: none"> Chemical reaction Wear safety glasses and protective gloves. Acid may react with high alkaline sample and fizz (releases CO₂). 	L
	3B) Eye contact	<ul style="list-style-type: none"> Eye contact Wear safety glasses. If acid splashes in the eyes, flush eyes for 15 minutes with water. Seek medical advice. 	L
4. Ampoule disposal	3C) Skin contact chemical burns.	<ul style="list-style-type: none"> Skin contact chemical burns. Wear safety glasses and protective gloves. 	L
	4A) Cuts from the broken glass.	<ul style="list-style-type: none"> Cuts from the broken glass. Wear safety glasses and protective gloves. Place used ampoules in an empty, non-reactive container in the field and bring it back to the office. Dispose of the preservative and broken glass by approved methods. 	L

Chemicals of Concern

1. PFOS
2. PFOA

Technical Fact Sheet – Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA)



TECHNICAL FACT SHEET – PFOS and PFOA



- ❖ Manmade chemicals not naturally found in the environment.
- ❖ Fluorinated compounds that repel oil and water.
- ❖ Used in a variety of industrial and consumer products, such as carpet and clothing treatments and firefighting foams.
- ❖ Extremely persistent in the environment.
- ❖ Known to bioaccumulate in humans and wildlife.
- ❖ Readily absorbed after oral exposure. Accumulate primarily in the blood serum, kidney and liver.
- ❖ Toxicological studies on animals indicate potential developmental, reproductive and systemic effects.
- ❖ Health-based advisories or screening levels have been developed by EPA and state agencies.
- ❖ EPA has not issued a Maximum Contaminant Level (MCL) for drinking water.
- ❖ Standard analytical methods use high-performance liquid chromatography coupled with tandem mass spectrometry.
- ❖ Resistant to most chemical and microbial conventional treatment technologies. Most common groundwater treatment method is extraction and filtration through granular activated carbon filters.



This fact sheet, developed by the U.S. Environmental Protection Agency (EPA) Federal Facilities Restoration and Reuse Office (FFRRO), provides a summary of two contaminants of emerging concern, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), including physical and chemical properties; environmental and health impacts; existing federal and state guidelines; detection and treatment methods; and additional sources of information. This fact sheet is intended for use by site managers who may address these chemicals at cleanup sites or in drinking water supplies and for those in a position to consider whether these chemicals should be added to the analytical suite for site investigations.

PFOS and PFOA are part of a larger group of chemicals called per- and polyfluoroalkyl substances (PFASs). PFASs, which are highly fluorinated aliphatic molecules, have been released to the environment through industrial manufacturing and through use and disposal of PFAS-containing products (Liu and Mejia Avendano 2013). PFOS and PFOA are the most widely studied of the PFAS chemicals. PFOS and PFOA are persistent in the environment and resistant to typical environmental degradation processes. As a result, they are widely distributed across all trophic levels and are found in soil, air and groundwater at sites across the United States. The toxicity, mobility and bioaccumulation potential of PFOS and PFOA result in potential adverse effects on the environment and human health.



- ❖ They are human-made compounds that do not occur naturally in the environment (ATSDR 2015; EPA 2009b).
- ❖ PFOS and PFOA are fully fluorinated, organic compounds. They are the two PFASs that have been produced in the largest amounts within the United States (ATSDR 2015; EFSA 2008).
- ❖ PFOS and PFOA are part of a subset of PFASs known as perfluorinated alkyl acids (PFAAs).

The U.S. EPA prepared this fact sheet using the most recent publicly-available scientific information; additional information can be obtained from the source documents. This fact sheet is not intended to be used as a primary source of information and is not intended, nor can it be relied on, to create any rights enforceable by any party in litigation with the United States. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Technical Fact Sheet – PFOS and PFOA

PFOS and PFOA

- ❖ The PFAS group is made up of two subgroups: perfluoroalkyl substances and polyfluoroalkyl substances.
- ❖ PFOS and PFOA are F(CF2)7CF3 (compounds for which all hydrogens on all carbons (except for carbons associated with functional groups) have been replaced by fluorines).
- ❖ F(CF2)6CF2OH are compounds for which some hydrogens (but not all) on the carbon atoms have been replaced by fluorines.
- ❖ PFASs are extremely persistent in the environment primarily because the chemical bond between the carbon and fluorine atoms is extremely strong and stable.

Source: Buck and others 2011

- ❖ PFOS and PFOA can also be formed by environmental degradation or by metabolism in larger organisms from a large group of related PFASs or precursor compounds (ATSDR 2015; UNEP 2006).
- ❖ PFOS and PFOA are stable chemicals that are comprised of chains of eight carbons. Because of their unique ability to repel oil and water, these chemicals have been used in: surface protection products such as carpet and clothing treatments; coatings for paper, cardboard packaging and leather products; industrial surfactants, emulsifiers, wetting agents, additives and coatings; processing aids in the manufacture of fluoropolymers such as nonstick coatings on cookware; membranes for clothing that are both waterproof and breathable; electrical wire casing; fire and chemical resistant tubing; and plumbing thread seal tape (ATSDR 2015).
- ❖ Through 2001, PFOS and other PFAS chemicals were used in the manufacture of aqueous film forming foam (AFFF), which is used to extinguish liquid hydrocarbon fires (ASTSWMO 2015; EPA 2016f; DoD SERDP 2014; Place and Field 2012). Manufacturers of AFFF in the United States now use PFASs other than PFOS; however, existing stocks of PFOS-based AFFF remain in use.
- ❖ By 2002, the primary U.S. manufacturer of PFOS voluntarily phased out production of PFOS. In 2006, eight major companies in the PFASs industry voluntarily agreed to phase out production of PFOA and PFOA-related chemicals by 2015. EPA is concerned about a limited number of ongoing uses of PFOA-related chemicals, which are still available in existing stocks and from companies not participating in the PFOA Stewardship Program. In addition, exposure could occur via goods imported from countries where PFOS and PFOA are still used (EPA 2016b, 2016c, 2016f).

F(CF2)6CF2OH (ATSDR 2015; EFSA 2008; EPA 2016b, 2016c)

<chem>F(CF2)7CF3</chem>	<chem>F(CF2)6CF2OH</chem>	<chem>F(CF2)6CF2OH</chem>
Chemical Abstracts Service (CAS) number	1763-23-1	335-67-1
Physical description (physical state at room temperature and atmospheric pressure)	White powder (potassium salt)	White powder/waxy white solid
Molecular weight (g/mol)	500	414
Water solubility at 25°C (mg/L)	680	9.5 X 10 ³
Melting point (°C)	No data	54
Boiling point (°C)	258–260	192
Vapor pressure at 25°C (mm Hg)	0.002	0.525
Organic carbon partition coefficient (K _{oc})	2.57	2.06
Henry's law constant (atm·m ³ /mol)	Not measurable	Not measurable

Abbreviations: g/mol – grams per mole; mg/L – milligrams per liter; °C – degree Celsius; mm Hg – millimeters of mercury; atm·m³/mol – atmosphere-cubic meters per mole

Technical Fact Sheet – PFOS and PFOA



- ❖ During manufacturing processes, PFASs were released to the air, water and soil in and around manufacturing facilities (ATSDR 2015). Recently, PFOS and PFOA contamination has also been observed in facilities using PFAS products to manufacture other products (secondary manufacturing facilities).
- ❖ PFOS has been detected in surface water and sediment downstream of production facilities and in wastewater treatment plant effluent, sewage sludge and landfill leachate at a number of cities in the United States (OECD 2002; Ollaei and others 2013).
- ❖ The environmental release of PFOS-based AFFF may also occur from tank and supply line leaks, use of aircraft hangar fire suppression systems, firefighting training activities, and use at airplane crash sites (DoD SERDP 2014).
- ❖ PFOS and PFOA products often contain residuals from manufacturing and formulation that are PFASs. PFOS- and PFOA-based products often contain impurities and residuals which may be precursors to PFOS and PFOA. Biological and abiotic environmental processes have been shown to transform these precursors into PFOS and PFOA (Liu and Mejia Avendano 2013; Buck and others 2011; Conder and others 2010).
- ❖ In general, PFOS and PFOA are stable in the environment and resist typical environmental degradation processes. As a result, these chemicals are persistent in the environment (OECD 2002; ATSDR 2015).
- ❖ PFOS and PFOA are detected in environmental media and biota in many parts of the world, including oceans and the Arctic, indicating that long-range transport is possible (ATSDR 2015).
- ❖ The wide distribution of perfluoroalkyl substances, such as PFOS, in higher trophic level organisms is strongly suggestive of the potential for bioaccumulation and/or bioconcentration (EPA 2015; UNEP 2006).
- ❖ PFOS has been shown to accumulate to levels of concern in fish. The estimated bioconcentration factor in fish ranges from 1,000 to 4,000 (EFSA 2008; MDH 2017a). PFOA has been shown to bioaccumulate in air breathing species, including humans, but not in fish (Vierke and others 2012).



- ❖ Studies have found PFOS and PFOA in the blood samples of the general human population and wildlife, indicating that exposure to the chemicals is widespread (ATSDR 2015; EPA 2015).
- ❖ Reported data indicate that blood serum concentrations of PFOS and PFOA are higher in workers and individuals living near facilities that use or produce PFASs than for the general population (ATSDR 2015; EPA 2009b).
- ❖ Potential exposure pathways include ingestion of food and water, use of consumer products or inhalation of PFAS-containing particulate matter (e.g., soils and dust) or vapor phase precursors (ATSDR 2015; EPA 2009b).
- ❖ PFOA and PFOS have been found in drinking water supplies, typically associated with manufacturing locations, industrial use or disposal.
- ❖ Human epidemiological studies found associations between PFOA exposure and high cholesterol, increased liver enzymes, decreased vaccination response, thyroid disorders, pregnancy-induced hypertension and preeclampsia, and cancer (testicular and kidney) (EPA 2016e).
- ❖ Human epidemiological studies found associations between PFOS exposure and high cholesterol and adverse reproductive and developmental effects (EPA 2016d).
- ❖ PFOS and PFOA are toxic to laboratory animals, producing reproductive, developmental and systemic effects in laboratory tests (Austin and others 2003; EPA 2016d, 2016e; Post and others 2012).
- ❖ EPA found that there is suggestive evidence that PFOS and PFOA may cause cancer (EPA 2016d, 2016e).
- ❖ The American Conference of Governmental Industrial Hygienists (ACGIH) has classified PFOA as a Group A3 carcinogen – confirmed animal carcinogen with unknown relevance to humans (ATSDR 2015).
- ❖ The World Health Organization's International Agency for Research on Cancer has found that PFOA is possibly carcinogenic to humans (Group 2B) (IARC 2016).
- ❖ In 2009, the Stockholm Convention on Persistent Organic Pollutants added PFOS to Annex B, restricting its production and use. PFOA was proposed for listing in 2015 (Stockholm Convention 2016).

Technical Fact Sheet – PFOS and PFOA

- ❖ EPA derived oral non-cancer reference doses (RfDs) of 0.00002 mg/kg/day for both PFOS and PFOA (EPA 2016d, 2016e). The RfD is an estimate of the daily exposure level that is likely to be without harmful effects over a lifetime.
- ❖ In May 2016, EPA established drinking water health advisories of 70 parts per trillion (0.07 micrograms per liter (µg/L)) for the combined concentrations of PFOS and PFOA. Above these levels, EPA recommends that drinking water systems take steps to assess contamination, inform consumers and limit exposure. The health advisory levels are based on the RfDs (EPA 2016b, 2016c).
- ❖ EPA found that there are insufficient data to derive inhalation non-cancer reference concentrations (RfCs) for PFOS and PFOA (EPA 2016d, 2016e).
- ❖ For PFOA, EPA estimated a cancer slope factor of 0.07 (mg/kg/day)⁻¹. Based on this slope factor, EPA calculated that a PFOA drinking water concentration of 0.5 µg/L would correspond to a one-in-a-million increased risk of cancer (EPA 2016c, 2016e).
- ❖ EPA has not issued a Maximum Contaminant Level (MCL) for drinking water.

- ❖ Various states have established drinking water and groundwater guidelines, including the following:

State	Drinking Water		Agency
	µg/L	ng/L	
Delaware	0.4	0.2	DNREC 2016
Maine	0.13	0.56	MDEP 2016
Michigan	0.42	0.011	MDEQ 2015
Minnesota	0.035	0.027	MDH 2017b
New Jersey	0.04	NA	NJDEP 2016
North Carolina	2	NA	NCDEQ 2013
Texas	0.3	0.6	TCEQ 2016
Vermont	0.02	NA	VTDEC 2016

- ❖ Some states have fish consumption advisories for certain water bodies where PFOS has been detected in fish (MDH 2017c; MDHHS 2016).
- ❖ PFOS and PFOA are included on the fourth drinking water contaminant candidate list, which is a list of unregulated contaminants that are known to, or anticipated to, occur in public water systems and may require regulation under the Safe Drinking Water Act (EPA 2016a).

- ❖ Detection methods for PFOS and PFOA are primarily based on high-performance liquid chromatography (HPLC) coupled with tandem mass spectrometry (MS/MS) (ATSDR 2015).
- ❖ EPA Method 537, Version 1.1, is a liquid chromatography/tandem mass spectrometry (LC-MS/MS) method used to analyze PFOS, PFOA and other PFAAs in finished drinking water. While most sampling protocols for organic compounds require sample collection in glass, this method requires plastic sample bottles because PFASs are known to adhere to glass (ATSDR 2015; EPA 2009a). In addition, the method notes that analytes are found in common lab supplies and equipment such as PTFE (polytetrafluoroethylene) products, LC solvent lines, solid phase extraction sample transfer lines, methanol and aluminum foil (EPA 2009a).
- ❖ Currently, there are no standard EPA methods for analyzing PFASs in groundwater, surface water, wastewater or solids. EPA is developing analytical methods for these media. EPA expects to have draft methods for water and solids by fall 2017.

- EPA will also develop standard operating procedures for field sampling (EPA 2017).
- ❖ ASTM has published standards for analyzing PFAAs in soil (D7968-14) and in water, sludge, influent, effluent and wastewater (D7979-15). Both standards use LC-MS/MS (ASTM 2014, 2015). These methods have not been multi-lab validated.
- ❖ The available detection methods report sensitivities of low picograms per cubic meter (pg/m³) levels in air, high picograms per liter (pg/L) to low ng/L levels in water, and high picograms per gram to low ng/g levels in soil (ATSDR 2015).
- ❖ Experimental techniques are available to measure PFASs in air samples. Some studies have used gas chromatography mass spectrometry (GC/MS) to measure PFASs in air samples (ATSDR 2015). In addition, some precursor chemicals and transformation products are measured by GC/MS/MS or LC/MS/MS (Liu and Mejia Avendano 2013). An oxidative technique has been proposed to estimate precursor levels by LC/MS/MS (Houtz and Sedlak 2012).

Technical Fact Sheet – PFOS and PFOA

- ❖ Researchers are developing a new analytical method that uses particle induced gamma emission (PIGE) to quickly and non-destructively

detect the presence of PFASs in consumer products and other solid materials (National Science Foundation 2015).



- ❖ Chapter 10 of the PFOS and PFOA health advisories discuss the performance of common drinking water technologies to treat these chemicals (EPA 2016b, 2016c). In general, PFOS and PFOA resist most conventional chemical and microbial treatment technologies. Technologies with demonstrated effectiveness include granular activated carbon sorption and ion exchange resins (EPA 2016b, 2016c).
- ❖ PFAAs can be formed when precursor chemicals are transformed in the environment or in the body (EPA 2016b, 2016c). Therefore, if precursors are not addressed during remediation, over time they may be transformed to PFAAs, such as PFOS and PFOA. The presence of other contaminants, including PFAS precursors, can also impact design and performance of remedial technologies.
- ❖ The most common groundwater treatment is extraction and filtration through granular activated carbon. However, because PFOA and PFOS have moderate adsorbability, the design specifics are very important in obtaining acceptable treatment (EPA 2016b, 2016c). Other potential adsorbents

include: ion exchange resins, organo-clays, clay minerals and carbon nanotubes (EPA 2016b, 2016c; Espana and others 2015). Evaluation of these sorbents needs to consider regeneration, as the cost and effort required may be substantial (EPA 2016b, 2016c).

- ❖ Other ex situ treatments including nanofiltration and reverse osmosis units have been shown to remove PFASs from water (EPA 2016b, 2016c). Incineration of the concentrated waste would be needed for the complete destruction of PFASs (MDH 2008; Vecitis and others 2009).
- ❖ Research into other treatment approaches for PFOS and PFOA in groundwater is ongoing (DoD SERDP 2016).
- ❖ One soil management approach is excavation and off-site disposal. Capping may also be an option.
- ❖ High-temperature incineration can also be used to destroy PFOS and PFOA (ASTSWMO 2015).
- ❖ Stabilization methods for PFAS-contaminated soil may be effective (Kupryianchuk and others 2016).



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Technical Fact Sheet – PFOS and PFOA

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If you have any questions or comments on this fact sheet, please contact: Mary Cooke, FFRRO, at cooke.maryt@epa.gov.

**Safety Data Sheets (SDS)
Materials Brought to the Site**

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: Alconox

I Identification of the substance/mixture and of the supplier**1.1 Product identifier**

Trade Name: Alconox

Synonyms:

Product number: Alconox

1.2 Application of the substance / the mixture : Cleaning material/Detergent**1.3 Details of the supplier of the Safety Data Sheet****Manufacturer Supplier**

Alconox, Inc.
30 Glenn Street
White Plains, NY 10603
1-914-948-4040

Emergency telephone number:**ChemTel Inc**

North America: 1-800-255-3924

International: 01-813-248-0585

2 Hazards identification**2.1 Classification of the substance or mixture:**

In compliance with EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments.

Hazard-determining components of labeling:

Tetrasodium Pyrophosphate
Sodium tripolyphosphate
Sodium Alkylbenzene Sulfonate

2.2 Label elements:

Skin irritation, category 2.

Eye irritation, category 2A.

Hazard pictograms:**Signal word:** Warning**Hazard statements:**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements:

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with soap and water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplemental first aid instructions on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P501 Dispose of contents and container as instructed in Section 13.

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: Alconox

Additional information: None.**Hazard description****Hazards Not Otherwise Classified (HNOC):** None**Information concerning particular hazards for humans and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

3 Composition/information on ingredients3.1 **Chemical characterization :** None3.2 **Description :** None3.3 **Hazardous components (percentages by weight)**

Identification	Chemical Name	Classification	Wt. %
CAS number: 7758-29-4	Sodium tripolyphosphate	Skin Irrit. 2 ; H315 Eye Irrit. 2; H319	12-28
CAS number: 68081-81-2	Sodium Alkylbenzene Sulfonate	Acute Tox. 4; H303 Skin Irrit. 2 ; H315 Eye Irrit. 2; H319	8-22
CAS number: 7722-88-5	Tetrasodium Pyrophosphate	Skin Irrit. 2 ; H315 Eye Irrit. 2; H319	2-16

3.4 **Additional Information :** None.**4 First aid measures**4.1 **Description of first aid measures****General information:** None.**After inhalation:**

Maintain an unobstructed airway.

Loosen clothing as necessary and position individual in a comfortable position.

After skin contact:

Wash affected area with soap and water.

Seek medical attention if symptoms develop or persist.

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes.

Remove contact lens(es) if able to do so during rinsing.

Seek medical attention if irritation persists or if concerned.

After swallowing:

Rinse mouth thoroughly.

Seek medical attention if irritation, discomfort, or vomiting persists.

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: Alconox

4.2 Most important symptoms and effects, both acute and delayed

None

4.3 Indication of any immediate medical attention and special treatment needed:

No additional information.

5 Firefighting measures**5.1** Extinguishing media**Suitable extinguishing agents:**

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

For safety reasons unsuitable extinguishing agents : None**5.2** Special hazards arising from the substance or mixture :

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters**Protective equipment:**Wear protective eye wear, gloves and clothing.
Refer to Section 8.**5.4** Additional information :Avoid inhaling gases, fumes, dust, mist, vapor and aerosols.
Avoid contact with skin, eyes and clothing.**6 Accidental release measures****6.1** Personal precautions, protective equipment and emergency procedures :Ensure adequate ventilation.
Ensure air handling systems are operational.**6.2** Environmental precautions :Should not be released into the environment.
Prevent from reaching drains, sewer or waterway.**6.3** Methods and material for containment and cleaning up :

Wear protective eye wear, gloves and clothing.

6.4 Reference to other sections : None**7 Handling and storage****7.1** Precautions for safe handling :Avoid breathing mist or vapor.
Do not eat, drink, smoke or use personal products when handling chemical substances.**7.2** Conditions for safe storage, including any incompatibilities :

Store in a cool, well-ventilated area.

7.3 Specific end use(s):

No additional information.

8 Exposure controls/personal protection



8.1 Control parameters :

- a) 7722-88-5, Tetrasodium Pyrophosphate, OSHA TWA 5 mg/m3
- b) Dusts, non-specific OEL, Irish Code of Practice
 - (i) Total inhalable 10 mg/m3 (8hr)
 - (ii) Respirible 4mg/m3 (8hr)
 - (iii) Tetrasodium Pyrophosphate, OSHA TWA 5 mg/m3, (8hr)

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Respiratory protection:

Not needed under normal use conditions.

Protection of skin:

Select glove material impermeable and resistant to the substance or preparation. Protective gloves recommended to comply with EN 374. Take note of break through times, permeability, and special workplace conditions, such as mechanical strain, duration of contact, etc. Protective gloves should be replaced at the first sign of wear.

Eye protection:

Safety goggles or glasses, or appropriate eye protection. Recommended to comply with ANSI Z87.1 and/or EN 166.

General hygienic measures:

Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.

9 Physical and chemical properties

Appearance (physical state, color):	White and cream colored flakes - powder	Explosion limit lower: Explosion limit upper:	Not determined or not available. Not determined or not available.
Odor:	Not determined or not available.	Vapor pressure at 20°C:	Not determined or not available.
Odor threshold:	Not determined or not available.	Vapor density:	Not determined or not available.
pH-value:	9.5 (aqueous solution)	Relative density:	Not determined or not available.
Melting/Freezing point:	Not determined or not available.	Solubilities:	Not determined or not available.
Boiling point/Boiling range:	Not determined or not available.	Partition coefficient (n-octanol/water):	Not determined or not available.
Flash point (closed cup):	Not determined or not available.	Auto/Self-ignition temperature:	Not determined or not available.
Evaporation rate:	Not determined or not available.	Decomposition	Not determined or not available.

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: **ALCONOX**

Flammability (solid, gaseous):	Not determined or not available.	Viscosity:	a. Kinematic: Not determined or not available. b. Dynamic: Not determined or not available.
Density at 20°C:	Not determined or not available.		

10 Stability and reactivity10.1 **Reactivity** : None10.2 **Chemical stability** : None10.3 **Possibility hazardous reactions** : None10.4 **Conditions to avoid** : None10.5 **Incompatible materials** : None10.6 **Hazardous decomposition products** : None**11 Toxicological information**11.1 **Information on toxicological effects** :**Acute Toxicity:****Oral:**

: LD50 > 5000 mg/kg oral rat - Product .

Chronic Toxicity: No additional information.**Skin corrosion/irritation:**

Sodium Alkylbenzene Sulfonate: Causes skin irritation. .

Serious eye damage/irritation:

Sodium Alkylbenzene Sulfonate: Causes serious eye irritation .

Tetrasodium Pyrophosphate: Rabbit - Risk of serious damage to eyes .

Respiratory or skin sensitization: No additional information.**Carcinogenicity:** No additional information.**IARC (International Agency for Research on Cancer):** None of the ingredients are listed.**NTP (National Toxicology Program):** None of the ingredients are listed.**Germ cell mutagenicity:** No additional information.**Reproductive toxicity:** No additional information.**STOT-single and repeated exposure:** No additional information.**Additional toxicological information:** No additional information.**12 Ecological information**

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: Alconox

12.1 Toxicity:

- Sodium Alkylbenzene Sulfonate: Fish, LC50 1.67 mg/l, 96 hours.
- Sodium Alkylbenzene Sulfonate: Aquatic invertebrates, EC50 Daphnia 2.4 mg/l, 48 hours. Sodium Alkylbenzene Sulfonate: Aquatic Plants, EC50 Algae 29 mg/l, 96 hours.
- Tetrasodium Pyrophosphate: Fish, LC50 - other fish - 1,380 mg/l - 96 h.
- Tetrasodium Pyrophosphate: Aquatic invertebrates, EC50 - Daphnia magna (Water flea) - 391 mg/l - 48 h.

12.2 Persistence and degradability: No additional information.

12.3 Bioaccumulative potential: No additional information.

12.4 Mobility in soil: No additional information.

General notes: No additional information.

12.5 Results of PBT and vPvB assessment:

PBT: No additional information.

vPvB: No additional information.

12.6 Other adverse effects: No additional information.

13 Disposal considerations

13.1 Waste treatment methods (consult local, regional and national authorities for proper disposal)

Relevant Information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. (US 40CFR262.11).

14 Transport information

14.1 UN Number: None
ADR, ADN, DOT, IMDG, IATA

14.2 UN Proper shipping name: None
ADR, ADN, DOT, IMDG, IATA

14.3 Transport hazard classes:
ADR, ADN, DOT, IMDG, IATA

Class:	None
Label:	None
LTD.QTY:	None

US DOT
Limited Quantity Exception: None

Bulk: RQ (if applicable): None Proper shipping Name: None Hazard Class: None Packing Group: None Marine Pollutant (if applicable): No additional information.	Non Bulk: RQ (if applicable): None Proper shipping Name: None Hazard Class: None Packing Group: None Marine Pollutant (if applicable): No additional information.
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Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: **ALCONOX**

Comments: None	Comments: None
14.4 Packing group: ADR, ADN, DOT, IMDG, IATA	None
14.5 Environmental hazards :	None
14.6 Special precautions for user: Danger code (Kemler): EMS number: Segregation groups:	None None None None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.	
14.8 Transport/Additional information: Transport category: Tunnel restriction code: UN "Model Regulation":	
	None None None

15 Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.****North American**

SARA Section 313 (specific toxic chemical listings): None of the ingredients are listed. Section 302 (extremely hazardous substances): None of the ingredients are listed.
CERCLA (Comprehensive Environmental Response, Clean up and Liability Act) Reportable Spill Quantity: None of the ingredients are listed.
TSCA (Toxic Substances Control Act): Inventory: All ingredients are listed. Rules and Orders: Not applicable.
Proposition 65 (California): Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed. Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed.

Canadian Canadian Domestic Substances List (DSL): All ingredients are listed.

EU

REACH Article 57 (SVHC): None of the ingredients are listed.

Safety Data Sheet

Page 8 of 8

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 10.18.2017

Revision: 10.18.2017

Trade Name: Alconox

Germany MAK: Not classified.

EC 648/2004 – This is an industrial detergent. Contains >30% phosphate, 15-30% anionic surfactant, <5% EDTA salts

EC 551/2009 – This is not a laundry or dishwasher detergent

EC 907/2006 – Contains no enzymes, optical brighteners, perfumes, allergenic fragrances, or preservative agents

Asia Pacific

Australia

Australian Inventory of Chemical Substances (AICS): All ingredients are listed.

China

Inventory of Existing Chemical Substances in China (IECSC): All ingredients are listed.

Japan

Inventory of Existing and New Chemical Substances (ENCS): All ingredients are listed.

Korea

Existing Chemicals List (ECL): All ingredients are listed.

New Zealand

New Zealand Inventory of Chemicals (NZOIC): All ingredients are listed.

Philippines

Philippine Inventory of Chemicals and Chemical Substances (PICCS): All ingredients are listed.

Taiwan

Taiwan Chemical Substance Inventory (TSCI): All ingredients are listed.

16 Other information

Abbreviations and Acronyms: None

Summary of Phrases

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

NFPA: 1-0-0

HMIS: 1-0-0

Precautionary statements:

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with soap and water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplemental first aid instructions on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P501 Dispose of contents and container as instructed in Section 13.

Manufacturer Statement:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Trizma® Pre-set crystals
Product Number : T7193
Brand : Sigma

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +1 800-325-5832
Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures
 Synonyms : Tris crystals

Hazardous components

Component	Classification	Concentration
Tris (hydroxymethyl) aminomethane		
CAS-No. 77-86-1		30 - 60 %
EC-No. 201-064-4		
Registration number 01-2119957659-16-XXXX		

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.
- 6.2 Environmental precautions**
Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections**
For disposal see section 13.

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities**
Keep container tightly closed in a dry and well-ventilated place.
- 7.3 Specific end use(s)**
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**
- Components with workplace control parameters**
Contains no substances with occupational exposure limit values.
- 8.2 Exposure controls**
- Appropriate engineering controls**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Personal protective equipment**
- Eye/face protection**
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- Body Protection**
impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection**
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Control of environmental exposure**
Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- | | |
|---|-------------------|
| a) Appearance | Form: solid |
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | 7.0 - 9.1 |
| e) Melting point/freezing point | no data available |
| f) Initial boiling point and boiling range | no data available |
| g) Flash point | no data available |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | no data available |
| n) Water solubility | no data available |
| o) Partition coefficient: n-octanol/water | no data available |
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties | no data available |
| t) Oxidizing properties | no data available |

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Bases, Oxidizing agents, Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

Inhalation: no data available

Dermal: no data available

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Tris (hydroxymethyl) aminomethane	77-86-1	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	1185-53-1	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Tris (hydroxymethyl) aminomethane	77-86-1	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	1185-53-1	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

HMIS Rating

Health hazard: 2
Chronic Health Hazard:
Flammability: 0
Physical Hazard 0

NFPA Rating

Health hazard: 2
Fire Hazard: 0
Reactivity Hazard: 0

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 4.3

Revision Date: 07/01/2014

Print Date: 11/10/2018

Attachments

Site Map

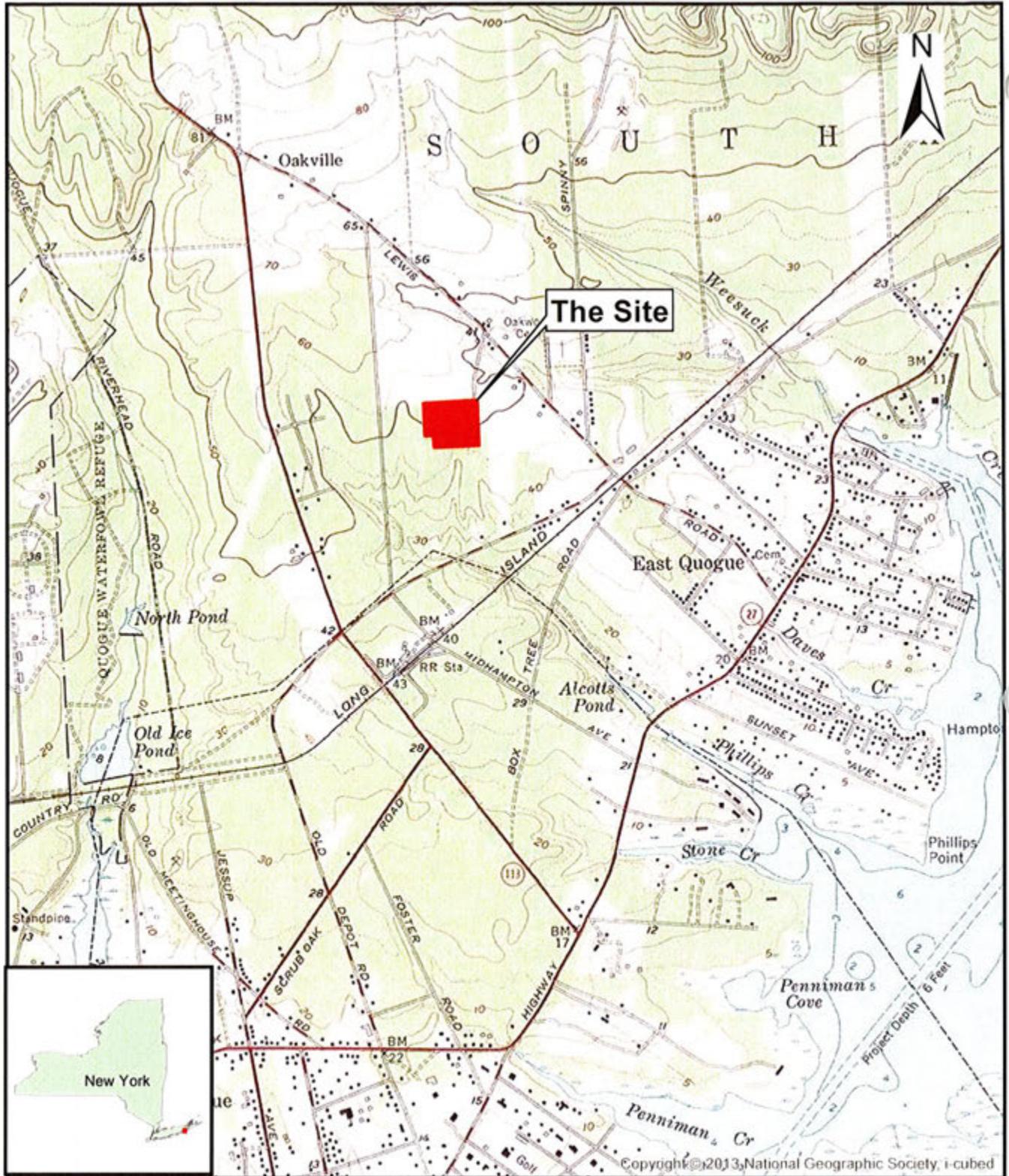


Figure 1
Site Location Map

0 0.5
Miles



Damascus Road Landfill
East Quogue, New York 11942

Prepared/Date: JCL 10/04/18 | Checked/Date: EAW 10/04/18

APPENDIX C

RECORDS SEARCH REPORT



**DAMASCUS ROAD LANDFILL
EAST QUOGUE, NEW YORK**

RECORDS SEARCH REPORT

Prepared for:

**TOWN OF SOUTHAMPTON
116 HAMPTON ROAD
SOUTHAMPTON, NEW YORK 11968**

Prepared by:

**AMEC E&E, PC
214-25 42nd AVENUE
BAYSIDE, NY 11361
(347)-836-4343**

NOVEMBER 09, 2018

CONTENTS

1.0	INTRODUCTION.....	1
2.0	HISTORICAL RECORDS REVIEW	1
2.1	FIRE INSURANCE MAPS.....	1
2.2	AERIAL PHOTOGRAPHS	1
2.3	HISTORICAL TOPOGRAPHY MAPS.....	3
2.4	RADIUS REPORT	3

FIGURES

1	Site Location Map
2	Regional Aerial Photography
3	Map of Damascus Road Landfill Water Sampling Results

APPENDICES

A	EDR Search Results
B	Phase II ESA Report by Dvirka and Bartilucci dated January 2007
C	Supplemental Phase II Report by Dvirka and Bartilucci dated December 2009

1.0 INTRODUCTION

This report presents the results of a records search completed for the Site. The purpose of this work was to identify:

- potential onsite or offsite sources that may have contributed to the PFAS contamination in the underlying groundwater,
- specific activities at the Site that could have impacted the groundwater with PFAS (such as firefighting training) or
- historical disposal records of commercial or industrial waste materials or consumer products that may have contained PFAS.

This record search was completed in compliance with DER-10 Technical Guidance for Site Investigation and Remediation Appendix 3A Records Search Requirement.

2.0 HISTORICAL RECORDS REVIEW

Amec obtained and reviewed a historical records package from Environmental Data Resource (EDR) of Shelton, CT consisting of a Radius MapTM report, Sanborn Fire Insurance maps, aerial photographs, and historical topography maps to develop a history of previous uses at the Site and surrounding area. This is included as Appendix A. Our review of this information considered whether any identified uses of the Site or surrounding properties may have posed a potential for use of PFAS containing materials. The following summarizes the EDR historical records package.

2.1 FIRE INSURANCE MAPS

Historical Sanborn Maps covering the Site and the surrounding area were not available for review. A copy of the EDR Sanborn report documenting that Sanborn Maps do not exist for the Site is provided in Appendix A.

2.2 AERIAL PHOTOGRAPHS

Amec reviewed available aerial photographs of the site and surrounding area, provided by EDR, dated 1947, 1957, 1962, 1969, 1970, 1976, 1980, 1985, 1994, 2006, 2009, 2013, and 2017. The information reviewed from the aerial photography is summarized below. It should be noted that

site features may not be discernible on the aerial photographs due to the scale or degree of clarity of a given photograph. Copies of the EDR aerial photographs are included in Appendix A.

The following observations concerning the Site can be made from review of the aerial photographs:

- The Site was occupied as early as or earlier than 1947 as evident by the unpaved roads running along the eastern boundary.
- Subsequent aerial photographs depict a steady increase in development indicated by the reduction of forested land at the Site.
- A building structure was first evident in a 1976 aerial photograph and was depicted on aerial photographs through 2009. This building reportedly was used as an animal shelter for at least part of the time. A well head still exists on the property and is assumed to be the well that was used to supply water to the structure. Since this area is not sewerred, it is also assumed the structure was serviced with an on-site septic system.
- The 1962 aerial photo is the earliest photo in which the site presents the appearance of being used as a landfill based on the bare soil covering the parcel. The earlier photos are inconclusive based on the amount of vegetation.

The following observations concern surrounding properties located to the north, east, south and west.

North: Adjacent land is depicted as farmland in the earliest aerial photograph dated 1947 and remained farmland through 2017.

East: The adjacent area to the east was a forested area in the 1947 aerial photograph. Subsequently, in the aerial photographs dated 1957 and 1962 this area was briefly developed into farmland. In the aerial photographs from 1969 through 2017, the surrounding area to the east appears primarily as forested land with unpaved roads and few single family residences.

South and West: The surrounding area to the south and west is appears as undeveloped forested land in the earliest aerial photographs dating 1947 through 1985. In the aerial photographs available from 1994 through 2017, this area the south and west appear populated with paved roads and single family residences.

The review of the aerial photographs covering the Site and surrounding area did not indicate prior periods of commercial or industrial land use upgradient and that land use was largely agricultural from as early as or earlier than 1947 until the present. Agricultural land application of bio solids originating from municipal waste water treatment plants can be a source of PFAS depending on the character of the waste water being treated.

Based on water table maps prepared by the United States Geological Survey (USGS), groundwater passing below the landfill flows from the North West (just south of the intersection of Sunrise Highway and Old Riverhead Road) and towards the South East (Sinnecock Bay). An aerial photo covering a more regional area was also reviewed as part of this records search and is included as Figure 2. Our review of this aerial photo identified several areas at the northern end of Garbreski Airport that are either void of vegetation or industrialized and are located generally upgradient of the Damascus Road Landfill.

2.3 HISTORICAL TOPOGRAPHY MAPS

Amec reviewed available historical topographic maps provided by EDR, dated 1903, 1904, 1943, 1947, 1956, and 2013. The historical topographic maps generally provide very little information regarding land uses. Collectively, the historical topographic maps generally demonstrate that the Site lies in a neighborhood listed as East Quogue. The Site and surrounding area are depicted as unshaded in the historical topographic maps dated 1903 and 1904, which typically indicates undeveloped land. Subsequent historical topographic maps depict the Site and surrounding area as shaded which typically indicates unspecified development.

Therefore, with regard to potential sources of PFAS, the historical topographic maps provide little useful information. Copies of the EDR aerial photographs are included in Appendix A.

2.4 RADIUS REPORT

Amec reviewed the results of a search of environmental record sources (radius report) provided by EDR dated August 16, 2018. The radius report provides results of a regulatory agency database search. Amec reviewed this report for information pertaining to potential land uses for industry

types with potential to have utilized PFAS-containing material. The following summarizes the notable listings identified in the EDR report.

- 34 Second Neck Lane, Quogue, NY. This site is listed as being on the UST and NY Spills regulatory agency databases and 512 feet east of the subject Site. The EDR radius report lists the site as having a 1,000-gallon capacity No.2 fuel oil underground storage tank (UST). In 1998, during the removal of the UST, it was discovered that the tank was leaking. The EDR radius report did not provide much information in regards to the cleanup of the leak from the tank. There is no known association of PFAS with petroleum products. Therefore, this is not considered a potential source of PFAS in the underlying groundwater at the subject Site.
- Atria Country Club Residence - 1 Sachem Lane, East Quogue, NY. This site is listed as being on the UST New York State regulatory agency database and approximately 570 feet northwest of the subject Site. Additionally, the site is upgradient of the subject Site. The EDR radius report lists the site as having a 10,000-gallon capacity No. 2 fuel oil UST. There are no reported incidents of the UST leaking. There is no known association of PFAS with gasoline products. Therefore, this is not considered a potential source of PFAS in the underlying groundwater at the subject Site.
- Edward Wright Cesspool – 132 Damascus Road, East Quogue, NY. This site is listed as being on the UST and AST New York State regulatory databases and 570 feet northeast of the subject Site. Additionally, the site is upgradient of the subject Site. The EDR radius report lists the site as having a 550-gallon capacity gasoline UST, a 1,000-gallon capacity diesel UST, and two 275-gallon capacity waste oil aboveground tanks (ASTs). There is no known association of PFAS with petroleum and gasoline products. Therefore, this is not considered a potential source of PFAS in the underlying groundwater at the subject Site.
- Fedun Landscaping – 146 Old Country Road, East Quogue, NY. This site is listed on the AST New York State regulatory database and is 1230 feet southeast of the subject Site. Additionally, this site is listed as downgradient of the subject Site. The EDR radius report lists the site as having two 275-gallon capacity No.2 fuel oil AST and a 500-gallon

capacity gasoline AST. There is no known association of PFAS with petroleum and gasoline products. Therefore, this petroleum release is not considered a potential source of PFAS in the underlying groundwater at the subject Site. If the landscaping company stored open piles of composite that contained bio-solids from a municipal treatment plant, that could be a source of low levels of PFAS compounds.

- Winter Quogue Transfer Station – Old Country Road and Midhampton Avenue, Quogue, NY. This site is listed on the Solid Waste Facilities / Landfill New York State regulatory database and 1900 feet southwest of the subject Site. Additionally, this site is listed as downgradient of the subject Site. The EDR radius report lists the site as a former landfill permitted to receive construction and demolition debris. The dates of the operation of the former landfill are not specified in the radius report. There is a large variation of material which can constitute construction and demolition debris, some of which may have contained PFAS. However, this site is situated downgradient of the subject Site and is therefore not considered a potential source of PFAS in the underlying groundwater at the subject Site.
- Quogue Sinclair – 47 Westside Avenue, East Quogue, NY. This site is listed on the LTANKS New York State regulatory database and 2300 feet southeast of the subject Site. Additionally, this site is downgradient of the subject Site. The site was listed on the database due to a tank test failure of a petroleum tank in September 1986. The issue was repaired and the case was closed very shortly after. There is no known association of PFAS with petroleum products. Due to the nature of the listing, and the distance and the direction of groundwater flow in respect to the subject Site this is not considered a potential source of PFAS in the underlying groundwater at the subject Site.
- Old Quogue Landfill in East Quogue, NY. This site is listed on the New York State Hazardous Waste regulatory database. The EDR radius report lists the site as being 0.7 miles southwest of the subject Site. However, upon closer review it is apparent that this listing is associated with the subject Site. The radius report describes this listing as being a two-acre municipal landfill located on a sixteen-acre lot. Further, the listing reports that the landfill was active from the 1930s until 1973s. The site reports that waste dumped in

the landfill came almost entirely from businesses and resident within the boundaries of the Village of Quogue and there was no indication of hazardous waste disposal ever occurring at this landfill. However, this property is a potential source of PFAS until ruled out by additional testing.

- Charles Cardo & Sons, Inc. – Montauk Highway, Quogue, NY. This site is listed on the New York State Hazardous Waste regulatory database. The EDR radius report lists the site as being 0.8 miles southeast and downgradient of the subject Site. The EDR reports that a Phase II investigation revealed debris from the former landscaping business which operated on this site. The debris consisted of soil, brush, tree stumps, trees, brick, wood, concrete, and glass. The investigation concluded that no evidence of hazardous waste disposal or significant environmental contamination was found. The site is listed classified as an “N” site in the NYSDEC Superfund database which signifies that no further action is warranted or remediation is being completed under the a brownfield program. This property is a potential source of PFAS until ruled out by additional testing.

3.0 INTERVIEW WITH TOWN OFFICIAL AND REVIEW OF TOWN RECORDS

3.1 INTERVIEW WITH TOWN OFFICIAL

On August 23, 2018, Eric Weinstock of Amec interviewed Francis Zappone of the Town of Southampton with respect to the landfill. Mr. Zappone provided us with the Town’s file for this property which is described in greater detail below. He indicated that the Town did not maintain a manned booth at the entrance to the landfill and that the waste materials brought there consisted of metals goods (such as old cars), old tires, landscaping debris and fill material. He also indicated that an animal shelter was situated on the property in the past. The shelter was serviced by an on-site well, a heating oil tank and a septic system.

Mr Zappone also indicated that he had no knowledge of any fire training having been performed on the property and there were no records in their file to indicate so. He also contacted: John Irwin from the Parks Dept. (who is also a 25 year veteran volunteer fireman at the East Quogue FD); Alyn Jackson the former East Quogue FD Commissioner; John Rankin, the Town Fire

Marshal; and Cheryl Craft, the Chief Fire Marshal for the Town of Southampton. None of these people had any knowledge of any authorized or unauthorized fire training having been performed at the property.

3.2 REVIEW OF TOWN RECORDS

The following documents were provided to us by the Town:

- A survey of the property prepared by Raynor, Marcks & Carrington dated October 19, 2006
- A Phase II ESA Report by Dvirka and Bartilucci (D&B) dated January 2007 and supporting contact documents
- A Supplemental Phase II Report by D&B dated December 2009
- A map of the SCDHS Private Well Survey Area with color coded symbols indicating the results of the sample analyses.

Survey – The 2006 survey outlines the property boundaries and indicates the area of the property to be 12.32 acres. It does not provide any details as far as what features existed on the site at that time.

2007 D&B Phase II ESA Report – Soil samples were collected from six locations. No ground water samples were included in this investigation. A geophysical survey was also performed which determined that underground heating oil tank serving the animal shelter was removed. VOCs, SVOCs, pesticides and PCBs were not detected in the surface soil samples above the unrestricted use SCOs. Of the metals tested, only zinc was detected above the unrestricted use SCO. None of the subsurface soil samples exceed the unrestricted SCOs for the five analytical parameter groups mentioned above. Analysis for PFAS compounds was not included. A copy of this report is attached as Appendix B.

2009 D&B Supplemental Phase II ESA Report – An additional 15 subsurface soil samples were collect across the site. None of the samples contained VOCs or SVOCs at concentrations in excess of the unrestricted use SCOs. The pesticides DDT, DDE and DDD were detected at

concentrations in excess of the residential SCOs. The PCB Arochlor 1254 was detected in excess of the unrestricted use SCO. The metal zinc was also detected at concentrations in excess of the residential use SCO. Analysis for PFAS compounds was not included. A copy of this report is attached as Appendix C.

Map of the SCDHS Private Well Survey Area – A map was prepared displaying the wells on the landfill and homes in the neighborhood where the private homeowner supply wells have been sampled and tested for PFAS by the SCDHS. The parcels that were sampled were then color coded: red for water samples that exceed the EPA final health advisory (HA) guideline of 0.070 ug/l, yellow for water samples where PFAS was detected below the EPA HA guideline and green for samples where there were no detections of PFAS. A copy of this map is included as Figure 3.

REFERENCES

1. NYSDEC, May 2010, DER-10, Technical Guidance for Site Investigation and Remediation
2. NYSDEC, December 14, 2006, 6NYCRR Part 375, Environmental Remediation Program

FIGURES

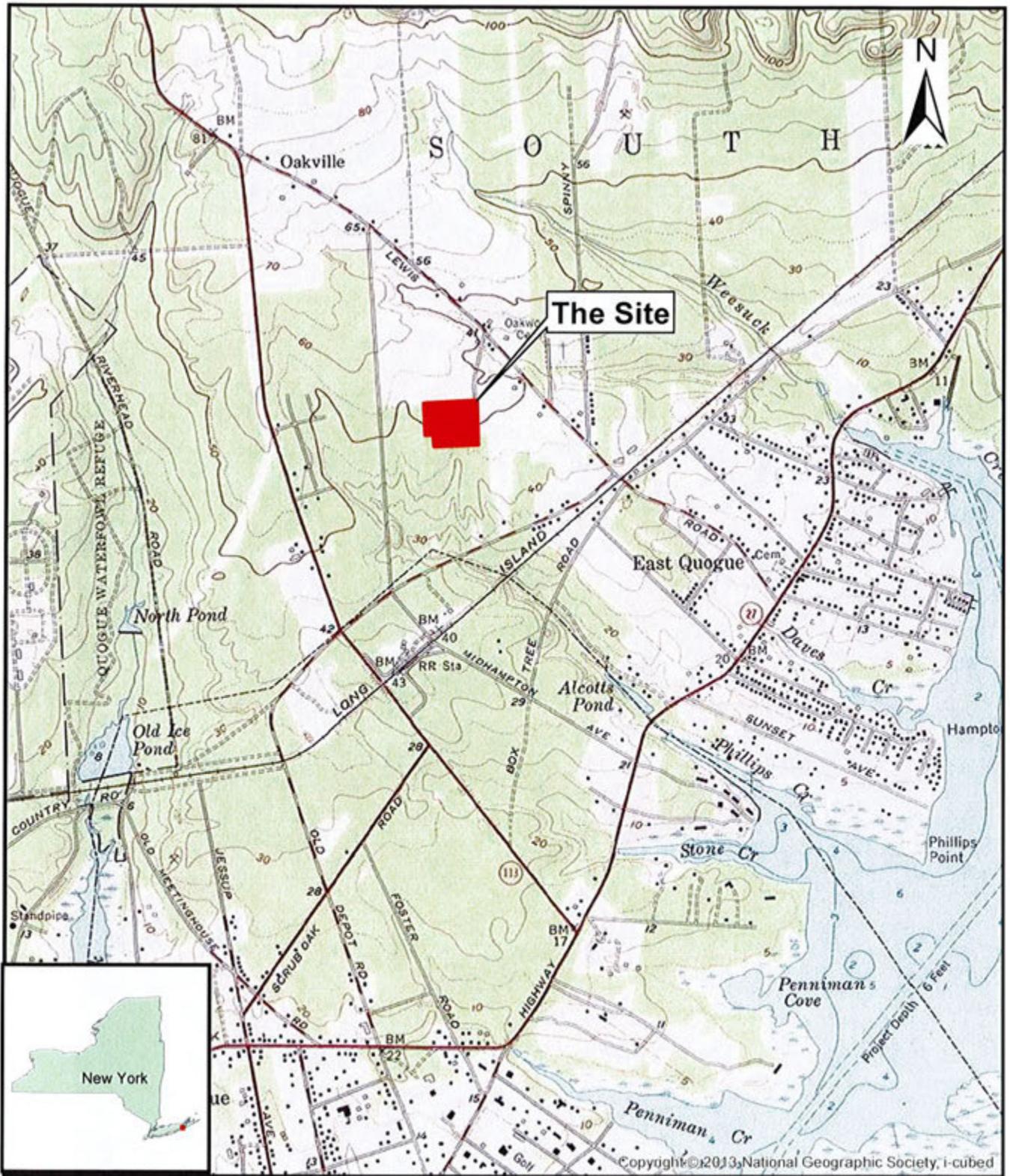
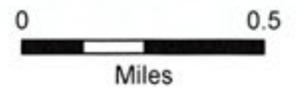


Figure 1
Site Location Map



Damascus Road Landfill
East Quogue, New York 11942

Prepared/Date: JCL 10/04/18

Checked/Date: EAW 10/04/18

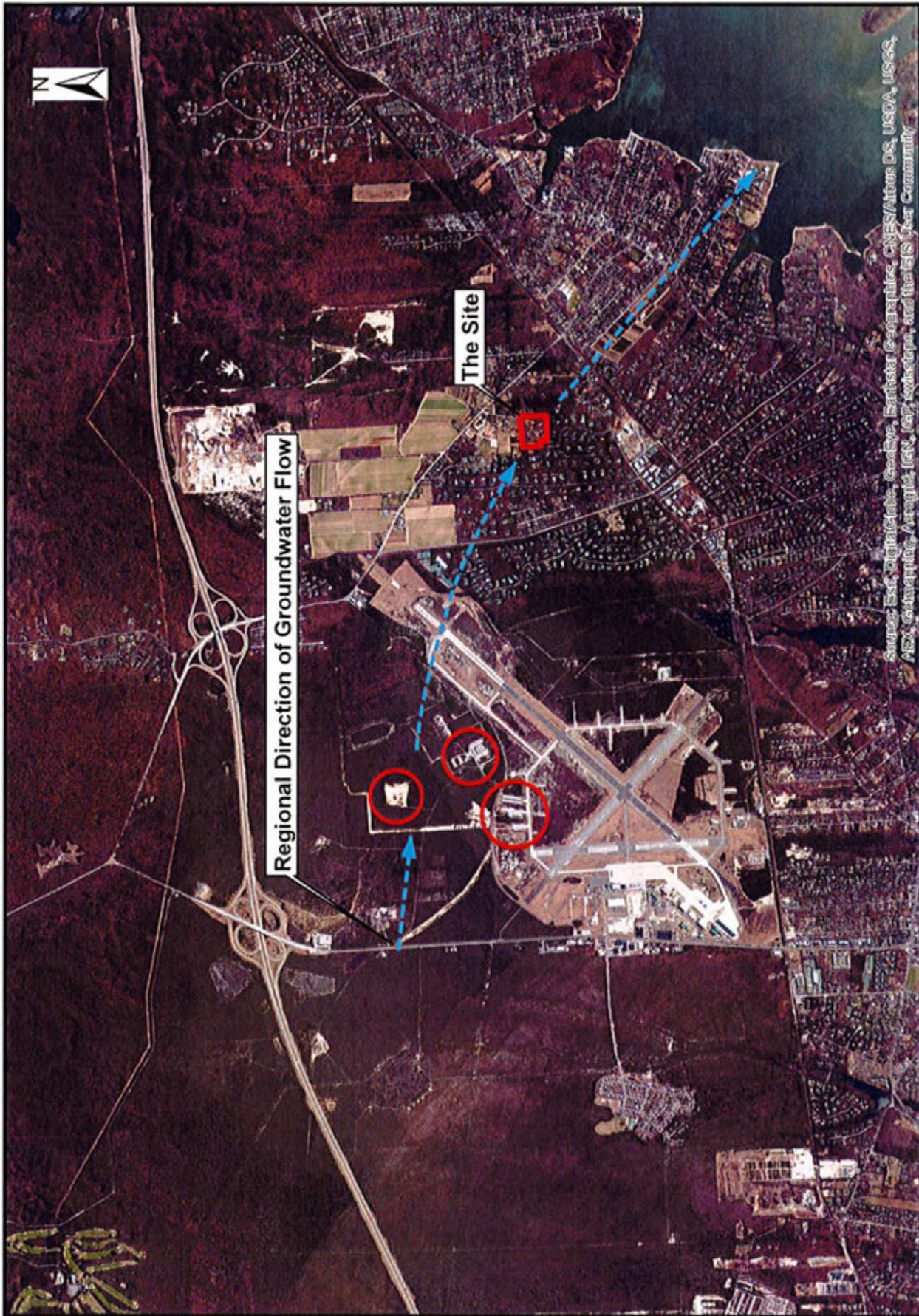


Figure 2
Regional Aerial Photography

Damascus Road Landfill
East Quogue, New York 11942

Prepared Date: 01/11/2007; Project Number: EAW110018



DAMASCUS RD LANDFILL WATER SAMPLING RESULTS

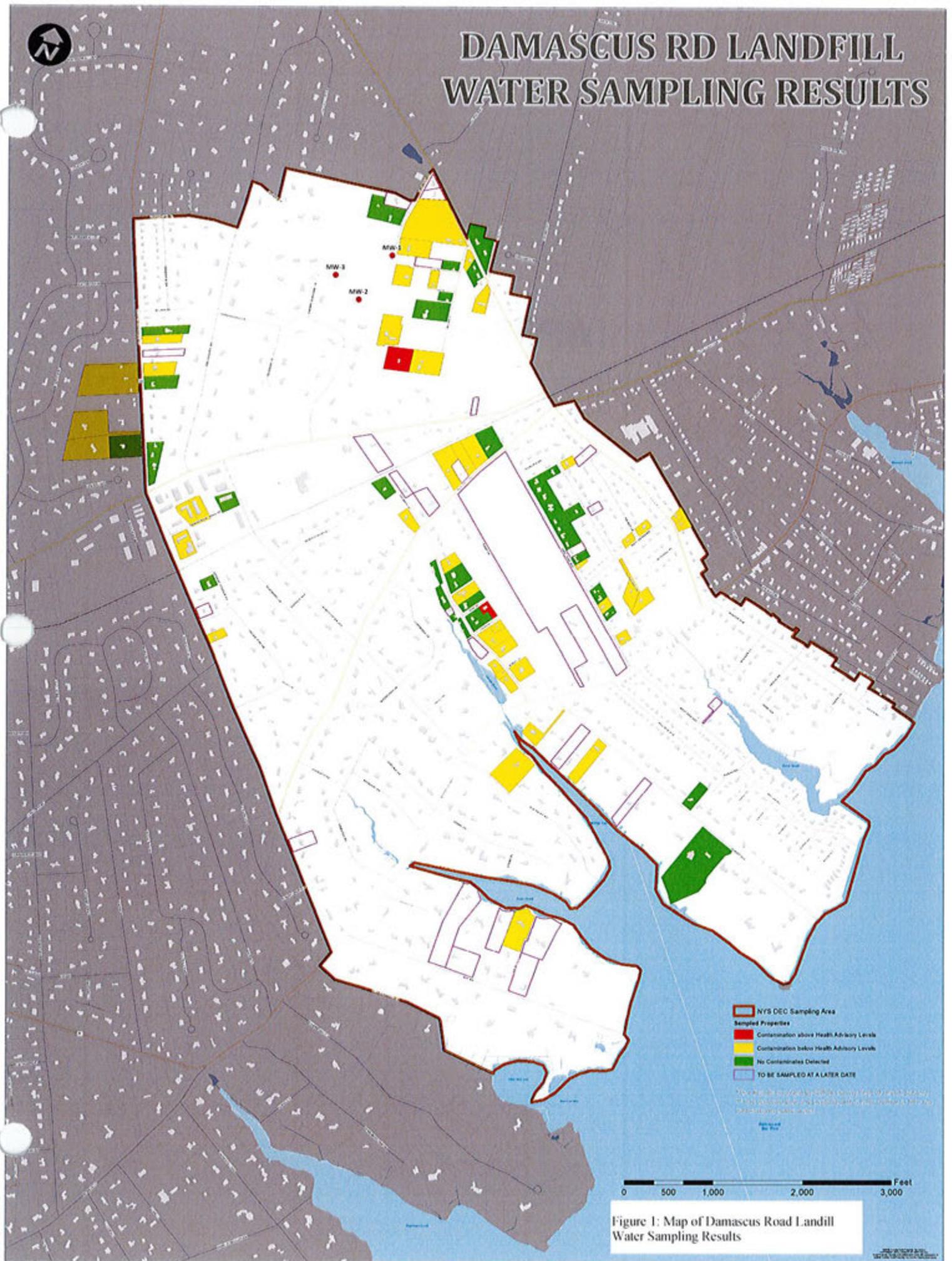


Figure 1: Map of Damascus Road Landfill Water Sampling Results

APPENDIX A

Damascus Road Landfill
End of Damascus Rd
East Quogue, NY 11942

Inquiry Number: 5396704.3
August 16, 2018

Certified Sanborn® Map Report



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Shelton, CT 06484
Toll Free: 800.352.0050
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Certified Sanborn® Map Report

08/16/18

Site Name:

Damascus Road Landfill
End of Damascus Rd
East Quogue, NY 11942
EDR Inquiry # 5396704.3

Client Name:

Wood Environment & Infrastructure Soluti
511 Congress Street
Portland, ME 04101
Contact: Jazmin Logan



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Certified Sanborn Results:

Certification # 684B-4DB8-96FA
PO # NA
Project Damascus Road Landfill



Sanborn® Library search results

Certification #: 684B-4DB8-96FA

UNMAPPED PROPERTY

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- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

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Damascus Road Landfill

End of Damascus Rd

East Quogue, NY 11942

Inquiry Number: 5396704.8

August 17, 2018



The EDR Aerial Photo Decade Package



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EDR Aerial Photo Decade Package

08/17/18

Site Name:

Damascus Road Landfill
End of Damascus Rd
East Quogue, NY 11942
EDR Inquiry # 5396704.8

Client Name:

Wood Environment & Infrastructure Solu
511 Congress Street
Portland, ME 04101
Contact: Jazmin Logan



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Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2013	1"=500'	Flight Year: 2013	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: April 08, 1994	USGS/DOQQ
1985	1"=500'	Flight Date: April 17, 1985	USGS
1980	1"=500'	Flight Date: September 08, 1980	USDA
1976	1"=500'	Flight Date: April 06, 1976	Aero
1970	1"=500'	Flight Date: May 30, 1970	USDA
1969	1"=500'	Flight Date: October 06, 1969	USDA
1962	1"=500'	Flight Date: March 16, 1962	EDR Proprietary Aerial Viewpoint
1957	1"=500'	Flight Date: March 31, 1957	Jack
1947	1"=500'	Flight Date: September 23, 1947	USDA

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INQUIRY #: 5396704.8

YEAR: 2017

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INQUIRY #: 5396704.8

YEAR: 2013

— = 500'





INQUIRY #: 5396704.8

YEAR: 2009

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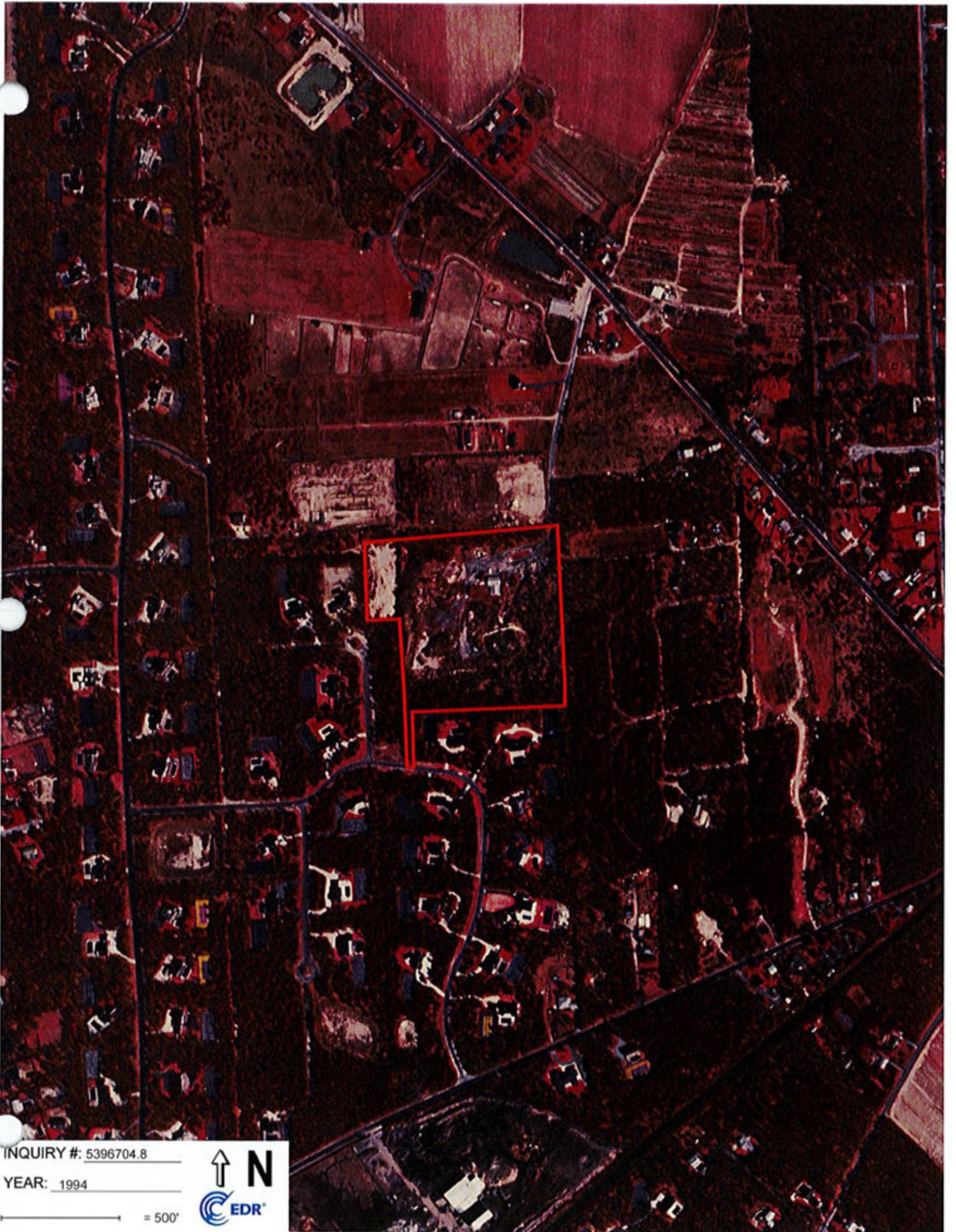


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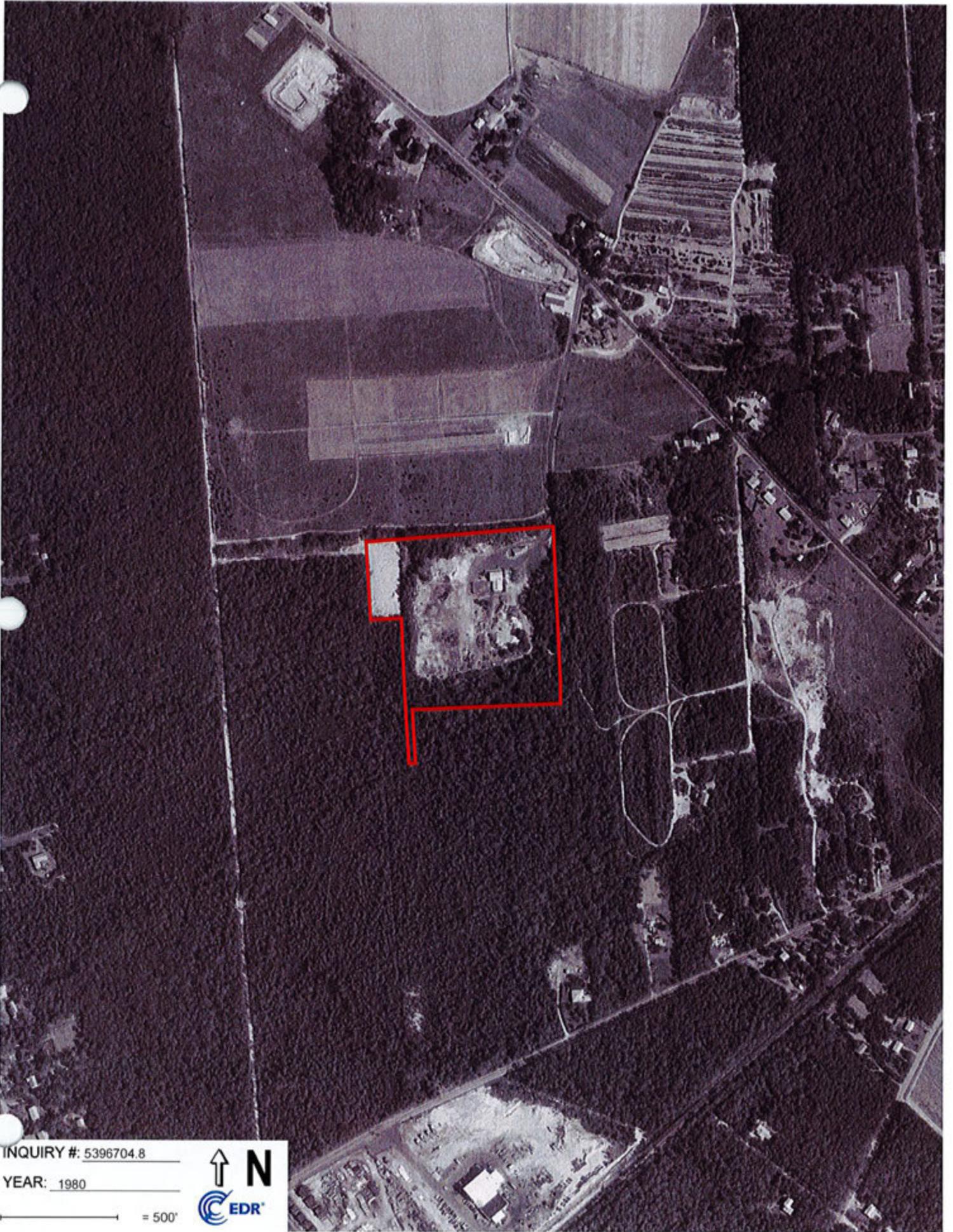


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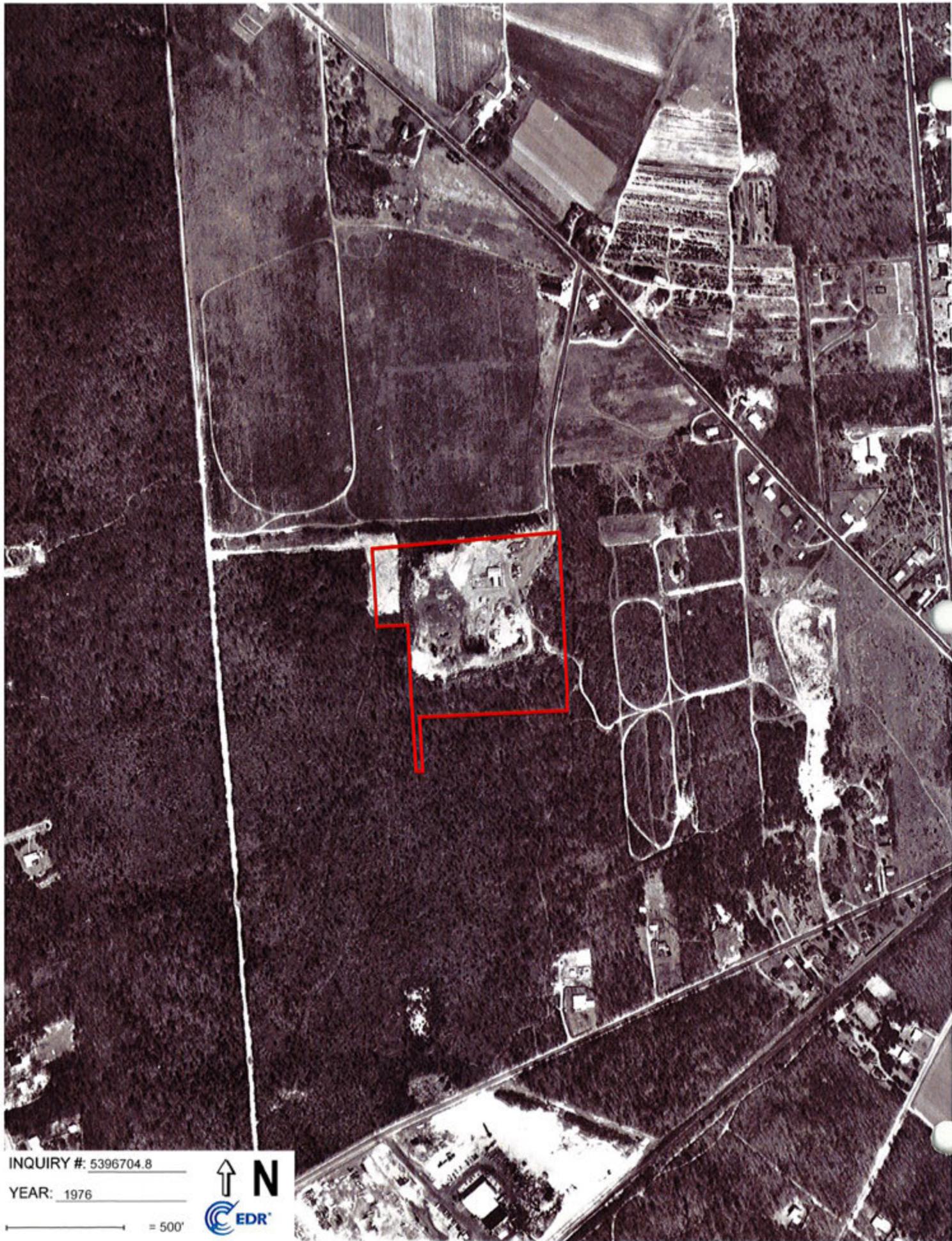


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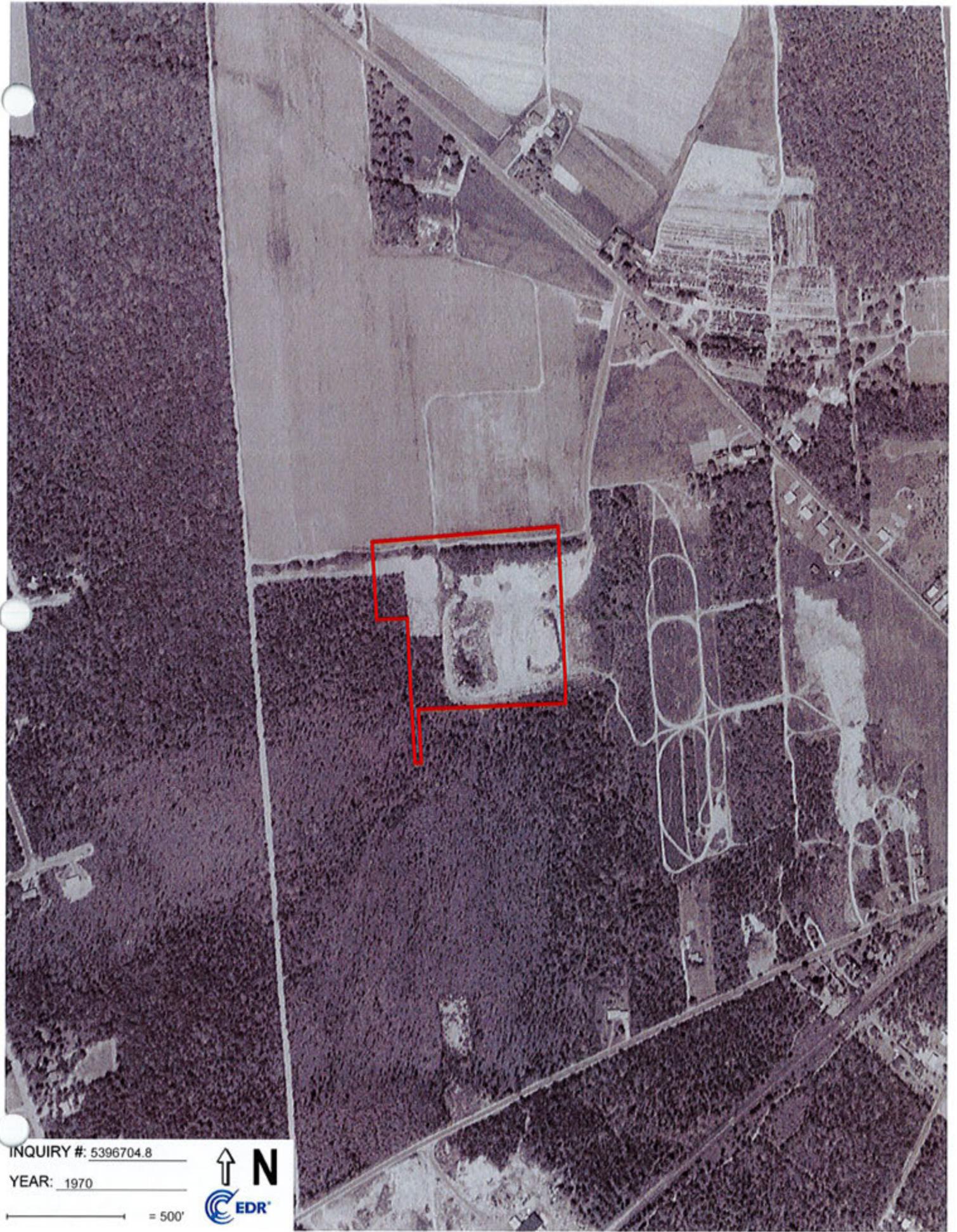


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— = 500'





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YEAR: 1969

— = 500'





INQUIRY #: 5396704.8

YEAR: 1962

— = 500'





INQUIRY #: 5396704.8

YEAR: 1957

— = 500'





INQUIRY #: 5396704.8

YEAR: 1947

— = 500'



Damascus Road Landfill
End of Damascus Rd
East Quogue, NY 11942

Inquiry Number: 5396704.4

August 16, 2018

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08/16/18

Site Name:

Damascus Road Landfill
End of Damascus Rd
East Quogue, NY 11942
EDR Inquiry # 5396704.4

Client Name:

Wood Environment & Infrastructure Soluti
511 Congress Street
Portland, ME 04101
Contact: Jazmin Logan



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Search Results:

P.O.# NA
Project: Damascus Road Landfill

Coordinates:

Latitude: 40.847843 40° 50' 52" North
Longitude: -72.598239 -72° 35' 54" West
UTM Zone: Zone 18 North
UTM X Meters: 702464.26
UTM Y Meters: 4524642.77
Elevation: 48.30' above sea level

Maps Provided:

2013
1956
1947
1943
1904
1903

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Topo Sheet Key

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2013 Source Sheets



Quogue

7.5-minute, 24000



Eastport

7.5-minute, 24000

1956 Source Sheets



Eastport

7.5-minute, 24000
Aerial Photo Revised 1954



Quogue

7.5-minute, 24000
Aerial Photo Revised 1954

1947 Source Sheets



Quogue

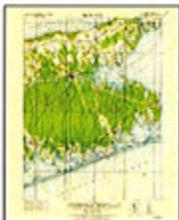
7.5-minute, 24000
Aerial Photo Revised 1942



Eastport

7.5-minute, 24000
Aerial Photo Revised 1942

1943 Source Sheets



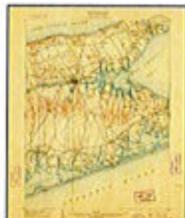
Riverhead

15-minute, 62500

Topo Sheet Key

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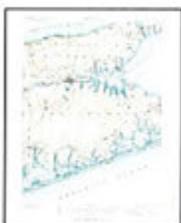
1904 Source Sheets



Riverhead

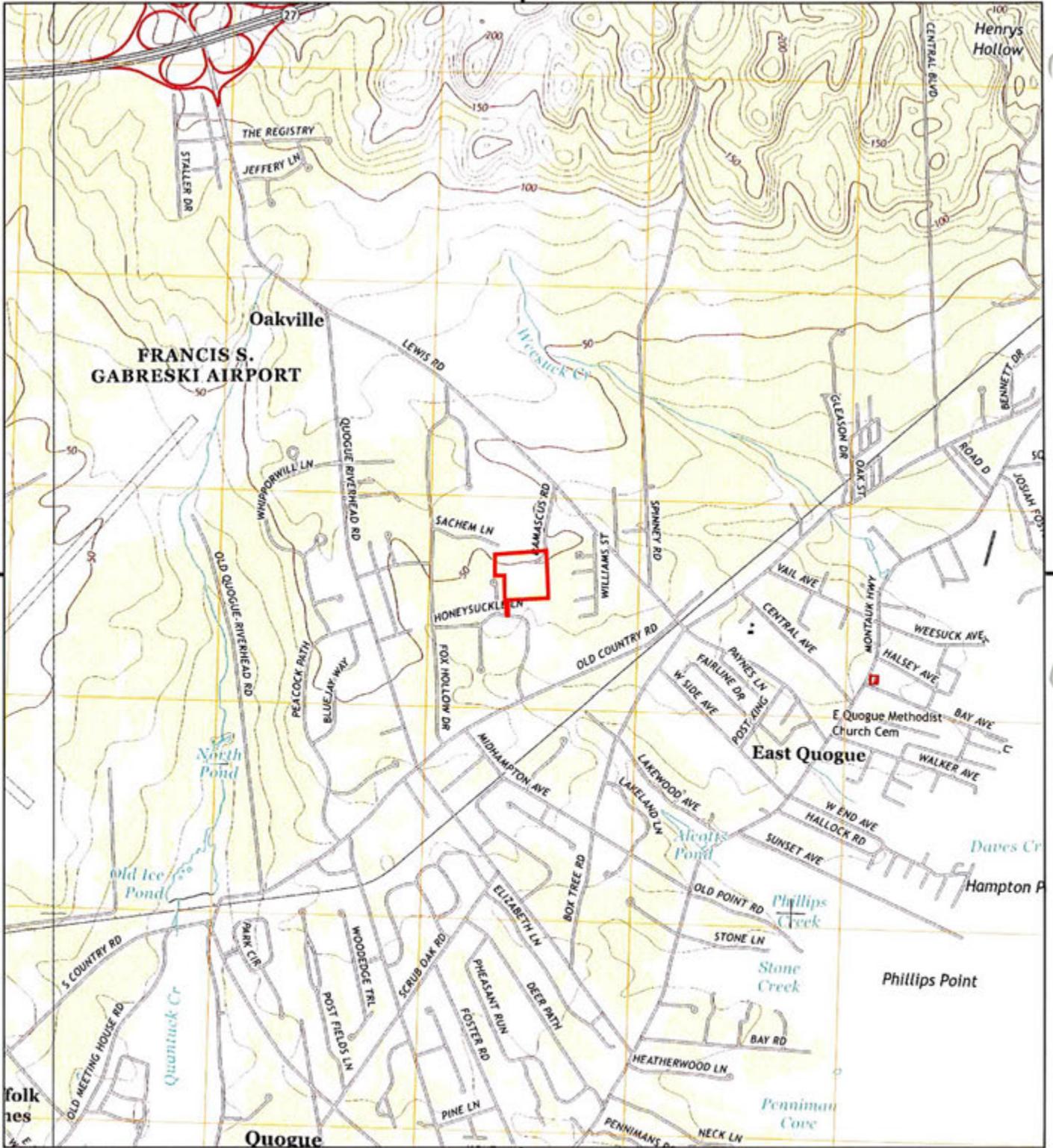
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1903 Source Sheets

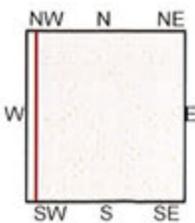


Riverhead

15-minute, 62500



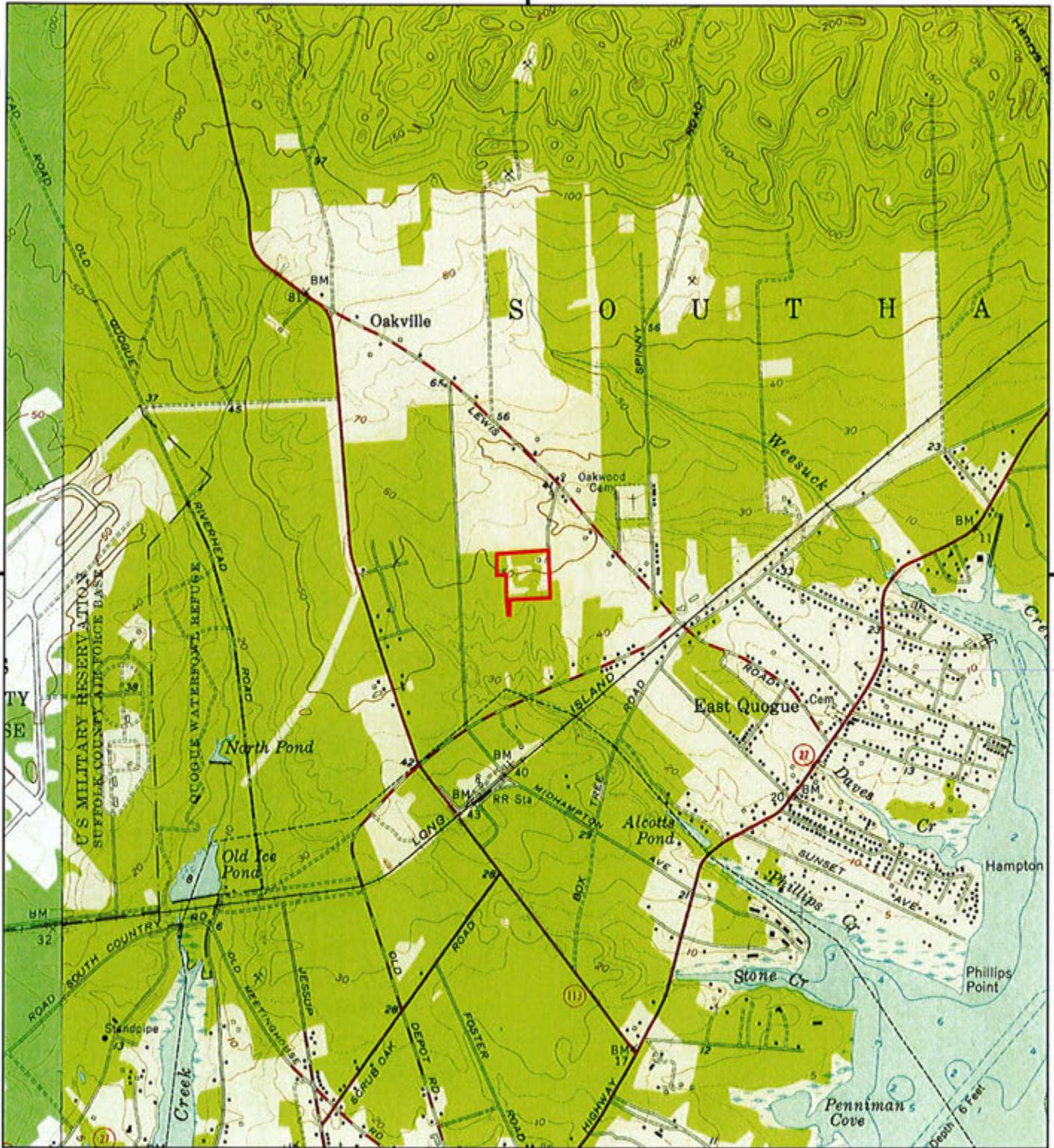
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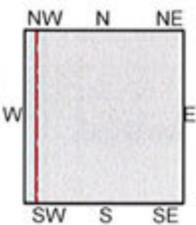
TP. Quogue, 2013, 7.5-minute
 SW, Eastport, 2013, 7.5-minute

SITE NAME: Damascus Road Landfill
ADDRESS: End of Damascus Rd
 East Quogue, NY 11942
CLIENT: Wood Environment & Infrastructure Solut





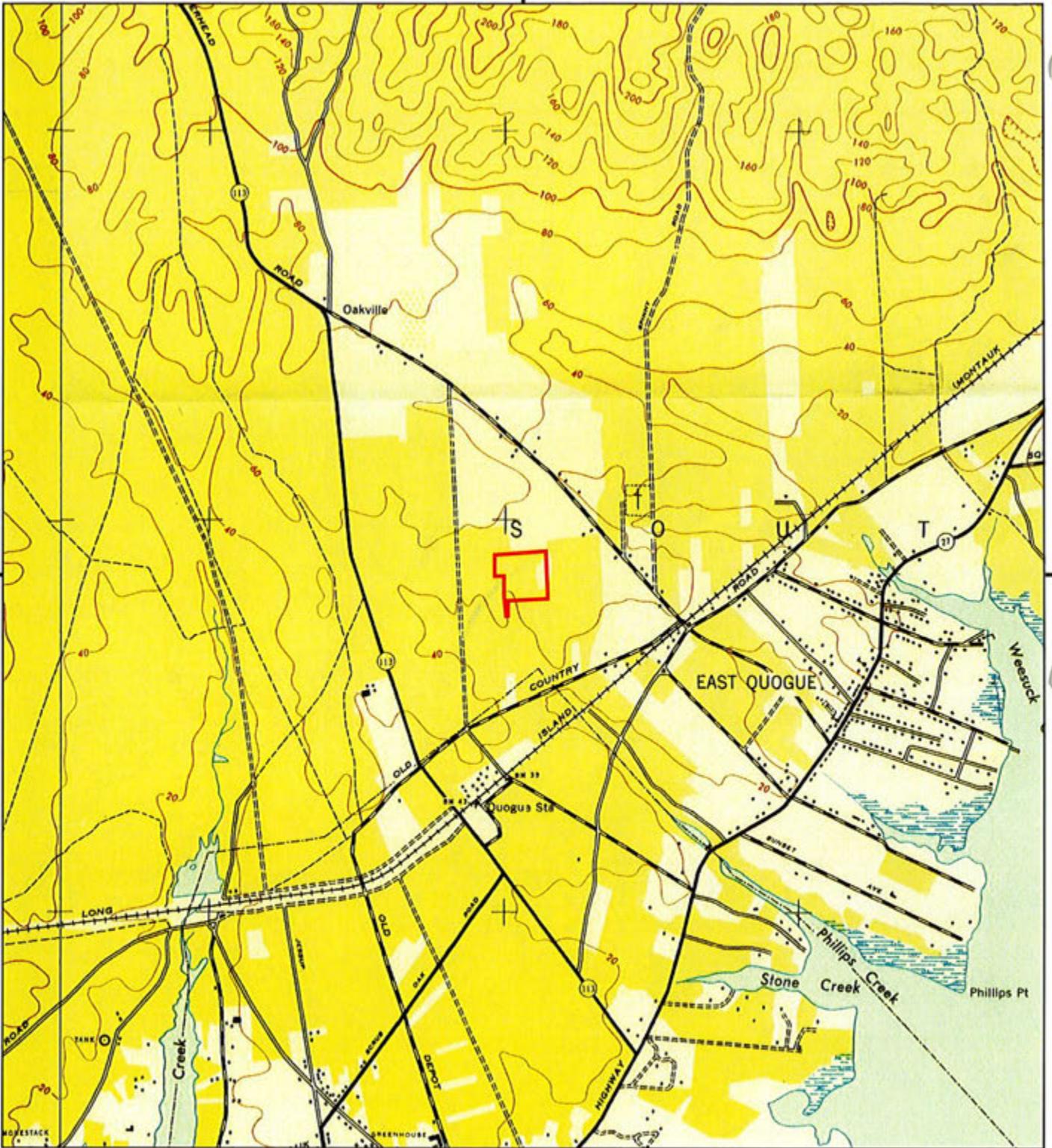
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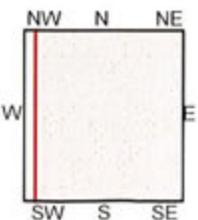
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SITE NAME: Damascus Road Landfill
 ADDRESS: End of Damascus Rd
 East Quogue, NY 11942
 CLIENT: Wood Environment & Infrastructure Solut



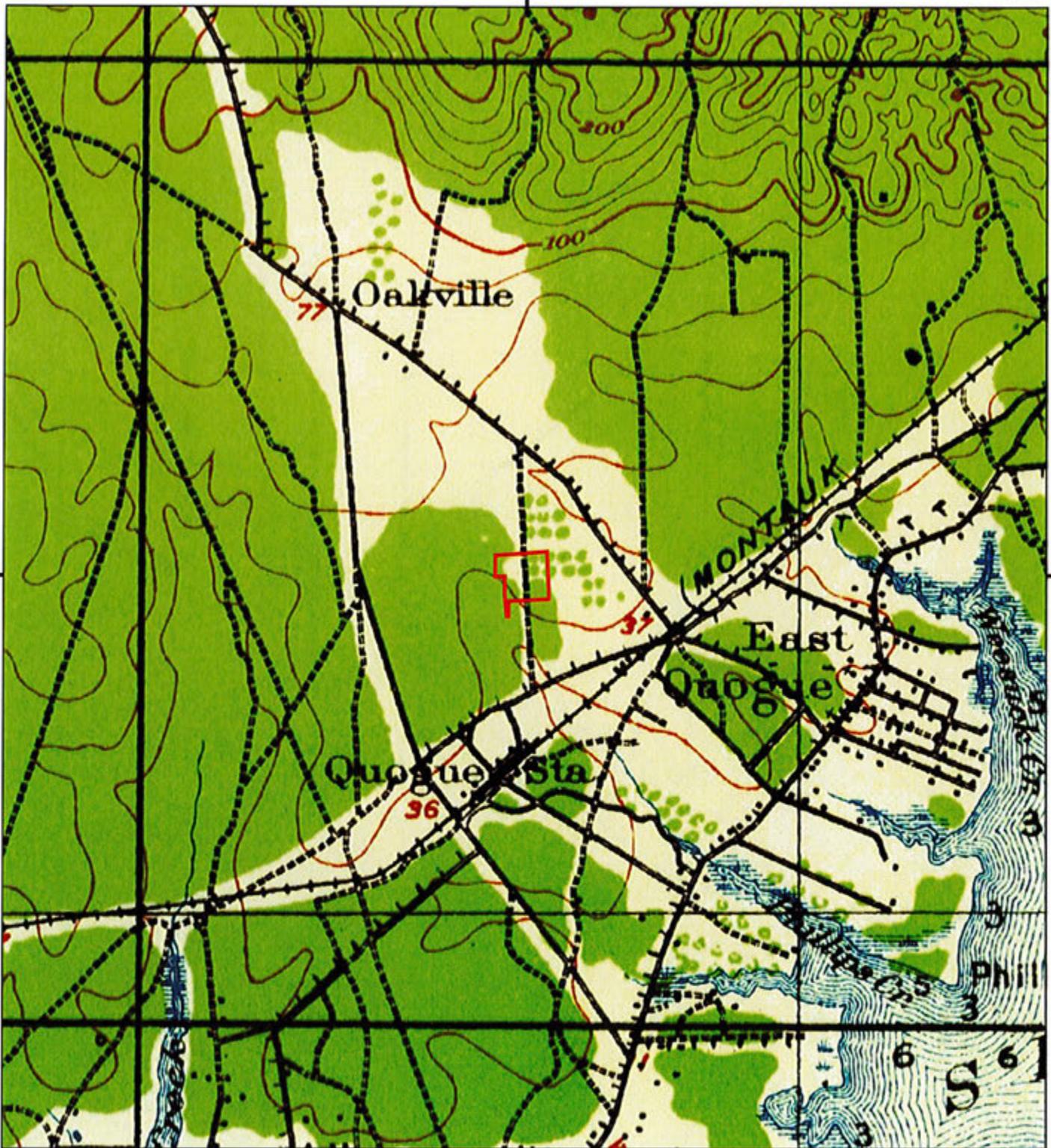


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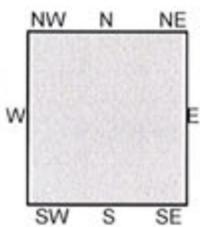


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SITE NAME: Damascus Road Landfill
ADDRESS: End of Damascus Rd
East Quogue, NY 11942
CLIENT: Wood Environment & Infrastructure Solut



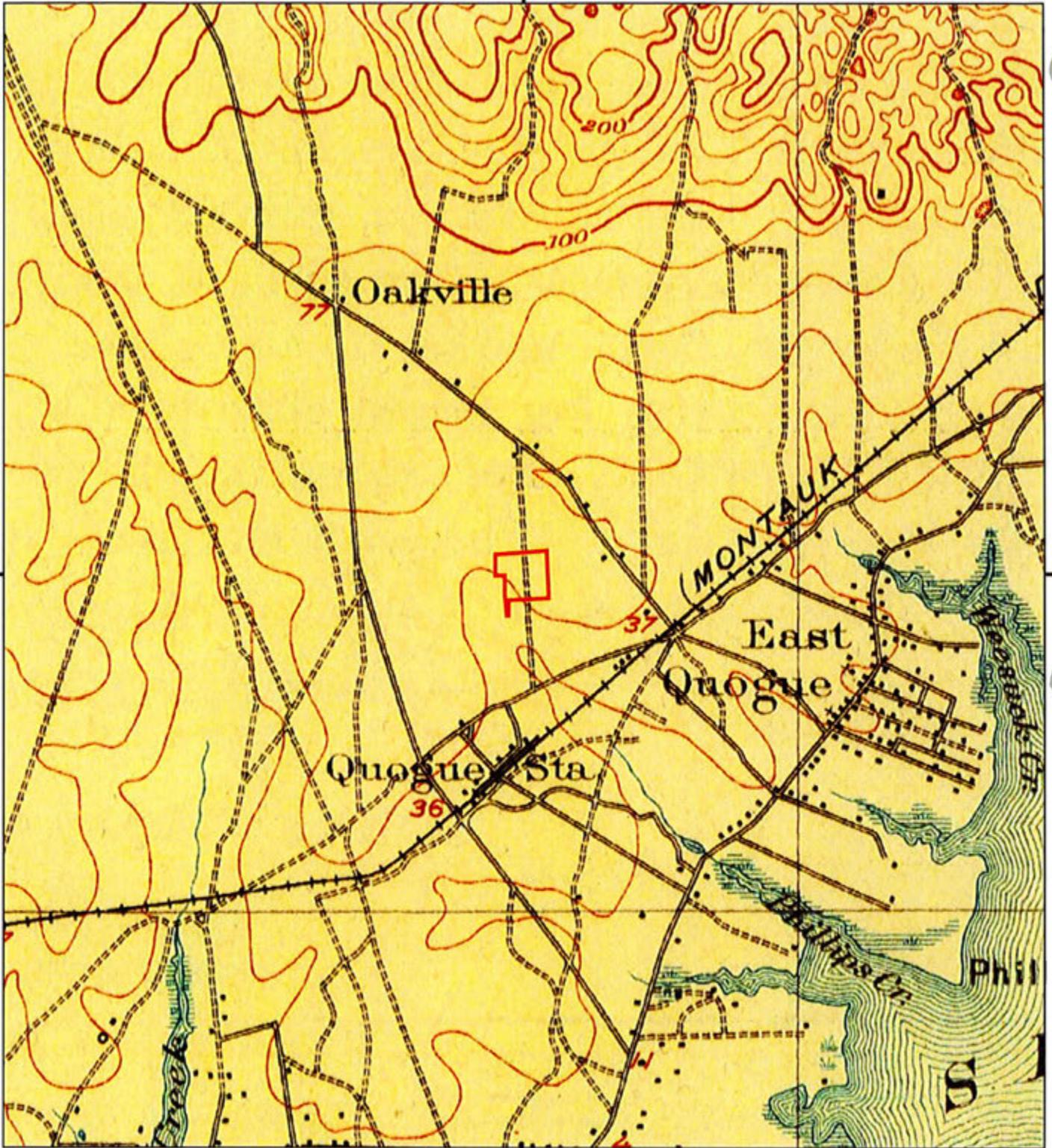
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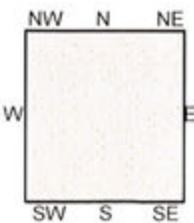
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SITE NAME: Damascus Road Landfill
ADDRESS: End of Damascus Rd
East Quogue, NY 11942
CLIENT: Wood Environment & Infrastructure Solut





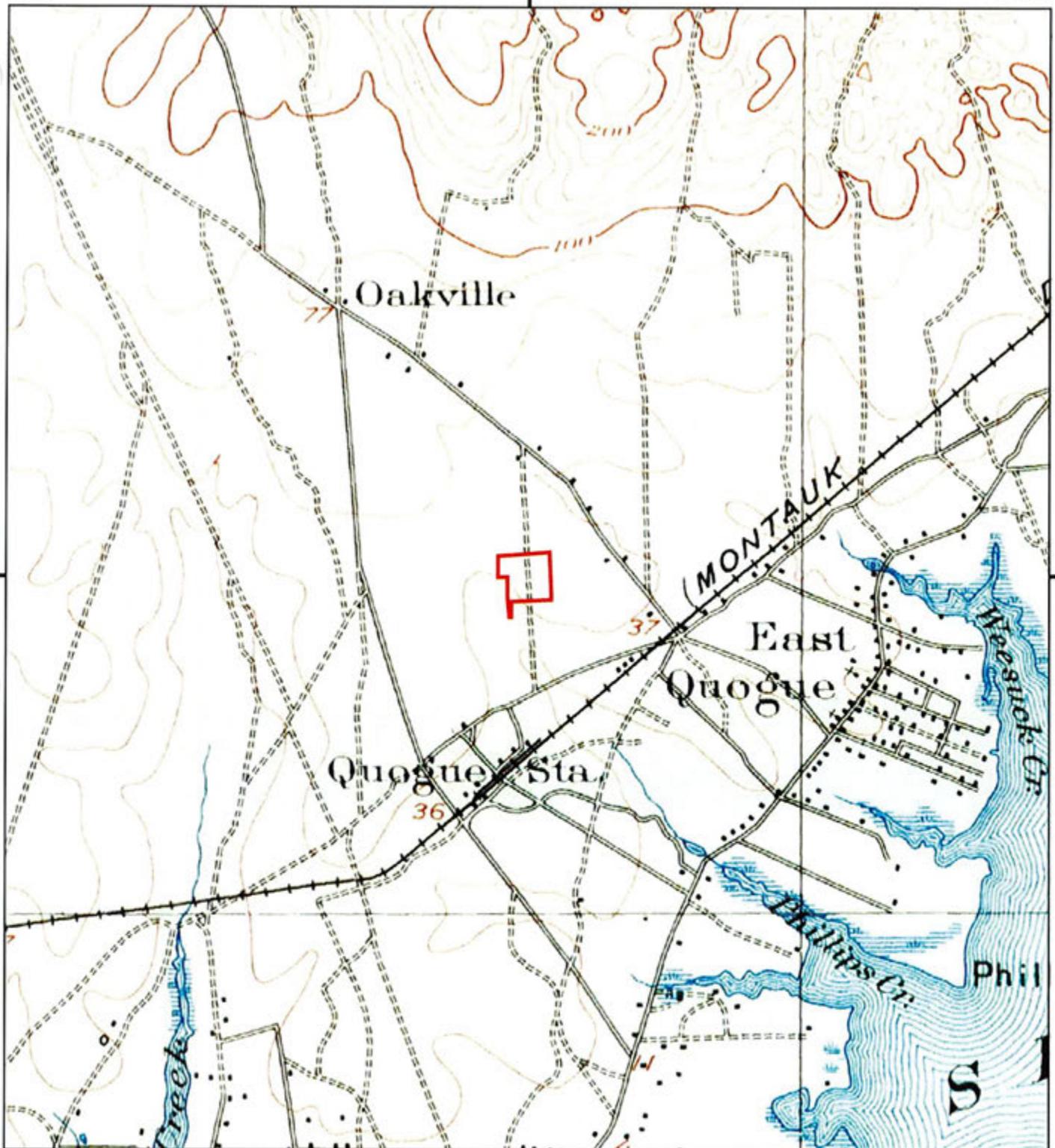
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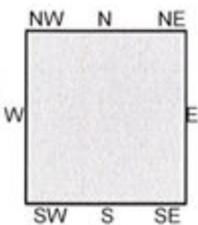
TP, Riverhead, 1904, 15-minute

SITE NAME: Damascus Road Landfill
ADDRESS: End of Damascus Rd
East Quogue, NY 11942
CLIENT: Wood Environment & Infrastructure Solut





This report includes information from the following map sheet(s).



TP, Riverhead, 1903, 15-minute

SITE NAME: Damascus Road Landfill
ADDRESS: End of Damascus Rd
East Quogue, NY 11942
CLIENT: Wood Environment & Infrastructure Solut



Damascus Road Landfill

End of Damascus Rd
East Quogue, NY 11942

Inquiry Number: 5396704.2s
August 16, 2018

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TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	25
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	PSGR-1

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

END OF DAMASCUS RD
EAST QUOGUE, NY 11942

COORDINATES

Latitude (North): 40.8478430 - 40° 50' 52.23"
Longitude (West): 72.5982390 - 72° 35' 53.66"
Universal Tranverse Mercator: Zone 18
UTM X (Meters): 702469.7
UTM Y (Meters): 4524431.0
Elevation: 48 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5939561 QUOGUE, NY
Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20150507
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 END OF DAMASCUS RD
 EAST QUOGUE, NY 11942

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	JOHN C GRIFFITH	34 SECOND NECK LN	UST	Higher	512, 0.097, East
A2	GRIFFITH RESIDENCE	34 SECOND NECK LANE	NY Spills	Higher	512, 0.097, East
3	ATRIA COUNTRY CLUB R	1 SACHEM LA	UST	Higher	567, 0.107, WNW
4	EDWARD WRIGHT CESSPO	132 DEMASCES RD	UST, AST	Lower	573, 0.109, NNE
5	FEDUN LANDSCAPING	146 OLD COUNTRY RD	AST	Lower	1230, 0.233, SSE
6	WINTERS QUOGUE TRANS	OLD COUNTRY RD. & MI	SWF/LF	Lower	1902, 0.360, SSW
7	QUOGUE SINCLAIR	47 WESTSIDE AVENUE	LTANKS	Lower	2328, 0.441, SE
8	OLD QUOGUE LANDFILL	OLD COUNTRY ROAD	SHWS, HSWDS	Lower	3871, 0.733, SSW
9	CHARLES CARDO & SON,	MONTAUK HIGHWAY	SHWS	Lower	4284, 0.811, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
HIST LTANKS..... Listing of Leaking Storage Tanks

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
CBS UST..... Chemical Bulk Storage Database
MOSF UST..... Major Oil Storage Facilities Database
MOSF..... Major Oil Storage Facility Site Listing
CBS..... Chemical Bulk Storage Site Listing
CBS AST..... Chemical Bulk Storage Database
MOSF AST..... Major Oil Storage Facilities Database
INDIAN UST..... Underground Storage Tanks on Indian Land
TANKS..... Storage Tank Facility Listing

State and tribal institutional control / engineering control registries

RES DECL..... Restrictive Declarations Listing
ENG CONTROLS..... Registry of Engineering Controls
INST CONTROL..... Registry of Institutional Controls

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Agreements
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Site List
ERP..... Environmental Restoration Program Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWTIRE..... Registered Waste Tire Storage & Facility List
SWRCY..... Registered Recycling Facility List
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

EXECUTIVE SUMMARY

DEL SHWS..... Delisted Registry Sites
US CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST..... Historical Petroleum Bulk Storage Database
HIST AST..... Historical Petroleum Bulk Storage Database

Local Land Records

LIENS..... Spill Liens Information
LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
NY Hist Spills..... SPILLS Database
SPILLS 90..... SPILLS 90 data from FirstSearch
SPILLS 80..... SPILLS 80 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines

EXECUTIVE SUMMARY

FINDS.....	Facility Index System/Facility Registry System
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
ECHO.....	Enforcement & Compliance History Information
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
AIRS.....	Air Emissions Data
COAL ASH.....	Coal Ash Disposal Site Listing
DRYCLEANERS.....	Registered Drycleaners
E DESIGNATION.....	E DESIGNATION SITE LISTING
Financial Assurance.....	Financial Assurance Information Listing
HSWDS.....	Hazardous Substance Waste Disposal Site Inventory
MANIFEST.....	Facility and Manifest Data
SPDES.....	State Pollutant Discharge Elimination System
VAPOR REOPENED.....	Vapor Intrusion Legacy Site List
UIC.....	Underground Injection Control Wells

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF.....	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in *bold italics* are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state

EXECUTIVE SUMMARY

funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Conservation's Inactive Hazardous waste Disposal Sites in New York State.

A review of the SHWS list, as provided by EDR, and dated 05/14/2018 has revealed that there are 2 SHWS sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OLD QUOGUE LANDFILL Site Code: 55838	OLD COUNTRY ROAD	SSW 1/2 - 1 (0.733 mi.)	8	20
CHARLES CARDO & SON, Site Code: 55862	MONTAUK HIGHWAY	SSE 1/2 - 1 (0.811 mi.)	9	22

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the list.

A review of the SWF/LF list, as provided by EDR, and dated 12/08/2017 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WINTERS QUOGUE TRANS	OLD COUNTRY RD. & MI	SSW 1/4 - 1/2 (0.360 mi.)	6	18

State and tribal leaking storage tank lists

LTANKS: Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills

A review of the LTANKS list, as provided by EDR, and dated 05/14/2018 has revealed that there is 1 LTANKS site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
QUOGUE SINCLAIR Date Closed: 1986-10-29 Site ID: 194462 Program Number: 8603753	47 WESTSIDE AVENUE	SE 1/4 - 1/2 (0.441 mi.)	7	19

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the UST list, as provided by EDR, has revealed that there are 3 UST sites within

EXECUTIVE SUMMARY

approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOHN C GRIFFITH Database: SUFFOLK CO. UST, Date of Government Version: 03/03/2015 Site Ref#: 12900 Facility ID: 12900	34 SECOND NECK LN	E 0 - 1/8 (0.097 mi.)	A1	8
ATRIA COUNTRY CLUB R Database: SUFFOLK CO. UST, Date of Government Version: 03/03/2015 Site Ref#: 12616 Facility ID: 12616	1 SACHEM LA	WNW 0 - 1/8 (0.107 mi.)	3	10

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EDWARD WRIGHT CESSPO Database: SUFFOLK CO. UST, Date of Government Version: 03/03/2015 Site Ref#: 12813 Facility ID: 12813	132 DEMASCES RD	NNE 0 - 1/8 (0.109 mi.)	4	12

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database.

A review of the AST list, as provided by EDR, has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EDWARD WRIGHT CESSPO Database: SUFFOLK CO. AST, Date of Government Version: 03/03/2015 Site Ref#: 12813 Facility Id: 12813	132 DEMASCES RD	NNE 0 - 1/8 (0.109 mi.)	4	12
FEDUN LANDSCAPING Database: SUFFOLK CO. AST, Date of Government Version: 03/03/2015 Site Ref#: 12927 Facility Id: 12927	146 OLD COUNTRY RD	SSE 1/8 - 1/4 (0.233 mi.)	5	16

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

NY Spills: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 05/14/2018 has revealed that there is 1 NY Spills site within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GRIFFITH RESIDENCE	34 SECOND NECK LANE	E 0 - 1/8 (0.097 mi.)	A2	9

EXECUTIVE SUMMARY

Date Closed: 1998-09-23
Spill Number: 9711779
Site ID: 86241

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

<u>Site Name</u>	<u>Database(s)</u>
SUFFOLK AIRPORT C & D SITE	SHWS
UNKNOWN	LTANKS

OVERVIEW MAP - 5396704.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Upgradient Area

0 1/4 1/2 1 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Damascus Road Landfill
 ADDRESS: End of Damascus Rd
 East Quogue NY 11942
 LAT/LONG: 40.847843 / 72.598239

CLIENT: Wood Environment & Infrastructure Solutions, Inc.
 CONTACT: Jazmin Logan
 INQUIRY #: 5396704.2s
 DATE: August 16, 2018 4:45 pm

DETAIL MAP - 5396704.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  National Wetland Inventory
-  State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Damascus Road Landfill ADDRESS: End of Damascus Rd East Quogue NY 11942 LAT/LONG: 40.847843 / 72.598239</p>	<p>CLIENT: Wood Environment & Infrastructure Solutions, Inc. CONTACT: Jazmin Logan INQUIRY #: 5396704.2s DATE: August 16, 2018 4:47 pm</p>
--	---

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>STANDARD ENVIRONMENTAL RECORDS</u>								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	2	NR	2
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	1	NR	NR	1
<i>State and tribal leaking storage tank lists</i>								
INDIAN LUST	0.500		0	0	0	NR	NR	0
LTANKS	0.500		0	0	1	NR	NR	1
HIST LTANKS	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		3	0	NR	NR	NR	3
CBS UST	0.250		0	0	NR	NR	NR	0
MOSF UST	0.500		0	0	0	NR	NR	0
MOSF	0.500		0	0	0	NR	NR	0
CBS	0.250		0	0	NR	NR	NR	0
AST	0.250		1	1	NR	NR	NR	2
CBS AST	0.250		0	0	NR	NR	NR	0
MOSF AST	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
RES DECL	0.125		0	NR	NR	NR	NR	0
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ERP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWTIRE	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	0.250		0	0	NR	NR	NR	0
HIST AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
NY Spills	0.125		1	NR	NR	NR	NR	1
NY Hist Spills	0.125		0	NR	NR	NR	NR	0
SPILLS 90	0.125		0	NR	NR	NR	NR	0
SPILLS 80	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
E DESIGNATION	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HSWDS	0.500		0	0	0	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
SPDES	TP		NR	NR	NR	NR	NR	0
VAPOR REOPENED	0.500		0	0	0	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0

- Totals --		0	5	1	2	2	0	10
-------------	--	---	---	---	---	---	---	----

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

A1
East
< 1/8
0.097 mi.
512 ft.

JOHN C GRIFFITH
34 SECOND NECK LN
QUOGUE, NY 11959
Site 1 of 2 in cluster A

UST U004280632
N/A

Relative:
Higher
Actual:
48 ft.

SUFFOLK CO. UST:

Region: SUFFOLK
Site Ref#: 12900
Status: Not reported
Site Type: Not reported
Operating Permit Expires: Not reported
Owner/Storage Information: Not reported
Year: 2006

Facility Info:

Site Ref#: 12900
Billing Contact: TJ ENTERPRISES LLC
Billing Address: 1200 N FEDERAL HWY STE 411
Billing Address: BOCA RATON
Billing State: FL
Billing Zip: 34432
Storage Owner: TJ ENTERPRISES LLC
Storage Owner Address: 1200 N FEDERAL HWY STE 411
Storage Owner City: BOCA RATON
Storage Owner State: FL
Storage Owner Zip: 34432

Tank Info:

Facility ID: 12900
Facility Reference #: Not reported
Official Use: Removed Tank. 98
Township: Not reported
Tax Map No: Not reported
Region: SUFFOLK
Permit to Operate: Not reported

Tank ID: 1
Tank Key: 35789
Installed: 81
Capacity: 1000
Substance: #2 FUEL OIL
Date Removed: 1/1/2067
Construction: STEEL
Dispenser: SUCTION
Fill Type: PUMPED
Tank Location: UNDER
Tank Status: Not reported
Total Capacity: 1000
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHN C GRIFFITH (Continued)

U004280632

Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: PUMPED
Date Removed: 1/1/2067
Year Installed: 81
Description of drop records: Not reported

Tank ID: 2
Tank Key: 35790
Installed: 82
Capacity: 1000
Substance: #2 FUEL OIL
Date Removed: 1/1/2067
Construction: STEEL
Dispenser: SUCTION
Fill Type: PUMPED
Tank Location: UNDER
Tank Status: Not reported
Total Capacity: 1000
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: PUMPED
Date Removed: 1/1/2067
Year Installed: 82
Description of drop records: Not reported

A2
East
< 1/8
0.097 mi.
512 ft.

GRIFFITH RESIDENCE
34 SECOND NECK LANE
QUOGUE, NY
Site 2 of 2 in cluster A

NY Spills S118462305
N/A

Relative:
Higher
Actual:
48 ft.

SPILLS:
Facility ID: 9711779
Facility Type: ER
Spill Number: 9711779
DER Facility ID: 79154
Site ID: 86241
DEC Region: 1
Closed Date: 1998-09-23
Spill Cause: Other
Spill Class: B3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GRIFFITH RESIDENCE (Continued)

S118462305

SWIS: 5236
Spill Date: 1998-01-20
Investigator: BMFORD
Referred To: Not reported
Reported to Dept: 1998-01-21
CID: 322
Water Affected: Not reported
Spill Source: Private Dwelling
Spill Notifier: Other
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 1998-01-21
Spill Record Last Update: 2016-02-11
Spiller Name: PENNIMANS POINT LIMITED
Spiller Company: GRIFFITH RESIDENCE
Spiller Address: 4034 SECOND NECK LANE
Spiller Company: 001
Contact Name: PENNIMANS POINT LIMITED
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was FORD "
Remarks: "tank leaking - facility number -9-0288 - oil tank was being removed - during removal it was discovered that tank was leaking "

All Materials:
Site ID: 86241
Operable Unit ID: 1058187
Operable Unit: 01
Material ID: 326423
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Oxygenate: Not reported

3
WNW
< 1/8
0.107 mi.
567 ft.

ATRIA COUNTRY CLUB RESIDENCE
1 SACHEM LA
EAST QUOGUE, NY 11942

UST U003842773
N/A

Relative: Higher
Actual: 54 ft.
SUFFOLK CO. UST:
Region: SUFFOLK
Site Ref#: 12616
Status: Not reported
Site Type: Not reported
Operating Permit Expires: Not reported
Owner/Storage Information: Not reported
Year: 2006
Facility Info:
Site Ref#: 12616

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ATRIA COUNTRY CLUB RESIDENCE (Continued)

U003842773

Billing Contact: Not reported
Billing Address: Not reported
Billing Address: Not reported
Billing State: Not reported
Billing Zip: Not reported
Storage Owner: HAMPTON PINES INC
Storage Owner Address: 144 DAMASCUS RD
Storage Owner City: EAST QUOGUE
Storage Owner State: NY
Storage Owner Zip: 11942

Tank Info:

Facility ID: 12616
Facility Reference #: Not reported
Official Use: Never Installed
Township: Not reported
Tax Map No: Not reported
Region: SUFFOLK
Permit to Operate: Not reported

Tank ID: 1
Tank Key: 34400
Installed: 88
Capacity: 10000
Substance: #2 FUEL OIL
Date Removed: Not reported
Construction: FRP / FRP
Dispenser: SUCTION
Fill Type: GRAVITY
Tank Location: UNDER
Tank Status: Not reported
Total Capacity: 10000
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: GRAVITY
Date Removed: Not reported
Year Installed: 88
Description of drop records: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

4
NNE
< 1/8
0.109 mi.
573 ft.

EDWARD WRIGHT CESSPOOL (SECT 288)
132 DEMASCES RD
EAST QUOGUE, NY 11942

UST U003844524
AST N/A

Relative:
Lower
Actual:
46 ft.

SUFFOLK CO. UST:
Region: SUFFOLK
Site Ref#: 12813
Status: Not reported
Site Type: Not reported
Operating Permit Expires: Not reported
Owner/Storage Information: Not reported
Year: 2006
Facility Info:
Site Ref#: 12813
Billing Contact: Not reported
Billing Address: Not reported
Billing Address: Not reported
Billing State: Not reported
Billing Zip: Not reported
Storage Owner: EDWARD WRIGHT CESSPOOL SERVICE
Storage Owner Address: LEWIS RD
Storage Owner City: EAST QUOGUE
Storage Owner State: NY
Storage Owner Zip: 11942

Tank Info:
Facility ID: 12813
Facility Reference #: Not reported
Official Use: Removed Tank. 86
Township: Not reported
Tax Map No: Not reported
Region: SUFFOLK
Permit to Operate: Not reported

Tank ID: 1
Tank Key: 35506
Installed: 64
Capacity: 550
Substance: GASOLINE
Date Removed: 11/20/1927
Construction: STEEL
Dispenser: SUCTION
Fill Type: GRAVITY
Tank Location: UNDER
Tank Status: Not reported
Total Capacity: 550
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EDWARD WRIGHT CESSPOOL (SECT 288) (Continued)

U003844524

Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: GRAVITY
Date Removed: 11/20/1927
Year Installed: 64
Description of drop records: Not reported

Tank ID: 2
Tank Key: 35507
Installed: 79
Capacity: 1000
Substance: DIESEL
Date Removed: 3/1/2207
Construction: STEEL
Dispenser: SUCTION
Fill Type: PUMPED
Tank Location: UNDER
Tabk Status: Not reported
Total Capacity: 1000
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: PUMPED
Date Removed: 3/1/2207
Year Installed: 79
Description of drop records: Not reported

AST_SUFFOLK:

Region: SUFFOLK
Site Ref#: 12813
Status: Not reported
Site Type: Not reported
Operating Permit Expires: Not reported
Owner/Storage Information: Not reported
Year: 2006

Facility Info:

Site Ref#: 12813
Billing Contact: Not reported
Billing Address: Not reported
Billing Address: Not reported
Billing State: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Database(s)
EPA ID Number
EDR ID Number

EDWARD WRIGHT CESSPOOL (SECT 288) (Continued)

U003844524

Billing Zip: Not reported
Storage Owner: EDWARD WRIGHT CESSPOOL SERVICE
Storage Owner Address: LEWIS RD
Storage Owner City: EAST QUOGUE
Storage Owner State: NY
Storage Owner Zip: 11942

Tank Info:
Facility ID: 12813
Facility Reference #: Not reported
Township: Not reported
Tax Map No: Not reported
Region: SUFFOLK

Tank ID: 3
Tank Key: 35508
Year Installed: 79
Substance: WASTE OIL
Construction: STEEL
Dispenser: SUCTION
Official Use: Removed Tank. 90
Permit to Operate: Not reported
Tank Location: ABOVE
Tank Status: Not reported
Total Capacity: 275
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: GRAVITY
Date Removed: 3/1/2207

Tank ID: 4
Tank Key: 35509
Year Installed: Not reported
Substance: WASTE OIL
Construction: STEEL / STEEL
Dispenser: Not reported
Official Use: Removed Tank. 00
Permit to Operate: 12/29/2233
Tank Location: ABOVE
Tank Status: Not reported
Total Capacity: 275
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

EDWARD WRIGHT CESSPOOL (SECT 288) (Continued)

U003844524

Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: Not reported
Date Removed: 6/6/2175

Tank ID: 5
Tank Key: 35510
Year Installed: Not reported
Substance: DIESEL
Construction: STEEL / STEEL
Dispenser: Not reported
Official Use: Removed Tank. 00
Permit to Operate: 12/29/2233
Tank Location: ABOVE
Tabk Status: Not reported
Total Capacity: 1000
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: Not reported
Date Removed: 6/6/2175

Tank ID: 6
Tank Key: 42060
Year Installed: Not reported
Substance: #2 FUEL OIL
Construction: STEEL
Dispenser: Not reported
Official Use: Exempt from Suffolk County Art 12 Regulation
Permit to Operate: Not reported
Tank Location: ABOVE
Tabk Status: Not reported
Total Capacity: 275
Date Permitted: Not reported
Date Closed: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EDWARD WRIGHT CESSPOOL (SECT 288) (Continued)

U003844524

Internal Protection:	Not reported
Secondary Containment:	Not reported
Extrenal Protection:	Not reported
Leak Detection:	Not reported
Overfill Prevention:	Not reported
Spill Prevention:	Not reported
Pipe Location:	Not reported
Pipe Type:	Not reported
Pipe External Protection:	Not reported
Pipe Containment:	Not reported
Pipe Leak Detection:	Not reported
Date Next Tank Test:	Not reported
Fill:	Not reported
Date Removed:	Not reported

5
SSE
1/8-1/4
0.233 mi.
1230 ft.

FEDUN LANDSCAPING
146 OLD COUNTRY RD
EAST QUOGUE, NY 11942

AST A100142283
N/A

Relative:
Lower
Actual:
32 ft.

AST_SUFFOLK:	
Region:	SUFFOLK
Site Ref#:	12927
Status:	Not reported
Site Type:	Not reported
Operating Permit Expires:	Not reported
Owner/Storage Information:	Not reported
Year:	2006
Facility Info:	
Site Ref#:	12927
Billing Contact:	Not reported
Billing Address:	Not reported
Billing Address:	Not reported
Billing State:	Not reported
Billing Zip:	Not reported
Storage Owner:	FEDUN LANDSCAPING
Storage Owner Address:	146 OLD COUNTRY RD
Storage Owner City:	EAST QUOGUE
Storage Owner State:	NY
Storage Owner Zip:	11942
Tank Info:	
Facility ID:	12927
Facility Reference #:	Not reported
Township:	Not reported
Tax Map No:	Not reported
Region:	SUFFOLK
Tank ID:	1
Tank Key:	35888
Year Installed:	88
Substance:	#2 FUEL OIL
Construction:	STEEL
Dispenser:	SUCTION
Official Use:	Never Installed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

FEDUN LANDSCAPING (Continued)

A100142283

Permit to Operate: Not reported
Tank Location: ABOVE
Tank Status: Not reported
Total Capacity: 275
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: PUMPED
Date Removed: Not reported

Tank ID: 2
Tank Key: 35889
Year Installed: 88
Substance: #2 FUEL OIL
Construction: STEEL
Dispenser: SUCTION
Official Use: Never Installed
Permit to Operate: Not reported
Tank Location: ABOVE
Tank Status: Not reported
Total Capacity: 275
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: PUMPED
Date Removed: Not reported

Tank ID: 3
Tank Key: 35890
Year Installed: Not reported
Substance: GASOLINE
Construction: Not reported
Dispenser: SUCTION

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

FEDUN LANDSCAPING (Continued)

A100142283

Official Use: Never Installed
Permit to Operate: Not reported
Tank Location: ABOVE
Tank Status: Not reported
Total Capacity: 500
Date Permitted: Not reported
Date Closed: Not reported
Internal Protection: Not reported
Secondary Containment: Not reported
Extrenal Protection: Not reported
Leak Detection: Not reported
Overfill Prevention: Not reported
Spill Prevention: Not reported
Pipe Location: Not reported
Pipe Type: Not reported
Pipe External Protection: Not reported
Pipe Containment: Not reported
Pipe Leak Detection: Not reported
Date Next Tank Test: Not reported
Fill: GRAVITY
Date Removed: Not reported

6
SSW
1/4-1/2
0.360 mi.
1902 ft.

WINTERS QUOGUE TRANSFER STATION
OLD COUNTRY RD. & MIDHAMPTON AVE.
QUOGUE, NY 11959

SWF/LF S108930618
N/A

Relative:
Lower

SWF/LF:

Actual:
43 ft.

Flag: INACTIVE
Region Code: 1
Phone Number: 5163013552
Owner Name: Winters Brothers Waste Systems: Inc.
Owner Type: Private
Owner Address: 1198 Prospect Avenue
Owner Addr2: Not reported
Owner City,St,Zip: Westbury, NY 11590
Owner Email: Not reported
Owner Phone: 5169370900
Contact Name: Peter M. Casserly
Contact Address: Old Country Road
Contact Addr2: Not reported
Contact City,St,Zip: Quogue, NY 11959
Contact Email: pcasserly@iesi.com
Contact Phone: 5163013552
Activity Desc: C&D processing - permit
Activity Number: [52M15]
Active: No
East Coordinate: 702300
North Coordinate: 4523800
Accuracy Code: 4.3 - Utilization of Digital Orthophoto Quads
Regulatory Status: Permit
Waste Type: Construction & Demolition Debris
Authorization #: 1-4736-00166/00004
Authorization Date: Not reported
Expiration Date: Not reported
Operator Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WINTERS QUOGUE TRANSFER STATION (Continued)

S108930618

Operator Type: Not reported
Laste Date: Not reported

7
SE
1/4-1/2
0.441 mi.
2328 ft.

QUOGUE SINCLAIR
47 WESTSIDE AVENUE
EAST QUOGUE, NY

LTANKS S102660448
N/A

Relative:
Lower
Actual:
31 ft.

LTANKS:

Facility ID: 8603753
Site ID: 194462
Closed Date: 1986-10-29
Spill Number: 8603753
Spill Date: 1986-09-08
Spill Cause: Tank Failure
Spill Source: Gasoline Station or other PBS Facility
Spill Class: Not reported
Cleanup Ceased: 1986-10-29
SWIS: 5236
Investigator: CXONEILL
Referred To: Not reported
Reported to Dept: 1986-09-08
CID: Not reported
Water Affected: Not reported
Spill Notifier: Tank Tester
Last Inspection: Not reported
Recommended Penalty: False
Meets Standard: True
UST Involvement: False
Remediation Phase: 0
Date Entered In Computer: 1986-09-20
Spill Record Last Update: 2007-02-20
Spiller Name: Not reported
Spiller Company: QUOGUE SINCLAIR
Spiller Address: 132 WEST MONTAUK HIGHWAY
Spiller County: 001
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extention: Not reported
DEC Region: 1
DER Facility ID: 162059
DEC Memo: "Prior to Sept. 2004 data translation this spill Lead_DEC Field was O'NEILL FD // : 3OPTION LETTER TO BE SENT.// : 3 OPT LET.PASSED RETEST 9/23/86 AFTER ELIMINATING AIR POCKET IN MANWAY & REPLACING MANWAY GASKET. FILE HAS BEEN DESTROYED ACCORDING TO STATE ARCHIVE AND RECORD ADMINISTRATOR RETENTION/DISPOSAL PROCEDURES"

Remarks: "-.348GPH"

All Materials:

Site ID: 194462
Operable Unit ID: 900637
Operable Unit: 01
Material ID: 476566
Material Code: 0066A
Material Name: unknown petroleum
Case No.: Not reported
Material FA: Petroleum

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

QUOGUE SINCLAIR (Continued)

S102660448

Quantity: .00
Units: G
Recovered: .00
Oxygenate: Not reported

8
SSW
1/2-1
0.733 mi.
3871 ft.

OLD QUOGUE LANDFILL
OLD COUNTRY ROAD
QUOGUE, NY 11959

SHWS S105972383
HSWDS N/A

Relative:
Lower
Actual:
35 ft.

SHWS:

Program: HW
Site Code: 55838
Classification: N
Region: 1
Acres: 2
HW Code: 152050
Record Add: 11/18/1999
Record Upd: 08/22/2005
Updated By: EMZUK

Site Description: This two acre municipal landfill is located on a sixteen acre lot. The landfill was used from the 1930's until 1973. The site is presently used for occasional dumping of leaves and brush. Waste dumped in the landfill came almost entirely from businesses and residents within the boundaries of the Village of Quogue. No indication of hazardous waste disposal has ever been found at this site.

Env Problem: No hazardous wastes were found at this site.
Health Problem: Not reported
Dump: Not reported
Structure: Not reported
Lagoon: Not reported
Landfill: Not reported
Pond: Not reported
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: Not reported
Record Upd: Not reported
Updated By: Not reported
Own Op: Owner
Sub Type: C01
Owner Name: Not reported
Owner Company: VILLAGE OF QUOGUE
Owner Address: JESUP AVE.
Owner Addr2: Not reported
Owner City,St,Zip: QUOGUE, NY 11959
Owner Country: United States of America
Own Op: Disp. Owner
Sub Type: NNN
Owner Name: Not reported
Owner Company: VILLAGE OF QUOGUE
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: ZZ

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLD QUOGUE LANDFILL (Continued)

S105972383

Owner Country: United States of America
Own Op: Owner
Sub Type: NNN
Owner Name: Not reported
Owner Company: Village of Quogue
Owner Address: Jesup Avenue
Owner Addr2: Not reported
Owner City,St,Zip: Quogue, NY 11959
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: Not reported
Cross Ref Type Code: Not reported
Cross Ref Type: Not reported
Record Added Date: Not reported
Record Updated: Not reported
Updated By: Not reported

HSWDS:

Facility ID: Not reported
Region: 1
Facility Status: M
Owner Type: Municipal
Owner: Village of Quogue
Owner Address: Jessup Avenue
Owner Phone: (516)653-4498
Operator Type: Same
Operator: Unknown
Operator: Unknown
Operator Phone: Unknown
EPA ID: NYD981184146
Registry: D
Registry Site ID: 152050
RCRA Permitted: Unknown
Site Code: Municipal Landfill
Owner City State: Quogue
Operator City State: Not reported
Quadrangle: Quogue & Eastport
Latitude: 40 50 12 N
Longitude: 72 36 21 W
Acres: 2.00
Operator Date: 1930
Close Date: 1973
Completed: Phase 1
Active: No
PCB's Disposed: No
Pesticides Disposed: No
Metals Disposed: No
Asbestos Disposed: No
Volatile Organic Compounds Disposed: No
Semi Volatile Organic Compounds Disposed: No
Analytical Info Exists for Air: Not reported
Analytical Info Exists for Ground: None
Analytical Info Exists for Surface: Not reported
Analytical Info Exists for Sediments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

OLD QUOGUE LANDFILL (Continued)

S105972383

Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Substance:	Not reported
Analytical Info Exists for Waste:	Not reported
Analytical Info Exists for Leachate:	Not reported
Analytical Info Exists for EP Toxicity:	Not reported
Analytical Info Exists for TCLP:	Not reported
Threat to Environment/Public Health:	Unknown
Surface Water Contamination:	Unknown
Surface Water Body Class:	Unknown
Groundwater Contamination:	Unknown
Groundwater Classification:	Unknown
Drinking Water Contamination:	Unknown
Drinking Water Supply is Active:	Unknown
Any Known Fish or Wildlife:	M
Hazardous Exposure:	No
Site Has Controlled Access:	Yes
Ambient Air Contamination:	No
Direct Contact:	No
EPA Hazardous Ranking System Score:	Unknown
Inventory:	F
Nefrap:	Not reported
Mailing:	Not reported
Tax Map No:	Not reported
Qualify:	0
Next Action:	Not reported
Agencies:	Not reported
Air:	Not reported
Building:	Not reported
Site Desc:	Not reported
Drink:	Not reported
Eptox:	Not reported
Fish:	Not reported
Ground:	Not reported
Ground Desc:	Not reported
Hazardous Threat:	Not reported
Haz Threat Desc:	Not reported
Leachate:	Not reported
Preparer:	Not reported
Sediment:	Not reported
Soil:	Not reported
Surface:	Not reported
Status:	Not reported
Surface Soil:	Not reported
Surface:	Not reported
TCLP:	Not reported
Waste:	Not reported

9
SSE
1/2-1
0.811 mi.
4284 ft.

CHARLES CARDO & SON, INC.
MONTAUK HIGHWAY
QUOGUE, NY 11959

SHWS S105972415
N/A

Relative:
Lower
Actual:
17 ft.

SHWS:
Program: HW
Site Code: 55862
Classification: N
Region: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHARLES CARDO & SON, INC. (Continued)

S105972415

Acres: 3
HW Code: 152088
Record Add: 11/18/1999
Record Upd: 08/22/2005
Updated By: EMZUK
Site Description: This is a three acre site located on Old Country Road, Quogue. The excavated area is approximately 1/2 full with construction and demolition debris. The Phase II investigation found that the debris consisted of soil, brush, tree stumps, trees, brick, wood, concrete, and glass from the owner's landscaping business. No evidence of hazardous waste was found nor is hazardous waste disposal suspected.
Env Problem: The Phase II investigation found no significant environmental contamination.
Health Problem: Not reported
Dump: Not reported
Structure: Not reported
Lagoon: Not reported
Landfill: Not reported
Pond: Not reported
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: Not reported
Dell: Not reported
Record Add: Not reported
Record Upd: Not reported
Updated By: Not reported
Own Op: Owner
Sub Type: E
Owner Name: Not reported
Owner Company: Charles Cardo
Owner Address: Lamb Avenue
Owner Addr2: Not reported
Owner City,St,Zip: Quogue, NY 11959
Owner Country: United States of America
Own Op: Disp. Owner
Sub Type: NNN
Owner Name: Not reported
Owner Company: CHARLES CARDO
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: ZZ
Owner Country: United States of America
Own Op: On-Site Operator
Sub Type: NNN
Owner Name: Not reported
Owner Company: Charles Cardo
Owner Address: Lamb Avenue
Owner Addr2: Not reported
Owner City,St,Zip: Quogue, NY 11959
Owner Country: United States of America
Own Op: Owner
Sub Type: E
Owner Name: Not reported
Owner Company: Charles E. Cardo
Owner Address: LAMB AVENUE
Owner Addr2: Not reported
Owner City,St,Zip: QUOGUE, NY 11959

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

CHARLES CARDO & SON, INC. (Continued)

S105972415

Owner Country: United States of America
Own Op: On-Site Operator
Sub Type: E
Owner Name: Not reported
Owner Company: CHARLES CARDO
Owner Address: LAMB AVE.
Owner Addr2: Not reported
Owner City,St,Zip: QUOGUE, NY 11959
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: Not reported
Cross Ref Type Code: Not reported
Cross Ref Type: Not reported
Record Added Date: Not reported
Record Updated: Not reported
Updated By: Not reported

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Databases(s)
EAST QUOGUE WESTHAMPTON	S102668805 S113917128	UNKNOWN SUFFOLK AIRPORT C & D SITE	WEST SIDE AVENUE SUFFOLK AIRPORT C & D SITE	11978	LTANKS SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: N/A
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/13/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 23

Source: EPA
Telephone: N/A
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 05/18/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 23

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 05/18/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (212) 637-3660
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (212) 637-3660
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (212) 637-3660
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (212) 637-3660
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018	Source: Department of the Navy
Date Data Arrived at EDR: 05/18/2018	Telephone: 843-820-7326
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/16/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/26/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2018	Telephone: 703-603-0695
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 05/29/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/19/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 01/02/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 29

Source: Department of Environmental Conservation
Telephone: 518-457-2051
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/12/2018 Source: EPA, Region 5
Date Data Arrived at EDR: 05/18/2018 Telephone: 312-886-7439
Date Made Active in Reports: 07/20/2018 Last EDR Contact: 07/27/2018
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018 Source: EPA Region 1
Date Data Arrived at EDR: 05/18/2018 Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018 Last EDR Contact: 07/27/2018
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018 Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/18/2018 Telephone: 415-972-3372
Date Made Active in Reports: 07/20/2018 Last EDR Contact: 07/27/2018
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018 Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018 Telephone: 303-312-6271
Date Made Active in Reports: 07/20/2018 Last EDR Contact: 07/27/2018
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018 Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018 Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018 Last EDR Contact: 07/27/2018
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018 Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018 Telephone: 214-665-6597
Date Made Active in Reports: 07/20/2018 Last EDR Contact: 07/27/2018
Number of Days to Update: 63 Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

LTANKS: Spills Information Database

Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 05/14/2018 Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/16/2018 Telephone: 518-402-9549
Date Made Active in Reports: 06/12/2018 Last EDR Contact: 08/10/2018
Number of Days to Update: 27 Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LTANKS: Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 07/08/2005	Telephone: 518-402-9549
Date Made Active in Reports: 07/14/2005	Last EDR Contact: 07/07/2005
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/11/2018
Number of Days to Update: 136	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Varies

UST: Petroleum Bulk Storage (PBS) Database

Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 06/25/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 06/28/2018	Telephone: 518-402-9549
Date Made Active in Reports: 08/07/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: No Update Planned

CBS UST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002	Source: NYSDEC
Date Data Arrived at EDR: 02/20/2002	Telephone: 518-402-9549
Date Made Active in Reports: 03/22/2002	Last EDR Contact: 10/24/2005
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/23/2006
	Data Release Frequency: No Update Planned

MOSF UST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002	Source: NYSDEC
Date Data Arrived at EDR: 02/20/2002	Telephone: 518-402-9549
Date Made Active in Reports: 03/22/2002	Last EDR Contact: 07/25/2005
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/24/2005
	Data Release Frequency: No Update Planned

CBS: Chemical Bulk Storage Site Listing

These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 06/25/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 06/28/2018	Telephone: 518-402-9549
Date Made Active in Reports: 08/07/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MOSF: Major Oil Storage Facility Site Listing

These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 06/25/2018
Date Data Arrived at EDR: 06/28/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 40

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

AST: Petroleum Bulk Storage

Registered Aboveground Storage Tanks.

Date of Government Version: 06/25/2018
Date Data Arrived at EDR: 06/28/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 40

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF AST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6137
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-9424
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 10
Date Data Arrived at EDR: 05/18/2018	Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TANKS: Storage Tank Facility Listing

This database contains records of facilities that are or have been regulated under Bulk Storage Program. Tank information for these facilities may not be releasable by the state agency.

Date of Government Version: 06/25/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 06/28/2018	Telephone: 518-402-9543
Date Made Active in Reports: 08/07/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

RES DECL: Restrictive Declarations Listing

A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 11/18/2010	Source: NYC Department of City Planning
Date Data Arrived at EDR: 06/30/2014	Telephone: 212-720-3401
Date Made Active in Reports: 07/21/2014	Last EDR Contact: 06/22/2018
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Varies

ENV RES DECL: Environmental Restrictive Declarations

The Environmental Restrictive Declarations (ERD) listed were recorded in connection with a zoning action against the noted Tax Blocks and Tax Lots, or portion thereof, and are available in the property records on file at the Office of the City Register for Bronx, Kings, New York and Queens counties or at the Richmond County Clerk's office. They contain environmental requirements with respect to hazardous materials, air quality and/or noise in accordance with Section 11-15 of this Resolution.

Date of Government Version: 05/15/2018	Source: New York City Department of City Planning
Date Data Arrived at EDR: 06/26/2018	Telephone: 212-720-3300
Date Made Active in Reports: 08/07/2018	Last EDR Contact: 06/18/2018
Number of Days to Update: 42	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Varies

ENG CONTROLS: Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 05/14/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/16/2018	Telephone: 518-402-9553
Date Made Active in Reports: 06/05/2018	Last EDR Contact: 08/10/2018
Number of Days to Update: 20	Next Scheduled EDR Contact: 11/26/2018
	Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 05/14/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/16/2018	Telephone: 518-402-9553
Date Made Active in Reports: 06/05/2018	Last EDR Contact: 08/10/2018
Number of Days to Update: 20	Next Scheduled EDR Contact: 11/26/2018
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/22/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Semi-Annually

VCP NYC: Voluntary Cleanup Program Listing NYC

New York City voluntary cleanup program sites.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/29/2018
Date Made Active in Reports: 05/14/2018
Number of Days to Update: 46

Source: New York City Office of Environmental Protection
Telephone: 212-788-8841
Last EDR Contact: 06/15/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Semi-Annually

ERP: Environmental Restoration Program Listing

In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a \$200 million Environmental Restoration or Brownfields Fund as part of the \$1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/19/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2018	Telephone: 202-566-2777
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/20/2018
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 12/08/2017	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 01/02/2018	Telephone: 518-402-8705
Date Made Active in Reports: 01/31/2018	Last EDR Contact: 07/06/2018
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 02/27/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 04/06/2018	Telephone: 518-402-8694
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/07/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 09/24/2018
	Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 07/30/2018
Number of Days to Update: 52	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/03/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 05/11/2018
Number of Days to Update: 71

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: No Update Planned

DEL SHWS: Delisted Registry Sites

A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 23

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 05/11/2018
Number of Days to Update: 71

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST AST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Spill Liens Information

Lien information from the Oil Spill Fund.

Date of Government Version: 05/07/2018
Date Data Arrived at EDR: 05/09/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 27

Source: Office of the State Comptroller
Telephone: 518-474-9034
Last EDR Contact: 08/01/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/13/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 30

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

SPILLS: Spills Information Database

Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/16/2018
Date Made Active in Reports: 06/12/2018
Number of Days to Update: 27

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/14/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/12/2013
Number of Days to Update: 40

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 11/02/2010
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/25/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/13/2018
Number of Days to Update: 339	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 05/15/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/27/2018
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-566-1917
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/27/2018
Number of Days to Update: 87	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 08/03/2018
Number of Days to Update: 88	Next Scheduled EDR Contact: 11/19/2018
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 08/10/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 11/19/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 06/22/2018
Number of Days to Update: 198	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 01/10/2018	Telephone: 202-566-0250
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 05/25/2018
Number of Days to Update: 2	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 07/27/2018
Number of Days to Update: 77	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 05/13/2018	Source: EPA
Date Data Arrived at EDR: 05/30/2018	Telephone: 703-416-0223
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Annually

RMP: Risk Management Plans

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1975-02-28	Feet below surface:	Not Reported
Feet to sea level:	10.17	Note:	Not Reported
Level reading date:	1974-11-25	Feet below surface:	Not Reported
Feet to sea level:	9.11	Note:	Not Reported
Level reading date:	1974-10-28	Feet below surface:	Not Reported
Feet to sea level:	9.38	Note:	Not Reported
Level reading date:	1974-10-11	Feet below surface:	Not Reported
Feet to sea level:	9.52	Note:	Not Reported
Level reading date:	1974-09-09	Feet below surface:	Not Reported
Feet to sea level:	9.79	Note:	Not Reported
Level reading date:	1974-08-15	Feet below surface:	Not Reported
Feet to sea level:	10.01	Note:	Not Reported
Level reading date:	1974-07-09	Feet below surface:	Not Reported
Feet to sea level:	10.47	Note:	Not Reported
Level reading date:	1974-06-07	Feet below surface:	Not Reported
Feet to sea level:	10.75	Note:	Not Reported
Level reading date:	1974-05-07	Feet below surface:	Not Reported
Feet to sea level:	11.01	Note:	Not Reported
Level reading date:	1974-03-25	Feet below surface:	Not Reported
Feet to sea level:	10.42	Note:	Not Reported
Level reading date:	1974-02-28	Feet below surface:	Not Reported
Feet to sea level:	10.40	Note:	Not Reported
Level reading date:	1974-01-03	Feet below surface:	Not Reported
Feet to sea level:	10.14	Note:	Not Reported

2
South
1/2 - 1 Mile
Lower

FED USGS USGS40000834271

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 46540. 1	Type:	Well
Description:	Not Reported	HUC:	02030202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Northern Atlantic Coastal Plain aquifer system		
Formation Type:	Glacial Aquifer, Upper	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	41
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	78	Level reading date:	1998-03-16
Feet below surface:	Not Reported	Feet to sea level:	9.96
Note:	Not Reported		
Level reading date:	1997-03-12	Feet below surface:	Not Reported
Feet to sea level:	9.95	Note:	Not Reported
Level reading date:	1996-03-18	Feet below surface:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1980-06-21	Feet below surface:	Not Reported
Feet to sea level:	10.85	Note:	Not Reported
Level reading date:	1980-03-13	Feet below surface:	Not Reported
Feet to sea level:	9.97	Note:	Not Reported
Level reading date:	1979-12-12	Feet below surface:	Not Reported
Feet to sea level:	10.46	Note:	Not Reported
Level reading date:	1979-09-19	Feet below surface:	Not Reported
Feet to sea level:	11.07	Note:	Not Reported
Level reading date:	1979-06-22	Feet below surface:	Not Reported
Feet to sea level:	12.32	Note:	Not Reported
Level reading date:	1979-03-13	Feet below surface:	Not Reported
Feet to sea level:	13.03	Note:	Not Reported
Level reading date:	1979-01-04	Feet below surface:	Not Reported
Feet to sea level:	10.08	Note:	Not Reported
Level reading date:	1978-10-05	Feet below surface:	Not Reported
Feet to sea level:	10.60	Note:	Not Reported
Level reading date:	1978-03-15	Feet below surface:	Not Reported
Feet to sea level:	12.55	Note:	Not Reported
Level reading date:	1977-12-07	Feet below surface:	Not Reported
Feet to sea level:	10.26	Note:	Not Reported
Level reading date:	1977-09-21	Feet below surface:	Not Reported
Feet to sea level:	9.72	Note:	Not Reported
Level reading date:	1977-06-21	Feet below surface:	Not Reported
Feet to sea level:	10.31	Note:	Not Reported
Level reading date:	1977-03-23	Feet below surface:	Not Reported
Feet to sea level:	9.90	Note:	Not Reported
Level reading date:	1976-12-23	Feet below surface:	Not Reported
Feet to sea level:	9.61	Note:	Not Reported
Level reading date:	1976-09-27	Feet below surface:	Not Reported
Feet to sea level:	9.80	Note:	Not Reported
Level reading date:	1976-06-23	Feet below surface:	Not Reported
Feet to sea level:	10.35	Note:	Not Reported
Level reading date:	1976-03-24	Feet below surface:	Not Reported
Feet to sea level:	11.06	Note:	Not Reported
Level reading date:	1975-12-15	Feet below surface:	Not Reported
Feet to sea level:	10.61	Note:	Not Reported
Level reading date:	1975-09-22	Feet below surface:	Not Reported
Feet to sea level:	10.21	Note:	Not Reported
Level reading date:	1975-07-07	Feet below surface:	Not Reported
Feet to sea level:	11.24	Note:	Not Reported
Level reading date:	1975-06-05	Feet below surface:	Not Reported
Feet to sea level:	10.69	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

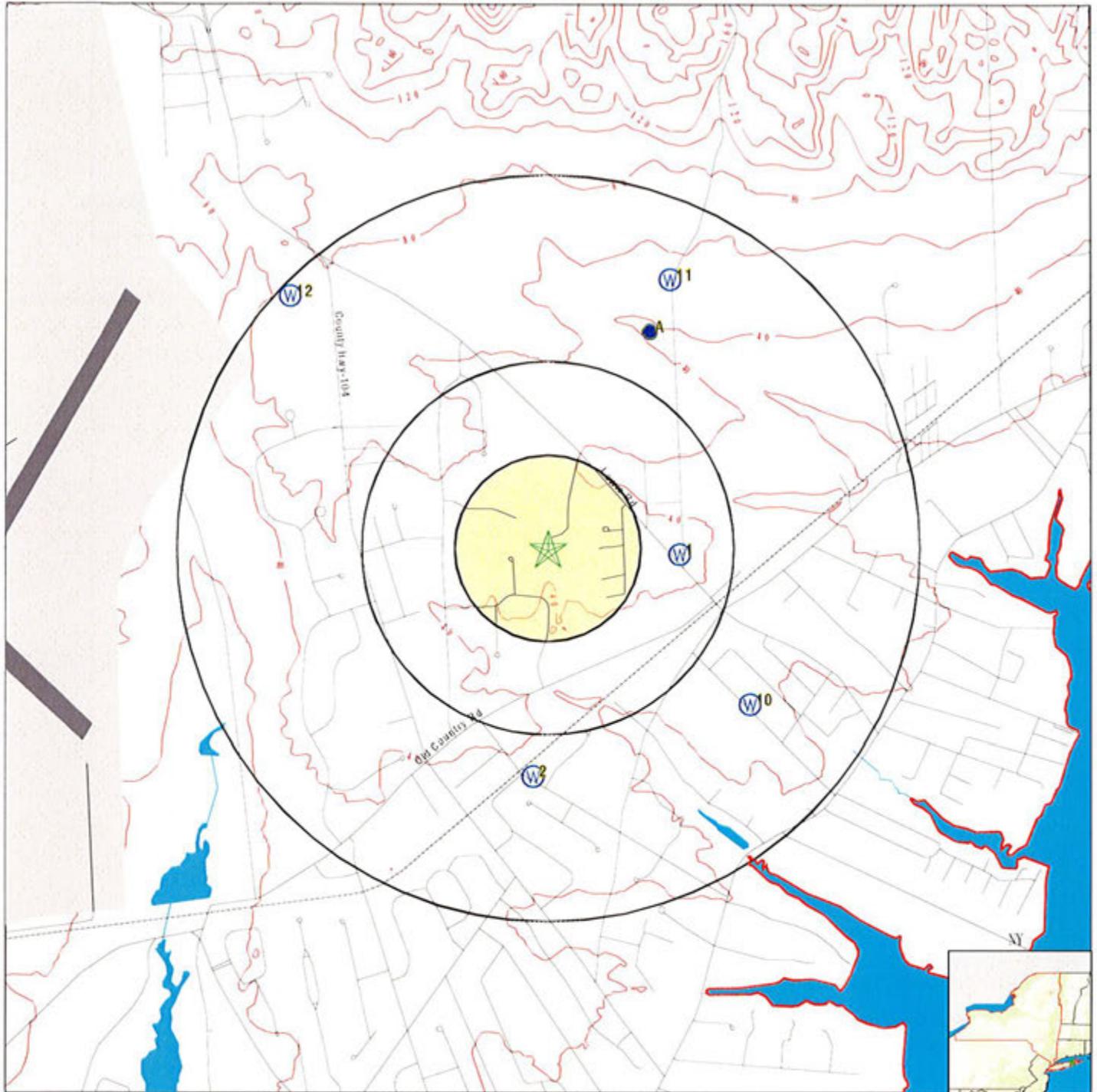
Database EDR ID Number

1
East **FED USGS** **USGS40000834446**
1/4 - 1/2 Mile
Lower

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 48435. 1	Type:	Well
Description:	Not Reported	HUC:	02030202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Northern Atlantic Coastal Plain aquifer system	Aquifer Type:	Not Reported
Formation Type:	Glacial Aquifer, Upper	Well Depth:	59
Construction Date:	Not Reported	Well Hole Depth:	Not Reported
Well Depth Units:	ft		
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	47	Level reading date:	1994-03-09
Feet below surface:	Not Reported	Feet to sea level:	10.21
Note:	Not Reported		
Level reading date:	1990-03-22	Feet below surface:	Not Reported
Feet to sea level:	11.54	Note:	Not Reported
Level reading date:	1983-09-15	Feet below surface:	Not Reported
Feet to sea level:	10.30	Note:	Not Reported
Level reading date:	1983-06-30	Feet below surface:	Not Reported
Feet to sea level:	11.51	Note:	Not Reported
Level reading date:	1983-05-11	Feet below surface:	Not Reported
Feet to sea level:	12.48	Note:	Not Reported
Level reading date:	1983-03-04	Feet below surface:	Not Reported
Feet to sea level:	9.16	Note:	Not Reported
Level reading date:	1982-12-21	Feet below surface:	Not Reported
Feet to sea level:	8.94	Note:	Not Reported
Level reading date:	1982-12-09	Feet below surface:	Not Reported
Feet to sea level:	9.06	Note:	Not Reported
Level reading date:	1982-10-07	Feet below surface:	Not Reported
Feet to sea level:	9.56	Note:	Not Reported
Level reading date:	1982-09-16	Feet below surface:	Not Reported
Feet to sea level:	11.91	Note:	Not Reported
Level reading date:	1982-09-09	Feet below surface:	Not Reported
Feet to sea level:	9.85	Note:	Not Reported
Level reading date:	1981-03-02	Feet below surface:	Not Reported
Feet to sea level:	8.65	Note:	Not Reported
Level reading date:	1980-12-05	Feet below surface:	Not Reported
Feet to sea level:	9.02	Note:	Not Reported
Level reading date:	1980-09-06	Feet below surface:	Not Reported
Feet to sea level:	9.63	Note:	Not Reported

PHYSICAL SETTING SOURCE MAP - 5396704.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

<p>SITE NAME: Damascus Road Landfill ADDRESS: End of Damascus Rd East Quogue NY 11942 LAT/LONG: 40.847843 / 72.598239</p>	<p>CLIENT: Wood Environment & Infrastructure Solutions, Inc. CONTACT: Jazmin Logan INQUIRY #: 5396704.2s DATE: August 16, 2018 4:47 pm</p>
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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000834446	1/4 - 1/2 Mile East
2	USGS40000834271	1/2 - 1 Mile South
A7	USGS40000834685	1/2 - 1 Mile NNE
A8	USGS40000834683	1/2 - 1 Mile NNE
A9	USGS40000834684	1/2 - 1 Mile NNE
10	USGS40000834317	1/2 - 1 Mile SE
11	USGS40000834754	1/2 - 1 Mile NNE
12	USGS40000834606	1/2 - 1 Mile NW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A3	NYWS005871	1/2 - 1 Mile NNE
A4	NYWS005872	1/2 - 1 Mile NNE
A5	NYWS005869	1/2 - 1 Mile NNE
A6	NYWS005870	1/2 - 1 Mile NNE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 6

Soil Component Name: Plymouth

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 5.5 Min: 3.6
2	3 inches	27 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 5.5 Min: 3.6
3	27 inches	59 inches	gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 5.5 Min: 3.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 5.5 Min: 4.5
2	11 inches	27 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 5.5 Min: 4.5
3	27 inches	35 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 5.5 Min: 4.5
4	35 inches	64 inches	stratified coarse sand to gravelly sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 5.5 Min: 4.5

Soil Map ID: 5

Soil Component Name: Gravel pits

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Made land
Soil Surface Texture: loamy sand
Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.
Soil Drainage Class: Moderately well drained
Hydric Status: Not hydric
Corrosion Potential - Uncoated Steel: Not Reported
Depth to Bedrock Min: > 0 inches
Depth to Watertable Min: > 137 inches
No Layer Information available.

Soil Map ID: 3

Soil Component Name: Cut and fill land
Soil Surface Texture: loamy sand
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class: Moderately well drained
Hydric Status: Not hydric
Corrosion Potential - Uncoated Steel: Not Reported
Depth to Bedrock Min: > 153 inches
Depth to Watertable Min: > 0 inches
No Layer Information available.

Soil Map ID: 4

Soil Component Name: Riverhead
Soil Surface Texture: sandy loam
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Plymouth

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

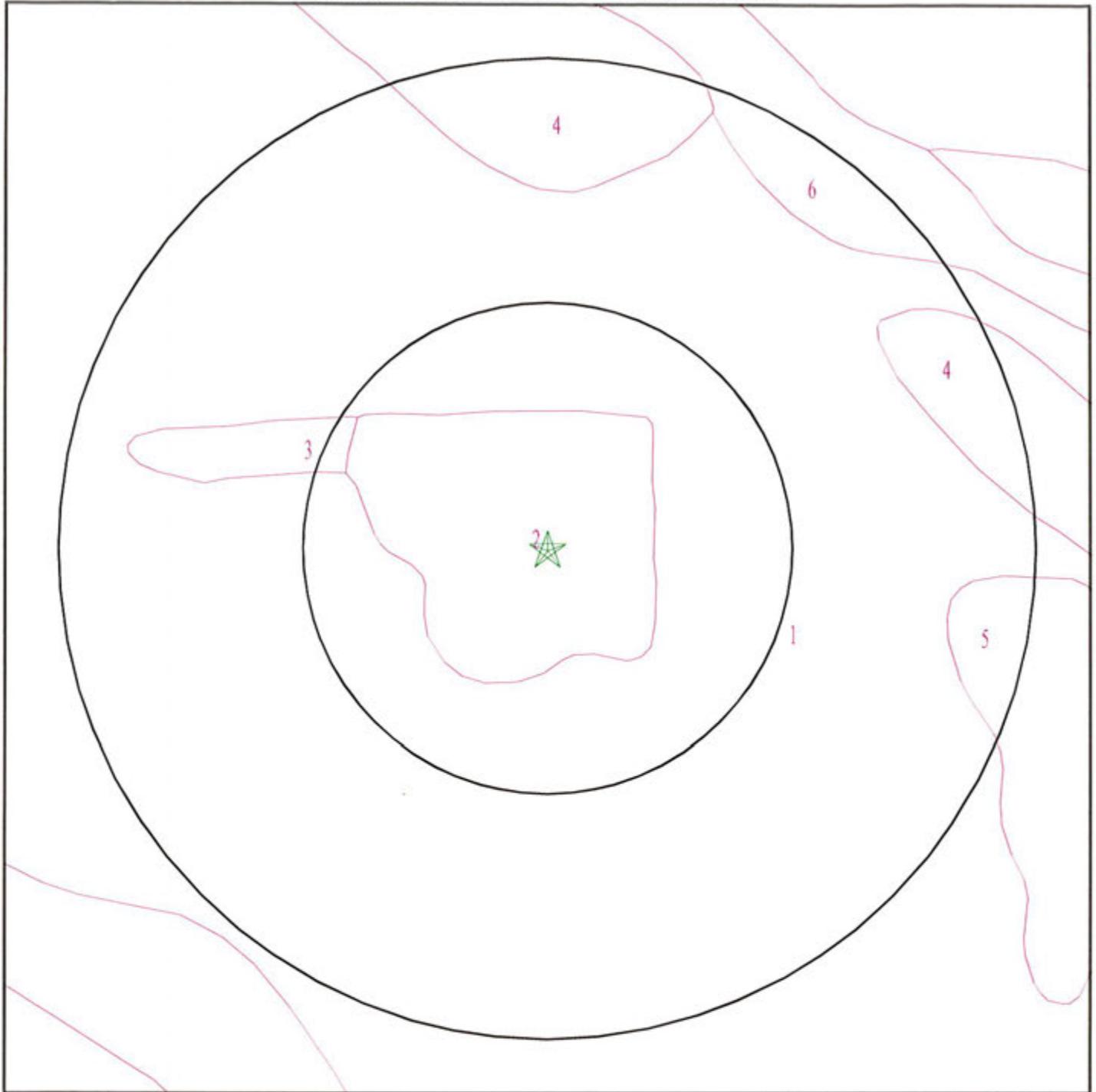
Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 5.5 Min: 3.6
2	3 inches	27 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 5.5 Min: 3.6
3	27 inches	59 inches	gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand.	Max: 141 Min: 141	Max: 5.5 Min: 3.6

SSURGO SOIL MAP - 5396704.2s



- ★ Target Property
- ∕ SSURGO Soil
- ∕ Water



SITE NAME: Damascus Road Landfill
ADDRESS: End of Damascus Rd
East Quogue NY 11942
LAT/LONG: 40.847843 / 72.598239

CLIENT: Wood Environment & Infrastructure Solutions, Inc.
CONTACT: Jazmin Logan
INQUIRY #: 5396704.2s
DATE: August 16, 2018 4:48 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Pleistocene
Code:	Qp (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
36103C0776G	FEMA Q3 Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
36103C0777H	FEMA FIRM Flood data
36103C0778G	FEMA Q3 Flood data
36103C0778H	FEMA FIRM Flood data
36103C0779H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
QUOGUE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW*

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

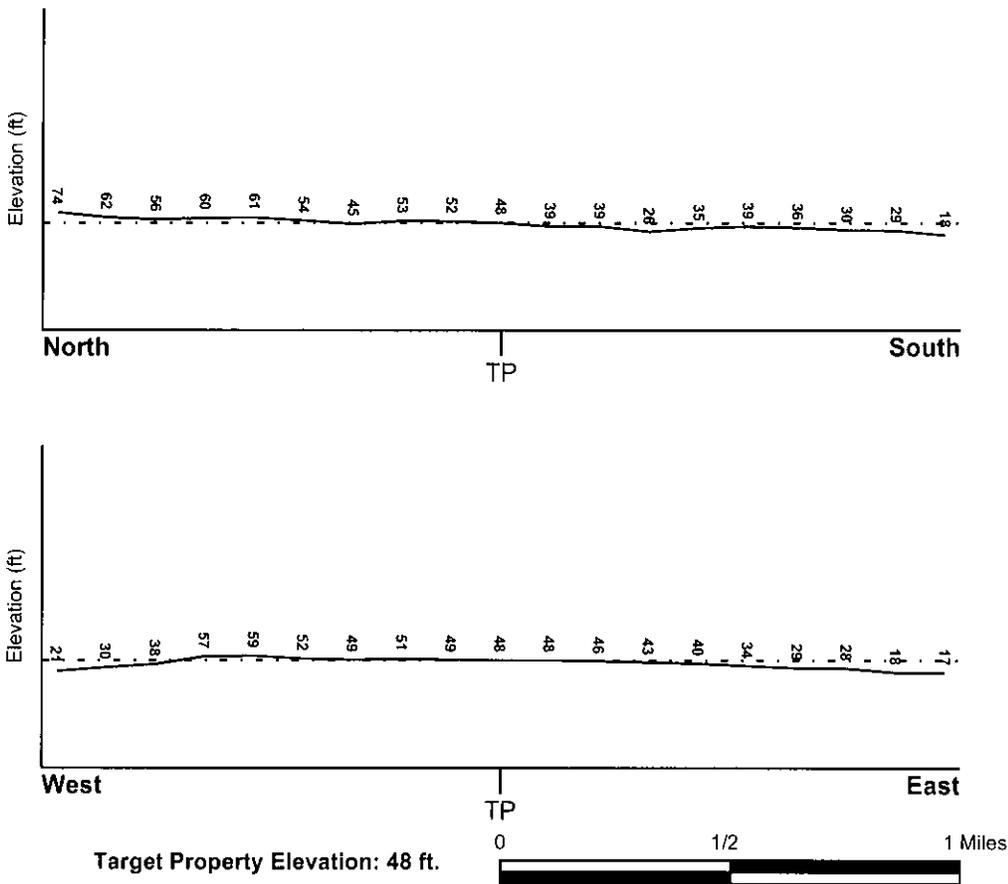
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

DAMASCUS ROAD LANDFILL
END OF DAMASCUS RD
EAST QUOGUE, NY 11942

TARGET PROPERTY COORDINATES

Latitude (North):	40.847843 - 40° 50' 52.23"
Longitude (West):	72.598239 - 72° 35' 53.66"
Universal Transverse Mercator:	Zone 18
UTM X (Meters):	702469.7
UTM Y (Meters):	4524431.0
Elevation:	48 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5939561 QUOGUE, NY
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017

Date Data Arrived at EDR: 06/15/2018

Date Made Active in Reports: 07/09/2018

Number of Days to Update: 24

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/11/2018

Next Scheduled EDR Contact: 09/24/2018

Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Providers

Source: Department of Health

Telephone: 212-676-2444

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST - WESTCHESTER: Listing of Storage Tanks

A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 04/26/2018
Date Data Arrived at EDR: 05/11/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 25

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 07/30/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Semi-Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/22/2018
Number of Days to Update: 36

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/13/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/12/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/21/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data

Hazardous waste manifest information.

Date of Government Version: 05/16/2018
Date Data Arrived at EDR: 05/23/2018
Date Made Active in Reports: 07/03/2018
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 07/16/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST NCFM: Storage Tank Database

A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011	Source: Nassau County Office of the Fire Marshal
Date Data Arrived at EDR: 02/23/2011	Telephone: 516-572-1000
Date Made Active in Reports: 03/29/2011	Last EDR Contact: 07/25/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Varies

ROCKLAND COUNTY:

AST - ROCKLAND: Petroleum Bulk Storage Database

A listing of aboveground storage tank sites located in Rockland County.

Date of Government Version: 02/02/2017	Source: Rockland County Health Department
Date Data Arrived at EDR: 03/17/2017	Telephone: 914-364-2605
Date Made Active in Reports: 09/22/2017	Last EDR Contact: 06/01/2018
Number of Days to Update: 189	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

UST - ROCKLAND: Petroleum Bulk Storage Database

A listing of underground storage tank sites located in Rockland County.

Date of Government Version: 02/02/2017	Source: Rockland County Health Department
Date Data Arrived at EDR: 03/17/2017	Telephone: 914-364-2605
Date Made Active in Reports: 09/22/2017	Last EDR Contact: 06/01/2018
Number of Days to Update: 189	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

SUFFOLK COUNTY:

AST - SUFFOLK: Storage Tank Database

A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015	Source: Suffolk County Department of Health Services
Date Data Arrived at EDR: 03/10/2015	Telephone: 631-854-2521
Date Made Active in Reports: 03/23/2015	Last EDR Contact: 07/30/2018
Number of Days to Update: 13	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: No Update Planned

UST - SUFFOLK: Storage Tank Database

A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015	Source: Suffolk County Department of Health Services
Date Data Arrived at EDR: 03/10/2015	Telephone: 631-854-2521
Date Made Active in Reports: 03/23/2015	Last EDR Contact: 07/30/2018
Number of Days to Update: 13	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: No Update Planned

WESTCHESTER COUNTY:

AST - WESTCHESTER: Listing of Storage Tanks

A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 04/26/2018	Source: Westchester County Department of Health
Date Data Arrived at EDR: 05/11/2018	Telephone: 914-813-5161
Date Made Active in Reports: 06/05/2018	Last EDR Contact: 07/30/2018
Number of Days to Update: 25	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

CORTLAND COUNTY:

AST - CORTLAND: Cortland County Storage Tank Listing

A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 03/29/2018	Source: Cortland County Health Department
Date Data Arrived at EDR: 05/22/2018	Telephone: 607-753-5035
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/30/2018
Number of Days to Update: 38	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Quarterly

UST - CORTLAND: Cortland County Storage Tank Listing

A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 03/29/2018	Source: Cortland County Health Department
Date Data Arrived at EDR: 05/22/2018	Telephone: 607-753-5035
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/30/2018
Number of Days to Update: 38	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Quarterly

NASSAU COUNTY:

AST - NASSAU: Registered Tank Database

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017	Source: Nassau County Health Department
Date Data Arrived at EDR: 01/11/2017	Telephone: 516-571-3314
Date Made Active in Reports: 02/15/2017	Last EDR Contact: 07/30/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: No Update Planned

AST NCFM: Storage Tank Database

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011	Source: Nassau County Office of the Fire Marshal
Date Data Arrived at EDR: 02/23/2011	Telephone: 516-572-1000
Date Made Active in Reports: 03/29/2011	Last EDR Contact: 07/25/2018
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Varies

TANKS NASSAU: Registered Tank Database in Nassau County

A listing of facilities in Nassau County with storage tanks.

Date of Government Version: 01/09/2017	Source: Nassau County Department of Health
Date Data Arrived at EDR: 01/11/2017	Telephone: 516-227-9691
Date Made Active in Reports: 02/15/2017	Last EDR Contact: 07/30/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: Varies

UST - NASSAU: Registered Tank Database

A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017	Source: Nassau County Health Department
Date Data Arrived at EDR: 01/11/2017	Telephone: 516-571-3314
Date Made Active in Reports: 02/15/2017	Last EDR Contact: 07/30/2018
Number of Days to Update: 35	Next Scheduled EDR Contact: 11/12/2018
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 04/30/2018
Date Data Arrived at EDR: 05/03/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/01/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Quarterly

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 07/18/2018
Date Data Arrived at EDR: 07/31/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 7

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 07/18/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: No Update Planned

VAPOR REOPENED: Vapor Intrusion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 02/15/2018
Date Made Active in Reports: 03/27/2018
Number of Days to Update: 40

Source: Department of Environmental Conservation
Telephone: 518-402-9814
Last EDR Contact: 05/18/2018
Next Scheduled EDR Contact: 08/27/2018
Data Release Frequency: Varies

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 06/04/2018
Date Data Arrived at EDR: 06/07/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 22

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 06/07/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

Date of Government Version: 06/29/2018
Date Data Arrived at EDR: 07/03/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 03/07/2018
Date Data Arrived at EDR: 03/30/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 67

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 06/07/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Annually

E DESIGNATION: E DESIGNATION SITE LISTING

The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 06/06/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 3

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 06/18/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 01/02/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 29

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/29/2017
Date Data Arrived at EDR: 04/06/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 60

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 06/07/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Varies

HSWDS: Hazardous Substance Waste Disposal Site Inventory

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018	Source: EPA
Date Data Arrived at EDR: 02/23/2018	Telephone: (212) 637-3000
Date Made Active in Reports: 03/23/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016	Source: Department of Defense
Date Data Arrived at EDR: 10/31/2017	Telephone: 703-704-1564
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 07/13/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 01/04/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/19/2018	Telephone: 202-564-0527
Date Made Active in Reports: 04/13/2018	Last EDR Contact: 06/01/2018
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/10/2018
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 02/25/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2018	Telephone: 202-564-2280
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/06/2018
Number of Days to Update: 83	Next Scheduled EDR Contact: 09/17/2018
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018	Source: EPA
Date Data Arrived at EDR: 02/21/2018	Telephone: 800-385-6164
Date Made Active in Reports: 03/23/2018	Last EDR Contact: 05/23/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Quarterly

AIRS: Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 07/23/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 07/23/2018	Telephone: 518-402-8452
Date Made Active in Reports: 08/07/2018	Last EDR Contact: 07/12/2018
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2018
Date Data Arrived at EDR: 05/31/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/08/2018
Date Data Arrived at EDR: 03/13/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 87

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/20/2018
Next Scheduled EDR Contact: 09/24/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 07/11/2018
Number of Days to Update: 546	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016	Source: Department of Energy
Date Data Arrived at EDR: 12/27/2016	Telephone: 202-586-3559
Date Made Active in Reports: 02/17/2017	Last EDR Contact: 08/01/2018
Number of Days to Update: 52	Next Scheduled EDR Contact: 11/19/2018
	Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017	Source: Department of Energy
Date Data Arrived at EDR: 10/11/2017	Telephone: 505-845-0011
Date Made Active in Reports: 11/03/2017	Last EDR Contact: 05/18/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 09/03/2018
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/30/2018	Telephone: 703-603-8787
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust.

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/03/2018
Date Data Arrived at EDR: 04/05/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/05/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2018
Date Data Arrived at EDR: 04/16/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 74

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/09/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 09/03/2018
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/23/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/07/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/04/2018
Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g. the fire department) should an accident occur.

Date of Government Version: 11/02/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/17/2017	Telephone: 202-564-8600
Date Made Active in Reports: 12/08/2017	Last EDR Contact: 07/20/2018
Number of Days to Update: 21	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 08/09/2018
Number of Days to Update: 3	Next Scheduled EDR Contact: 11/19/2018
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017	Source: EPA
Date Data Arrived at EDR: 06/09/2017	Telephone: 202-566-0500
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/13/2018
Number of Days to Update: 126	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 07/09/2018
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Quarterly

2.0 FIELD INVESTIGATION

This section presents a summary of the activities performed as part of the Damascus Road site Phase II ESA. The field investigation program included a geophysical survey, surface soil sampling and subsurface soil sampling. This section also includes the rationale used for choosing the sample locations, and the analytical parameters and methods.

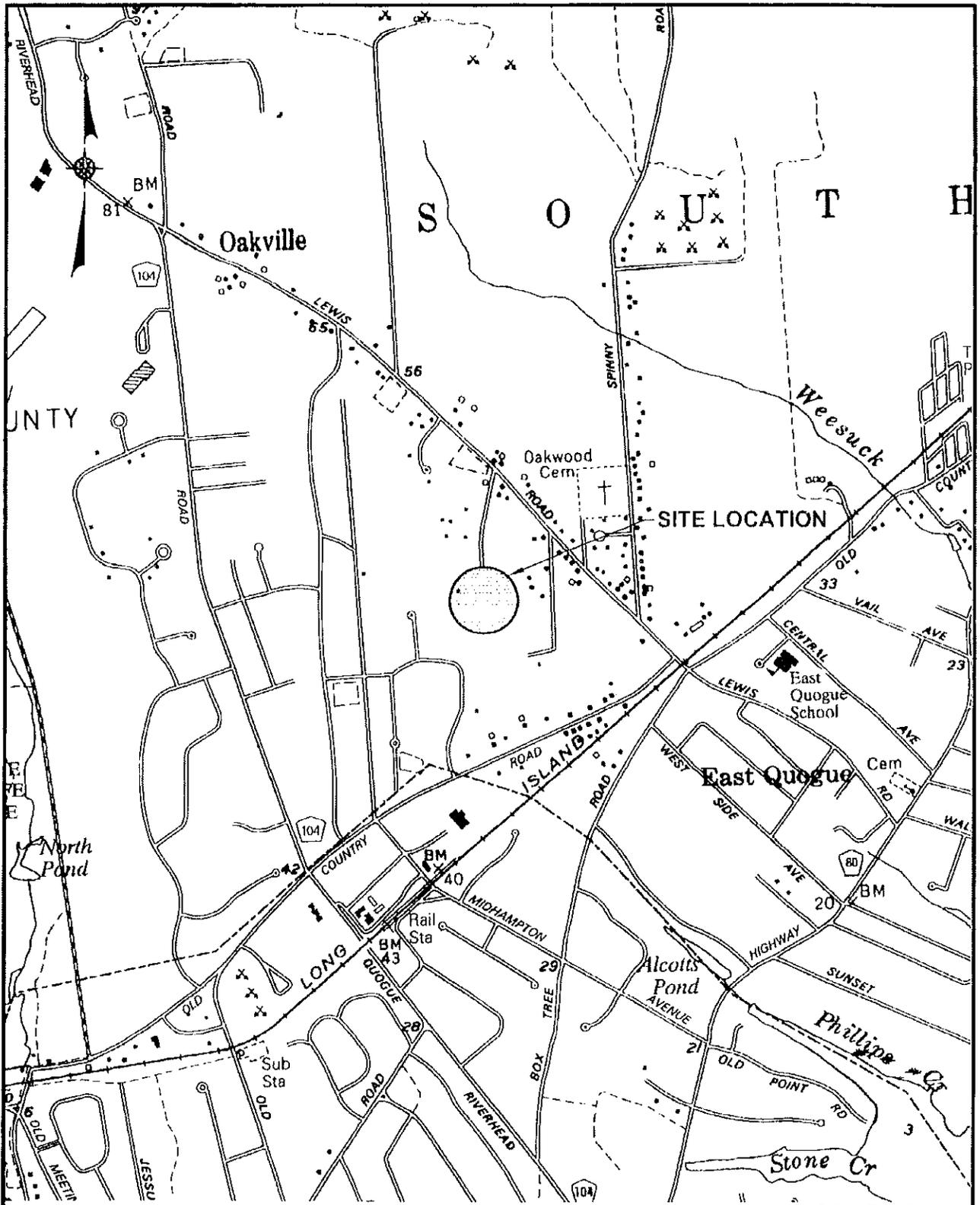
2.1 Field Procedures, Sample Locations and Analytical Parameters

2.1.1 Geophysical Survey

While the 1999 Phase I ESA report noted the potential presence of buried drums in pits in the southwest portion of the site, the study recommended that the investigation for buried drums be performed in the center of the property. In order to assess whether shallow buried metallic objects, including drums, were present anywhere on the site, D&B's field investigation included a geophysical survey over all accessible portions of the site, using a Model GA-52CX magnetometer. The magnetometer survey was conducted using a grid with a spacing of approximately 10 feet.

2.1.2 Surface Soil Sampling

Surface soil samples were collected in October 2006 at six locations throughout the site to evaluate the potential for exposure to contaminants during possible future site redevelopment or site use activities. Three samples were collected at potential areas of environmental concern (AEC's) that were identified during the 1999 Phase I ESA. These areas include the black soil area associated with a fire training area (black surface soil is no longer visible), the soil piles in the southern portion of the site and the berm along the western boundary of the site. Three additional samples were collected at unbiased locations throughout the property. Sample locations are shown on Figure 2-1.



SOURCE: USGS MAP QUOGUE QUADRANGLE

SCALE: 1"=200'

db
Dvirka and Bartilucci
 CONSULTING ENGINEERS
 A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

SOUTHAMPTON ANIMAL HOSPITAL
 146 DAMASUS ROAD
 SOUTHAMPTON, NEW YORK
SITE LOCATION MAP

FIGURE 1-1

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1.0 INTRODUCTION

1.1 Project Background

The Town of Southampton retained Dvirka and Bartilucci Consulting Engineers (D&B) to conduct a Phase II Environmental Site Assessment (ESA) at the property located at the end of Damascus Road in East Quogue, New York. The site location is shown on Figure 1-1. This work was conducted as a result of the Town's interest in possible redevelopment of the site for athletic fields and associated facilities.

Based upon D&B's review of available maps and information, the Damascus Road site involves three adjacent areas of Town-owned properties that have a total area of approximately 12 acres. Reported prior use of portions of the site have included open burning, filling of solid waste (including cars), fire training, use as an animal shelter and, most recently, vacant land since the animal shelter was removed in 2004.

A Phase I ESA of the site completed in May 1999, contained the following recommendations:

- Conduct a subsurface investigation to determine whether releases of fuel had occurred from the 1,000-gallon underground storage fuel oil tank (UST) reportedly located on the east side of the animal shelter building;
- Collect and analyze soil samples (for petroleum, chemical and heavy metals) in the northwest area of the site that were previously used for septage/sewage leaching;
- Collect and analyze soil samples in the southern and western portions of the site to determine the presence of petroleum, chemicals or heavy metals; and
- Investigate the central portion of the site for evidence of buried drums.

No previous environmental sampling at the property has been identified.

TABLE OF CONTENTS (continued)

List of Figures

1-1	Site Location Map.....	1-2
2-1	Site Layout and Sample Locations	2-2

List of Tables

3-1	Surface Soil Sample Results	3-2
3-2	Subsurface Soil Sample Results.....	3-7

**PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT
FORMER ANIMAL SHELTER
DAMASCUS ROAD
EAST QUOGUE, NEW YORK**

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	INTRODUCTION.....	1-1
1.1	Project Background.....	1-1
1.2	Project Objective and Scope.....	1-3
1.3	Report Organization.....	1-3
2.0	FIELD INVESTIGATION.....	2-1
2.1	Sampling Procedures.....	2-1
2.1.1	Geophysical Survey.....	2-1
2.1.2	Surface Soil Sampling.....	2-1
2.1.3	Subsurface Soil Sampling.....	2-3
2.2	Analytical Methods and Data Validation.....	2-4
3.0	FINDINGS.....	3-1
3.1	Geology.....	3-1
3.2	Identification of Standards, Criteria and Guidelines.....	3-1
3.3	Results.....	3-1
3.3.1	Geophysical Survey.....	3-1
3.3.2	Surface Soil.....	3-1
3.3.3	Subsurface Soil.....	3-6
3.4	Data Usability Summary Report.....	3-6
4.0	CONCLUSIONS AND RECOMMENDATIONS.....	4-1
4.1	Conclusions.....	4-1
4.2	Recommendations.....	4-1

List of Appendices

Geologic Logs.....	A
Laboratory Data Sheets.....	B
Data Validation Forms.....	C

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

**FORMER ANIMAL SHELTER
DAMASCUS ROAD
EAST QUOGUE, NEW YORK**

PREPARED FOR

TOWN OF SOUTHAMPTON

BY

**DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK**

JANUARY 2007

Town of Southampton



Phase II Environmental Site Assessment Report



Former Animal Shelter
Damascus Road, East Quogue, New York

Prepared For

The Town of Southampton
Southampton, New York

January 2007



DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

APPENDIX B

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells

Source: New York Department of Health

Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Department of Environmental Conservation

Telephone: 518-402-8072

These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon

Source: Department of Health

Telephone: 518-402-7556

Radon Test Results

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wellands Data: Freshwater Wetlands

Source: Department of Environmental Conservation

Telephone: 518-402-8961

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawlec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: NY Radon

Radon Test Results

County	Town	Num Tests	Avg Result	Geo Mean	Max Result
SUFFOLK	BABYLON	49	1.07	0.76	5.5
SUFFOLK	BROOKHAVEN	117	1.61	1.22	7.5
SUFFOLK	E. HAMPTON	19	1.55	1.16	4.7
SUFFOLK	HUNTINGTON	146	2.13	1.47	22.2
SUFFOLK	ISLIP	61	1.19	0.74	10.4
SUFFOLK	NORTHPORT	4	1.43	1.12	2.5
SUFFOLK	RIVERHEAD	9	2.18	1.26	8.9
SUFFOLK	SHELTER ISLAND	1	1.1	1.1	1.1
SUFFOLK	SMITHTOWN	60	3.02	1.48	42.6
SUFFOLK	SOUTHAMPTON	24	0.99	0.8	2.8
SUFFOLK	SOUTHOLD	7	2.47	1.58	8.6

Federal EPA Radon Zone for SUFFOLK County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SUFFOLK COUNTY, NY

Number of sites tested: 183

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.670 pCi/L	100%	0%	0%
Basement	1.010 pCi/L	98%	2%	0%

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet to sea level:	16.28	Note:	Not Reported
Level reading date:	1985-01-01	Feet below surface:	Not Reported
Feet to sea level:	17.63	Note:	Not Reported
Level reading date:	1984-09-25	Feet below surface:	Not Reported
Feet to sea level:	19.00	Note:	Not Reported
Level reading date:	1984-06-21	Feet below surface:	Not Reported
Feet to sea level:	19.09	Note:	Not Reported
Level reading date:	1984-03-27	Feet below surface:	Not Reported
Feet to sea level:	16.99	Note:	Not Reported
Level reading date:	1983-09-14	Feet below surface:	Not Reported
Feet to sea level:	17.02	Note:	Not Reported
Level reading date:	1983-06-29	Feet below surface:	Not Reported
Feet to sea level:	17.49	Note:	Not Reported
Level reading date:	1983-05-10	Feet below surface:	Not Reported
Feet to sea level:	16.08	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground water levels, Number of Measurements:	28	Level reading date:	2003-03-20
Feet below surface:	Not Reported	Feet to sea level:	14.94
Note:	Not Reported		
Level reading date:	2002-03-18	Feet below surface:	Not Reported
Feet to sea level:	13.90	Note:	Not Reported
Level reading date:	2001-03-20	Feet below surface:	Not Reported
Feet to sea level:	13.89	Note:	Not Reported
Level reading date:	2000-03-20	Feet below surface:	Not Reported
Feet to sea level:	14.63	Note:	Not Reported
Level reading date:	1999-03-31	Feet below surface:	Not Reported
Feet to sea level:	16.47	Note:	Not Reported
Level reading date:	1998-03-16	Feet below surface:	Not Reported
Feet to sea level:	15.32	Note:	Not Reported
Level reading date:	1997-03-12	Feet below surface:	Not Reported
Feet to sea level:	17.23	Note:	Not Reported
Level reading date:	1996-03-18	Feet below surface:	Not Reported
Feet to sea level:	14.83	Note:	Not Reported
Level reading date:	1995-03-22	Feet below surface:	Not Reported
Feet to sea level:	14.28	Note:	Not Reported
Level reading date:	1994-03-31	Feet below surface:	Not Reported
Feet to sea level:	15.74	Note:	Not Reported
Level reading date:	1993-03-22	Feet below surface:	Not Reported
Feet to sea level:	15.43	Note:	Not Reported
Level reading date:	1992-03-16	Feet below surface:	Not Reported
Feet to sea level:	14.82	Note:	Not Reported
Level reading date:	1991-03-20	Feet below surface:	Not Reported
Feet to sea level:	16.48	Note:	Not Reported
Level reading date:	1990-03-28	Feet below surface:	Not Reported
Feet to sea level:	18.49	Note:	Not Reported
Level reading date:	1989-02-08	Feet below surface:	Not Reported
Feet to sea level:	14.11	Note:	Not Reported
Level reading date:	1988-03-25	Feet below surface:	Not Reported
Feet to sea level:	14.57	Note:	Not Reported
Level reading date:	1987-03-19	Feet below surface:	Not Reported
Feet to sea level:	14.20	Note:	Not Reported
Level reading date:	1985-09-17	Feet below surface:	Not Reported
Feet to sea level:	14.45	Note:	Not Reported
Level reading date:	1985-07-03	Feet below surface:	Not Reported
Feet to sea level:	15.36	Note:	Not Reported
Level reading date:	1985-07-03	Feet below surface:	Not Reported
Feet to sea level:	15.36	Note:	Not Reported
Level reading date:	1985-03-27	Feet below surface:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1976-03-18	Feet below surface:	Not Reported
Feet to sea level:	13.55	Note:	Not Reported
Level reading date:	1976-01-08	Feet below surface:	Not Reported
Feet to sea level:	12.72	Note:	Not Reported
Level reading date:	1975-10-14	Feet below surface:	Not Reported
Feet to sea level:	13.21	Note:	Not Reported
Level reading date:	1975-07-02	Feet below surface:	Not Reported
Feet to sea level:	13.47	Note:	Not Reported
Level reading date:	1975-03-24	Feet below surface:	Not Reported
Feet to sea level:	12.55	Note:	Not Reported
Level reading date:	1974-12-27	Feet below surface:	Not Reported
Feet to sea level:	11.79	Note:	Not Reported
Level reading date:	1974-09-17	Feet below surface:	Not Reported
Feet to sea level:	12.79	Note:	Not Reported
Level reading date:	1974-07-03	Feet below surface:	Not Reported
Feet to sea level:	13.27	Note:	Not Reported
Level reading date:	1974-03-28	Feet below surface:	Not Reported
Feet to sea level:	12.79	Note:	Not Reported
Level reading date:	1973-11-27	Feet below surface:	Not Reported
Feet to sea level:	13.15	Note:	Not Reported
Level reading date:	1973-10-30	Feet below surface:	Not Reported
Feet to sea level:	13.92	Note:	Not Reported
Level reading date:	1973-07-11	Feet below surface:	Not Reported
Feet to sea level:	15.15	Note:	Not Reported
Level reading date:	1973-04-04	Feet below surface:	Not Reported
Feet to sea level:	14.54	Note:	Not Reported
Level reading date:	1973-01-09	Feet below surface:	Not Reported
Feet to sea level:	13.54	Note:	Not Reported
Level reading date:	1972-12-08	Feet below surface:	Not Reported
Feet to sea level:	12.74	Note:	Not Reported

12
NW
1/2 - 1 Mile
Higher

FED USGS USGS40000834606

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 74300. 1	Type:	Well
Description:	Not Reported	HUC:	02030202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Northern Atlantic Coastal Plain aquifer system	Aquifer Type:	Not Reported
Formation Type:	Glacial Aquifer, Upper	Well Depth:	72
Construction Date:	198303	Well Hole Depth:	Not Reported
Well Depth Units:	ft		
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1980-12-30	Feet below surface:	Not Reported
Feet to sea level:	12.07	Note:	Not Reported
Level reading date:	1980-09-23	Feet below surface:	Not Reported
Feet to sea level:	11.88	Note:	Not Reported
Level reading date:	1980-07-02	Feet below surface:	Not Reported
Feet to sea level:	16.02	Note:	Not Reported.
Level reading date:	1980-03-28	Feet below surface:	Not Reported
Feet to sea level:	13.64	Note:	Not Reported
Level reading date:	1980-03-18	Feet below surface:	Not Reported
Feet to sea level:	10.97	Note:	Not Reported
Level reading date:	1980-01-09	Feet below surface:	Not Reported
Feet to sea level:	13.39	Note:	Not Reported
Level reading date:	1979-09-27	Feet below surface:	Not Reported
Feet to sea level:	13.09	Note:	Not Reported
Level reading date:	1979-06-29	Feet below surface:	Not Reported
Feet to sea level:	14.87	Note:	Not Reported
Level reading date:	1979-04-02	Feet below surface:	Not Reported
Feet to sea level:	15.76	Note:	Not Reported
Level reading date:	1979-02-02	Feet below surface:	Not Reported
Feet to sea level:	14.61	Note:	Not Reported
Level reading date:	1978-12-21	Feet below surface:	Not Reported
Feet to sea level:	13.07	Note:	Not Reported
Level reading date:	1978-10-05	Feet below surface:	Not Reported
Feet to sea level:	13.57	Note:	Not Reported
Level reading date:	1978-06-30	Feet below surface:	Not Reported
Feet to sea level:	14.54	Note:	Not Reported
Level reading date:	1978-03-30	Feet below surface:	Not Reported
Feet to sea level:	15.61	Note:	Not Reported
Level reading date:	1978-01-05	Feet below surface:	Not Reported
Feet to sea level:	13.01	Note:	Not Reported
Level reading date:	1977-10-05	Feet below surface:	Not Reported
Feet to sea level:	12.39	Note:	Not Reported
Level reading date:	1977-06-28	Feet below surface:	Not Reported
Feet to sea level:	12.69	Note:	Not Reported
Level reading date:	1977-04-04	Feet below surface:	Not Reported
Feet to sea level:	12.29	Note:	Not Reported
Level reading date:	1977-01-26	Feet below surface:	Not Reported
Feet to sea level:	12.22	Note:	Not Reported
Level reading date:	1976-09-24	Feet below surface:	Not Reported
Feet to sea level:	12.40	Note:	Not Reported
Level reading date:	1976-07-01	Feet below surface:	Not Reported
Feet to sea level:	12.85	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1984-09-25	Feet below surface:	Not Reported
Feet to sea level:	14.19	Note:	Not Reported
Level reading date:	1984-06-21	Feet below surface:	Not Reported
Feet to sea level:	15.00	Note:	Not Reported
Level reading date:	1984-03-27	Feet below surface:	Not Reported
Feet to sea level:	13.71	Note:	Not Reported
Level reading date:	1984-01-06	Feet below surface:	Not Reported
Feet to sea level:	12.56	Note:	Not Reported
Level reading date:	1983-09-26	Feet below surface:	Not Reported
Feet to sea level:	12.83	Note:	Not Reported
Level reading date:	1983-09-15	Feet below surface:	Not Reported
Feet to sea level:	12.90	Note:	Not Reported
Level reading date:	1983-06-30	Feet below surface:	Not Reported
Feet to sea level:	13.69	Note:	Not Reported
Level reading date:	1983-06-20	Feet below surface:	Not Reported
Feet to sea level:	13.71	Note:	Not Reported
Level reading date:	1983-05-11	Feet below surface:	Not Reported
Feet to sea level:	13.38	Note:	Not Reported
Level reading date:	1983-03-28	Feet below surface:	Not Reported
Feet to sea level:	11.41	Note:	Not Reported
Level reading date:	1983-01-19	Feet below surface:	Not Reported
Feet to sea level:	11.10	Note:	Not Reported
Level reading date:	1982-12-09	Feet below surface:	Not Reported
Feet to sea level:	11.31	Note:	Not Reported
Level reading date:	1982-10-07	Feet below surface:	Not Reported
Feet to sea level:	11.78	Note:	Not Reported
Level reading date:	1982-09-21	Feet below surface:	Not Reported
Feet to sea level:	11.99	Note:	Not Reported
Level reading date:	1982-09-09	Feet below surface:	Not Reported
Feet to sea level:	12.09	Note:	Not Reported
Level reading date:	1982-06-16	Feet below surface:	Not Reported
Feet to sea level:	11.53	Note:	Not Reported
Level reading date:	1982-03-24	Feet below surface:	Not Reported
Feet to sea level:	10.29	Note:	Not Reported
Level reading date:	1981-12-18	Feet below surface:	Not Reported
Feet to sea level:	9.51	Note:	Not Reported
Level reading date:	1981-09-17	Feet below surface:	Not Reported
Feet to sea level:	9.79	Note:	Not Reported
Level reading date:	1981-06-24	Feet below surface:	Not Reported
Feet to sea level:	11.05	Note:	Not Reported
Level reading date:	1981-03-18	Feet below surface:	Not Reported
Feet to sea level:	10.97	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet to sea level:	12.76	Note:	Not Reported
Level reading date:	2002-03-18	Feet below surface:	Not Reported
Feet to sea level:	11.32	Note:	Not Reported
Level reading date:	2001-03-23	Feet below surface:	Not Reported
Feet to sea level:	11.72	Note:	Not Reported
Level reading date:	2000-03-20	Feet below surface:	Not Reported
Feet to sea level:	11.84	Note:	Not Reported
Level reading date:	1999-03-31	Feet below surface:	Not Reported
Feet to sea level:	13.40	Note:	Not Reported
Level reading date:	1998-03-16	Feet below surface:	Not Reported
Feet to sea level:	12.74	Note:	Not Reported
Level reading date:	1997-03-12	Feet below surface:	Not Reported
Feet to sea level:	13.02	Note:	Not Reported
Level reading date:	1996-03-18	Feet below surface:	Not Reported
Feet to sea level:	11.75	Note:	Not Reported
Level reading date:	1995-03-22	Feet below surface:	Not Reported
Feet to sea level:	11.37	Note:	Not Reported
Level reading date:	1994-03-31	Feet below surface:	Not Reported
Feet to sea level:	13.34	Note:	Not Reported
Level reading date:	1993-03-22	Feet below surface:	Not Reported
Feet to sea level:	12.74	Note:	Not Reported
Level reading date:	1992-03-16	Feet below surface:	Not Reported
Feet to sea level:	11.35	Note:	Not Reported
Level reading date:	1991-03-20	Feet below surface:	Not Reported
Feet to sea level:	13.41	Note:	Not Reported
Level reading date:	1990-03-28	Feet below surface:	Not Reported
Feet to sea level:	13.95	Note:	Not Reported
Level reading date:	1989-02-08	Feet below surface:	Not Reported
Feet to sea level:	11.22	Note:	Not Reported
Level reading date:	1988-03-25	Feet below surface:	Not Reported
Feet to sea level:	11.16	Note:	Not Reported
Level reading date:	1987-03-19	Feet below surface:	Not Reported
Feet to sea level:	11.64	Note:	Not Reported
Level reading date:	1985-09-17	Feet below surface:	Not Reported
Feet to sea level:	10.54	Note:	Not Reported
Level reading date:	1985-07-03	Feet below surface:	Not Reported
Feet to sea level:	11.13	Note:	Not Reported
Level reading date:	1985-03-27	Feet below surface:	Not Reported
Feet to sea level:	12.30	Note:	Not Reported
Level reading date:	1985-01-01	Feet below surface:	Not Reported
Feet to sea level:	13.17	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A9
NNE
1/2 - 1 Mile
Lower

FED USGS USGS40000834684

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 53593. 1	Type:	Well
Description:	SCWA SPINNEY RD #2 EAST QUOGUE	HUC:	02030202
HUC:	02030202	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Northern Atlantic Coastal Plain aquifer system
Aquifer:	Northern Atlantic Coastal Plain aquifer system	Formation Type:	Glacial Aquifer, Upper
Formation Type:	Glacial Aquifer, Upper	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	161
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

10
SE
1/2 - 1 Mile
Lower

FED USGS USGS40000834317

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 36531. 1	Type:	Well
Description:	Not Reported	HUC:	02030202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Northern Atlantic Coastal Plain aquifer system	Formation Type:	Glacial Aquifer, Upper
Formation Type:	Glacial Aquifer, Upper	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	61
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

11
NNE
1/2 - 1 Mile
Higher

FED USGS USGS40000834754

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 46537. 1	Type:	Well
Description:	LAT/LONG UPDATES FROM SIM 3066	HUC:	02030202
HUC:	02030202	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Northern Atlantic Coastal Plain aquifer system
Aquifer:	Northern Atlantic Coastal Plain aquifer system	Formation Type:	Glacial Aquifer, Upper
Formation Type:	Glacial Aquifer, Upper	Aquifer Type:	Not Reported
Construction Date:	1972	Well Depth:	50
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels, Number of Measurements:	79	Level reading date:	2004-03-15
Feet below surface:	Not Reported	Feet to sea level:	14.00
Note:	Not Reported		
Level reading date:	2003-03-25	Feet below surface:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1975-03-24	Feet below surface:	Not Reported
Feet to sea level:	12.13	Note:	Not Reported
Level reading date:	1974-12-27	Feet below surface:	Not Reported
Feet to sea level:	11.70	Note:	Not Reported
Level reading date:	1974-09-17	Feet below surface:	Not Reported
Feet to sea level:	12.18	Note:	Not Reported
Level reading date:	1974-03-29	Feet below surface:	Not Reported
Feet to sea level:	12.44	Note:	Not Reported
Level reading date:	1973-07-11	Feet below surface:	Not Reported
Feet to sea level:	14.24	Note:	Not Reported
Level reading date:	1973-04-04	Feet below surface:	Not Reported
Feet to sea level:	13.69	Note:	Not Reported
Level reading date:	1973-01-22	Feet below surface:	Not Reported
Feet to sea level:	13.04	Note:	Not Reported
Level reading date:	1972-07-11	Feet below surface:	Not Reported
Feet to sea level:	13.02	Note:	Not Reported
Level reading date:	1972-03-27	Feet below surface:	Not Reported
Feet to sea level:	12.35	Note:	Not Reported
Level reading date:	1971-12-02	Feet below surface:	Not Reported
Feet to sea level:	12.36	Note:	Not Reported
Level reading date:	1971-09-02	Feet below surface:	Not Reported
Feet to sea level:	11.67	Note:	Not Reported
Level reading date:	1970-03-12	Feet below surface:	Not Reported
Feet to sea level:	11.53	Note:	Not Reported

A8
NNE
1/2 - 1 Mile
Lower

FED USGS USGS40000834683

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 23184. 1	Type:	Well
Description:	SCWA SPINNEY RD #1	EAST QUOGUE	
HUC:	02030202	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported		
Aquifer:	Northern Atlantic Coastal Plain aquifer system		
Formation Type:	Glacial Aquifer, Upper	Aquifer Type:	Not Reported
Construction Date:	19640925	Well Depth:	118
Well Depth Units:	ft	Well Hole Depth:	120
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1980-12-03	Feet below surface:	Not Reported
Feet to sea level:	2.72	Note:	Not Reported
Level reading date:	1980-10-15	Feet below surface:	Not Reported
Feet to sea level:	3.05	Note:	Not Reported
Level reading date:	1980-10-08	Feet below surface:	Not Reported
Feet to sea level:	2.95	Note:	Not Reported
Level reading date:	1980-07-02	Feet below surface:	Not Reported
Feet to sea level:	13.20	Note:	Not Reported
Level reading date:	1980-03-31	Feet below surface:	Not Reported
Feet to sea level:	12.43	Note:	Not Reported
Level reading date:	1980-01-09	Feet below surface:	Not Reported
Feet to sea level:	12.99	Note:	Not Reported
Level reading date:	1979-09-27	Feet below surface:	Not Reported
Feet to sea level:	13.35	Note:	Not Reported
Level reading date:	1979-07-08	Feet below surface:	Not Reported
Feet to sea level:	14.36	Note:	Not Reported
Level reading date:	1978-07-03	Feet below surface:	Not Reported
Feet to sea level:	13.87	Note:	Not Reported
Level reading date:	1978-03-30	Feet below surface:	Not Reported
Feet to sea level:	14.60	Note:	Not Reported
Level reading date:	1978-01-05	Feet below surface:	Not Reported
Feet to sea level:	12.55	Note:	Not Reported
Level reading date:	1977-10-05	Feet below surface:	Not Reported
Feet to sea level:	12.15	Note:	Not Reported
Level reading date:	1977-06-29	Feet below surface:	Not Reported
Feet to sea level:	12.48	Note:	Not Reported
Level reading date:	1977-04-05	Feet below surface:	Not Reported
Feet to sea level:	12.36	Note:	Not Reported
Level reading date:	1977-01-26	Feet below surface:	Not Reported
Feet to sea level:	12.08	Note:	Not Reported
Level reading date:	1976-09-24	Feet below surface:	Not Reported
Feet to sea level:	12.26	Note:	Not Reported
Level reading date:	1976-07-01	Feet below surface:	Not Reported
Feet to sea level:	12.61	Note:	Not Reported
Level reading date:	1976-04-14	Feet below surface:	Not Reported
Feet to sea level:	12.90	Note:	Not Reported
Level reading date:	1976-01-08	Feet below surface:	Not Reported
Feet to sea level:	12.55	Note:	Not Reported
Level reading date:	1975-11-03	Feet below surface:	Not Reported
Feet to sea level:	12.55	Note:	Not Reported
Level reading date:	1975-07-02	Feet below surface:	Not Reported
Feet to sea level:	12.90	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1985-01-01	Feet below surface:	Not Reported
Feet to sea level:	13.14	Note:	Not Reported
Level reading date:	1984-09-25	Feet below surface:	Not Reported
Feet to sea level:	14.02	Note:	Not Reported
Level reading date:	1984-06-21	Feet below surface:	Not Reported
Feet to sea level:	14.43	Note:	Not Reported
Level reading date:	1984-04-14	Feet below surface:	Not Reported
Feet to sea level:	13.61	Note:	Not Reported
Level reading date:	1984-01-29	Feet below surface:	Not Reported
Feet to sea level:	12.63	Note:	Not Reported
Level reading date:	1983-09-15	Feet below surface:	Not Reported
Feet to sea level:	12.77	Note:	Not Reported
Level reading date:	1983-06-30	Feet below surface:	Not Reported
Feet to sea level:	13.31	Note:	Not Reported
Level reading date:	1983-06-20	Feet below surface:	Not Reported
Feet to sea level:	14.38	Note:	Not Reported
Level reading date:	1983-05-11	Feet below surface:	Not Reported
Feet to sea level:	12.80	Note:	Not Reported
Level reading date:	1983-03-28	Feet below surface:	Not Reported
Feet to sea level:	11.65	Note:	Not Reported
Level reading date:	1983-01-19	Feet below surface:	Not Reported
Feet to sea level:	11.22	Note:	Not Reported
Level reading date:	1982-12-09	Feet below surface:	Not Reported
Feet to sea level:	11.55	Note:	Not Reported
Level reading date:	1982-10-07	Feet below surface:	Not Reported
Feet to sea level:	12.02	Note:	Not Reported
Level reading date:	1982-09-21	Feet below surface:	Not Reported
Feet to sea level:	12.12	Note:	Not Reported
Level reading date:	1982-09-09	Feet below surface:	Not Reported
Feet to sea level:	12.21	Note:	Not Reported
Level reading date:	1982-06-16	Feet below surface:	Not Reported
Feet to sea level:	11.70	Note:	Not Reported
Level reading date:	1982-03-26	Feet below surface:	Not Reported
Feet to sea level:	10.35	Note:	Not Reported
Level reading date:	1981-12-18	Feet below surface:	Not Reported
Feet to sea level:	10.06	Note:	Not Reported
Level reading date:	1981-09-17	Feet below surface:	Not Reported
Feet to sea level:	10.35	Note:	Not Reported
Level reading date:	1981-06-24	Feet below surface:	Not Reported
Feet to sea level:	1.80	Note:	Not Reported
Level reading date:	1981-03-18	Feet below surface:	Not Reported
Feet to sea level:	3.25	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1998-03-16	Feet below surface:	Not Reported
Feet to sea level:	12.09	Note:	Not Reported
Level reading date:	1997-03-12	Feet below surface:	Not Reported
Feet to sea level:	13.16	Note:	Not Reported
Level reading date:	1996-03-18	Feet below surface:	Not Reported
Feet to sea level:	11.65	Note:	Not Reported
Level reading date:	1995-03-22	Feet below surface:	Not Reported
Feet to sea level:	11.25	Note:	Not Reported
Level reading date:	1994-03-31	Feet below surface:	Not Reported
Feet to sea level:	12.36	Note:	Not Reported
Level reading date:	1993-03-22	Feet below surface:	Not Reported
Feet to sea level:	12.05	Note:	Not Reported
Level reading date:	1992-04-07	Feet below surface:	Not Reported
Feet to sea level:	11.35	Note:	Not Reported
Level reading date:	1991-03-20	Feet below surface:	Not Reported
Feet to sea level:	12.71	Note:	Not Reported
Level reading date:	1990-03-29	Feet below surface:	Not Reported
Feet to sea level:	13.69	Note:	Not Reported
Level reading date:	1989-02-08	Feet below surface:	Not Reported
Feet to sea level:	11.05	Note:	Not Reported
Level reading date:	1988-03-25	Feet below surface:	Not Reported
Feet to sea level:	11.41	Note:	Not Reported
Level reading date:	1987-03-03	Feet below surface:	Not Reported
Feet to sea level:	11.05	Note:	Not Reported
Level reading date:	1986-12-29	Feet below surface:	Not Reported
Feet to sea level:	10.36	Note:	Not Reported
Level reading date:	1986-09-23	Feet below surface:	Not Reported
Feet to sea level:	10.19	Note:	Not Reported
Level reading date:	1986-06-03	Feet below surface:	Not Reported
Feet to sea level:	10.37	Note:	Not Reported
Level reading date:	1986-03-13	Feet below surface:	Not Reported
Feet to sea level:	10.51	Note:	Not Reported
Level reading date:	1985-12-06	Feet below surface:	Not Reported
Feet to sea level:	10.84	Note:	Not Reported
Level reading date:	1985-09-17	Feet below surface:	Not Reported
Feet to sea level:	10.99	Note:	Not Reported
Level reading date:	1985-07-03	Feet below surface:	Not Reported
Feet to sea level:	12.22	Note:	Not Reported
Level reading date:	1985-07-03	Feet below surface:	Not Reported
Feet to sea level:	12.22	Note:	Not Reported
Level reading date:	1985-03-27	Feet below surface:	Not Reported
Feet to sea level:	12.27	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A5
NNE
 1/2 - 1 Mile
 Lower

NY WELLS NYWS005869

Well ID:	NY5110526	Well Name:	SPINNEY ROAD WELL # 1 S-23184
System ID:	341	System Name:	SUFFOLK COUNTY WATER AUTHORITY
Type:	WL	Status:	A
Agency:	MURRAY, ROBERT L.		

A6
NNE
 1/2 - 1 Mile
 Lower

NY WELLS NYWS005870

Well ID:	NY5110526	Well Name:	SPINNEY ROAD WELL # 2 S-53593
System ID:	342	System Name:	SUFFOLK COUNTY WATER AUTHORITY
Type:	WL	Status:	A
Agency:	MURRAY, ROBERT L.		

A7
NNE
 1/2 - 1 Mile
 Lower

FED USGS USGS40000834685

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	S 30230. 1	Type:	Well
Description:	Not Reported	HUC:	02030202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Northern Atlantic Coastal Plain aquifer system		
Formation Type:	Magothy Aquifer	Aquifer Type:	Not Reported
Construction Date:	19700312	Well Depth:	825
Well Depth Units:	ft	Well Hole Depth:	1629
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	81	Level reading date:	2004-03-16
Feet below surface:	Not Reported	Feet to sea level:	13.01
Note:	Not Reported		

Level reading date:	2003-03-25	Feet below surface:	Not Reported
Feet to sea level:	11.94	Note:	Not Reported

Level reading date:	2002-03-18	Feet below surface:	Not Reported
Feet to sea level:	10.88	Note:	Not Reported

Level reading date:	2001-03-23	Feet below surface:	Not Reported
Feet to sea level:	11.38	Note:	Not Reported

Level reading date:	2000-03-31	Feet below surface:	Not Reported
Feet to sea level:	11.46	Note:	Not Reported

Level reading date:	1999-03-31	Feet below surface:	Not Reported
Feet to sea level:	12.71	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1975-07-02	Feet below surface:	Not Reported
Feet to sea level:	10.26	Note:	Not Reported
Level reading date:	1975-03-24	Feet below surface:	Not Reported
Feet to sea level:	9.52	Note:	Not Reported
Level reading date:	1974-12-27	Feet below surface:	Not Reported
Feet to sea level:	8.78	Note:	Not Reported
Level reading date:	1974-09-17	Feet below surface:	Not Reported
Feet to sea level:	8.23	Note:	Not Reported
Level reading date:	1974-07-03	Feet below surface:	Not Reported
Feet to sea level:	9.13	Note:	Not Reported
Level reading date:	1974-03-28	Feet below surface:	Not Reported
Feet to sea level:	9.07	Note:	Not Reported
Level reading date:	1973-12-01	Feet below surface:	Not Reported
Feet to sea level:	8.38	Note:	Not Reported
Level reading date:	1973-11-27	Feet below surface:	Not Reported
Feet to sea level:	9.55	Note:	Not Reported
Level reading date:	1973-10-04	Feet below surface:	Not Reported
Feet to sea level:	9.18	Note:	Not Reported
Level reading date:	1973-07-11	Feet below surface:	Not Reported
Feet to sea level:	10.39	Note:	Not Reported
Level reading date:	1973-04-04	Feet below surface:	Not Reported
Feet to sea level:	10.18	Note:	Not Reported
Level reading date:	1973-01-09	Feet below surface:	Not Reported
Feet to sea level:	9.97	Note:	Not Reported
Level reading date:	1972-11-29	Feet below surface:	Not Reported
Feet to sea level:	8.49	Note:	Not Reported

A3
NNE
 1/2 - 1 Mile
 Lower

NY WELLS NYWS005871

Well ID: NY5110526
 System ID: 342
 Type: WL
 Agency: RANDAZZO, KAREN

Well Name: SPINNEY ROAD WELL # 2 S-53593
 System Name: SUFFOLK COUNTY WATER AUTHORITY
 Status: A

A4
NNE
 1/2 - 1 Mile
 Lower

NY WELLS NYWS005872

Well ID: NY5110526
 System ID: 341
 Type: WL
 Agency: RANDAZZO, KAREN

Well Name: SPINNEY ROAD WELL # 1 S-23184
 System Name: SUFFOLK COUNTY WATER AUTHORITY
 Status: A

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1980-06-19	Feet below surface:	Not Reported
Feet to sea level:	9.56	Note:	Not Reported
Level reading date:	1980-03-28	Feet below surface:	Not Reported
Feet to sea level:	8.61	Note:	Not Reported
Level reading date:	1980-01-09	Feet below surface:	Not Reported
Feet to sea level:	8.63	Note:	Not Reported
Level reading date:	1979-09-27	Feet below surface:	Not Reported
Feet to sea level:	9.13	Note:	Not Reported
Level reading date:	1979-06-29	Feet below surface:	Not Reported
Feet to sea level:	10.85	Note:	Not Reported
Level reading date:	1979-04-02	Feet below surface:	Not Reported
Feet to sea level:	11.64	Note:	Not Reported
Level reading date:	1979-02-02	Feet below surface:	Not Reported
Feet to sea level:	11.50	Note:	Not Reported
Level reading date:	1978-12-21	Feet below surface:	Not Reported
Feet to sea level:	8.55	Note:	Not Reported
Level reading date:	1978-10-05	Feet below surface:	Not Reported
Feet to sea level:	8.92	Note:	Not Reported
Level reading date:	1978-06-30	Feet below surface:	Not Reported
Feet to sea level:	10.26	Note:	Not Reported
Level reading date:	1978-03-30	Feet below surface:	Not Reported
Feet to sea level:	10.74	Note:	Not Reported
Level reading date:	1978-01-05	Feet below surface:	Not Reported
Feet to sea level:	9.95	Note:	Not Reported
Level reading date:	1977-10-05	Feet below surface:	Not Reported
Feet to sea level:	8.40	Note:	Not Reported
Level reading date:	1977-06-29	Feet below surface:	Not Reported
Feet to sea level:	9.03	Note:	Not Reported
Level reading date:	1977-04-05	Feet below surface:	Not Reported
Feet to sea level:	9.17	Note:	Not Reported
Level reading date:	1977-01-26	Feet below surface:	Not Reported
Feet to sea level:	8.32	Note:	Not Reported
Level reading date:	1976-09-24	Feet below surface:	Not Reported
Feet to sea level:	8.42	Note:	Not Reported
Level reading date:	1976-07-01	Feet below surface:	Not Reported
Feet to sea level:	8.93	Note:	Not Reported
Level reading date:	1976-03-18	Feet below surface:	Not Reported
Feet to sea level:	9.71	Note:	Not Reported
Level reading date:	1976-01-08	Feet below surface:	Not Reported
Feet to sea level:	8.98	Note:	Not Reported
Level reading date:	1975-10-14	Feet below surface:	Not Reported
Feet to sea level:	8.53	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1984-03-27	Feet below surface:	Not Reported
Feet to sea level:	10.97	Note:	Not Reported
Level reading date:	1984-01-29	Feet below surface:	Not Reported
Feet to sea level:	9.38	Note:	Not Reported
Level reading date:	1983-09-26	Feet below surface:	Not Reported
Feet to sea level:	8.70	Note:	Not Reported
Level reading date:	1983-09-14	Feet below surface:	Not Reported
Feet to sea level:	8.89	Note:	Not Reported
Level reading date:	1983-06-29	Feet below surface:	Not Reported
Feet to sea level:	10.50	Note:	Not Reported
Level reading date:	1983-06-20	Feet below surface:	Not Reported
Feet to sea level:	10.65	Note:	Not Reported
Level reading date:	1983-03-28	Feet below surface:	Not Reported
Feet to sea level:	9.11	Note:	Not Reported
Level reading date:	1983-01-19	Feet below surface:	Not Reported
Feet to sea level:	7.74	Note:	Not Reported
Level reading date:	1982-12-09	Feet below surface:	Not Reported
Feet to sea level:	7.65	Note:	Not Reported
Level reading date:	1982-10-07	Feet below surface:	Not Reported
Feet to sea level:	8.22	Note:	Not Reported
Level reading date:	1982-09-21	Feet below surface:	Not Reported
Feet to sea level:	8.45	Note:	Not Reported
Level reading date:	1982-09-09	Feet below surface:	Not Reported
Feet to sea level:	8.69	Note:	Not Reported
Level reading date:	1982-06-16	Feet below surface:	Not Reported
Feet to sea level:	10.34	Note:	Not Reported
Level reading date:	1982-05-10	Feet below surface:	Not Reported
Feet to sea level:	11.66	Note:	Not Reported
Level reading date:	1982-03-24	Feet below surface:	Not Reported
Feet to sea level:	8.06	Note:	Not Reported
Level reading date:	1981-12-18	Feet below surface:	Not Reported
Feet to sea level:	6.96	Note:	Not Reported
Level reading date:	1981-09-17	Feet below surface:	Not Reported
Feet to sea level:	7.28	Note:	Not Reported
Level reading date:	1981-06-24	Feet below surface:	Not Reported
Feet to sea level:	7.82	Note:	Not Reported
Level reading date:	1981-03-18	Feet below surface:	Not Reported
Feet to sea level:	8.02	Note:	Not Reported
Level reading date:	1980-12-30	Feet below surface:	Not Reported
Feet to sea level:	7.46	Note:	Not Reported
Level reading date:	1980-09-23	Feet below surface:	Not Reported
Feet to sea level:	8.24	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet to sea level:	9.46	Note:	Not Reported
Level reading date:	1995-03-22	Feet below surface:	Not Reported
Feet to sea level:	8.22	Note:	Not Reported
Level reading date:	1994-03-31	Feet below surface:	Not Reported
Feet to sea level:	10.27	Note:	Not Reported
Level reading date:	1993-03-22	Feet below surface:	Not Reported
Feet to sea level:	9.47	Note:	Not Reported
Level reading date:	1992-03-16	Feet below surface:	Not Reported
Feet to sea level:	8.27	Note:	Not Reported
Level reading date:	1991-03-20	Feet below surface:	Not Reported
Feet to sea level:	9.30	Note:	Not Reported
Level reading date:	1990-03-28	Feet below surface:	Not Reported
Feet to sea level:	9.91	Note:	Not Reported
Level reading date:	1989-01-13	Feet below surface:	Not Reported
Feet to sea level:	8.40	Note:	Not Reported
Level reading date:	1988-05-04	Feet below surface:	Not Reported
Feet to sea level:	9.22	Note:	Not Reported
Level reading date:	1987-03-03	Feet below surface:	Not Reported
Feet to sea level:	9.09	Note:	Not Reported
Level reading date:	1986-12-29	Feet below surface:	Not Reported
Feet to sea level:	7.70	Note:	Not Reported
Level reading date:	1986-09-25	Feet below surface:	Not Reported
Feet to sea level:	7.13	Note:	Not Reported
Level reading date:	1986-06-03	Feet below surface:	Not Reported
Feet to sea level:	7.76	Note:	Not Reported
Level reading date:	1986-03-13	Feet below surface:	Not Reported
Feet to sea level:	7.71	Note:	Not Reported
Level reading date:	1985-12-06	Feet below surface:	Not Reported
Feet to sea level:	7.45	Note:	Not Reported
Level reading date:	1985-09-17	Feet below surface:	Not Reported
Feet to sea level:	7.66	Note:	Not Reported
Level reading date:	1985-07-03	Feet below surface:	Not Reported
Feet to sea level:	8.20	Note:	Not Reported
Level reading date:	1985-03-27	Feet below surface:	Not Reported
Feet to sea level:	8.11	Note:	Not Reported
Level reading date:	1985-01-01	Feet below surface:	Not Reported
Feet to sea level:	8.50	Note:	Not Reported
Level reading date:	1984-09-25	Feet below surface:	Not Reported
Feet to sea level:	9.47	Note:	Not Reported
Level reading date:	1984-06-21	Feet below surface:	Not Reported
Feet to sea level:	11.55	Note:	Not Reported

1.0 INTRODUCTION AND BACKGROUND

1.1 Project Background

The Town of Southampton (the Town) retained Dvirka and Bartilucci Consulting Engineers (D&B) to conduct a Phase II Environmental Site Assessment (ESA) of the property located at the end of Damascus Road in East Quogue, New York. The site location is shown on Figure 1-1. This work was conducted as a result of the Town's interest in possible redevelopment of the site for athletic fields and associated facilities.

Based upon D&B's review of available maps and information provided by the Town, the Damascus Road Site (the Site) involves three adjacent areas of Town-owned properties that have a total area of approximately 12 acres. Reported prior use of portions of the Site have included open burning, filling of solid waste (including cars), fire training, use as an animal shelter, on-site septic system leaching, and most recently, vacant land since the animal shelter was removed in 2004.

1.2 Summary of 1999 Phase I ESA

A Phase I ESA of the Site completed in May 1999, contained the following recommendations:

- Conduct a subsurface investigation to determine whether releases of fuel had occurred from the 1,000-gallon underground storage fuel oil tank (UST) reportedly located on the east side of the animal shelter building;
- Collect and analyze soil samples (for petroleum, chemical and heavy metals) in the northwest area of the Site that was previously used for septage/sewage leaching;
- Collect and analyze soil samples in the southern and western portions of the Site to determine if petroleum, chemicals or heavy metals are present; and
- Investigate the central portion of the Site for evidence of buried drums.

No previous environmental sampling at the property had been identified.

TABLE OF CONTENTS (continued)

List of Tables

3-1	Soil Sample Results (Volatile Organic Compounds).....	3-2
3-2	Soil Sample Results (Semi-Volatile Organic Compounds)	3-5
3-3	Soil Sample Results (Pesticides).....	3-7
3-4	Soil Sample Results (PCBs).....	3-9
3-5	Soil Sample Results (Metals).....	3-10

**SUPPLEMENTAL
PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**

**DAMASCUS ROAD SITE
EAST QUOGUE, NEW YORK**

Prepared for:

TOWN OF SOUTHAMPTON

Prepared by:

**DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK**

DECEMBER 2009



**Dvirka
and
Bartilucci**

CONSULTING ENGINEERS

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December 30, 2009

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Allyn Jackson, Commissioner
Department of Parks and Recreation
Town of Southampton
6 Newtown Road
Hampton Bays, NY 11946

Re: Damascus Road, E. Quogue Town Property
Supplemental Phase II Environmental Site Assessment
D&B No. 2723

Dear Mr. Jackson:

Attached is the Supplemental Phase II Environmental Site Assessment for the Damascus Road Property. Copies have also been sent to Jon Erwin and Chris McKenzie. Please note that Appendix A provides a Compact Disc (CD) in a paper "pocket."

Subsequent to your review and approval, we will submit a copy to Alex Moskic (NYSDEC).

Please don't hesitate to contact me if you have any questions.

Very truly yours,

Steven M. Cabrera
Senior Associate

SMCt/kap

Enclosures

cc: J. Erwin (Town of Southampton)
C. McKenzie (Beveridge & Diamond)
T. Fox (D&B)
M. Walsh (D&B)

• 2723\SMC09Ltr.doc-03

APPENDIX C

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on the sample results and observations made during the Phase II Environmental Site Assessment field program conducted in October 2006, the following conclusions have been made:

- The geophysical survey results suggest that the underground fuel oil tank near the former on-site building is no longer present.
- VOCs, SVOCs, pesticides and PCBs were not detected at concentrations exceeding NYSDEC unrestricted use criteria in any of the six surface soil samples collected during this investigation.
- Zinc was detected at a concentration slightly exceeding its unrestricted use criterion in surface soil sample FAS-1. The detected zinc concentration was well below the NYSDEC criterion for residential site use.
- None of the subsurface soil samples contained VOCs, SVOC, pesticides, PCBs, metals or cyanide at concentrations exceeding NYSDEC unrestricted use criteria.
- Significant amounts of metallic debris, waste tires and junk vehicles were present in berms along the western and southern property boundaries, and in the southwestern area of the site.

4.2 Recommendations

Based on the conclusions presented in Section 4.1 above, the following recommendations are made for the Former Animal Shelter site:

- If the site is considered for development associated with active recreational uses, it is recommended that the metallic debris, waste tires and junked vehicles be removed from the site. This could be conducted as part of the site redevelopment activities.
- Since the only concentration of any parameter detected in the soil samples that exceeded the State's unrestricted use criteria (zinc in surface soil samples FAS-1) did not exceed the residential use criterion, this detection will not impact the planned future site use for active recreation. As a result, soil remediation is not recommended.

The data packages submitted by Mitkem have been reviewed to determine if the sample analyses were performed in accordance with the specified methods and Quality Assurance/Quality Control (QA/QC) requirements. The findings of the review process are summarized below.

All samples were analyzed within the method specified holding times and all QA/QC requirements (i.e., tunes, calibrations, surrogate recoveries, blanks, etc.) were met.

The volatile fraction of sample FAS-1 had two internal standard area counts outside QC limits. However, since all surrogate recoveries were within QC limits, no qualification of the data was required.

Bis(2-ethylhexyl)phthalate was detected in both method blanks associated with the surface and subsurface soil samples. The bis(2-ethylhexyl)phthalate results for the samples have been qualified as non-detect and are flagged "U*" on the data summary tables.

No other problems were found with the data and all results are deemed usable for environmental assessment purposes as qualified above.

**Table 3-2
SUBSURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	SB-1	SB-2	SB-3	SB-4	Instrument Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	2-4	2-4	2-4	9-11			
SAMPLE TYPE	Subsurface	Subsurface	Subsurface	Subsurface			
PERCENT SOLIDS	96	95	91	89			
DILUTION FACTOR	1	1	1	1			
DATE OF COLLECTION	10/13/2006	10/13/2006	10/13/2006	10/13/2006			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Metals							
Aluminum	805	867	6,040	1,280	9	--	--
Antimony	0.10 B	0.15 B	0.11 B	0.12 B	3	--	--
Arsenic	0.98	0.67	1.8	0.69	3	13	16
Barium	2.1 B	2.1 B	10.4	3.1 B	10	350	350
Beryllium	0.049 B	0.043 B	0.20	0.056 B	0.3	7.2	14
Cadmium	U	U	U	U	0.3	2.5	2.5
Calcium	8.9 B	50.5	U	98.3	337	--	--
Chromium	7.6	2.2	7	8.2	7	30	36
Cobalt	0.72	0.72 B	1.6	0.70 B	3	--	--
Copper	1.9	1.1	1.6	2.2	2	50	270
Iron	1,700	1,180	5,870	2,170	2	--	--
Lead	0.84	0.74	2.9	4.9	2	63	400
Magnesium	127	108	618	172	3	--	--
Manganese	8.8	12.3	27.0	20.1	4	1,600	2,000
Mercury	U	U	0.016 B	U	0.1	0.18	0.81
Nickel	0.80 B	0.86 B	3.0	1.4 B	3	30	140
Potassium	42.6	37.7	163	83.7	320	--	--
Selenium	0.40 B	0.31 B	1.1	0.38 B	5	3.9	36
Silver	U	U	U	U	8	2	36
Sodium	6.4 B	11.3 B	11.1 B	13.4 B	155	--	--
Thallium	0.065 B	U	0.13 B	U	5	--	--
Vanadium	3.4	2.3	10.9	3.9	3	--	--
Zinc	2.2	1.7	7.7	5.1	2	109	2,200
Cyanide	U	U	0.49 B	U	2	27	27

QUALIFIERS:

U: Constituent analyzed for but not detected

B: Concentration is between instrument detection limit and contract required detection limit

**Table 3-2
SUBSURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	SR-1	SB-2	SB-3	SB-4	Contract Required Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	2-4	2-4	2-4	9-11			
SAMPLE TYPE	Subsurface	Subsurface	Subsurface	Subsurface			
PERCENT SOLIDS	96	95	91	89			
DILUTION FACTOR	1	1	1	1			
DATE OF COLLECTION	10/13/2006	10/13/2006	10/13/2006	10/13/2006			
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Pesticides							
alpha-BHC	U	U	U	U	1.7	20	97
beta-BHC	U	U	U	U	1.7	36	72
delta-BHC	U	U	U	U	1.7	40	100
gamma-BHC	U	U	U	U	1.7	--	280
Heptachlor	U	U	U	U	1.7	42	420
Aldrin	U	U	U	U	1.7	5	19
Heptachlor epoxide	U	U	U	U	1.7	--	--
Endosulfan I	U	U	U	U	1.7	2,400	420
Dieldrin	U	U	U	U	3.3	5	4,800
4,4'-DDE	U	U	U	U	3.3	3.3	1,800
Endrin	U	U	U	U	3.3	14	2,200
Endosulfan II	U	U	U	U	3.3	2,400	4,800
4,4'-DDD	U	U	U	U	3.3	3.3	2,600
Endosulfan sulfate	U	U	U	U	3.3	2,400	4,800
4,4'-DDT	U	U	U	U	3.3	3.3	1,700
Methoxychlor	U	U	U	U	17	--	--
Endrin ketone	U	U	U	U	3.3	--	--
Endrin aldehyde	U	U	U	U	3.3	--	--
alpha-Chlordane	U	U	U	U	1.7	94	910
gamma-Chlordane	U	U	U	U	1.7	94	910
Toxaphene	U	U	U	U	170	--	--
PCBs							
Aroclor-1016	U	U	U	U	33	100	1,000
Aroclor-1221	U	U	U	U	67	100	1,000
Aroclor-1232	U	U	U	U	33	100	1,000
Aroclor-1242	U	U	U	U	33	100	1,000
Aroclor-1248	U	U	U	U	33	100	1,000
Aroclor-1254	U	U	U	U	33	100	1,000
Aroclor-1260	U	U	U	U	33	100	1,000

QUALIFIERS:
U Compound analyzed for but not detected.

**Table 3-2
SUBSURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	SB-1	SB-2	SB-3	SB-4	Contract Required Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	2-4	2-4	2-4	9-11			
SAMPLE TYPE	Subsurface	Subsurface	Subsurface	Subsurface			
PERCENT SOLIDS	98	95	91	89			
DILUTION FACTOR	1	1	1	1			
DATE OF COLLECTION	10/13/2006	10/13/2006	10/13/2006	10/13/2006			
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
<i>Semi-volatile Organics</i>							
Phenol	U	U	U	U	330	330	100,000
bis (2-Chloroethyl) ether	U	U	U	U	330	--	--
2-Chlorophenol	U	U	U	U	330	--	--
1,3-Dichlorobenzene	U	U	U	U	330	2,400	17,000
1,4-Dichlorobenzene	U	U	U	U	330	1,800	9,800
1,2-Dichlorobenzene	U	U	U	U	330	1,100	100,000
2-Methylphenol	U	U	U	U	330	330	100,000
2,2'-oxybis (1-Chloropropane)	U	U	U	U	330	--	--
4-Methylphenol	U	U	U	U	330	330	34,000
N-Nitroso-di-n-propylamine	U	U	U	U	330	--	--
Hexachloroethane	U	U	U	U	330	--	--
Nitrobenzene	U	U	U	U	330	--	--
Isophorone	U	U	U	U	330	--	--
2-Nitrophenol	U	U	U	U	330	--	--
2,4-Dimethylphenol	U	U	U	U	330	--	--
2,4-Dichlorophenol	U	U	U	U	330	--	--
1,2,4-Trichlorobenzene	U	U	U	U	330	--	--
Naphthalene	U	U	U	U	330	12,000	100,000
4-Chloroaniline	U	U	U	U	330	--	--
bis (2-Chloroethoxy)methane	U	U	U	U	330	--	--
Hexachlorobutadiene	U	U	U	U	330	--	--
1-Chloro-3-methylphenol	U	U	U	U	330	--	--
2-Methylnaphthalene	U	U	U	U	330	--	--
Hexachlorocyclopentadiene	U	U	U	U	330	--	--
2,4,6-Trichlorophenol	U	U	U	U	330	--	--
2,4,5-Trichlorophenol	U	U	U	U	825	--	--
2-Chloronaphthalene	U	U	U	U	330	--	--
2-Nitroaniline	U	U	U	U	825	--	--
Dimethylphthalate	U	U	U	U	330	--	--
Acenaphthylene	U	U	U	U	330	100,000	100,000
2,6-Dinitrotoluene	U	U	U	U	330	--	--
3-Nitroaniline	U	U	U	U	825	--	--
Acenaphthene	U	U	U	U	330	20,000	100,000
2,4-Dinitrophenol	U	U	U	U	825	--	--
4-Nitrophenol	U	U	U	U	825	--	--
Dibenzofuran	U	U	U	U	330	7,000	14,000
2,4-Dinitrotoluene	U	U	U	U	330	--	--
Diethylphthalate	U	U	U	U	330	--	--
4-Chlorophenyl-phenylether	U	U	U	U	330	--	--
Fluorene	U	U	U	U	330	30,000	100,000
4-Nitroaniline	U	U	U	U	825	--	--
4,6-Dinitro-2-methylphenol	U	U	U	U	330	--	--
N-Nitrosodiphenylamine	U	U	U	U	330	--	--
4-Bromophenyl phenylether	U	U	U	U	330	--	--
Hexachlorobenzene	U	U	U	U	330	--	--
Pentachlorophenol	U	U	U	U	825	800	2,400
Phenanthrene	U	U	U	U	330	100,000	100,000
Anthracene	U	U	U	U	330	100,000	100,000
Carbazole	U	U	U	U	330	--	--
Di-n-butylphthalate	U	38 J	47 J	42 J	330	--	--
Fluoranthene	U	U	U	U	330	100,000	100,000
Pyrene	U	U	U	U	330	100,000	100,000
Butylbenzylphthalate	U	U	U	U	330	--	--
3,3'-Dichlorobenzidine	U	U	U	U	330	--	--
Benzo(a)anthracene	U	U	U	U	330	1,000	1,000
Chrysene	U	U	U	U	330	1,000	1,000
bis (2-Ethylhexyl) phthalate	U*	U*	U*	U*	330	--	--
Di-n-octylphthalate	U	U	U	U	330	--	--
Benzo(b)fluoranthene	U	U	U	U	330	1,000	1,000
Benzo(k)fluoranthene	U	U	U	U	330	800	1,000
Benzo(a)pyrene	U	U	U	U	330	1,000	1,000
Indeno (1,2,3-cd)pyrene	U	U	U	U	330	500	500
Dibenzo(p,h)anthracene	U	U	U	U	330	330	330
Benzo (g,h,i)perylene	U	U	U	U	330	100,000	100,000
Total SVOCs	0	38	47	42		--	--
Total SVOC TICs	360	U	1,680	U		--	--

NOTES:

U: Compound analyzed for but not detected

J: Compound detected at a concentration below CRDL, value estimated

U*: Result qualified as non-detect, based on data validation criteria

**Table 3-2
SUBSURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	SB-1	SB-2	SB-3	SB-4	Contract Required Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (f. t.)	2-4	2-4	2-4	9-11			
SAMPLE TYPE	Subsurface	Subsurface	Subsurface	Subsurface			
PERCENT SOLIDS	96	95	91	89			
DILUTION FACTOR	1	1	1	1			
DATE OF COLLECTION	10/13/2006	10/13/2006	10/13/2006	10/13/2006			
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Volatile Organics							
Dichlorodifluoromethane	U	U	U	U	10	--	--
Chloromethane	U	U	U	U	10	--	--
Vinyl chloride	U	U	U	U	10	20	210
Bromomethane	U	U	U	U	10	--	--
Chloroethane	U	U	U	U	10	--	--
Tetrachloroethane	U	U	U	U	10	--	--
1,1-Dichloroethene	U	U	U	U	10	330	100,000
Acetone	U	U	U	U	10	50	100,000
Iodomethane	U	U	U	U	10	--	--
Carbon disulfide	U	U	U	U	10	--	--
Methylene chloride	U	U	U	U	10	50	51,000
trans-1,2-Dichloroethene	U	U	U	U	10	190	100,000
Methyl-tert-Butyl Ether	U	U	U	U	10	930	62,000
1,1-Dichloroethane	U	U	U	U	10	330	19,000
Vinyl Acetate	U	U	U	U	10	--	--
2-Butanone	U	U	U	U	10	120	100,000
cis-1,2-Dichloroethene	U	U	U	U	10	250	59,000
2,2-Dichloropropane	U	U	U	U	10	--	--
Bromochloromethane	U	U	U	U	10	--	--
Chloroform	U	U	U	U	10	370	10,000
1,1,1-Trichloroethane	U	U	U	U	10	680	100,000
1,1-Dichloropropane	U	U	U	U	10	--	--
Carbon tetrachloride	U	U	U	U	10	760	1,400
1,2-Dichloroethane	U	U	U	U	10	20	2,300
Benzene	U	U	U	U	10	60	2,900
Trichloroethene	U	U	U	U	10	470	10,000
1,2-Dichloropropane	U	U	U	U	10	--	--
Dibromomethane	U	U	U	U	10	--	--
Bromodichloromethane	U	U	U	U	10	--	--
cis-1,3-Dichloropropene	U	U	U	U	10	--	--
4-Methyl-2-pentanone	U	U	U	U	10	--	--
Toluene	U	U	U	U	10	700	100,000
trans-1,3-Dichloropropene	U	U	U	U	10	--	--
1,1,2-Trichloroethane	U	U	U	U	10	--	--
1,3-Dichloropropane	U	U	U	U	10	--	--
Tetrachloroethane	U	U	U	U	10	1,300	5,500
2-Hexanone	U	U	U	U	10	--	--
Dibromochloromethane	U	U	U	U	10	--	--
1,2-Dibromomethane	U	U	U	U	10	--	--
Chlorobenzene	U	U	U	U	10	1,100	100,000
1,1,1,2-Tetrachloroethane	U	U	U	U	10	--	--
Ethylbenzene	U	U	U	U	10	1,000	30,000
Xylene (total)	U	U	U	U	10	260	100,000
Styrene	U	U	U	U	10	--	--
Bromoform	U	U	U	U	10	--	--
Isopropylbenzene	U	U	U	U	10	--	--
1,1,2,2-Tetrachloroethane	U	U	U	U	10	--	--
Bromobenzene	U	U	U	U	10	--	--
1,2,3-Trichloropropane	U	U	U	U	10	--	--
n-Propylbenzene	U	U	U	U	10	3,900	100,000
2-Chlorotoluene	U	U	U	U	10	--	--
1,3,5-Trimethylbenzene	U	U	U	U	10	8,400	47,000
4-Chlorotoluene	U	U	U	U	10	--	--
tert-Butylbenzene	U	U	U	U	10	5,900	100,000
1,2,4-Trimethylbenzene	U	U	U	U	10	3,600	47,000
sec-Butylbenzene	U	U	U	U	10	11,000	100,000
4-Isopropyltoluene	U	U	U	U	10	--	--
1,3-Dichlorobenzene	U	U	U	U	10	2,400	17,000
1,4-Dichlorobenzene	U	U	U	U	10	1,800	9,800
n-Butylbenzene	U	U	U	U	10	12,000	100,000
1,2-Dichlorobenzene	U	U	U	U	10	1,100	100,000
1,2-Dibromo-3-chloropropane	U	U	U	U	10	--	--
1,2,4-Trichlorobenzene	U	U	U	U	10	--	--
Hexachlorobutadiene	U	U	U	U	10	--	--
Naphthalene	U	U	U	U	10	12,000	100,000
1,2,3-Trichlorobenzene	U	U	U	U	10	--	--
Total VOCs	U	U	U	U		--	--
Total VOC TICs	U	U	U	U		--	--

QUALIFIERS:

U Compound analyzed for but not detected

There were no detected concentrations above New York's RPSCOs for unrestricted site use in any of the surface soil samples for VOCs, SVOCs or pesticides/PCBs.

Sample FAS-1 contained zinc at a concentration of 121 milligrams per kilogram (mg/kg), slightly above the unrestricted use criterion of 109 mg/kg. The detected concentration was well below the zinc criterion for protection of public health for residential site use of 2,200 mg/kg. According to the NYSDEC regulations (6 NYCRR Part 375-1.8(g)), residential use allows a property to be used for any use other than raising livestock or producing animal products for human consumption. None of the other surface soil samples contained any metals or cyanide at concentrations that exceeded the unrestricted use criteria.

3.3.3 Subsurface Soil

Analytical results for subsurface soil for all compounds are summarized in Table 3-2. Laboratory data sheets are included in Appendix C.

None of the subsurface soil samples contained VOCs, SVOCs, pesticides, PCBs, metals or cyanide at concentrations exceeding unrestricted use criteria.

3.4 **Data Usability Summary Report**

Six surface and five subsurface soil samples were collected on October 12, 2006 and October 13, 2006 at the Former Animal Shelter site in Southampton, New York. The samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL PCBs, TAI metals and cyanide.

Sample analysis was performed by Mitkem Corporation Inc., a subcontractor to Dvirka and Bartilucci Consulting Engineers. The samples were analyzed in accordance with New York State Department of Environmental Conservation (NYSDEC) 6/00 Analytical Services Protocol (ASP) methods.

**Table 3-1
SURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	FAS-1	FAS-2	FAS-3	FAS-4	FAS-5	FAS-6	Instrument Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			
SAMPLE TYPE	Surface	Surface	Surface	Surface	Surface	Surface			
PERCENT SOLIDS	90	89	95	78	97	95			
DILUTION FACTOR	1	1	1	1	1	1			
DATE OF COLLECTION	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)						
Metals									
Aluminum	1,500	33,600	649	628	925	1,200	9	--	--
Antimony	0.42 B	U	0.099 B	0.087 B	0.20 B	0.12 B	3	--	--
Arsenic	0.70	3.3	0.39 B	0.60 B	0.66	0.56 B	3	13	16
Barium	12.8	245	1.2 B	1.4 B	4.1 B	5.6 B	10	350	350
Beryllium	0.058 B	4.5	0.028 B	0.043 B	0.047 B	0.046 B	0.3	7.2	14
Cadmium	0.22	U	U	U	0.38	U	0.2	2.6	2.6
Calcium	308	169,000	29.6	9.2 B	39.8	277	317	--	--
Chromium	2.1	11.6	1.2	2.9	2.2	1.6	2	30	36
Cobalt	0.89 B	0.39 B	0.44 B	0.52 B	0.95 B	0.47 B	3	--	--
Copper	4.6	4.6	1.0	1.6	6.0	2.0	2	50	270
Iron	2,180	2,770	963	1,650	2,490	1,470	2	--	--
Lead	18.0	5.6	1.8	3.5	15.3	6.8	2	63	400
Magnesium	190	66,400	73.4	101	152	230	3	--	--
Manganese	35.6	1,730	11.9	12.3	29.7	15	4	1,600	2,000
Mercury	0.018 B	U	U	U	0.0091 B	U	0.1	0.18	0.81
Nickel	1.3 B	0.59 B	0.50 B	0.51 B	1.1 B	0.83 B	3	30	140
Potassium	60.1	2,340	34.0	46.6	48.1	70.7	320	--	--
Selenium	0.52 B	U	0.18 B	0.23 B	0.54 B	0.36 B	5	3.9	36
Silver	U	U	U	U	U	U	8	2	36
Sodium	11.3 B	839	7.0 B	8.5 B	6.4 B	10.6 B	155	--	--
Thallium	0.13 B	U	0.057 B	U	U	0.055 B	5	--	--
Vanadium	3.5	4.4	2.0	4.4	3.0	3.4	3	--	--
Zinc	121	8.7	2.7	1.8	22.4	6.3	2	109	2,200
Cyanide	U	U	U	U	U	U	2	27	27

QUALIFIERS:

U. Constituent analyzed for but not detected

B. Concentration is between instrument detection limit and contract required detection limit

NOTES:

Concentration exceeds unrestricted use criterion

**Table 3-1
SURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	FAS-1	FAS-2	FAS-3	FAS-4	FAS-5	FAS-6	Contract Required Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			
SAMPLE TYPE	Surface	Surface	Surface	Surface	Surface	Surface			
PERCENT SOLIDS	90	89	95	78	97	95			
DILUTION FACTOR	1	1	1	1	1	1			
DATE OF COLLECTION	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006			
UNITS	(ug/kg)	(ug/kg)	(ug/kg)						
Pesticides									
alpha-BHC	U	U	U	U	U	U	1.7	20	97
beta-BHC	U	U	U	U	U	U	1.7	36	72
delta-BHC	U	U	U	U	U	U	1.7	40	100
gamma-BHC	U	U	U	U	U	U	1.7	--	280
Heptachlor	U	U	U	U	U	U	1.7	42	420
Aldrin	U	U	U	U	U	U	1.7	5	10
Heptachlor epoxide	U	U	U	U	U	U	1.7	--	--
Endosulfan I	U	U	U	U	U	U	1.7	2,400	420
Dieldrin	U	U	U	U	U	U	3.3	5	4,800
4,4'-DDF	6.0	U	U	U	U	U	3.3	3.3	1,800
Endrin	U	U	U	U	U	U	3.3	14	2,200
Endosulfan II	U	U	U	U	U	U	3.3	2,400	4,800
4,4'-DDD	U	U	U	U	U	U	3.3	3.3	2,600
Endosulfan sulfate	U	U	U	U	U	U	3.3	2,400	4,800
4,4'-DDT	18	U	U	U	U	U	3.3	3.3	1,700
Methoxychlor	U	U	U	U	U	U	1.7	--	--
Endrin ketone	U	U	U	U	U	U	3.3	--	--
Endrin aldehyde	U	U	U	U	U	U	3.3	--	--
alpha-Chlordane	4.8 P	U	U	U	U	3.5 P	1.7	94	910
gamma-Chlordane	4.5	U	U	U	U	3.1	1.7	94	910
Toxaphene	U	U	U	U	U	U	170	--	--
PCBs									
Aroclor-1016	U	U	U	U	U	U	33	100	1,000
Aroclor-1221	U	U	U	U	U	U	67	100	1,000
Aroclor-1232	U	U	U	U	U	U	33	100	1,000
Aroclor-1242	U	U	U	U	U	U	33	100	1,000
Aroclor-1248	U	U	U	U	U	U	33	100	1,000
Aroclor-1254	63 P	U	U	U	U	U	33	100	1,000
Aroclor-1260	U	U	U	U	U	U	33	100	1,000

QUALIFIERS:

U. Compound analyzed for but not detected

P. Greater than 25% difference between primary and confirmation columns, lower value reported

**Table 3-1
SURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	FAS-1	FAS-2	FAS-3	FAS-4	FAS-5	FAS-6	Contract Required Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			
SAMPLE TYPE	Surface	Surface	Surface	Surface	Surface	Surface			
PERCENT SOLIDS	90	89	95	78	97				
DILUTION FACTOR	1	1	1	1	1	1			
DATE OF COLLECTION	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006			
UNITS	(ug/kg)	(ug/kg)	(ug/kg)						
<i>Semi-volatile Organics</i>									
Phenol	U	U	U	U	U	U	330	330	100,000
bis (2-Chloroethyl) ether	U	U	U	U	U	U	330	--	--
2-Chlorophenol	U	U	U	U	U	U	330	--	--
1,3-Dichlorobenzene	U	U	U	U	U	U	330	2,400	17,000
1,4-Dichlorobenzene	U	U	U	U	U	U	330	1,800	9,800
1,2-Dichlorobenzene	U	U	U	U	U	U	330	1,100	100,000
2-Methylphenol	U	U	U	U	U	U	330	330	100,000
2,2'-oxybis (1-Chloropropane)	U	U	U	U	U	U	330	--	--
4-Methylphenol	U	U	U	U	U	U	330	330	34,000
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	330	--	--
Hexachloroethane	U	U	U	U	U	U	330	--	--
Nitrobenzene	U	U	U	U	U	U	330	--	--
Isophorone	U	U	U	U	U	U	330	--	--
2-Nitrophenol	U	U	U	U	U	U	330	--	--
2,4-Dimethylphenol	U	U	U	U	U	U	330	--	--
2,4-Dichlorophenol	U	U	U	U	U	U	330	--	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	330	--	--
Naphthalene	U	U	U	U	U	U	330	12,000	100,000
4-Chloroaniline	U	U	U	U	U	U	330	--	--
bis (2-Chloroethoxy)methane	U	U	U	U	U	U	330	--	--
Hexachlorobutadiene	U	U	U	U	U	U	330	--	--
4-Chloro-3-methylphenol	U	U	U	U	U	U	330	--	--
2-Methylnaphthalene	U	U	U	U	U	U	330	--	--
Hexachlorocyclopentadiene	U	U	U	U	U	U	330	--	--
2,4,6-Trichlorophenol	U	U	U	U	U	U	330	--	--
2,4,5-Trichlorophenol	U	U	U	U	U	U	825	--	--
2-Chloronaphthalene	U	U	U	U	U	U	330	--	--
2-Nitroaniline	U	U	U	U	U	U	825	--	--
Dimethylphthalate	U	U	U	U	U	U	330	--	--
Acenaphthylene	U	U	U	U	U	U	330	100,000	100,000
2,6-Dinitrotoluene	U	U	U	U	U	U	330	--	--
3-Nitroaniline	U	U	U	U	U	U	825	--	--
Acenaphthene	U	U	U	U	U	U	330	20,000	100,000
2,4-Dinitrophenol	U	U	U	U	U	U	825	--	--
4-Nitrophenol	U	U	U	U	U	U	825	--	--
Dibenzofuran	U	U	U	U	U	U	330	7,000	14,000
2,4-Dinitrotoluene	U	U	U	U	U	U	330	--	--
Diethylphthalate	U	U	U	U	U	U	330	--	--
4-Chlorophenyl-phenylether	U	U	U	U	U	U	330	--	--
Fluorene	U	U	U	U	U	U	330	30,000	100,000
4-Nitroaniline	U	U	U	U	U	U	825	--	--
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	330	--	--
N-Nitrosodiphenylamine	U	U	U	U	U	U	330	--	--
4-Bromophenyl-phenylether	U	U	U	U	U	U	330	--	--
Hexachlorobenzene	U	U	U	U	U	U	330	--	--
Pentachlorophenol	U	U	U	U	U	U	825	800	2,400
Phenanthrene	U	U	U	U	U	U	330	100,000	100,000
Anthracene	U	U	U	U	U	U	330	100,000	100,000
Carbazole	U	U	U	U	U	U	330	--	--
Di-n-butylphthalate	48 J	46 J	47 J	70 J	41 J	U	330	--	--
Fluoranthene	U	U	U	U	U	U	330	100,000	100,000
Pyrene	U	U	U	U	U	U	330	100,000	100,000
Butylbenzylphthalate	U	U	U	U	U	U	330	--	--
3,3'-Dichlorobenzidine	U	U	U	U	U	U	330	--	--
Benzo(a)anthracene	U	U	U	U	U	U	330	1,000	1,000
Chrysene	U	U	U	U	U	U	330	1,000	1,000
bis (2-Ethylhexyl) phthalate	U*	U*	U*	U*	U*	U*	330	--	--
Di-n-octylphthalate	U	U	U	U	U	U	330	--	--
Benzo(b)fluoranthene	U	U	U	U	U	U	330	1,000	1,000
Benzo(k)fluoranthene	U	U	U	U	U	U	330	800	1,000
Benzo(a)pyrene	U	U	U	U	U	U	330	1,000	1,000
Indeno (1,2,3-cd)pyrene	U	U	U	U	U	U	330	500	500
Dibenzo(a,h)anthracene	U	U	U	U	U	U	330	330	330
Benzo (g,h,i)perylene	U	U	U	U	U	U	330	100,000	100,000
Total SVOCs	48	46	47	70	41	0		--	--
Total SVOC TICs	4,690	U	190	500	230	150		--	--

QUALIFIERS:

- U: Compound analyzed for but not detected.
- J: Compound detected at a concentration below CROL, value estimated.
- U*: Result qualified as non-detect, based on data validation criteria.

**Table 3-1
SURFACE SOIL SAMPLE RESULTS
FORMER ANIMAL SHELTER, SOUTHAMPTON, NEW YORK**

SAMPLE ID	FAS-1	FAS-2	FAS-3	FAS-4	FAS-5	FAS-6	Contract Required Detection Limit	6 NYCRR Part 375 Unrestricted Use Criteria	6 NYCRR Part 375 Residential Use Criteria
SAMPLE DEPTH (FT)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5			
SAMPLE TYPE	Surface	Surface	Surface	Surface	Surface	Surface			
PERCENT SOLIDS	90	89	95	78	97	95			
DILUTION FACTOR	1	1	1	1	1	1			
DATE OF COLLECTION	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006	10/12/2006			
UNITS	(ug/kg)	(ug/kg)	(ug/kg)						
Volatle Organics									
Dichlorodifluoromethane	U	U	U	U	U	U	10	--	--
Chloromethane	U	U	U	U	U	U	10	--	--
Vinyl chloride	U	U	U	U	U	U	10	20	210
Bromomethane	U	U	U	U	U	U	10	--	--
Chloroethane	U	U	U	U	U	U	10	--	--
Trichlorofluoromethane	U	U	U	U	U	U	10	--	--
1,1-Dichloroethene	U	U	U	U	U	U	10	330	100,000
Acetone	U	U	U	U	U	U	10	50	100,000
Iodomethane	U	U	U	U	U	U	10	--	--
Carbon disulfide	U	U	U	U	U	U	10	--	--
Methylene chloride	4 J	3 J	U	U	4 J	U	10	50	51,000
trans-1,2-Dichloroethene	U	U	U	U	U	U	10	190	100,000
Methyl tert-butyl ether	U	U	U	U	U	U	10	930	62,000
1,1-Dichloroethane	U	U	U	U	U	U	10	330	10,000
Vinyl acetate	U	U	U	U	U	U	10	--	--
2-Butanone	U	U	U	U	U	U	10	120	100,000
cis-1,2-Dichloroethene	U	U	U	U	U	U	10	250	59,000
2,2-Dichloropropane	U	U	U	U	U	U	10	--	--
Bromochloromethane	U	U	U	U	U	U	10	--	--
Chloroform	U	U	U	U	U	U	10	370	10,000
1,1,1-Trichloroethane	U	U	U	U	U	U	10	680	100,000
1,1-Dichloropropene	U	U	U	U	U	U	10	--	--
Carbon tetrachloride	U	U	U	U	U	U	10	760	1,400
1,2-Dichloroethane	U	U	U	U	U	U	10	20	2,300
Benzene	U	U	U	U	U	U	10	60	2,900
Trichloroethene	U	U	U	U	U	U	10	470	10,000
1,2-Dichloropropane	U	U	U	U	U	U	10	--	--
Dibromomethane	U	U	U	U	U	U	10	--	--
Bromodichloromethane	U	U	U	U	U	U	10	--	--
cis-1,3-Dichloropropene	U	U	U	U	U	U	10	--	--
4-Methyl-2-pentanone	U	U	U	U	U	U	10	--	--
Toluene	U	U	U	U	U	U	10	700	100,000
trans-1,3-Dichloropropene	U	U	U	U	U	U	10	--	--
1,1,2-Trichloroethane	U	U	U	U	U	U	10	--	--
1,3-Dichloropropene	U	U	U	U	U	U	10	--	--
Tetrachloroethene	U	U	U	U	U	U	10	1,300	5,500
2-Hexanone	U	U	U	U	U	U	10	--	--
Dibromochloromethane	U	U	U	U	U	U	10	--	--
1,2-Dibromomethane	U	U	U	U	U	U	10	--	--
Chlorobenzene	U	U	U	U	U	U	10	1,100	100,000
1,1,1,2-Tetrachloroethane	U	U	U	U	U	U	10	--	--
Ethylbenzene	U	U	U	U	U	U	10	1,000	30,000
Xylene (total)	U	U	U	U	U	U	10	260	100,000
Styrene	U	U	U	U	U	U	10	--	--
Bromoform	U	U	U	U	U	U	10	--	--
Isopropylbenzene	U	U	U	U	U	U	10	--	--
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	10	--	--
Bromobenzene	U	U	U	U	U	U	10	--	--
1,2,3-Trichloropropane	U	U	U	U	U	U	10	--	--
n-Propylbenzene	U	U	U	U	U	U	10	3,900	100,000
2-Chlorotoluene	U	U	U	U	U	U	10	--	--
1,3,5-Trimethylbenzene	U	U	U	U	U	U	10	8,400	47,000
4-Chlorotoluene	U	U	U	U	U	U	10	--	--
tert-Butylbenzene	U	U	U	U	U	U	10	5,900	100,000
1,2,4-Trimethylbenzene	U	U	U	U	U	U	10	3,600	47,000
sec-Butylbenzene	U	U	U	U	U	U	10	11,000	100,000
4-Isopropyltoluene	U	U	U	U	U	U	10	--	--
1,3-Dichlorobenzene	U	U	U	U	U	U	10	2,400	17,000
1,4-Dichlorobenzene	U	U	U	U	U	U	10	1,800	9,800
n-Butylbenzene	U	U	U	U	U	U	10	12,000	100,000
1,2-Dichlorobenzene	U	U	U	U	U	U	10	1,100	100,000
1,2-Dibromo-3-chloropropane	U	U	U	U	U	U	10	--	--
1,2,4-Trichlorobenzene	U	U	U	U	U	U	10	--	--
Hexachlorobutadiene	U	U	U	U	U	U	10	--	--
Naphthalene	U	U	2 J	U	U	U	10	12,000	100,000
1,2,3-Trichlorobenzene	U	U	U	U	U	U	10	--	--
Total VOCs	4	3	U	U	4	U		--	--
Total VOC TICs	U	U	U	U	U	U		--	--

QUALIFIERS

U - Compound analyzed for but not detected
J - Compound detected at a concentration below CRDL, value estimated

2.2 Analytical Methods and Data Validation

Chemical laboratory analyses of soil samples collected by D&B were performed by Mitkem Corporation. Mitkem is certified under the New York State Department of Health Environmental Laboratory Accreditation Program (ELAP) for the analyses performed.

All analyses were performed using New York State Department of Environmental Conservation (NYSDEC) 6/00 Analytical Services Protocols (ASP) methods using standard, 28-day turnaround time. A Category B data package was provided, using batch quality assurance/quality control (QA/QC) samples.

The data packages were reviewed in accordance with NYSDEC QA/QC requirements. All QA sample (calibrations, blanks, spikes, etc.) results have been reviewed for transcription errors and contract compliance. The results of the data validation process are presented as a Data Usability Summary Report (DUSR) in Section 3.4.

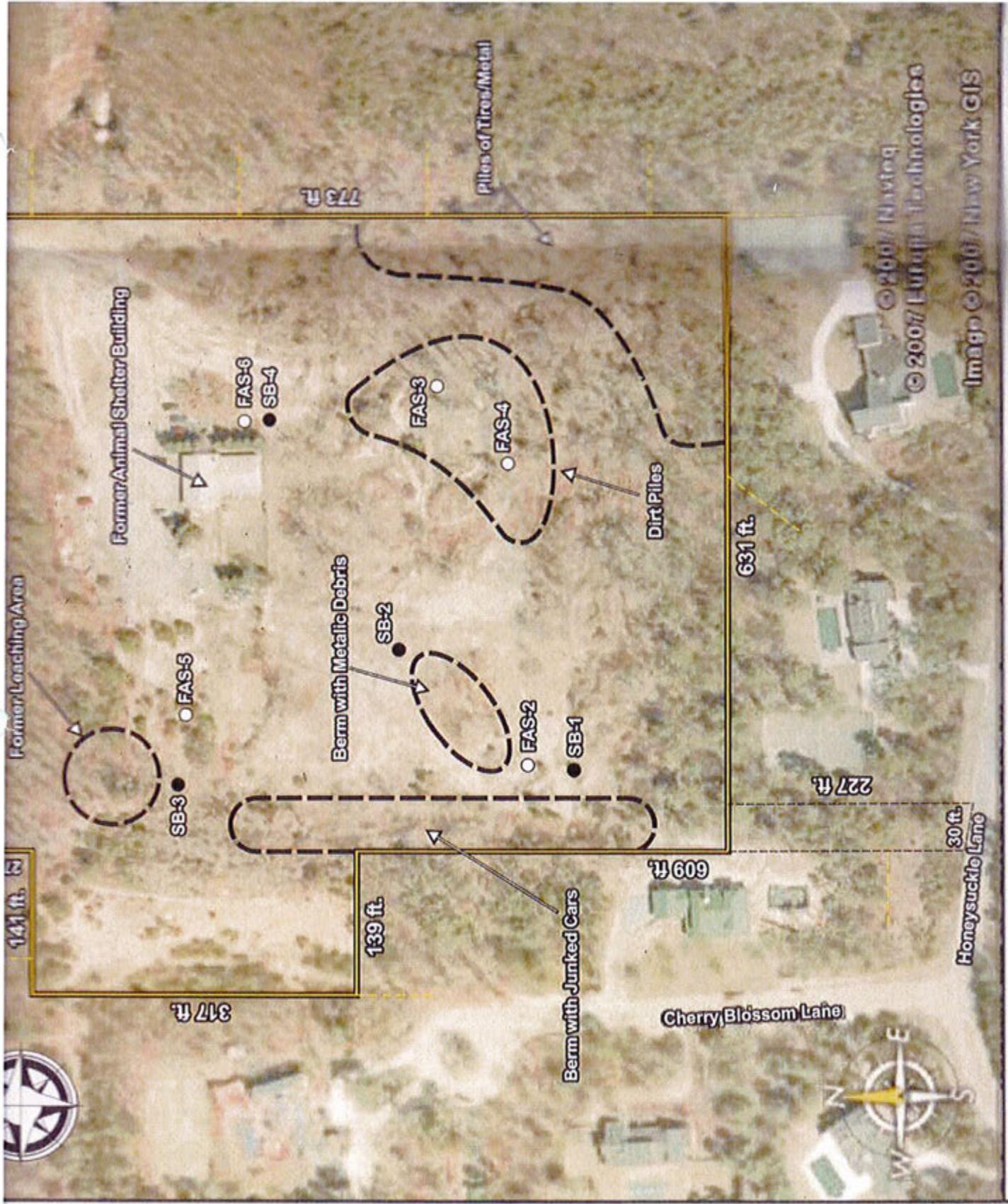
Samples were collected using a dedicated disposable scoop from 0 to 6 inches below grade or the pile/berm surface. Each sample was analyzed for Target Compound List (TCL) volatile organic compounds with a library search (VOCs+10), TCL semivolatile organic compounds with a library search (SVOCs+20), TCL pesticides, TCL PCBs, Target Analyte List (TAL) metals and cyanide.

2.1.3 Subsurface Soil Sampling

Based on the AECs identified during the 1999 Phase I ESA and after review of available aerial photographs and historic site information, subsurface soil samples were collected in October 2006 at five locations. The AECs that were sampled include the former sanitary leaching area in the northwest portion of the site, the UST adjacent to the former animal shelter building and the apparent waste disposal pits in the southwest and central portions of the site.

Samples were collected using the direct push sampling method by Zebra Environmental Corporation. Sampling was conducted continuously from grade to a depth of 12 feet (below the presumed depth of the UST and the depth of penetration for the magnetometer survey). Each sample was screened for VOCs using a photoionization detector (PID) and geologically logged, including indications of potential contamination such as staining or odors.

The "worst-case" 2-foot interval from each boring, based on PID readings and field observations, was submitted to the laboratory for analysis of TCL, VOCs+10, TCL SVOCs+20, TCL pesticides, TCL PCBs, TAL metals and cyanide. Where no "worst-case" interval was identified (samples FAS-1, FAS-2, and FAS-3), the sample from 2 to 4 feet below grade was submitted for analysis, as this is the maximum depth likely to be disturbed during the planned future park construction.



141 ft. N

317 ft.

139 ft.

609 ft.

227 ft.

631 ft.

773 ft.

30 ft.

Former Animal Shelter Building

Former Leaching Area

Piles of Tires/Metal

Dirt Piles

Berm with Metallic Debris

Berm with Junked Cars

Cherry Blossom Lane

Honeysuckle Lane

FAS-6

SB-4

FAS-3

FAS-4

FAS-5

SB-3

SB-2

FAS-2

SB-1

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FILE SOURCE: \\server\pub\032007

1.2 Project Objective and Scope

The objective of the Phase II ESA was to evaluate environmental conditions at the Damascus Road site. This objective was attained by performing a geophysical survey and collecting surface soil and subsurface soil samples for laboratory analysis.

1.3 Report Organization

The remainder of this report consists of three sections. Section 2.0 (Field Investigation) describes the scope of work for the Phase II ESA, including the sample locations, sampling procedures, analytical methods and data validation procedures. The site hydrogeology and the results of the geophysical survey and soil analyses, including data validation results, are described in Section 3.0 (Findings). The conclusions of the Phase II ESA and recommendations regarding additional investigation and remediation, if warranted, are presented in Section 4.0 (Conclusions and Recommendations).

\\NTS\Jobs\Env\Permitting\2723 (Damascus Road)\Supplemental Assessments\F-gare.gis (MAW 12-21-09)



db Dvirka and Bartilucci
CONSULTING ENGINEERS
A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

146 DAMASCUS ROAD
SOUTHAMPTON, NEW YORK

SITE LOCATION AERIAL MAP

FIGURE 1-1

1.3 Summary of 2007 Phase II ESA

Based on the areas of potential environmental concerns and the recommendations presented in the Phase I ESA, the Town retained D&B Consulting Engineers to conduct a Phase II ESA. The Phase II ESA included a geophysical survey, surface and subsurface soil sampling.

In October 2006, six surface soil samples and four subsurface soil samples were collected from the areas of environmental concern identified in the Phase I ESA. The samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides and Polychlorinated Biphenyls (PCBs) and Target Analyte List (TAL) metals and cyanide. The results were compared to the NYSDEC Remedial Program Soil Cleanup Objectives (RPSCOs) for "unrestricted use criteria" contained in 6 NYCRR Part 375. Although the appropriate RPSCOs for the proposed use of the Site (athletic fields) is "restricted residential" based on the NYCRR Part 375 regulations, the more stringent "unrestricted use" and "residential use" RPSCOs were utilized as a conservative measure.

In the 2007 Phase II ESA, the only chemical constituents detected at concentrations exceeding the RSCOs for the unrestricted use criteria were zinc (in surface sample FAS-1) and manganese (in surface sample FAS-2). However, neither of these concentrations exceed the RSCO for residential or unrestricted residential use criteria.

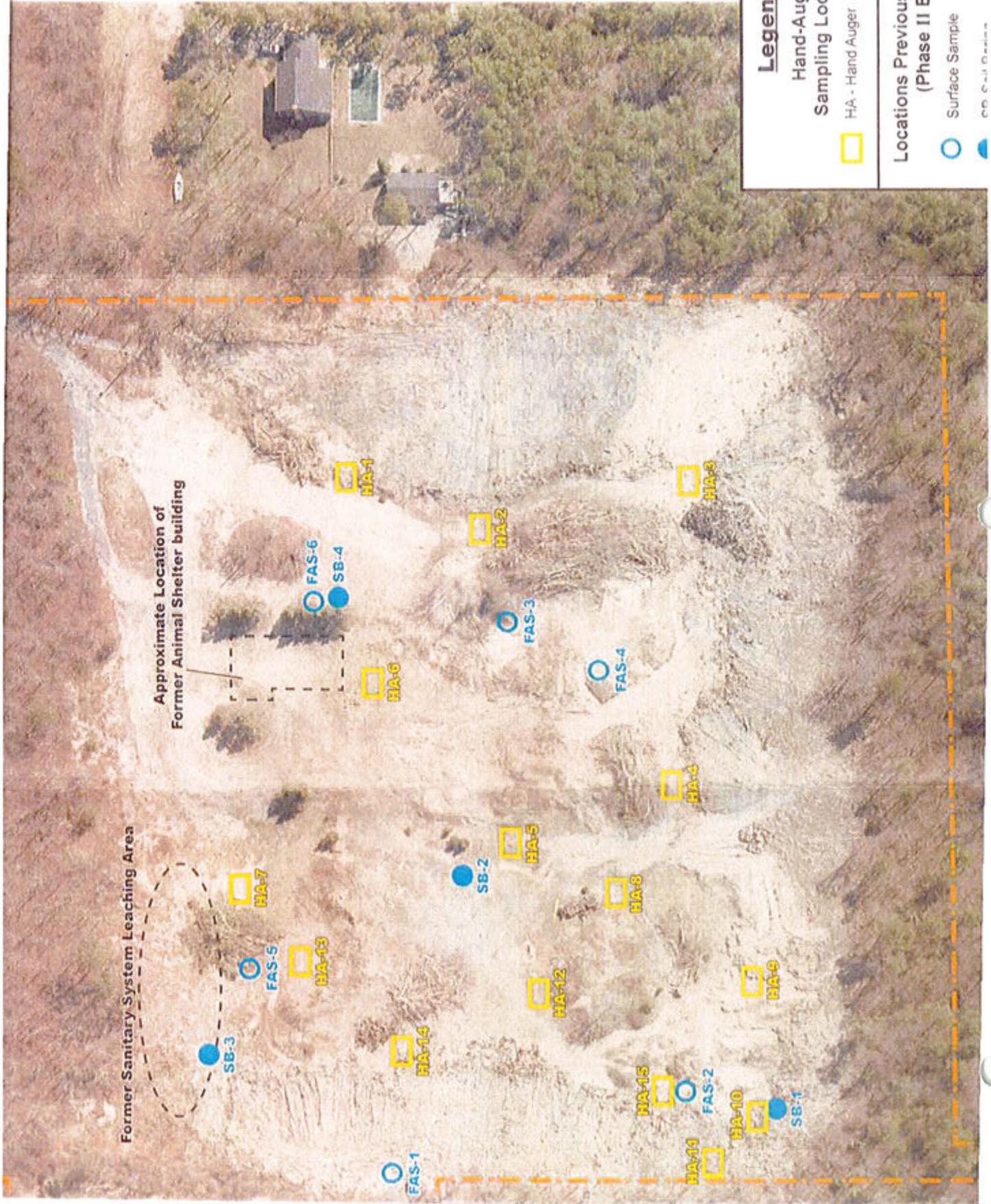
Based on the results of the sampling and analysis, the Phase II ESA report completed in January 2007 (see copy of main sections in Appendix B) recommended that the debris, waste tires and junked vehicles be removed from the Site as part of the redevelopment for athletic fields. Soil remediation and further study were not recommended.

1.4 Rationale for Supplemental Phase II ESA

Subsequent to the Phase II Report, and in response to communications with the NYSDEC, the Town submitted a debris removal protocol to the NYSDEC that included screening soils on-site as part of the debris removal work. In response, the NYSDEC required

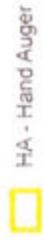
the Town to conduct additional soil sampling to ensure that materials to be screened are free of contamination.

Ultimately, after subsequent communications and meetings with the NYSDEC, the Town agreed to conduct hand-auger, sub-surface sampling at fifteen (15) locations throughout the Site, with oversight provided by NYSDEC, as part of a Supplemental Phase II ESA.



Legend

Hand Auger
Sampling Locations



Locations Previously Sampled
(Phase II ESA)



SB - Soil Borehole

sampling equipment was decontaminated with an alconox and water solution. A new set of latex gloves and sample bottles were used at each location. Samples for laboratory Quality Assurance/Quality Control (QA/QC) analysis were also collected.

All of the samples were analyzed for TCL SVOC's, pesticides and PCBs and TAL metals and cyanide. Based on guidance from the NYSDEC representative and the results of the PID screening, 4 of the 15 samples were also selected for TCL VOC analysis.

2.3 Analytical Methods and Data Validation

Chemical laboratory analyses of soil samples collected by D&B were performed by Mitkem Corporation. Mitkem is certified under the New York State Department of Health Environmental Laboratory Accreditation Program (ELAP) for the analyses performed.

All analyses were performed using New York State Department of Environmental Conservation (NYSDEC) 6/00 Analytical Services Protocols (ASP) methods using standard, 28-day turnaround time. A Category B data package was provided, using batch quality assurance/quality control (QA/QC) samples.

The data packages were reviewed in accordance with NYSDEC QA/QC requirements. All QA sample (calibrations, blanks, spikes, etc.) results have been reviewed for transcription errors and contract compliance. The results of the data validation process are presented as a Data Usability Summary Report (DUSR) in Section 3.3.

3.0 FINDINGS

In general, the shallow geology identified at the Site consists of sand and gravel.

3.1 Identification of Standards, Criteria and Guidelines

Analytical results for all parameters in the surface soil and subsurface soil samples were compared to the NYSDEC Remedial Program Soil Cleanup Objectives (RPSCOs) which are presented in 6 NYCRR Part 375, and became effective on December 14, 2006. RPSCOs have been developed for unrestricted Site use and restricted Site uses to protect human health, groundwater and ecological resources from contaminants.

3.2 Results

This section presents the results of the laboratory analysis of the 15 subsurface samples collected on November 19, 2009. A CD of the full Analytical Data Package from Mitkem Laboratories is provided in Appendix A. As a conservative measure, all results were compared to the most stringent Remedial Program Recommended Soil Cleanup Objectives (RSCOs), namely the RSCOs for the "unrestricted use" in 6 NYCRR Part 375. However, given the proposed active recreational use of the Site (athletic fields), the appropriate use category, determined based on 6 NYCRR Part 375-1.8(g)(2)(ii)(b) and with NYSDEC concurrence, is "restricted residential." Therefore, all samples were also compared to the RSCOs for the restricted residential criteria in Part 375-6.8.

Volatile Organic Compounds (VOC's)

None of the subsurface soil samples contained VOC's at concentrations exceeding unrestricted use criteria. See Table 3-1.

**TABLE 3-1
SUBSURFACE SOIL SAMPLE RESULTS
DAMASCUS ROAD SITE, E. QUOGUE, NY
VOLATILE ORGANIC COMPOUNDS**

SAMPLE ID	HA-01	HA-03	HA-05	HA-13	6 NYCRR Part 375 Unrestricted Use Criteria
SAMPLE DEPTH (FT)	0-4	0-4	0-3.5	0-3	
SAMPLE TYPE	Subsurface	Subsurface	Subsurface	Subsurface	
PERCENT MOISTURE	6	6	7	8	
DILUTION FACTOR	1	1	1	1	
DATE OF COLLECTION	11/19/2009	11/19/2009	11/19/2009	11/19/2009	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	
VOCs					
Dichlorodifluoromethane	UJ	UJ	UJ	UJ	--
Chloromethane	UJ	U	UJ	UJ	--
Vinyl Chloride	UJ	UJ	UJ	UJ	20
Bromomethane	U	U	U	U	--
Chloroethane	U	U	U	U	--
Trichlorofluoromethane	UJ	UJ	UJ	UJ	--
1,1-Dichloroethene	UJ	UJ	UJ	UJ	330
Acetone	U	UJ	U	U	50
Iodomethane	UJ	UJ	UJ	UJ	--
Carbon Disulfide	U	U	U	U	--
Methylene Chloride	U	U	U	U	50
Trans-1,2-Dichloroethene	UJ	UJ	UJ	UJ	190
Methyl Tert-Butyl Ether	UJ	UJ	UJ	UJ	930
1,1-Dichloroethane	UJ	UJ	UJ	UJ	270
Vinyl Acetate	UJ	UJ	UJ	UJ	--
2-Butanone	U	UJ	U	U	--
Cis-1,2-Dichloroethene	UJ	UJ	UJ	UJ	250
2,2-Dichloropropane	UJ	UJ	UJ	UJ	--
Bromochloromethane	UJ	UJ	UJ	UJ	--
Chloroform	UJ	UJ	UJ	UJ	370
1,1,1-Trichloroethane	UJ	UJ	UJ	UJ	680
1,1-Dichloropropene	UJ	UJ	UJ	UJ	--
Carbon Tetrachloride	UJ	UJ	UJ	UJ	760
1,2-Dichloroethane	UJ	UJ	UJ	UJ	20
Benzene	UJ	UJ	UJ	UJ	60
Trichloroethene	UJ	UJ	UJ	UJ	470
1,2-Dichloropropane	UJ	UJ	UJ	UJ	--
Dibromomethane	UJ	UJ	UJ	UJ	--
Bromodichloromethane	UJ	UJ	UJ	UJ	--
Cis-1,3-Dichloropropene	UJ	UJ	UJ	UJ	--
4-Methyl-2-Pentanone	U	U	U	U	--
Toluene	1.6 J	1.3 J	9.6 J	7.8 J	700
Trans-1,3-Dichloropropene	UJ	UJ	UJ	UJ	--
1,1,2-Trichloroethane	UJ	U	UJ	UJ	--
1,3-Dichloropropane	UJ	UJ	UJ	UJ	--
Tetrachloroethene	UJ	UJ	UJ	UJ	1300
2-Hexanone	UJ	UJ	UJ	UJ	--
Dibromochloromethane	UJ	UJ	UJ	UJ	--
1,2-Dibromoethane	UJ	UJ	UJ	UJ	--
Chlorobenzene	UJ	UJ	UJ	UJ	1100
1,1,1,2-Tetrachloroethane	UJ	UJ	UJ	UJ	--
Ethylbenzene	UJ	UJ	UJ	UJ	1000

TABLE 3-1 (CONTINUED)
SUBSURFACE SOIL SAMPLE RESULTS
DAMASCUS ROAD SITE, E. QUOGUE, NY
VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	HA-01	HA-03	HA-05	HA-13	6 NYCRR Part 375 Unrestricted Use Criteria
SAMPLE DEPTH (FT)	0-4	0-4	0-3.5	0-3	
SAMPLE TYPE	Subsurface	Subsurface	Subsurface	Subsurface	
PERCENT MOISTURE	6	6	7	8	
DILUTION FACTOR	1	1	1	1	
DATE OF COLLECTION	11/19/2009	11/19/2009	11/19/2009	11/19/2009	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
m,p-Xylene	UJ	UJ	UJ	UJ	260
o-Xylene	UJ	UJ	UJ	UJ	260
Xylene (Total)	UJ	UJ	UJ	UJ	260
Styrene	UJ	UJ	UJ	UJ	--
Bromoform	UJ	UJ	UJ	UJ	--
Isopropylbenzene	UJ	UJ	UJ	UJ	--
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Bromobenzene	UJ	UJ	UJ	UJ	--
1,2,3-Trichloropropane	UJ	UJ	UJ	UJ	--
n-Propylbenzene	UJ	UJ	UJ	UJ	3900
2-Chlorotoluene	UJ	UJ	UJ	UJ	--
1,3,5-Trimethylbenzene	UJ	UJ	UJ	UJ	8400
4-Chlorotoluene	UJ	UJ	UJ	UJ	--
tert-Butylbenzene	UJ	UJ	UJ	UJ	5900
1,2,4-Trimethylbenzene	UJ	UJ	UJ	UJ	3600
sec-Butylbenzene	UJ	UJ	UJ	UJ	1100
4-Isopropyltoluene	UJ	UJ	UJ	UJ	--
1,3-Dichlorobenzene	UJ	UJ	UJ	UJ	2400
1,4-Dichlorobenzene	UJ	UJ	UJ	UJ	1800
n-Butylbenzene	UJ	UJ	UJ	UJ	1200
1,2-Dichlorobenzene	UJ	UJ	UJ	UJ	1100
1,2-Dibromo-3-Chloropropane	U	U	U	U	--
1,2,4-Trichlorobenzene	UJ	UJ	UJ	UJ	--
Hexachlorobutadiene	UJ	UJ	UJ	UJ	--
1,2,3-Trichlorobenzene	UJ	UJ	UJ	UJ	--
Naphthalene	UJ	UJ	UJ	UJ	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	UJ	UJ	UJ	UJ	--
Cyclohexane	UJ	UJ	UJ	UJ	--
Methyl Acetate	U	U	U	U	--
Methylcyclohexane	UJ	UJ	UJ	UJ	--

Qualifiers:

U: Constituent analyzed for but not detected.

J: Compound detected at a concentration below CRDL and value estimated

UJ: Constituent not detected but detection limit estimated.

Notes:

--: Cleanup criteria does not exist.

Semivolatile Organic Compounds (SVOCs)

None of the subsurface soil samples contained SVOCs at concentrations exceeding unrestricted use criteria. See Table 3-2.

Pesticides and PCBs

The pesticides DDT, DDE, and/or DDD were detected at concentrations exceeding their unrestricted use RSCO (3.3 ug/kg) in 9 of the 15 samples, namely HA-1, 2, 3, 4, 5, 6, 9, 10, and 13. The concentrations of the exceedances ranged from 4.2 ug/kg to 36.0 ug/kg. However, none of the samples exceeded the RPRSCO for the restricted residential use criteria, the appropriate category for the proposed use of the Site. See Table 3-3.

The PCB Arochlor 1254 was detected in concentrations exceeding the RSCO (100 ug/kg) for the unrestricted use criteria in samples HA-5 (230 ug/kg) and HA-11 (170 mg/kg). However, neither of these samples exceeded the RSCO (1000 ug/kg) for the restricted residential use criteria. See Table 3-4.

Metals

Zinc was detected at a concentration exceeding the RSCO (109 mg/kg) for the unrestricted use criteria in samples HA-2 (197 mg/kg) and HA-13 (249 mg/kg). However, neither sample exceeded the restricted residential RSCO for zinc (10,000 mg/kg). See Table 3-5.

3.3 Data Usability Summary Report

Fifteen soil samples were collected on November 19, 2009 at the Damascus Road Site in East Quogue, New York. The samples were analyzed for TCL VOCs, SVOCs, pesticides, PCBs, metals and cyanide.

**TABLE 3-2
SUBSURFACE SOIL SAMPLE RESULTS
DAMASCUS ROAD SITE, E. QUOGUE, NY
SEMI-VOLATILE ORGANIC COMPOUNDS**

SAMPLE ID	HA-01	HA-02	HA-03	HA-04	HA-05	HA-06	HA-07	HA-08	
SAMPLE DEPTH (FT)	0-4	0-4	0-4	0-3	0-3.6	0-4	0-4	0-4	
SAMPLE TYPE	Subsurface								
PERCENT MOISTURE	6	-	6	6	7	5	5	5	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
DATE OF COLLECTION	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	
UNITS	(ug/kg)	6 NYCRR Part 375 Unrestricted Use Criteria (ug/kg)							
SVOCs									
Phenol	U	U	U	U	U	U	U	U	330
Bis(2-Chloroethyl) Ether	U	U	U	U	U	U	U	U	U
2-Chlorophenol	U	U	U	U	U	U	U	U	-
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	-
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	-
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	-
2-Methylphenol	U	U	U	U	U	U	U	U	-
2,2-Dimethyl-1-Chloropropane	U	U	U	U	U	U	U	U	-
4-Methylphenol	U	U	U	U	U	U	U	U	-
N-Nitrosodimethylamine	U	U	U	U	U	U	U	U	-
Hexachloroethane	U	U	U	U	U	U	U	U	-
Nitrobenzene	U	U	U	U	U	U	U	U	-
Isophenol	U	U	U	U	U	U	U	U	-
2-Nitrophenol	U	U	U	U	U	U	U	U	-
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	-
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	-
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	-
Napthalene	U	U	U	U	U	U	U	U	12000
4-Chloroaniline	U	U	U	U	U	U	U	U	-
Bis(2-Chloroethoxy) Methane	U	U	U	U	U	U	U	U	-
Hexachlorobutadiene	U	U	U	U	U	U	U	U	-
4-Chloro-3-Methylphenol	U	U	U	U	U	U	U	U	-
2-Methylnaphthalene	U	U	U	U	U	U	U	U	-
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	-
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	-
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	-
2-Chloronaphthalene	U	U	U	U	U	U	U	U	-
2-Nitroaniline	U	U	U	U	U	U	U	U	-
Dimethylphthalate	U	U	U	U	U	U	U	U	-
Acenaphthylene	U	U	U	U	U	U	U	U	100000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	-
3-Nitroaniline	U	U	U	U	U	U	U	U	-
Acenaphthene	U	U	U	U	U	U	U	U	20000
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	-
4-Nitrophenol	U	U	U	U	U	U	U	U	-
Dibenzofuran	U	U	U	U	U	U	U	U	-
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	-
Diethylphthalate	U	U	U	U	U	U	U	U	-
4-Chlorophenyl-Phenylether	U	U	U	U	U	U	U	U	-
Fluorene	U	U	U	U	U	U	U	U	30000
4-Nitroaniline	U	U	U	U	U	U	U	U	-
4,6-Dinitro-2-Methylphenol	U	U	U	U	U	U	U	U	-
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	-
4-Bromophenyl-Phenylether	U	U	U	U	U	U	U	U	-
Hexachlorobenzene	U	U	U	U	U	U	U	U	-
Pentachlorophenol	U	U	U	U	U	U	U	U	800
Phenanthrene	U	U	U	U	U	U	U	U	100000
Anthracene	U	U	U	U	U	U	U	U	100000
Carbazole	U	U	U	U	U	U	U	U	-
Di-n-Butylphthalate	39 J	76 J	46 J	52 J	49 J	59 J	63 J	49 J	-
Fluoranthene	U	U	U	U	U	U	U	U	100000
Pyrene	U	U	U	U	U	U	U	U	100000
Butylbenzylphthalate	U	U	U	U	U	U	U	U	-
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	-
Benzo(a)anthracene	U	U	U	U	U	U	U	U	1000
Chrysene	U	U	U	U	U	U	U	U	1000
Bis(2-Ethylhexyl) Phthalate	U	119 J	UJ	UJ	UJ	UJ	UJ	UJ	-
Di-n-octylphthalate	UJ	-							
Benzo(b) Fluoranthene	U	U	U	U	U	U	U	U	1000
Benzo(k) Fluoranthene	U	U	U	U	U	U	U	U	800
Benzo(a) Pyrene	U	U	U	U	U	U	U	U	1000
Indeno (1,2,3-cd) Pyrene	U	U	U	U	U	U	U	U	500
Quinzo(a,h) Anthracene	U	U	U	U	U	U	U	U	330
Benzo (g,h,i) Perylene	U	U	U	U	U	U	U	U	100000

Qualifiers:
 U. Constituent analyzed for but not detected
 J. Compound detected at a concentration below CRDL, value estimated
 UJ. Constituent not detected but detection limit estimated
Notes:
 - Cleanup criteria does not exist

TABLE 3-2 (CONTINUED)
SUBSURFACE SOIL SAMPLE RESULTS
DAMASCUS ROAD SITE, E. QUOGUE, NY
SEMI-VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	HA-09	HA-10	HA-11	HA-12	HA-13	HA-14	HA-15	6 NYCRR Part 375 Unrestricted Use Criteria
SAMPLE DEPTH (FT)	0-4	0-4	0-4	0-4	0-3	0-4	0-4	
SAMPLE TYPE	Subsurface							
PERCENT MOISTURE	6	4	7	4	5	5	4	
DILUTION FACTOR	1	1	1	1	1	1	1	
DATE OF COLLECTION	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	
UNITS	(ug/kg)							
SVOCs								
Phenol	U	U	U	U	U	U	U	330
Bis(2-Chloroethyl) Ether	U	U	U	U	U	U	U	-
2-Chlorophenol	U	U	U	U	U	U	U	-
1,3-Dichlorobenzene	U	U	U	U	U	U	U	-
1,4-Dichlorobenzene	U	U	U	U	U	U	U	-
1,2-Dichlorobenzene	U	U	U	U	U	U	U	-
2-Methylphenol	U	U	U	U	U	U	U	-
2,2'-Dxybis (1-Chloropropane)	U	U	U	U	U	U	U	-
4-Methylphenol	U	U	U	U	U	U	U	-
N Nitroso-di-n-Propylamine	U	U	U	U	U	U	U	-
Hexachlorocyclohexane	U	U	U	U	U	U	U	-
Nitrobenzene	U	U	U	U	U	U	U	-
Isophorone	U	U	U	U	U	U	U	-
2-Nitrophenol	U	U	U	U	U	U	U	-
2,4-Dimethylphenol	U	U	U	U	U	U	U	-
2,4-Dichlorophenol	U	U	U	U	U	U	U	-
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	-
Napthalene	U	U	U	U	U	U	U	12000
4-Chloroaniline	U	U	U	U	U	U	U	-
Bis(2-Chloroethoxy) Methane	U	U	U	U	U	U	U	-
Heptachlorobutadiene	U	U	U	U	U	U	U	-
4-Chloro-3-Methylphenol	U	U	U	U	U	U	U	-
2-Methylnaphthalene	U	U	U	U	U	U	U	-
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	-
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	-
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	-
2-Chloronaphthalene	U	U	U	U	U	U	U	-
2-Nitroaniline	U	U	U	U	U	U	U	-
Dimethylphthalate	U	U	U	U	U	U	U	-
Acenaphthylene	U	U	U	U	U	U	U	100000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	-
3-Nitroaniline	U	U	U	U	U	U	U	-
Acenaphthene	U	U	U	U	U	U	U	20000
2,4-Dinitrophenol	U	U	U	U	U	U	U	-
4-Nitrophenol	U	U	U	U	U	U	U	-
Dibenzofuran	U	U	U	U	U	U	U	-
2,4-Dinitrotoluene	U	U	U	U	U	U	U	-
Diethylphthalate	U	U	U	U	U	U	U	-
4-Chlorophenyl-Pyrenyl Ether	U	U	U	U	U	U	U	-
Fluorene	U	U	U	U	U	U	U	30000
4-Nitroaniline	U	U	U	U	U	U	U	-
4,6-Dinitro-2-Methylphenol	U	U	U	U	U	U	U	-
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	-
4-Bromophenyl-Pyrenyl Ether	U	U	U	U	U	U	U	-
Hexachlorobenzene	U	U	U	U	U	U	U	-
Pentachlorophenol	U	U	U	U	U	U	U	800
Phenanthrene	U	U	U	U	U	U	U	100000
Anthracene	U	U	U	U	U	U	U	100000
Carbazole	U	U	U	U	U	U	U	-
Di-n-Butylphthalate	62 J	62 J	92 J	81 J	110 J	89 J	110 J	-
Fluorethene	U	U	46 J	U	U	U	U	100000
Pyrene	U	U	37 J	U	U	U	U	100000
Butylbenzylphthalate	U	U	82 J	U	U	35 J	U	-
1,3-Dichlorobenzidine	U	U	U	U	U	U	U	-
Benzo(a)anthracene	U	U	U	U	U	U	U	1000
Chrysene	U	U	U	U	U	U	U	1000
Bis(2-Ethylhexyl) Phthalate	U	U	U	U	U	U	U	-
Di-n-octylphthalate	U	U	U	U	U	U	U	-
Benzo(b) Fluoranthene	U	U	U	U	U	U	U	1000
Benzo(k) Fluoranthene	U	U	U	U	U	U	U	800
Benzo(a) Pyrene	U	U	U	U	U	U	U	1000
Indeno (1,2,3-cd) Pyrene	U	U	U	U	U	U	U	500
Dibenzo(a,h) Anthracene	U	U	U	U	U	U	U	330
Benzo (g,h,i) Perylene	U	U	U	U	U	U	U	100000

Qualifiers:

- U: Constituent analyzed for but not detected
- J: Compound detected at a concentration below CRDL, value estimated
- UJ: Constituent not detected but detection limit estimated

Notes:

- Cleanup criteria does not exist

TABLE 3-3
SUBSURFACE SOIL SAMPLE RESULTS
DAMASCUS ROAD SITE, E. QUOGUE, NY
PESTICIDES

SAMPLE ID	HA-01	HA-02	HA-03	HA-04	HA-05	HA-06	HA-07	HA-08	6 NYCRR Part 375 Unrestricted Use Criteria (ug/kg)	6 NYCRR Part 375 Restricted Residential Use Criteria (ug/kg)
	Subsurface									
SAMPLE DEPTH (FT)	4	4	4	3	3.5	4	4	4		
PERCENT MOISTURE	6	6	6	6	7	5	5	5		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
DATE OF COLLECTION	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009		
UNIT'S	(ug/kg)									
Pesticides										
Alpha-BHC	U	U	U	U	U	U	U	U	20	97
Beta-BHC	U	U	U	U	U	U	U	U	36	72
Delta-BHC	U	U	U	U	U	U	U	U	40	100000
Gamma-BHC (Lindane)	U	U	U	U	U	U	U	U	100	280
Heptachlor	U	U	U	U	U	U	U	U	420	420
Aldrin	U	U	U	U	U	U	U	U	5.0	19
Heptachlor Epoxide	U	U	U	U	U	U	U	U	--	--
Endosulfan I	U	U	U	U	U	U	U	U	2400	4800
Dieldrin	U	U	U	U	U	U	U	U	5.0	39
4,4'-DDE	U	U	U	U	U	U	U	U	3.3	1800
Endrin	U	U	U	U	U	U	U	U	140	2200
Endosulfan II	U	U	U	U	U	U	U	U	2400	4800
4,4'-DDD	U	U	U	U	15	U	U	U	3.3	2600
Endosulfan Sulfate	U	U	U	U	U	U	U	U	2400	4800
4,4'-DDE	U	U	U	U	U	U	U	U	3.3	1700
Methoxychlor	U	U	U	U	U	U	U	U	--	--
Endrin Ketone	U	U	U	U	U	U	U	U	--	--
Endrin Aldehyde	U	U	U	U	U	U	U	U	--	--
Alpha-Chlordane	U	U	U	U	U	U	U	U	94	910
Gamma-Chlordane	U	U	U	U	U	U	U	U	--	--
Toxaphene	U	U	U	U	U	U	U	U	--	--

Qualifiers:

U: Constituent analyzed for but not detected.

P: Percent difference between the primary column and the concentration column is greater than 25 percent; lower value reported.

J: Estimated value.

Notes:

--: Cleanup criteria does not exist.

TABLE 3-3 (CONTINUED)
 SUBSURFACE SOIL SAMPLE RESULTS
 DAMASCUS ROAD SITE, E. QUOGUE, NY
 PESTICIDES

SAMPLE ID	HA-09		HA-10		HA-11		HA-12		HA-13		HA-14		HA-15		6 NYCRR Part 375 Restricted Residential Use Criteria (ug/kg)
	Subsurface	11/19/2009													
SAMPLE DEPTH (FT)	4		4		4		4		3		4		4		
SAMPLE TYPE	Subsurface														
PERCENT MOISTURE	6		4		7		4		8		5		4		
DILUTION FACTOR	1		1		1		1		1		1		1		
DATE OF COLLECTION	11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		
UNITS	(ug/kg)														
Pesticides															
Alpha-BHC	U		U		U		U		U		U		U		97
Beta-BHC	U		U		U		U		U		U		U		72
Delta-BHC	U		U		U		U		U		U		U		100000
Gamma-BHC (Lindane)	U		U		U		U		U		U		U		280
Heptachlor	U		U		U		U		U		U		U		420
Aldrin	U		U		U		U		U		U		U		19
Heptachlor Epoxide	U		U		U		U		U		U		U		--
Endosulfan I	U		U		U		U		U		U		U		4800
Dieldrin	U		U		U		U		U		U		U		39
4,4'-DDE	5.7 J		4.2 J		U		U		U		U		U		1800
Endrin	U		U		U		U		8.6 J		U		U		2400
Endosulfan II	U		U		U		U		U		U		U		3.3
4,4'-DDD	U		U		U		U		U		U		U		2200
Endosulfan Sulfate	U		U		U		U		U		U		U		4800
4,4'-DDT	13		8.4		U		U		U		U		U		2600
Methoxychlor	U		U		U		U		U		U		U		4800
Endrin Ketone	U		U		U		U		U		U		U		1700
Endrin Aldehyde	U		U		U		U		U		U		U		--
Alpha-Chlordane	U		U		U		U		U		U		U		--
Gamma-Chlordane	U		U		U		U		U		U		U		94
Toxaphene	U		U		U		U		U		U		U		--

Qualifiers:
 U: Constituent analyzed for but not detected
 P: Percent difference between the primary column and the concentration column is greater than 25 percent; lower value reported
 J: Estimated value
 Notes:
 --: Cleanup criteria does not exist.

TABLE 3-4
 SUBSURFACE SOIL SAMPLE RESULTS
 DAMASCUS ROAD SITE, E. QUOGUE, NY
 PCBs

SAMPLE ID	HA-01		HA-02		HA-03		HA-04		HA-05		HA-06		HA-07		HA-08	
	4	Subsurface	4	Subsurface	4	Subsurface	3	Subsurface	3.5	Subsurface	4	Subsurface	4	Subsurface	4	Subsurface
SAMPLE DEPTH (FT)	4		4		4		3		3.5		4		4		4	
SAMPLE TYPE	Subsurface															
PERCENT MOISTURE	6		6		6		8		7		5		5		5	
DILUTION FACTOR	1		1		1		1		1		1		1		1	
DATE OF COLLECTION	11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009	
UNITS	(ug/kg)															
PCBs																
Aroclor 1016	U		U		U		U		U		U		U		U	
Aroclor 1221	U		U		U		U		U		U		U		U	
Aroclor 1232	U		U		U		U		U		U		U		U	
Aroclor 1242	U		U		U		U		U		U		U		U	
Aroclor 1248	U		U		U		U		U		U		U		U	
Aroclor 1254	U		U		U		U		U		U		U		U	
Aroclor 1260	U		U		U		U		U		U		U		U	
									230 PJ							

SAMPLE ID	HA-09		HA-10		HA-11		HA-12		HA-13		HA-14		HA-15	
	4	Subsurface	4	Subsurface	4	Subsurface	3	Subsurface	3.5	Subsurface	4	Subsurface	4	Subsurface
SAMPLE DEPTH (FT)	4		4		4		3		3.5		4		4	
SAMPLE TYPE	Subsurface													
PERCENT MOISTURE	6		4		7		4		8		5		4	
DILUTION FACTOR	1		1		1		1		1		1		1	
DATE OF COLLECTION	11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009	
UNITS	(ug/kg)													
PCBs														
Aroclor 1016	U		U		U		U		U		U		U	
Aroclor 1221	U		U		U		U		U		U		U	
Aroclor 1232	U		U		U		U		U		U		U	
Aroclor 1242	U		U		U		U		U		U		U	
Aroclor 1248	U		U		U		U		U		U		U	
Aroclor 1254	U		U		U		U		U		U		U	
Aroclor 1260	U		U		U		U		U		U		U	
									170 PJ					

Qualifiers:

U: Constituent analyzed for but not detected.

P: Percent difference between the primary column and the concentration column is greater than 25 percent; lower value reported.

J: Estimated value.

TABLE 3-5
SUBSURFACE SOIL SAMPLE RESULTS
DAMASCUS ROAD SITE, E. QUOGUE, NY
METALS

SAMPLE ID	HA-01		HA-02		HA-03		HA-04		HA-05		HA-06		HA-07		HA-08		6 NYCRR Part 375 Unrestricted Use Criteria (mg/kg)	6 NYCRR Part 375 Restricted Residential Use Criteria (mg/kg)	Eastern US/New York State* Background Concentration (mg/kg)
	Subsurface																		
PERCENT SOLIDS	94	94	94	92	90	95	95	95	95	95	95	95	95	95	95	95			
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
DATE OF COLLECTION	11/19/2006	11/19/2006	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009	11/19/2009			
UNITS	(mg/kg)																		
Metals																			
Aluminum	1710	1570	2220	2870	2880	1080	2280	1470	2280	1080	2280	1470	2280	1470	2280	1470	33000		
Antimony	UJ	na																	
Arsenic	0.82 B	0.81	0.76 B	0.81	1.0	0.57 B	0.82	0.54 B	0.82	0.57 B	0.82	0.54 B	0.82	0.54 B	0.82	0.54 B	3-12*		
Barium	4.3 B	14.3	11.5	14.4	8.3	4.9 B	4.8 B	4.3 B	4.8 B	4.9 B	4.8 B	4.3 B	4.8 B	4.3 B	4.8 B	4.3 B	15-600		
Beryllium	U	U	U	U	U	0.0051 B	U	U	U	0.0051 B	U	U	U	U	U	U	0-1.75		
Cadmium	UJ	0.081 BJ	0.097 BJ	0.19 J	0.060 BJ	UJ	0.1-1												
Calcium	212	1040	1310	922	6890	414	214	58.5	214	414	214	58.5	214	58.5	214	58.5	130-35000*		
Chromium	2.9	3.6	3.8	5.1	4.0	3.0	3.6	2.9	3.6	3.0	3.6	2.9	3.6	2.9	3.6	2.9	1.5-40*		
Cobalt	1.0 B	0.77 B	0.81 B	0.94 B	0.76 B	0.76 B	0.88 B	0.77 B	0.88 B	0.76 B	0.88 B	0.77 B	0.88 B	0.77 B	0.88 B	0.77 B	2.5-60*		
Copper	2.1	8.4	4.0	13.0	8.0	2.9	6.7	3.8	6.7	2.9	6.7	3.8	6.7	3.8	6.7	3.8	1-50		
Iron	2570	2340	3130	6650	2970	2280	2600	1640	2600	2280	2600	1640	2600	1640	2600	1640	2000-550000		
Lead	5.0	32.1	35.1	40.0	14.3	11.6	9.0	3.6	9.0	11.6	9.0	3.6	9.0	3.6	9.0	3.6	400		
Magnesium	251	642	763	328	4200	317	338	246	338	317	338	246	338	246	338	246	100-5000		
Manganese	33.7	29.0	38.4	48.6	21.6	29.5	20.8	25.0	20.8	29.5	20.8	25.0	20.8	25.0	20.8	25.0	50-6000		
Mercury	U	0.026 B	0.013 B	0.056	0.017 B	0.0060 B	U	U	0.017 B	0.0060 B	U	U	0.017 B	0.0060 B	U	0.18	0.001-0.2		
Nickel	1.7 B	1.9 B	2.2 B	2.5	2.4	1.7	1.5 B	2.0	1.5 B	1.7	1.5 B	2.0	1.5 B	2.0	1.5 B	2.0	140		
Potassium	83.9	77.3	91.9	90.8	122	70.9	83.7	70.4	83.7	70.9	83.7	70.4	83.7	70.4	83.7	70.4	—		
Selenium	U	U	U	0.48 B	U	U	U	U	U	U	U	U	U	U	U	U	—		
Silver	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.1-3.9		
Sodium	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	na		
Thallium	0.30 B	U	0.35 B	0.21 B	U	0.26 B	U	0.35 B	U	0.26 B	U	0.35 B	U	0.35 B	U	0.35 B	6000-8000		
Vanadium	4.4	5.5	6.7	6.5	6.3	4.4	5.1	3.8	5.1	4.4	5.1	3.8	5.1	3.8	5.1	3.8	na		
Zinc	9.4 J	187 J	107 J	65.6 J	31.6 J	10.5 J	5.9 J	9.8 J	5.9 J	10.5 J	5.9 J	9.8 J	5.9 J	9.8 J	5.9 J	9.8 J	2200		
Cyanide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	27		

Qualifiers:

- U: Constituent analyzed for but not detected.
- B: Concentration is between instrument detection limit and contract required detection limit.
- J: Estimated value
- UJ: Constituent not detected but detection limit estimated.

Notes:

- na: Background concentrations not available.
- : Cleanup criteria does not exist.
- *: New York State background.
- ** Background concentration varies between urban (200-500ppm) and rural areas (4-61ppm).

TABLE 3-5 (CONTINUED)
 SUBSURFACE SOIL SAMPLE RESULTS
 DAMASCUS ROAD SITE, E. QUOGUE, NY
 METALS

SAMPLE ID	HA-09		HA-10		HA-11		HA-12		HA-13		HA-14		HA-15		6 NYCRR Part 375 Unrestricted Use Criteria (mg/kg)	6 NYCRR Part 375 Restricted Residential Use Criteria (mg/kg)	Eastern US/New York State* Background Concentration (mg/kg)
	Subsurface	4	Subsurface	4	Subsurface	4	Subsurface	4	Subsurface	3	Subsurface	4	Subsurface	4			
PERCENT SOLIDS	34		36		93		96		92		95		96				
DILUTION FACTOR	1		1		1		1		1		1		1				
DATE OF COLLECTION	11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009		11/19/2009				
UNITS	(mg/kg)																
Metals																	
Aluminum	2010		1100		4650		1180		2840		1420		1170				33000
Antimony	UU				n/a												
Arsenic	1.1		0.89		1.1		0.50 B		1.2		0.42 B		0.95				3-12*
Barium	214		2.2 B		12.7		3.5 B		19.9		4.0 B		3.4 B				15-600
Beryllium	U		U		U		U		U		U		U				0-1.75
Cadmium	0.046 BU		UU		0.081 BU		UU		0.27 J		UU		UU				0.1-1
Calcium	141		85.8		911		88.5		402		2570		102				130-35000*
Chromium	3.1		3.1		5.4		2.5		3.9		3.5		2.0				1.5-40*
Cobalt	0.87 B		0.55 B		0.92 B		0.90 B		0.86 B		0.98 B		0.55 B				2.5-60*
Copper	10.2		1.8		9.0		1.3		4.4		1.4		2.4				1-50
Iron	2380		1770		4800		1790		3100		1850		1510				2000-550000
Lead	11.0		3.6		24.3		2.2		48.5		4.4		4.3				100-5000
Magnesium	219		151		385		184		388		1570		156				50-5000
Manganese	23.5		19.0		36.9		23.4		32.0		25.9		19.1				2000
Mercury	0.022 B		U		0.028 B		U		0.018 B		J		U				0.8†
Nickel	1.5 B		1.2 B		2.9		1.4 B		2.1		1.8		1.2 B				0.5-25
Potassium	80.9		66.4		141		59.5		113		71.8		57.3				8500-43000*
Selenium	U		U		U		U		U		U		U				0.1-3.9
Silver	U		U		U		U		U		U		U				n/a
Sodium	U		U		U		U		U		U		U				n/a
Thallium	0.34 B		U		0.36 B		0.18 B		0.32 B		U		0.15 B				n/a
Vanadium	4.6		3.2		8.7		3.5		6.0		3.7		3.1				1-300
Zinc	33.2 J		UU		40.3 J		JJ		249 J		10.4 J		6.6 J				9-50
Cyanide	U		U		U		J		U		U		U				n/a

Qualifiers:

- U: Constituent analyzed for but not detected.
- B: Concentration is between instrument detection limit and contract required detection limit.
- J: Estimated value.
- UU: Constituent not detected but detection limit estimated.

Notes:

- n/a: Background concentrations not available
- †: Cleanup criteria does not exist
- ** New York State background.
- ***: Background concentration varies between urban (200-500ppm) and rural areas (4-61ppm)

Samples analysis was performed by Mitkem Corporation Inc., a subcontractor to Dvirka and Bartilucci Consulting Engineers. The samples were analyzed in accordance with New York State Department of Environmental Conservation (NYSDEC) 6/00 Analytical Services Protocol (ASP) methods.

The data package: SH2379 was submitted by Mitkem have been reviewed to determine if the sample analyses were performed in accordance with the specified methods and Quality Assurance/Quality Control (QA/QC) requirements. The findings of the review process are summarized below.

All samples were analyzed within the method specified holding times and qualification of data based on this review is discussed below:

- Numerous VOC's percent recoveries were below QC limits in the MS and/or MSD and/or relative percent differences above QC limit and were qualified as estimated.
- Numerous VOC's percent differences were above QC limits in the continuing calibration and were qualified as estimated.
- Di-n-octylphthalate and bis(2-ethylhexyl)phthalate percent recoveries were above QC limits in the MS and/or MSD and were qualified as estimated.
- Dual column confirmation percent differences between runs were greater than QC limits and were qualified as estimated.
- Antimony, sodium and zinc were detected in preparation blank and detected in the samples at concentration less than ten times the concentration found in the blanks and were qualified as non-detect.
- The spike sample percent recoveries were below QC limits of 75% for antimony and zinc and were qualified as estimated.
- The cadmium and zinc relative percent differences were above the QC limit of 20 % for the laboratory duplicate and were qualified as estimated.

No other deviations were found with the data and all results are deemed usable for environmental assessment purposes as qualified above.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Pesticides and PCBs

As stated in Section 3.2, the concentration of DDT, DDE, and DDD that exceeded the unrestricted use RSCOs ranged from 4.2 to 36.0 ug/kg. However, these concentrations are far below the restricted residential RSCOs, 7,900 ug/kg, 8,900 mg/kg, and 13,000 ug/kg, respectively.

DDT is an organochlorine insecticide that was extensively used in Suffolk County between 1951 and 1966, by mosquito control programs along wetlands, grasslands and in agriculture. In 1966, the Suffolk County Vector Control terminated DDT usage. When applied to soil, DDT absorbs very strongly with surficial sediments. DDT may undergo microbial degradation in flooded soils or under anaerobic conditions. If biodegradation does occur, the degradation products, including DDE and DDD can be produced. The low solubility of DDT and subsequent daughter compounds DDE and DDD contributes to their persistence in the Long Island environment. Therefore, the detection of low concentrations of these compounds in soils in eastern Long Island is not unexpected.

It should also be noted that disturbance and screening of soils containing the above mentioned concentrations of DDT would not be expected to result in concentrations exceeding the Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for DDT of 1,000 ug/m³. There are no PELs for the "daughter" compounds of DDE and DDD.

As stated in Section 3.2, the PCB Arochlor 254 (a.k.a. Chlorodiphenyl 54% Chlorine) was detected in concentrations exceeding the RSCO for the unrestricted use criteria (100 ug/kg) in sample HA-5 (230 ug/kg) and HA-11 (170 ug/kg). However, neither sample exceeded the RSCO for the restricted residential use criteria (1,000 ug/kg). These two samples are

approximately 340 feet apart, so there is no indication of any "concentration" of this PCB at the Site.

Polychlorinated biphenyls (PCBs) are synthetic chemicals which are no longer produced in the United States, but are still found in the environment. PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they do not burn easily and are good insulators. The manufacture of PCBs was stopped in the U.S. in 1977, because of evidence they build up in the environment and can cause adverse health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors and hydraulic oils. Workers exposed to high levels of PCBs on the job have documented skin and eye irritation.

Disturbance and screening of soils containing the above concentrations of PCBs would not be expected to result in concentrations exceeding the OSHA Permissible Exposure Limit (PEL) for PCBs of 500 ug/m^3 (Chlorodiphenyl 54%).

The low levels of the abovementioned pesticides and PCBs detected at the Site would not be expected to pose any adverse impact to the environmental or any health risk for either workers removing debris and screening soils on Site or individuals in the future who would use the proposed athletic fields, given the barrier of clean fill discussed below in Section 4.2.

Metals

As stated in 3.2, Zinc was detected at a concentration exceeding the unrestricted use RSCO (109 mg/kg) in samples HA-2 (197 mg/kg) and HA-13 (249 mg/kg). However, neither sample exceeded the restricted residential RSCO for zinc (10,000 mg/kg).

Metals for which RSCOs have not been established in Part 375 (i.e., Aluminum, Antimony, Calcium, Cobalt, Iron, Magnesium, Potassium, Sodium, Thallium and Vanadium) were compared to Eastern USA or New York State Background Concentrations. None of these metals exceeded the background concentrations.

4.2 Recommendations

Based on the findings of the Phase I, Phase II and Supplemental Phase II ESAs, it has been determined that soils at the Damascus Road Site can be safely screened on-site as part of the debris removal program, and reused as part of development of athletic fields. Furthermore, based on the lack of significant contamination in samples collected from 6 surface and 4 subsurface borings in the Phase II ESA and the 15 subsurface samples analyzed as part of the Supplemental Phase II ESA, neither remediation or additional soil sampling at the Site are warranted.

Nevertheless, as a sensible, conservative, precaution, and to protect workers at the Site and the environment, standard construction safety measures and dust suppression techniques should be undertaken by construction crews doing soil screening and debris removal, and ultimately, Site preparation and grading for the proposed athletic fields re-development. Such measures include use of protective head gear, gloves, boots and dust suppression equipment to minimize potential exposure to soils and dust.

For many development projects for which environmental site assessments are completed, a conservative precaution, or recommendation is to top the site with a layer of clean fill after final grading to serve as a "barrier" to any low-level contamination that might have been detected in the soil. Given that there were no contaminants detected at the Damascus Road Site above the RSCOs for the restricted residential criteria, this approach is not necessary. However, it should be noted that the proposed use of the Site as athletic fields would require, after final grading, a layer of topsoil over virtually the entire Site to promote grass growth. This layer of topsoil would provide equivalent, conservative protection in any event, as would asphalt or gravel over any small, ancillary parking or other appurtenant facilities that might be associated with the athletic fields.

APPENDIX D

FIELD DATA RECORDS

APPENDIX E

**FIELD SAMPLING PROTOCOLS TO AVOID CROSS-CONTAMINATION OF PER
AND POLYFLUOROALKYL SUBSTANCES**

FIELD SAMPLING PROTOCOLS TO AVOID CROSS-CONTAMINATION OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

1.0 PURPOSE

The purpose of this SOP is to describe the procedures/considerations when collecting soil, sediment, surface water, and groundwater samples at potential per- and polyfluoroalkyl substances (PFAS) release areas. This SOP also describes a tiered approach that should be used to assist with field decisions. Sampling specific SOPs should also be reviewed prior to conducting field sampling activities at PFAS areas.

2.0 SCOPE

This procedure applies to all AMEC Environment & Engineering, P.C. (AMEC) personnel and subcontractors who collect or otherwise handle samples of soil, sediment, surface water, and groundwater for analysis of PFAS. This SOP should be reviewed by all on-site personnel prior to implementation of field activities.

3.0 GENERAL

Given the low detection limits associated with laboratory PFAS analysis, and the many potential sources of trace levels of PFAS, field personnel are advised to act on the side of caution by strictly following the subject protocols, frequently replacing nitrile gloves, and rinsing field equipment to help mitigate the potential for false detections of PFAS. Specific items related to field sampling are discussed below.

4.0 PROCEDURES

This section contains both the responsibilities and procedures involved with field sampling for analysis of PFAS. Proper procedures are necessary to insure the quality and integrity of the samples. The details within this SOP should be used in conjunction with site-specific work plans. The site-specific work plans will generally provide the following information:

- Sample collection objectives;
- Locations to be sampled;
- Number and volume of samples to be collected at each location;
- Types of chemical analyses to be conducted for the samples;
- Specific quality control (QC) procedures, including type (MS/MSD, field duplicates, and blanks) and sampling required;

- Any additional sampling requirements or procedures beyond those covered in this SOP, as necessary; and,
- At a minimum, the procedures outlined in this SOP for field sampling will be followed.

5.1 RESPONSIBILITIES

Project Manager

The Project Manager shall provide the Quality Assurance Program Plan (QAPP)(MACTEC, 2011), and site-specific work plan to the Field Lead and Field Personnel, which shall include the sampling requirements for each investigation area. The Project Manager will detail deviations to the procedure provided in this SOP in the site-specific report.

Field Lead

The Field Lead shall ensure that samples are collected using procedures that are in accordance with the QAPP (MACTEC, 2011), site-specific work plans, and applicable SOPs. The Field Lead shall also be required to make rational and justifiable decisions when deviations from these procedures are necessary because of field conditions or unforeseen issues and report the deviations to the Project Manager.

Field Personnel

Field personnel assigned to sampling activities are responsible for completing their tasks according to specifications outlined in the QAPP (MACTEC, 2011), site-specific work plans, applicable SOPs, and other appropriate procedures. Field personnel are responsible for reporting deviations from procedures to the Project Manager.

4.2 FIELD PROCEDURES/CONSIDERATIONS

The following are procedures/considerations to be made during field activities at potential PFAS release or sampling areas. A summary of the prohibited and acceptable items for PFAS investigation areas is included in Table 1. A checklist, provided as Attachment 1, shall be used by the Field Personnel daily prior to the commencement of fieldwork to ensure the field team is in compliance with this protocol.

Field Equipment

- **Do not use Teflon®-containing materials** (e.g., Teflon® tubing, bailers, tape, plumbing paste, or other Teflon® materials) since Teflon® contains fluorinated compounds.
- Sample containers and collected samples will be stored and shipped using dedicated coolers provided by the laboratory.

- Stainless steel, high-density polyethylene (HDPE), polypropylene, and silicone materials are acceptable for sampling. Samples should not be collected with tubing or stored in containers made of low-density polyethylene (LDPE) materials (fluorinated compounds are known to adsorb to LDPE). All sampling equipment components and sample containers should not come in contact with aluminum foil, LDPE, glass or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.
- AMEC will use peristaltic pumps for groundwater sample collection at depths shallower than 25 feet. AMEC will use ProActive SS Pumps with polyvinyl chloride (PVC) leads or Geotech SS Geosub pumps for groundwater sample collection at depths greater than 25 feet. These pumps are constructed with stainless steel and will minimize introductions of PFAS. However, for groundwater sample depths greater than 150 feet, a Grundfos RediFlo pump (or similar) may be used due to the pumping limitations of stainless steel pumps. PFAS-free bladder pumps may also be used for sampling. Whale® pumps can be used for well development, if needed, but should not be used for sampling, or left in the wells.
- When using liners to collect soil samples during direct-push technology or during conventional drilling and sampling methodologies, acetate liners are to be used.
- **Rite in the Rain products are the only waterproof field books that may be used.** To avoid plastic coating or glue materials, do not use other brands of waterproof field books. If Rite in the Rain products are not available, field reports will be documented on loose paper secured on masonite or aluminum clipboards (i.e. plastic clipboards, binders, or spiral hard cover notebooks are not acceptable) using a pen or pencil.
- **Post-It Notes are not allowed** on project sites.
- Use ballpoint pens. Pens will be used when documenting field activities in the field log and on field forms as well as labeling sample containers and preparing the Chain of Custody.
- **Do not use chemical (blue) ice packs** during the sampling program. This includes the use of ice packs for the storage of food and/or samples.

Field Clothing and Personal Protective Equipment

- **Do not wear water resistant, waterproof, or stain-treated clothing** during the field program. Field clothing made of synthetic and natural fibers (preferably cotton) are acceptable. Field clothing should be laundered without the use of fabric softener. Preferably, field gear should be cotton construction and well laundered (i.e., washed a minimum of three times prior to use after purchase). New clothing may contain PFAS related treatments. **Do not use new clothing** while sampling or sample handling.

- **Do not wear clothing or boots containing Gore-Tex™** during the sampling program as it contains a PFAS membrane.
- Safety footwear will consist of steel-toed boots made with polyurethane and PVC, untreated leather boots, or well-worn leather boots. Newer leather boots may be worn if they are covered with polypropylene, polyethane, or PVC boot covers.
- Disposable nitrile gloves must be worn at all times. Further, a new pair of nitrile gloves shall be donned prior to the following activities at each sample location:
 - Decontamination of re-usable sampling equipment;
 - Prior to contact with sample bottles or water containers;
 - Insertion of anything into the well (e.g., HDPE tubing, HydraSleeve bailer, etc.);
 - Insertion of silicone tubing into the peristaltic pump;
 - Completion of monitor well purging, prior to sample collection;
 - Handling of any quality assurance/quality control samples including field blanks and equipment blanks; and,
 - After the handling of any non-dedicated sampling equipment, contact with non-decontaminated surfaces, or when judged necessary by field personnel.

Sample Containers

- Different laboratories may supply sample collection containers of varying sizes dependent on the type of media to be sampled (e.g., soil, groundwater, etc.). All samples should be collected in polypropylene or HDPE bottles. The screw cap will be made of polypropylene or HDPE and may be lined or unlined. However, if lined, the liner may not be made of Teflon® or contain PFAS.
- Container labels will be completed using pen after the caps have been placed back on each bottle.
- Glass sample containers are not to be used due to potential loss of analyte through adsorption.

Wet Weather

- Field sampling occurring during wet weather (e.g., rainfall and snowfall) should be conducted while wearing appropriate clothing that will not pose a risk for cross-contamination. Teams will avoid synthetic gear that has been treated with water-repellant finishes containing PFAS. Use rain gear made from polyurethane, vinyl, and wax or rubber-coated materials.
- Teams should consider the use of a gazebo tent, which can be erected ovetop of the sample location and provide shelter from the rain. It should be noted that the canopy

material is likely a treated surface and should be handled as such; therefore, gloves should be worn when setting up and moving the tent, changed immediately afterwards and further contact with the tent should be avoided until all sampling activities have been finished and the team is ready to move on to the next sample location.

Equipment Decontamination

- Field sampling equipment, including oil/water interface meters and water level indicators, and other downhole equipment used at each sample location, will require cleaning between uses. Alconox® and Liquinox® soap is acceptable for use since the Safety Data Sheets do not list fluoro-surfactants as an ingredient (do not use Liquinox® soap if also sampling for 1,4-dioxane). However, Decon 90 will not be used during decontamination activities. Water used for the final rinse during decontamination of sampling equipment will be laboratory certified "PFAS-free" water.
- For larger equipment (e.g., drill rig and large downhole drilling and sampling equipment), decontamination will be conducted with potable water using a high-pressure washer and then rinsed using potable water.

Groundwater Sampling

- At sites with dedicated sampling equipment installed in the wells that contains Teflon (e.g., tubing, pumps), this equipment should be removed from the wells and replaced with HDPE tubing and non-Teflon containing equipment, if possible. These wells will be re-developed by removing three well volumes of water, if possible, and letting the wells recover for at least 48 hours prior to sampling.
- At sites with dedicated sampling equipment installed in the wells that contain LDPE tubing, this tubing should be removed from the wells and replaced with HDPE tubing. These wells can be sampled immediately following replacement of tubing; however, attempts should be made to remove one well volume prior to sampling. For larger wells, with higher volumes of water, it may be preferable to redevelop the wells and remove one well volume with a higher volume pump. In such cases the wells should be allowed to recover for at least 48 hours prior to sampling.

Personnel Hygiene

- Field personnel will not use cosmetics, moisturizers, hand cream, or other related products as part of their personal cleaning/showering routine on the morning of a sampling event, unless the products are applied to a part of the body that will be covered

by clothing. These products may contain surfactants and represent a potential source of PFAS.

- All clothing worn by sampling personnel must have been laundered multiple times.
- Many manufactured sunblock and insect repellants contain PFAS and should not be brought or used on-site. Sunblock and insect repellants that are used on-site should consist of 100% natural ingredients, unless previously vetted by the project chemist. A list of acceptable sunscreens and insect repellents is provided in Table 1.
- For washroom breaks, field personnel will leave the exclusion zone and then remove gloves and overalls. Field personnel should wash as normal with extra time for rinsing with water after soap use. When finished washing, the use of a mechanical dryer is preferred and the use of paper towel for drying is to be avoided (if possible).

Food Considerations

- No food or drink shall be brought on-site, with the exception of bottled water and hydration drinks (e.g., Gatorade® and Powerade®), which will only be allowed to be brought and consumed within the staging area.

Visitors

- Visitors to the investigation area are asked to remain outside of the exclusion zone during sampling activities.

5.0 TIERED APPROACH TO ASSIST WITH FIELD DECISIONS

In evaluating whether products contain PFAS and are suitable for use in the field, the tiered approach presented in Table 2 will be used to assist with field decisions. Any member of the field team should contact the Project Manager with questions.

Table 1. Summary of Prohibited and Acceptable Items for PFAS Sampling

Prohibited Items	Acceptable Items
Field Equipment	
Teflon® containing materials	High-density polyethylene (HDPE) materials
Storage of samples in containers made of LDPE materials	Acetate liners, HDPE bottles
Teflon® tubing	HDPE or silicone tubing
Waterproof field books not manufactured by Rite in the Rain	Rite in the Rain products or Loose paper (non-waterproof)
Plastic clipboards, binders, or spiral hard cover notebooks	Aluminum field clipboards or with Masonite
Sharpies®, if possible	Ballpoint pens
Post-It Notes	
Chemical (blue) ice packs	Regular ice

Excel Purity Paste TFW Multipurpose Thread Sealant Vibra-Tite Thread Sealant	Gas oils NT Non-PTFE Thread Sealant Bentonite
Equipment with Viton Components (need to be evaluated on a case by case basis, Viton contains PTFE, but may be acceptable if used in gaskets or O-rings that are sealed away and will not come into contact with sample or sampling equipment.)	
Field Clothing and PPE	
New clothing or water resistant, waterproof, or stain-treated clothing, clothing containing Gore-Tex™	Well-laundered clothing, defined as clothing that has been washed 6 or more times after purchase, made of synthetic or natural fibers (preferable cotton)
Clothing laundered using fabric softener	No fabric softener
Boots containing Gore-Tex™	Boots made with polyurethane and PVC, well-worn or untreated leather boots, leather boots with boot covers
	Reflective safety vests, Tyvek®, Cotton Clothing, synthetic under clothing, body braces
No cosmetics, moisturizers, hand cream, or other related products as part of personal cleaning/showering routine on the morning of sampling, unless the products are applied to body parts that will be covered by clothing.	<p>Sunscreens - Alba Organics Natural Sunscreen, Yes To Cucumbers, Aubrey Organics, Jason Natural Sun Block, Kiss my face, Baby sunscreens that are "free" or "natural"</p> <p>Insect Repellents - Jason Natural Quit Bugging Me, Repel Lemon Eucalyptus Insect repellent, Herbal Armor, California Baby Natural Bug Spray, BabyGanics, Deep Woods Off</p> <p>Sunscreen and insect repellent - Avon Skin So Soft Bug Guard Plus – SPF 30 Lotion</p>
Sample Containers	
LDPE or glass containers	HDPE or polypropylene
Teflon®-lined caps	Lined or unlined HDPE or polypropylene caps
Rain Events	
Waterproof or resistant rain gear	Polyurethane, vinyl, wax or rubber-coated rain gear. Gazebo tent that is only touched or moved prior to and following sampling activities
Equipment Decontamination	
Decon 90	Alconox® and/or Liquinox® (Do not use Liquinox® if also sampling for 1,4-dioxane).
Water from an on-site well	Potable water from municipal drinking water supply
Food Considerations	
All food and drink, with exceptions noted on the right	Bottled water and hydration drinks (i.e. Gatorade® and Powerade®) to be brought and consumed only in the staging area

Table 2. Tiered Approach

Tier and Description	Action
Tier 1: Products that will come into direct contact	These products will undergo the greatest scrutiny

with field samples include, but are not limited to, drilling grease, sampling equipment, sample containers, and well construction materials	and requires chemist's input to help evaluate the materials as a possible source of contamination ^A and as possible sampling or storage materials or both
Tier 2: Products that <i>will not come into direct contact</i> with samples, but could be <i>reasonably expected to contain PFAS</i> , such as waterproof or nonstick products	Project team/affected person can review the Safety Data Sheet (SDS) ^B and if it shows PFAS, product should not be used. If product SDS does not indicate PFAS, confirm with chemist before use
Tier 3: Products that <i>will not come into direct contact</i> with samples and are <i>not expected to contain PFAS</i> , such as ballpoint pens, zipper bags, and body braces	Project team/affected person can review SDS and if no PFAS, then appropriate to use

^A Tier 1 products will undergo the closest scrutiny. It may be necessary to have Tier 1 products analyzed for PFAS to confirm that a specific batch or lot number does not contain PFAS. Alternate products will need to be evaluated/used if PFAS are identified in the product.

^B SDS Check: To evaluate product SDS and/or manufacturing specs, check if the product contains anything with "fluoro" in the name or the acronyms TPE, FEP, ETFE, and/or PFA. If fluorinated compounds are not listed in the manufacturing specs and/or on the SDSs, product can be used.

ID	Task Name	Duration Workdays	Start	Finish
<div style="display: flex; justify-content: space-between; font-size: 8px;"> 2019 2020 2021 2022 </div> <div style="display: flex; justify-content: space-between; font-size: 8px;"> 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter </div> <div style="display: flex; justify-content: space-between; font-size: 8px;"> Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec </div>				
1	Southampton Landfill Brownfield Cleanup	798 days	Mon 5/20/19	Fri 7/1/22
2	Application Complete	0 days	Mon 5/20/19	Mon 5/20/19
3	30-Day Comment Period (Fact Sheet, Environmental Notice Bulletin, Newspaper)	20 days	Mon 5/20/19	Mon 6/17/19
4	NYSDEC Notifies Applicant (Town of Southampton) of Acceptance and sends BCA (Brownfield Cleanup Agreement) for Signature	5 days	Tue 6/18/19	Mon 6/24/19
5	Execute BCA	2 days	Tue 6/25/19	Wed 6/26/19
6	Applicant (Town of Southampton) Develops Remedial Investigation (RI) Work Plan including Citizen Participation (CP) Plan	15 days	Thu 6/27/19	Thu 7/18/19
7	30-Day Comment Period on RI Work Plan (Fact Sheet)	20 days	Fri 7/19/19	Thu 8/15/19
8	NYSDEC Approves RI Work Plan	21 days	Fri 8/16/19	Mon 9/16/19
9	Applicant (Town of Southampton) Completes Investigation and Submits Investigation Report	191 days	Tue 9/17/19	Fri 6/19/20
10	NYSDEC Reviews and Approves Investigation Report	20 days	Mon 6/22/20	Mon 7/20/20
11	Investigation Report Fact Sheet with Significant Threat Determination issue	24 days	Tue 7/21/20	Fri 8/21/20
12	Applicant (Town of Southampton) Develops Remedial Work Plan with Alternatives Analysis	62 days	Mon 8/24/20	Fri 11/20/20
13	NYSDEC Reviews and Approves Alternatives Analysis	20 days	Mon 11/23/20	Mon 12/21/20
14	NYSDEC Selects Proposed Remedy	0 days	Mon 12/21/20	Mon 12/21/20
15	45-Day Comment Period on Proposed Remedy (Fact Sheet)	32 days	Tue 12/22/20	Thu 2/4/21
16	Schedule and Host Public Meeting (Optional)	32 days	Tue 12/22/20	Thu 2/4/21
17	NYSDEC Finalizes Remedial Work Plan	20 days	Fri 2/5/21	Thu 3/4/21
18	Construction Notice (Fact Sheet) issued	5 days	Fri 3/5/21	Thu 3/11/21

